

Minutes of Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, March 11, 2015

A meeting of the Colorado River Board of California was held on Wednesday, March 11, 2015.

Board Members and Alternates Present

Dana Bart Fisher, Jr., Chairman
Henry Kuiper
Glen Peterson
David Pettijohn
Jack Seiler

Michael Touhey
David Vigil
Doug Wilson
Jeanine Jones, Designee
Department of Water Resources

Board Members and Alternates Absent

Stephen Benson
James Hanks
John Powell Jr.

Chris Hayes, Designee
Department of Fish and Wildlife

Others Present

Steve Abbott
Brian Brady
Robert Cheng
Matt Dessert
Christopher Harris
Bill Hasencamp
Michael Hughes
Lisa Johansen
Lori Jones
Kevin Kelley
Lindia Liu
Jan Matusak
Peter Nelson
Jessica Neuwerth
Thang (Vic) Nguyen
Keith Nobriga
Kevin Pearson
Autumn Plourd
Angela Rashid
Eric Ruckdaschel
Tom Ryan
Tina Shields
Peter Silva

Philip Southern
Mark Stuart
Gary Tavetian
Tanya Trujillo
Mark Van Vlack
Meena Westford
John Wuerth
Jerry Zimmerman

CALL TO ORDER

Chairman Fisher announced the presence of a quorum and called the meeting to order at 1:01 P.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. Hearing none, Chairman Fisher moved to the next agenda item.

Chairman Fisher reported that Mr. Randy Record Chairman, Chairman of the Board of Directors, at The Metropolitan Water District of Southern California was unable to attend the meeting due to other obligations.

ADMINISTRATION

Chairman Fisher asked for a motion to approve the February 11 minutes. Mr. Wilson moved that the minutes be approved, seconded by Ms. Jones. Chairman Fisher asked if there were any additions or corrections. Hearing none and by unanimous support, the February 11 meeting minutes were approved.

Ms. Trujillo announced the proposal to hold the May 14, 2015 Board meeting in San Diego to coincide with the bi-national Minute 319 meetings scheduled on May 13 and 14.

Ms. Trujillo previewed the budget presentation that would be made at the April 15, 2105 Board meeting that would ask for an increase in the Colorado River Board's budget to accommodate a state-wide two percent cost of living increase to all State employees, cover vacation leave payouts for two retiring employees and accurately cover operating expenses. The Six Agency Committee would be asked to allocate funds from an unused category of expenses to the Colorado River Board expenses category. The Six Agency Committee would also seek refunds from the State for excess payments in the past two years. No additional assessments from the agencies will be requested. Chairman Fisher noted that there would no longer be vacancy savings, which have previously created a budget surplus.

COLORADO RIVER BASIN WATER REPORTS

Colorado River Basin Water Report

Ms. Trujillo reported that as of March 2, the water level at Lake Powell was 3,592 feet with 11.03 million acre-feet (MAF) of storage, or 45% of capacity, while the water level at Lake Mead was 1,089 feet with 10.77 MAF of storage, or 41% of capacity. The

total system content is 29.22 MAF, or 49% of capacity, which is about 450,000 acre-feet more than last year. As of March 1, the Upper Colorado River Basin reservoirs with the exception of Lake Powell ranged from 61% to 94% of their capacities.

Ms. Trujillo noted that as of March 2, the precipitation was at 81% of average and the snowpack was at 84% of average. The snowpack had improved in recent weeks but is still below normal and below the level compared to last year. The Colorado Basin River Forecast Center basin snow condition map generally depicts that the snowpack is below normal basin wide as of March 2. The National Weather Service monthly precipitation maps for January showed significant precipitation in the San Juan and Arizona/Mexico border areas; however, the February map indicated precipitation was below normal throughout the basin except in the San Juan area. The U.S. Drought Monitor map indicates that about 40% of California is still in the Exceptional Drought category.

State Report

The DWR Southern Region Office Chief, Mark Stuart, reported that L.A. Civic Center precipitation is at 6.5 inches as of March 5 and is slightly better than last year. The L.A. precipitation station received about 0.83 inches in February, which is quite below about 3 inches that would be received in a normal year. The six major stations in Southern California ranged from 30 to 68% of average. The National Weather Service map as of March 5 shows that precipitation in the southern San Joaquin and southern Sierras are below 50%. There are a few wet spots in the upper part of the state, but California is generally significant below normal. The Northern Sierra Precipitation-8 Station Index shows a cumulative precipitation of 30.7 inches, or slightly below the historical average, which was an improvement due to significant precipitation in February. On the other hand, the Southern Sierra Precipitation Index is at about 50% of normal.

