

Minutes of Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, December 14, 2016

A meeting of the Colorado River Board of California was held on Wednesday, December 14, 2016.

Committee Members and Alternates Present

Stephen Benson	Peter Nelson
Brian Brady	Glen D. Peterson
Dana Bart Fisher, Jr., Chairman	David R. Pettijohn, Vice-Chairman
Christopher Hayes	Jack Seiler
Jeanine Jones	Michael Touhey
Hank Kuiper	David Vigil

Committee Members and Alternates Absent

James Hanks	Doug Wilson
John Powell, Jr.	

Others Present

Steve Abbott	Kathleen Hedberg	Alex Rodriguez
Anthony Bianco	Brad Hiltcher	Ken Rosevear
Tim Blair	Scott Houston	Jack Seiler
Vikki Dee Bradshaw	Michael Hughes	Tina Shields
Ben Brock	Ned Hyduke	Darren Simon
John Carter	Kevin Kelley	Scott Slater
Grant Chaffin	Jeffrey Kightlinger	Angela Slaughter
Robert Cheung	Kara Mathews	Tanya Trujillo
Dan Denham	Jan Matusak	Alina Tishchenko
Karen Donovan	Pedro Nava	Dale Tyson
Edward Drusina	Jessica Neuwerth	Joe Vanderhorst
Craig Elmore	Mike Pacheco	Drew Way
Castillo R Estrada	Roger Patterson	Meena Westford
Larry Fleming	Autumn Plourd	Dee Zinke
Christopher Harris	Jim Pokrandt	
Bill Hasencamp	Randy Record	

CALL TO ORDER

Chairman Fisher announced the presence of a quorum and called the meeting to order at 9:42 A.M.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

Chairman Fisher invited anyone in the audience to address the Board on items on the agenda or matters related to the Board. Board Member Kuiper introduced Ken Rosemere, a consultant on water issues from the City of Yuma. Board Member Nelson introduced Anthony Bianco and Castillo Estrada from the Coachella Valley Water District.

Consideration and Approval of the Minutes

Chairman Fisher asked for a motion to approve the November 09, 2016 meeting minutes. Mr. Touhey moved that the minutes be approved, seconded by Ms. Jones, and by unanimous support, the November 09, 2016 meeting minutes were approved.

Review of final schedule for 2017 Colorado River Board meetings

The next item on the agenda was a presentation of the final schedule for the 2017 Colorado River Board meetings. Chairman Fisher asked for a motion to approve the 2017 Colorado River Board Schedule. Mr. Brady moved that the schedule be approved, seconded by Mr. Touhey, and by unanimous support, the Colorado River Board 2017 Schedule was approved.

Colorado River Basin Water Reports

Mr. Harris reported that El Nino did not bring precipitation to the Colorado River Basin, as expected, and noted that the sea surface temperature anomalies did not produce above average precipitation. Mr. Harris reported that the Water Year began with average to above average precipitation in the Upper Colorado River Basin but below average in the Lower Basin. In January, precipitation was slightly above average in some areas of the Basin, but was below average in February, March, April, May and June 2016. He also reported that temperatures in the Basin started off cool at the beginning of 2016, warming up in February and March, then cooling down in May and remained fairly normal the rest of 2016. Mr. Harris reported that the 2016 precipitation totaled at 96% of average, with the snow pack peaking on April 3. To date, precipitation for 2017 is 50% of average. Mr. Harris reported that in 2016 Total System Storage was 51% of capacity, where it has been for the past three years.

Mr. Harris reiterated the prior 24-Month projections that Lake Mead's most probable end of calendar year elevation for December 31, 2017 is 1,074.3 feet, which is slightly below the first shortage trigger elevation of 1,075 feet for operations during 2018. Mr. Harris noted that the projections from the October and November 2016 24-Month study show Lake Mead's end of calendar year 2017 elevation to be slightly lower at 1,074.2 feet. Referring to Reclamation's "probability table" for shortage and surplus conditions, Mr. Harris confirmed that based on the August 2016 24-Month Study, there is no chance of shortage in 2017, and explained that there is a 48% chance of a 1st level Lower Basin shortage in 2018 and a 60% chance of a Lower Basin shortage in 2019 and 2020. Mr. Harris noted that implementation of the Drought Contingency Plan could reduce these probabilities. Mr. Harris reported that current reservoir storage for Lake Powell is 12.3 million acre-feet, or 51% of capacity and Lake Mead is 9.78 million acre-feet or 37% of capacity. The total system storage is 29.67 million acre-feet, or 50% of capacity, similar to where it was last year.

