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

February 8, 2017

ADMINISTRATION

Minutes of the January 9, 2017 Meeting of the Colorado River Board

A draft of the Minutes from the Board meeting held on January 9, 2017 has been circulated for review.

Update regarding Review of Colorado River Board's Rules and Regulations

Based on consultation and feedback from the Board's legal counsel, the Board's Deputy Director, Chris Harris, and not more than two Board members, will proceed with an initial, informal discussion regarding potential modifications to the Board's Rules and Regulations. As previously noted, the current Rules and Regulations have not been reviewed for several years and it may be appropriate to update them based on discussion and feedback from the Board which would occur over the next several months.

Lower Colorado Water Supply Project

The Board packet includes a draft Resolution recommending approval of an application for a sub-contract with the City of Needles for up to one acre-foot of water from the Lower Colorado Water Supply Project for domestic use in San Bernardino County.

COLORADO RIVER BASIN WATER REPORT

As of January 30, 2017, the water level at Lake Mead was at 1,085.66 feet with 10.5 million acre-feet of storage, or 40% of capacity. The water level at Lake Powell was as 3,596.19 feet with 11.39 million acre-feet of storage, or 47% of capacity. As of January 29, 2017, the total system storage was at 29.46 million acre-feet, which is 49% of capacity, and is about 69,000 acre-feet lower than the system storage at this time last year. As of January 29, 2017, the Upper Colorado River basin reservoirs other than Lake Powell ranged from 54% of capacity at Fontenelle and 83% of capacity at Flaming Gorge in Wyoming, 96% of capacity at Morrow Point, 71% of capacity at Blue Mesa in Colorado and 77% of capacity at Navajo, in New Mexico.

Reclamation recently reported that as of January 29, 2017, excess deliveries to Mexico were 5,740 acre-feet. For reference, in 2016, excess flows to Mexico were 9,221 acre-feet. This increase in excess flows to Mexico is likely explained by the circumstances of Senator Wash Reservoir being offline from January 3-30, 2017 for maintenance; as well as changed and reduced water orders by U.S. water users because of recent precipitation events.

Reclamation also reported that as of January 31, 2017, precipitation in the Basin was 137% of average and the snowpack was 160% of median. As of January 17, 2017, the forecasted 2017 WY unregulated inflow into Lake Powell is 12.12 million acre-feet, or 112% of normal and the April to July inflow forecast is 9.6 million acre-feet, or 126% of normal. Reclamation has noted that there are still a few months left in the winter season and that a warm, dry spell could impact the snowpack and runoff forecast. Reclamation estimates that nearly 15.0 million acre-feet of inflow would be needed to shift the Lake Powell and Lake Mead into equalization, thus increasing the amount released from Lake Powell to above 9.0 million acre-feet.

The Colorado Basin River Forecast Center (CBRFC) held a webinar on February 7, 2017 to review the water supply conditions and forecast. The Basin experienced significant precipitation in December and January. During January, many areas of the Basin received between 200% to 300% of average precipitation. As of February 5, snowpack levels in the Upper Basin ranged from 150% to 200% of median to date. As of February 1, the April to July streamflow volume forecast is 9.6 million acre-feet. Additional storms are forecasted for this week and next week which are expected to bring additional precipitation in the Upper Green and Duchesne river basins.

STATUS OF COLORADO RIVER BASIN PROGRAMS

Basin States Drought Contingency Planning

Discussions have continued within each of the Lower Basin States to review the concepts developed among the Lower Basin States and Reclamation for a Drought Contingency Plan to encourage more water savings and storage in Lake Mead in order to decrease the likelihood that Lake Mead will drop below elevation 1,020 and to add flexibility and certainty for operations at lower reservoir levels. The new contingency plan would supplement the existing 2007 Interim Guidelines for the Coordinated Operation of Lake Mead and Lake Powell through 2026. The new plan will provide clear rules for the storage and release of Intentionally Created Surplus water when Lake Mead reaches elevations below 1,075 feet and the shortage triggers in the 2007 Interim Guidelines are met. The new plan will increase storage levels at Lake Mead through expansions of existing conservation and storage programs and through creation of additional system water conservation programs.

Intra-state implementation agreements are still under development within each of the three Lower Basin States. Pursuant to a statutory provision in Arizona, the Arizona legislature must take action to authorize the Director of the Arizona Department of Water Resources to execute the new agreements. To implement the contingency plan within California, agreements are contemplated among MWD, IID, PVID and CVWD. The California parties will continue their parallel efforts to resolve ongoing issues relating to operations in the Bay-Delta and planning and restoration efforts at the Salton Sea. New or revised exhibits for the Intentionally Created Surplus Program will be developed to assist facilitation of the drought contingency plan in all three Lower Basin States.

