

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

January 13, 2021

COLORADO RIVER BASIN WATER SUPPLY CONDITIONS REPORT

As of January 4th, the surface water elevation at Lake Powell was 3,581.80 feet with 10.1 million-acre feet (MAF) of storage, or 42% of capacity. The surface water elevation at Lake Mead was 1,083.89 feet with 10.34 MAF of storage, or 40% of capacity. As of January 3rd, the total system storage was 27.50 MAF, or 46% of capacity, which is about 3.8 MAF less than the total system storage at this same time last year.

As of January 6th, the Upper Basin reservoirs, excluding Lake Powell, ranged from 53% of capacity at Fontenelle Reservoir in Wyoming; 84% of capacity at Flaming Gorge Reservoir in Wyoming and Utah; 92% of capacity at Morrow Point, and 48% of capacity at Blue Mesa Reservoir in Colorado; and 63% of capacity at Navajo Reservoir in New Mexico.

As of December 16, 2020, the forecasted unregulated inflow into Lake Powell for Water Year (WY) 2021 is 6.23 MAF (58% of normal). The forecasted April through July 2021 runoff into Lake Powell for Water Year-2021 is 4.05 MAF (57% of normal). For WY-2021, the November observed Lake Powell inflow was 0.26 MAF (55% of normal), and the December Lake Powell inflow forecast is 0.21 MAF (58% of normal). To date, WY-2021 precipitation is 65% and the current basin snowpack is 75% of normal.

Colorado Basin River Forecast Center Webinar

On January 8th, the Colorado Basin River Forecast Center (CBRFC) held a webinar to review the Basin's current water supply conditions and forecasts. CBRFC provided a brief review of precipitation conditions of Water Year-2020, noting that April to September 2020 was one of the driest time periods on record with precipitation conditions at several SNOTEL locations in the Basin below the 10th percentile.

Precipitation conditions for Water Year 2021 (WY-2021) through December 2020, were dry throughout the Basin, with extremely dry conditions in the Lower Colorado Basin. Current soil moisture conditions are worse than they were this time last year. The modeled soil moisture

conditions rank in the bottom fifth across the Upper Colorado Basin over the 1981-2020 period, with the San Juan and Dolores basins ranked in the bottom third. Early observed snow conditions in the Upper Colorado Basin range from 60% to 80% percent of median, while conditions in the Lower Colorado Basin are worse, ranging from 5% to 40% of median.

The January water supply forecast for the Upper Colorado ranges from 40% to 80% of normal. The January water supply forecast for Lake Powell is 53% of normal. The CBRFC projects that there is a 30% chance that the April to July runoff for WY-2021 will be in the bottom five lowest inflows. To date, the five lowest April to July inflows for Lake Powell are 2002 (13% of average), 1977 (17% of average), 2012 (29% of average), 2013 (36% of average), and 2018 (36% of average). In the Lower Colorado Basin, the January water supply forecast ranges from 10% to 40% of normal.

The CBRFC also discussed its process for analyzing historical forecast errors. The CBRFC analyzed the error at several locations, that included the Green River, Fontenelle Reservoir, Navajo Reservoir, and the Virgin River and found that the error ranged from 20 to 30%, with a 44% forecast error at the Virgin River. The CBRFC explained that the forecast error decreases as the season progresses. Generally, the CBRFC's forecasting ability is better in headwaters as well as areas that are primarily driven by snow melt and where there are known diversions and demands. Conversely, its forecasting ability is weaker in areas at lower elevations, where precipitation falls as rain or experiences early snow melt, and basins that have downstream diversions or little is known about diversion and demands.

It is anticipated that over the next two or three weeks, a ridging pattern will bring drier than normal precipitation conditions. La Nina conditions will continue to increase chances of dry winter precipitation conditions in the Lower Colorado River Basin. The CBRFC does not expect any significant amount of precipitation which will result in decreased water supply forecasts in the future. The next Colorado River Basin Water Supply Briefing is scheduled on February 5th.

