



## ● Water Surplus and Drought Management Update *Conditions as of 3/29/2021*

### Summary

This report provides an accounting of water supply, demand, and storage conditions for calendar year (CY) 2021. This report considers conditions as of March 29, 2021.

On March 23, 2021, the Department of Water Resources reduced the State Water Project (SWP) allocation from 10 percent to 5 percent due to ongoing dry conditions. Overall, precipitation and the expected runoff from the Northern Sierra continues to be well below normal.

In the Upper Colorado River Basin, below normal hydrologic conditions also persist. The United States Bureau of Reclamation’s (USBR) March 24-month study continues to project Lake Mead’s water elevation to fall below the Level 1 shortage trigger (1,075 feet) at the end of the calendar year.

The current demand estimate is 1.65 million acre-feet. This results in a supply/demand gap of 537 thousand acre-feet given the current 5 percent SWP allocation and the Colorado River Aqueduct (CRA) supply estimate. To satisfy the supply/demand gap, Metropolitan is withdrawing from its dry-year storage and making operational adjustments to shift demands to Colorado River supplies and preserve the more limited SWP supplies under this low SWP allocation. Metropolitan is also pursuing potential north of Delta water transfers.

### Purpose

Informational

### Attachments

- Attachment 1: Projected 2021 WSDM Storage Detail (5 percent SWP allocation)
- Attachment 2: Agreements to Exchange or Return Stored Water and Cyclic Program Balances

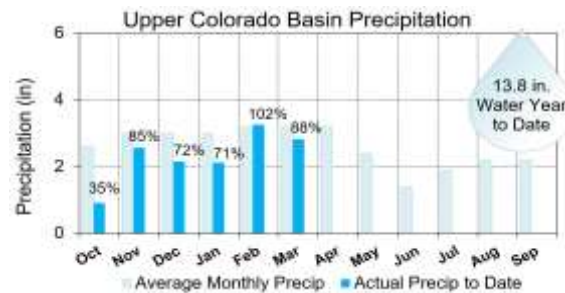
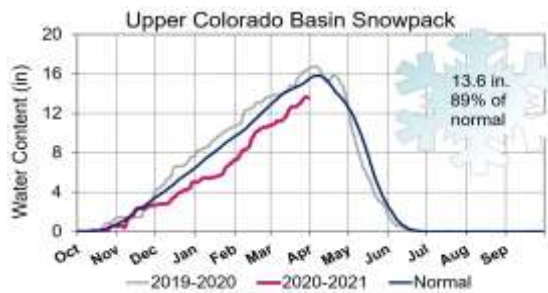
### Detailed Report

This Water Surplus and Drought Management (WSDM) report provides an overview of developing hydrologic conditions and estimated water supply and demand conditions for CY 2021.

## HYDROLOGIC CONDITIONS

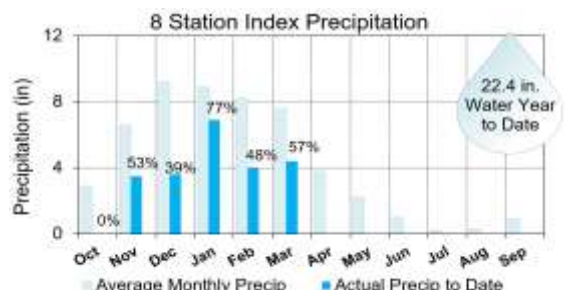
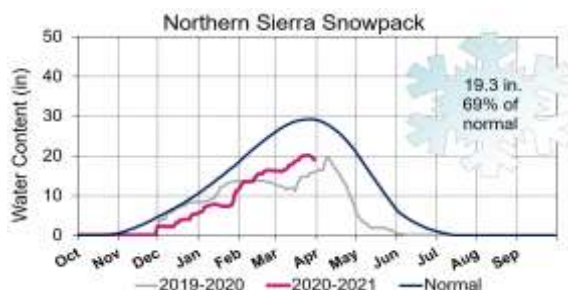
*Conditions as of 3/29/2021*

### Upper Colorado River Basin



- Snowpack measured 89 percent of normal.
- Runoff into Lake Powell is forecasted to be 47%.

