

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

November 18, 2020

COLORADO RIVER BASIN WATER SUPPLY CONDITIONS REPORT

As of November 16th, the surface water elevation at Lake Powell was 3,589.76 feet with 10.8 million-acre feet (MAF) of storage, or 44% of capacity. The surface water elevation at Lake Mead was 1,081.32 feet with 10.12 MAF of storage, or 39% of capacity. As of November 15th, the total system storage was 28.06 MAF, or 47% of capacity, which is about 3.09 MAF less than the total system storage at this same time last year.

As of November 17th, the Upper Basin reservoirs, excluding Lake Powell, ranged from 65% of capacity at Fontenelle Reservoir in Wyoming; 85% of capacity at Flaming Gorge Reservoir in Wyoming and Utah; 93% of capacity at Morrow Point, and 48% of capacity at Blue Mesa Reservoir in Colorado; and 65% of capacity at Navajo Reservoir in New Mexico.

Finally, as of November 16th, the forecasted unregulated inflow into Lake Powell for Water Year (WY) 2021 is 6.8 MAF (63% of normal). The forecasted April through July 2021 runoff into Lake Powell for Water Year-2021 is 4.55 MAF (64% of normal). For WY-2021, the October observed Lake Powell inflow was 0.09 MAF (18% of normal), and the November Lake Powell inflow forecast is 0.26 MAF (55% of normal). To date, WY-2021 precipitation is 71% and the current basin snowpack is 108% of normal.

COLORADO RIVER BASIN PROGRAM UPDATES

Colorado River Basin Salinity Control Program

Salinity Control Forum, Advisory Council and Work Group Meetings

The Colorado River Basin Salinity Control Forum (Forum), Advisory Council and Work Group held virtual meetings during October 26-29, 2020. The Forum coordinates salinity control efforts among the states and federal agencies and works with Congress on program authorization and funding. Governors of each state may appoint up to three representatives to the Forum. A key outcome of the Forum meeting was the approval of the 2020 Triennial Review of Water Quality

Standards for Salinity on the Colorado River System. Section 303 of the Clean Water Act amendments to the Federal Water Pollution Control Act require that water quality standards are reviewed every three years. The Forum approved the Triennial Review with no changes to the salinity numeric criteria below Hoover Dam, below Parker Dam, and at Imperial Dam. Approval of the Triennial Review also included approval of the Plan of Implementation for maintaining salinity concentrations below the numeric criteria, which will result in an additional control of 62,400 tons of salt per year through 2023, in addition to the existing control of 1,218,000 tons of salt control per year already in place. The Forum-approved Triennial Review will now be submitted to each of the seven basin states water quality agencies for adoption and implementation into state rules, and for those states obtaining approval of their water quality standards from Environmental Protection Agency (EPA). Additional activities at the Forum meeting included updates on program funding and technical activities by federal agencies.

The Colorado River Basin Salinity Advisory Council (Advisory Council) was created to advise the federal agencies in salinity control program administration. As a federal advisory committee, the Advisory Council provides implementation recommendations to the Secretary of the Department of the Interior, the Secretary of the Department of Agriculture and the Administrator of the EPA. Governors of each state may appoint up to three representatives to the Advisory Council, generally the same individuals who serve on the Forum. At the October Advisory Council Meeting the primary activity was to receive and respond to federal agency reports on 2020 program technical assistance and funding accomplishments.

The bulk of the Work Group meeting was devoted to preparing for the week's meetings with the Forum and Advisory Council. A highlight of the Work Group meeting was a comprehensive presentation by Reclamation on the Colorado River operations below Imperial Dam to the Mexico border, and specifically how Reclamation manages salinity concentrations in the Yuma area to meet treaty obligations with Mexico. Reclamation described three critical management and operational goals of the Yuma Area Office, including the following: (1) meet delivery requirements to contractors; (2) avoid excess Colorado River flows to Mexico; and (3) satisfy treaty obligations for Mexico water deliveries and salinity concentration. Reclamation described how the salinity concentration arriving at Imperial Dam is currently the lowest that it has been in 20 years, which makes managing Yuma area salinity and meeting the Minute No. 242 salinity differential requirement with Mexico even more challenging.

Moab Uranium Mine Tailings Progress

Significant progress has been made in removal of the uranium mill tailings from the banks of the Colorado River near Moab, Utah. As reported in the Deseret News, 11 million tons of material has been removed with 5 million tons remaining. The tailings are transported by rail to Crescent Junction, Utah, about 30 miles north of the site. The uranium mill tailings cover approximately 130 acres about 750 feet from the Colorado River. The tailings are a sand-like material that remain from processing uranium ore. These tailings, the last large pile of radioactive mill tailings to be removed in the



country, are left over from Moab's heyday as processing center for the Atomic Energy Commission, which purchased the uranium concentrate until 1970 for making nuclear weapons.

Glen Canyon Dam Adaptive Management Program

The Technical Work Group (TWG) for the Glen Canyon Dam Adaptive Management Program met via webinar on October 14-15. The TWG discussed a proposed "spring disturbance flow" that is tentatively planned for March 2021. The proposed dam release is not one of the experimental releases identified in the Long-Term Experimental and Management Plan (LTEMP), but would work within the operational flexibility available under the LTEMP. The proposed spring disturbance flow would build off of flow changes required for maintenance in March 2021. The Bureau of Reclamation plans to conduct repairs to the concrete apron below Glen Canyon Dam, which would require lowering releases to 4,000 cfs (or half of the normal minimum release) for several days. The proposed spring disturbance flow would follow this low flow release with several days at the highest release within power plant capacity (approximately 25,000 cfs), in order to learn about the system's response to spring flow disturbances. The TWG ultimately decided to recommend the flow to the Adaptive Management Work Group (AMWG) for its approval.

The TWG also discussed a research and monitoring project to support analysis of this spring disturbance flow. The TWG recommended that the measure be included in the Fiscal Year 2021-2023 Triennial Budget and Work Plan, the majority of which has already been approved by the AMWG at its August 2020 meeting.

The AMWG will meet via webinar on November 18th to consider and potentially adopt a final recommendation to the Department of the Interior in support of the spring disturbance flow and associated research efforts.

Lower Colorado River Multi-Species Conservation Program

The Lower Colorado River Multi-Species Conservation Program (LCR MSCP) met via webinar on October 28th. The Steering Committee reviewed and approved the *Native Fish Augmentation Plan* for 2021-2025. The plan provides a framework to guide fish stocking and rearing activities over the next several years. These activities are a significant aspect of the LCR MSCP, which has a commitment to stock approximately 1.2 million native fish over its fifty-year term. LCR MSCP staff reported that, through FY-2020, approximately 342,000 native fish had been stocked by the Program. The Steering Committee also reviewed the FY-2021 Funding Schedule, which lays out the funding cost share and quarterly payments for the FY-2021 Program cost of \$30.3 million. Finally, LCR MSCP staff reported that the group's usual January science meetings, the Colorado River Aquatic Biologists (CRAB) and Colorado River Terrestrial and Riparian (CRTR) meetings, had been cancelled as a result of the ongoing coronavirus pandemic.

GENERAL ANNOUNCEMENTS AND UPDATES

California Water Commission workshop on water conveyance in Colorado River and South Lahontan region

The California Water Commission is conducting a series of public workshops as part of its efforts to assess a potential state role in financing conveyance projects that could help meet needs in a changing climate. The Commission's goal with these workshops is to learn from diverse voices across the state to hear local perspectives on conveyance infrastructure needs and priorities, effective partnerships, public benefits of conveyance, possible criteria to assess resilience, efforts in preparing for changing hydrology, and effective financing mechanisms. The workshops are not associated with the pending proposal to improve conveyance through the Sacramento-San Joaquin Delta.

The first workshop will focus on Southeastern California, including the Colorado River region and the Mono, Inyo and San Bernardino County region, to be followed by workshops centered on Southern, Northern and Central California. The Southeastern California regional workshop will be co-hosted by the Imperial Irrigation District. The workshops will be conducted via the web-based videoconferencing service Zoom. More detailed instructions on how to use Zoom and participate in the meeting can be found on the Commission website:

<https://cwc.ca.gov/Programs-and-Topics>.