Mr. Harris reported that as of December 1, the cumulative amount of water stored in Lower Basin Regulatory Storages at Brock and Senator Wash Reservoirs was 138,873 acre-feet and 68,816 acre-feet, respectively. As of December 4, excess flows to Mexico was only 3,107 acre-feet, nearly 12,000 acre-feet less than last year. As of December 5, the bypass flows down to the Cienga de Santa Clara via the bypass drain were 89,890 acre-feet, nearly 62,000 acre-feet less than last year's excessive flows. Referring to the Basin Forecast Center's November precipitation map and the Upper Basin Snow Water Equivalent map, Mr. Harris reported that precipitation for the beginning of the year was below average. Referring to the U.S Drought Monitor maps, Mr. Harris reported that drought conditions in the Western U.S. have improved over the last three to four years, noting, however, that a significant portion of California still remains in the exceptional drought condition. Mr. Harris explained that California is in its 5th consecutive dry year, even though parts of Northern California have received above average precipitation. CAL Fire and the Forest Service have also been assessing the health of California's National and State forests as there are estimates that 66 million trees have died and present a risk for wildfire. Mr. Harris reported that on May 9, 2016, the Governor issued an Executive Order to make conservation a way of life in California. The State Water Board has also adopted a 3-year stress test to ensure that agencies have enough supplies to meet their demands over three years of drought conditions. This action replaces the prior mandatory percentage reductions-based standards. Mr. Harris reported that as of September 2016, statewide water conservation was 2.15 million acre-feet.

Executive Director Trujillo stated that the end of the year triggers the Decree Accounting process for water users in the Lower Basin, explaining that water users will be working to finalize their accounting with Reclamation. Ms. Trujillo noted that water use in the Lower Basin is down as a result of extensive conservation efforts that are underway.

State and Local Reports

Ms. Jones noted that Northern California had a very wet start to the fall season and the Eight Station Precipitation Index is well above average for Sacramento Valley. The San Joaquin Five Station Index is also slightly above average, while the Tulare Lake Basin Index is below normal. Ms. Jones also reported that of the four large reservoirs in the Sacramento Valley, which include the New Melones, Shasta, Oroville and Folsom, three of the reservoirs are close to making flood control releases within the next storm or two. She noted that Oroville's capacity is still below average. Ms. Jones explained that the reason that Northern California has been so wet is due to several atmospheric river storms and remarked that more storms will be arriving soon. Ms. Jones stated that precipitation in the Northern Sierras has been above average because the atmospheric river storms have been warm, noting that last week's storm brought rain at elevation 8,000 to 8,500 feet. Ms. Jones reported that the statewide snowpack for Northern, Central and Southern Sierras has ranged from 50% to 60% of average, stating that it has been too warm for snow to accumulate yet. The first coordinated manual snow surveys won't occur until January 3, 2017. Ms. Jones reported that the State Water Project has an initial allocation of 20% and noted that it may be adjusted as more snow accumulates.

Mr. Touhey, from Metropolitan Water District (MWD), reported that the Colorado River Aqueduct celebrated its 75th anniversary in 2016. He also stated that Randy Record, MWD's Board Chairman was reelected for a second term. Mr. Touhey reported that MWD's Following Pilot Program with Bard Water District has been successful. He also stated that the Pilot System Conservation Program has been successful and noted the funding partnership with the Six Agency Committee. Mr. Touhey reported that the environmental review of the Bay Delta California Water Fix is near completion and needs federal approval, explaining that these approvals do not guarantee that the project will be built but does allow MWD to review the operational criteria of the preferred project and make informed assumptions. Mr. Touhey explained that MWD's retail sales have declined and that MWD has been moving water to their storage facilities and into their groundwater basin in an effort to prepare for a critical emergency.