A Secretarial Order issued on January 18, 2017 outlines the background of the Drought Contingency Plans. An Addendum to the Salton Sea MOU between DOI and the California Department of Natural Resources and an Agreement between the Bureau of Reclamation and the Gila River Indian Community in Arizona were also finalized on January 18.

Implementation of Minute 319 and negotiation of Minute 32x

Draft concepts for Minute 32x were developed using input from binational workgroups on Hydrology, Salinity, Flow Variability, Environmental Flows, Binational Projects, and the All-American Canal Turnout, but a new Minute was not completed during 2016, in part because implementation issues were still under discussion between the Upper Basin and Lower Basin and because the necessary domestic implementation agreements had not been finalized. Discussions among the Basin States and federal agencies regarding the elements of Minute 32x are expected to continue in 2017, but the positions of the new federal Administration are unclear. Pursuant to a statutory provision in Arizona, the Arizona legislature must take action to authorize the Director of the Arizona Department of Water Resources to execute the domestic implementation agreements that would support Minute 32x.

The existing Minute 319 runs through the end of 2017. It contains the basic elements that were incorporated into the planning for the new Minute 32x, but Minute 32x also includes the concept of a binational drought contingency plan to run in parallel with a domestic, Lower Basin drought contingency plan. The existing elements of Minute 319 are: (1) provisions that address operational issues such as shortages and surplus flows, salinity calculations and delivery flow variability on a day by day basis; (2) the opportunity for U.S. investments in conservation projects to generate water savings in Mexico; and (3) a Mexican environmental flows program. Neither domestic, nor bi-national shortages will occur during the term of Minute 319. Prior to the end of 2017, the US contactors that have agreed to fund binational projects in exchange for binational Intentionally Created Surplus water that can be utilized within the U.S. The environmental flows program for Minute 319 included the completion of the pulse flow experiment in 2014 and the delivery of water on an annual basis to designated habitat sites along the Colorado River delta in Mexico, and the ongoing activities will be documented in monitoring reports.

Colorado River Basin Salinity Control Program

The Work Group is meeting on February 7-9 in San Diego, and anticipated topics of discussion include the 2017 Triennial Review, a review of potential additional salinity control project areas and potential additional scientific research projects.

- 2017 Triennial Review and Economic Damages Modeling

Pursuant to the Clean Water Act, the Work Group, under the direction of the Forum, reviews and updates as appropriate the water quality standards for the program every three years. The water quality standard (Triennial Review) includes the development of a "numeric criteria" that establishes the water quality goals for the program and a "plan of implementation". So far, the states have not elected to change the numeric criteria since the initial 1975 Review. The review process has been focused on the plan of implementation, which is how the states will implement salinity controls so as not to exceed the water quality levels at three downstream measuring points – Below Hoover Dam at 723 mg/L, Below Parker Dam at 747 mg/L, and at Imperial Dam at 879 mg/L.

In San Diego, the Work Group will be discussing the results from modeling four scenarios and looking at the Salinity Economic Impacts Model (SEIM) baseline results. The purpose of the modeling is to evaluate the effects of proposed salinity control measures against the standards set in

the Triennial Review. The Work Group plans to submit a draft Triennial Review to the Forum before the spring 2017 Forum meeting, where the Forum will adopt the draft and have Work Group distribute for public comment. After resolving the comments, the Forum will adopt the 2017 Review at its fall meeting and each state will incorporate the salinity standards into their state's water quality standards.

- Ranking of additional geographical areas for potential hydro-salinity studies

There are a few areas outside of the original twelve formally designated salinity control areas that may be suitable for future salinity control projects. In order to select the areas for further hydro-salinity studies, the Work Group is in the process of creating ranking criteria to identify the new areas that might be studied.

- Management of the Basin States Program

The Basin States Program provides the cost-share mechanism for Reclamation's Basin-wide Program and the NRCS's Environmental Quality Incentives Program. At the June 2016 meeting, the Work Group was tasked to work with Reclamation on possible options to keep the programs funded and address potential funding shortfalls. There is an on-going discussion of short-term and long-term management of the Lower Colorado River Development Fund (LCRBDF). While the states are looking for ways to augment and/or adjust the LCRBDF as a long-term solution, the Advisory Council has been recommending that Reclamation limit expenditure of cost-share dollars from the LCRBDF in several ways, including temporary suspension of advanced repayment for the original salinity control units.

