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

April 16, 2020

COLORADO RIVER BASIN WATER REPORT

As of April 6th, the water level at Lake Powell was 3,600.47 feet with 11.8 million-acre feet (MAF) of storage, or 48% of capacity. The water level at Lake Mead was 1,098.12 feet with 11.57 MAF of storage, or 44% of capacity. As of April 5th, the total system storage was 30.93 MAF, or 52% of capacity, which is about 4.13 MAF more than the system storage was at this same time last year.

As of April 8th, the Upper Colorado River basin reservoirs, excluding Lake Powell, ranged from 40% of capacity at Fontenelle Reservoir in Wyoming; 86% of capacity at Flaming Gorge Reservoir in Wyoming and Utah; 91% of capacity at Morrow Point and 64% of capacity at Blue Mesa Reservoir in Colorado; and 76% of capacity at Navajo Reservoir in New Mexico.

As of April 3rd, the forecast unregulated inflow into Lake Powell for Water Year 2020 is 8.42 MAF (78% of normal). The forecasted April to July 2020 runoff into Lake Powell for Water Year-2020 is 5.6 MAF (78% of normal). For WY-2020, the March observed Lake Powell inflow was 0.48 MAF (71% of normal), and the April Lake Powell inflow forecast is 0.73 MAF (69% of normal). To date, the Water Year-2020 precipitation is 90% of normal and the current Basin snowpack is 105% of normal.

A short webinar was held by the U.S. Bureau of Reclamation on April 15, 2020, to roll out the April 2020 24-Month Study Report. Highlights from the webinar included (1) that the winter snowpack was slightly above average, (2) that the runoff appears to have started in the Upper Basin on about April 1st, (3) as mentioned above, the forecast April-July inflow into Lake Powell is estimated to be 5.6 MAF, and (4) for Water-Year 2020, operations are in the Upper Elevation Balancing Tier and the release from Glen Canyon Dam will be 8.23 MAF. A copy of the power-point presentation for the April 2020 24-Month Study Report has been included in the materials distributed with this report.

Colorado Basin River Forecast Center Water Supply Webinar

On April 7th, the Colorado Basin River Forecast Center (CBRFC) held a webinar to review the water supply conditions and forecast for Water-Year 2020. Storm activity in March greatly benefited the Lower Colorado River and Virgin River Basins. In March, precipitation conditions

in the Upper Basin were slightly below average with the exception of the Upper Green River Basin. Water-Year precipitation from October to March is below average throughout the Upper Basin, with exception to the Yampa/White River Basin, which is slightly above average. Water-Year precipitation in the Lower Basin is normal to slightly above normal. Temperatures in March were near normal to below normal which resulted in minimal snowmelt.

Overall, the early April snow water equivalent, or SWE, was near to slightly above median, with the best conditions in the Upper Colorado, Yampa, parts of the Upper Green River Basin and Virgin River Basins. It is expected that April weather conditions will likely follow a typical spring weather pattern with periods of warming, mixed with wet and cool periods. It is anticipated that snowmelt and runoff could begin during the second week of April.

The next webinar from the CRBFC to discuss water supply conditions is scheduled for May 7, 2020.

U.S. Bureau of Reclamation Initiates Review of Interim Guidelines for the Operation of Lakes Powell and Mead

Reclamation recently held two informational webinars for Colorado River Basin stakeholders associated with its proposed "effectiveness review" of the 2007 *Interim Guidelines for Lower Basin Shortages and the Coordinated Operation of Lakes Powell and Mead* (Guidelines). This effectiveness review is being conducted pursuant to Part G., Section 7.D of the Guidelines (page 56). The 2007 Guidelines have provided a set of guidelines, rules and processes that have been utilized by Reclamation to manage reservoir operations and incentivize conservation in the Colorado River Basin. Specifically, the Guidelines included four important elements, including:

- Determine those circumstances under which the Secretary would reduce the annual amount of water available for consumptive use from Lake Mead to the Lower Division states below 7.5 maf (i.e., a "Shortage") pursuant to Article II(B)(3) of the Consolidated Decree;

- Define the coordinated operation of Lake Powell and Lake Mead to provide improved operation of these two reservoirs, particularly under low reservoir conditions;