### Sacramento River Basin



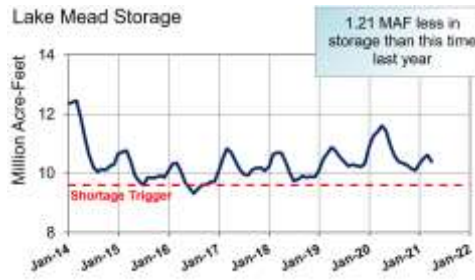
- Snowpack measured 69 percent of normal.
- Sacramento River runoff is forecasted to be 49%.

CRA Supplies	Acre-Feet
Basic Apportionment	550,000
IID/ MWD Conservation Program	105,000
PVID Fallowing Program	40,000
Exchange w/ SDCWA (IID/Canal Lining)	283,000
Exchange w/ USBR (San Luis Rey Tribe)	16,000
Lower Colorado Water Supply Project	9,000
Bard Seasonal Fallowing Program	6,000
Quechan Diversion Forbearance <sup>1</sup>	6,000
Higher Priority Water Use Adjustment <sup>2</sup>	0
<b>Total CRA Supplies</b>	<b>1,015,000</b>

<sup>1</sup> Previously accounted for in the higher priority water use adjustment.  
<sup>2</sup> Final adjustment could range by more than plus or minus 100 TAF.

SWP Supplies	Acre-Feet
Table A (5% SWP allocation)	96,000
Article 21	0
Port Hueneme <sup>1</sup>	0
SWC Buyers Group Transfers <sup>2</sup>	0
Yuba Accord Dry-Year Purchase Program	0
<b>Total SWP Supplies</b>	<b>96,000</b>
<b>Total Supplies (CRA + SWP)</b>	<b>1,111,000</b>
<b>(Prior to storage actions)</b>	

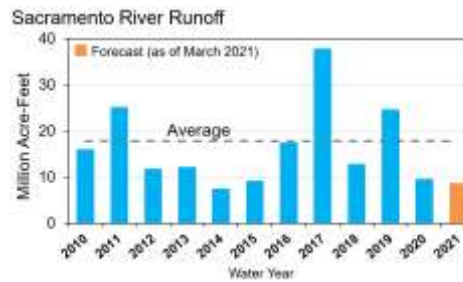
<sup>1</sup> Rounded to the nearest thousand. Supply is 92.5 AF.  
<sup>2</sup> SWC Buyers Group transfer supplies will be shown pending Board approval.



- Lake Mead storage is currently at 10.39 MAF (elevation 1,084.6 feet).
- USBR’s March 24-month study continues to show Lake Mead’s water elevation to decline over the next two years. Should the August study continue to project Lake Mead’s elevation to fall below 1,075 feet on January 1, 2022, the first ever shortage (Level 1) would be declared for CY 2022.

**SWP Allocation 5%**

- Changes to the allocation are less likely as the year progresses and dry conditions persist.

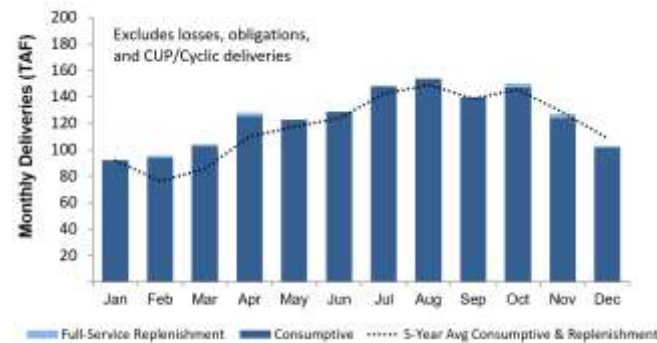


2021 WATER DEMANDS

Current Demand	Acre-Feet
Member Agency Consumptive <sup>1</sup>	1,518,000
Member Agency Replenishment	14,000
Coachella Valley Water District Agreement	50,000
Exchange w/ San Luis Rey Tribe	16,000
System and Storage Losses	50,000
Cyclic Deliveries	0
<b>Total Demands</b>	<b>1,648,000</b>

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

2021 Demand Estimate



- With continued dry conditions, 2021 demands are projected to be slightly higher than the 5-year average.

