



● **Water Surplus and Drought Management Update** *Conditions as of 4/25/2022*

Summary

This report accounts for water supply, demand, and storage conditions for calendar year (CY) 2022 as of April 25, 2022. The report also tracks the hydrologic conditions for water year (WY) 2021-2022.

April 1st is generally the snowpack peak associated with both of Metropolitan's imported water supplies. In the Upper Colorado River Basin, the snow water content peaked mid-March at 91 percent of the April 1st normal. For the Northern Sierra, the snowpack peaked in mid-January, unusually early, at only 61 percent of the April 1st normal despite the recent storm event that increased the snowpack accumulation in mid-April. Runoff for both systems is projected to be below normal.

Metropolitan's supply/demand gap for calendar year 2022 is currently projected to be negative at 846 thousand acre-feet (TAF) based on a demand estimate of 1.86 million acre-feet, the 5 percent SWP Table A allocation, and the Colorado River Aqueduct (CRA) estimate. A majority of this supply/demand gap will be met through storage withdrawals. However, significant storage withdrawals over the past few years have depleted supplies available to the SWP Dependent Area. Coupled with the low SWP allocation, there is not enough supply to meet normal demands in the SWP Dependent Area this year. As such, Metropolitan is taking extraordinary actions to reduce demands in the SWP Dependent Area and preserve Metropolitan's remaining SWP supply accessible to the SWP Dependent Area including taking delivery of human health and safety (HH&S) supply from the Department of Water Resources.

On April 26, 2022, Metropolitan's board declared that a Water Shortage Emergency Condition exists in the SWP Dependent Area and adopted an Emergency Water Conservation Program framework. These actions are intended to reduce non-essential water use in the SWP Dependent Area by significantly restricting outdoor water use. While this emergency applies to the SWP Dependent Area, all member agencies have been called on to conserve by 20 to 30 percent under Governor Newsom's executive order issued last month to help further conserve water and improve drought resiliency if the drought lasts beyond this year.

Purpose

Informational

Attachments

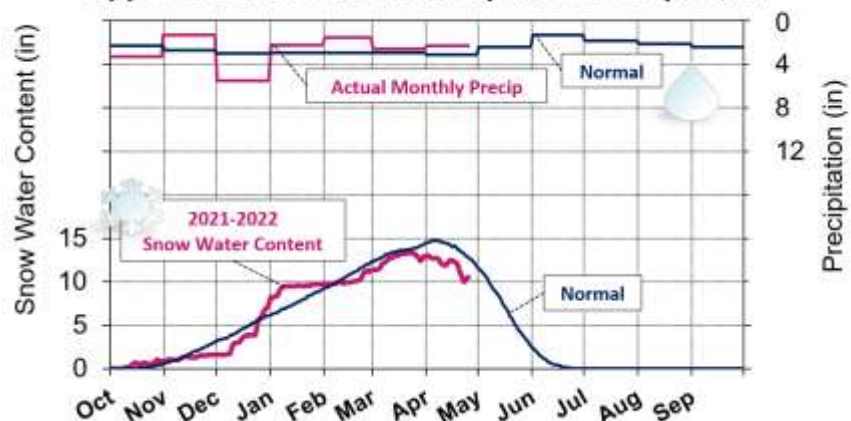
Attachment 1: Projected 2022 WSDM Storage Detail (5 percent SWP Table A allocation)

Attachment 2: Agreements to Exchange or Return Stored Water and Cyclic Program Balances

Detailed Report

This Water Surplus and Drought Management (WSDM) report updates water supply and demand conditions for CY 2022 and developing hydrologic conditions for WY 2021-2022.

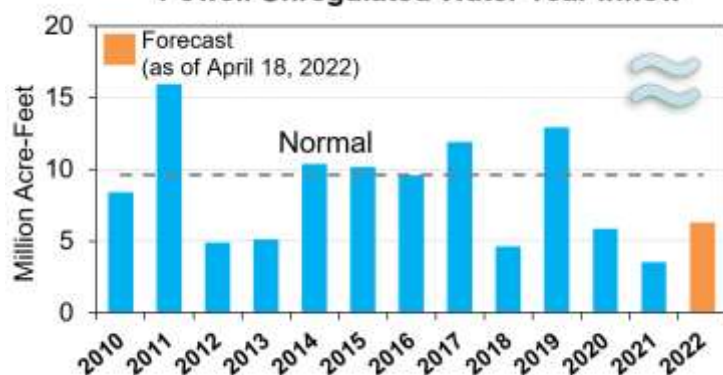
Upper Colorado Basin Snowpack & Precipitation



