

**EXECUTIVE DIRECTOR'S REPORT
TO THE
COLORADO RIVER BOARD OF CALIFORNIA**

March 9, 2015

ADMINISTRATION

Minutes of the February 11, 2015 Meeting of the Colorado River Board

A copy of the draft Board meeting minutes from the meeting held on February 11, 2015 has been emailed for your review.

Request for adjustments to the 2015 Colorado River Board meeting schedule

I would like to request an adjustment to the Board meeting schedule to hold the May 13, 2015 meeting in San Diego instead of Ontario and to hold the October 14, 2015 meeting in Ontario instead of San Diego. The San Diego County Water is supportive of these schedule changes. Moving the May 13 Board meeting to San Diego will help with facilitation of a bi-national Minute 319 meeting in San Diego on May 14.

COLORADO RIVER BASIN WATER REPORT

As of March 2, 2015, the water level at Lake Mead was at 1,089 feet with 10.77 million acre-feet of storage, or 41% of capacity. At Lake Powell, the water level was at 3,592 feet with 11.03 million acre-feet of storage, or 45% of capacity. The total system storage as of March 1 is 29.22 million acre-feet, or 49% of capacity, and is about 450,000 acre-feet more than the where the system storage was at this time last year. The unregulated inflow into Lake Powell for forecasted water year 2015 is 8.42 million acre-feet, or 78% of normal, although recent storms in the Upper Basin will cause this forecast to increase. As of March 1, the Upper Colorado River basin reservoirs other than Lake Powell ranged from 85% full (Flaming Gorge in Wyoming) to 65% full (Navajo in New Mexico).

NOAA's National Weather Service monthly precipitation map for February 2015 shows that the majority of the Colorado River basin received below average precipitation. As of March 2, 2015, the snowpack was predicted to be 81% of average. The next update session from the Colorado Basin River Forecast Center is scheduled for April 7, 2015.

CALIFORNIA DROUGHT UPDATE

Although the month of January was the driest month on record for California, significant precipitation occurred in February in the Northern Sierra and San Joaquin Valley. Nonetheless, the February 2015 snow survey recorded the snowpack at 19% of normal and 12% of the April 1 average. A subsequent analysis utilizing automated measuring devices showed a snowpack of 23% of average.

Drought conditions within California have not improved and Governor Brown's January 17, 2014 and April 25, 2014 State of Emergency Proclamations have been extended to 2015. The Department of Water Resources has continued to issue bi-weekly Drought Briefs to provide updates on current conditions, key action items and drought response activities.

The February 24, 2015, Drought Monitor map for California indicates that almost 40% of the State continues to be in the "exceptional drought" category, which is the worst level of drought severity. Reservoir levels at most of the California reservoirs remain at below average storage levels.

COLORADO RIVER BASIN PROGRAM REPORTS

Basin States Drought Contingency Planning Efforts

The Basin States Principals held a meeting on February 18 to discuss the progress of the drought contingency planning efforts and to hear updates regarding the progress of implementation of Minute 319. The Lower Basin States continue to implement the Memorandum of Understanding for Pilot Drought Response Actions entered among the Lower Basin States, the US and certain municipal water agencies (CAP, SNWA and MWD) in December 2014. The Bureau of Reclamation has evaluated the initial round of proposals for funding through the Pilot System Water Conservation Program in the Lower Basin and has requested follow up information regarding certain proposals.

As was reported by Don Ostler during the February 13 Colorado River Board meeting, the Upper Basin is continuing its efforts to evaluate flexibility associated with the operation of the Upper Basin reservoirs above Lake Powell and to explore possibilities for demand management reductions in diversions under critical hydrologic scenarios. The Upper Colorado River Commission is also working on an agreement to facilitate implementation of the Pilot System Water Conservation Program in the Upper Basin.

Colorado River Basin Water Supply and Demand Study

The Report documenting the progress of Phase 1 of the Basin Study's Next Steps process is expected to be released in April 2015. A revised draft is expected to be distributed to the workgroup members within the next few weeks.