Southeastern California (Colorado River, South Lahontan)
2:45-5 p.m. Tuesday, December 8, 2020
Register [here](#)
Info: (916) 834-3177, cwc@cwc.ca.gov

Southern California
2:45-5 p.m., Thursday December 10, 2020.
Registration – TBD
Info: (916) 834-3177, cwc@cwc.ca.gov

California Department of Water Resources Winter Outlook Workshop

On November 3-5, Board Staff participated in the annual Winter Outlook Workshop hosted via webinar by California Department of Water Resources (CA DWR) and the Scripps Institution of Oceanography. During the three-day workshop, participants heard presentations about various experimental seasonal forecasting products as well as the importance of continued funding and support of seasonal and sub-seasonal forecasting by the federal government.

Pilot Conservation - Methods of Quantification of Methods of Agricultural Water Savings in the Lower Colorado River Basin

Reclamation, in collaboration with the Central Arizona Water Conservation District, the Southern Nevada Water Authority, and The Metropolitan Water District of Southern California (Non-Federal Partners) have initiated a collaborative study identified as “Exploration of Quantification Methods for Deficit Irrigation, Seasonal Fallowing, and Irrigation Conversion of Irrigated Agriculture in the Lower Colorado River Basin.” This study is also being referred to as the “Lower Colorado River Agricultural Water Savings Pilot Study” (Pilot Study). The Pilot Study is intended to develop the best available information and best practices related to the quantification of agricultural water use efficiency practices and technologies. The Pilot Study was initiated with a two-day webinar on November 9 and 10, 2020, describing the background, scope, schedule, and milestones. The Pilot Study will run through 2021 and will result in a final report presented at the 2021 Colorado River Water Users Association meeting.

Salton Sea Authority General Manager Appointment

On November 3, 2020, the Salton Sea Authority (SSA) announced the appointment of Mr. G. Patrick O’Dowd as its new General Manager. Mr. O’Dowd previously served as a Director on the SSA Board representing Coachella Valley Water District (CVWD) and takes the helm as Mr. Phil Rosentrater retires from the post where he has served since 2015. The Salton Sea Authority is a

joint powers authority comprised of the Torres Martinez Desert Cahuilla Indians, the counties of Riverside and Imperial, and large regional water agencies that include Imperial Irrigation District and CVWD. The SSA was formed in 1993 to empower local entities to work in cooperation and consultation with the State and Federal governments to revitalize the Salton Sea.

Reclamation Acting Assignments

Ms. Stacy Wade has stepped in as acting Regional Office Director for the Lower Colorado Basin Region Office after the retirement of Terry Fulp. Ms. Wade was previously promoted to the Deputy Regional Director position for the Lower Colorado Basin Region Office in November 2019, and previously served as the chief of the Financial Management Office, overseeing the Region's annual budget of approximately \$559 million. Ms. Wade's acting appointment is 90 days and ends on December 19, 2020.

Ms. Jacklynn 'Jaci' Gould is currently serving as acting Regional Office Director for the Upper Colorado Basin Region after the re-assignment of the Regional Director Brent Esplin to the Regional Director role for the Missouri Basin and Arkansas-Rio Grande-Texas Gulf Regions. Previously, Ms. Gould served as the Deputy Regional Director for the Lower Colorado Basin Region Office overseeing programs such as the Lower Colorado Dams Area Office (Hoover, Davis and Parker dams), the Region's satellite Phoenix and Southern California area offices, Native American activities, and the Region's Power and Engineering offices, among others. On December 20, 2020, Ms. Gould will transition from the acting Regional Director for the Upper Colorado Basin Region and begin a new 90-day assignment as acting Regional Director for the Lower Colorado Basin Region, which ends on February 21, 2021.

Washington, D.C. Report

FY 2020 Appropriations

The Continuing Resolution to keep the government funded expires on December 11th. The House has passed nearly all of its appropriations bills for Fiscal Year 2021 and this week Senate Majority Leader Mitch McConnell stated a desire to pass all of the Senate bills before the end of the year. The White House has since reiterated that another Continuing Resolution is more likely and that government funding decisions will likely be punted to next year.

White House Water Subcabinet

On October 14th, President Trump signed an executive order that formalized interagency collaboration on water policy, establishing a “water subcabinet.” According to the order, the members will collaborate to carry out the administration’s water objectives, notably increasing water storage, streamlining the permitting process, promoting market-based programs, water reuse, data analysis, and developing the next generation of water sector professionals.

Members of the Water subcabinet currently include:

- Department of the Interior Assistant Secretary of Water and Science Tim Petty.
- EPA Assistant Administrator for Water David Ross.
- U.S. Department of Agriculture Under Secretary for Farm Production and Conservation Bill Northey.
- Assistant Secretary of the Army for Civil Works R.D. James.
- U.S. Department of Energy Assistant Secretary for the Office of Energy Efficiency and Renewable Energy Daniel Simmons.
- Deputy National Oceanic and Atmospheric Administration Administrator Rear Admiral Tim Gallaudet.

Mapping the Waters of the United States

One of the water subcabinet’s top priorities is to develop a national map that shows which streams and wetlands are jurisdictional, and thus regulated by the Clean Water Act. Existing maps maintained by the U.S. Army Corps of Engineers, and the U.S. Geological Survey’s National Hydrography Dataset, are inconsistent with one another for determining whether certain waters are protected by the new Navigable Waters Protection Rule. It is the EPA’s position that neither accurately depicts the boundaries of federal regulatory authority.

11/16/2020

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>

	PERCENT	Content 1000 ac-ft (kaf)	Elev. (Feet above mean sea level)	7-Day Release (CFS)
CURRENT STORAGE	FULL			
LAKE POWELL	44%	10,799	3,589.76	10,900
* LAKE MEAD	39%	10,121	1,081.32	12,600
LAKE MOHAVE	85%	1,544	637.25	10,000
LAKE HAVASU	93%	576	447.76	6,100
TOTAL SYSTEM CONTENTS **	47%	28,058		
As of 11/15/2020				
SYSTEM CONTENT LAST YEAR	52%	31,148		
* 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	78%	1,785		
Painted Rock Dam	0%	0	530.00	0
Alamo Dam	13%	124	1,120.80	25
Forecasted Water Use for Calendar Year 2020 (as of 11/16/2020) (values in kaf)				
NEVADA			260	
SOUTHERN NEVADA WATER SYSTEM				227
OTHERS				33
CALIFORNIA			4,059	
METROPOLITAN WATER DISTRICT OF CALIFORNIA				824
IRRIGATION DISTRICTS				3,220
OTHERS				15
ARIZONA			2,444	
CENTRAL ARIZONA PROJECT				1,365
OTHERS				1,079
TOTAL LOWER BASIN USE				6,763
DELIVERY TO MEXICO - 2020 (Mexico Scheduled Delivery + Preliminary Yearly Excess ¹)				1,553
OTHER SIGNIFICANT INFORMATION				
UNREGULATED INFLOW INTO LAKE POWELL - NOVEMBER MID-MONTH FORECAST DATED 11/16/2020				
		MILLION ACRE-FEET		% of Normal
FORECASTED WATER YEAR 2021		6.801		63%
FORECASTED APRIL-JULY 2021		4.550		64%
OCTOBER OBSERVED INFLOW		0.091		18%
NOVEMBER INFLOW FORECAST		0.260		55%
		Upper Colorado Basin	Salt/Verde Basin	
WATER YEAR 2021 PRECIP TO DATE ²		71% (3.0")	53% (1.8")	
CURRENT BASIN SNOWPACK ²		108% (2.4")	NA% (NA)	

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

² Precipitation and snowpack values may vary significantly from week-to-week early in the water year.