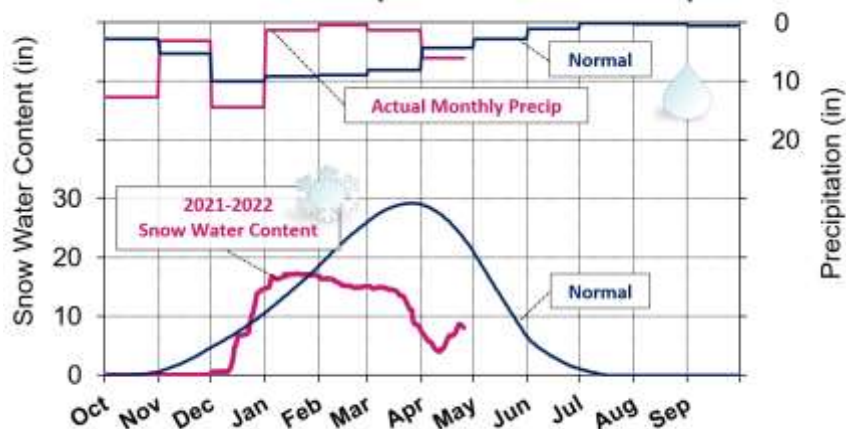
Upper Colorado River Basin

- ❄ Snowpack water content peaked in mid-March (13.3 inches or 91% of normal April 1).
- 💧 Near normal precipitation to date (18.7 inches).
- ≈ Runoff into Lake Powell for WY 2022 is forecasted at 66% of normal.

Powell Unregulated Water Year Inflow



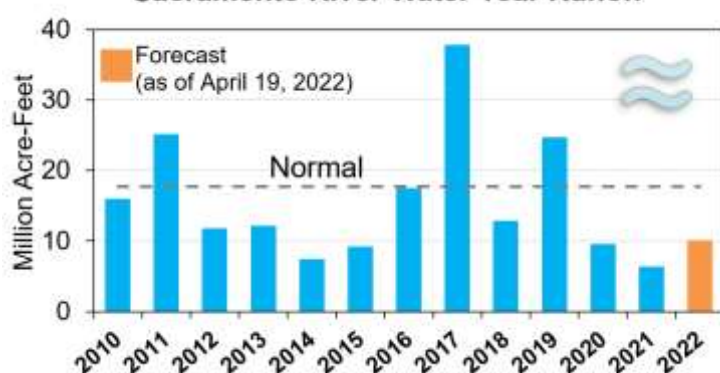
Northern Sierra Snowpack & 8 Station Precipitation



Sacramento River Basin

- ❄ Snowpack water content peaked low and early in mid-January (17.2 inches or 61% of normal April 1).
- 💧 Below normal precipitation at the 8 Station to date (39.2 inches).
- ≈ Runoff into the Sacramento River for WY 2022 is forecasted at 57% of normal.

