

Minutes of Special Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, December 11, 2013

A Special Meeting of the Colorado River Board of California (Board) was held in the Pompeian I Room, of the Caesars Palace, 3570 Las Vegas Blvd., South, Las Vegas, Nevada, Wednesday, December 11, 2013.

Board Members and Alternates Present

Dana Bart Fisher, Jr., Chairman	Jeanine Jones, Designee
Stephen Benson	Department of Water Resources
Michael Hogan	Christopher G. Hayes, Designee
Glen D. Peterson	Department of Fish & Wildlife
John Powell, Jr.	

Board Members and Alternates Absent

Franz De Klotz	James B. McDaniel
John V. Foley	David Pettijohn
Terese M. Ghio	Bud Pocklington
James Hanks	David Vigil, Designee
Henry Kuiper	Department of Fish & Wildlife

Others Present

Don Barnett	Roger Patterson
Tim Blair	Jennifer Pierre
John Penn Carter	Autumn Plourd
Marion Champion	Larry Purcell
Robert Cheng	Angela Rashid
Harvey De LaTorre	Randy Record
Matt Dessert	Alex Rodriguez
Ismael Gomez	Jack Safely
Jennifer Goodsell	Norma Sierra Salindo
Christopher S. Harris	Jack Seiler
Tom Havens	Tina Shields
Andy Horne	Ed W. Smith
Michael Hughes	Joanna Smith
Robert Hunter	Maureen Stapleton
Lori Jones	Rob Thomson
Jeffrey Kightlinger	Tanya Trujillo
Russell LeFevre	Deven Upadhyay
Jan Matusak	Joe Vanderhorst
Jennifer McCloskey	Meena Westford
Pedro Nava	Doug Wilson
Gusmar Nunez	Michael Yu
Fernando Paludi	Gerald R. Zimmerman

CALL TO ORDER

Chairman Fisher announced the presence of a quorum and called the meeting to order at 3:13 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

ADMINISTRATION

Approval of Minutes

Chairman Fisher asked if there was a motion to approve the November 13 minutes. Ms. Jones moved the minutes be approved. Seconded by Mr. Powell and unanimously carried, the November 13 meeting minutes were approved.

2014 Board Meeting Schedule

Chairman Fisher requested approval of the Board meeting schedule for Calendar Year 2014. Mr. Benson moved the Board meeting schedule for Calendar Year 2014 be approved. Mr. Powell seconded the motion. Unanimously carried, the Board approved the Board meeting schedule for Calendar Year 2014.

COLORADO RIVER OPERATIONS

Colorado River Water Report

Ms. Trujillo reported that Lake Powell is 44 percent of capacity and Lake Mead is 47 percent of capacity, so we're now officially below average. The total system storage is at 50 percent capacity, compared to 56 percent last year. The overall basin hydrology of the unregulated inflow into Lake Powell was 47 percent of average. For Water Year 2014 we are at 101 percent of average for precipitation and the snowpack levels are at 115 percent of average. The Colorado River Basin Forecast Center's snow conditions map indicates we are a little above 100 percent in the Upper Basin. The Bureau of Reclamation's "tea-cup" diagrams show the reservoir level at Lake Powell is at 44 percent of average in the Upper Basin but a couple of the other major reservoirs are doing a little better than that. The October 2013 precipitation map shows the rainfall and snow that was received in the Upper Basin but dry in the Lower Basin in contrast with the November 2013 report where we had the opposite conditions and the Upper Basin was

below average and the Lower Basin was above average in terms of precipitation. Ms. Trujillo reported that there has been some improvement within the Colorado River Basin in terms of the drought monitor map, but that the Central Valley and other parts of California are still in extreme drought, which will mean there will be significant challenges in that region in the coming year. The final graph reviewed at the meeting showed the variation in water levels at Lake Mead and Lake Powell and the confirmation that we are in the normal condition for the 2007 Guidelines.

State and Local Water Reports

Ms. Jeanine Jones, of the California Department of Water Resources, reported that we have had two consecutive dry years in California and that requests have been made to the Governor and the President to declare a drought emergency. The forecast that we have included in the Board folder is an experimental forecast that was commissioned from the research community and is calling for generally dry conditions. Looking at the past two years and the projected median hydrology for median conditions from December 1, 2013, going forward, the Sacramento River Four Index would be the 12th driest on record. The San Joaquin River Index/Four River Index would be the 8th driest on record in terms of runoff. It's important to remember that we are still quite early in the water year as December, January, and February are the big water producing months, but if you look at the weather forecast for the next ten days, December 2013 is not going to provide much precipitation. DWR will be looking closely at the hydrology in January and February.