Vice Chairman Pettijohn reported that the Los Angeles Department of Water and Power (LAPD) has met the Mayor's goals to reduce water use to 104 gallons per person per day (gpcd). Mr. Pettijohn also reported that that LADWP is working on developing local resources with stormwater, recycled water and conservation. He also reported that by 2025 the Mayor wants LADWP to reduce its purchases of imported water by 50%. Mr. Pettijohn admitted that the goal is aggressive but the City of Los Angeles is making investments in local water development. Also, by 2035, there is also a goal to locally source half of all the water Los Angeles uses. Mr. Pettijohn stated that the goals are driving all of LADWP's planning projects, noting projects such as the Stormwater Capture Master Plan, Water Loss Action plan and the Recycled Water Master

Plan. Mr. Pettijohn reported that the City of LA has been working aggressively on conservation since 1977 and is currently completing a conservation potential study that will help identify the next conservation investment opportunity. Mr. Pettijohn added that the sum total of these projects and plans have been incorporated into the City's Urban Water Management Plan from 2015 and the Plan is available on the LADWP website. Mr. Pettijohn reported that LADWP has been working hard to reduce excessive use of water, adding that LADWP will be implementing an excessive user rate structure. Mr. Pettijohn stated that if a person is identified as an excessive water user, they will be subject to an audit that may include a home visit and assessment of water use of the property. In addition, the excessive water user will be given a water budget and a timeframe during which they must come into compliance with the water budget. If the excessive water user fails to comply, they will be subject to severe fines. Mr. Pettijohn reported that last year LADWP investigated over 10,000 reports of water waste in the city and only had to issue 47 fines. He explained that if a person receives a fine it becomes public record. Mr. Pettijohn reported that precipitation in the Eastern Sierra for 2016 was below average and that 2017 is starting off below average as well but stated that upcoming storms may improve the situation.

Mr. Brady reported the San Diego County Water Authority (SDCWA) successfully commissioned the Carlsbad Desalination Plant over a year ago, noting that the plant has produced 10 billion gallons of desalinated water and has the capacity to produce close to 50 million gallons per day. Mr. Brady reported that SDCWA also initiated its Live WaterSmart Program to encourage outdoor water conservation. He also reported that San Diego County passed the State's three-year stress test, as well as a five-year stress test. In addition, over the last several months, San Diego County has had 17% conservation savings despite the end of the conservation mandates. Mr. Brady also reported that San Diego County is now a purchaser of Hoover Dam power.

Mr. Hyduke reported on the status of the diversion dam's gate replacement and stated that the 3-year long project will conclude in mid-January. Mr. Hyduke also took the opportunity to thank Chris Harris, Deputy Director of the Colorado River Board for his work on improving water management of the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) areas located in the Palo Verde Valley.

Mr. Nelson reported on the status of Chromium 6 management within the Coachella Valley Watershed, noting that Chromium 6 is naturally occurring in the groundwater. Mr. Nelson added that the Coachella Valley Water District (CVWD) implemented a large rate increase to fund the Chromium 6 management project. Mr. Nelson also reported that CVWD is involved in ongoing litigation with a local Indian tribe about the quality of water recharged into the groundwater basin. Mr. Nelson reported that CVWD has had a cumulative water savings of 23% in its domestic accounts. The state mandated conservation target for CVWD was 36%. Mr. Nelson stated that CVWD replaced 106 acres of turf in the area, or 4.6 million square feet. Mr.

Nelson also reported that CVWD enrolled 161 acres in farmland into the Pilot System Conservation Program. He added that most of the vineyards, citrus and pepper fields are using drip irrigation. In addition, date orchards, which are a longstanding crop planted in the early 1900's, have been switched to more efficient irrigation with some of the savings going to programs that support elevation building in Lake Mead. Mr. Nelson reported that CVWD is progressing on its projects associated with the Quantification Settlement Agreement (QSA), and are addressing groundwater overdraft in their ID 1 service area, which uses Colorado River water. He explained CVWD's history with the QSA as it relates to groundwater management and displayed the District's groundwater recharge efforts. Mr. Nelson reviewed CVWD's estimated change in groundwater storage over ten years. Mr. Nelson explained that CVWD wants to increase its groundwater replenishment with the QSA supplies. Mr. Nelson also reviewed CVWD's water conservation efforts, noting that they have been working with golf courses to reduce their use, which represents a large use of water, and remarked on the importance of golf and agriculture to the area's economy.

