Colorado River Board of California

January 28, 2021

NOTICE OF REGULAR MEETING OF THE COLORADO RIVER BOARD

NOTICE IS HEREBY GIVEN pursuant to the call of the Chairperson, Peter Nelson, by the undersigned Executive Director of the Colorado River Board of California that a regular meeting of the Board Members is to be held as follows:

Date:	Wednesday, February 10, 2021
Time:	10:00 a.m.
Place:	Pursuant to Governor Newsom's Executive Order N-29-20 issued on March 17, 2020, this meeting will be held virtually via Zoom Webinar. Board members will receive instructions separately. The public are welcome to attend. Attendees may access this meeting using the following: Webinar Link: https://us02web.zoom.us/j/82910967066 Telephone: US: +1 669 900 9128, enter Meeting ID: 829 1096 7066, followed by #; then press # again to connect.

The Colorado River Board of California welcomes any comments from members of the public pertaining to items included on this agenda and related topics. If members of the public wish to make a comment regarding items on the agenda, there are three options for consideration: (1) Public comments may be submitted by electronic mail, and **should be addressed to the Board's Chairman, Mr. Peter Nelson, at crb@crb.ca.gov and will be accepted up until 10:00 a.m. on the day of the meeting**; (2) During the meeting, members of the public may submit comments by participating in the Zoom Webinar and utilizing the "**Q&A**" feature in the control panel; **or** (3) By calling into the Zoom Webinar using the telephone number above and pressing ***9** to "**Raise Hand**." Please note, **written submissions will be read aloud at the public comment period** to the extent they fit within the five-minute time limit.

If accommodations from individuals with disabilities are required, such persons should provide a request at least 24 hours in advance of the meeting by electronic mail to the Board's staff member, Mr. Brian Alvarez at balvarez@crb.ca.gov.

Requests for additional information may be directed to: Mr. Christopher S. Harris, Executive Director, Colorado River Board of California, 770 Fairmont Avenue, Suite 100, Glendale, CA 91203-1068, or 818-500-1625. A copy of this Notice and Agenda may be found on the Colorado River Board's web page at www.crb.ca.gov.

A copy of the meeting agenda, showing the matters to be considered and transacted, is attached.

Christopher S. Harris
Executive Director

Regular Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, February 10, 2021
10:00 a.m.

At the discretion of the Board, all items appearing on this agenda, whether or not expressly listed for action, may be deliberated upon and may be subject to action by the Board. Items may not necessarily be taken up in the order shown.

COVID-19 Notice

The Board is following guidance provided by Governor Newsom, pursuant to Executive Order N-29-20 issued on March 17, 2020, for adhering to the Bagley-Keene Act's open meeting requirements.

1. Call to Order

2. Opportunity for the Public to Address the Board (Limited to 5 minutes)
In accordance with California Government Code, Section 54954.3(a)

3. Administration
- a. Consideration and approval of the Minutes of the meeting held December 9, 2020 (**Action**)
- b. Consideration and approval of the Minutes of the meeting held January 13, 2021 (**Action**)

4. Water Supply and Operations Reports
- a. Colorado River Basin Water Supply and Operations Report
- b. State and Local Water Supply and Operations Reports

5. Staff Reports Regarding Colorado River Basin Programs
- a. Colorado River Basin Salinity Control Program
- b. Glen Canyon Dam Adaptive Management Program
- c. General Announcements

6. Executive Session
An Executive Session may be held by the Board pursuant to provisions of Article 9 (commencing with Section 11120) of Chapter 1 of Part 1 of Division 3 of Title 2 of the Government Code and Sections 12516 and 12519 of the Water Code to discuss matters concerning interstate claims to the use of Colorado River system waters in judicial proceedings, administrative proceedings, and/or negotiations with representatives from other states or the federal government.

7. Other Business

8. Future Agenda Items/Announcements

Next Scheduled Board Meeting: March 10, 2021
10:00 a.m.
Webinar

Minutes of Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, December 9, 2020

A meeting of the Colorado River Board of California (Board) was held virtually on Wednesday, December 9, 2020, using the Zoom Webinar meeting platform.

Board Members and Alternates Present:

David DeJesus (MWD Alternate)
Dana B. Fisher, Jr. (PVID)
James Hanks (IID)
Jeanine Jones (DWR Designee)
Henry Kuiper (Public Member)
Jim Madaffer (SDCWA)
Peter Nelson, Chairman (CVWD)
Glen D. Peterson (MWD)
David R. Pettijohn (LADWP)
Jack Seiler (PVID Alternate)
David Vigil (DFW Alternate)
Mark Watton (SDCWA Alternate)

Board Members and Alternates Absent:

Evelyn Cortez-Davis (LADWP Alternate)
Norma Sierra Galindo (IID Alternate)
Christopher Hayes (DFW Designee)
John Powell, Jr. (CVWD Alternate)

Others Present:

Steven Abbott
Brian Alvarez
Jim Barrett
Bert Bell
JR Echard
Melissa Baum-Haley
Christopher Harris
Bill Hasencamp
Joanna Smith-Hoff
Michael Hughes
Ned Hyduke
Sarai Jimenez
Lisa Johansen
Rich Juricich
Larry Lai
Laura Lamdin
Tom Levy
Lindia Liu
Henry Martinez
Kara Mathews
Aaron Mead
Dylan Mohamed
Jessica Neuwerth
Jessica Rangel
Shana Rapoport
Angela Rashid
Ivory Reyburn
Kelly Rodgers
Shanti Rosset
Tom Ryan
Tina Shields
Andrew Slagan
Zach Stevens
Gary Tavetian
Tanya Trujillo
Margaret Vick
Jay Weiner
Meena Westford
Jerry Zimmerman

CALL TO ORDER

Chairman Nelson announced the presence of a quorum and called the meeting to order at 10:01 a.m.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

Chairman Nelson invited members of the audience to address the Board on items on the agenda or matters related to the Board.

Ms. Margaret Vick, Special Counsel for the Colorado River Indian Tribes (CRIT), reported that CRIT has been working closely with the Arizona Department of Water Resources and other major water users in Arizona on draft proposed federal legislation that would allow CRIT to lease, exchange, or store portions of its water allocation off of its reservation. Ms. Vick noted to contact her should anyone wish further information.

Hearing no more public comments, Chairman Nelson moved to the next item on the agenda.

ADMINISTRATION

Chairman Nelson asked for a motion to approve the October 14, 2020, meeting minutes. Mr. Peterson moved that the minutes be approved, seconded by Mr. Madaffer. By roll-call vote, the minutes were unanimously approved.

Chairman Nelson asked for a motion to approve the Proposed Calendar-Year 2021, Board meeting schedule. Mr. Kuiper moved that the Proposed Calendar-Year 2021, Board meeting schedule be approved, seconded by Mr. Madaffer. By roll-call vote, the Proposed Calendar-Year 2021, Board meeting schedule was unanimously approved.

Mr. Harris introduced Ms. Shana Rapoport and Ms. Jessica Rangel, the new Environmental Program Manager and Staff Services Analyst for the Colorado River Board of California

COLORADO RIVER BASIN WATER REPORTS

Colorado River Basin Report

Mr. Juricich reported that as of November 30th the water level at Lake Powell was 3,587.87 feet with 10.63 million-acre feet (MAF) of storage, or 44% of capacity. The water level at Lake Mead was 1,081.04 with 10.10 MAF of storage, or 39% of capacity. The total system storage was 27.92 MAF, or 47% of capacity, which is 3.26 MAF less than system storage at this time last year.

Mr. Juricich reported that as of November 16th, the unregulated inflow into Lake Powell for Water Year-2021 is 6.8 MAF, or 63% of normal and the WY-2021 forecasted April to July inflow to Lake Powell is 4.55 MAF, or 64% of normal. For WY-2021, the observed October inflow to Lake Powell was 0.09 MAF, or 18% of normal. The November inflow forecast to Lake Powell is 0.26 MAF, or 55% of normal. To date, the WY-2021 precipitation in the Upper Colorado River Basin is 60% of normal and the current Basin snowpack is 76%.

Mr. Juricich reported that precipitation conditions in October and November were very dry throughout the Basin. He noted that in October the Basin's precipitation was 30% to 50% of average, with some minor improvement in precipitation conditions in November.

Mr. Juricich reported that as of December 3rd, the Brock and Senator Wash regulating reservoirs captured 127,489 AF and 71,768 AF, respectively. He also reported that the excess deliveries to Mexico through December 6th, were 51,060 AF. Mr. Juricich reported that as of November 30th, the total amount of saline drainage water bypassed to the Cienega de Santa Clara in Mexico was 118,056 AF.

Board member Peterson, representing The Metropolitan Water District of Southern California (MWD), inquired whether another metric should be used to measure the snowpack's impact on water supply. In response, Executive Director Harris stated that the Colorado Basin River Forecast Center (CBRFC) looks at an array of metrics to evaluate both the water content of the snowpack as well as early and late season snow events as they develop its forecasts and estimated runoff values. He added that the CBRFC is also evaluating and factoring the changing climate conditions in the Basin.

State and Local Report

Ms. Jones, representing the California Department of Water Resources (DWR), reported that California is experiencing a dry start to Water Year-2021, but noted that it is still early in the season. She stated that statewide reservoir capacity at the end of November was 84% of average. She noted that storage in the large Northern California reservoirs is lagging the statewide average, with Oroville at 59% of average and Shasta at 74% of average. She stated that this reflects how dry it has been in the northern parts of California.

Ms. Jones reported on the status of DWR's work on experimental forecasting. She noted that during the last CRB meeting, she discussed an experimental forecasting product developed by

the University of California Los Angeles (UCLA) that utilized a relatively simple statistical model. She reported that DWR is now working with National Oceanic and Atmospheric Administration (NOAA) Earth System Research Lab in Denver, Colorado on a more complex statistical experimental forecasting model that uses a canonical correlation analysis. She stated that the model results show the signature of La Nina conditions, that influence drier conditions across the Southwest region. She explained that La Ninas have historically been dry in Southern California and the model suggest dry conditions for Northern California as well. She added that, historically, there has been no correlation between La Ninas and wet or dry conditions in Northern California. She stated that the model utilized data sets of ocean temperatures and pressure in the relevant areas of the Pacific Ocean as well as wind fields. The model was run last year and preformed relatively well. She concluded that that the model results are in line with other experimental forecasts.

Mr. Peterson reported that reservoir storage has declined slightly which is normal for this time of the year. He added that consumption has also increased, noting that may be due to dry conditions in its service area. Mr. Peterson added that overall consumption is well below average at 1.55 MAF.

AGENCY END-OF-YEAR REPORTS

Coachella Valley Water District

Board Chairman Nelson, representing Coachella Valley Water District (CVWD), reported on its COVID-19 pandemic response, noting that there were no service interruptions. He stated that from March to May, CVWD adhered to alternative work schedules, provided face coverings for its employees, worked in micro-teams, outlawed carpooling, and provided rapid testing to workers that were exposed to the virus. He stated that from June to December, all its employees were physically at work, facility access was restricted to employees only, and the district encouraged the use of online services. He noted that the Coachella Valley area only had less than 1% of active COVID cases.

Mr. Nelson reported that CVWD started its operation in 1918 and since then, CVWD has had several important milestones which include the construction of the Coachella Canal (1949), State Water Project deliveries (1973), the expansion of the Whitewater facility (1984), completion of Dike 4 pilot facility (1997), construction of the Mission Creek Facility (2002) and Thomas E. Levy Facility (2009). He stated that in 2019, CVWD added about 20,000 AF of capacity to the Palm Desert Replenishment Facility which has five ponds. Phase 1 of this project will replenish 10,000 AF per year and Phase 2 will replenish another 10,000 AF. He stated that in 2019 and 2020, CVWD was able to recharge close to 8,000 AF using the Mid-Valley pipeline and measured an increase of up to 20 feet in the surrounding groundwater levels. Mr. Nelson added that CVWD signed a $46 million contract in December for the construction of the Oasis

In-Lieu Project which will use Colorado River water instead of pumping groundwater. The project is expected to be completed in July 2022 and 32,000 AF of Colorado River water will be delivered to the areas that are primarily using groundwater at this time.

Imperial Irrigation District

Ms. Shields, the Water Department Manager for the Imperial Irrigation District (IID), provided a summary of IID's Quantification Settlement Agreement (QSA) transfers. She reported that by 2021, San Diego County Water Authority (SDCWA) will be receiving the maximum volume transfer of slightly over 200,000 AF. She stated that there is an additional 10,000 AF split over 2020 through 2022, and then the transfer will level off at the maximum transfer volume. She reported that the Coachella Valley transfer continues to ramp up in smaller increments of about 5,000 AF a year and it is anticipated that IID will meet and exceed all conservation obligations for calendar year 2020. Ms. Shield reported that IID is finalizing its annual conservation summary, noting that IID began to reduce its conservation programs. She noted the conservation programs will be curtailed because the excess conservation water produced cannot be utilized by its ratepayers.

Ms. Shields reported that on September 24, 2020, the House Committee on Energy and Natural Resources Subcommittee on Water, Oceans, and Wildlife held a hearing titled "Federal and State Efforts to Restore the Salton Sea". She stated that the hearing's witnesses include Wade Crowfoot, Secretary of the California Natural Resource Agency; E. Joaquin Esquivel, Chair of the California State Water Resources Control Board; and Thomas Tortez, Chairman of the Torres Martinez Desert Cahuilla Indians. She added that witnesses from the Bureau of Reclamation did not participate in the hearing. She reported that during the hearing the witnesses expressed the need for more federal involvement to honor its existing commitments and address the federal government's role as the largest landowner at the Salton Sea. She stated that Mr. Crowfoot and Mr. Esquivel did a good job discussing the historical commitments of the federal government, while Mr. Tortez stressed the importance of moving forward with this project to help the local community and the Basin as a whole, to start to address climate change and drought issues. She added that IID submitted testimony along with the Salton Sea Authority.

Ms. Shields provided an update on the status of the Salton Sea Air Quality Mitigation Program. She reported that the State recently completed nearly 600 acres of additional interim dust control measures on its species conservation habitat site, noting that the State has completed slightly over 600 to 700 acres of dust control measures. She stated that the State has made good progress, but it only represents 20% of the acreage that was supposed to be completed by end of 2020. She added that IID will continue to facilitate the State's efforts to meet its dust mitigation target.

Ms. Shields reported that IID continues to implement its own air quality mitigation program, which is comprehensive, science-based, and adaptive. IID has completed over 2,400 acres of tillage and reseeding projects to grow cover to help protect the exposed playa and reduce dust storms. She stated that in the longer term, IID will plant native vegetation to hold the soil and help protect its projects. Ms. Shields reiterated that the State has committed to develop 3,500 acres of dust mitigation projects but has only completed 20% of this obligation. She stated that in 2021 the State is obligated to provide dust control for 7,000 acres, explaining that the acreage is tied to the amount of playa that will be exposed next year. Ms. Shields added that IID's website includes data on on-going air quality emissions and the data shows that there are more opportunities to reduce emissions on the south end of the Salton Sea.

Finally, Ms. Shields stated the IID's cumulative QSA conservation and transfers, from 2002 to 2020, will total over 6.2 MAF. She noted that IID is getting closer to ramping-up all of its QSA transfers and when combined with canal lining and other programs, IID's annual conservation will total approximately half-million acre-feet. She added that IID continues to work with its growers to improve their efficiency and the efficiency of its water delivery system.

Los Angeles Department of Water and Power

Board Vice Chairman Pettijohn, representing the Los Angeles Department of Water and Power (LADWP) reported that water demand in the City of Los Angeles was 488,000 AF in 2020, the lowest it has been since 1970. He noted that the low demands reflect LADWP's ambitious water use efficiency efforts.

Mr. Pettijohn reported that LADWP is focusing on a State mandated initiative for all retailers to comply with new water loss audit regulations. Mr. Pettijohn displayed a figure that showed the number of gallons of water loss per water connections per day, stating that the water losses have improved over the last few years, down to 29 gallons per connection per day. He noted that this figure appears to be large but incorporates the losses from all water connections, including significant industrial and other uses. He explained that LADWP received a Data Validity Score of 80, which is a measure of how well it is managing its water losses. He explained that the score is good for a system of its size and demonstrates LADWP's commitment to managing infrastructure efficiently.

He stated that LADWP implemented numerous changes in response to the COVID-19 pandemic, including measures to ensure employee safety, digital outreach campaigns to customers, and modifying or scaling back certain initiatives. He noted that LADWP typically replaces about 140,000 feet of trunk lines every fiscal year, but due to the pandemic they have replaced 30,000 feet less.

Mr. Pettijohn reported that LADWP has maintained water use of about 105 gallons per person per day for fiscal year 2020. He stated that LADWP installed 1,360 new weather-based irrigation controllers, which was a 330% increase over the previous year. He added that LADWP also installed 2,138 new high-efficiency toilets, an increase of 205% over last year and removed 548,000 square-feet of turf, an increase of 28% over last year. Mr. Pettijohn stated that the Governor's goal for turf removal for the State was fifty-million square feet and LADWP has exceed the statewide goal within the city's limits, saving over 2.3 billion gallons of water.

Mr. Pettijohn reported that LADWP recently completed an interconnection with the city of Burbank that will deal with some of the contamination in the San Fernando groundwater basin. The interconnection will allow the transfer of about 2,600 AF per year, enough water to serve 30,000 customers.

Mr. Pettijohn reported that LADWP has been expanding the capacity of the Tujunga Spreading Grounds by deepening the basins and removing dikes and barriers, increasing the stormwater capture capacity to 74,000 AF. He stated that an additional 8,000 AF of capacity will be added to the spreading basin by the spring of 2021.

Mr. Pettijohn reported that LADWP received $21 million from Measure W's Safe, Clean Water Program to enhance three parks in Los Angeles to capture stormwater and applied for a second round of Measure W funding for $137 million to enhance four additional parks in Los Angeles.

Mr. Pettijohn reported that LADWP provides 10,000 AF of recycled water annually to sixty-six recycled water sites. He added that 26,000 AF of recycled water is also used for environmental purposes. In 2020, 440 feet of new recycled pipelines ("purple pipe") was installed and now totals, 68 miles of recycled water pipeline. In 2020, there has been an additional 44 AF of new recycled water demand. He noted that there are five different recycled water systems operating independently with their own source of supply throughout the city. The Donald C. Tillman Water Reclamation Plant serves the San Fernando Valley. The Burbank Water Recycling Plant serves the North Hollywood area. The Los Angeles Glendale Water Reclamation Plant serves the Downtown Los Angeles metro area, and the Edward C. Little Water Recycling Facility serves the westside of Los Angeles. Finally, the Terminal Island Water Reclamation Plant serves the Long Beach Harbor area.

Mr. Pettijohn reported that one of LADWP's key accomplishments in the San Fernando Valley was the implementation of the LA Groundwater Replenishment project, which will begin in mid-2021. He explained that the project will spread 3,500 AF of advanced treated recycled water into the San Fernando Basin and will ramp up to 30,000 AF over time. He added that in the Long Beach harbor area, LADWP will connect several refineries such as Valero, Tesoro and Philips 66, to its recycled water system. He added that a second connection will be made to

Dominguez Gap Seawater Intrusion Barrier, increasing the amount of recycled water to the harbor area to about 16,000 AF per year.

Finalizing his report, Mr. Pettijohn reported that LADWP is moving forward with its Operation NEXT Water Supply Program which is an ambitious direct potable water reuse initiative. He explained that once the program is operational, treated wastewater from Hyperion Treatment Plant, which currently discharges most of its treated water into the ocean, will be used as a source of supply to meet the future demands of the City of Los Angeles.

Metropolitan Water District of Southern California

Mr. Peterson provided an update on MWD's regional recycling project. He reported that MWD's Board has given authorization to prepare the Environmental Impact Report as well as prepare documentation for engineering, technical and outreach support. He added that costs of preparing these documents will be $30 million over the next three years. Mr. Peterson reported that MWD will be collaborating with Southern Nevada Water Authority (SNWA) to fund up to 24% ($6 million) of the environmental planning costs. He explained that the agreement with SNWA does not obligate SNWA or MWD to go forward with the project or commit to a full-scale project or exchange.

Mr. Peterson reported that last year MWD amended the contracts to the Desert/Coachella exchange and delivery agreements, explaining that the amendments proportionally share the operational benefits and risks of State Water Project participation, enacted consistent terms for deliver and reimbursement through 2026, increased delivery certainty for CVWD and increased delivery flexibility for MWD.

Mr. Peterson reported that MWD's turf replacement program replaced 4.3 million square feet of residential and commercial turf in 2020, adding that to date, the program has removed 194 million square feet of turf. He stated that MWD's program is one of the major reasons for declining water demand in Southern California. He stated that there has been a savings of 500 AF in 2020, and that the lifetime water savings through the program are expected to total 760,000 AF. Mr. Peterson stated that MWD invested $350 million into the program several years ago.

Mr. Peterson highlighted MWD's various collaborations with agriculture agencies such as the Desert/Coachella exchange agreements, land management and fallowing with Palo Verde Irrigation District and the summer fallowing program with Bard Water District. He also stated that MWD has an on-going exchange program with San Diego County Water Authority and is also involved in an Indian settlement agreement.

Mr. Peterson reported that MWD's historical demands are low, crediting many of MWD's conservation program efforts. He stated MWD has been putting more water into its dry-year storage account in Lake Mead, which has increased Lake Mead's elevation.

Finally, Mr. Peterson reported that MWD's Board reelected Chairman Gray. He also reported that during a recent Board meeting, there were three and half hours of testimony and public comments regarding the MWD's environmental planning for the Delta tunnel for the State Water Project. He stated that the Board unanimously approved moving forward with the environmental planning for the Delta tunnel.

Board member Fisher inquired about the retirement and replacement of Mr. Roger Patterson and Mr. Jeff Kightlinger. Mr. Peterson reported that Mr. Kightlinger was scheduled to retire in December 2020 but decided to stay on until his replacement is found. Mr. Hasencamp, MWD's Colorado River Resources Manager stated that Mr. Patterson will be retiring at the end of December after nearly fifteen years with MWD. He added that the General Manager will not be backfilling Mr. Patterson's position, and for now, the Bay Delta Initiatives group that reported to Mr. Patterson will report to Mr. Deven Upadhyay, Assistant General Manager/Chief Operating Officer. Mr. Hasencamp stated that new General Manager will decide the future structure of the executive team.

Palo Verde Irrigation District

Mr. Hyduke, General Manager of the Palo Verde Irrigation District (PVID), reported on its COVID-19 pandemic response, noting that thirty out of seventy employees were exposed to COVID-19, with only two testing positive. He reported that that PVID continued to run business as normal but shut down its front office during the first few critical months of the pandemic. He added that the office reopened but had to shut down again during the most recent stay-at-home order. He stated that PVID has been successful with their health precautions, noting that during the early months they acquired 1,500 masks from Riverside County.