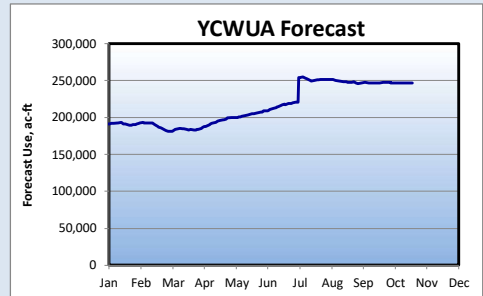
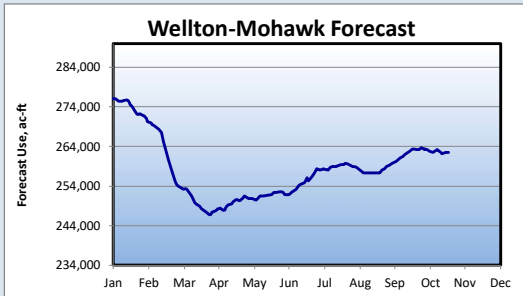
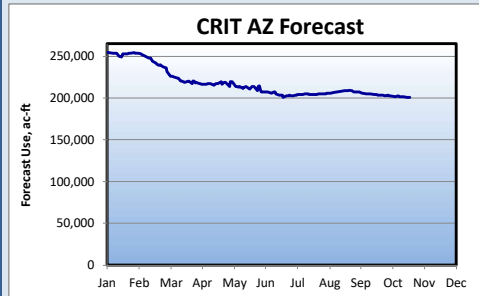
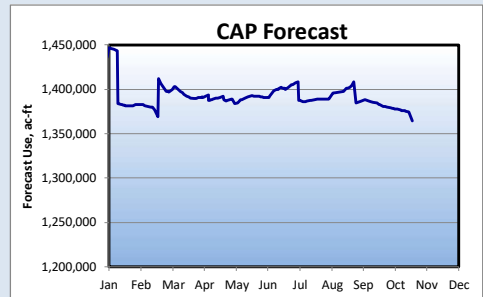
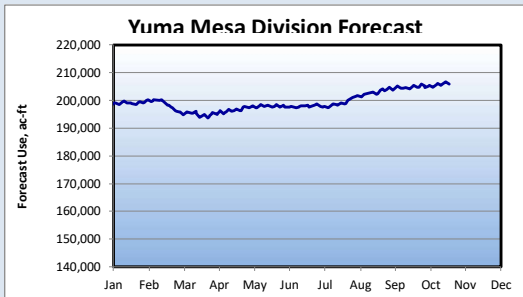
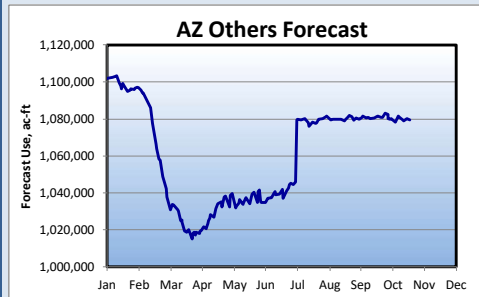
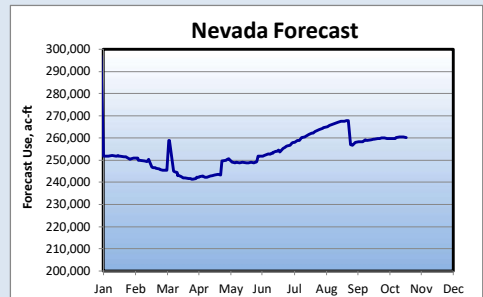
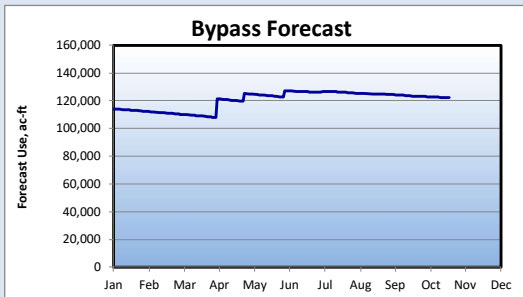
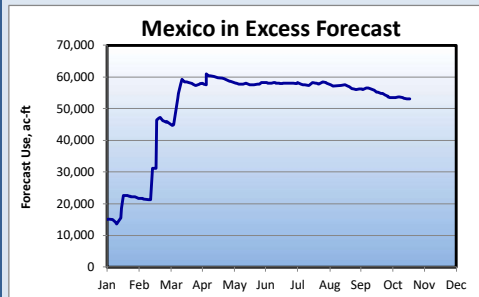
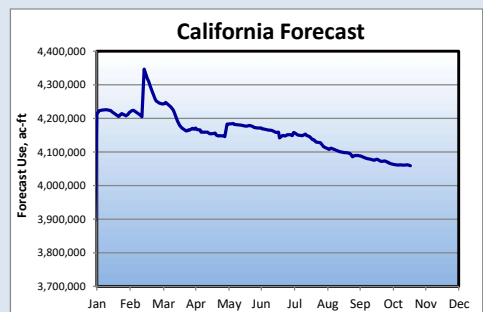
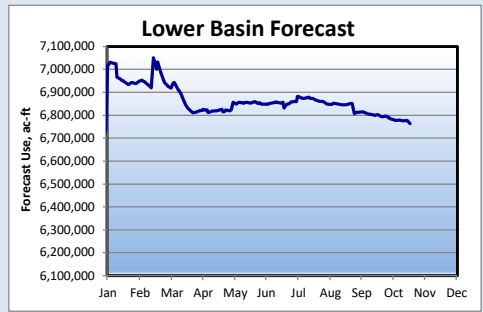


INTERIOR REGION 8: LOWER COLORADO BASIN
CY 2020

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	2,220,937	2,433,528	2,454,727	-21,199
CALIFORNIA	3,698,685	4,052,399	4,052,246	153
NEVADA	246,494	260,140	260,140	0
STATES TOTAL ³	6,166,116	6,746,067	6,767,113	-21,046
ACCOUNTABLE DELIVERIES TO MEXICO	1,409,813	1,552,933	1,500,000	52,933
TO MEXICO IN SATISFACTION OF TREATY (including downward delivery) ⁴	1,358,834	1,500,000		
TO MEXICO IN EXCESS OF TREATY ⁵	50,979	52,933		
WATER BYPASSED PURSUANT TO IBWC MINUTE NO. 242 ⁶	108,489	122,199		
TOTAL LOWER BASIN & MEXICO	7,684,418	8,421,199		

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 June 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.



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.

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	Forecast	Estimated	Excess to	Diversion	Forecast	Approved	Excess to
	To Date CY 2020	Use CY 2020	Use CY 2020	Estimated CY 2020	To Date CY 2020	Diversion CY 2020	Diversion CY 2020	Approved CY 2020
ARIZONA PUMPERS	13,176	14,074	14,074	---	20,273	21,654	21,654	0
LAKE MEAD NRA, AZ - Diversions from Lake Mead	52	58	58	---	52	58	58	0
LAKE MEAD NRA, AZ - Diversions from Lake Mohave	193	213	213	---	193	213	213	0
DAVIS DAM PROJECT	2	2	2	---	14	15	15	0
BULLHEAD CITY	6,233	7,156	8,122	---	9,738	11,186	12,720	-1,534
MOHAVE WATER CONSERVATION DISTRICT	614	656	656	---	917	979	979	0
BROOKE WATER LLC	293	328	323	---	440	493	484	9
MOHAVE VALLEY IDD	12,731	14,016	16,516	---	23,577	25,956	30,585	-4,629
FORT MOJAVE INDIAN RESERVATION, AZ	32,781	34,563	44,550	---	60,705	64,005	82,500	-18,495
GOLDEN SHORES WATER CONSERVATION DISTRICT	260	278	278	---	390	417	417	0
HAVASU NATIONAL WILDLIFE REFUGE	3,196	3,325	3,563	---	26,625	28,135	41,820	-13,685
LAKE HAVASU CITY	6,865	7,807	8,928	---	11,074	12,594	14,400	-1,806
CENTRAL ARIZONA PROJECT (CAP)	1,206,681	1,353,453			1,206,681	1,353,453		
TOWN OF PARKER	381	416	433	---	784	873	916	-43
COLORADO RIVER INDIAN RESERVATION, AZ	194,136	201,074	246,946	---	421,094	459,676	512,102	-52,426
EHRENBURG IMPROVEMENT ASSOCIATION	213	228	228	---	299	319	319	0
CIBOLA VALLEY ¹	13,607	14,297	15,219	---	19,030	19,993	21,270	-1,277
CIBOLA NATIONAL WILDLIFE REFUGE	13,871	14,264	14,264	0	22,373	23,005	23,005	0
IMPERIAL NATIONAL WILDLIFE REFUGE	3,352	3,799	3,799	0	5,407	6,128	6,128	0
BLM PERMITEES (PARKER DAM TO IMPERIAL DAM)	708	756	756	0	1,089	1,163	1,163	0
CHA CHA, LLC	779	890	1,365	---	1,201	1,371	2,100	-729
BEATTIE FARMS	754	812	722	---	1,160	1,251	1,110	141
YUMA PROVING GROUND	485	509	474	---	485	509	474	35
GILA MONSTER FARMS	3,704	4,123	5,257	---	6,455	7,193	9,156	-1,963
WELLTON-MOHAWK IDD	247,189	262,427	278,000	-15,573	350,401	381,865	412,965	-31,100
BLM PERMITEES (BELOW IMPERIAL DAM)	62	66	66	0	95	102	102	0
CITY OF YUMA	12,071	13,998	16,401	-2,403	21,269	24,580	27,500	-2,920
MARINE CORPS AIR STATION YUMA	1,203	1,319	1,360	---	1,203	1,319	1,360	-41
UNION PACIFIC RAILROAD	22	25	29	---	42	48	48	0
UNIVERSITY OF ARIZONA	692	761	896	---	692	761	896	-135
YUMA UNION HIGH SCHOOL DISTRICT	101	113	150	---	137	153	200	-47
DESERT LAWN MEMORIAL	19	20	20	---	26	28	28	0
NORTH GILA VALLEY IRRIGATION DISTRICT	9,561	10,216	12,165	---	38,560	42,360	44,200	-1,840
YUMA IRRIGATION DISTRICT	34,641	37,810	38,701	---	63,055	69,165	71,700	-2,535
YUMA MESA IDD	148,700	158,453	143,893	---	206,514	225,350	239,280	-13,930
UNIT "B" IRRIGATION DISTRICT	20,745	21,735	20,888	---	24,407	26,144	29,400	-3,256
FORT YUMA INDIAN RESERVATION	1,402	1,497	1,497	---	2,151	2,298	2,298	0
YUMA COUNTY WATER USERS' ASSOCIATION	228,693	246,982	244,397	---	319,664	356,831	375,492	-18,661
COCOPA INDIAN RESERVATION	673	906	1,651	---	881	1,239	2,530	-1,291
RECLAMATION-YUMA AREA OFFICE	96	103	103	---	96	103	103	0
RETURN FROM SOUTH GILA WELLS								
TOTAL ARIZONA	2,220,937	2,433,528	2,531,963		2,869,249	3,172,985	3,376,690	
CAP	1,206,681	1,353,453				1,353,453		
ALL OTHERS	1,014,256	1,080,075	1,146,963			1,819,532	1,991,690	
YUMA MESA DIVISION, GILA PROJECT	192,902	206,479	171,610	34,869		336,875		