Mr. Benson announced that the meeting would be his last meeting as a Board member for the Imperial Irrigation District (IID) and Eric Ortega would be replacing him on the IID Board. Mr. Benson recognized and thanked various IID employees present at the meeting. He reported that IID is doing a good job meeting its QSA obligations and conserving water. He added that fallowing is in its final year in the Imperial Valley and farms are moving to on-farm efficiency and conservation. Mr. Benson explained that IID is doing well financially and will be financing a \$100 million reservoir project located at the entrance of their system. In addition, IID is continuing to work with Bruce Wilcox on the State's Salton Sea plans. He added that IID and the State need continued coordination to advance the project. Mr. Benson reported that the IID has a new conservation building located outside the gates of IID's current location, noting that this building will serve as a hub of the on-farm efficiency program, as well as, IID's other conservation programs. Mr. Benson reported that there are 400,000 acres of active on-farm conservation.

Drought Contingency Planning Status Update

Executive Director Trujillo reported that the discussions related to the Lower Basin Drought Contingency Planning (DCP) process are continuing. She indicated that the core elements are to protect critical elevations in Lake Mead, incentivize reservoir storage and provide maximum operational flexibility. Ms. Trujillo reported that parties in Arizona, California and Nevada are also working on various intrastate agreements that would be necessary to implement the DCP once it is finalized and agreed upon. Ms. Trujillo also reported that the Lower Basin States have been coordinating with the Upper Basin States and working with Reclamation. She indicated the agreements would not be finalized prior to the end of the term of the current federal administration and that the states were looking forward to working with the

next round of federal appointees. She reiterated thanks to the current Reclamation and Interior team for their assistance.

Ms. Trujillo also reported that Reclamation has gone forward with a second round of funding for the Pilot System Conservation Program in the Lower Basin as well as a parallel process that is underway in the Upper Basin that is being administered by the Upper Colorado River Commission. Ms. Trujillo also reported that Reclamation's Yuma Area Office is in the process of implementing activities identified by the Bypass Flows workgroup that are intended to offset releases from Lake Mead to replace flows currently discharged into the Cienega de Santa Clara in Mexico. She also reported that the Lower Basin States are continuing their partnership and funding of weather modification program activities in Colorado, Utah and Wyoming for the purpose of augmenting system water supplies.

Colorado River Basin Study Status Update

Ms. Trujillo reported that since Phase I of the Basin Study was completed in April of 2015, Reclamation had been working closely with a coalition of Native American tribes in the Basin to prepare a draft Tribal Basin Study Report. She indicated that the draft report was likely to be released for review during the first-quarter of 2017.

Minutes 319 and 32x Status Updates

Ms. Trujillo first introduced the Commissioner of the U.S. Section of the International Boundary and Water Commission (IBWC), Edward Drusina, to the Board and audience and thanked him for attending the Board meeting. Chairman Fisher invited Commissioner Drusina to share the IBWC's thoughts and perspectives on the implementation of Minute 319 and the on-going process to develop the new Minute 32x.

Commissioner Drusina provided the Board and audience with a brief overview of the roles and responsibilities of the IBWC and its relationship with Mexico along the U.S. southern border. Commissioner Drusina indicated that because of the 16-year drought in the Basin that it has become vitally important that both countries work closely to manage Colorado River water supplies effectively and to develop joint programs and activities that can benefit both countries. Commissioner Drusina pointed out that the close collaboration and cooperation with all of the Basin States and water users is imperative in continuing the success of Minute 319 and the development of Minute 32x and that both the U.S. and Mexican Sections of IBWC are hopeful that Minute 32x and related agreements can be finalized and executed prior to the end of this federal administration.

Chairman Fisher indicated that he recalled that during the development of Minute 319, that all of the parties had to work through a change in the Mexican government's federal administration, and that now Minute 32x was being finalized during the change of U.S. federal administrations. He noted he was not sure whether there was time to move it forward in advance of January 20.

Ms. Trujillo reported that Minute 32x contains many of the provisions contained in the prior Minute 319. Minute 32x also contains an element that mirrors the Lower Basin DCP through a Mexican "water scarcity plan." She reported that this element of Minute 32x is contingent upon finalization and adoption of the Lower Basin DCP, and related domestic agreements, before it will take effect.