Presentation by Mr. Terry Fulp, Regional Director of the Lower Colorado U.S. Bureau of Reclamation

Mr. Fulp reiterated his appreciation for the close working relationship that has developed between the Bureau of Reclamation and the agencies and staff within California. He reported that the ongoing drought is the worst on record but there is variability in the system. We utilized the August 24 Month Study and projected the January 1, 2014 elevations, which resulted in a reduced release out of Lake Powell. But, the elevation was brought back up due to recent monsoonal moisture. Mr. Fulp commended all the work the states are doing and particularly in the Lower Basin on the drought management and contingency planning programs. Mr. Fulp mentioned the importance of the Quantification Settlement Agreement (QSA) and the Colorado River Water Delivery Agreement and commended California for staying at 4.4 million acre feet, which is a testimony to the making of the agreement and living by it. The USBR continues to implement the overrun and payback program in a collaborative way. He stated that the program works because of continued communication and collaboration. Mr. Fulp also reported that the implementation of Minute 319 is continuing very well through the bi-national relationships and related work groups and he commended all the agencies for putting people in those work groups. Additionally, Mr. Fulp reported that Metropolitan Water District (MWD) and Imperial Irrigation District's (IID) recent

agreement to participate jointly in the pilot program is a very positive step forward for the Basin.

Presentation by Mr. Don Barnett, Executive Director of the Colorado River Salinity Control Forum

Mr. Barnett covered key topics such as the drought, triennial review efforts, program funding, the Paradox Valley Unit, and the Pah Tempe Springs. Concerning the drought, Mr. Barnett reported that currently the Salinity Control Forum (Forum) is not in a great position to model the drought's impact on salinity. The big issue is that the salt discharge from the agriculture producers is hard wired in the CRSS model. The Forum cannot determine the effect of lower irrigation uses in the Upper Basin and how that will change the salinity discharge, which was recognized in the Basin Study process. The USBR modelers would like to work on this issue in the next several years and then they will be in a better position to take a better look at salinity as far as changes and variability in climate in the future. In the short term, the salt's already in the river. Mr. Barnett reported that in the next 12 months, the salinity is going to go up about 40 milligrams per liter. In two years it may be at one-hundred milligrams per liter, depending on the hydrology. Since 2011, the salinity has increased in Lake Powell and the salt is working its way down river.

Regarding the triennial review efforts, Mr. Barnett reported that the Clean Water Act in 1972 mandated that the states adopt water quality standards, which was presented in 1975. The USBR has done the preliminary modeling needed for updating the standards every three years. Mr. Barnett reported that the Forum's job is to look at the numeric criteria and develop a plan of implementation that will stay within those numeric criteria. The states take the combined Seven States Report and each individually submits a report to the Environmental Protection Agency (EPA). After the EPA approves the report, it becomes the State Water Quality Standards for Salinity for three years.

Mr. Barnett reported that the program is short on funding from USBR and we should focus on that funding because the USBR is two or three times more cost effective than NRCS at salinity control. The Bureau of Land Management (BLM) contributes a nominal amount. The Basin States cost share is thirty percent of the total program. In 2014 it is anticipated that the states would need to come up with about twelve million dollars of the cost share. Fifteen percent comes from the Upper Basin Fund and the remaining eighty-five percent comes from the Lower Basin Fund. This includes a repayment of another one million. In 2014, eleven and a half million is needed from the Lower Basin Fund in order to meet commitments in the Salinity Control Program. The Upper Basin can provide the funds by simply changing the rates under the Salinity Control Act to charge power users to make the one-hundred nine million. Mr. Barnett reported that the Lower Basin is based on a no levy for power users in California and Nevada. That is a fixed amount of two and a half million. The funds are independent of the rate of expenditure. Mr. Barnett reported that there has been a surplus for a number of years, but it is almost gone. In 2014, the Lower Basin Fund will be about two and half

million short in revenue. The Basin States created a sub-committee to address the funding difference between the amounts of revenue coming in from the non-federal side to meet the cost share obligation.

Mr. Barnett reported that, at the Paradox Valley Unit, the USBR put in a series of collection wells and a deep injection well in the center of the valley, which has been capturing and disposing of about 110,000 tons of salt per year since 1996. Mr. Barnett reported that the USBR had convened a Contractor Review Board this spring. Several options were considered, including using the current well site and drilling directionally to put in a replacement well. More information is needed before a firm recommendation is given. Additionally, Mr. Barnett reported that an earthquake occurred on January 23, 2013 with a magnitude of 4.4. The USBR shut down the project due to its proximity to the community of Paradox. After several months the project came back on line at a reduced rate and at a different schedule, by shutting down every week instead of going continuously for six months. This resulted in a ten percent reduction in the salt disposal in the well. Prior to the earthquake, ten tons of salt per day was coming into the river. After the earthquake occurred, 150 tons per day was discharging into the river. Mr. Barnett reported that the discharge is going back down but that it takes some time. The Federal Advisory Council recommended that the USBR use up to one hundred twenty-five thousand dollars of the Basin States Program funds to convene a Contractor Review Board to look at evaporation ponds as one of the alternatives.