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	-21,199
Estimated Allowable Use for CAP	1,374,778

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 Agreement Among the United States of America, Through the Department of the Interior, Bureau of Reclamation, the State of Arizona, Through the Arizona Department of Water Resources, the Central Arizona Water Conservation District, and the Colorado River Indian Tribes to Fund the Creation of Colorado River System Water Through 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 (LBOs), 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 In accordance with Section III.B.1.a of LBOs, the state of Arizona shall make an annual DCP Contribution in the total amount of 192,000 AF. In accordance with the Agreement Regarding Lower Basin Drought Contingency Plan Obligations, it is currently anticipated that the required DCP Contribution will be made by the Central Arizona Water Conservation District (CAWCD) through the creation of EC 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.



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	Forecast	Estimated	Excess to	Diversion	Forecast	Approved	Excess to
	To Date	Use	Use	Estimated		To Date	Diversion	Diversion
	CY 2020	CY 2020	CY 2020	Use	CY 2020	CY 2020	CY 2020	Diversion
CALIFORNIA PUMPERS	1,589	1,697	1,697	---	2,884	3,081	3,081	0
FORT MOJAVE INDIAN RESERVATION, CA	6,920	7,433	8,996	---	12,862	13,815	16,720	-2,905
CITY OF NEEDLES (includes LCWSP use)	985	1,124	1,605	-481	1,813	2,008	2,261	-253
METROPOLITAN WATER DISTRICT	681,399	820,888	---	---	683,990	823,829	---	---
COLORADO RIVER INDIAN RESERVATION, CA	3,027	3,233	3,233	---	5,013	5,355	5,355	0
PALO VERDE IRRIGATION DISTRICT	341,945	347,809	419,768	---	736,335	788,268	856,000	-67,732
YUMA PROJECT RESERVATION DIVISION	34,724	38,090	47,721	---	70,757	79,182	91,553	-12,371
YUMA PROJECT RESERVATION DIVISION - INDIAN UNIT	---	---	---	---	37,777	41,882	46,058	-4,176
YUMA PROJECT RESERVATION DIVISION - BARD UNIT	---	---	---	---	32,980	37,300	45,495	-8,195
YUMA ISLAND PUMPERS	2,048	2,188	2,188	---	3,702	3,954	3,954	0
FORT YUMA INDIAN RESERVATION - RANCH 5	913	985	832	---	1,650	1,776	1,501	275
IMPERIAL IRRIGATION DISTRICT ¹	2,303,696	2,472,455	2,640,300	-167,845	2,309,249	2,489,573	2,715,352	---
SALTON SEA SALINITY MANAGEMENT	0	0	0	0	0	0	0	---
COACHELLA VALLEY WATER DISTRICT	320,595	355,595	394,000	-38,405	336,744	374,313	406,654	---
OTHER LCWSP CONTRACTORS	601	642	642	---	987	1,054	1,054	0
CITY OF WINTERHAVEN	59	63	63	---	91	97	97	0
CHEMEHUEVI INDIAN RESERVATION	184	197	197	---	10,617	11,340	11,340	0
TOTAL CALIFORNIA	3,698,685	4,052,399			4,176,694	4,597,645	4,950,151	

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	(322,609)
Total State Adjusted Apportionment	4,052,246
Excess to Total State Adjusted Apportionment	153

Estimated Allowable Use for MWD 1,143,497

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.

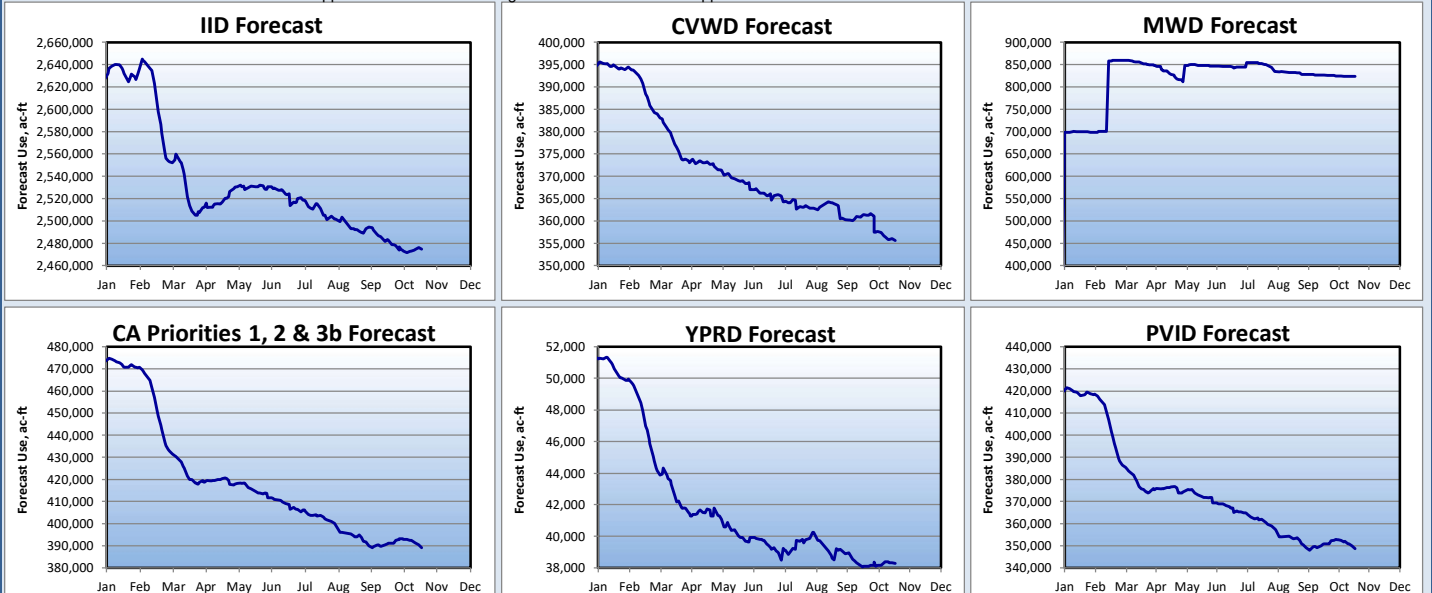
² System Conservation Water to be conserved by the City of Needles pursuant to System Conservation Implementation Agreement No. 15-XX-30-W0596, executed under the Pilot System Conservation Program. This water will remain in Lake Mead to benefit system storage.

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.





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.