Mr. Stuart stated that the snow water equivalent in the Northern, Central, and Southern Sierra were 14%, 18%, and 18% of normal, respectively, as of March 5. With respect to the State Water Project (SWP) storage, Lake Oroville has improved by about 300,000 acre-feet from last year, and is currently at 49% of capacity. San Luis reservoir increased more than 600,000 acre-feet since last year and is almost full at 88% of capacity. Overall the SWP total storage improved about 700,000 acre-feet to 3.2 MAF, or 58% of capacity. The SWP allocation was recently increased to 20% while the federal allocation is at zero. The current reservoir elevations are generally below their historical average. The major reservoirs of Shasta and Lake Oroville are at 58% of capacity (79% of historical average) and 49% of capacity (70% of historical average), respectively.

Board Member Pettijohn asked for an update on the State Water Project allocations and Board Member Jones replied that the snowpack is less than 20%, and the state would try not to reduce the allocation.

Local Reports

Board Member Peterson reiterated that the State Water Project allocation is at 20%. MWD's total reservoir storage is at 50% of capacity and the Colorado River diversions this year would be about 1.1 MAF.

Mr. Pettijohn reported that the current precipitation total is only slightly above the historical low for snowpack in Mammoth Pass, which is the primary indicator of water delivery from the Eastern Sierra. A very low yield is expected from the L.A. Aqueduct, which would mean the L.A. Department of Water and Power would buy a large portion of its water supply from MWD. Ms. Jones noted that the snowpack also set a record low in the western slope of the Sierra.

2015 CALIFORNIA DROUGHT UPDATE

Ms. Trujillo reported that the State of Emergency Proclamations and outdoor watering restrictions still remain in effect. Although the SWP has an allocation of 20%, a zero allocation had been issued for the Central Valley Project managed by the Bureau of Reclamation. Ms. Jones added that the State Water Resources Control Board recently announced its intent to consider new drought restrictions. In addition to handling the State's ongoing drought issues, the State Water Board has been working on issues of water rights and implementing new groundwater legislation.

Ms. Trujillo reported that development of Proposition 1 guidelines is underway and indicated that member agencies should track and apply for funding when it becomes available.

STAFF REPORTS REGARDING COLORADO RIVER BASIN PROGRAMS

Basin States Drought Contingency Program

Ms. Trujillo reported on the most recent drought contingency planning efforts. The Basin States Principals held a meeting on February 18, 2015 in Las Vegas, NV. The meeting focused on two primary objectives: hearing updates on the current status of the drought contingency planning process and on the progress of the implementation of Minute 319. Reclamation confirmed the projected release of 9.0 MAF from Lake Powell for the 2015 water year. Ms. Trujillo noted that currently the release from Lake Powell is scheduled to be 8.23 MAF, but it is anticipated that Reclamation will officially increase the Powell release to 9.0 MAF. However, notwithstanding the 9.0 MAF release, there is still a 21% chance of shortage in the Lower Basin in 2016. In 2017, the probability for shortage increases to about 54%. The shortage triggers were developed based upon the elevations of Lakes Powell and Mead in the 2007 Interim Guidelines. If the shortage triggers are reached, Arizona and Nevada will take reductions to deliveries to their

systems. Ms. Trujillo noted that the 21% probability of shortage has caused water users in the Basin to continue to support the on-going drought contingency planning efforts.

Ms. Trujillo explained that the Lower Basin States have been focusing on expanding some of the existing programs and looking for additional flexibilities within those programs to develop conservation programs. In 2014, Reclamation and the municipal funding agencies initiated the \$11 million system conservation program and Reclamation is reviewing applications to fund system conservation projects that can be implemented in the Lower Basin. In the Upper Basin, the Upper Colorado River Commission is in the process of implementing its own system conservation program. In addition to these efforts, Ms. Trujillo reminded the Board that at the February Board Meeting, Don Ostler, Executive Director of the Upper Colorado River Commission, spoke about examining Upper Basin reservoir operations and demand management in an effort to further protect Lake Powell elevations.

Colorado River Basin Water Supply and Demand Study

Ms. Trujillo reported that the Phase 1 report is expected to be released in April 2015. Reclamation will provide an updated draft in the coming weeks. The next step is to determine how to structure the next phase of the study through perhaps the development of pilot projects.