Regarding Pah Temp Springs, Mr. Barnett reported that one-hundred thousand tons of salt goes into the Virgin River, just below Zion National Park. The U.S. Geological Survey (USGS) conducted a major study two years ago and concluded that a very high percentage of the salt that discharges at Pah Tempe Springs makes its way down the Virgin River and into Lake Mead. Part of the issues was to figure out the relationship between the Virgin River Gorge and the waters disappearing underground. The USGS conducted a separate study and discovered at Littlefield Springs there is a significant amount of water that discharges from the regional carbonate aquifer and that the majority of the discharge is the Virgin River water that's charged up with the salt from Pah Tempe Springs. The next step would be to capture the groundwater, if possible. Mr. Barnett reported that the springs are all coming up just above La Verkin Fault. The USGS identified fault lines in this area and asked for funds from the Basin states for further study. Coupled with the Washington County Water Conservancy District (WCWCD), the USGS drilled some monitor wells. WCWCD had put a large sump in the area to try and redeem water as they were running a pipeline through the area.

Mr. Barnett reported that the Forum and the USGS decided to re-enact the work that was done fifteen to twenty years ago with a pump test. The USGS isolated the springs and installed a weir. The USGS also installed several thousand feet of fiber optic cable, surveyed all of the various discharge points within the Virgin River, and put in a number of temperature gauges. The USGS brought in a pump that could pump about 11 cfs. Because of issues with the sump, only four cfs were pumped. In November, a significant rainstorm forced the shutdown of the pumps and washed out the

instrumentation equipment. Another pump test was conducted in January 2014. The data collected is to determine if the springs and salt discharge can be captured without meaningfully capturing the fresh water coming down the Virgin River, and then what can be done with it. Mr. Barnett reported that the issue again is funding, both on the appropriations side, and the Basin states cost-share side for Paradox Valley and the Farm Bill. Regarding the Farm Bill, we got an extension on EQIP two years ago. We are good through September of 2014. We hope we get a Farm Bill in place soon because we're receiving about \$18 million per year through the Farm Bill for the EQIP Program

Mr. Barnett also reported that the Forum is working with USBR on the economic damages model, which needs to be brought to current levels. Downstream damages are about 300 million dollars per year from the current salt levels, despite the fact that 1.3 million tons were removed from the river.

The Board again expressed thanks to Don and Jack Barnett for assisting with the tour held in the spring to educate our Board members and staff regarding the salinity control forum issues.

Status of the Colorado River Basin Water Supply & Demand Study

The Basin Study Coordination Committee met on November 14, 2013, and reviewed the progress of each of the three workgroups. Phase I draft reports are expected in April 2014. The workgroups are the Environmental and Recreational Flows workgroup, the Municipal Conservation Workgroup, and the Agricultural Conservation Workgroup. Additional meetings are planned in January 2014.

Status of the Colorado River Basin Salinity Control Program Work Group and Advisory Council

The work group met in November 2013 and our staff participated in the tour of the Pah Tempe Springs experiment. The next forum meeting is in Jackson, Wyoming in June 2014. The Advisory Council meeting met prior to the Colorado River Board's meeting here in Las Vegas, Nevada at the Caesars Palace. They will be reporting back to BOR and Bureau of Land Management (BLM) regarding recommendations for funding and continued operation of the programs.

OTHER BUSINESS

Ms. Trujillo reported that funding opportunity announcements from USBR for the WaterSMART Program are in the Board materials. There are grant applications both for the Title XVI Program and also the Water and Energy Efficiency Grant Projects. The deadline for the Title XVI grants is January 7, 2014 and the deadline for the Water and

Energy Efficiency grants is January 23, 2014.

Ms. Trujillo also reported that included in the Board packet are notices of the water banking and savings program that Southern Nevada and MWD have again agreed to do this year.

Colorado River Board 2013 Year in Review

The Board meeting included a presentation reviewing the minutes from prior Colorado River Board December meetings. Ms. Trujillo reported that fifty years ago the Colorado River Board minutes reflected a fairly urgent meeting with the Governor to assess the ramifications of the Arizona v. California ruling for California. Also, the minutes reflected that specific language be included in the Central Arizona Project, which was finalized in 1968, to protect California's senior rights on the Colorado River. Forty years ago, the CRB minutes reflected discussions of Minute 242, which was adopted relating to salinity control issues and the Salinity Control Forum was established. Legislation for the Salinity Control Program was passed in 1974. Thirty years ago, the CRB minutes reflected that the primary focus was on spilling reservoirs. Annual reports were done at that time that showed pictures of the spilling reservoirs. Twenty years ago, the CRB focused on the development of the Glen Canyon Dam EIS, which came shortly after the Grand Canyon Protection Act. Ten years ago, was the signing of the Quantification Settlement Agreement in California, which has been successfully implemented for the past 10 years.