Mr. Hyduke reported that he asked the PVID Board to reduce the incidences of water outages to every three years. He noted that there is a planned outage in January, for about a week, to examine the diversion dam gates that were replaced in 2015, 2016, and 2017. He reported that PVID invented a type of water gate that allows the irrigation ditch to fill with water for continued deliveries of during an outage, which farmers appreciated.

Mr. Hyduke reported that PVID has participated in the U.S. Natural Resources Conservation Services (NRCS) program and received funds to improve its deficit irrigation program. He reported that PVID is also participating in a deficit irrigation study with the University of Southern California (USC), adding that PVID is currently in the second year of the three-year study. He noted that a few farmers, including Mr. Seiler, PVID Board alternate, are

participating in the study. He stated that the study is being conducted by Ali Montazar from USC, to identify and optimize deficit irrigation practices for alfalfa in the Palo Verde Valley. Board member Seiler stated that alfalfa is one of the most broadly planted crops in the Upper and Lower Basin, representing approximately a million acres annually in production. He stated that any demonstrated conservation of alfalfa irrigation water can amount to larger volumes in future water available for use by urban districts in times of need and could be incorporated into a demand management program in the Upper Basin.

Mr. Seiler explained that the study uses monitors to measure soil moisture at different depths daily. This data, including the yield and loss data, are used to analyze the impact of deficit irrigation. He explained that the study requires eliminating one irrigation per month in July, August and September, when yields taper off. He stated that they are hopeful that these actions result in water savings. He added that they are still compiling the second-year data but hopes to complete it by January. He added that if the data is available, PVID will present it during an upcoming CRB meeting. Mr. Hyduke reported that PVID also received NRCS funds to line irrigation ditches and install telemetry stations in the southern portion of the Valley. Mr. Hyduke stated that PVID is also considering applying for WaterSMART grants for additional funding for infrastructure improvements.

Mr. Hyduke finalized his presentation by reporting on the on-going project to remove diesel and gas tanks in the maintenance yard. He noted that PVID will receive its closure letter for removal of the tanks in two weeks.

San Diego County Water Authority

Board member Madaffer, representing the San Diego County Water Authority (SDCWA), provided a summary of SDCWA's COVID-19 response. He stated that the twenty-four member agencies immediately increased regional coordination and communication to ensure the safety and security of the County's water supply. He stated that in the spring, SDCWA distributed about 25,000 cloth masks to water and wastewater agencies in six Southern California counties.

Mr. Madaffer provided a summary of SDCWA's key activities and awards in 2020. He reported that SDCWA installed new fish-friendly intake pumps at Carlsbad Desalination Plant. He explained that the intake screens are designed to prevent any sea life larger than one millimeter from entering the plant and the project will be completed in 2023. He stated that the Carlsbad Desalination Plant will be the first in California to comply with the 2015 California Ocean Plan amendment, which is the most advanced sea life protection measure in the world.

Mr. Madaffer reported that the SDCWA Board approved a new agricultural water rate. The rate offers lower and guaranteed rates to farmers in exchange for lower water supply

reliability. He explained the rate gives local growers a lower level of water service during shortages or emergencies allowing the Water Authority to reallocate supplies for commercial and industrial customers that pay for full reliability. He added that in exchange, participating farmers are exempt from storage and supply reliability charges.

Mr. Madaffer reported that the American Society of Civil Engineers (ASCE) honored SDCWA with the 2020 Award of Merit for the emergency repair of the Moosa Canyon pipeline. He explained that the pipeline was successfully repaired and brought back into service using carbon lining after a leak was detected during the fall of 2019. He stated that the repair gave the pipeline many more years of service and its repair is a testament to how SDCWA effectively maintains its assets. Mr. Madaffer also reported that SDCWA received an award for its Water News Network website, named the best website among California public agencies for 2020 from the California Public Information Awards. He stated that the website generates over 9,000 page views a month and has received praise for its innovative stories and for producing original content.

Mr. Madaffer reported that Phase A of the Regional Conveyance System Study is complete and concluded that the regional conveyance system is both technically and financially feasible, and economically competitive with other alternatives. Mr. Madaffer explained that the conveyance system is designed to transport its QSA supplies and will integrate with its aqueduct system with very few modifications. He explained that the study identified several projects that would provide regional benefits, not just in San Diego but also for Imperial Valley.

Mr. Madaffer reported that its Board approved proceeding to Phase B of the study which will analyze two proposed routes and include a detailed economic analysis. He added that Phase B will also analyze opportunities to collaborate for shared storge facilities in the Imperial Valley, as well as refine concepts that would complement and support the various Salton Sea restoration projects and potential geothermal development. He stated that Phase B efforts will also include reaching out to stakeholders and partners to garner additional input. Phase B is expected to be completed in eighteen months.

Mr. Madaffer added the SDCWA is also interested in participating in the Lake Mead Storage program, explaining that participation in the program would help maintain Lake Mead's elevation and would be a pivotal water management tool providing operational flexibility that would benefit the entire Basin.

Finally, Mr. Madaffer highlighted various potable reuse projects. He reported that SDCWA's largest increment of local supply development is the Pure Water San Diego project which will create 16,800 AF per year by 2025. He also noted that the East County Advanced Water Purification project will create 12,882 AF per year by 2025. He stated that these projects

along with water from QSA transfers and the Carlsbad Desalination Plant will provide SDCWA customers with safe and high-quality water.

STATUS OF COLORADO RIVER BASIN PROGRAMS

Status of the Salinity Control Program

Mr. Juricich reported on the background and status of the Paradox Valley Unit (PVU) project. As the PVU project injection well nears the end of its lifespan, the Basin States have been working for many years now on a replacement project. A draft Environmental Impact Statement was released a couple of years ago with four different well replacement alternatives, which include a replacement well, a series of evaporation ponds, a zero-liquid discharge thermal process method, and a no-action alternative. The no-action alternative would essentially close the existing well at the end of its life cycle and cease salinity control at the Paradox location. Mr. Juricich reported that the final EIS, available on Reclamation's website, calls for the no-action alternative. The Basin States support the evaporation pond alternative, but Reclamation did not follow the Basin States' recommendation. Mr. Juricich reported that Reclamation's possible postponement of the release of a Record of Decision provides the Basin States additional opportunities to weigh in on Reclamation's decision. There are opportunities to further discuss the idea of a private partnership with Intrepid Potash for brine disposal at Paradox.

Mr. Juricich reported that the existing PVU project well has been shut down due to a significant earthquake that occurred in March of 2019. There were some talks to restart the well on a trial basis, but the effort has been stalled due to aftershocks and seismic activities in recent months. At this point there is no time frame for starting the trial process for the existing well. Mr. Juricich noted that he would report back any details that may arise between now and the next Board meeting on working with Reclamation and the Basin States on the PVU well issue.

In response to a question from a Board member, Mr. Harris emphasized that PVU remains an important project to the Basin States and with Mr. Juricich as the Work Group chair and Mr. Bill Hasencamp as the Forum and Advisory Council chair, we can expect a healthy dialog with the incoming administration and the Interior department on keeping salinity control at Paradox. Mr. Harris added that losing a point-source control of around 100,000 tons of salt each year would be a big step backward. Board member Mr. Peterson emphasized the importance of PVU project to California as it is an interstate transfer of salt under federal responsibility. Mr. Juricich added that the publishing of the Final EIS kicks off a thirty-day public review period, during which the Basin States can consider providing additional written comments on the Final EIS. Mr. Hasencamp added that Reclamation reluctantly moved forward with a no-action alternative due to concerns with the environmental impacts of the evaporation ponds and objections from the locals. While this may be the first time Reclamation issued a no-action preferred alternative, a closed Final EIS

allows for resumed dialog outside of the process for productive alternatives. Mr. Hasencamp stated that the Basin States are committed to find a long-term salinity control in Paradox.

Glen Canyon Dam Adaptive Management Program

Board Staff Ms. Neuwerth reported that the Adaptive Management Work Group (AMWG) of the Glen Canyon Dam Adaptive Management Program met via webinar on November 18. The group discussed the possibility of conducting a "spring disturbance flow" in March 2021 that would combine low flows for dam maintenance with a high flow release. Ms. Neuwerth noted that the flow would consist of low flows of about 4,000 cfs for several days, followed by a peak release of no more than 25,000 cfs, to stay within the dam's power plant capacity.

Finally, Ms. Neuwerth noted that the Program's Technical Work Group would be holding a meeting in conjunction with the Annual Reporting meeting on January 20-22.

Reclamation's Effectiveness Review of the 2007 Colorado River Interim Operating Guidelines

Mr. Juricich provided a summary and update on Reclamation's Effectiveness Review of the 2007 Colorado River Interim Operating Guidelines. The effectiveness review is required pursuant to Part G, Section 7, Subsection D of the 2007 Interim Guidelines. The review is intended to evaluate the effectiveness of the guidelines with respect to the purposes and operational elements of the 2007 Interim Guidelines. Mr. Juricich reported that the report is intended to look at the operational experience since 2007 through 2019 for the operation of Lakes Powell and Mead and evaluate how those 2007 interim guidelines worked. For example, one of the stated purposes of the guidelines is to improve Reclamation's management of the Colorado River by considering trade-offs between the frequency and magnitude of reductions of water deliveries, and considering the effects on water storage in Lake Powell and Lake Mead, and on water supply, power production, recreation, and other environmental resources. Mr. Juricich shared a table from the report that highlights the operational rules and conditions from 2007 to 2019. Mr. Juricich also summarized some of the key findings from the report. Mr. Juricich reported that Reclamation released the public draft of the effectiveness review report on October 23, 2020, and provided targeted outreach in October and November to Basin stakeholders. The final effectiveness review report is expected to be released in mid-December 2020.

ANNOUNCEMENTS

Washington, D.C. Updates

Mr. Harris reported that USGS has recently conducted an analysis of future groundwater

conditions in the Colorado River Basin. The analysis concluded that there will be an increase in groundwater infiltration in the Upper Basin due to slightly more precipitation and warmer winters, and less groundwater recharge in the Lower Basin due to warmer weather and less precipitation.

Mr. Harris reported on Salton Sea legislation. Mr. Harris stated that Representative Raul Ruiz developed a piece of legislation called the "Salton Sea Public Health and Environmental Protection Act of 2020." Mr. Harris reported that the legislation is intended to codify a 2016 MOU between the federal government and state of California, establishing more collaboration between the two on habitat and dust suppression projects at the Salton Sea.

Mr. Harris reported on President-Elect Joe Biden's transition team. Mr. Harris stated that the previous Colorado River Board Executive Director, Ms. Tanya Trujillo, is the member of the Department of the Interior transition team.

Next Scheduled Board Meeting

Finally, Mr. Harris noted that the next meeting of the Colorado River Board would be held on January 13, 2021 and would also be held virtually using the Zoom Webinar meeting platform.

ADJOURNMENT

With no further items to be brought before the Board, Chairman Nelson adjourned the meeting at 12:02 p.m.

Minutes of Meeting
COLORADO RIVER BOARD OF CALIFORNIA
Wednesday, January 13, 2021

A meeting of the Colorado River Board of California (Board) was held virtually on Wednesday, January 13, 2021, using the Zoom Webinar meeting platform.

Board Members and Alternates Present:

David DeJesus (MWD Alternate)
Dana B. Fisher, Jr. (PVID)
James Hanks (IID)
Jeanine Jones (DWR Designee)
Henry Kuiper (Public Member)
Jim Madaffer (SDCWA)
Peter Nelson, Chairman (CVWD)
Glen D. Peterson (MWD)
David R. Pettijohn (LADWP)
John Powell, Jr. (CVWD Alternate)
Jack Seiler (PVID Alternate
David Vigil (DFW Alternate)
Mark Watton (SDCWA Alternate)

Board Members and Alternates Absent:

Evelyn Cortez-Davis (LADWP Alternate)
Norma Sierra Galindo (IID Alternate)
Christopher Hayes (DFW Designee)

Others Present:

Steven Abbott
Brian Alvarez
Justina Arce
Jim Barrett
Bert Bell
Emily Dooley
JR Echard
Melissa Baum-Haley
Emily Halvorsen
Christopher Harris
Bill Hasencamp
Lynda Lo-Hill
Michael Hughes
Ned Hyduke
Sarai Jimenez
Lisa Johansen
Rich Juricich
Larry Lai
Laura Lamdin
Tom Levy
Lindia Liu
Kara Mathews
Dylan Mohamed
Jessica Neuwerth
Jessica Rangel
Shana Rapoport
Angela Rashid
Ivory Reyburn
Shanti Rosset
Tom Ryan
Tina Shields
Andrew Slagan
Gary Tavetian
Jay Weiner
Meena Westford
Jerry Zimmerman

CALL TO ORDER

Chairman Nelson announced the presence of a quorum and called the meeting to order at 10:05 a.m.

OPPORTUNITY FOR THE PUBLIC TO ADDRESS THE BOARD

Chairman Nelson invited members of the audience to address the Board on items on the agenda or matters related to the Board. Hearing none, Chairman Nelson moved to the next item on the agenda.

ADMINISTRATION

Chairman Nelson deferred approval of the December 9, 2020 meeting minutes to the February 10, 2021 Board meeting.

COLORADO RIVER BASIN WATER REPORTS

Colorado River Basin Report

Mr. Juricich reported that as of January 4th, the water level at Lake Powell was 3,581.80 feet with 10.10 million-acre feet (MAF) of storage, or 42% of capacity. The water level at Lake Mead was 1,083.89 with 10.34 MAF of storage, or 40% of capacity. The total system storage was 27.50 MAF, or 46% of capacity, which is 3.8 MAF less than system storage at this time last year.

Mr. Juricich reported that as of January 5th, the unregulated inflow into Lake Powell for Water Year-2021 is 5.73 MAF, or 53% of normal and the WY-2021 forecasted April to July inflow to Lake Powell is 3.80 MAF, or 53% of normal. For Y-2021, the observed December inflow to Lake Powell was 0.17 MAF, or 46% of normal. The January inflow forecast to Lake Powell is 0.22 MAF, or 60% of normal. To date, the WY-2021 precipitation in the Upper Colorado River Basin is 61% of normal and the current Basin snowpack is 70%.

Mr. Juricich reported that the Basin experienced dry precipitation conditions in November and December. He reported that early snow conditions are lower than conditions at this time last year. He also added that some of the poor snowpack conditions across the West reflect La Nina conditions. Snow conditions in the Upper Colorado River Basin range from 70% to 80% of normal and further south, snow conditions range from 60% to 70%.

Mr. Juricich reported that as of January 8th, the Brock and Senator Wash regulating reservoirs captured 4,145 AF and 3,302 AF, respectively. He also reported that the excess deliveries to Mexico through January 11th, were 0 AF. As of December 30th, the total amount of saline drainage water bypassed to the Cienega de Santa Clara in Mexico was 126,041 AF.

Mr. Juricich reported on the historical consumptive uses of the Lower Divisions states. He stated that over the last several years, consumptive use of the Lower Division states has been declining, resulting in water use less than its 7.5 MAF apportionment. He added that the lower consumptive use has benefited Lake Mead elevations. Mr. Juricich reported that the Bureau of Reclamation (Reclamation) projects continued lower consumptive use in 2020, 2021, and 2022.

Mr. Juricich reported that Reclamation hosted a webinar on December 9th to discuss the incorporation of the 2016 Upper Colorado River Commission (UCRC) demand schedule into the Colorado River Simulation System (CRSS), Reclamation's long term planning model. He stated that the 2016 UCRC demand schedule will replace the 2007 UCRC demand schedule, which has been in use since 2008. Mr. Juricich reported that the 2007 and 2016 demands are a bit higher than the historically observed demands in the Upper Basin. He added that there are assumptions built into the new demand schedule such as additional exports like the Lake Powell pipeline.

Board member Fisher, representing the Palo Verde Irrigation District (PVID), commented that the April to July runoff is 53% of normal and inquired about the likelihood that the runoff will make it into the reservoir system. Responding, Mr. Juricich explained that Reclamation's December 24-Month Study results project the most probable Lake Mead elevation at the end of Calendar Year-2021 is 1,069.66 feet, which is below the first shortage tier. He added that the most probable projected release for Lake Powell is 8.23 MAF in WY-2021 and 7.48 MAF in WY-2022. He stated that the last 7.48 MAF release from Lake Powell occurred in 2014.

Responding to Board member Fisher's question, Mr. Harris added that if the April to July runoff into Lake Powell stays at 50% of normal and dry soil conditions persist, it is likely that inflows to Lake Powell will be low. Mr. Harris remarked that during next month's CRB meeting, Staff will present Reclamation's 24-Month Study projections for Lake Powell to better understand how the inflow forecast will impact the reservoir's elevation.

Finally, Mr. Juricich reported that exceptional drought conditions continue to plague some parts of the Southwest region.

State and Local Report

Ms. Jones, representing the California Department of Water Resources (DWR), reported that to date, precipitation conditions for WY-2021 were dry throughout the State. She stated that the National Oceanic and Atmospheric Administration (NOAA) ranked California's precipitation

in 2020 as the third driest year in its 126-year record. Similarly, California temperatures in 2020 ranked third for the warmest temperature on record. She noted that California's warmest years on record were the drought years of 2014 and 2015.

Ms. Jones reported that the inflows at the major Sierra watersheds for November through January are tracking with the inflows of 2014 and 2015. Ms. Jones reported that the Central Valley inflows were so low that it has created many water rights administration and water operations issues. Ms. Jones reported that the statewide snowpack is slightly better than 50% of average, with higher average snowpack in the Northern Sierra which benefits the Oroville reservoir. Snowpack conditions are 30% of average in the Southern Sierra, which does not bode well for spring runoff. Ms. Jones explained that the dry start of WY-2021, following the dry, warm conditions in 2020, will likely result in a poor runoff season.

Ms. Jones reported that the statewide reservoir storage is 82% of average, noting that Shasta and Oroville reservoirs are lagging which is concerning for operation of the State's large water projects. She explained that the reservoirs are lagging due to poor hydrologic conditions from last year. She noted that overall, California's reservoir system is doing well despite last year's dry conditions due to carryover from very wet precipitation conditions in 2019. She reported that we are at the mid-point of the State's wettest season and the precipitation conditions are so poor that there is a 10% to 30% chance of recovering to an average precipitation condition. She stated that even if the State receives a few big storms late in the season, precipitation conditions will only get close to average conditions due to dry hydrology and warm temperatures.

Ms. Jones reported that DWR is continuing to work with NASA and its subcontractor, Scripps Institution of Oceanography in San Diego, on another experiment forecasting product. She stated that the research team has been continuing its work forecasting atmospheric rivers (AR) but found that the forecasting skill is too low, noting that even if the AR is large, its predictability is no better than a normal, typical rainfall. The research team decided instead, to look at the problem from a different angle and try to predict when it would not rain, investigating the ridge of high pressure is parked off the coast of California deflecting precipitation away from the State. The research team identified three types of ridges as the North, West, and South ridge, blocking precipitation in different parts of its study area. The North ridge blocks precipitation in Northern California and often, the entire State. The South ridge blocks precipitation in the Colorado River Basin and the West ridge blocks precipitation in Southern California. She explained that the Weather Services models suggest that ridging will be present in the North and West ridges, therefore, projecting dry conditions in Northern and Southern California. She stated that the forecast for three and four weeks from now show ridging along the West ridge which means dry conditions persisting in Southern California. Forecast for five to six weeks from now, which is the limit of forecasting skill, shows similar results.

Ms. Jones reported that the ridging forecast for next week shows an active ridge in the South which means dry conditions are likely for the Colorado River Basin. Ms. Jones reported that they are in the second year of the experimental atmospheric ridging forecast and the research team will evaluate effectiveness of the forecasts. She stated that the idea behind the experimental ridging project was to provide more skill than NOAA's seasonal outlook. She added that experimental forecasting uses different techniques than NOAA's, such as statistical modeling, artificial intelligence, and machine learning.

Ms. Jones reported that NOAA finally submitted its report to Congress, as part of its requirement by the Weather Research Act. She thanked the Board and other agencies that submitted letters of support to improve forecasting as a tool for water management. She stated that NOAA's report includes a recommendation for a pilot project for improving weather forecasting for water management purposes. The cost for the pilot project would be $15 million but there is no funding available to develop it. She added that DWR and its partners have spent $4 million for its experimental forecasting efforts. She stated that DWR has been trying to work with the federal appropriations process to put money into the budget as well as remind NOAA that the developing forecasting with longer time scales is a priority. She stated that DWR would like to request a letter from the Six Agency Committee as well as other Western water agencies for support of this effort. She noted that the Western States Water Council will be taking the lead on requesting appropriations from Congress, adding that improving these fundamental issues with existing weather models is critical if progress is to be made in weather forecasting.

Mr. Harris inquired about the driver of the ridges. Ms. Jones responded that there are a combination of factors causing the ridging, adding that this is one of the reasons that forecasting is so difficult through modeling as it requires solving a series of equations that cover the entire globe. She stated that the modeling effort consumes an enormous amount of super-computing time, which is one of the biggest costs to improving the models. Board member Peterson, representing The Metropolitan Water District of Southern California (MWD), recommended that CRB's lobbyist work on efforts to fund seasonal and sub-seasonal forecasting. Mr. Harris concurred and stated that the Six Agency Committee would provide a letter supporting the appropriations effort.

Mr. Peterson reported that the status of the Oroville reservoir, noting that a $400 billion dollar lawsuit against the State Water Project was thrown out by the Butte County courts. He added that the Federal Emergency Management Administration (FEMA) paid for 75% of Oroville's spillway repairs, relieving the impact to MWD's customers. He stated that MWD's water consumption is down and it has more water in storage than ever before, which MWD may need to use this year. He also noted that MWD's consumption has slightly increased in the last several months. He stated that normally, consumption is lower during this time of the year, but warm and dry conditions may be driving the increased use. He reported that sales will be lower than what MWD budgeted.

Mr. Peterson stated that the Colorado River Aqueduct is operating at seven-pump flow and there are plans to bring a total of 1.08 MAF in 2021. He stated that a shut-down of the aqueduct system is scheduled for February for repairs.

Vice Chairman Pettijohn, representing the Los Angeles Department of Water and Power (LADWP), stated that precipitation conditions in the Eastern Sierra are off to a bad start. He stated that the current conditions are closely tracking with the driest year on record, 2014-2015.