- Allow for the storage and delivery, pursuant to applicable federal law, of conserved Colorado River system and non-system water in Lake Mead, particularly under drought and low reservoir conditions; and

- Determine those conditions under which the Secretary may declare the availability of surplus water for use within the Lower Division states, modifying the substance of the

existing 2001 Interim Surplus Guidelines from 2016 through 2026.[1]

The 2007 Guidelines also implement the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs pursuant to the Colorado River Basin Project Act of September 30, 1968 (Long-Range Operating Criteria or Operating Criteria, or LROC), through preparation and implementation of the Annual Operating Plan for Colorado River Reservoirs (AOP). The 2007 Guidelines are slated to remain in effect through December 31st, 2025 including through preparation of the 2026 AOP.

As mentioned above, pursuant to Part G, Section 7.D of the Record of Decision for the Guidelines, beginning no later than December 31, 2020, the Secretary of Interior, in consultation with the Basin States, is required to initiate a formal review to evaluate the effectiveness of the Guidelines. Reclamation formally initiated the effectiveness review through webinars conducted on March 24th and 31st, 2020 (a copy of Reclamation's webinar presentation has been included in the April Board materials). Board staff participated in these webinars, which provided a high-level overview of the Guidelines and Reclamation's proposed scope, approach and process, and schedule for conducting the effectiveness review. Reclamation was clear that effectiveness review will be focused on a retrospective review of past operations and actions under the 2007 Guidelines, and not a consideration of future activities. The effectiveness review will consider four elements:

- Adherence to common themes in the Guidelines;
- Effectiveness with respect to the stated purposes of the Guidelines;
- Does not imply correctness of any particular operational provision (for example, the effectiveness review will not evaluate benefits or impacts experienced by specific water users); and,
- Evaluating operational elements, not specific provisions.

Reclamation provided the following schedule for conducting the effectiveness review:

May 1, 2020	Deadline to provide comments and feedback on the proposed scope of work
July 2020	Reclamation releases Preliminary Draft Effectiveness Review Report
July – September, 2020	Reclamation conducts webinars and meetings with Basin States, Tribes, other Federal agencies, NGOs, and others, and solicits comments on Draft Report.
October - November, 2020	Reclamation prepares and distributes Draft Final Report to Basin States, Tribes, other Federal agencies, NGOs, and others for final comments.
December 2020	Final Report is completed in time for Colorado River Water Users Association meeting.

[1] U.S. Bureau of Reclamation 2007, *Record of Decision—Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead*. Available at https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf.

2019 Colorado River Accounting and Water Use Report: Arizona, California, and Nevada (Water Accounting Report

Reclamation released the first draft of the 2019 Water Accounting Report on April 3, 2020 for review by Arizona, California, and Nevada. Comments on the first draft were due April 13, 2020. The second draft will be provided later in April. The Water Accounting Report is required pursuant to Article V of the Consolidated Decree of the United States Supreme Court in Arizona v. California, 547 U.S. 150 (2006) (Consolidated Decree). Contents of the Water Accounting Report include:

- Releases of water through regulatory structures controlled by the United States;
- Diversions of water from the mainstream, return flow of such water to the stream as is available for consumptive use in the United States or in satisfaction of the Mexican Treaty obligation, and consumptive use of such water. These quantities are stated separately as to each diverter from the mainstream, each point of diversion, and each of the States of Arizona, California and Nevada;
- Releases of mainstream water pursuant to orders therefor but not diverted by the party ordering the same, and the quantity of such water delivered to Mexico in satisfaction of the Mexican Treaty or diverted by others in satisfaction of rights decreed herein. These quantities are stated separately as to each diverter from the mainstream, each point of diversion, and each of the States of Arizona, California and Nevada;
- Deliveries to Mexico of water in satisfaction of the obligations of Part III of the Treaty of February 3, 1944, and, separately stated, water passing to Mexico in excess of treaty requirements; and
- Diversions of water from the mainstream of the Gila and San Francisco Rivers and the consumptive use of such water, for the benefit of the Gila National Forest."