Upper Colorado River Commission 2016 Demand Schedule

On December 9, 2020, the Bureau of Reclamation (Reclamation) hosted a webinar to discuss the incorporation of the 2016 Upper Colorado River Commission (UCRC) depletion demand schedule into Reclamation's Colorado River Simulation System (CRSS) long-term planning model.

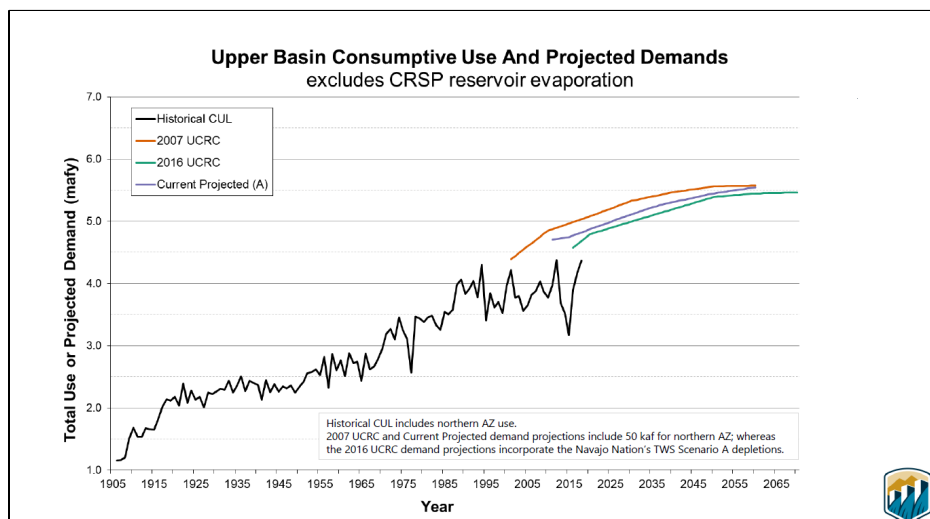
Reclamation provided a brief background, the key modeling assumptions and inputs for CRSS and explained that model is the primary tool for analyzing future river and reservoir conditions providing a range of potential future systems conditions. Before the incorporation of the 2016

UCRC demands, the 2007 UCRC demand schedule was used in official CRSS projections and several planning projects since 2008.

Reclamation worked closely with the UCRC and Upper Basin States to disaggregate each state’s 2016 demands temporally and spatially in order to incorporate them into CRSS’s new water use sector-based layout for the Upper Basin. Reclamation also ensured that tribal demands represented in the 2017 Tribal Water Study were also incorporated into CRSS.

Figure 1 displays the historical Upper Basin consumptive use and projected demands of the 2007 and 2016 UCRC demand schedule and the 2012 Basin Study “Current Projected, Scenario A” projected demands. The figure shows that the projected demands for 2016 are slightly lower than the 2007 UCRC demands. However, the projected demands are significantly higher than recent historical demands.

Figure 1: Upper Basin Consumptive Use and Projected Demands



Reclamation ran CRSS to compare the 2007 and 2016 UCRC demand schedules using both the Full and Stress Test hydrology datasets as well as used the rules for extended the operations of the 2007 Interim Guidelines, Lower Basin Drought Contingency Plan, Upper Basin Drought Operations, and Minute No. 323 policies until 2060. The results projected increased inflows into Lake Powell, as well as higher end-of-December elevations for Lakes Powell and Mead. In addition, Reclamation ran a verification model using initial conditions from December 1999, the 2000 –2018 computed natural flows and the 2016 demands to calculate depletions and compare them to observed stream and reservoir inflow gages. The results provided crucial information on the model’s errors and biases that will allow Reclamation to improve how the model calculates depletions.

On December 23, 2020, Reclamation provided an updated version of the webinar presentation with the final CRSS results using the 2016 UCRC demands with monthly distributions based on the average 2000 – 2018 Consumptive Uses and Loses average data by sector and CRSS node. Reclamation expects to use the 2016 UCRC demands in the January 2021 CRSS projections.