STATUS OF COLORADO RIVER BASIN PROGRAMS

Status of the Salinity Control Program

Mr. Juricich updated the Board on the status of the Paradox Valley Unit (PVU) project final EIS, which identified no action as the preferred alternative contrary to the Basin States' support for evaporation pond as the preferred alternative. Reclamation's concerns for evaporation ponds include the large footprint, the requirement for an off-site waste landfill, and potential wildlife issues associated with the ponds. The Basin States believe these concerns could be overcome. The existing injection well has been shut down since March of 2019 due to seismic concerns, so there is currently no salinity control in Paradox Valley. Both the Board and the Salinity Control Forum have requested that Reclamation not proceed with a Record of Decision at this time in hopes of collaborating on a suitable replacement for the existing project and overcoming the concerns associated with the evaporation pond alternative.

Chairman Nelson expressed concern for the impact from the lack of salinity control at PVU to the water users in the Lower Basin and particularly the California agencies. Mr. Juricich responded that, with Mr. Bill Hasencamp as the Forum chairman, the Forum and the Basin States are committed to work with Reclamation to evaluate all potentially effective opportunities that either continue the existing operation or come up with a new paradigm for controlling the same level of salt loading in the Paradox Valley. Without a Record of Decision, the Basin States can continue the dialog and explore opportunities. In response to Chairman Nelson's question, Mr. Harris explained how the PVU project is funded. In response to a written comment from Mr. Aaron Mead, Mr. Harris agreed that having someone familiar with salinity issues as the commissioner of Reclamation would help the long-term continuity of the project.

Mr. Juricich reported that Intrepid Potash, located in Moab, Utah, has expressed interest in potential partnerships in making use of the minerals from PVU for potash and other chemicals. This is one of the areas that the Forum intends to pursue over the next few months. Mr. Harris added that, as a point-source project, the PVU provides a precise amount of salt control being achieved from a quantification perspective. Losing the eight to nine percent of total annual salinity

control at PVU would pose a burden to the Lower Basin states as well as certain areas of the Upper Basin.

In response to a question by Mr. Watton on the PVU's impact on water delivery to Mexico, Mr. Harris stated that there is a potential increase of nine milligrams per liter of TDS at Imperial Dam with the PVU project off-line. Mr. Watton added that involvement of the international treaty with Mexico may put more interest on PVU and other salinity control projects with Reclamation. Mr. Harris agrees that PVU project remains one of the main issues moving forward with the new Interior team.

ANNOUNCEMENTS

Reclamation Appointments

Mr. Harris reported that Mr. Wayne Pullan has been selected as Upper Colorado Regional Director. Mr. Pullan had previously served as area manager of Reclamation's Provo Area Office and deputy regional director of the Upper Colorado Region. Mr. Harris noted that the Lower Colorado Regional Director has not been selected.

CRWUA "Federal Friday"

Mr. Harris reported that the 2020 CRWUA Conference was cancelled due to the pandemic, but a virtual "Federal Friday" was held on December 18, 2020. Mr. Harris noted that the speakers highlighted past achievements, including Minutes 319 and 323, the DCPs, and emphasized the need to collaborate to address future challenges.

Windy Gap Firming Project Update

Board Staff Ms. Neuwerth reported that a December ruling by a U.S. District Court judge would allow the Windy Gap Firming Project in Colorado to move forward. The Windy Gap Firming Project would increase the reliability of the Windy Gap Project, which was constructed in the 1980s but has struggled to provide a steady supply of water to its participants due to a lack of storage. Ms. Neuwerth noted that a major component of the project is the construction of Chimney Hollow Reservoir, which has a capacity of 90,000 AF.

Hydrologic Periods Webinar

Mr. Juricich provided a summary of the December 16, 2020, Board staff webinar provided to the Board's member agency technical staff on the hydrologic periods used in the modeling studies performed by Reclamation using the Colorado River Simulation System (CRSS). Mr.

Juricich reported that the Basin States must choose hydrologic period or periods for use in CRSS studies to reasonably capture current and future water supply conditions including uncertainties associated with future drought and warming temperatures. Mr. Juricich shared a figure showing the different hydrologic periods and described how 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. Mr. Juricich also summarized the recommendations presented during the webinar that the early pluvial removed hydrology is probably more realistic for the current conditions in the basin.

State of Utah – Navajo Nation Water Rights Settlement

Mr. Harris reported on 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 Upper Colorado River Basin apportionment; and, authorizing approximately $220 million for water infrastructure to provide water infrastructure, which will provide clean drinking water, to Navajo communities in Utah.

Washington, D.C. Updates

Mr. Harris reported that President-Elect Biden's transition team was still being developed. Mr. Harris noted the 2021 Omnibus, Water Resources Development Act, Western Water Legislation, and Coronavirus Stimulus Package were signed into law in late 2020.

Mr. Harris reported that the EPA published draft guidance to clarify a U.S. Supreme Court ruling in Maui on groundwater pollution. Mr. Harris noted that the guidance provided by the court, may be rescinded when the Biden administration takes office.

Next Scheduled Board Meeting

Finally, Mr. Harris noted that the next meeting of the Colorado River Board would be held on February 10, 2021 and would also be held virtually using the Zoom Webinar meeting platform.

ADJOURNMENT

With no further items to be brought before the Board, Chairman Nelson adjourned the meeting at 11:27 a.m.

2/1/2021

LOWER COLORADO WATER SUPPLY REPORT

River Operations

Bureau of Reclamation

Questions: BCOOWaterops@usbr.gov
(702)293-8373
http://www.usbr.gov/lc/region/g4000/weekly.pdf

CURRENT STORAGE	PERCENT FULL	Content 1000 ac-ft (kaf)	Elev. (Feet above mean sea level)	7-Day Release (CFS)
LAKE POWELL	40%	9,638	3,576.45	12,600
* LAKE MEAD	40%	10,510	1,085.95	10,300
LAKE MOHAVE	93%	1,691	642.71	5,700
LAKE HAVASU	93%	578	447.88	3,300
TOTAL SYSTEM CONTENTS **	46%	27,308		
As of 1/31/2021				
SYSTEM CONTENT LAST YEAR	52%	31,185		

* Percent based on capacity of 26,120 kaf or elevation 1,219.6 feet.

** TOTAL SYSTEM CONTENTS includes Upper & Lower Colorado River Reservoirs, less Lake Mead exclusive flood control space.

Salt/Verde System	77%	1,766		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	12%	120	1,119.68	25

Forecasted Water Use for Calendar Year 2020 (as of 12/29/2020) (values in kaf)

NEVADA	256	
SOUTHERN NEVADA WATER SYSTEM		228
OTHERS		27
CALIFORNIA	4,059	
METROPOLITAN WATER DISTRICT OF CALIFORNIA		816
IRRIGATION DISTRICTS		3,228
OTHERS		15
ARIZONA	2,455	
CENTRAL ARIZONA PROJECT		1,399
OTHERS		1,055
TOTAL LOWER BASIN USE		6,770
DELIVERY TO MEXICO - 2020 (Mexico Scheduled Delivery + Preliminary Yearly Excess)		1,551

OTHER SIGNIFICANT INFORMATION

UNREGULATED INFLOW INTO LAKE POWELL - JANUARY MID-MONTH FORECAST DATED 1/19/2021

	MILLION ACRE-FEET	% of Normal
FORECASTED WATER YEAR 2021	5.358	49%
FORECASTED APRIL-JULY 2021	3.450	48%
DECEMBER OBSERVED INFLOW	0.169	47%
JANUARY INFLOW FORECAST	0.200	55%

	Upper Colorado Basin	Salt/Verde Basin
WATER YEAR 2021 PRECIP TO DATE	66% (7.7")	52% (5.5")
CURRENT BASIN SNOWPACK	75% (7.2")	75% (3.5")

[1] Delivery to Mexico forecasted yearly excess calculated using year-to-date observed and projected excess.

Dec 29, 2020 11:07:10 AM

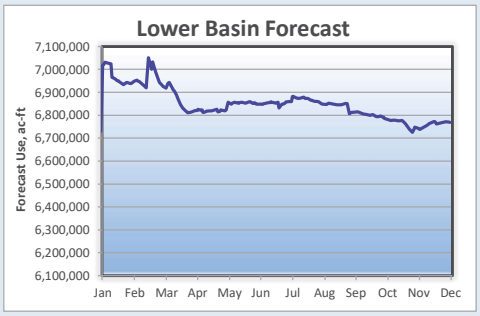
BUREAU OF RECLAMATION

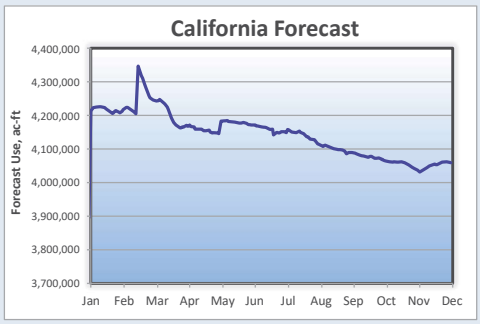
INTERIOR REGION 8: LOWER COLORADO BASIN
CY 2020

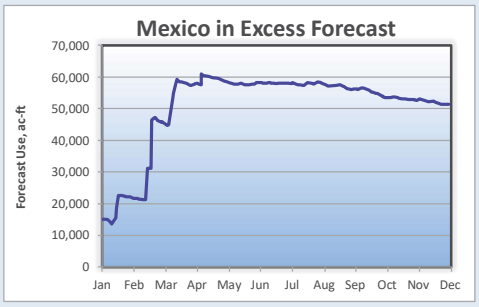
ARIZONA, CALIFORNIA, NEVADA, MEXICO
FORECAST OF END OF YEAR CONSUMPTIVE USE
FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS [1]
(ACRE-FEET)

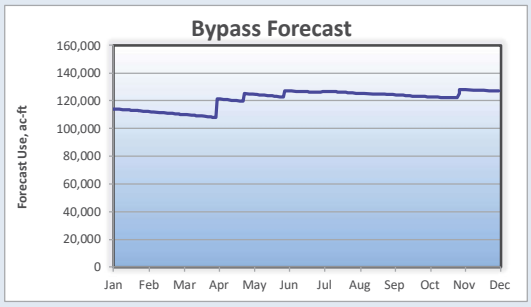
WATER USE SUMMARY	Use To Date CY 2020	Forecast Use CY 2020	Approved Use [2] CY 2020	Excess to Approval CY 2020
ARIZONA	2,435,652	2,454,722	2,454,727	-5
CALIFORNIA	4,037,248	4,058,968	4,058,968	0
NEVADA	258,532	255,831	255,831	0
STATES TOTAL [3]	6,731,432	6,769,521	6,769,526	-5
ACCOUNTABLE DELIVERIES TO MEXICO	1,543,701	1,551,435	1,500,000	**51,435**
TO MEXICO IN SATISFACTION OF TREATY (including downward delivery) [4]	1,492,421	1,500,000		
TO MEXICO IN EXCESS OF TREATY [5]	51,280	51,435		
WATER BYPASSED PURSUANT TO IBWC MINUTE NO. 242 [6]	126,041	126,960		
TOTAL LOWER BASIN & MEXICO	8,401,174	8,447,916		

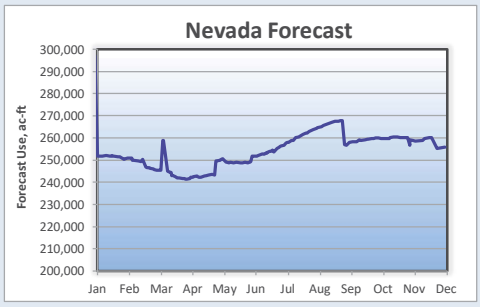
[1] Incorporates 80 daily reporting stations which may be revised after provisional data reports are distributed by the USGS. Use to date has been updated through October for users reporting monthly, and is estimated based on schedule for users reporting annually.
[2] These values reflect adjusted apportionments. See Adjusted Apportionment calculation on each state page.
[3] Includes unmeasured returns based on estimated consumptive use/diversion ratios by user from studies provided by Arizona Department of Water Resources, Colorado River Board of California, and Reclamation.
[4] Includes downward adjustment(s) to Mexico's annual delivery schedule for the creation of Mexico's Recoverable Water Savings and/or Mexico's Water Reserve.
[5] Mexico excess forecast is based on actual-to-date and the 5-year average for the period 2014-2018 for remainder of the year.
[6] Bypass forecast is based on actual-to-date and the average for the period 1990-2018 for the remainder of the year.

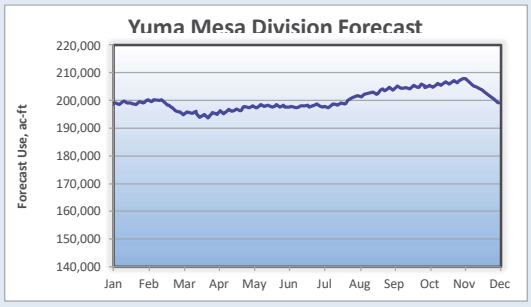


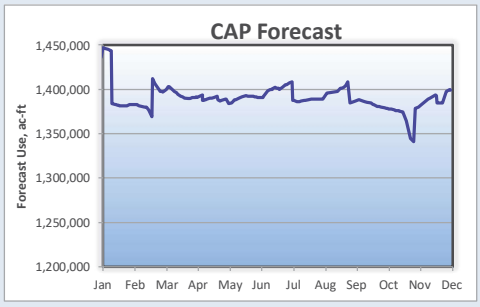


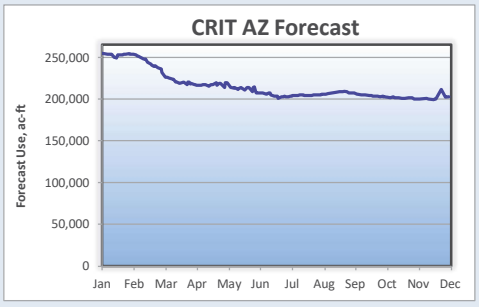


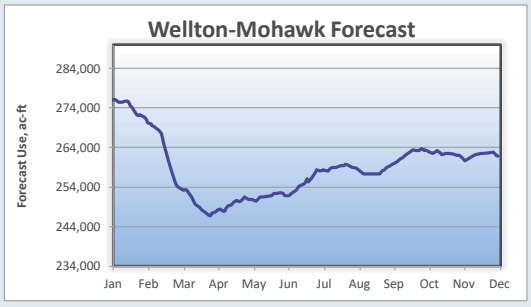


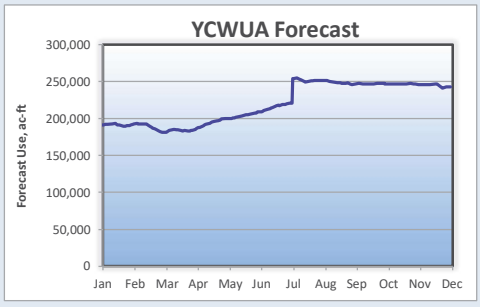












Graph notes: January forecast use is scheduled use in accordance with the Annual Operating Plan's state entitlements, available unused entitlements, and over-run paybacks. A downward sloping line indicates use at a lower rate than scheduled, upward sloping is above schedule, and a flat line indicates a use rate equal to schedule. Lower priority users such as CAP, MWD, and Robert B.Griffith may adjust use rates to meet state entitlements as higher priority use deviates from schedule. Abrupt changes in the forecast use line may be due to a diversion schedule change or monthly updating of provisional realtime diversions.

Dec 29, 2020 11:07:10 AM

— BUREAU OF — RECLAMATION

INTERIOR REGION 8: LOWER COLORADO BASIN
CY 2020

NOTE:
- Diversions and uses that are pending approval are noted in *red italics*.
- Water users with a consumptive use entitlement - **Excess to Estimated Use** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a diversion entitlement.
- Water user with a diversion entitlement - **Excess to Approved Diversion** column indicates overr
this column indicates water user has a consumptive use entitlement.

ARIZONA WATER USERS
FORECAST OF END OF YEAR CONSUMPTIVE USE
FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS
Arizona Schedules and Approvals
Historic Use Records (Water Accounting Reports)

WATER USER	Use To Date CY 2020	Forecast Use CY 2020	Estimated Use CY 2020	Excess to Estimated Use CY 2020	Diversion To Date CY 2020	Forecast Diversion CY 2020	Approved Diversion CY 2020	Excess to Approved Diversion CY 2020
ARIZONA PUMPERS	14,036	14,074	14,074	---	21,595	21,654	21,654	0
LAKE MEAD NRA, AZ - Diversions from Lake Mead	53	56	86	---	53	56	86	-30
LAKE MEAD NRA, AZ - Diversions from Lake Mohave	200	215	215	---	200	215	215	0
DAVIS DAM PROJECT	2	2	2	---	15	15	15	0
BULLHEAD CITY	6,192	6,836	8,122	---	9,732	10,742	12,720	-1,978
MOHAVE WATER CONSERVATION DISTRICT	654	656	656	---	976	979	979	0
BROOKE WATER LLC	318	344	344	---	476	515	515	0
MOHAVE VALLEY IDD	13,268	13,344	16,516	---	24,569	24,711	30,585	-5,874
FORT MOJAVE INDIAN RESERVATION, AZ	30,651	30,755	44,550	---	56,761	56,954	82,500	-25,546
GOLDEN SHORES WATER CONSERVATION DISTRICT	277	278	278	---	416	417	417	0
HAVASU NATIONAL WILDLIFE REFUGE	3,238	3,245	3,563	---	26,975	27,061	41,820	-14,759
LAKE HAVASU CITY	7,108	7,728	8,928	---	11,466	12,466	14,400	-1,934
CENTRAL ARIZONA PROJECT (CAP)	1,385,833	1,399,258		---	1,385,833	1,399,258		---
TOWN OF PARKER	318	341	433	---	788	848	916	-68
COLORADO RIVER INDIAN RESERVATION, AZ	202,311	202,698	246,946	---	456,088	458,690	512,102	-53,412
EHRENBURG IMPROVEMENT ASSOCIATION	227	228	228	---	318	319	319	0
CIBOLA VALLEY [1]	12,899	13,231	15,219	---	18,040	18,503	21,270	-2,767
CIBOLA NATIONAL WILDLIFE REFUGE	7,959	8,130	14,264	-6,134	12,838	13,113	23,005	-9,892
IMPERIAL NATIONAL WILDLIFE REFUGE	2,481	2,793	3,799	-1,006	4,000	4,503	6,128	-1,625
BLM PERMITEES (PARKER DAM to IMPERIAL DAM)	754	756	756	0	1,160	1,163	1,163	0
CHA CHA, LLC	758	765	1,365	---	1,166	1,177	2,100	-923
BEATTIE FARMS	603	643	722	---	928	992	1,110	-118
YUMA PROVING GROUND	525	526	526	---	525	526	526	0
GILA MONSTER FARMS	4,090	4,116	5,257	---	7,383	7,430	9,156	-1,726
WELLTON-MOHAWK IDD	260,974	261,845	278,000	-16,155	380,875	382,878	412,965	-30,087
BLM PERMITEES (BELOW IMPERIAL DAM)	66	66	66	0	102	102	102	0
CITY OF YUMA	12,928	13,055	16,401	-3,346	23,646	23,870	27,500	-3,630
MARINE CORPS AIR STATION YUMA	1,291	1,298	1,360	---	1,291	1,298	1,360	-62
UNION PACIFIC RAILROAD	24	24	29	---	48	48	48	0
UNIVERSITY OF ARIZONA	737	741	896	---	737	741	896	-155
YUMA UNION HIGH SCHOOL DISTRICT	109	110	150	---	147	148	200	-52
DESERT LAWN MEMORIAL	20	20	20	---	28	28	28	0
NORTH GILA VALLEY IRRRIGATION DISTRICT	9,883	9,920	12,165	---	42,614	42,856	44,200	-1,344
YUMA IRRIGATION DISTRICT	37,075	37,265	38,701	---	69,625	70,002	71,700	-1,698
YUMA MESA IDD	151,279	151,871	143,893	---	215,565	216,822	239,280	-22,458
UNIT "B" IRRIGATION DISTRICT	22,054	22,097	20,888	---	26,506	26,603	29,400	-2,797
FORT YUMA INDIAN RESERVATION	1,493	1,497	1,497	---	2,292	2,298	2,298	0
YUMA COUNTY WATER USERS' ASSOCIATION	242,129	243,044	244,397	---	344,899	347,028	375,492	-28,464
COCOPAH INDIAN RESERVATION	732	748	1,651	---	933	957	2,530	-1,573
RECLAMATION-YUMA AREA OFFICE	103	103	103	---	103	103	103	0
RETURN FROM SOUTH GILA WELLS								
TOTAL ARIZONA	2,435,652	2,454,722	2,546,324		3,151,712	3,178,089	3,391,061	
CAP	1,385,833	1,399,258				1,399,258		
ALL OTHERS	1,049,819	1,055,464	1,147,066			1,778,831	1,991,803	
YUMA MESA DIVISION, GILA PROJECT	198,237	199,056	171,610	27,446		329,680		

ARIZONA ADJUSTED APPORTIONMENT CALCULATION	
Arizona Basic Apportionment	2,800,000
System Conservation Water - Pilot System Conservation Program [2]	(400)
System Conservation Water - Colorado River Indian Tribes (CRIT) [3]	(50,000)
System Conservation Water - Fort McDowell Yavapai Nation (FMYN) [4]	(10,000)
Creation of Extraordinary Conservation ICS - CRIT (Estimated) [5,8]	(3,736)
Creation of Extraordinary Conservation ICS - GRIC (Estimated) [6,8]	(83,000)
Creation of Extraordinary Conservation ICS - MVIDD (Estimated) [7,8]	(6,137)
Arizona DCP Contribution [9]	(192,000)
Total State Adjusted Apportionment	2,454,727
Excess to Total State Adjusted Apportionment	-5
Estimated Allowable Use for CAP	**1,399,258**

[1] Includes the following water users within the Cibola Valley: Cibola Valley IDD, Arizona Game and Fish Commission, GSC Farm, LLC, Red River Land Company, LLC, Western Water, LLC, and the Hopi Tribe.

[2] The estimated amount of System Conservation Water that will be created by the City of Bullhead City pursuant to System Conservation Implementation Agreement (SCIA) No. 15-XX-30-W0587, as amended. This System Conservation Water will remain in Lake Mead to benefit system storage.

[3] System Conservation Water to be created by CRIT pursuant to the

Voluntary Water Conservation and Reductions in use During Calendar Years 2020-2022. This System Conservation Water will remain in Lake Mead to benefit system storage.