Sacramento River Water Year Runoff

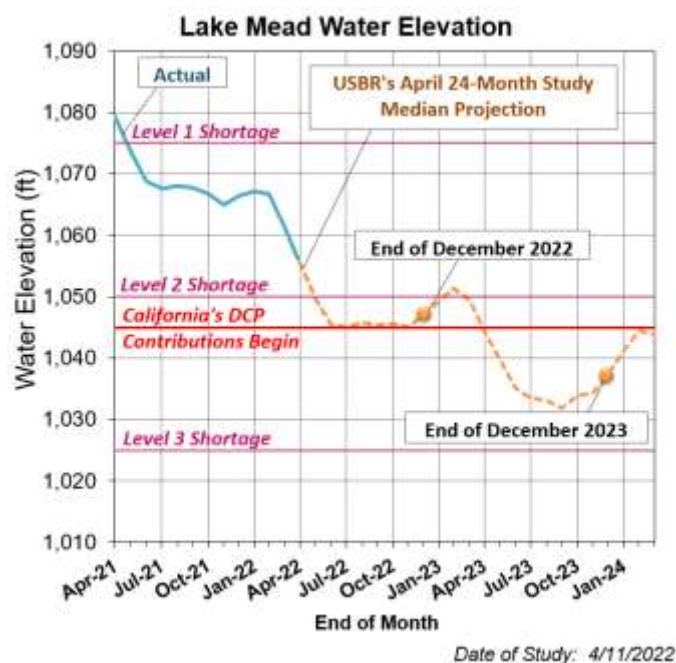


CRA Supplies	Acre-Feet
<i>Basic Apportionment</i>	550,000
<i>IID/ MWD Conservation Program</i>	105,000
<i>PVID Fallowing Program</i>	25,000
<i>Exchange w/ SDCWA (IID/Canal Lining)</i>	280,000
<i>Exchange w/ USBR (San Luis Rey Tribe)</i>	16,000
<i>Lower Colorado Water Supply Project</i>	9,000
<i>Bard Seasonal Fallowing Program</i>	3,000
<i>Quechan Diversion Forbearance</i>	6,000
<i>Quechan Seasonal Fallowing Program</i> ¹	0
<i>Higher Priority Water Use Adjustment</i> ²	-120,000
Total CRA Supplies ³	877,000

¹ Rounded to the nearest thousand. Supply is 356 AF.

² Per USBR Forecast (4/25/22).

³ Total may not sum due to rounding.



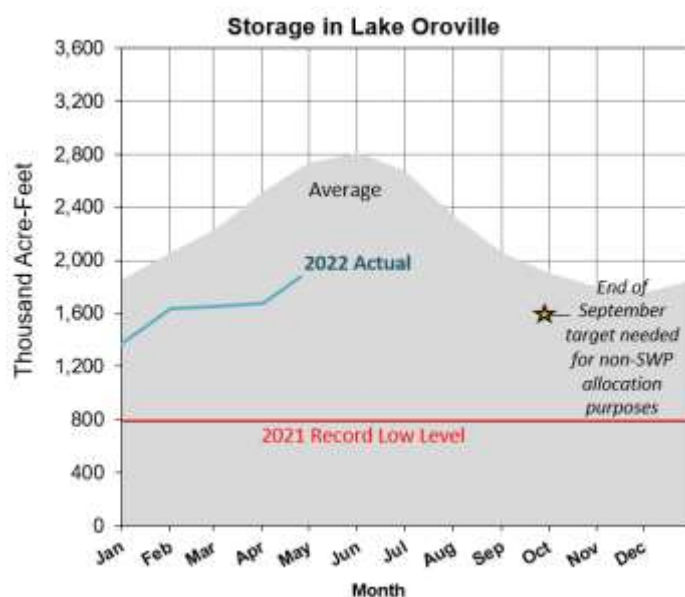
- Lake Mead storage is currently at 8.13 MAF (elevation 1056.1 feet).
- The Lower Basin is at a Level 1 shortage in CY 2022. Supplies to Metropolitan will not be curtailed and Metropolitan will have full access to its Intentionally Created Surplus (ICS) in CY 2022.

SWP Supplies	Acre-Feet
<i>Table A (5% SWP allocation)</i>	96,000
<i>Article 21</i>	0
<i>Port Hueneme</i> ¹	0
<i>SWC Buyers Group Transfers</i> ²	6,000
<i>Yuba Accord Dry-Year Purchase Program</i> ²	27,000
<i>MWDOC/IRWD Partnership</i>	4,000
<i>Purchase of SDCWA's Semitropic Supply</i>	4,000
Total SWP Supplies ³	137,000
Total Supplies (CRA + SWP)	1,014,000
(Prior to storage actions)	

¹ Rounded to the nearest thousand. Supply is 92.5 AF.

² Current estimate subject to change based on buyer/seller participation and losses.

³ Total may not sum due to rounding.