Ms. Trujillo also reported on the Minute 32x element related to funding of water conservation projects in Mexico that could be utilized to develop both intentionally created Mexican apportionment as well as volumes associated with the Mexican water scarcity plan if implemented and required. Other operational components proposed in Minute 32x include salinity and water delivery management activities that can help improve the quality of deliveries to Mexico and provide more flexibility and efficiency in delivery operations at Morelos Dam and at the Southerly International Boundary. Ms. Trujillo indicated that while Minute 32x does not contemplate a large pulse-flow release like that conducted in 2014, there is an environmental component that would provide water supplies from Mexico's allocation for the restoration and management of riparian habitat in the Colorado River delta region on top of that created under Minute 319. Ms. Trujillo noted that Minute 32x also includes a reference to a potential binational All-American Canal connection that would be subject to a subsequent Minute after additional consultation and approvals.

Colorado River Basin Salinity Control Program Status Update

Ms. Trujillo invited the Salinity Control Forum's Executive Director, Don Barnett, to make a few comments. Mr. Barnett indicated that the Basinwide Salinity Program continues to make excellent progress in controlling and reducing the amount of salt entering the mainstream through continued implementation of salinity control projects in the Upper Basin states. Mr. Barnett also reported on the celebration of the 20th anniversary of operations at the Paradox Valley Salinity Control Unit (PVU) and that work on preparation of an EIS for the PVU continues. Mr. Barnett also reported that he looks forward to working with the Basin States and the incoming new federal administration in seeking appropriations and continuing implementation of the Salinity Control Program.

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

Board Staff Ms. Jessica Neuwerth noted that the final Long-Term Experimental and Management Plan EIS was released in October. The EIS will guide dam operations for the next twenty years. Ms. Neuwerth reported that the Record of Decision for the EIS would be signed at the CRWUA conference, with a Biological Opinion from the Fish and Wildlife Service to be made available to the public soon as well. Finally, Ms. Neuwerth noted that a population of invasive green sunfish had been eradicated in time to carry out a High Flow Experiment at Glen Canyon Dam in November.

Lower Colorado River Multi-Species Conservation Program

Ms. Neuwerth reported that the Lower Colorado River Multi-Species Conservation Program (LCR MSCP) had acquired the Planet Ranch property along the Bill Williams River in December 2015 and was working on a restoration plan for the area. Ms. Neuwerth noted that LCR MSCP staff and California representatives were working to secure acreage in California to turn into conservation areas, in satisfaction of CESA permit requirements. Several new conservation areas within California were identified in 2016, and the program is close to securing the final acreage it needs within the state. Finally, Ms. Neuwerth reported that the LCR MSCP Steering Committee had voted in October to add the threatened northern Mexican gartersnake to the program as a covered species, the first addition to the program since it began in 2005.

Comments of U.S. Bureau of Reclamation Commissioner Lopez

Chairman Fisher introduced Reclamation Commissioner Estevan Lopez. Commissioner Lopez acknowledged the excellent partnership that exists between the Department of the Interior, Reclamation and the California Colorado River stakeholders in working through some very difficult issues, including DCP and the proposed Minute 32x process with Mexico. Commissioner Lopez thanked the California agencies for their continued diligence and commitment to work on these issues.

Announcements

Ms. Trujillo summarized some of the ongoing efforts in the Basin with the backdrop of uncertain hydrology. Ms. Trujillo acknowledged the presence of the Washington D.C. representative for the Metropolitan Water District of Southern California, Mr. Brad Hiltcher. Ms. Trujillo noted the passage of the WRDA bill that included California drought provisions and indicated that some of the new incoming federal administration positions have been identified.

Ms. Trujillo also indicated that at a prior Board meeting that the Board had taken action to honor Mr. Joseph Vanderhorst, a recently retired Assistant General Counsel for the Metropolitan Water District of Southern California, and that Mr. Vanderhorst was in the audience today. Mr. Harris presented Mr. Vanderhorst with the resolution acknowledging his services to the Board and the State of California on many important Colorado River matters and programs over the course of his nearly 20 years of service with MWD. Mr. Vanderhorst thanked the Board and indicated that it had been a distinct privilege to work with the Board and California agencies on all of these difficult Colorado River issues.

ADJOURNMENT

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