[4] CAP water being conserved by FMYN pursuant to SCIA No. 19-XX-30-W0658, which will remain in Lake Mead to benefit system storage. In accordance with this SCIA and Section 3.b of the *Lower Basin Drought Contingency Plan Agreement*, the Bureau of Reclamation intends to apply this water towards the Secretary of the Interior's commitment to create or conserve 100,000 AF per annum or more of Colorado River System water to contribute to conservation of water supplies in Lake Mead and other Colorado River reservoirs in the Lower Basin.

[5] CRIT has been approved to create up to 3,736 AF of Extraordinary Conservation (EC) ICS in 2020. The actual amount of EC ICS created by CRIT will be based on final accounting and verification.

[6] CAP water being conserved by GRIC to create EC ICS consistent with its approved plan to create up to 83,000 AF of EC ICS in 2020. The actual amount of EC ICS created by GRIC will be based on final accounting and verification.

[7] MVIDD has been approved to create up to 6,137 AF of EC ICS in 2020. The actual amount of EC ICS created by MVIDD will be based on final accounting and verification.

[8] When combined with the approved EC ICS creation amounts of other ICS creators in the state of Arizona, the total amount of EC ICS approved for creation in the state of Arizona is approximately 153,000 AF, which exceeds the state's annual creation limit set forth in Section XI.G.3.B.4 of the 2007 Interim Guidelines. In accordance with Section XI.G.3.B.4 and Section IV.B of the Lower Basin Drought Contingency Operations (LBOps), the total amount of EC ICS that may be created by the states of Arizona, California, and Nevada in 2020 will be limited to 625,000 AF.

[9]

ICS by and reductions in consumptive use. CAWCD has been approved to create up to 60,468 AF of EC ICS in 2020. The actual amount of EC ICS created by CAWCD and credited toward the DCP Contribution will be based on final accounting and verification.

NOTES: Click on Arizona Schedules and Approvals above for incoming diversion schedules and approvals.

Dec 29, 2020 11:07:10 AM

— BUREAU OF —
RECLAMATION

INTERIOR REGION 8: LOWER COLORADO BASIN
CY 2020

NOTE:
- Diversions and uses that are pending approval are noted in *red italics*.
- Water users with a consumptive use entitlement - **Excess to Estimated Use** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a diversion entitlement.
- Water user with a diversion entitlement - **Excess to Approved Diversion** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a consumptive use entitlement.

CALIFORNIA WATER USERS
FORECAST OF END OF YEAR CONSUMPTIVE USE
FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS
California Schedules and Approvals
Historic Use Records (Water Accounting Reports)

WATER USER	Use To Date CY 2020	Forecast Use CY 2020	Estimated Use CY 2020	Excess to Estimated Use CY 2020	Diversion To Date CY 2020	Forecast Diversion CY 2020	Approved Diversion CY 2020	Excess to Approved Diversion CY 2020
CALIFORNIA PUMPERS	1,692	1,697	1,697	---	3,073	3,081	3,081	0
FORT MOJAVE INDIAN RESERVATION, CA	7,127	7,154	8,996	---	13,246	13,297	16,720	-3,423
CITY OF NEEDLES (includes LCWSP use)	834	924	1,605	-681	1,813	1,939	2,261	-322
METROPOLITAN WATER DISTRICT	805,558	815,644		---	808,462	818,572		---
COLORADO RIVER INDIAN RESERVATION, CA	3,224	3,233	3,233	---	5,340	5,355	5,355	0
PALO VERDE IRRIGATION DISTRICT	344,300	344,348	419,768	---	787,973	791,070	856,000	-64,930
YUMA PROJECT RESERVATION DIVISION	37,987	38,154	47,721	---	79,197	79,684	91,553	-11,869
YUMA PROJECT RESERVATION DIVISION - INDIAN UNIT	---	---	---	---	41,954	42,199	46,058	-3,859
YUMA PROJECT RESERVATION DIVISION - BARD UNIT	---	---	---	---	37,243	37,485	45,495	-8,010
YUMA ISLAND PUMPERS	2,182	2,188	2,188	---	3,943	3,954	3,954	0
FORT YUMA INDIAN RESERVATION - RANCH 5	1,035	1,039	832	---	1,865	1,872	1,501	
IMPERIAL IRRIGATION DISTRICT [1]	2,483,333	2,492,479	2,640,300	-147,821	2,495,124	2,504,991	2,715,352	---
SALTON SEA SALINITY MANAGEMENT	0	0	0	0	0	0	0	---
COACHELLA VALLEY WATER DISTRICT	349,077	351,206	394,000	-42,794	368,809	371,117	406,654	---
OTHER LCWSP CONTRACTORS	640	642	642	---	1,051	1,054	1,054	0
CITY OF WINTERHAVEN	63	63	63	---	97	97	97	0
CHEMEHUEVI INDIAN RESERVATION	196	197	197	---	11,309	11,340	11,340	0
TOTAL CALIFORNIA	4,037,248	4,058,968			4,581,302	4,607,423	4,942,922	

CALIFORNIA ADJUSTED APPORTIONMENT CALCULATION	
California Basic Apportionment	4,400,000
System Conservation Water - Pilot System Conservation Program [2]	(145)
IID Creation of Extraordinary Conservation ICS - Stored in Lake Mead (Estimated) [3]	(1,579)
IID Creation of Additional Conserved Water (Estimated) [4]	(23,421)
MWD Creation of Extraordinary Conservation ICS (Estimated) [5]	(315,887)
Total State Adjusted Apportionment	4,058,968
Excess to Total State Adjusted Apportionment	0
Estimated Allowable Use for MWD	**1,131,531**

[1] As shown here, IID's Approved Diversion and Estimated Use values reflect the maximum amount of Colorado River water available to IID in 2020.

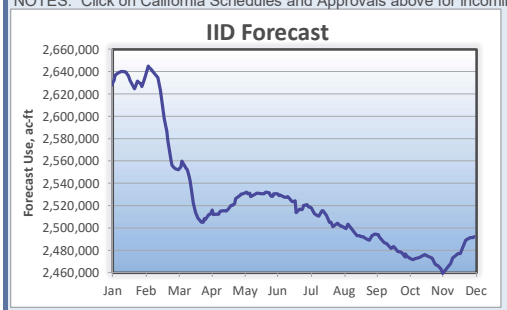
[2] System Consevation Water to be conserved by the City of Needles pursuant to System Conservation Implementation Agreement No. 15-XX-30-W0596, executed under the Pilot System Conservation Program. This water will remain in Lake Mead to benefit system storage.

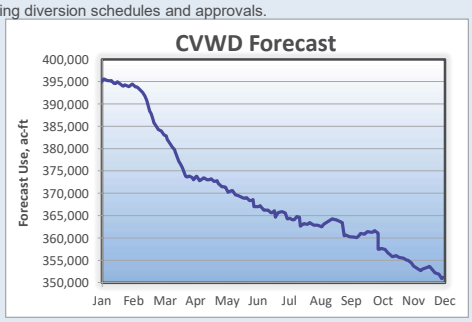
[3] IID has been approved to create up to 62,000 AF of Extraordinary Conservation (EC) ICS in 2020; however, due to limitations set forth in the California ICS Agreement, may only store up to 1,579 AF in its Lake Mead ICS Account. Creation and storage of EC ICS by IID in excess of 1,579 AF will require an executed amendment to the California ICS Agreement, which has not occurred as of the date of this forecast. The actual amount of EC ICS created by IID and stored in its Lake Mead ICS Account will be based on final accounting and verification.

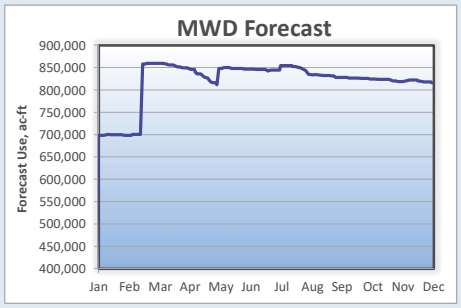
[4] In its CY 2020 water order, IID has indicated that it intends to create up to a total of 25,000 AF of "Additional Conserved Water" for purposes including, but not limited to, the creation of ICS for storage in Lake Mead. As noted above, IID may only use up to 1,579 AF of "Additional Conserved Water" for the creation and storage of EC ICS in its Lake Mead ICS Account. Storage of "Additional Conserved Water" as EC ICS in excess of this amount will require an executed amendment to the California ICS Agreement, which has not occurred as of the date of this forecast. The actual amount of "Additional Conserved Water" created by IID in 2020 will be based on final accounting and verification.

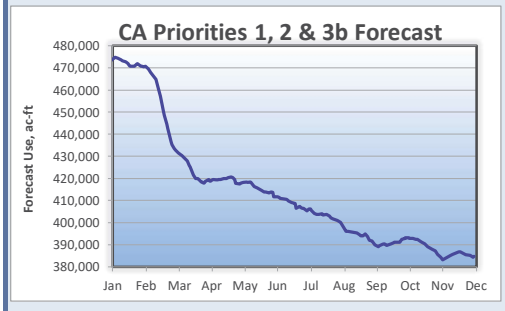
[5] MWD has been approved to create up to 450,000 AF of EC ICS in 2020, less the amount of EC ICS created by IID, and further limited to the amount that, when added to the EC ICS created by the states of Arizona and Nevada, does not exceed 625,000 AF. The actual amount of EC ICS created by MWD will be based on final accounting and verification.

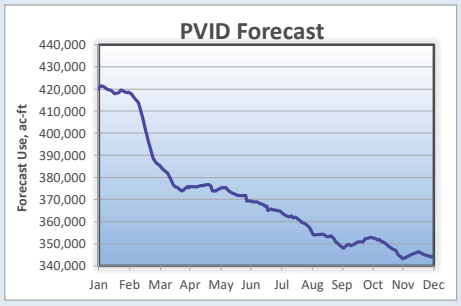
NOTES: Click on California Schedules and Approvals above for incoming diversion schedules and approvals.











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BUREAU OF RECLAMATION

INTERIOR REGION 8: LOWER COLORADO BASIN
CY 2020

NOTE:
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- Water user with a diversion entitlement - **Excess to Approved Diversion** column indicates overrun/underrun of entitlement. Dash in this column indicates water user has a consumptive use entitlement.

NEVADA WATER USERS
FORECAST OF END OF YEAR CONSUMPTIVE USE
FORECAST BASED ON USE TO DATE AND APPROVED ANNUAL WATER ORDERS
Nevada Schedules and Approvals
Historic Use Records (Water Accounting Reports)

WATER USER	Use To Date CY 2020	Forecast Use CY 2020	Estimated Use CY 2020	Excess to Estimated Use CY 2020	Diversion To Date CY 2020	Forecast Diversion CY 2020	Approved Diversion CY 2020	Excess to Approved Diversion CY 2020
ROBERT B. GRIFFITH WATER PROJECT (SNWS)	445,782	448,064		---	445,782	448,064		---
LAKE MEAD NRA, NV - Diversions from Lake Mead	417	341	1,500	---	417	341	1,500	-1,159
LAKE MEAD NRA, NV - Diversions from Lake Mohave	189	156	500	---	189	156	500	-344
BASIC MANAGEMENT INC.	4,908	4,358	8,208	---	4,908	4,358	8,208	-3,850
CITY OF HENDERSON (BMI DELIVERY)	19,297	17,176	15,878	---	19,297	17,176	15,878	**1,298**
NEVADA DEPARTMENT OF WILDLIFE	12	11	12	-1	1,189	1,097	1,000	---
PACIFIC COAST BUILDING PRODUCTS INC.	963	890	928	---	963	890	928	-38
BOULDER CANYON PROJECT	172	172	172	---	299	300	300	0
BIG BEND WATER DISTRICT	1,942	1,669	4,822	---	3,864	3,279	10,000	-6,721
FORT MOJAVE INDIAN TRIBE	2,635	2,648	4,020	---	3,933	3,952	6,000	-2,048
LAS VEGAS WASH RETURN FLOWS	-217,785	-219,654	-220,780	---				
TOTAL NEVADA	258,532	255,831	262,227	-1	480,841	479,613	491,281	-12,862
SOUTHERN NEVADA WATER SYSTEM (SNWS)	227,997	228,410				448,064		
ALL OTHERS	30,535	27,421				31,549		
NEVADA USES ABOVE HOOVER	253,955	251,514				472,382		
NEVADA USES BELOW HOOVER	4,577	4,317				7,231		

Tributary Conservation Intentionally Created Surplus (ICS)

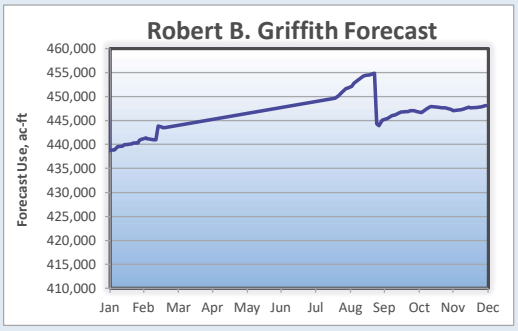
Southern Nevada Water Authority (SNWA) Creation of Tributary Conservation ICS (Approved) [1]	43,000

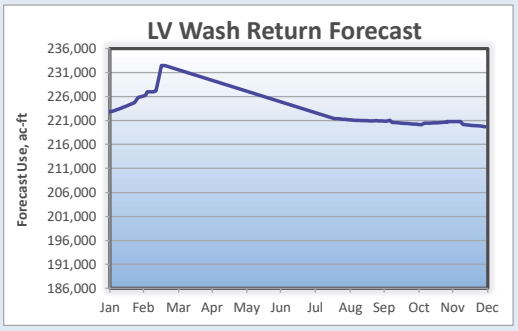
NEVADA ADJUSTED APPORTIONMENT CALCULATION

Nevada Basic Apportionment	300,000
SNWA Creation of Extraordinary Conservation (EC) ICS (Estimated) [2]	(44,169)
Total State Adjusted Apportionment	255,831
Excess to Total State Adjusted Apportionment	0

[1] SNWA has been approved to create up to 43,000 AF of TC ICS in 2020. The actual amount of TC ICS created by SNWA will be based on final accounting and verification.
SNWA has been approved to create up to 100,000 AF of EC ICS in 2020. The actual amount of EC ICS created by SNWA will be based on final accounting and verification.

NOTES: Click on Nevada Schedules and Approvals above for incoming diversion schedules and approvals.

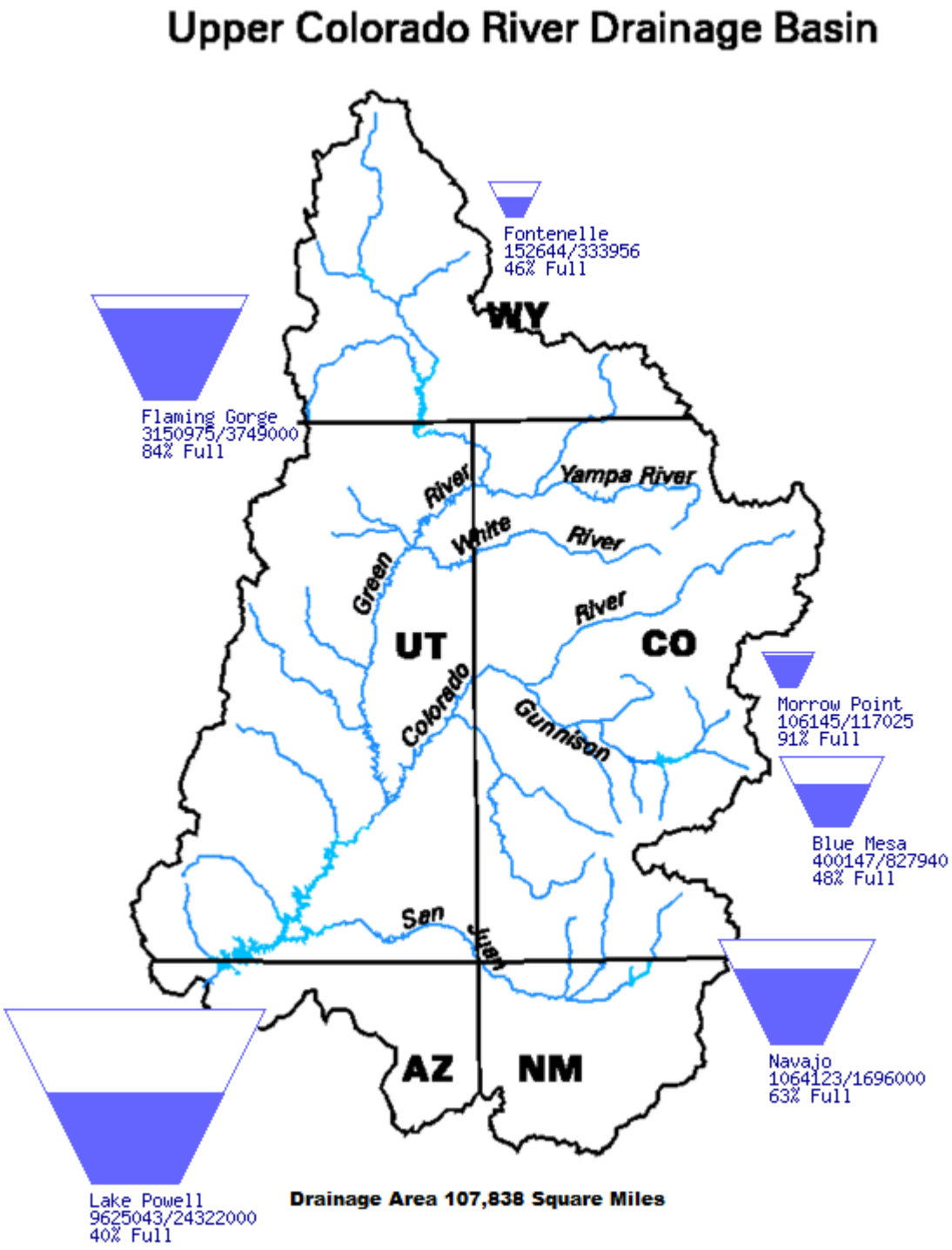




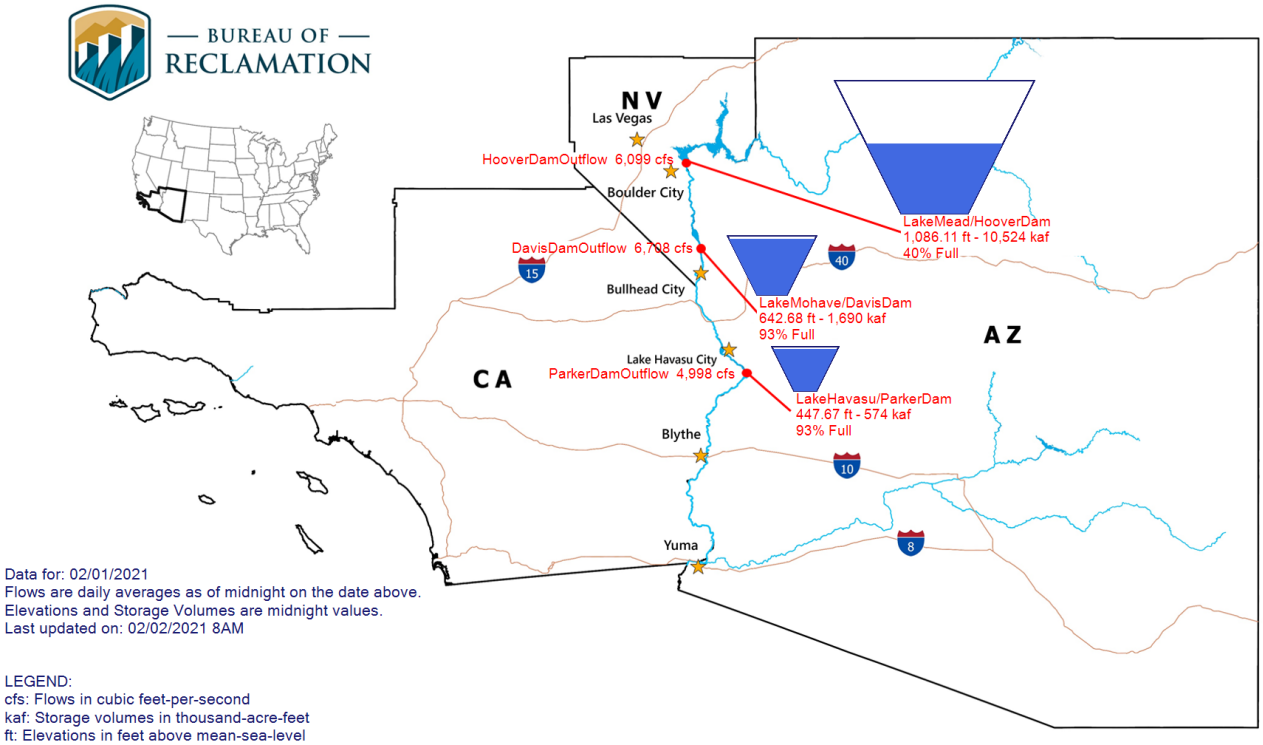
Upper Colorado Region Water Resources Group

River Basin Tea-Cup Diagrams

Data Current as of:
02/01/2021



Lower Colorado River Teacup Diagram



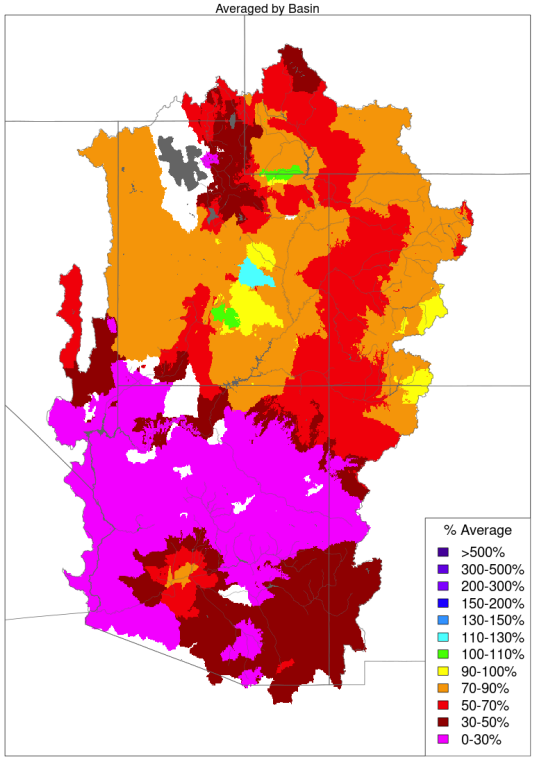
Data for: 02/01/2021
Flows are daily averages as of midnight on the date above.
Elevations and Storage Volumes are midnight values.
Last updated on: 02/02/2021 8AM