COLORADO RIVER BASIN PROGRAM UPDATES

Colorado River Basin Salinity Control Program

Paradox Valley Salinity Control Program

On December 11, 2020, Reclamation published the Paradox Valley Salinity Control Project Final EIS via this link: <https://www.usbr.gov/uc/progact/paradox/index.html>. The Final EIS is the culmination of the environmental review process to identify a replacement salinity control project for PVU that was initiated with scoping in 2012. 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 identified four PVU replacement alternatives in the Final EIS, including: A) No Action, B) New Injection Well, C) Evaporation Ponds, and D) Zero Liquid Discharge.

As first reported at the December Board meeting, contrary to the wishes of the seven Basin States, Reclamation has selected the No Action Alternative as the preferred alternative in Paradox Valley. Combined with the continued closure of the existing PVU brine injection well, the No Action Alternative leaves no salinity control in Paradox Valley for the foreseeable future. There is a possibility that the existing PVU operations will be restarted, but there is no clear timeline from Reclamation when this will occur due to concerns about recent seismic activity in November and December 2020. The Basin States supported the evaporation pond alternative. Challenges with the evaporation pond alternative include a large footprint of 600 acres relative to the other alternatives, including the inclusion of an onsite 60-acre permanent landfill for disposal of harvested salt.

Board staff are working closely with the Basin States to identify a pathway with Reclamation for continued long-term salinity control in Paradox Valley. A copy of the Board's December 29, 2020, letter to Reclamation on the Final EIS is attached to the Board packet. The Board's letter is similar

in content to the December 18, 2020, letter developed by the Salinity Control Forum, also included in the packet. Several of the Board's member agencies have also submitted letters to Reclamation. The Board's letter highlights the belief that working collaboratively with Reclamation, the seven Colorado River Basin States, and other stakeholders in the Basin, a suitable replacement project in Paradox Valley can be developed that mitigates against the environmental concerns identified in the FEIS. The letter requests that Reclamation not issue a Record of Decision for the Final EIS until all options have been explored for continued salinity control in Paradox Valley.

Glen Canyon Dam Adaptive Management Program

The National Park Service (NPS) held its annual Colorado River Steering Committee meeting virtually over three days: December 2, 4, and 10, 2020. Due to the virtual nature of this year's meeting, NPS invited partners across the Colorado River Basin to join the meeting. The first two days of talks included presentations on current research, tribal perspectives, and natural resource planning in the parks along the Colorado River. The third day included a forum for Basin stakeholders to discuss their concerns and priorities on natural resources and river management. A common theme throughout the meetings was the need for NPS to be included in aspects of the upcoming Interim Guidelines negotiations. Research needs were also discussed, including the effects of potential management measures of native fish, the potential for river restoration in the Upper Basin, and the uncertainty of evaporation rates at Lake Powell. Reclamation reported that a study currently underway will provide additional information regarding the evaporation rates at Lake Powell.

The Glen Canyon Dam Adaptive Management Program's Technical Work Group will meet January 20-22 for a meeting in conjunction with the Program's Annual Reporting meeting, which summarizes the previous year's research and the status of resources.

GENERAL ANNOUNCEMENTS AND UPDATES

Effectiveness Review of the 2007 Colorado River Interim Operating Guidelines

On December 18, 2020, Reclamation released the final "effectiveness review" report of the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations of Lake Powell and Lake Mead (2007 Interim Guidelines). The effectiveness review was required pursuant to Part G, Section 7, Subsection D of the 2007 Interim Guidelines. The review provides an evaluation of the effectiveness of the guidelines with respect to the purposes and operational

elements of the 2007 Interim Guidelines. The following are key highlights from the 7D Review Report:

- The Guidelines provide objective operational criteria for a full range of reservoir elevations for Lakes Powell and Mead.
- Due to the persistence and magnitude of the drought, solely operating according to the Guidelines was not sufficient to prevent reaching critically low elevations.
- The Guidelines provide water users in the Lower Division states a greater degree of predictability.
- The Guidelines encourage conservation and provide additional mechanisms for the storage and delivery of water supplies in Lake Mead.
- The Guidelines provide clear definition on the specific and objective Shortage Conditions that facilitated planning.