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	Forecast	Estimated	Excess to	Diversion	Forecast	Approved	Excess to
	To Date	Use	Use	Estimated				
	CY 2020	CY 2020	CY 2020	CY 2020	CY 2020	CY 2020	CY 2020	CY 2020
ROBERT B. GRIFFITH WATER PROJECT (SNWS)	412,050	447,646		---	412,050	447,646		---
LAKE MEAD NRA, NV - Diversions from Lake Mead	568	695	1,500	---	568	695	1,500	-805
LAKE MEAD NRA, NV - Diversions from Lake Mohave	210	260	500	---	210	260	500	-240
BASIC MANAGEMENT INC.	4,839	5,778	8,208	---	4,839	5,778	8,208	-2,430
CITY OF HENDERSON (BMI DELIVERY)	16,552	19,927	15,878	---	16,552	19,927	15,878	4,049
NEVADA DEPARTMENT OF WILDLIFE	11	12	12	0	1,019	1,163	1,000	---
PACIFIC COAST BUILDING PRODUCTS INC.	867	989	928	---	867	989	928	61
BOULDER CANYON PROJECT	161	172	172	---	281	300	300	0
BIG BEND WATER DISTRICT	2,343	2,794	4,822	---	4,647	5,615	10,000	-4,385
FORT MOJAVE INDIAN TRIBE	2,202	2,394	4,020	---	3,288	3,575	6,000	-2,425
LAS VEGAS WASH RETURN FLOWS	-193,309	-220,527	-221,129	---				
TOTAL NEVADA	246,494	260,140	254,092	0	444,321	485,948	483,495	-6,175
SOUTHERN NEVADA WATER SYSTEM (SNWS)	218,741	227,119				447,646		
ALL OTHERS	27,753	33,021				38,302		
NEVADA USES ABOVE HOOVER	241,949	254,952				476,758		
NEVADA USES BELOW HOOVER	4,545	5,188				9,190		

Tributary Conservation Intentionally Created Surplus (ICS)

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

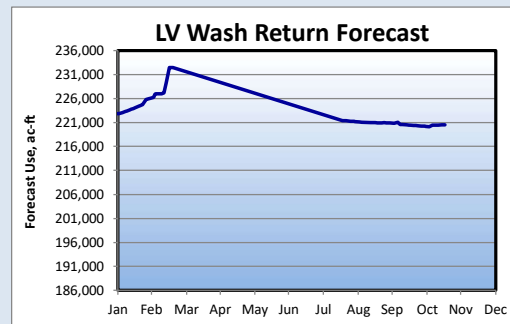
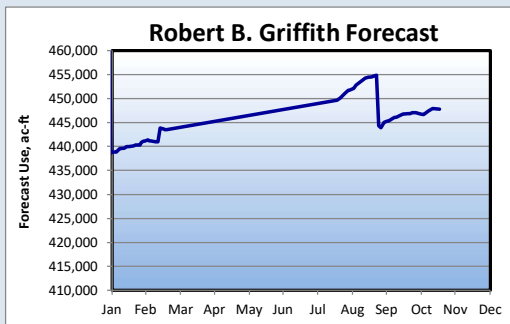
NEVADA ADJUSTED APPORTIONMENT CALCULATION

Nevada Basic Apportionment	300,000
SNWA Creation of Extraordinary Conservation (EC) ICS (Estimated) ²	(39,860)
Total State Adjusted Apportionment	260,140
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.

² 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.