LEGEND:
cfs: Flows in cubic feet-per-second
kaf: Storage volumes in thousand-acre-feet
ft: Elevations in feet above mean-sea-level

NOAA National Weather Service Monthly Precipitation Map December 2020 and January 2021

Monthly Precipitation - December 2020

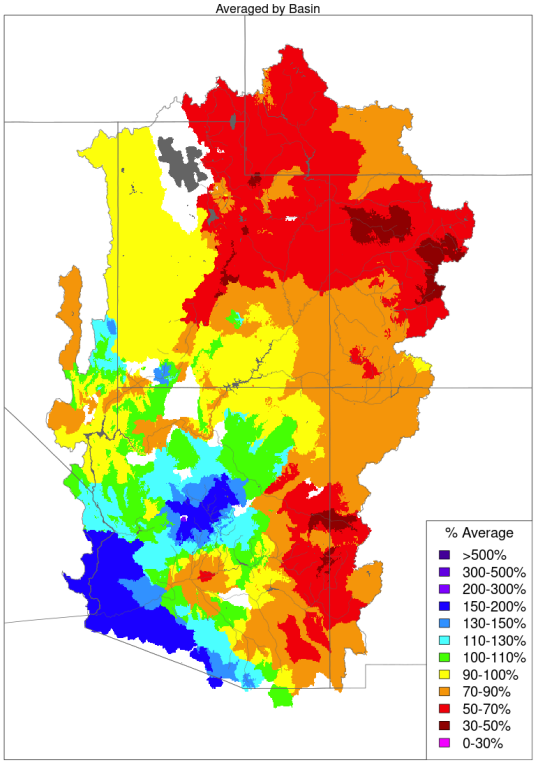
Averaged by Basin



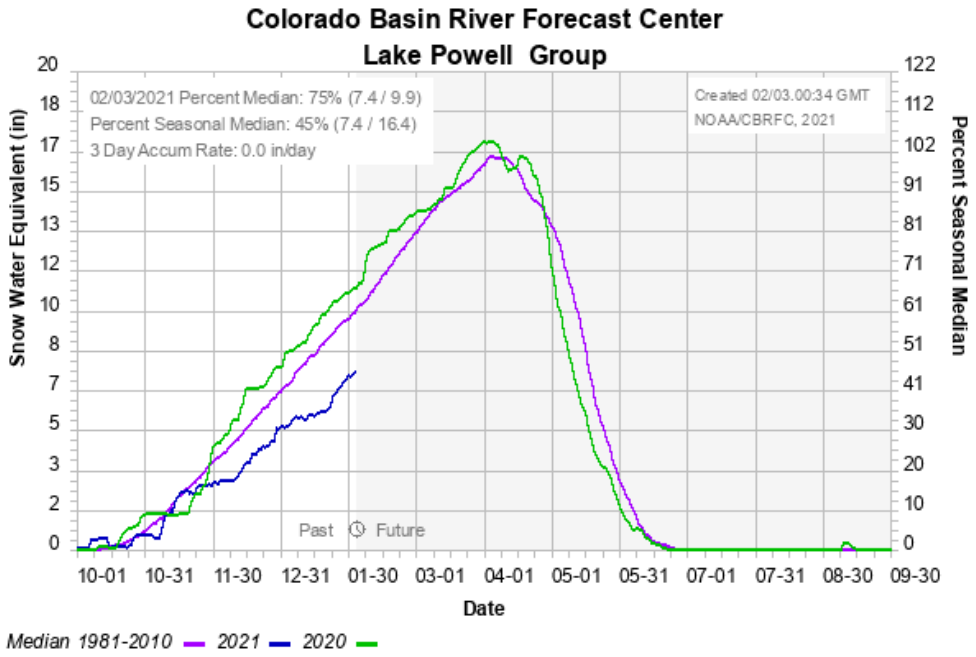
Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

Monthly Precipitation - January 2021

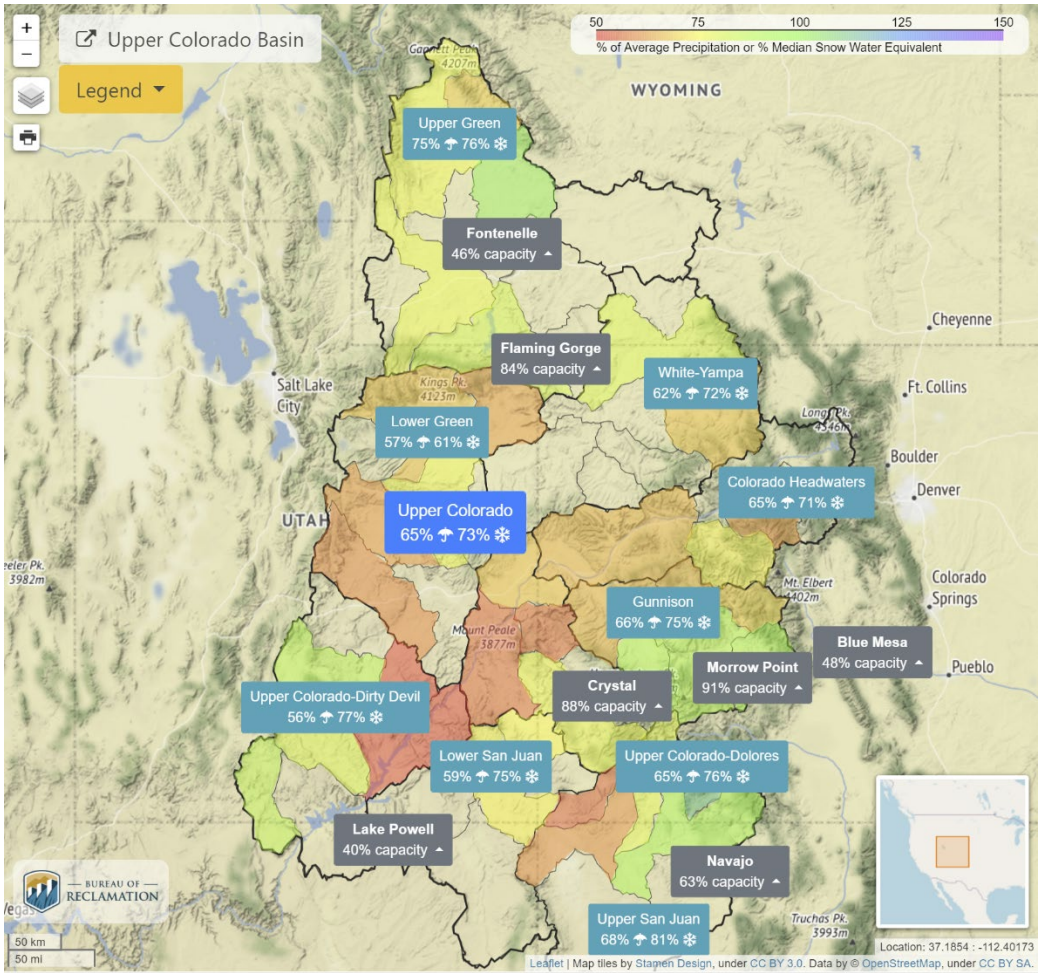
Averaged by Basin



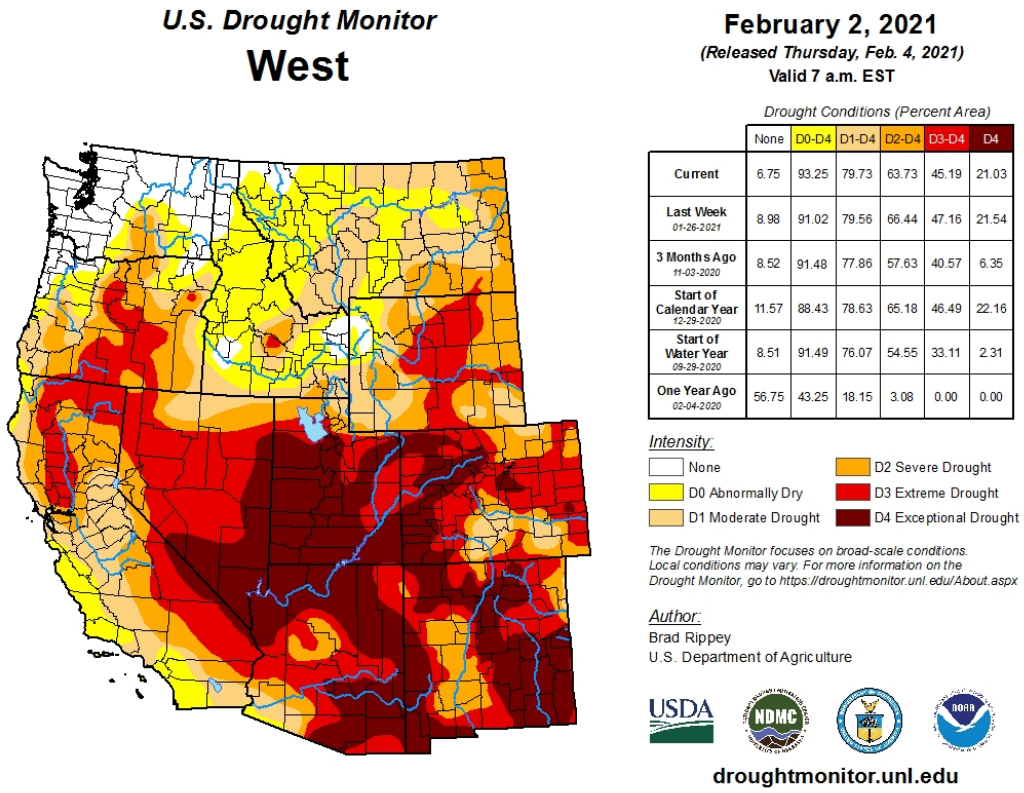
Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

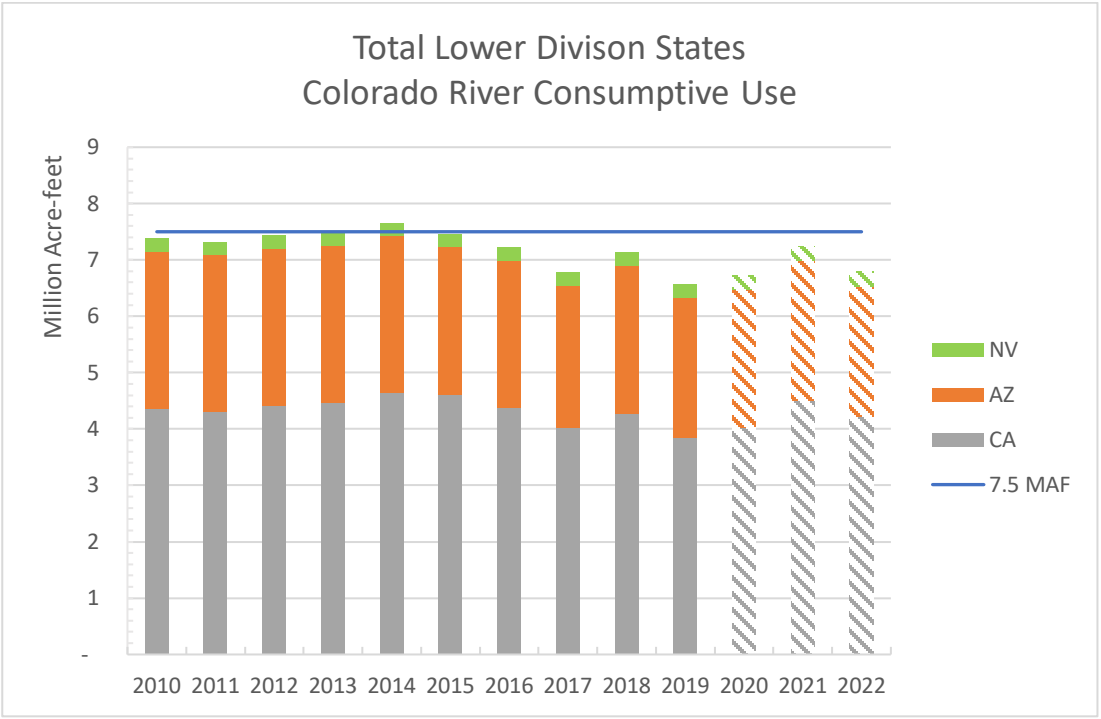


Snow Pack Conditions Map
Upper Colorado Region

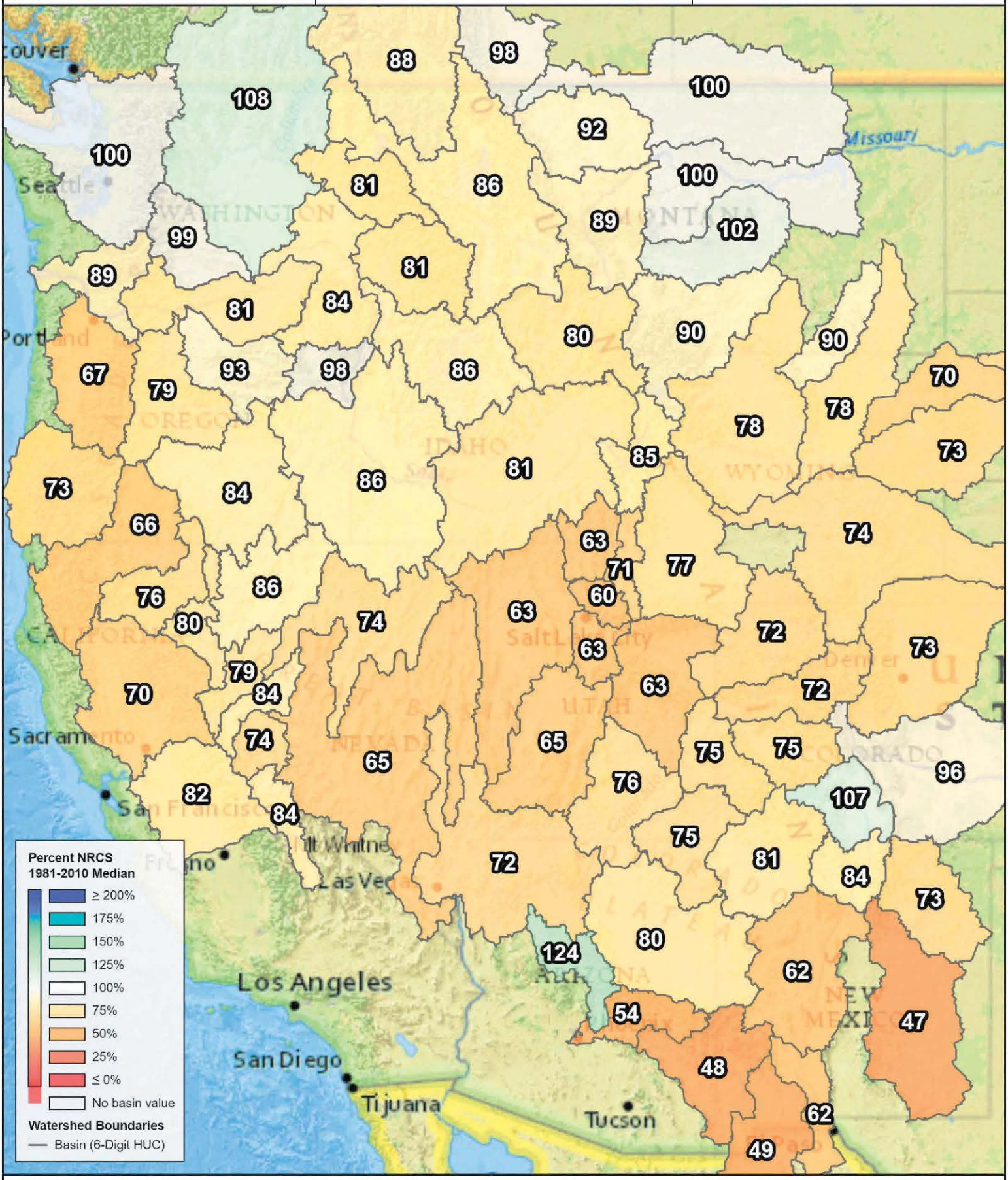


USDA United States Drought Monitor Map





Snow Water Equivalent	Percent NRCS 1981-2010 Median	February 1st, 2021



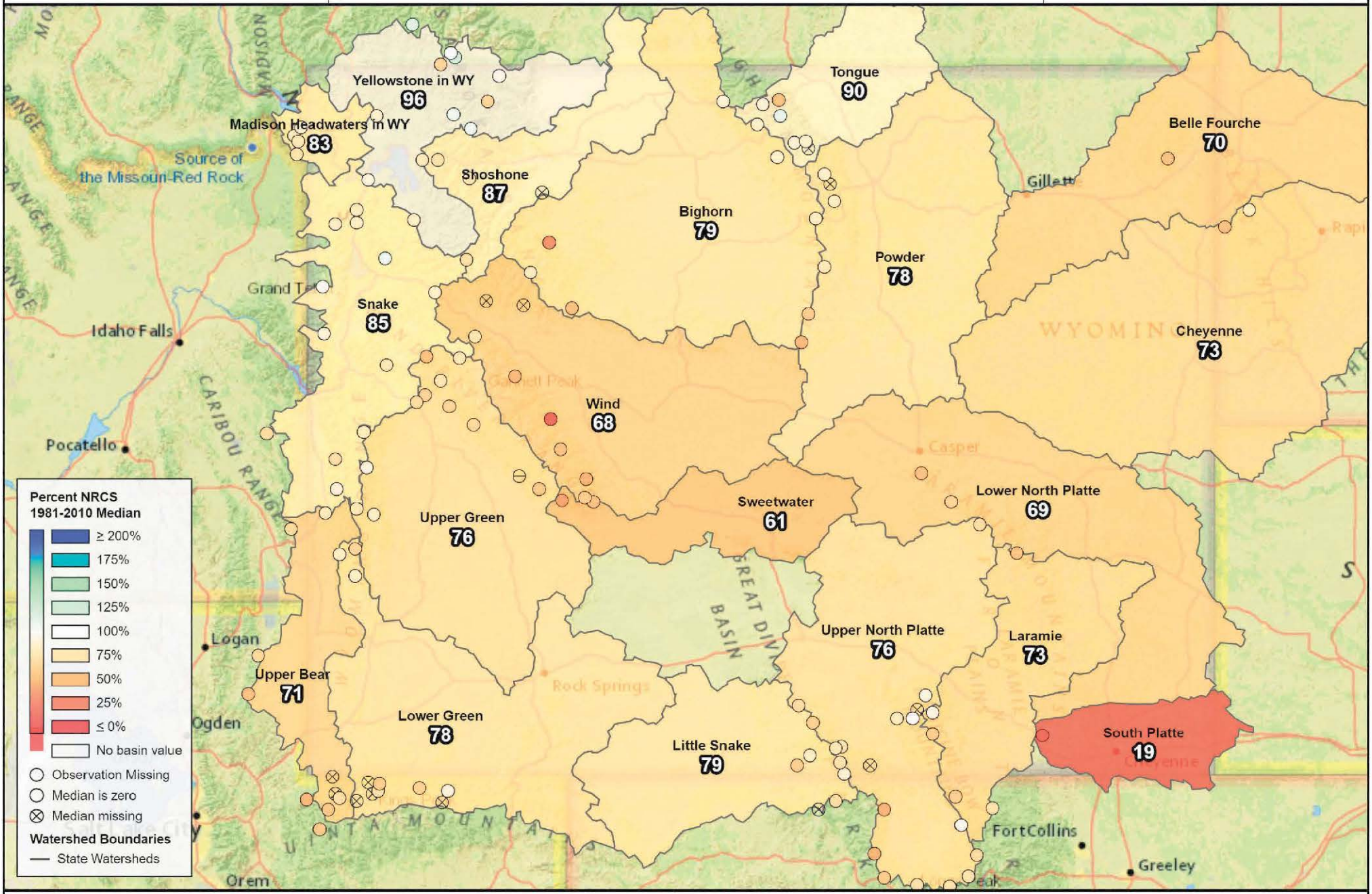
USDA Natural Resources Conservation Service
United States Department of Agriculture

N

0 30 60 120 180 240 300 Miles

Created 2-02-2021

Snow Water Equivalent	Percent NRCS 1981-2010 Median	February 1st, 2021



USDA Natural Resources Conservation Service
United States Department of Agriculture