2021 Colorado River Annual Operation Plan (AOP) Consultation Meetings

Reclamation has scheduled consultation meetings for the 2021 AOP. The AOP contains the projected plan of operation of Colorado River reservoirs for the next year based on the most probable runoff conditions. The plan of operation reflects the use of the reservoirs for all purposes consistent with the Long-Range Operating Criteria. The AOP incorporates the 2007 Guidelines, the Lower Basin Drought Contingency Plan Agreement (LB DCP Agreement), and Minute No. 323 of the International Boundary and Water Commission (IBWC). The Consultation Meetings are scheduled as follows:

- First consultation (via webinar only): Monday, June 1, 2020, 1:00 pm – 4:00 pm PDT
- Second consultation (Las Vegas)*: Thursday, July 23, 2020, 10:00 am to 1:00 pm PDT
- Third consultation (Las Vegas)*: Thursday, September 3, 2020, from 10:00 am to 1:00 pm PDT.

Due to the current COVID-19 situation, Reclamation has indicated that the second and third AOP consultation meetings may be held as webinars only.

COLORADO RIVER BASIN PROGRAM UPDATES

Colorado River Basin Salinity Control Program

Paradox Valley EIS

The Paradox Valley salinity control unit (PVU) is one of the original salinity control projects authorized under Title II of the 1974 Colorado River Basin Salinity Control Act (P.L. 93-320, as amended). The PVU is comprised of a series of brine collection wells and a deep injection disposal well that has prevented approximately 100,000 tons of salt each year from entering the waters of the Colorado River until its closure in March 2019 due to seismic activity. Reclamation has identified four PVU replacement alternatives in the Draft EIS released on December 6, 2019, including: A) No Action, B) New Injection Well, C) Evaporation Ponds, and D) Zero Liquid Discharge at locations shown in Figure 1. The public comment period for the Draft PVU EIS ended on February 19th, 2020. The Board and several Board member agencies submitted comments on the Draft PVU EIS consistent with positions taken by the Colorado River Basin Salinity Control Forum.

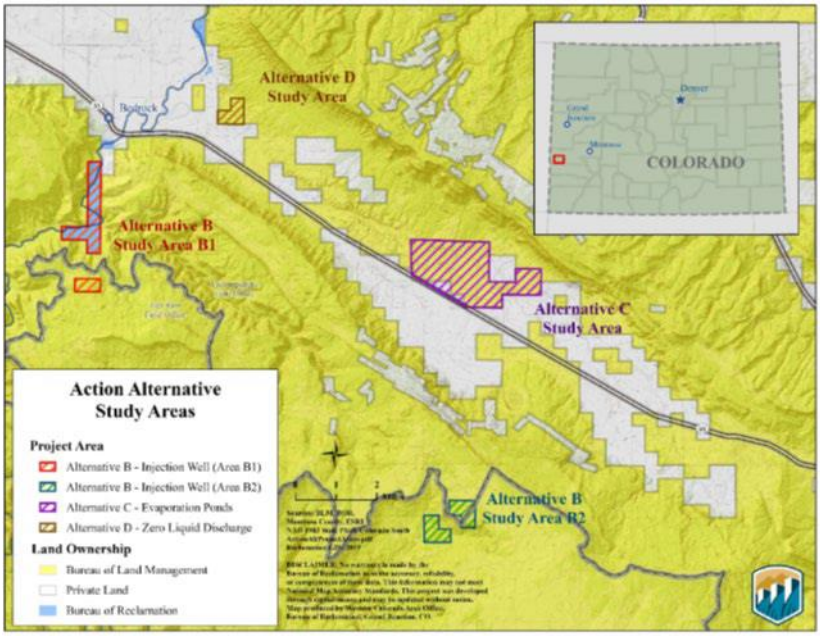

Figure 1. PVU Alternative Locations

Reclamation has indicated it will release the Administrative Draft of the Final EIS on April 17, 2020, for a 30-day review by the cooperating agencies. As the cooperating agency for California, the Board will coordinate consensus comments with cooperating agencies from the other basin states. The Final EIS is scheduled for release in July 2020, with a Record of Decision in August 2020.