The report is available at the following link: <https://www.usbr.gov/ColoradoRiverBasin/>

Hydrologic Periods Webinar

On December 16, 2020, Board staff presented a webinar to the Board's member agency technical staff on the hydrologic periods used in the modeling studies performed by Reclamation using CRSS. A critical consideration for the Basin States in choosing a hydrologic period or periods for use in CRSS studies is to reasonably capture current and future water supply conditions including uncertainties associated with future drought and warming temperatures. The selection of hydrologic periods forms the explicit representation of the total water supplies available to meet System needs for the municipal, agricultural, and environmental sectors. Further, the selection of a dry hydrologic period is necessary to determine the safe yield of the system under a defined drought. It is to the advantage of the Basin States to select several hydrologic periods for use in CRSS studies to evaluate a range of likely plausible future conditions, including dry periods and a changing climate.

State of Utah – Navajo Nation Water Rights Settlement

The President's signature of the 2020 Omnibus Spending Bill (P.L. 116-673) at the end of December includes approval of the Navajo Utah Water Rights Settlement Act (H.R. 644). The Navajo Utah Water Rights Settlement Act will:

- Settle all current and future claims by the Navajo Nation for water rights within Utah;
- Ratify the proposed water rights settlement between the Navajo Nation and the State of Utah, confirming the Navajo Nation's right to deplete 81,500 acre-feet of water per year from Utah's Colorado River Basin apportionment; and

- Authorize approximately \$220 million for water infrastructure to provide water infrastructure, which will provide clean drinking water, to Navajo communities in Utah.

Windy Gap Firming Project Update

On December 10, 2020, a U.S. District Court judge ruled in favor of the Windy Gap Firming Project, dismissing a suit brought by Save the Colorado and enabling construction to move forward on the project's Chimney Hollow Reservoir in Colorado. The Windy Gap Firming Project is intended to increase the reliability of the existing Windy Gap Project, which was constructed in 1985 and can provide as much as 90,000 AF of water to parties on Colorado's Eastern Slope. The Windy Gap Project uses the infrastructure of the Colorado-Big Thompson Project to deliver water from the upper reaches of the Colorado River to Colorado's Front Range communities. However, during wet cycles this infrastructure lacks the capacity to store Windy Gap Project water. The additional storage provided by Chimney Hollow Reservoir is intended to guarantee an annual supply of 30,000 AF from the Windy Gap Project for its twelve participating parties. Construction of the Windy Gap Firming Project is expected to begin in 2022.

Colorado River Water Users Association "Federal Friday" Presentation

Although the annual Colorado River Water Users Association (CRWUA) conference was cancelled in 2020 due to the coronavirus pandemic, a virtual "Federal Friday" event was hosted by CRWUA on December 18, 2020, featuring speakers from the U.S. Department of the Interior, Bureau of Reclamation, and others who provided updates on federal program and initiatives. Speakers included CRWUA President John Entsminger; staff with the Bureau of Reclamation; various members of the Water Sub-Cabinet; IBWC Commissioners Humberto Marengo and Jayne Harkens; Minute 323 work group leadership; and keynote speaker Reclamation Commissioner Brenda Burman. Speakers highlighted the recent achievements of the Colorado River Basin stakeholders, including the implementation of Minute 319, Minute 323, and the Drought Contingency Plans (DCPs), and stressed the need to continue pursuing collaborative and innovative solutions when tackling future challenges across the Basin.