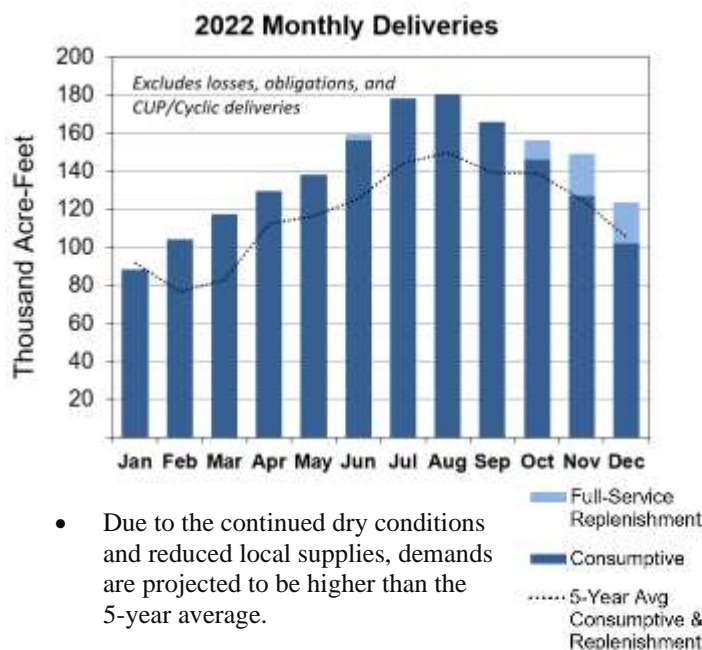
- In addition to the 5 percent Table A allocation, DWR will provide water for Contractors' unmet Human Health and Safety needs (HH&S). DWR expects Contractors receiving HH&S water to take mandatory conservation measures; implement conjunctive use practices; acquire alternative supplies; and return any HH&S water to the SWP in a future year. Changes to the allocation are unlikely as the rainy season has passed and the ongoing record dry conditions.
- April storms helped increase water levels in Lake Oroville, enabling power generation at the Hyatt Powerplant to continue throughout the year. Lake Oroville is currently at 1.88 MAF (53 percent of total capacity) or 70 percent of historical average as of the date of this report.

Current Demand	Acre-Feet
Member Agency Consumptive ¹	1,639,000
Member Agency Replenishment	57,000
Coachella Valley Water District Agreement	15,000
Return to Imperial Irrigation District ²	83,000
Exchange w/ San Luis Rey Tribe	16,000
System and Storage Losses	50,000
Cyclic Deliveries	0
Total Demands ³	1,861,000

¹ Includes exchange w/ SDCWA (IID/Canal Lining) and CUP sales.

² Per USBR Forecast (4/25/22).

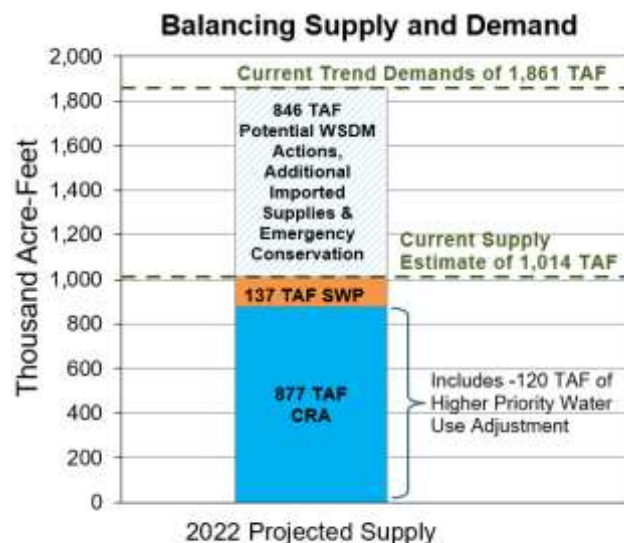
³ Total may not sum due to rounding.



MANAGING REGIONAL SUPPLY AND DEMAND

Supply/Demand Balance	Acre-Feet
Total Supplies	1,014,000
Total Demands	1,861,000
Current Balance Estimate ¹	-846,000

¹ Total may not sum due to rounding.



Dry-Year WSDM Strategies/Actions

The following WSDM actions are being pursued or are underway to satisfy the estimated supply/demand gap in 2022, enhance Metropolitan's capability of delivering supplies to the SWP Dependent Areas, and reduce storage withdrawals in 2022.

- Strategic withdrawals of water from dry-year storage reserves.
- Coordinating with member agencies to identify new drought actions targeted at Metropolitan's SWP Dependent Areas.
- Executed an agreement with DWR to allow for water withdrawals from Perris Flex storage at Castaic Lake.
- Increased exchange amounts with Arvin-Edison for Metropolitan to receive Friant surface water supplies.
- Maximizing use of Colorado River or stored supplies by using the Greg Avenue pump station and drafting water from Diamond Valley Lake to serve the Lakeview Pipeline and the Mills Plant.
- Advancing infrastructure improvements to reduce the impact of the current drought and provide future system flexibility.
- Working with member agencies to switch from service connections providing SWP supplies to alternate connections that use Colorado River supplies, both within and outside of the Operational Shift Cost-Offset Program.
- Purchasing San Diego County Water Authority's groundwater stored in the Semitropic Water Bank and leasing their pumping capacity.
- Partnering with non-member agencies such as the San Bernardino Valley Municipal Water District, a SWP Contractor, for exchange opportunities.
- Utilizing the Coordinated Operating Agreement with Municipal Water District of Orange County and Irvine Ranch Water District to enhance SWP supplies.
- Securing one-year transfers with various water districts north of the Sacramento-San Joaquin River Delta.
- Declared that a Water Shortage Emergency Condition exists in the SWP Dependent Area and adopted an Emergency Water Conservation Program framework.