Minute 319 Implementation

On February 18, Reclamation presented an overview of the progress of the implementation of Minute 319 to the Basin States Principals. A summary will be presented during the March 11 Colorado River Board meeting. A bi-national meeting of the Commissioners to review the progress of Minute 319 is being planned for May 14, 2015 in San Diego.

Colorado River Basin Salinity Control Program

California hosted the Salinity Control Forum Work Group meeting on February 17-19, 2015, which took place at the Diamond Valley Lake Training Center in Hemet. The meeting agenda is included in the Board folder. The meeting included a tour of Diamond Valley Lake and the Menifee and Perris I De-salter facility at the Eastern Municipal Water District.

Reclamation gave an update on the operations of the Paradox Valley Unit Injection well. The estimated annual benefit is reduced by about 11,056 tons due to reduced pumping rate. There were 50 seismic events in 2014, a decrease from 124 events in the previous year. The decrease is most likely due to the injection rate lowered from 230 to 200 gpm and the more frequent 18-hour weekly shutdowns. The injection well experienced a 20-psi increase in the last year.

Reclamation also updated the Work Group on the EIS process for the Paradox Injection Well's replacement. The EIS for the project is scheduled to be completed in 2018. Preliminary findings from the Consultant Review Board (CRB) on the validity of EPA's maximum allowable surface injection pressure of 5,350 psi and its effect on seismic hazards suggest that most of the earthquakes in the Paradox Valley area were induced and the largest potential future earthquake will most likely fall in the 4.5 to 5.0 magnitude range.

The CRB on an evaporation pond alternative is scheduled to meet on March 17-19 to provide input to the Work Group's questionnaire for the CRB. The questions include pond design and migratory bird issues. An initial roadmap for the second well alternative was developed by a CRB to evaluate the potential for an alternative injection well. The CRB determined that the pressure buildup at the current well was not due to near-well flow impairment but rather reservoir pressurization at distances of several kilometers from the well. Work-over of the current well is not likely to be beneficial. The next step is to investigate potential second well site locations. A preliminary drilling feasibility study is expected from this CRB by September of this year. A report on site selection and ranking is expected by October of 2016. The CRB will hold its second meeting in December of 2016 and recommend a second well site. An exploratory well design is expected in March of 2017, with the exploratory well drilling and logging to begin in June of 2018. An initial production well design is expected by December 2018.

Reclamation's Request for Information to see whether there is any commercial interest for the brine or the disposal of the brine at Paradox Unit closed on February 13, but a revised announcement is expected due to the initial lack of responses.

Reclamation reported that the president's budget request for Fiscal Year 2016 to 2018 as it stands now is adequate for completing the Paradox Unit EIS. There is \$450,000 appropriated for FY2015.

Reclamation is developing a Statement of Work to bring a contractor onboard to help with updating its Salinity Economic Damage Model. A Work Group Sub-Committee was formed to provide input on Reclamation's model. MWD provided Reclamation updated data on supply, water demand, population, and other inputs for its service areas, and is working with Reclamation on reorganizing the data into Reclamation's model. There may be discrepancies in modeling input by region. For example, the damage coefficient for corrosion in pipelines may

differ between California and Arizona due to different construction codes. Reclamation is working to combine different data into one model with one spreadsheet. The Work Group Sub-Committee finds that a consistent methodology across the basin is needed in defining inputs, all assumptions should be stated, and a map that shows all the subareas is needed so that all areas that may have economic damages are represented. Reclamation is also looking into getting better data from Arizona and Nevada. The new model is expected to have higher damage amount. A draft version will be available in October 2016 to be used for the next Triennial Review.

At the request of the Forum's Funding Sub-Committee, Reclamation performed an analysis to project Hoover power revenues during shortage conditions to evaluate potential impacts to the revenues of the Salinity Program for the next 10 years. This modeling exercise estimates a 6% decrease in energy generated at a first tier shortage of 1,075 feet elevation, a 13% decrease at 1,050 feet, and a 21% decrease at 1,025 feet. The reduction in Basin Fund revenues was estimated to be \$447,784 at 1,075 feet, \$958,563 at 1,050 feet, and \$1,521,817 at 1,025 feet.