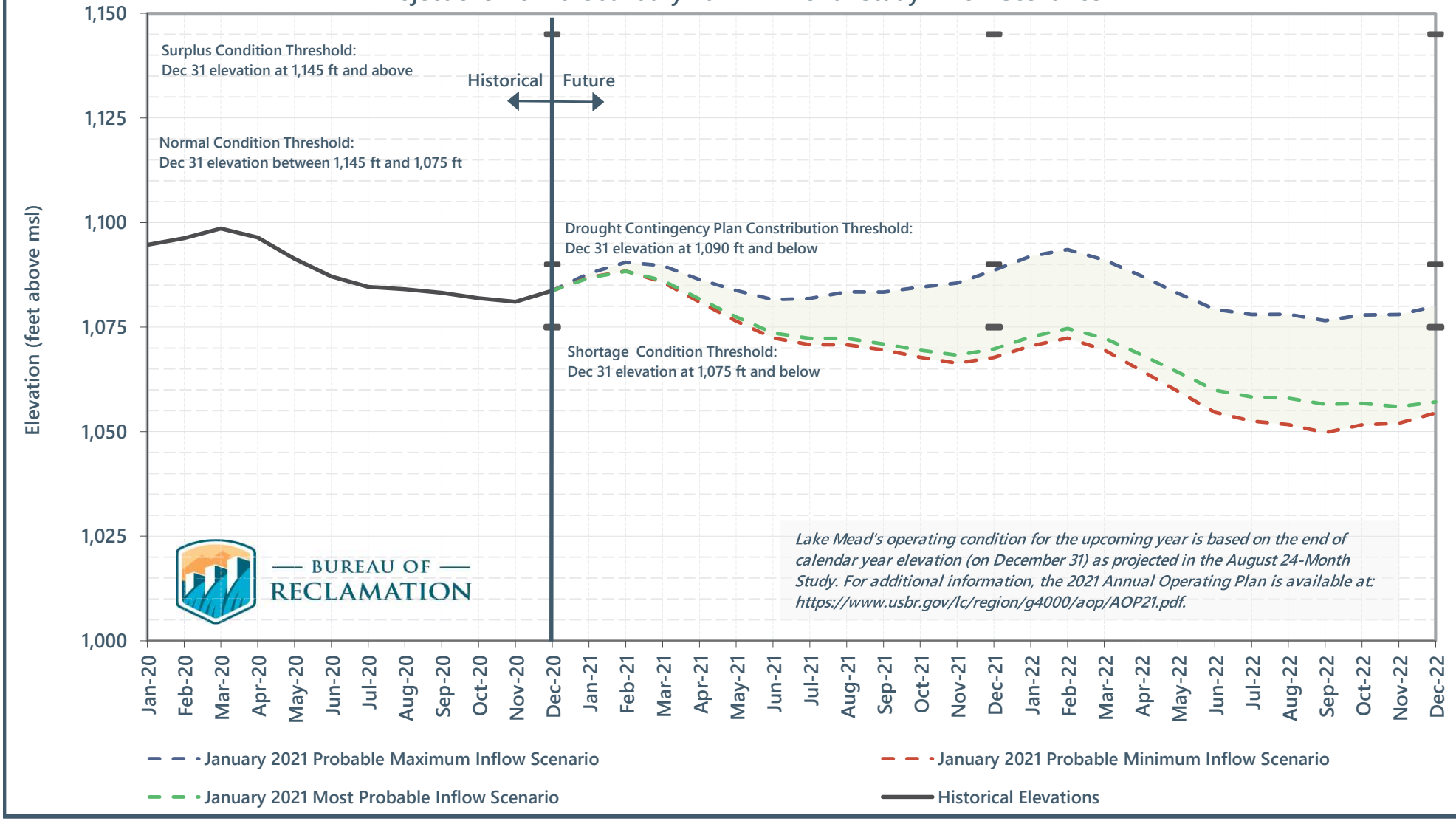
N

0 10 20 40 60 80 100 Miles

Created 2-02-2021

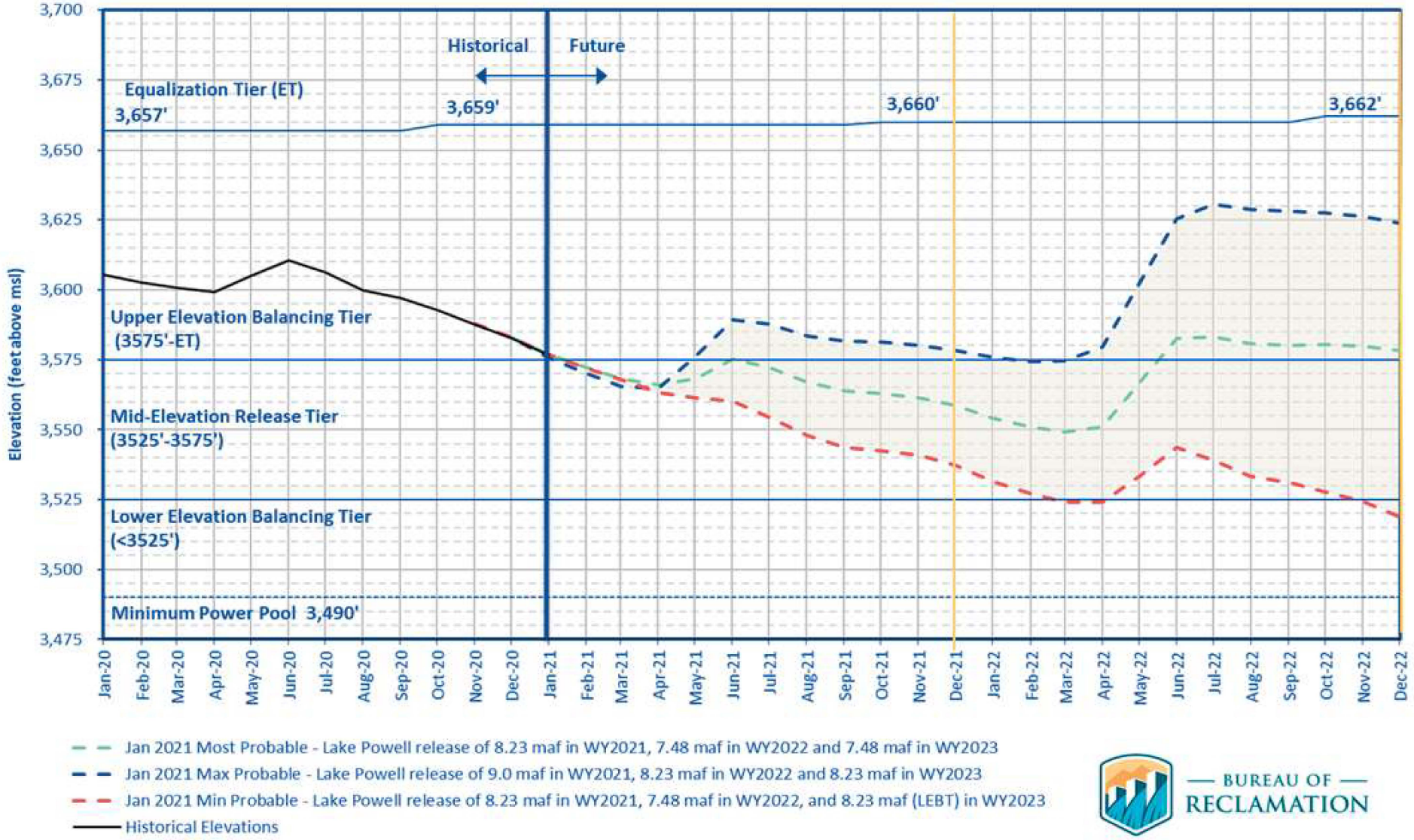
Lake Mead End of Month Elevations

Projections from the January 2021 24-Month Study Inflow Scenarios



Lake Powell End of Month Elevations

Historical and Projected based on January 2021 24-Month Study Inflow Scenarios



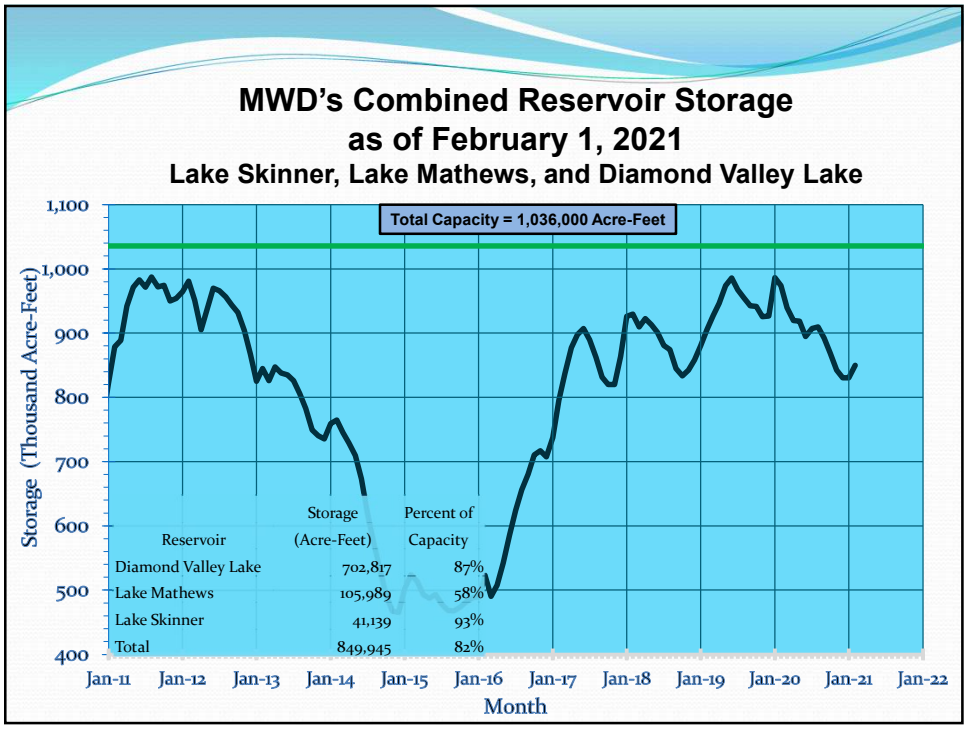
Jan 2021 Most Probable - Lake Powell release of 8.23 maf in WY2021, 7.48 maf in WY2022 and 7.48 maf in WY2023

Jan 2021 Max Probable - Lake Powell release of 9.0 maf in WY2021, 8.23 maf in WY2022 and 8.23 maf in WY2023

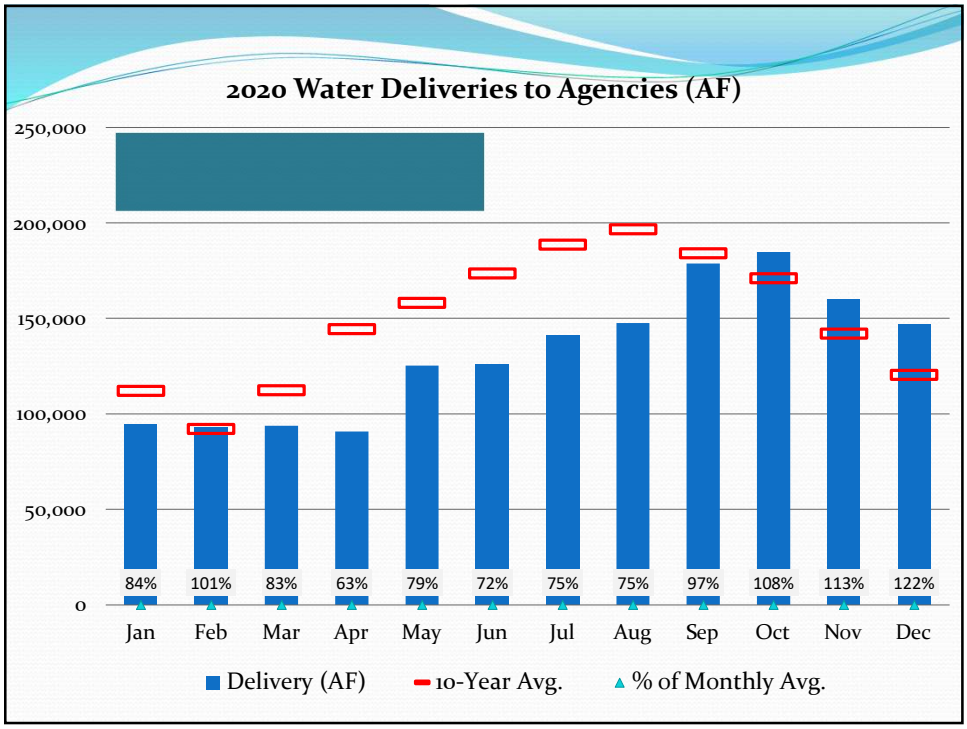
Jan 2021 Min Probable - Lake Powell release of 8.23 maf in WY2021, 7.48 maf in WY2022, and 8.23 maf (LEBT) in WY2023

Historical Elevations

BUREAU OF RECLAMATION

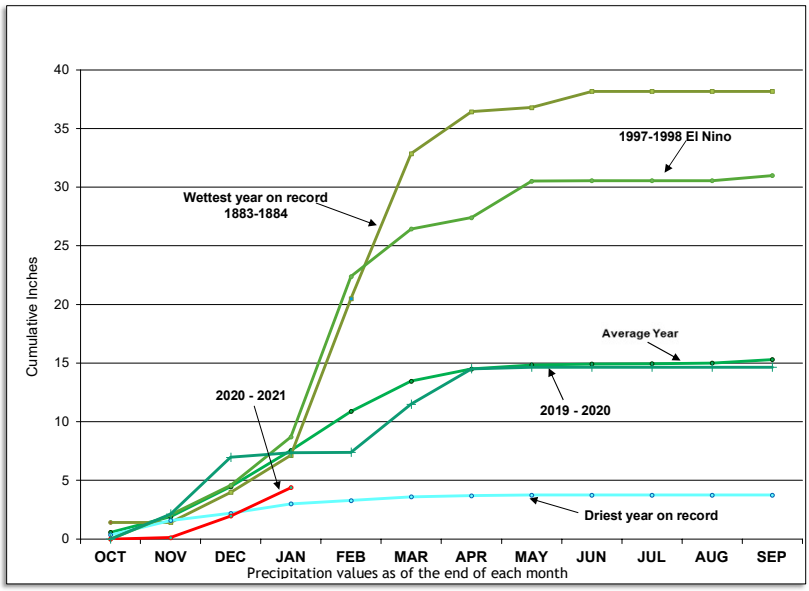

MWD's Combined Reservoir Storage
as of February 1, 2021
Lake Skinner, Lake Mathews, and Diamond Valley Lake
Total Capacity = 1,036,000 Acre-Feet
Storage (Thousand Acre-Feet)
1,100
1,000
900
800
700
600
500
400
Jan-11
Jan-12
Jan-13
Jan-14
Jan-15
Jan-16
Jan-17
Jan-18
Jan-19
Jan-20
Jan-21
Jan-22
Month
Reservoir | Storage (Acre-Feet) | Percent of Capacity
Diamond Valley Lake | 702,817 | 87%
Lake Mathews | 105,989 | 58%
Lake Skinner | 41,139 | 93%
Total | 849,945 | 82%

1


2020 Water Deliveries to Agencies (AF)
250,000
200,000
150,000
100,000
50,000
0
84%
101%
83%
63%
79%
72%
75%
75%
97%
108%
113%
122%
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Delivery (AF)
10-Year Avg.
% of Monthly Avg.

2

Los Angeles Civic Center Precipitation



1

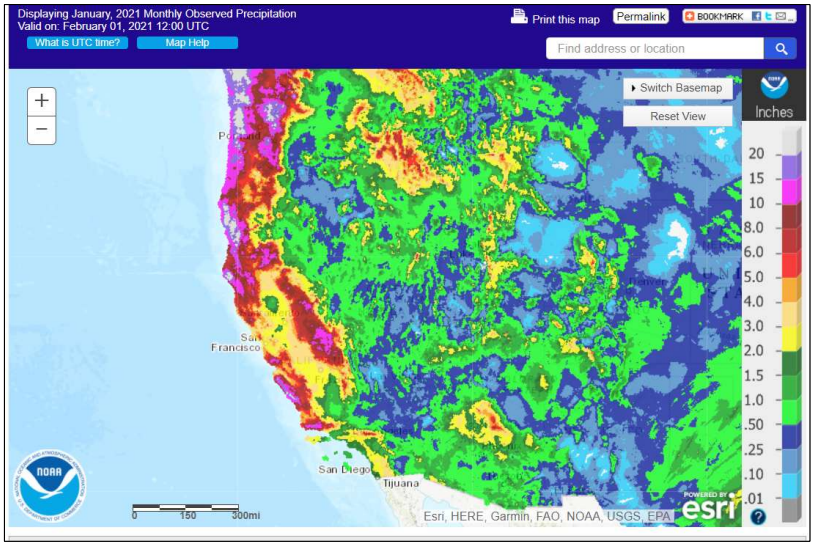
Precipitation at Six Major Stations in Southern California

From October 1, 2020 to January 31, 2021

Station	Precipitation in inches Jan	Oct 1 to Jan 31	Average to Date	Percent of Average
San Luis Obispo	6.31	7.47	12.04	62%
Santa Barbara	4.28	4.88	9.02	54%
Los Angeles	2.44	4.39	7.56	58%
San Diego	1.80	2.66	5.25	51%
Blythe	0.86	0.88	1.62	54%
Imperial	0.00	0.00	1.33	0%

2

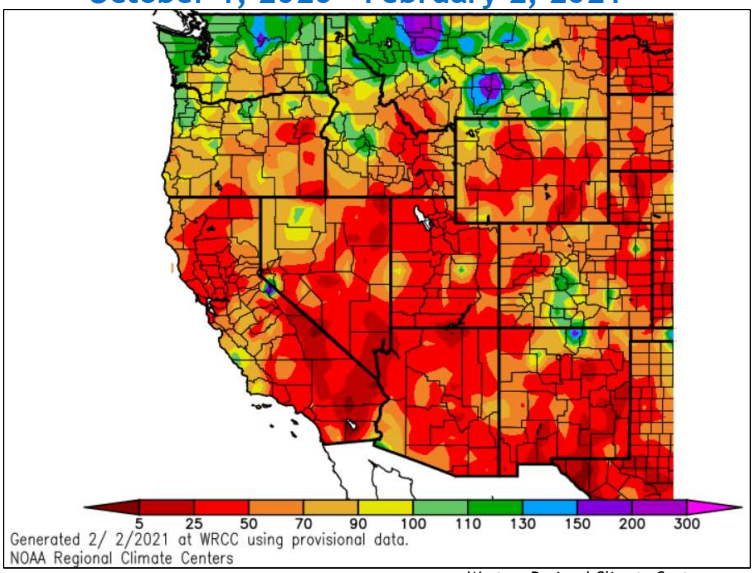
Monthly Departure From Normal Precipitation (inches)
January 2021



NOAA – National Weather Service
https://water.weather.gov/precip/

3

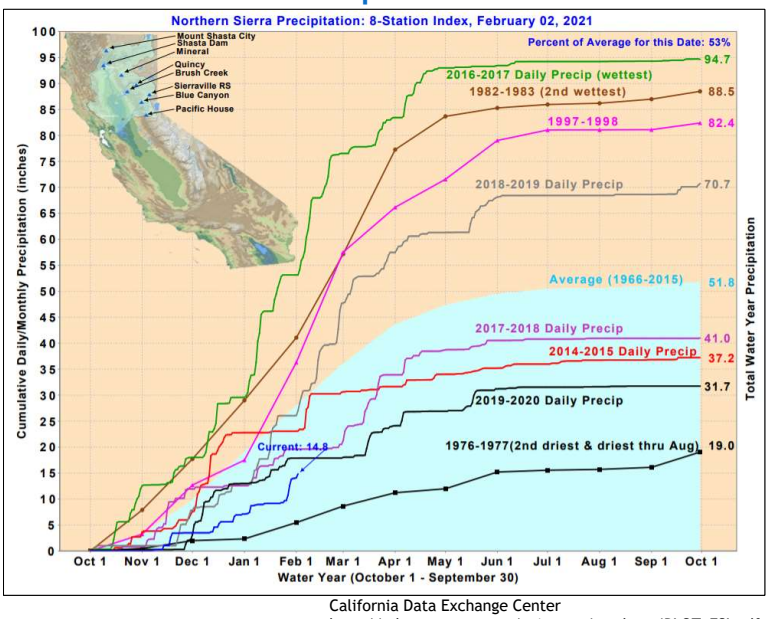
Percent of Average Precipitation (%)
October 1, 2020 – February 2, 2021



Western Regional Climate Center
https://wrcc.dri.edu/

4

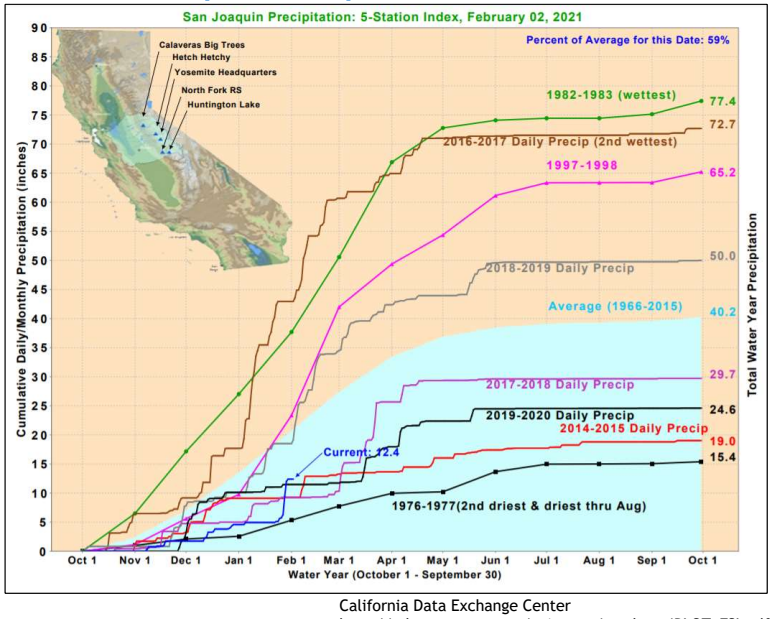
Northern Sierra Precipitation: 8 Station Index



California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_ESI.pdf

5

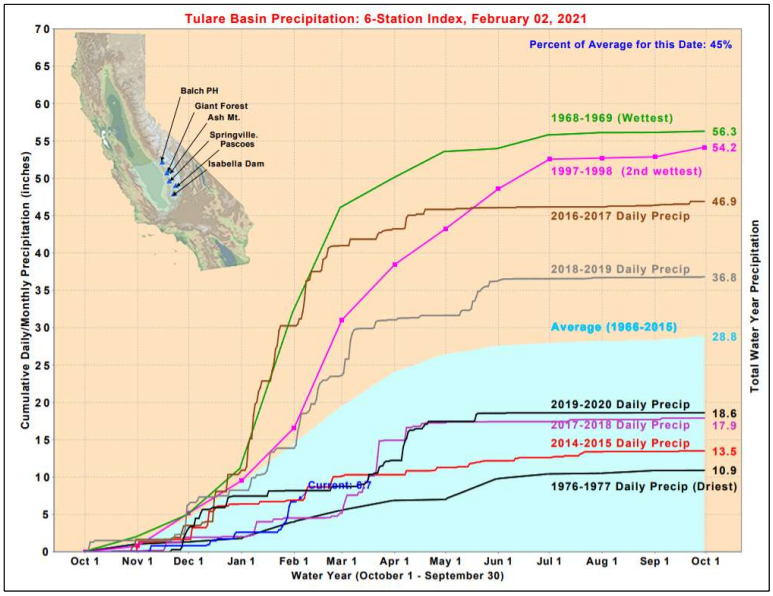
San Joaquin Precipitation: 5 Station Index



California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_FSI.pdf

6

Tulare Basin Precipitation: 6 Station Index



California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/PLOT_TSI.pdf

7

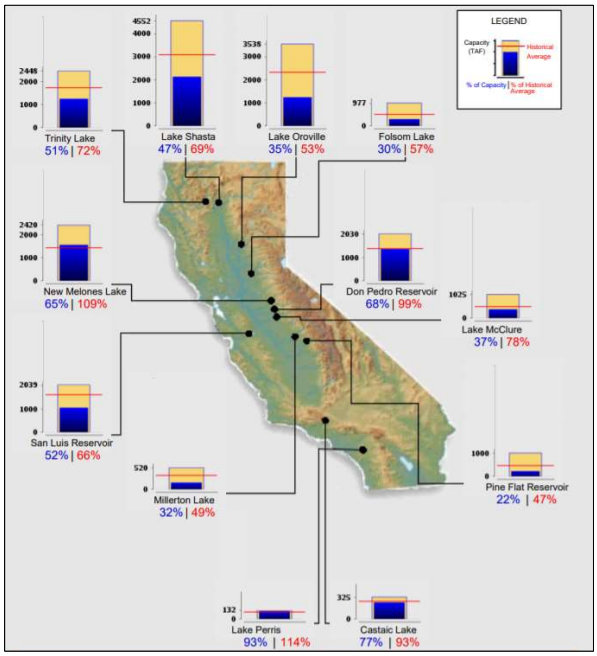
Comparison of SWP Water Storage

Reservoir	Capacity	2020 Storage (acre-feet) As of 1-Feb	2020 Storage (acre-feet) % of Cap.	2021 Storage (acre-feet) As of 1-Feb	2021 Storage (acre-feet) % of Cap.
Frenchman	55,475	45,164	81%	35,874	65%
Lake Davis	84,371	63,330	75%	52,010	62%
Antelope	22,564	17,244	76%	12,528	56%
Oroville	3,553,405	2,210,865	62%	1,240,566	35%
TOTAL North	3,715,815	2,336,603	63%	1,340,978	36%
Del Valle	39,914	25,488	64%	30,390	76%
San Luis	2,027,835	1,522,160	75%	1,065,612	53%
Pyramid	169,901	154,491	91%	152,906	90%
Castaic	319,247	232,502	73%	250,894	79%
Silverwood	74,970	59,365	79%	66,292	88%
Perris	132,614	59,049	45%	122,129	92%
TOTAL South	2,764,481	2,053,055	74%	1,688,223	61%

As of December 1, 2020, the Table A allocations for SWP contractors is 10%.