2022 WSDM Storage Detail

	1/1/2022 Estimated Storage Levels ¹	CY 2022 Take Capacity ²	2022 Total Storage Capacity
WSDM Storage			
Colorado River Aqueduct Delivery System	1,243,000	351,000	1,657,000
Lake Mead ICS	1,243,000	351,000 ³	1,657,000
State Water Project System	636,000	185,000	1,879,000
MWD SWP Carryover ⁴	38,000	38,000	350,000
DWCV SWP Carryover ⁴			
MWD Articles 14(b) and 12(e)	0	0	N/A
Castaic Lake (DWR Flex Storage)	0	0	154,000
Lake Perris (DWR Flex Storage)	49,000	49,000 ⁵	65,000
Arvin Edison Storage Program	136,000	17,000 ⁶	350,000
Semitropic Storage Program	218,000	49,000 ⁷	350,000
Kern Delta Storage Program	149,000	32,000	250,000
Mojave Storage Program	19,000	0	330,000
AVEK Storage Program	27,000	0	30,000
In-Region Supplies and WSDM Actions	795,000	426,000	1,246,000
Diamond Valley Lake	600,000	343,000	810,000
Lake Mathews and Lake Skinner	179,000	67,000	226,000
Conjunctive Use Programs (CUP) ⁸	16,000	16,000	210,000
Other Programs	674,000	10,000	1,181,000
Other Emergency Storage	381,000	0	381,000
DWCV Advanced Delivery Account	293,000	10,000	800,000
Total	3,348,000	972,000	5,963,000
Emergency	750,000	0	750,000
Total WSDM Storage (AF) ⁹	2,598,000	972,000	5,213,000

¹ Start of year balances, subject to DWR adjustments and USBR final accounting in May 2022.

² Take capacity assumed under a 5 percent SWP Table A Allocation. Storage program losses included where applicable.

³ Take capacity based on planned maintenance activities and current CRA supply estimate and includes return of water to IID.

⁴ Total storage capacity varies year to year based on prior year remaining balance added to current year contractual limits.

⁵ Available for withdrawal from Castaic Lake in 2022 pursuant to an MWD-DWR agreement.

⁶ Take amounts dependent on exchange capabilities.

⁷ Includes leasing 5,000 AF of return capacity from SDCWA. This provides Metropolitan the ability to withdraw more of its groundwater stored in the program.

⁸ Total of all CUP programs including IEUA/TVMWD (Chino Basin); Long Beach (Central Basin); Long Beach (Lakewood); Foothill (Raymond and Monk Hill); MWD OC (Orange County Basin); Three Valleys (Live Oak); Three Valleys (Upper Claremont); and Western.

⁹ Total WSDM Storage level subject to change based on accounting adjustments.

Agreements to Exchange or Return Stored Water

	Future Returns ¹
Water Stored for IID under the California ICS Agreement and its Amendment or the 2021 Settlement Agreement with IID	240,000 ²
Storage and Interstate Release Agreement with Southern Nevada Water Authority	330,000 ³
Coachella Valley Water District Agreement	210,000 ⁴
Total (AF)	780,000 ⁵

¹ Rounded to the nearest thousand.

² IID can request return in any year, conditional on agreement terms. Projected to be reduced by 83,000 AF as shown on page 4.

³ Up to 30,000 AF per year beginning no earlier than 2022.

⁴ Obligation to be met by the end of 2026.

⁵ Subject to change based on accounting adjustments.

Cyclic Program Activity

CY	Starting Balance (AF)	CY Actions (AF)				Ending Balance (AF)
		Cyclic Pre-Delivery	Cyclic Cost-Offset Pre-Delivery	Total Pre-Delivery	Sale Out of Cyclic	
2019	51,000	147,000	19,000	166,000	91,000	126,000
2020	126,000	2,000	0	2,000	50,000	78,000
2021	78,000	0	0	0	28,000	50,000
2022 ¹	50,000	0	0	0	32,000	18,000

¹ Projected Cyclic program activity for the year. Subject to change.