Reclamation started 2015 with about \$11.2M in the Lower Basin Fund balance, compared to \$10.1M at the beginning of 2014. At the request of the Work Group, Reclamation will make a graph to compare projected revenue versus expected withdrawal. An underlying concern from the Work Group is to have a long-term funding plan that considers various scenarios such as drought. The Work Group is leaning towards recommending not making the 2015 repayment to the Treasury, as was the case in 2014.

The next Forum, Advisory Council and Work Group meetings are scheduled for May 20-21 in Salt Lake City, Utah.

Status of the Glen Canyon Dam Adaptive Management Program

The Glen Canyon Dam Adaptive Management Work Group (AMWG) held its biannual meeting February 25-26 in Salt Lake City, UT. The group received updates on the basin hydrology, the FY15 budget, and the Lee's Ferry trout fishery management plan. The Charter, Socioeconomic, and Public Outreach Ad Hoc Groups reported on their recent activities and a panel spoke on the current issues and projects in Utah, including the completion of the Central Utah Project and the outlook for the Lake Powell Pipeline.

Modeling was presented for the Long-Term Experimental and Management Plan Environmental Impact Statement (LTEMP EIS) that addressed twelve different resource goals and expanded on previous hydropower modeling. For the three main alternatives (Condition-Dependent Adaptive Strategy, Resource-Targeted Condition-Dependent Alternative, and the Hybrid Alternative), multiple variations of the alternative were modeled to capture the potential outcomes of the adaptive management process.

The LTEMP EIS modeling predicted many resource outcomes, including the amount of sand in the system, the monthly release hydrograph, the number of high flow experiments (HFEs), the amount of water spilled, the humpback chub response, and the amount of trout management needed. Hydropower analysis was expanded to take into account the cost of replacement power, power generation lost through HFEs, and ratepayer impacts. A subject

matter expert's call on the hydropower modeling is planned in the upcoming weeks to answer any particularly detailed and in-depth questions the group may have.

A workshop on high flow experiments was held February 26-27, after the conclusion of the AMWG meeting. Researchers reported that the most favorable condition for storing sand in Marble Canyon over the short term is when high sediment inputs from tributaries such as the Paria River are combined with low flows. The size of sandbars is, on average, larger post-HFE, but sandbars erode between HFEs and there is not yet evidence of a progressive increase in sandbar size.

The Western Area Power Administration reported on the cost of an HFE, estimated to be between \$1-2 million. The Hualapai reported concerns of mid-channel sand accumulation in the lower parts of the Grand Canyon and researchers addressed how HFEs might affect archaeological sites. The aquatic food base in the river does not seem to be responding to fall HFEs in any clear way, as it did to the 2008 spring HFE. Additionally, HFEs have not been shown to have any impact on either rainbow trout or the endangered humpback chub.

The Department of the Interior and the Basin States will be meeting in Phoenix, AZ on March 19 to discuss the LTEMP EIS process and modeling. Finally, the Technical Work Group will be meeting on April 21-22, also in Phoenix, AZ.

Status of the Lower Colorado River Multi-Species Conservation Program

As has previously been announced, the 10th anniversary of LCR MSCP implementation is being celebrated with a tour of the conservation areas on April 7-9. The tour will start in Yuma, Arizona on April 7 with a dedication of the newly created Laguna Division Conservation Area, and then tour participants will proceed north along the Lower Colorado River visiting conservation areas and receiving project updates from Reclamation staff. The tour will conclude about mid-day on April 9 in Needles, California. The LCR MSCP Work Group is planning a meeting in Yuma on April 6, and this will be followed by a short tour down to the Hunter's Hole Conservation Area in the Limitrophe Division.

ANNOUNCEMENTS AND NOTICES

On March 18, 2015 the State Water Resources Control Board will host a Public Workshop to receive comments regarding the status of the Salton Sea and Revised Order WRO 2002-0013. The workshop is being held in response to a petition filed by Imperial Irrigation District on November 18, 2014.

Tanya M. Trujillo
Executive Director