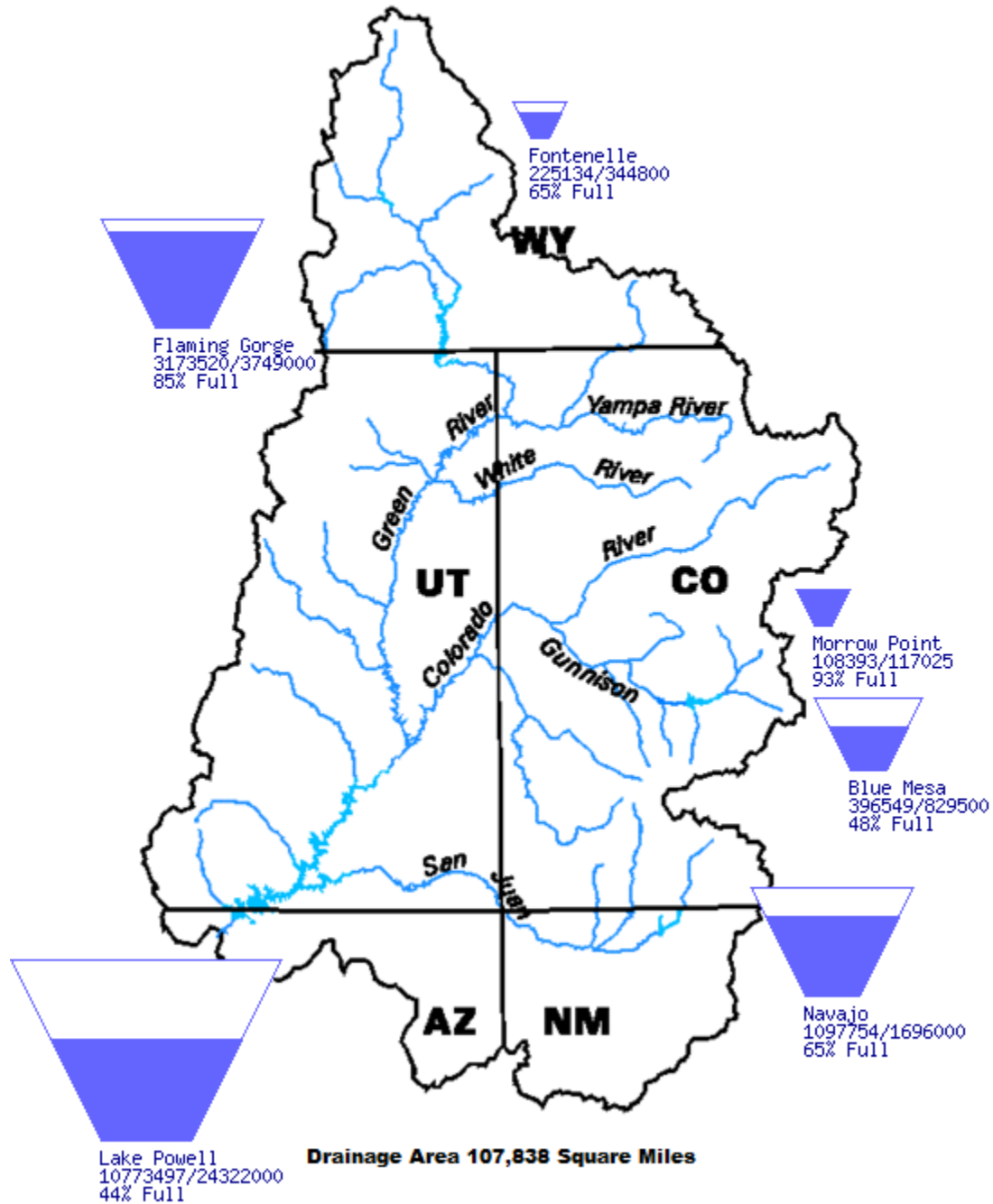


Upper Colorado Region Water Resources Group

River Basin Tea-Cup Diagrams

Data Current as of:
11/17/2020

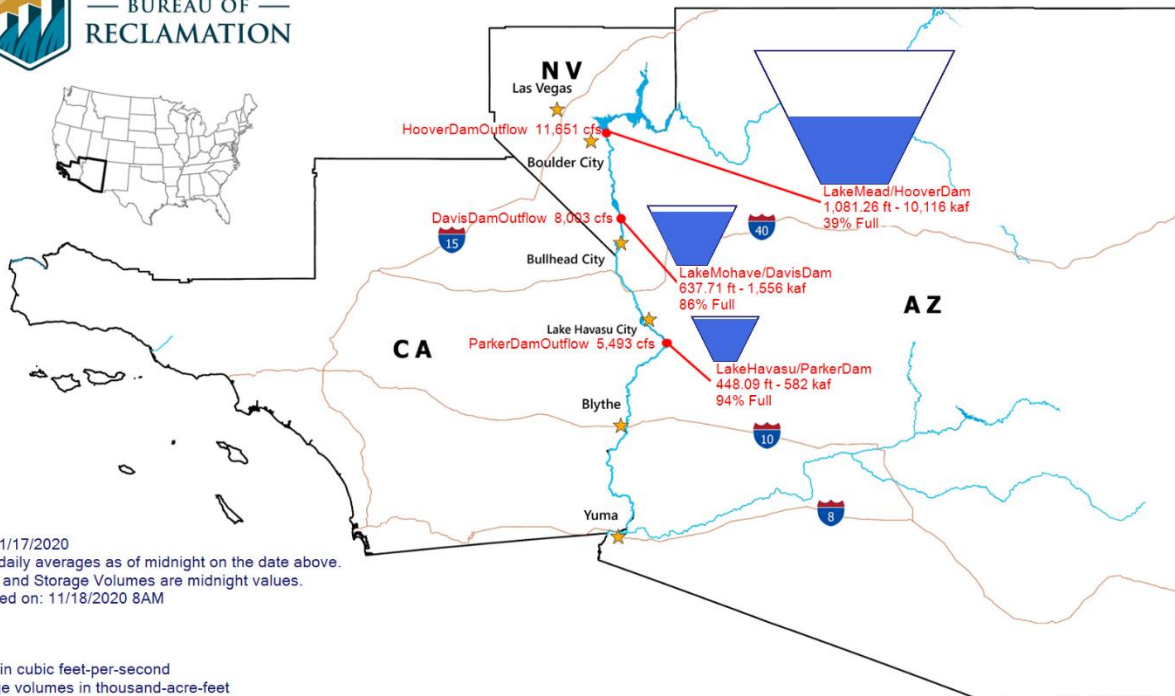
Upper Colorado River Drainage Basin



Lower Colorado River Teacup Diagram



BUREAU OF RECLAMATION



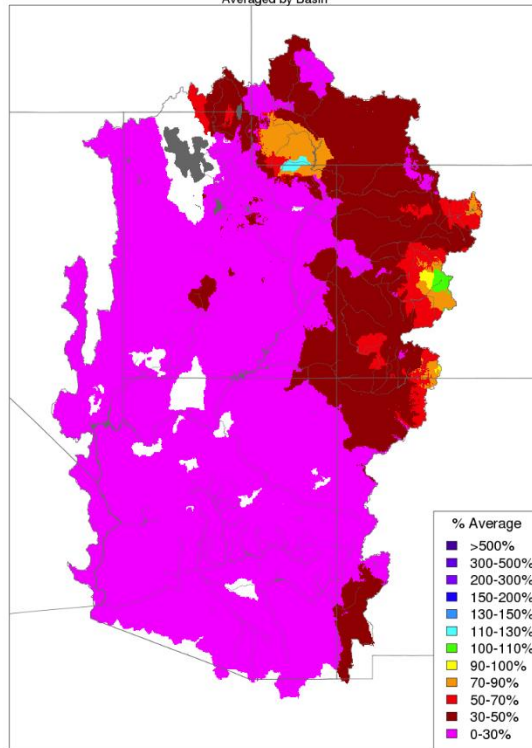
Data for: 11/17/2020
 Flows are daily averages as of midnight on the date above.
 Elevations and Storage Volumes are midnight values.
 Last updated on: 11/18/2020 8AM

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 September and October 2020

Monthly Precipitation - September 2020

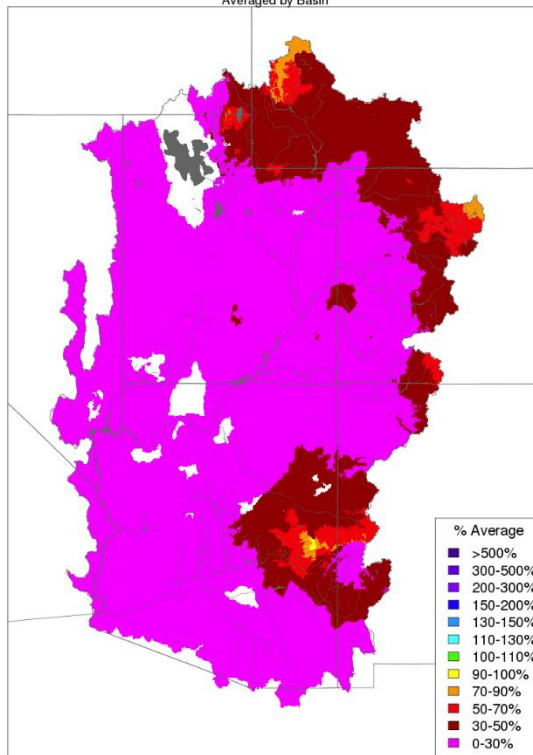
Averaged by Basin



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

Monthly Precipitation - October 2020

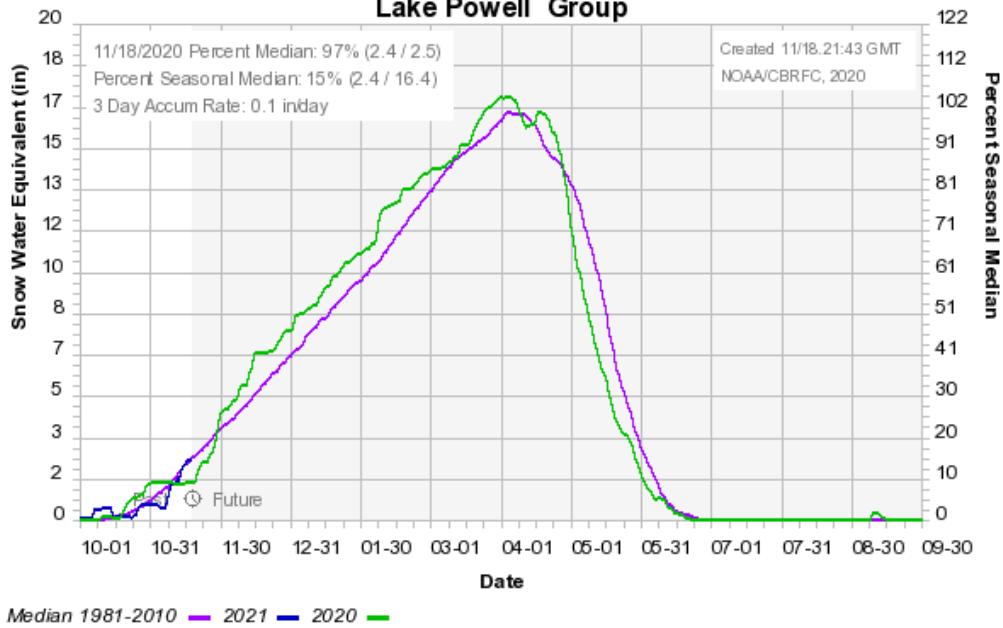
Averaged by Basin



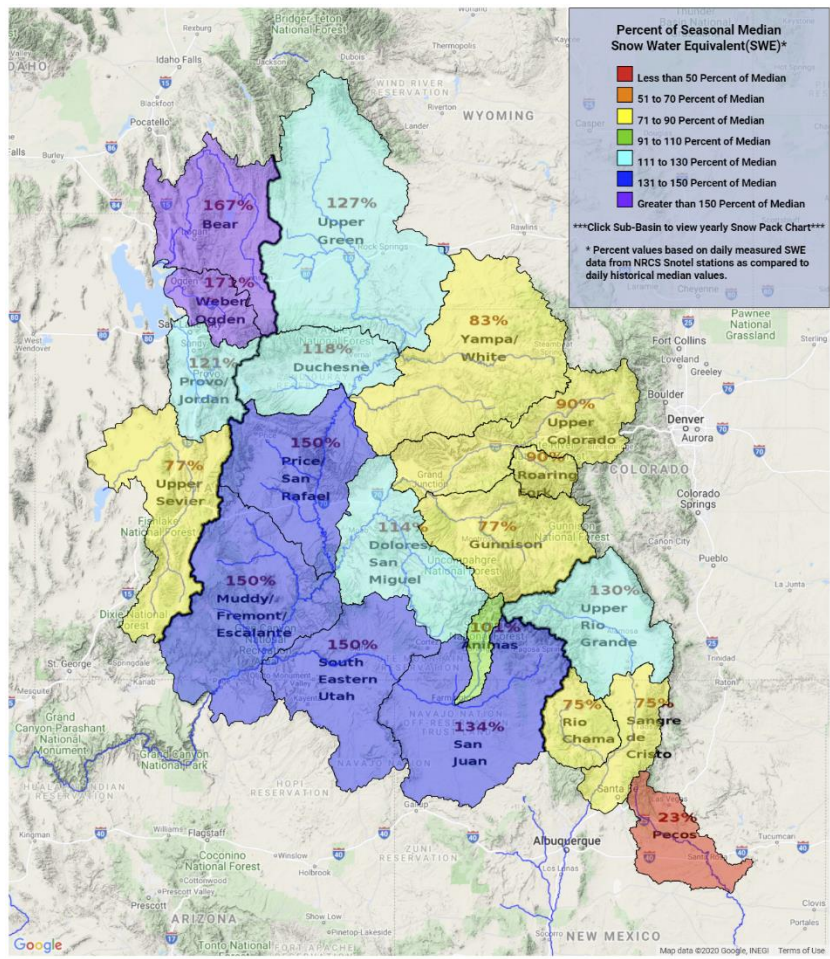
Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