- Paradox Valley Unit

The Paradox Valley Unit (PVU) is a series of brine collection wells and a 16,000-ft deep injection well that prevents approximately 100,000 tons of salt from entering into the Dolores River, a tributary to the Colorado River, each year. The wellhead injection pressure has been increasing towards the maximum permitted injection pressure of 5,350 psi. The long-term injection has likely caused increased seismic activities in the area. The viability of the well has prompted Reclamation to develop a long-term replacement solution to the injection well. The states, as cooperating agencies, participate through meetings and reviews in Reclamation's effort in conducting a PVU Alternative Study/EIS. Reclamation is currently evaluating three alternatives: 1) Siting a deep-injection replacement well, 2) Evaporation ponds, and 3) Brine crystallization technology. Draft reports for studies relating to the evaporation ponds alternative were recently completed regarding: 1) Hydrogen sulfide management, 2) Pond optimization, 3) Byproduct disposal, and 4) Ecological risk assessment. A cooperating agency meeting is expected to be scheduled in the spring of 2017.

At the same time that Reclamation is moving along the EIS process, USGS is evaluating the effectiveness of the PVU by analyzing and comparing pre-project and post-project salt discharge values. USGS recently provided a draft report of their findings, which is being discussed at the February Work Group meeting.

Status of the Glen Canyon Dam Adaptive Management Program and Long-Term Experimental and Management Plan

The Technical Work Group (TWG) of the Glen Canyon Dam Adaptive Management Program (GCDAMP) met in Phoenix, Arizona January 24-26 for a TWG meeting and an Annual Science Reporting meeting, at which research results from the past year were discussed. Preliminary data from the 2016 Fall High Flow Experiment (HFE) was presented to the group, showing that 9 out of 14 sandbars measured so far increased in size following the HFE. More information on these flows will be available within the next several months. Populations of rainbow trout at the sport fishery below Glen Canyon Dam remain low, and the main population of endangered humpback chub, located at the confluence of the Colorado and Little Colorado rivers, skipped spawning for the third consecutive year. Researchers believe that both populations are responding to a lack of food resources, possibly caused by the level of nutrients available in water from Lake Powell. Researchers also questioned whether fall HFEs were affecting the foodbase.

Although population estimates at the Little Colorado River indicate that humpback chub, particularly juvenile fish, may be in the decline, recent surveys have documented an increasing population of chub in the Lower Grand Canyon, close to Lake Mead. Low water levels at Lake Mead have increased the amount of riverine habitat in this area, where water temperatures are warm enough to provide favorable conditions for native fish. Trout removal in tributaries has proved largely successful, and some tributaries may be suitable for translocation of humpback chub, in an effort to boost the population size.

No nonnative green sunfish have been found in the backwater below Glen Canyon Dam which was host to a population of several thousand fish before being chemically treated in fall 2016. Additionally, three system-wide surveys for nonnative fish, from the dam to Lake Mead, in spring, summer, and fall 2016 did not detect any sunfish. An Environmental Assessment is underway to evaluate the option of modifying the backwater that green sunfish have successfully colonized twice, in an attempt to make the conditions less suitable for sunfish and other warmwater nonnatives coming through the dam from Lake Powell. Captures of brown trout in the Lees Ferry area have increased dramatically in recent years, from 25 captures in 2014 to over 500 in 2016. Although the population is still believed to be fairly small, the highly predatory nature of brown trout has managers concerned about potential impacts on native fish populations.

Additionally, the TWG discussed the upcoming Triennial Budget and Work Plan process, which will cover research and program activities for FY18-20. The work plan will be developed over the next six months, and will be reviewed and approved by the Adaptive Management Work Group (AMWG) in August. The AMWG will meet February 15-16 in Tempe, Arizona and the TWG will meet again April 20-21 in Phoenix, Arizona.

Status of the Lower Colorado River Multi-Species Conservation Program

The Lower Colorado River Multi-Species Conservation Program (LCR MSCP) held its annual Colorado River Terrestrial and Riparian meeting on January 24-26, 2017, in Laughlin, Nevada. The purpose of the meeting was to update interested LCR MSCP stakeholders regarding the current status of implementation of the program and the results of restoration, monitoring and research activities that had been conducted over the past year.

The annual surveys conducted in 2016 for the yellow-billed cuckoo indicated that the species is responding very positively to the restoration and management of LCR MSCP riparian habitat. At the Palo Verde Ecological Reserve (PVER) alone, over 200 yellow-billed cuckoos were detected in 2016, including more than 50 breeding pairs.