Bureau of Reclamation Appointment

On December 18, 2020, Commissioner Brenda Burman named Mr. Wayne Pullan regional director for the Upper Colorado River Basin Region. Mr. Pullan has more than 25 years of Reclamation experience and assumed his duties as regional director on December 20, 2020. Mr. Pullan most recently served as the deputy regional director for the Upper Colorado Region. In that role, he worked on infrastructure rehabilitation, endangered species recovery, Indian water

rights settlements, water quality improvement, and municipal and irrigation water supply planning. Mr. Pullan's many years of service include serving as area manager of the Provo Area Office and as program coordinator in the Department of Interior's Central Utah Project Completion Act Office.

Washington, D.C. Report

The 117th Congress

On Sunday, January 3rd, the House of Representatives gaveled in for the start of the 117th Congress and Nancy Pelosi was reelected Speaker of the House by a two-vote margin. The makeup of the Senate will be evenly divided 50-50 amongst Democrats and Republicans, Vice President-elect Kamala Harris (D) will have an additional tie breaking vote giving Democrats a slim majority. Two Georgia Senate special elections determined control of the upper chamber; Rev. Raphael Warnock (D) defeated incumbent Senator Kelly Loeffler (R), and incumbent Senator David Perdue was defeated by John Ossoff (D). President-Elect Biden will have clearer control over America's legislative agenda for at least the next two years.

The last Senate 50-50 split occurred for a few months in 2001, before a senator changed parties, when Democratic leader Tom Daschle and Republican leader Trent Lott struck a power-sharing agreement that provided for evenly divided committee rosters. Funding for staffers and office space — huge issues in the Senate — were divided equally between the two parties. In 2001, the Senate adopted unique rules that allowed either Lott or Daschle to move bills and nominations if there was a deadlock inside the committees.

The current scenario will be the fourth tied Senate in US history, leaving a degree of uncertainty about how the parties will operate. The Senate could replicate that 2001 agreement, as current Majority Leader Sen. Mitch McConnell (R-KY) suggested in 2016, but many are skeptical, given the increased polarization in the Senate.

Regardless of the potential for the 2001 scenario, Committee rosters are set to get a shakeup with Democrats gaining seats on each panel and Republicans losing them to arrive at an even split. Both democratic victories in Georgia mean that Sen. Joe Manchin (D-W.Va.) gets to lead the Energy and Natural Resources Committee, and Sen. Tom Carper (D-Del.) will be in charge of the Environment and Public Works Committee.

Sen. Joe Manchin has committed to not voting to expand the Supreme Court or nix the filibuster rule which requires 60 votes to pass legislation through the Senate. Votes on Executive and

Judicial Branch Nominations and usage of the once per year-complex budget reconciliation procedures, where only a simple majority is required could open the door for major Democratic priorities.

President-Elect Biden Transition

In late December, President-elect Joe Biden tapped a number of key players for natural resource focused cabinet positions, their confirmations by the Senate will be easier to secure amid the results of the Georgia Senate elections.

- Michael Regan, North Carolina's Secretary of the Department of Environmental Quality will be appointed to serve as EPA Administrator. He previously worked at EPA and the Environmental Defense Fund.
- Rep. Deb Haaland (D-NM-1) will be appointed as Secretary of the Interior. Rep. Haaland currently serves as Vice chair to the House Natural Resources Committee and subcommittee chair on National Parks, Forests and Public Lands.
- Biden also tapped former Michigan Gov. Jennifer Granholm (D) to be Energy secretary, Natural Resources Defense Council head Gina McCarthy to be his domestic climate czar in the White House and Ali Zaidi, an adviser to New York Gov. Andrew Cuomo (D), to be McCarthy's deputy.

2021 Omnibus, Water Resources Development Act, Western Water Legislation and Coronavirus Stimulus Package

At the end of the 116th Congress, a massive 5,600+ page, \$2.3 trillion federal funding and coronavirus stimulus bill was signed into law that contained outgoing Energy and Natural Resources Committee Chair Sen. Lisa Murkowski's (R-AK) bipartisan clean energy package as well as a revised version of the Water Resources Development Act. Some of the relevant western water resources and management provisions in the Omnibus Bill included the following:

TITLE XI—Western Water and Indian Affairs

Sec. 1101. – Bureau of Reclamation Aging Infrastructure Account (Sen. McSally/Rep. Newhouse)

Establishes an aging infrastructure account to fund the Bureau of Reclamation's existing extraordinary maintenance program. Reported out of the Senate Energy and Natural Resources Committee by voice vote.