Colorado Basin River Forecast Center

Lake Powell Group

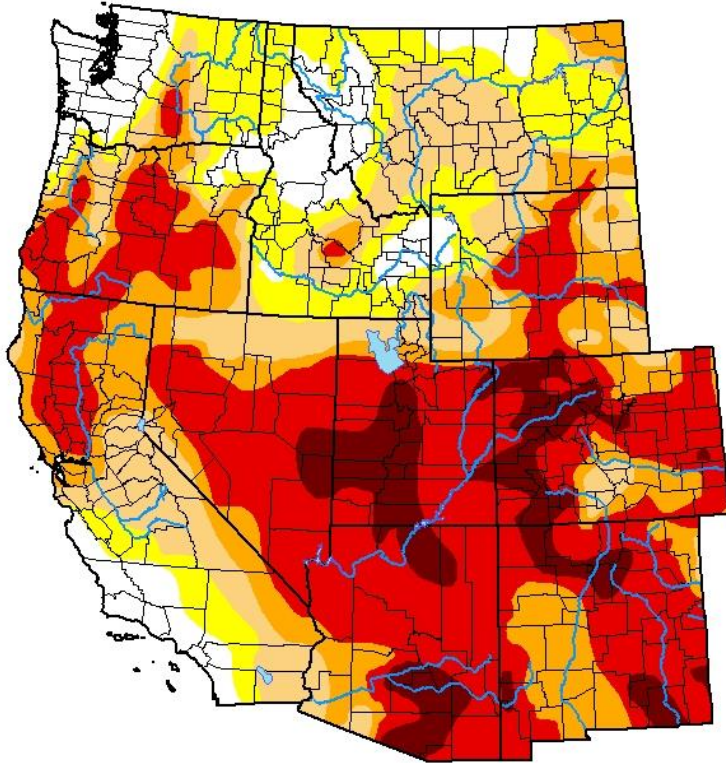


Snow Pack Conditions Map Upper Colorado Region



**U.S. Drought Monitor
West**

November 10, 2020
(Released Thursday, Nov. 12, 2020)
Valid 7 a.m. EST



Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	9.67	90.33	76.89	59.87	41.94	8.37
Last Week <i>11-03-2020</i>	8.52	91.48	77.86	57.63	40.57	6.35
3 Months Ago <i>08-11-2020</i>	23.01	76.99	63.85	33.62	8.34	0.00
Start of Calendar Year <i>12-31-2019</i>	59.17	40.83	18.17	7.12	0.00	0.00
Start of Water Year <i>09-29-2020</i>	8.51	91.49	76.07	54.55	33.11	2.31
One Year Ago <i>11-12-2019</i>	53.19	46.81	23.97	11.35	0.00	0.00

Intensity:

- None
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

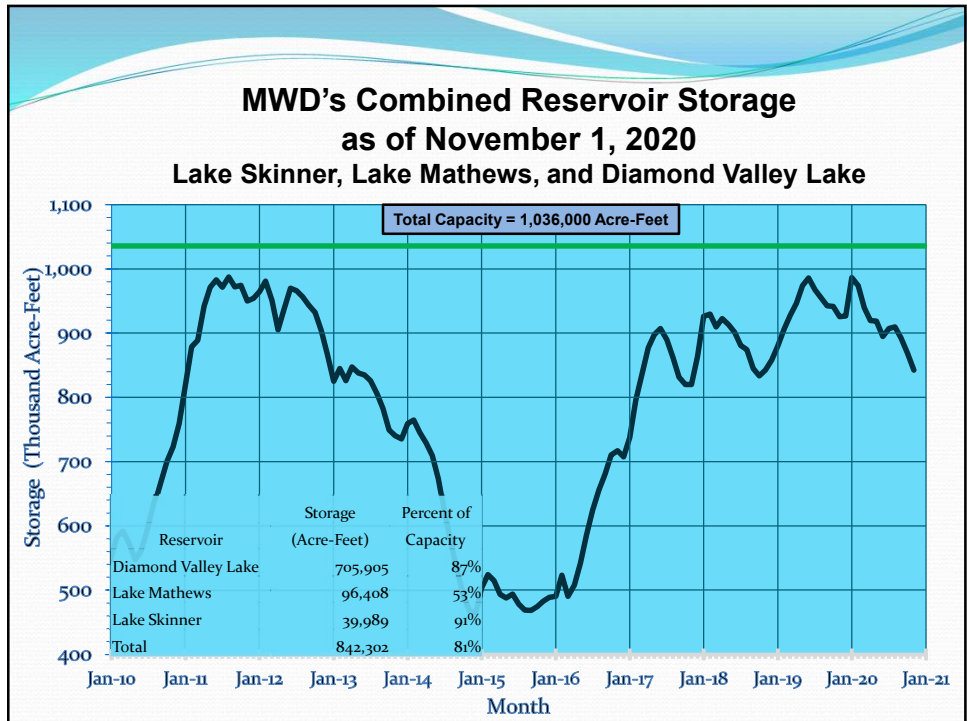
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

Author:

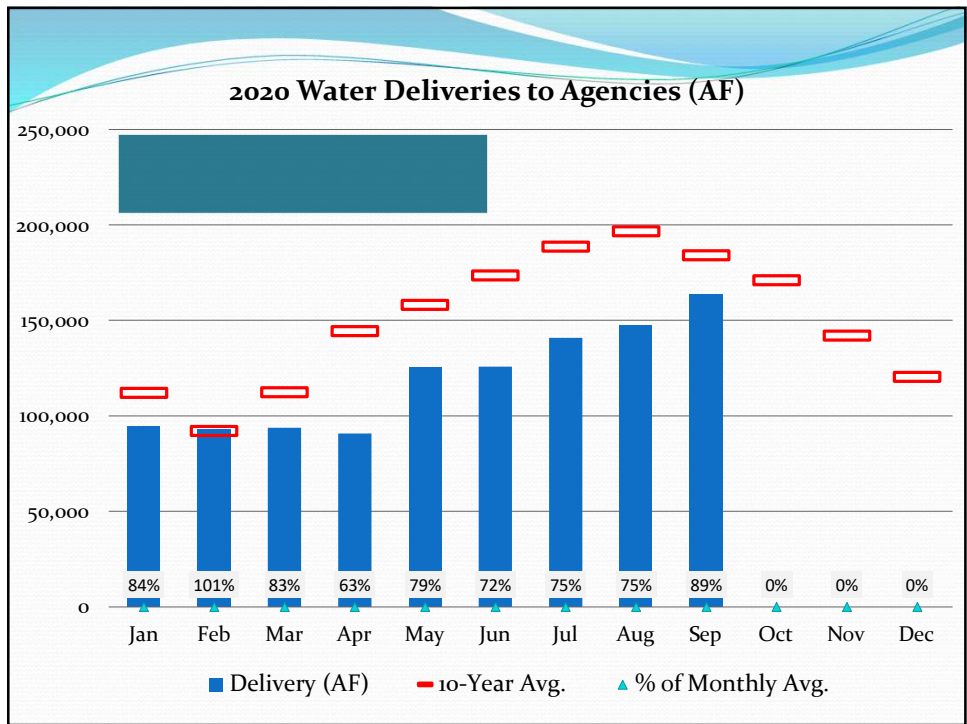
Richard Tinker
CPC/NOAA/NWS/NCEP



droughtmonitor.unl.edu



1



2

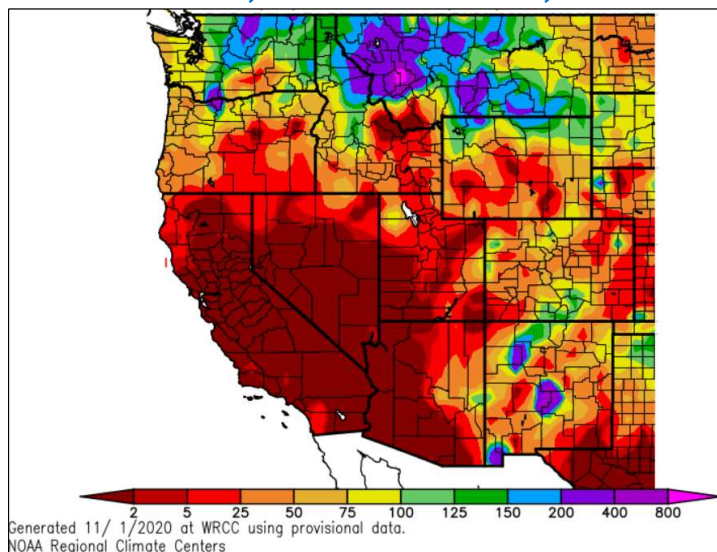
Precipitation at Six Major Stations in Southern California