Review of implementation of Minute 319

Ms. Trujillo reported that during the Basin States Principals meeting held on February 18 in Las Vegas, NV, Reclamation provided an overview of the progress of Minute 319, which is about half way through its implementation process. One component of Minute 319 was the extension of Minute 318, which allowed Mexico to store water in the U.S to deal with water delivery delays due to infrastructure damage from the 2010 Baja California earthquake. This agreement benefited both nations as it allowed Mexico to store water in Lake Mead. Ms. Trujillo stated that the next process was to think about what the next round of bi-national negotiations would entail and what some win-win situations for both countries might look like.

Ms. Trujillo noted that Minute 319 is a five-year agreement and it is in the best interest of both nations to continue to work collaboratively and support provisions such as the Intentionally Created Mexican Allocation and opportunities for the U.S. to fund conservation projects in Mexico in exchange for water to be used in the U.S. The U.S. is anticipating receiving more information about the conservation projects to be funded under the agreement in Mexico in the near future. Ms. Trujillo noted that the element of Minute 319 that has been completed is the Pulse Flow, through the release of approximately 105,000 acre-feet approximately a year ago through Morelos Dam in Mexico for the benefit of the delta. Currently, bi-national workgroups are evaluating the benefits of the pulse flow. Ms. Jessica Neuwerth, CRB staff environmental scientist, will be attending a workshop in Mexico to evaluate the status of habitat development

connected to the pulse flow event. Additional Minute 319 updates will be heard during the bi-national meeting scheduled for May 14 in San Diego.

Salinity Control Forum, Workgroup, and Advisory Council

Board staff member, Ms. Lindia Liu, gave an update on the recent Salinity Control Forum Work Group meeting February 17-19 at MWD's Diamond Valley Lake facilities. Ms. Liu reported that Reclamation gave an update on operations at the Paradox Valley Unit, which is currently operating at 4,750 psi. The estimated annual salinity control has been reduced by 11,000 tons due to a lower injection rate. There were 50 seismic events in 2014, compared to 124 in the previous year, due to the decreased pumping rate and more frequent shutdowns.

The Paradox Valley Unit EIS process is scheduled to be completed in 2018. A preliminary study from the Review Board finds that the earthquakes in the Paradox Valley were induced by the injections and the maximum magnitude of future large earthquakes will most likely be in the 4.5 to 5.0 magnitude range. An Evaporation Pond Review Board is scheduled to meet from March 17-19 to review the possibilities associated with use of a surface disposal system at the Paradox site as opposed to a second injection well. The separate Review Board evaluated whether re-working of the current well may be a possible alternative, but determined it was not due to the large amount of pressure buildup at the current injection. This Review Board will continue to investigate potential replacement well sites by refining subsurface geologic models and evaluating suitability and feasibility of the potential sites. A preliminary drilling feasibility study is expected from this Review Board by September 2015, and a report on site selection and siting is expected in October 2016. The Review Board will recommend a second well site in December 2016. The completed well design is expected in December 2018. Reclamation is planning to issue a revised Request For Information to identify potential commercial interest for the brine. Reclamation has stated that it will have sufficient funding to complete the EIS and anticipates spending \$450,000 in FY2015, \$1.1 million in FY2016, \$450,000 in FY2017, and \$45,000 in FY2018.

Ms. Liu reported that Reclamation is updating its salinity economic damages model. At the Work Group meeting, Mr. Harry Ruzgerian of MWD gave an update on a Subcommittee that has been established to ensure that Reclamation has accurate and complete information on urban and agricultural water uses to base its analysis on. The new model is expected to have higher damage numbers and a draft is expected in October 2016 in time for the next Triennial Review.

Ms. Liu reported that Reclamation performed an analysis to project revenues from the sale of power generated at Hoover Dam during shortage conditions and to evaluate the potential impact of lower power production on the Salinity Program revenues over the next ten years. Based on the October 2014 24-month study, this modeling exercise showed a six percent decrease in energy generated during a first tier shortage, a thirteen percent decrease during a second tier shortage, and a twenty-one percent decrease during

a third tier shortage. The corresponding reductions in revenues ranged from \$447,000 to \$1.5 million.

Ms. Liu reported that Reclamation started 2015 with \$11.2 million in the Lower Basin Fund balance, compared to \$10.1 million at the beginning of 2014. Reclamation will make a graph to show projected revenue versus expected withdrawal. Ms. Liu reported that the Work Group is planning to start the next Triennial Review by end of the year. The next Forum and Advisory Council meetings are scheduled for May 20-21 in Salt Lake City, Utah, with the Work Group meeting there as well.