Test of PVU Injection Well Operations

Reclamation has announced it is planning to begin a 6-month test of a reduced rate of injection well operations at the PVU starting in April. During the six-month test, which will be conducted at a 32% reduced injection rate, Reclamation will closely monitor the injection pressure and seismic response near the well. If any abnormal responses are observed, the well will be shut down for evaluation. Based on the data collected during the test, a decision will be made to determine future operations for the well.

Upcoming Colorado River Basin Salinity Control Forum Meetings

Responding to the COVID-19 pandemic, the April 27-29, 2020, Colorado River Basin Salinity Control Forum (Forum) Work Group meeting will be conducted via webinar. The Forum is evaluating options for the June 2-5, 2020 meetings, which may include rescheduling as in-person meetings or conducting as webinars.

Glen Canyon Dam Adaptive Management Program

The Technical Team established under the Long-Term Experimental and Management Plan (LTEMP) has met several times over the last month via teleconference to discuss potential experimental releases from Glen Canyon Dam in spring and summer 2020. The Technical Team determined that resource conditions were insufficient to trigger a spring high flow experiment (HFE) release, but discussions continue on the possible implementation of "bug flows" from May-August 2020. These low, steady weekend flows were conducted in summer 2018 and 2019 and are intended to boost production of aquatic invertebrates that are a critical part of the river's food chain. Results from the first two years of implementation have been inconclusive, and researchers hoped to increase clarity with a third year of implementation. However, the coronavirus pandemic has restricted access to the river and limited the ability to conduct monitoring needed to assess the experiment's effectiveness. The Tech Team will make a recommendation on whether to implement "bug flows" by April 17th.

The Technical Work Group (TWG) of the Glen Canyon Dam Adaptive Management Program will meet via teleconference on April 15-16 and the Adaptive Management Work Group (AMWG) will meet via teleconference on May 20th.

Lower Colorado River Multi-Species Conservation Program

The Lower Colorado River Multi-Species Conservation Program (LCR MSCP) Work Group met via teleconference on March 23rd. The group discussed four minor modifications to the program's Habitat Conservation Plan (HCP) based on insight gained through research and program implementation. One of the proposed modifications would strike language referring to a goal of maintaining a population of 50,000 razorback sucker in Lake Mohave for genetic diversity of the

species; program implementation and recent genetic work suggests that this population target is both unrealistic and unnecessary to maintain genetic diversity. The other three minor modifications would remove references to discrete values that marsh surface fluctuations must be maintained below for the benefit of the California black rail, Yuma clapper rail, and western least bittern. Not only do the realities of habitat management make these requirements difficult to meet or assess, but research conducted since the program was implemented in 2005 suggests that these specific water fluctuation limitations are not critical for marsh birds.

The LCR MSCP Steering Committee will meet via teleconference on April 22nd and will further discuss these proposed minor modifications.

Litigation Update: Save the Colorado v. Department of Interior

On April 2nd, the States of Arizona, California, Colorado, Nevada, Utah, and Wyoming filed a joint motion to intervene in Save the Colorado v. U.S. Department of Interior (DOI). The State of New Mexico intends to file an amicus brief in support of DOI. On October 1st, 2019, the lawsuit was filed by Save the Colorado, Living Rivers, and the Center for Biological Diversity against DOI and the Secretary of the Interior. The suit alleges that the 2016 Long-Term Experimental and Management Plan (LTEMP), which directs monthly, daily, and hourly releases from Glen Canyon Dam, failed to adequately consider the impacts of climate change on operation of Glen Canyon Dam. The plaintiffs seek to invalidate the 2016 Record of Decision (ROD) and prompt consideration of a broader range of alternatives that proponents claim will perform better under climate change conditions, including decommissioning Glen Canyon Dam, run-of-the-river operations, and the "Fill Mead First" proposal. These three operational strategies would all eliminate or drastically reduce storage of water in Glen Canyon Dam. The motion to intervene has been included in the Board packet.