From October 1, 2020 to October 31, 2020

Station	Precipitation in inches		Average to Date	Percent of Average
	Oct	Oct 1 to Oct 31		
San Luis Obispo	0.00	0.00	0.91	0%
Santa Barbara	0.00	0.00	0.69	0%
Los Angeles	0.00	0.00	0.56	0%
San Diego	0.00	0.00	0.51	0%
Blythe	0.00	0.00	0.27	0%
Imperial	0.00	0.00	0.25	0%

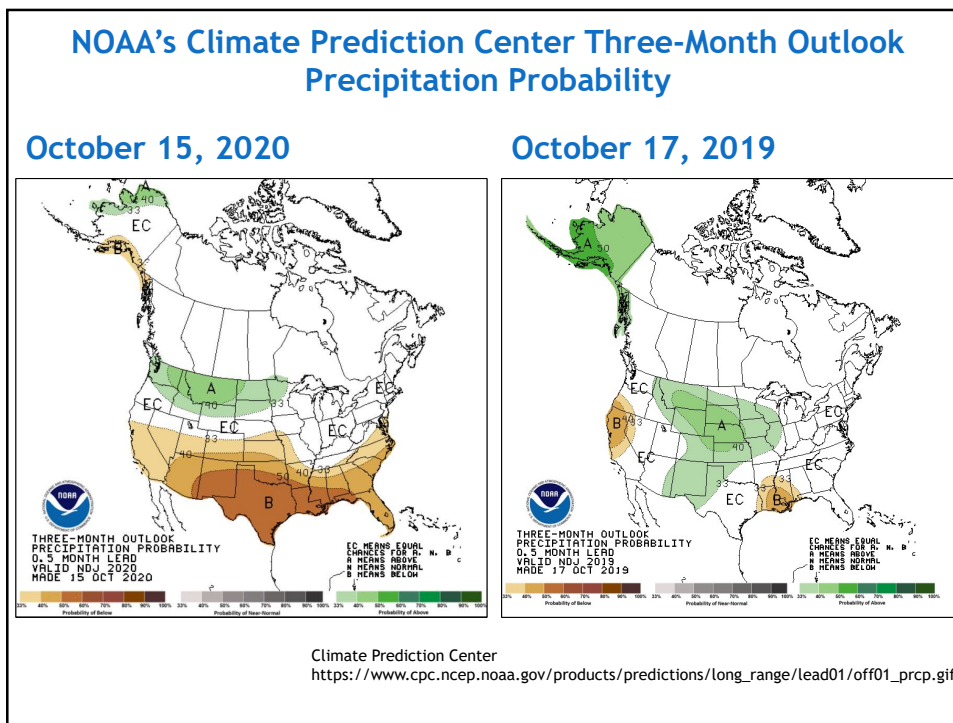
1

Percent of Average Precipitation (%) October 1, 2020 - October 31, 2020



Western Regional Climate Center
<https://wrcc.dri.edu/cgi-bin/anomimage.pl?wrcOctPpct.png>

2



3

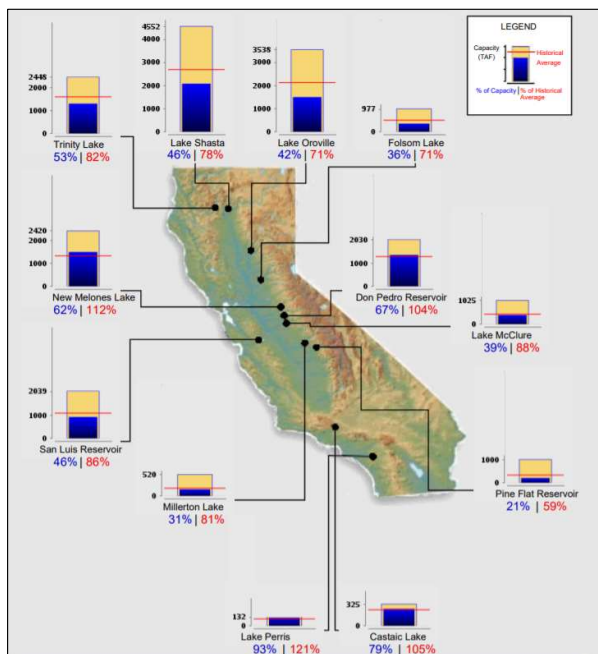
Comparison of SWP Water Storage

Reservoir	Capacity	2019 Storage (acre-feet)		2020 Storage (acre-feet)	
		As of Nov 1	% of Cap.	As of Nov1	% of Cap.
Frenchman	55,475	44,789	81%	35,561	64%
Lake Davis	84,371	65,032	77%	52,133	62%
Antelope	22,564	17,621	78%	14,920	66%
Oroville	3,553,405	2,038,439	57%	1,500,762	42%
TOTAL North	3,715,815	2,165,881	58%	1,603,376	43%
Del Valle	39,914	28,413	71%	31,739	80%
San Luis	2,027,835	942,676	46%	932,879	46%
Pyramid	169,901	166,057	98%	165,599	97%
Castaic	319,247	278,664	87%	257,474	81%
Silverwood	74,970	70,384	94%	65,527	87%
Perris	132,614	59,049	47%	122,197	92%
TOTAL South	2,764,481	1,545,243	56%	1,575,415	57%

As of May 22, 2020, the Table A allocations for SWP contractors is 20%.

4

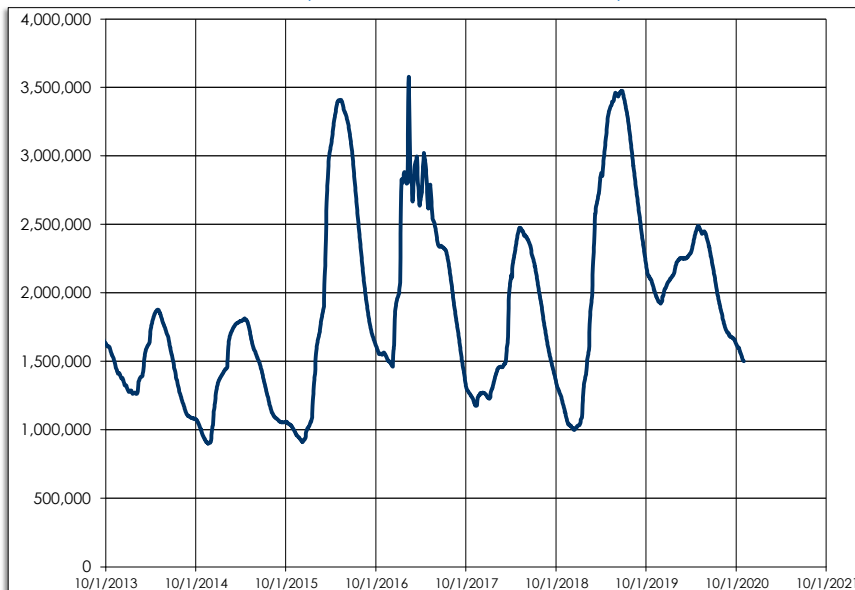
Reservoir Current Conditions as of November 2, 2020



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

5

Oroville Storage (acre-feet) October 1, 2013 - November 1, 2020



6

Draft Schedule 2021 Colorado River Board Meetings

Date	Location	Time	Board Materials
January 13	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
February 10	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
March 10	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
April 14	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
May 12	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
June 9	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
July 14	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
August 11	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
September 15	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
October 13	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
November 10	Remote/Ontario	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes
December 15	Remote/Las Vegas, NV	10:00 am	<input type="checkbox"/> Notice <input type="checkbox"/> Board Folder <input type="checkbox"/> Executive Director's Report <input type="checkbox"/> Meeting Minutes