Sec. 1102. – Navajo-Utah Water Rights Settlement (Sen. Romney/Rep. Bishop)

Approves the settlement resolving water rights claims of the Navajo Nation on the San Juan River in the Upper Colorado River Basin in Utah. Passed the Senate as part of S. 886 by voice vote.

Sec. 1103. – Aamodt Litigation Settlement Completion (Rep. Lujan/Sen. Udall)

Finalizes the Aamodt water settlement in New Mexico by increasing the agreed-upon federal cost ceiling by \$137 million, extending the substantial completion date by four years (2028), and authorizing the agreement to settlement cost-overruns reached between the United States and the Aamodt settlement parties. Passed the Senate as part of S. 886 by voice vote.

Sec. 1105. – Aquifer Recharge Flexibility Act (Sen. Risch/Rep. Fulcher)

Provides greater flexibility for the Bureau of Reclamation to use its facilities for aquifer recharge. Reported out of the Senate Energy and Natural Resources Committee by voice vote.

Sec. 1106. – WaterSMART Extension & Expansion (Reps. Huffman/Torres Small/Sens. Harris/Wyden/Udall)

Increases the authorization ceiling for the WaterSMART program by \$170 million, expands project applicant eligibility to nonprofit conservation organizations and makes modifications to project eligibility, prioritization, and cost sharing. Passed the House as part of H.R. 2.

Sec. 1107. – Cooperative Watershed Management Program (Reps. Huffman/Torres Small/Sens. Harris/Wyden)

Reauthorizes the Bureau of Reclamation’s Cooperative Watershed Management Program for 5 years, and adds representatives from “disadvantaged communities” as participants of a watershed group. Passed the House as part of H.R. 2.

Sec. 1108. – Modification of Jackson Gulch Rehabilitation Project, Colorado (Sen. Gardner)

Changes the non-federal funding requirement of the Jackson Gulch Rehabilitation Project from a repayment to cost-share structure. Reported out of the Senate Energy and Natural Resources Committee by voice vote.

Sec. 1109. – Aquatic Ecosystem Restoration (Rep. Huffman/Sens. Harris/Wyden)

Establishes an aquatic ecosystem restoration program at the Department of the Interior at \$15 million annually for 5 years that will help fund projects to improve the health of fisheries, wildlife and aquatic habitat (modeled after a similar Army Corps of Engineers program). Passed the House as part of H.R. 2.

Sec. 1110. – Clean Water for Rural Communities (Sen. Daines/Rep. Gianforte)

Authorizes \$74 million for the construction of the Musselshell-Judith Rural Water Project and further study of the Dry Redwater Rural Water Project in Montana. Reported out of the Senate Energy and Natural Resources Committee by voice vote.

Sec. 1111. – Snow Water Supply Forecasting (Reps. Huffman/Harder/Sen. Feinstein)

Authorizes \$15 million for a Snow Water Supply Forecasting program at the Department of the Interior to provide more accurate data about expected runoff that will allow improved water system operations. Passed the House as part of H.R. 2.

Sec. 1112. – Water Technology Investment (R&D) (Rep. Huffman)

Increases the authorization for desalination research at the Bureau of Reclamation from \$3 million to \$20 million annually to provide additional resources to study brine management. Passed the House as part of H.R. 2.

Groundwater Pollution Permitting

The U.S. Environmental Protection Agency published draft guidance to clarify a U.S. Supreme Court ruling in *Maui* on groundwater pollution. The court said that in some cases, Clean Water Act permits would be required when pollutants discharged to groundwater make their way into rivers, lakes, and the ocean. The guidance could be rescinded when the Biden administration takes office. Public comments on the guidance are due January 11 and should be filed at www.regulations.gov using docket number EPA-HQ-OW-2020-0673.