GENERAL ANNOUNCEMENTS AND UPDATES

Basin States Climate and Hydrology State of the Science Report

On Thursday, April 9th, the Western Water Assessment (WWA) released the final Colorado River Basin Climate and Hydrology: State of the Science (SOS) report. The WWA, in partnership with the Cooperative Institute for Research in Environmental Science (CIRES) and the University of Colorado, Boulder began development of the report at the end of 2018. In August 2018, the Six Agency Committee approved funding of $15,000 for the SOS report, joining other funders across the Colorado River Basin, which also includes The Metropolitan Water District of Southern California. In February, CRB Staff reviewed and provided comments to the draft report, which were later incorporated into the final document.

The goal of the SOS report is to assess and ultimately advance the current understanding of the Colorado River Basin's hydroclimate in order to improve short-to mid-term forecasting abilities and long-term projections. The report is presented in four volumes, with the first volume laying out the background and context of the report, the current understanding of the Basin's hydrology and climate including an analysis of the primary planning tools, such as the 24-Month Study, utilized by Reclamation to make water management decisions. The second volume analyzes the primary data and models employed to monitor the Basin's climate, weather and hydrologic conditions across all time horizons. The report's third volume analyzes the short-to-mid-term forecasting tools used to forecast weather climate, and streamflow conditions in the Basin. The fourth, and final volume examines the methods and models used to develop plausible hydrologic traces which can be utilized to inform long-term planning, from a 5-year to 50-year time horizon.

The full report, including a Two-Page Overview can be found at the following link: https://wwa.colorado.edu/publications/reports/CRBreport/.

Washington, D.C. Updates

Corona Virus Economic Support/ Stimulus Legislation

Last month, phase three Coronavirus related legislation was signed into law to provide over $2 trillion dollars in aid. The Coronavirus Aid, Relief and Economic Security (CARES) Act will help large corporations, small businesses and nonprofits ensure for their continuity of operations. Additionally, every American with an income less than $75,000 will receive a check for $1,200 within the next three weeks.

EPA Regulatory Enforcement and Guidance Related to Covid-19

Two weeks ago, the Environmental Protection Agency (EPA) announced that they would indefinitely relax enforcement of environmental laws relating to civil compliance with industrial air and water pollution laws. Those in noncompliance need to be able to cite how COVID-19 has kept them out of compliance and explain their best efforts to address their pollution issues. EPA based this decision on quarantine and illness problems that have limited staff availability to ensure proper monitoring of air emissions, wastewater discharges, and filing reports.

However, EPA did announce that water monitoring for drinking water treatment would continue and is the Agency's current highest priority. Additionally, on March 27th, EPA sent letters to governors "to request that water and wastewater workers, as well as the manufacturers and suppliers who provide vital services and materials to the water sector, are considered essential workers and businesses by state authorities when enacting restrictions to curb the spread of COVID-19."

House Natural Resources Committee Action on Water Bills

Before Congress departed, on March 11th, the House Natural Resources Committee reported out a number of water security bills for consideration by the full House of Representatives. These bills included the Water Recycling Investment and Improvement Act (H.R. 1162), the Securing Access for the Central Valley and Enhancing (SAVE) Water Resources Act (H.R. 2472), the Desalinization Development Act (H.R. 3723), and the Western Water Security Act (H.R. 4891).

- **Water Recycling Investment and Improvement Act (H.R. 1162)** would modify the competitive grant program for water recycling and reuse projects contained in the Reclamation Wastewater and Groundwater Study and Facilities Act (43 USC §390h). The proposed amendment to the program would remove the priority for projects in areas that are experiencing drought or some other state-designated disaster. It retains the criteria prioritizing projects that are regional, have multiple stakeholders, provide multiple benefits, create a more reliable water supply for States and local governments, increase water management flexibility, and reduce impacts on environmental resources from State/Federal projects. It would also increase authorized funds from $50M to $500M until expended. The Committee approved the amended bill by a vote of 19-12.
- **Securing Access for the Central Valley and Enhancing (SAVE) Water Resources Act (H.R. 2473)** would establish a Water Infrastructure and Drought Solutions Fund. It directs the Secretary of the Interior to evaluate potential beneficial groundwater storage and recharge opportunities, with associated infrastructure needs, in overdrafted basins within the Reclamation States in coordination with state agencies. It establishes a pilot program under a Reclamation Infrastructure Finance and Innovation Act (RIFIA) providing financial assistance for eligible projects. It reauthorizes the expired 2006 Rural Water Supply Act through 2026. Identical to H.R. 1162, it modifies the competitive grant program for water recycling and reuse. It establishes a prize competition for water technology advancements, and a program for investing in the expanded use of technology that improves the availability and resiliency of water supplies and power deliveries. The Committee approved the amended bill by a vote of 19-12.
- **Desalinization Development Act (H.R. 3723)** would promote eligible ocean or brackish water desalination facilities, in Reclamation States, constructed, operated, and maintained by a State, Indian Tribe, irrigation district, water district, or other organization with water or power delivery authority, or funded by States or their subdivisions, offering a 25% federal cost share. The bill authorizes $260M through FY2024. The bill was approved by a 13-10 vote.
- **Western Water Security Act (H.R. 4891)** would reauthorize the WaterSMART program and expand it to include groundwater storage projects, create a new program for desalination projects, and authorize emergency drought funding for water management entities in the West. The Committee approved the bill by a vote of 14-11.