To focus on the developments within 2013, Ms. Trujillo noted that the highlight in 2012 and 2013 has been the hydrology – having the two lowest years in the past one hundred years on record. Based on the Annual Operating Plan, the releases out of Lake Powell in 2014 will be 7.48 million acre feet. Ms. Trujillo reported that CRB will continue to collaborate with the other Basin States and with USBR on contingency planning for the hydrology in the future. We will continue our efforts on conservation and continue funding the successful partnering programs in place such as the Weather Modification Program that we worked in partnership with the Lower and Upper Basin States on.

Ms. Trujillo also reported that in 2013 CRB worked on implementing the Colorado River Basin Supply and Demand Study. It was rolled out last December, and projected a demand and supply imbalance for the future. We kicked off the implementation phase in San Diego in May 2013. The co-chair for the M&I Conservation Group is Metropolitan Water District. The Agricultural and Conservation Group is co-chaired by IID. We have representatives on the Environment Flows Group as well.

Ms. Trujillo commented that Minute 319 was also one of the significant areas of focus in 2013. The agreement was signed in 2012 and is a five-year pilot agreement. The states representatives in the various workgroups are working to implement the agreement. Ms. Trujillo congratulated MWD and IID for their recent agreement to share

their allocation of water associated with the international pilot project.

Ms. Trujillo reported that another key area of focus has been continued work on the Lower Colorado River Multi-Species Conservation Program. Ms. Trujillo commended Chris Harris of the Colorado River Board, who is the lead person on the program. Ms. Trujillo briefly recapped that 25,000 acres of habitat out of the 8,000 that are required, and a thousand acres in California, have been restored. Presently, the Laguna Habitat Conservation Area is one of the largest areas that is under development and is about 1,200 acres. Also, in 2013 the CRB had worked on invasive species challenges, such as the Quagga Mussels. We are also observing that the Salt Cedar beetle may be coming our way, if it's not here already.

Ms. Trujillo commented that the CRB has spent significant effort working on the Glen Canyon Dam Adaptive Management Program and the ongoing Long Term Experimental Management Plan EIS in cooperation with the other states and USBR, primarily through the Upper Basin region. A draft EIS should be available next spring. The second high flow experiment was done in November which was reported on in previous Board meetings. The CRB is now in the process of evaluating the progress and status of the second high flow release experiment.

Ms. Trujillo also reported that CRB has devoted significant resources on the Salinity Control Program. The Forum meetings in May occurred in Grand Junction and the October meetings were hosted by MWD in Los Angeles. The Paradox Valley EIS is a significant project and CRB is working on it as a cooperating agency with USBR. We are encouraging them to look at a lot of alternatives, even some that are outside of the box, technically and are hoping BOR will continue funding for that analysis to keep on things on track. The earthquake in January 2013 was an eye-opener regarding the sensitivity of the system and alternatives are being considered for that site. Mr. Trujillo also reported that there was an Upper Basin tour in October 2013 and expressed her appreciation to each agency's participation and contributions.

Ms. Trujillo acknowledged the deaths of Bill Rennie from USBR and Bill Swan and Steve Robbins from Coachella Valley Water District from our communities.

In conclusion of the Year-in-Review, Ms. Trujillo summarized that the Board adopted the new Board schedule which envisions traveling to the member agencies by doing an alternating schedule of meetings. CRB will be working with each member agency staff to set up the Board meetings and potentially do some side tours.

We look forward to the Basin Study Phase I reports. We look forward to progress on Minute 319; the pulse flow this spring; and continued progress on implementation of the international projects, and figuring out how U.S. money can be used to create water savings in Mexico that will be converted back into water savings on the U.S. side. In the Salinity Forum we will be working on the 2014 triennial review, and looking at options to address the funding deficiency. We are also looking forward to the draft Long Term Experimental and Management Plan EIS this spring.

Ms. Trujillo expressed appreciation to all of the help from the member agencies staff and is looking forward to continued progress.

Next Board Meeting

Chairman Fisher announced that the next meeting of the Colorado River Board will be held on Wednesday, January 14, 2014, at 10:00 a.m. at the Holiday Inn, Ontario Airport, 2155 East Convention Center Way, Ontario, California.

There being no further items to be brought before the Board, Chairman Fisher asked for a motion to adjourn the meeting. Upon the motion of Mr. Powell, seconded by Mr. Peterson, and unanimously carried, the meeting was adjourned at 4:05 p.m. on December 11, 2013.