Mr. Peterson stated his concern that Reclamation had not located a commercial source interested in the salt/brine. Mr. Wilson asked about the cost of the evaporation pond versus drilling a second well. Ms. Trujillo responded that the EIS will contain that comparison. She added that the alternatives under review are re-working the well (which is probably not a viable option), drilling a second well, building a surface evaporation pond and potentially commercial disposal. There has been a historic wildlife concern with the evaporation pond option, but the Forum is recommending a thorough analysis of this option. She stated that the Forum shares Mr. Wilson's concern that the evaporation ponds were discounted offhand because of migratory bird issues, and explained that the Forum members will help ensure that this alternative remains part of the evaluation process.

Glen Canyon Dam Adaptive Management Work Group and Long-Term Experimental and Management Plan EIS

Ms. Neuwerth reported that the Glen Canyon Dam Adaptive Management Work Group (AMWG) held its biannual meeting on February 25-26, followed by a High Flow Experiment (HFE) Workshop on February 26-27. Basin hydrology reports estimate a 9.0 MAF release from Lake Powell in WY15, and the most likely scenario for WY16 also indicates a 9.0 MAF release. The AMWG received updates on the charter, socioeconomic and public outreach ad hoc groups, the fiscal year 2015 budget, and the Lee's Ferry trout fishery management plan.

Ms. Neuwerth reported that new modeling for the Glen Canyon Dam Long-Term Experimental and Management Plan (LTEMP) EIS was recently completed and presented to AMWG members. Ms. Neuwerth noted that the modeling has become quite complex and the most recent modeling runs centered on in-depth analyses of hydropower impacts under various alternatives. HFEs were one of the factors considered in assessing power revenue impacts, because bypassing water for the flows means a reduction in power generation capacity. Modeling also considered factors such as sand load, trout management, and the impact on humpback chub. Ms. Neuwerth reported that with this modeling, the LTEMP EIS process is one step closer to completion, and negotiations on the initial draft of the EIS are expected to be wrapping up within the next few months.

Ms. Neuwerth reported that the HFE workshop held on February 26-27 provided an overview of what has been learned through the last three HFEs. Researchers reported

that on average, the size of sandbars increases after an HFE, although the sand bars tend to erode between HFEs. Researchers reported that the fall HFEs do not appear to be increasing the aquatic food base or affecting the populations of trout or humpback chub in the river.

Ms. Neuwerth noted that the Basin States and the Department of the Interior will meet to discuss the LTEMP and recent modeling on March 19 in Phoenix, Arizona, and the Technical Work Group will meet April 21-22 also in Phoenix.

Lower Colorado River Multi-Species Conservation Program

Ms. Neuwerth reported that the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) is planning a ten-year anniversary tour on April 7-9. The tour will start in Yuma, Arizona, on April 7 with the dedication of Laguna Division Conservation Area, the program's newest conservation area. The MSCP is also planning a work group meeting on April 6 in Yuma.

Ms. Trujillo noted that although the Secretary of the Interior will not attend the tour, Ms. Jennifer Gimbel, the Principal Deputy Assistant Secretary for Water and Science, and the Commissioner of Reclamation, Mr. Estevan Lopez, are scheduled to attend the dedication ceremony.

ANNOUNCEMENTS / NOTICES

Ms. Trujillo reported that an upcoming workshop hosted by the State Water Resources Control Board is scheduled for March 18 in response to the petition that was filed by Imperial Irrigation District relating to Salton Sea issues.

Ms. Trujillo noted that a tour from Colorado irrigation districts made stops at the Palo Verde Irrigation District, IID and in San Diego. Presentations on urban and agricultural issues were given and overall the tour was a success. Ms. Trujillo reported that the tour was a great example of continued dialogue with the Upper Basin water users.

In the New Business category, Board member Peterson asked whether there could be an election for a Vice Chair. Chairman Fisher noted that Coachella Valley Water District and Los Angeles Department and Water and Power do not have their permanent members in place yet.

The next Board meeting will be on April 15 at the Holiday Inn in Ontario, and then on May 13 in San Diego.

Adjournment

With no further items to be brought before the Board, Chairman Fisher asked for a motion to adjourn the meeting. Upon the motion of Mr. Pettijohn seconded by Ms. Jones, and unanimously carried, the meeting was adjourned at 2:06 p.m.