Drought Study on Colorado River and Southern California Water Resources

Last month, the Journal of the American Water Resources Association published a study on Southern California's Water Supply. This study looked at 600 years of data to suggest that perfect drought, a drought in which water supplies are also outstripped as result of widespread and long-lasting drought, have become increasing temporarily clustered. The study referred to five "perfect droughts" that have occurred since 1906, and specifically referenced the most recent one in 2012-2015. The study suggests that these occurrences are likely to continue with warmer weather and increased water demand.

Specific to the Colorado River and Southern California the study states: "Projections for Colorado River flow point to decreasing runoff, even if precipitation remains the same, with an increasing risk of decadal and multi-decadal drought. Likewise, water supplies in the central and northern parts of California are anticipated to be negatively impacted by warming temperatures, which will also cause shifts in seasonality of flow and a greater mismatch between timing of reservoir storage and water demand."

Guidelines for Reclamation Project Transfers to Local Entities

On March 23rd, the USBR issued project transfer guidelines pursuant to the John D. Dingell, Jr. Conservation, Management and Recreation Act (P.L. 116-9). These guidelines will allow for the transfer of certain USBR projects to local entities without prior congressional approval. The guidelines state that prior to a title transfer USBR must go through a public outreach process as well as determine that the transfer: (1) is in the financial interest of the United States; (2) protects public aspects of the facility, e.g., water rights, flood control, fish and wildlife; (3) complies with all federal and state laws; (4) will have no adverse impact on existing water or power delivery obligations; and (5) does not conflict with interstate compacts and agreements, tribal and international treaties, or trustee responsibilities toward federally recognized tribes.

2018 California Integrated Report and Clean Water Act section 303(d) list

On March 19, 2020, the State Water Resources Control Board (State Board) released the draft 2018 California Integrated Report and Clean Water Act section 303(d) list, which includes recommendations from the Lahontan, Colorado River, and North Coast Regional Water Boards. Section 303(d) of the federal Clean Water Act requires each state to identify waters that do not meet, or are not expected to meet by the next listing cycle, applicable water quality standards and to prioritize those waters for total maximum daily load development, unless other corrective action is appropriate (commonly referred to as the "303(d) list").

This topic has been tracked by Board staff and Board agencies since the draft Integrated Report and Clean Water Act section 303(d) list was published by the Colorado River Regional Water Quality Control Board on October 1, 2019. Board staff coordinated responses with Board agencies on the October draft report with respect to several constituents proposed for the Colorado

River, including total dissolved solids, sodium, manganese, and turbidity. Our responses resulted in the removal of total dissolved solids and sodium from the proposed 303(d) list. However, upon review by the State Board it appears all four of these constituents remain on the proposed 303(d) list in the April draft 2018 California Integrated Report.

The State Board is accepting comments on the draft 2018 California Integrated Report and Clean Water Act section 303(d) list. Comments must be received no later than 12:00 noon on Thursday, April 30, 2020. Comment letters may be submitted electronically, in .pdf text format if less than 15 megabytes in total size, to the Clerk to the Board via email at commentletters@waterboards.ca.gov.