8

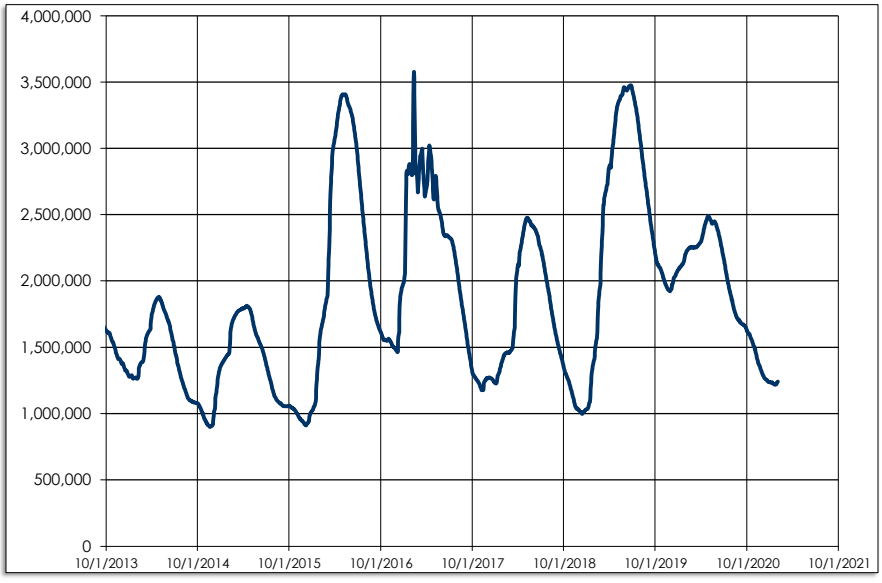
Reservoir Current Conditions as of February 2, 2021



California Data Exchange Center
https://cdec.water.ca.gov/reportapp/javareports?name=rescond.pdf

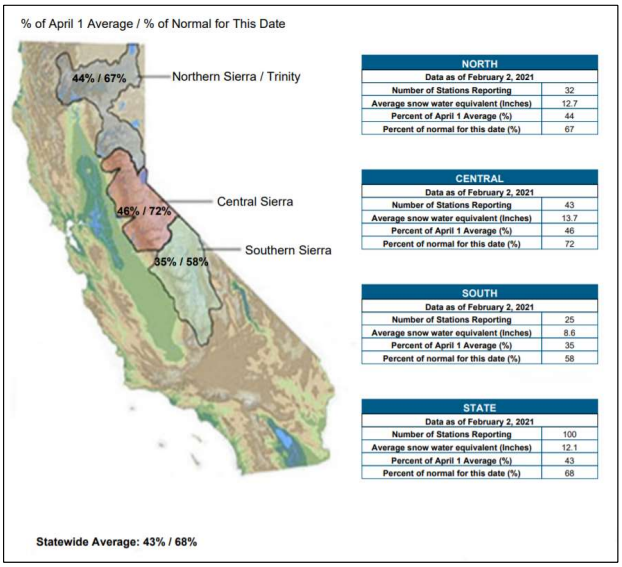
9

Oroville Storage (acre-feet) October 1, 2013 - February 1, 2021



10

Statewide Summary of Snow Water Content
As of February 2, 2021



NORTH	
Data as of February 2, 2021	
Number of Stations Reporting	32
Average snow water equivalent (inches)	12.7
Percent of April 1 Average (%)	44
Percent of normal for this date (%)	67

CENTRAL	
Data as of February 2, 2021	
Number of Stations Reporting	43
Average snow water equivalent (inches)	13.7
Percent of April 1 Average (%)	46
Percent of normal for this date (%)	72

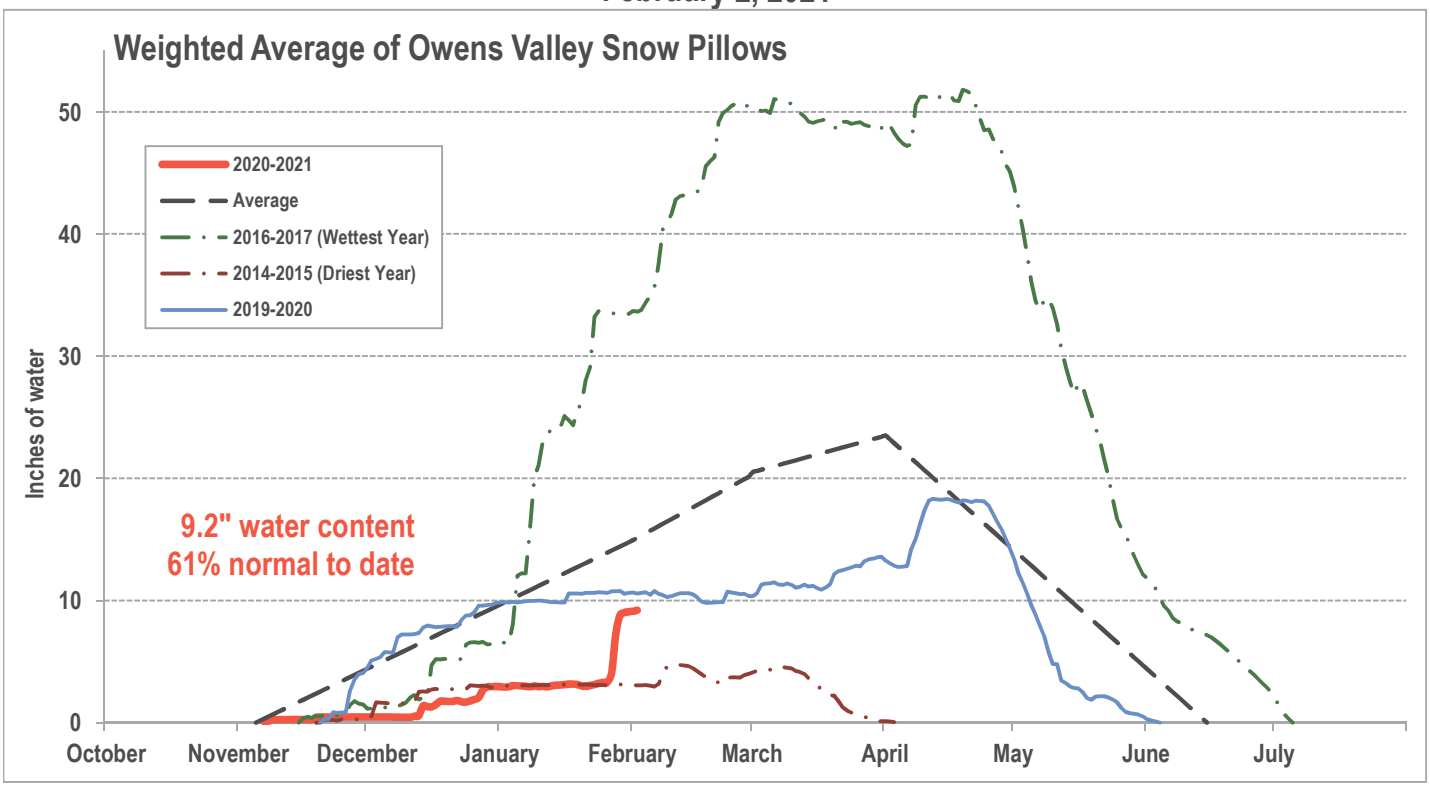
SOUTH	
Data as of February 2, 2021	
Number of Stations Reporting	25
Average snow water equivalent (inches)	8.6
Percent of April 1 Average (%)	35
Percent of normal for this date (%)	58

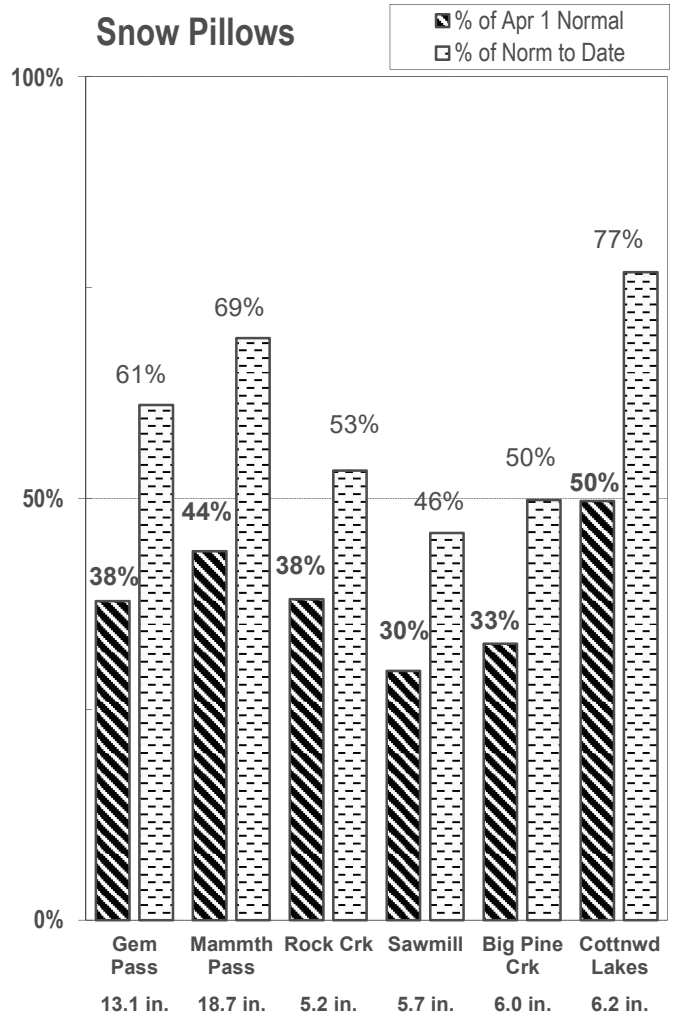
STATE	
Data as of February 2, 2021	
Number of Stations Reporting	100
Average snow water equivalent (inches)	12.1
Percent of April 1 Average (%)	43
Percent of normal for this date (%)	68

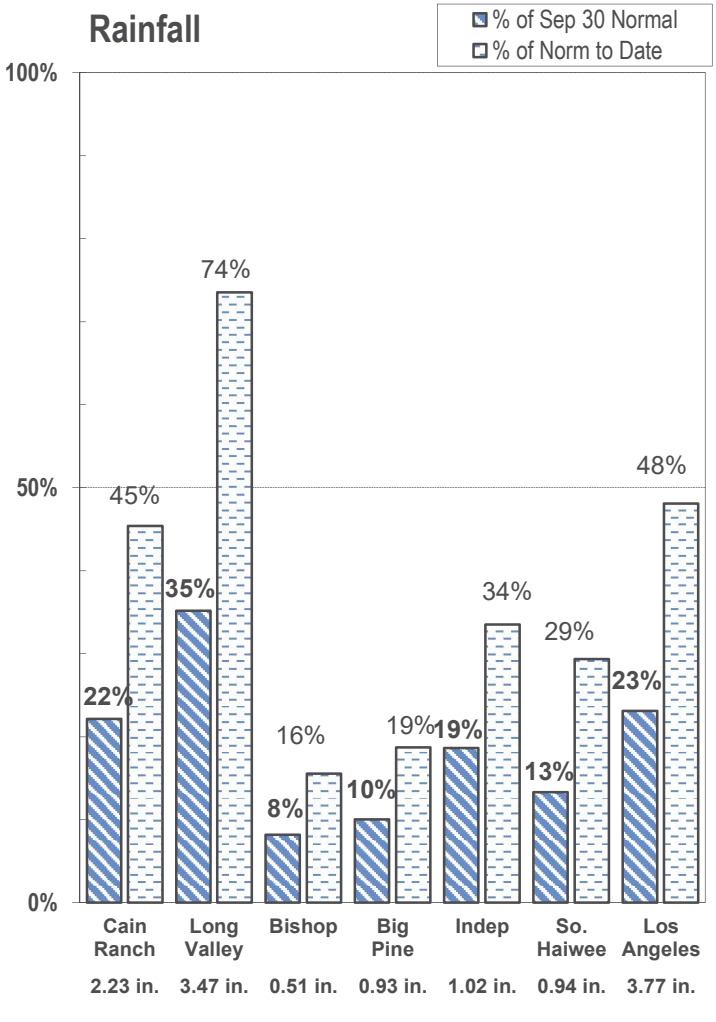
California Data Exchange Center
http://cdec.water.ca.gov/cgi-progs/products/swccond.pdf

11

EASTERN SIERRA
CURRENT PRECIPITATION CONDITIONS
February 2, 2021





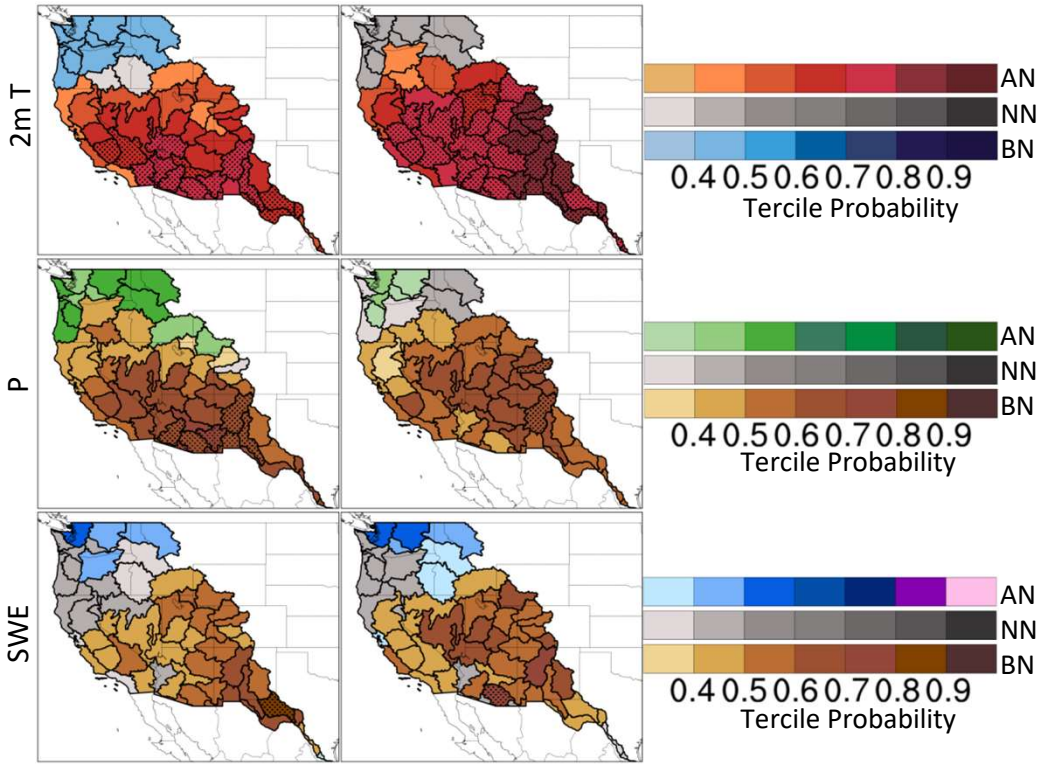


Measurement as Inches Water Content; Precipitation totals are cumulative for water year beginning Oct 1

Comparison to NMME forecast at CPC

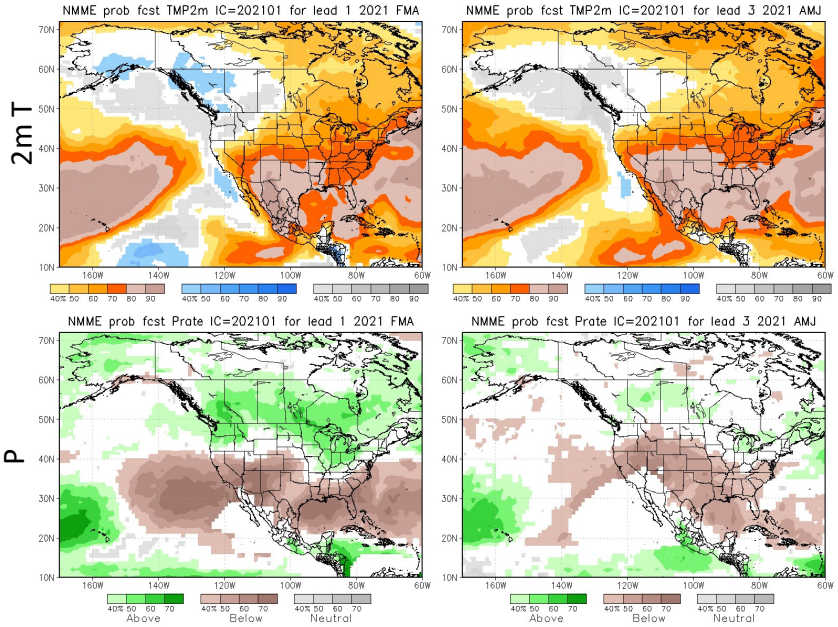
Two-Stage Hybrid over 4 digit HUC4 basins

FMA AMJ



NMME Combined Forecast (CPC)

FMA AMJ



Very similar to CPC NMME combined forecast with only subtle differences.

CPC isn't as cool over Pacific NW for FMA.

Our forecast is a bit drier over eastern Oregon for FMA.

Preliminary experimental product by UA for CDWR

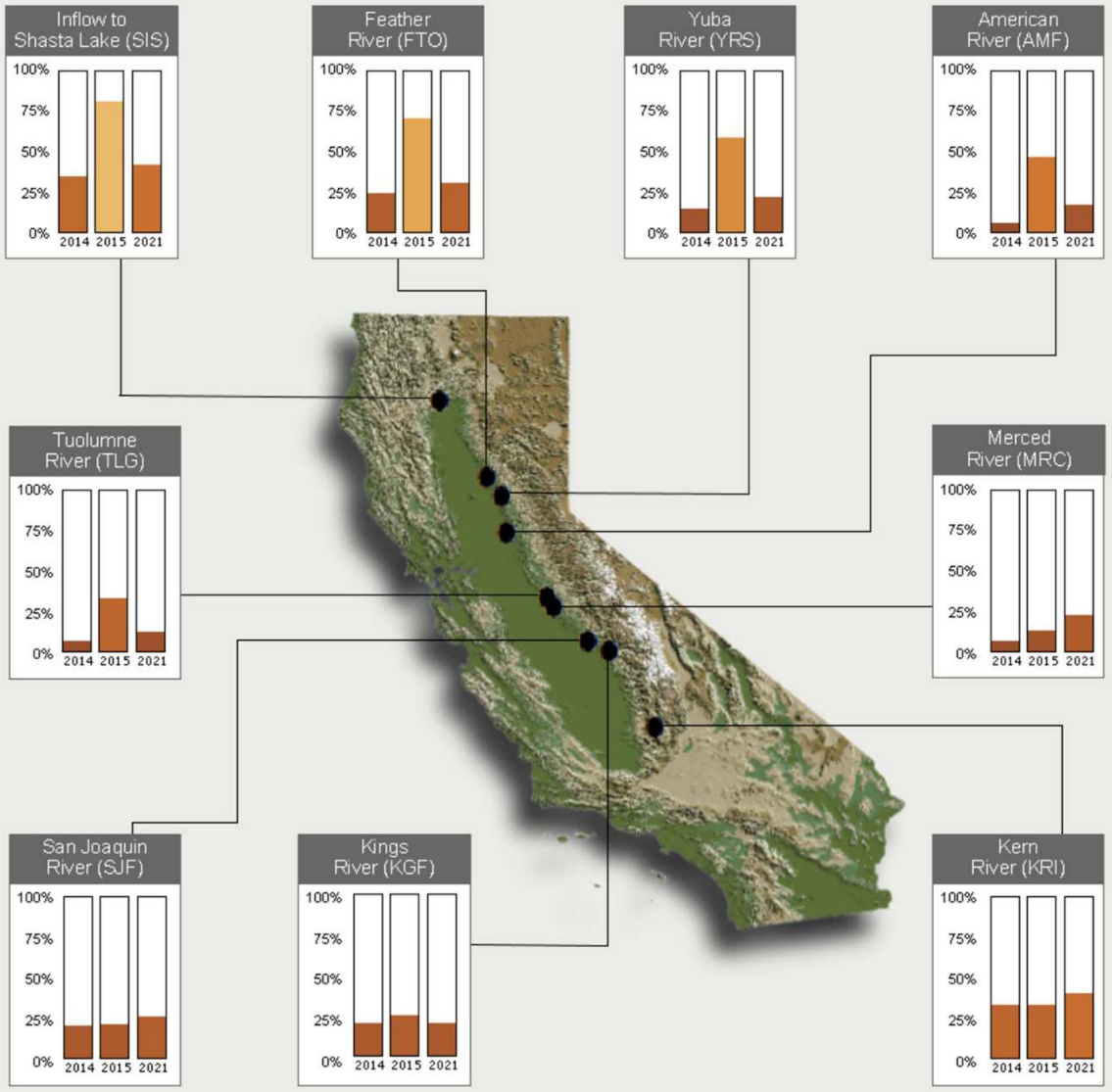
California Data Exchange Center - Accumulated Runoff

CURRENT CONDITIONS FOR SELECTED RIVERS: 04-FEB-2021

Full Natural Flow at DWR Forecast Points on Selected California Rivers

Shown as a percent of Average to Date

Data as of Midnight: 03-Feb-2021



Download as PDF Download as Image

(XYZ) = CDEC Station ID

Date Created: 02/04/2021

United States Department of the Interior
BUREAU OF RECLAMATION
125 South State Street, Room 8100
Salt Lake City, UT 84138-1102

IN REPLY REFER TO:
UC-100
2.2.4.21

VIA US AND ELECTONIC MAIL

Subject: Implementation of the Upper Basin Drought Contingency Plan (DCP), Drought Response Operations Agreement (DROA), Colorado River Basin

Dear Interested Parties:

In accordance with Section II.A.4.a.i of the DROA, we are notifying you that Reclamation's January 2021 Minimum Probable 24-Month Study model indicates that Lake Powell is projected to be below elevation 3,525 feet in 2022; the "minimum probable" designation means that 90 percent of the model runs used in the 24-Month Study indicated higher reservoir levels. This projection initiates enhanced monitoring and coordination under the DROA pursuant to Section II.A.4. This projection does not initiate operational changes to Reclamation facilities.