The results of surveys for southwestern willow flycatcher (WIFL) were similar to last year. While the endangered bird is found to successfully nest at various locations along the Lower Colorado River, currently all of the nests have been found in saltcedar habitat and not within the established LCR MSCP conservation areas. LCR MSCP biologists and researchers are currently in the process of evaluating habitat characteristics at WIFL nesting locations along the middle Rio Grande in New Mexico and the Salt River system in central Arizona. This effort is being conducted to determine if variables such as habitat density, moist soil conditions, availability to open water, or micro-climate conditions such as humidity or temperature are influencing WIFL selection of nesting habitat. On a positive note, surveys did find that WIFL are now beginning to stop at PVER and occupy territories for a period of time. WIFL have not yet successfully nested at PVER, but all indications are that the species may begin nesting and breeding at PVER in the near future. Finally, a rather large population of WIFL has been recently discovered to be utilizing both native and non-native riparian habitat at the upper end of Alamo Lake. LCR MSCP surveyors will continue to monitor this area over the next few years.

A status update was also provided on the distribution of the non-native saltcedar beetle in the southwestern United States. As you may recall, the beetle was intentionally released in 2007 along the Virgin River near St. George, Utah. Additionally, a closely related sub-species of the beetle was released in 2011 in western Texas and along the Lower Rio Grande. Currently the saltcedar beetle has spread down the Lower Colorado River to the area near Parker Dam where the Bill Williams River empties into Lake Havasu. The Texas subspecies continues to move westward and has recently been found in saltcedar habitat near Lordsburg, New Mexico near the Arizona-New Mexico state line. Biologists speculate that this Texas subspecies may reach the Yuma area in as little as one or two years. An updated map of the current distribution of the saltcedar beetle has been included in your Board packet.

Finally, a teleconference call of the LCR MSCP Financial Subcommittee has been scheduled for March 2nd to kick-off discussions related to the development of the Fiscal-Year 2018 budget. Also, a meeting of the LCR MSCP Technical Work Group has been scheduled for March 29th and will be held in Las Vegas, Nevada.

GENERAL UPDATES

(a) Coordination with Six Agency Committee and Colorado River Authority -- Coordination among the Colorado River Board, the Six Agency Committee and Colorado River Authority has continued with respect to several programs. With the exception of the Controller function performed by MWD, Colorado River Board staff members perform the administrative functions for the Six Agency Committee and Colorado River Authority, and coordinate the various programs that are funded through those agencies such as the weather modification programs in Utah, Wyoming and Colorado, the Colorado River Basin Study, new projects such as the development of the Colorado River Basin traveling museum exhibit. Colorado River Board staff assisted with several elements of preparation for the 2016 CRWUA conference, and will continue to be available to assist with preparations for the 2017 conference.

The Board's six statutorily designated agencies fund 100% of the Board's personnel and operating expenses. Efforts are in progress to absorb certain administrative costs, such as the rental of the meeting space for Board meetings and purchase of office computer equipment, directly through the Board's budget as opposed to being paid through the use of staff's personal credit cards and reimbursement through accounts of the Six Agency Committee or the Colorado River Authority. Additional progress should continue to modernize the administrative functions of the office and to consolidate the activities of the Colorado River Board, the Six Agency Committee and the Colorado River Authority.

(b) Accounting and Administrative Updates -- The Colorado River Board currently has three excellent employees, Alina Tishchenko, Lori Jones and Lisa Johansen, who perform the administrative duties for the office and the Board. The State of California has recently begun using a new financial management system called FISCAL, and the Board's staff did a very good job of managing a cumbersome learning process to convert to the new system. To date, during this fiscal year, the Board's procurement, payroll and other administrative functions are running smoothly under the new system. The Board's administrative staff also ensures that the ethics and other administrative functions for the Board members are completed on a timely basis.

The Board's offices are co-located with the Department of Water Resources Southern District offices and the Board subleases its space from DWR, as has been the case at the same location for over 20 years. The current sublease expires in 2017, and DWR personnel are in the process of renegotiating the master lease with the existing landlord. It is anticipated that the Board's rent may be higher in future years. Minimal upgrades have occurred at the facilities during the Board's tenure, but work is underway to obtain improved internet service, modern copying and scanning machines and IT security measures.

(c) Executive Director Transition – As a result of family relocation, I will be resigning as the Executive Director in February 2017, and moving to Washington. Chris Harris, the Board's Deputy Director is expertly poised to transition into the Executive Director's position with no disruption to the implementation of any of the ongoing programs or projects. It has been an extreme honor and pleasure to serve as the Executive Director and to work closely with the member agencies to represent California's interests on the Colorado River. I look forward to staying in touch with the Board members and agency staff and hope to continue to stay connected to Colorado River issues from afar.

Tanya M. Trujillo
Executive Director