Reclamation requests that the Upper Colorado River Commissioner and the Upper Division States identify representatives to participate in the monthly meetings pursuant to Section II.A.4.a.iii. Please provide the names of the Upper Division State's representatives to Wayne Pullan at wpullan@usbr.gov as soon as possible.

If you have questions or concerns, please contact Jaci Gould or Wayne Pullan. For Text Telephone Relay Service access, call the Federal Relay System Text Telephone (TTY) number at (800) 877-8339.

Sincerely,

Wayne Pullan
Regional Director
Upper Colorado Basin Region
Bureau of Reclamation

Jacklynn Gould
Acting Regional Director
Lower Colorado Basin Region
Bureau of Reclamation

IDENTICAL LETTER SENT TO:

Ms. Amy Haas
Upper Colorado River Commission
Executive Director
355 South 400 East
Salt Lake City, UT 84111
E-Mail: ahaas@ucrcommission.com

Thomas Buschatzke
Director
Arizona Department of Water Resources
P.O. Box 36020
Phoenix, Arizona 85067
E-Mail: tbuschatzke@azwater.gov

Chris Harris
Colorado River Board of California
770 Fairmont Ave., Suite 100
Glendale, CA 91203
E-mail: csharris@crb.ca.gov

John Entsminger
General Manager
Southern Nevada Water Authority
1001 South Valley View Boulevard
Las Vegas, Nevada 89153
E-Mail: john.entsminger@snwa.com

COPIES SENT TO:

United States Commissioner
Gregory Smith
81 Kennedy Street
Alexandria, VA 22305
E-Mail: gsmitty2004@yahoo.com

Utah Commissioner
Mr. Gene Shawcroft, Commissioner
Manager, Central Utah Water Conservancy District
355 West University Parkway
Orem, Utah 84058
E-Mail: gene@cuwcd.com

Colorado Commissioner
Ms. Rebecca Mitchell, Commissioner
Director, Colorado Water Conservation Board
1313 Sherman Street, Room #718
Denver, Colorado 80203
E-Mail: Rebecca.mitchell@state.co.us

New Mexico Commissioner
Mr. John R. D'Antonio, Commissioner
New Mexico State Engineer
P.O. Box 25102
Santa Fe, New Mexico 87504
E-Mail: john.dantonio@state.nm.us

Wyoming Commissioner
Mr. Patrick T. Tyrrell, Commissioner
6015 E. Riding Club Road
Cheyenne, Wyoming 82009
E-Mail: ptyrre@gmail.com

cc: rodney.smith@sol.doi.gov, mwilson@usbr.gov

January 28, 2021

VIA ELECTRONIC MAIL – COPIES TO FOLLOW VIA U. S. MAIL

Catherine M. Russell, Director
Office of Presidential Personnel
Eisenhower Executive Office Building, 1st fl
1650 Pennsylvania Avenue
Washington, DC 20240

Dear Ms. Russell:

The International Boundary and Water Commission (IBWC) was formed by treaty in 1944 to regulate and exercise the respective rights and obligations of the United States and the Republic of Mexico regarding boundary disputes and the shared use of the waters of the Colorado River, the Rio Grande and the Tijuana River. See "United States-Mexico Treaty on Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande" (1944 Treaty). The IBWC is an international body consisting of United States and Mexican "Sections;" each Section headed by a Commissioner. Jayne Harkins was appointed to the position of United States Commissioner in 2018, and the undersigned Governors' representatives of the seven Colorado River Basin States write today to voice enthusiastic support for retaining Ms. Harkins as Commissioner of the United States Section.

As you know, the Colorado River provides a vital and irreplaceable resource to communities across the seven Basin States and the Republic of Mexico. An historic drought has impacted the Colorado River system for the past twenty years, coinciding with particularly rapid population growth in the desert southwest and Mexico. Today, climate change, the ongoing drought, and warming temperatures put tremendous pressure on our limited hydrologic resources just as our demands increase. The Seven Basin States, the United States, Mexico, Tribes, NGOs, and many others with critical stakes in the Colorado River system meet these daunting challenges by developing a shared understanding of hydrologic realities and collaborating on creative management initiatives intended to enhance Colorado River sustainability.

For example, in Minute 323, an implementing agreement to the 1944 Treaty in effect since September 2017, the United States and Mexico agreed to share water reductions during shortage and additional water during surplus. In addition, Minute 323 provides for the sharing of hydrologic information, storage of Mexican waters in the United States, shared costs and benefits of certain water conservation projects in Mexico, an approach to handling salinity issues under the 1944 Treaty, the funding of water contributions for the Colorado River system and environment, and a binational water scarcity plan that requires Mexico to store more water in the United States at certain Lake Mead elevations when the States are doing the same. All of these matters require close coordination between the United States and Mexican Sections and the direct involvement of the Basin States, and Ms. Harkins, a long-time civil servant at both the

federal and state level, has done exemplary work in that regard. Moreover, she has done so at a time where dramatic turnover within the Mexican Section of IBWC and at Mexico's federal water agency, CONAGUA, have made such coordination markedly more difficult.

As the Colorado River Basin States and others begin negotiations this year to replace the existing guidelines setting forth the operations of Lakes Powell and Mead, continuity in the United States' relationship with Mexico is critical. Retaining Ms. Harkins in her current role as IBWC Commissioner would not only provide the necessary continuity, it also would ensure that the United States continues to be a good steward of the 1944 Treaty and an effective partner with the Colorado River Basin States.

Sincerely,

Thomas Buschatzke
Governor's Representative
State of Arizona

Rebecca Mitchell
Governor's Representative
State of Colorado

Peter Nelson
Governor's Representative
State of California

John J. Entsminger
Governor's Representative
State of Nevada

John R. D'Antonio Jr.
Governor's Representative
State of New Mexico

Gene Shawcroft
Governor's Representative
State of Utah

Patrick T. Tyrrell
Governor's Representative
State of Wyoming

cc: Julie Chung, Acting Assistant Secretary
Bureau of Western Hemisphere Affairs

United States Department of the Interior

BUREAU OF RECLAMATION
Western Colorado Area Office
445 West Gunnison Avenue, Suite 221
Grand Junction, CO 81501

IN REPLY REFER TO:

WCG-LMcWhirter
2.1.4.17

VIA ELECTRONIC MAIL ONLY

Mr. Christopher Harris
Colorado River Board of California
crb@crb.ca.gov

Subject: Comments on the Final Environmental Impact Statement for the Paradox Valley Unit of the Colorado River Basin Salinity Control Program

Dear Mr. Harris:

Thank you for your recent letter and comments on the Final Environmental Impact Statement for the Paradox Valley Unit of the Colorado River Basin Salinity Control Program (PVU FEIS), as provided for under former 40 CFR 1506.10(b)(2) (now 40 CFR 1506.11(b)(2)). Your letter has been referred to me for response. We appreciate your interest in and support of the Colorado River Basin Salinity Control Program and the PVU. It is important to note that Reclamation does not intend to issue a Record of Decision associated with the PVU FEIS. We remain committed to working collaboratively in furthering the objectives of the Salinity Control Program.

If you have questions or concerns, please let me know.

Sincerely,

Ed Warner
Area Manager

cc:

Mr. Rich Juricich
Colorado River Board of California
rjuricich@crb.ca.gov

cc: MIB-DPalumbo, WBR-WPullan, WBR-KJacobson, WCG-JLiff, WCG-LMcWhirter

Press Releases

Interior Department Announces Members of Biden-Harris Leadership Team

1/20/2021

Date: Wednesday, Jan 20, 2021
Contact: Interior_Press@ios.doi.gov

Washington, D.C — The Department of the Interior today announced key members of agency leadership who will advance the Biden-Harris administration's agenda to build back better and address the four intersecting challenges of our time: COVID-19, economic recovery, racial equity, and climate change.

"With today's announcement, President Biden is delivering on his commitment to build teams that exude talent and experience, and look like America," **said Jennifer Van der Heide, incoming Chief of Staff**. "We look forward to working with the dedicated civil servants at the Department to fulfill Interior's missions, advance President Biden's vision to honor our nation-to-nation relationship with Tribes and uphold the trust and treaty responsibilities to them, address the climate and nature crises, and build a clean energy future that creates good-paying jobs and powers our nation. We are ready to get to work on behalf of the American people."

Interior's team reflects the Biden-Harris commitment to diversity, with more than 80% of First Day appointees identifying as people of color, women, or LGBTQ. Additional members of the Biden-Harris appointee team will be named in the days and weeks to come.

The incoming leadership team possesses a broad range of expertise and perspectives — representing decades of experience in federal, state, and tribal governments; academia; and non-profit and advocacy organizations. As part of the Biden-Harris administration's commitment to the highest ethical standards, all appointees received an initial ethics training today following their swearing-in.

The leadership team is listed here in alphabetical order along with their new role:

- Robert Anderson, Principal Deputy Solicitor
- Travis Annatoyn, Deputy Solicitor for Energy and Mineral Resources
- Ann Marie Bledsoe Downes, Deputy Solicitor for Indian Affairs
- Tyler Cherry, Press Secretary

- Laura Daniel Davis, Principal Deputy Assistant Secretary - Land and Minerals Management
- Shannon Estenoz, Principal Deputy Assistant Secretary - Fish and Wildlife and Parks
- Morgan Gray, Deputy Director of Congressional Affairs - Senate
- Ruchi Jain, Deputy Solicitor for General Law
- Kate Kelly, Deputy Chief of Staff - Policy
- Marissa Knodel, Advisor, Bureau of Ocean Energy Management
- Shantha Ready Alonso, Director for Intergovernmental and External Affairs
- Paniz Rezaeerod, Deputy Director of Congressional Affairs - House
- Melissa Schwartz, Communications Director
- Janea Scott, Counselor to the Secretary
- Rachael Taylor, Principal Deputy Assistant Secretary - Policy, Management and Budget
- Maggie Thompson, White House Liaison
- Maria (Camille) Touton, Deputy Commissioner, Bureau of Reclamation
- Tanya Trujillo, Principal Deputy Assistant Secretary - Water and Science
- Jennifer Van der Heide, Chief of Staff
- Andrew Wallace, Director of Congressional Affairs
- Martha Williams, Principal Deputy Director, Fish and Wildlife Service

Biographies of the new team are listed below:

Robert Anderson, Principal Deputy Solicitor

Bob Anderson is a law professor with extensive experience in American Indian law, public land, and water law. He is an enrolled member of the Bois Forte Band of the Minnesota Chippewa Tribe. He taught at the University of Washington School of Law and directed its Native American Law Center for the past twenty years. For over a decade he has been an annual visiting professor at Harvard Law School. He served as the Associate Solicitor for Indian Affairs and Counselor to the Secretary under Interior Secretary Bruce Babbitt. He began his career as a staff attorney for the Native American Rights Fund.

Travis Annatoyn, Deputy Solicitor for Energy and Mineral Resources

Travis Annatoyn joins the Department of the Interior from Democracy Forward Foundation, where he represented national and regional conservation organizations in novel challenges to the Trump administration's environmental agenda. He began his litigation career as a trial attorney at the Department of Justice's Environment and Natural Resources Division, and holds a B.A. from the University of Michigan and a J.D. from Columbia University.

Ann Marie Bledsoe Downes, Deputy Solicitor for Indian Affairs

Ann Marie Bledsoe Downes most recently served as the Executive Vice President of Community Impact and Engagement at Ho-Chunk, Inc. She previously served as the Deputy Assistant Secretary for Policy and Economic Development for Indian Affairs at the U.S. Department of the Interior and as Interim Director of the Bureau of Indian Education. She was also Executive Director of the Indian Legal Program (ILP) at ASU. She received a B.A. from Wayne State College and a J.D. from Arizona State University Sandra Day O'Connor College of Law. She is an enrolled member of the Winnebago Tribe of Nebraska.

Tyler Cherry, Press Secretary

Tyler Cherry most recently served as Director of Rapid Response for the Biden-Harris Arizona coordinated campaign. Before joining the campaign, Tyler was Director of Public Affairs at the political consulting firm SKDK, where he crafted and executed strategic communications plans for dozens of political, advocacy, corporate, and legal clients. He also previously worked at Media Matters for America as a campaigns associate and researcher. Tyler is a Los Angeles native and graduated from UCLA with a political science degree. He lives in Washington, D.C. with his partner and two exuberant cats.

Laura Daniel Davis, Principal Deputy Assistant Secretary - Land and Mineral Management

Laura Daniel Davis has more than two decades of experience in the public and non-profit sectors. She served as Chief of Staff to Interior Secretaries Sally Jewell and Ken Salazar in the Obama administration. She was most recently the Chief of Policy and Advocacy for the National Wildlife Federation.

Shannon Estenoz, Principal Deputy Assistant Secretary - Fish and Wildlife and Parks

Shannon Estenoz most recently was the Chief Operating Officer of The Everglades Foundation. Previously, Shannon served as Interior's Director of Everglades Restoration Initiatives and Executive Director of the South Florida Ecosystem Restoration Task Force. Shannon's twenty four-year career in conservation includes roles with the World Wildlife Fund and the National Parks Conservation Association, and appointments by three Florida Governors including to the Governing Board of the South Florida Water Management District. Shannon is a fifth generation native of Key West, Florida, and holds degrees in International Affairs and Civil Engineering from Florida State University.

Morgan Gray, Deputy Director of Congressional Affairs - Senate

Morgan Gray has nearly two decades of experience in the Senate and House of Representatives working on climate, energy and environmental policy. Prior to joining the Department, he served as Legislative Director for Senator Edward J. Markey, where he oversaw the Senator's policy agenda. Morgan previously served as Senator Markey's Senior Policy Advisor, directing his climate and energy policy, and before that as a senior staffer on the House Natural Resources Committee and on the staff of the House Select Committee on Energy Independence and Global Warming. Morgan graduated from Pomona College and is originally from Lincoln, Massachusetts.

Ruchi Jain, Deputy Solicitor for General Law

Before joining Interior, Ruchi Jain was the Pro Bono Counsel for the Washington, D.C. office of Kirkland & Ellis LLP. Previously, Ruchi served as Special Assistant to President Obama, where she worked with other senior White House officials on federal agency management, Executive Branch nominations, and personnel matters. She held several other roles in the Obama-Biden White House and the Department of Justice. She began her career in private law practice. Ruchi has a J.D. from Georgetown University Law Center and a B.A. from Rice University.

Kate Kelly, Deputy Chief of Staff - Policy

Kate Kelly most recently was the Public Lands Director at the Center for American Progress. During the Obama administration, Kate served as senior advisor to then-Secretary of the Interior Sally Jewell and also served as communications director on behalf of Secretary Jewell and former Secretary of the Interior Ken

Salazar. Prior to joining the Interior Department, Kate worked in the U.S. Senate. Kate received her bachelor's degree from Washington University in St. Louis and hails from Colorado.

Marissa Knodel, Advisor, Bureau of Ocean Energy Management

Marissa Knodel is a passionate advocate for climate and environmental justice through a just and equitable transition to a clean energy-based society, and resilient adaptation to a changing climate. As Legislative Counsel with Earthjustice, her area of expertise included federal onshore, offshore, and Arctic oil and gas leasing and regulations. Prior to joining Earthjustice, Marissa managed a campaign at Friends of the Earth to stop new fossil fuel development on federal lands and waters. Marissa holds a dual J.D. and Master of Environmental Management degree from Vermont Law School and the Yale School of the Environment.

Shantha Ready-Alonso, Director for Intergovernmental and External Affairs

Shantha Ready-Alonso served as Executive Director of Creation Justice Ministries, Community Mobilization Manager for NETWORK Catholic Social Justice Lobby, and Director of the National Council of Churches Poverty Initiative. Shantha is listed among the 2018 "Grist 50 Fixers" and is the recipient of the 2020 National Council of Churches USA J. Irwin Miller Excellence in Ecumenical Leadership award. Shantha holds a Master of Social Work from Washington University in St. Louis and a Master of Pastoral Studies from Eden Theological Seminary. She did her undergraduate studies at the University of Notre Dame.

Paniz Rezaeerod, Deputy Director of Congressional Affairs - House

Paniz Rezaeerod previously served on the staff of Rep. Joe Cunningham (SC-01), where she was responsible for legislation to ban offshore drilling, protect irreplaceable natural resources, and secure full and permanent funding of the Land and Water Conservation Fund through the Great American Outdoors Act. Prior to Rep. Cunningham's office, Paniz worked for the House Financial Services Committee and for CoBank. A first-generation American born in Iran and raised in South Carolina, Paniz is a graduate of Sewanee: The University of the South.

Melissa Schwartz, Communications Director

Melissa Schwartz is a strategic communicator and adjunct professor with two decades of experience in government, the private sector, and at nonprofit organizations. She most recently served as Senior Advisor to Dr. Jill Biden. As Chief Operating Officer at The Bromwich Group for nine years, projects included coordinating communications strategy to protect the Arctic National Wildlife Refuge, raise awareness of the rape kit backlog and gender-based violence, defend national monuments and the ocean, and facilitate a just transition for coal communities. Melissa is a former senior spokesperson for the U.S. Departments of Justice and Interior, and Senator Barbara Mikulski.

Janea Scott, Counselor to the Secretary

Janea A. Scott was most recently a Commissioner and Vice Chair of the California Energy Commission. Janea also served as the Vice Chair of the Western Interconnection Regional Advisory Body and is a member of the Western Interstate Energy Board and the Department of Energy's Hydrogen and Fuel Cell Technical Advisory Committee. Janea previously worked at Interior as the Deputy Counselor for Renewable Energy and at Environmental Defense Fund as a senior attorney. She earned her J.D. from the University of Colorado Boulder Law School and her master's of science and bachelor's of science in earth systems from Stanford University.

Rachael Taylor, Principal Deputy Assistant Secretary - Policy, Management, and Budget

Rachael Taylor most recently served on the U.S. Senate Committee on Appropriations for nearly 16 years. In her role as Democratic clerk of the Subcommittee on the Interior, Environment, and Related Agencies, she negotiated a $38 billion annual appropriations bill and oversaw the budgets of Federal environmental, Tribal and cultural agencies. Rachael has also served in several other legislative and executive branch roles during her career, including in the Office of Vice President Al Gore. A West Virginia native, she received a B.A. from the University of North Carolina at Chapel Hill and a Master in Public Administration from American University.

Maggie Thompson, White House Liaison

Maggie Thompson was most recently the North Carolina State Advisor and Chief of Staff for the Biden campaign and currently serves on the campaign's Education Unity Task Force. Maggie was also the State Director for Elizabeth Warren's presidential campaign. She is the former Executive Director of Generation Progress, the youth engagement arm of the Center for American Progress. Maggie also worked in the Obama administration at the White House Council on Environmental Quality and in the office of the Director at U.S. Citizenship and Immigration Services. She graduated with a degree in economics and classical archaeology from Macalester College.

Maria (Camille) Touton, Deputy Commissioner, Bureau of Reclamation

Camille Calimlim Touton returns to Interior after serving as Professional Staff for the U.S. House Committee on Transportation and Infrastructure. She was the staff lead on the resiliency provisions enacted as part of the Water Resources Development Act of 2020. Camille's congressional experience also includes serving as Professional Staff for Interior's authorization committees: the Senate Energy and Natural Resources Committee and the House Natural Resources Committee. Camille also served as Interior's Deputy Assistant Secretary for Water and Science under the Obama administration. Camille holds a BS in Engineering (Civil), BA in Communication Studies, and a Master of Public Policy.

Tanya Trujillo, Principal Deputy Assistant Secretary - Water and Science

Tanya Trujillo is a water lawyer with more than 20 years of experience working on complex natural resources management issues and interstate and transboundary water agreements. She most recently worked as a project director with the Colorado River Sustainability Campaign. Before then, she served as the Executive Director of the Colorado River Board of California. She has served as Senior Counsel to the U.S. Senate Energy and Natural Resources Committee and as Counselor to the Assistant Secretary for Water and Science at Interior. A native New Mexican, Tanya attended Stanford University and the University of Iowa College of Law.

Jennifer Van der Heide, Chief of Staff

Jennifer Van der Heide has over 25 years of federal, state and local experience in legislative, legal and electoral sectors. She most recently served as Chief of Staff for Congresswoman Deb Haaland, and had been Chief of Staff and Political Director for Rep. Mike Honda. Jennifer previously served as the Washington Director and on-reservation Tribal Attorney for the Hoopa Valley Tribe; Tribal Attorney for California Indian Legal Services; and in private litigation practice in CA. She has a B.A. in International Relations from Tufts

University, and a J.D. from UC Hastings College of the Law in San Francisco, with a focus on public interest law.

Andrew (Drew) Wallace, Director of Congressional Affairs

A native of Houston, Texas, Drew Wallace has worked in senior policy roles in both houses of Congress. Over the last twelve years, he has served in the office of former Senator Tom Udall (D-N.M.), finishing as Chief of Staff. Drew has a record of significant contributions to bipartisan legislative successes across a range of issues, in particular energy, the environment, and conservation. He received a B.A. in Political Science from Kenyon College in Ohio and a J.D. from George Mason University School of Law in Virginia. Drew lives in Arlington, Va. with his wife and two sons.

Martha Williams, Principal Deputy Director, Fish and Wildlife Service

Martha has spent her career fostering a love of the outdoors. Growing up on a farm, she gained an appreciation for place and all that comprises it. This passion led her to the wild places of the West where she focused on public lands and wildlife - first as attorney for the Montana Department of Fish, Wildlife & Parks, then as Deputy Solicitor Parks and Wildlife at the Department of the Interior, as a professor at the Blewett School of Law at the University of Montana, and most recently returning to the Montana Department of Fish, Wildlife and Parks as its Director.