MANAGING SUPPLIES AND DEMANDS

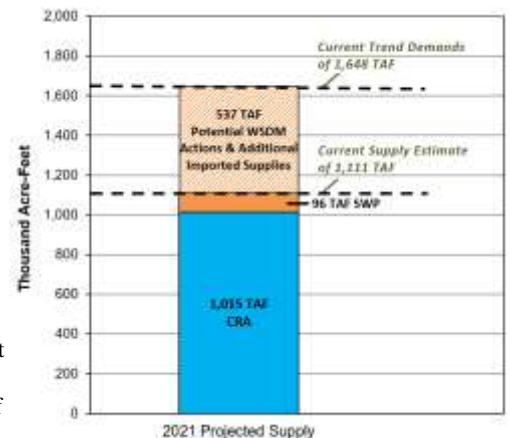
Supply/Demand Balance	Acre-Feet
Total Supplies	1,111,000
Total Demands	1,648,000
<b>Current Balance Estimate</b>	<b>-537,000</b>

**Dry-Year WSDM Strategies/Actions**

The following WSDM actions are being pursued or are underway to satisfy the estimated supply/demand gap.

- Withdrawing water from its dry-year storage reserves (e.g. Lake Mead ICS account, SWP Carryover storage, SWP Banking Programs, SWP Flexible storage accounts, in-region surface reservoirs).
- Pursuing north of Delta transfers through the SWC Buyers Group and Yuba Accord.
- Making adjustments to system operations to preserve SWP supplies and maximize use of Colorado River or stored supplies. These actions include planned pumping at Greg Avenue pump station, drafting water from Diamond Valley Lake to serve the Mills Water Treatment Plant, and shifting demand to service connections supplying Colorado River supplies.
- Developing a dry-year water management program for agencies to shift demands to areas of more supply/storage for Board consideration.

**Balancing Supply and Demand**



## 2021 WSDM Storage Detail

WSDM Storage	1/1/2021 Estimated Storage Levels	CY 2021 Take Capacity <sup>1</sup>	2021 Total Storage Capacity
<b>Colorado River Aqueduct Delivery System</b>	<b>1,294,000</b>	<b>100,000</b>	<b>1,657,000</b>
Lake Mead ICS	1,294,000	100,000 <sup>2</sup>	1,657,000
<b>State Water Project System</b>	<b>1,052,000</b>	<b>502,000</b>	<b>1,879,000</b>
MWD SWP Carryover <sup>3</sup>	207,000	207,000	350,000
DWCV SWP Carryover <sup>3</sup>			
MWD Articles 14(b) and 12(e)	0	0	N/A
Castaic Lake (DWR Flex Storage)	154,000	154,000	154,000
Lake Perris (DWR Flex Storage)	65,000	65,000	65,000
Arvin Edison Storage Program	142,000	0 <sup>4</sup>	350,000
Semitropic Storage Program	261,000	36,000	350,000
Kern Delta Storage Program	177,000	40,000	250,000
Mojave Storage Program	19,000	0	330,000
AVEK Storage Program	27,000	0	30,000
<b>In-Region Supplies and WSDM Actions</b>	<b>872,000</b>	<b>499,000</b>	<b>1,246,000</b>
Diamond Valley Lake	704,000	447,000	810,000
Lake Mathews and Lake Skinner	127,000	14,000	226,000
Conjunctive Use Programs (CUP) <sup>5</sup>	41,000	38,000	210,000
<b>Other Programs</b>	<b>694,000</b>	<b>55,000</b>	<b>1,181,000</b>
Other Emergency Storage	381,000	0	381,000
DWCV Advanced Delivery Account	313,000	55,000	800,000
<b>Total</b>	<b>3,912,000</b>	<b>1,156,000</b>	<b>5,963,000</b>
Emergency	750,000	0	750,000
<b>Total WSDM Storage (AF) <sup>6</sup></b>	<b>3,162,000</b>	<b>1,156,000</b>	<b>5,213,000</b>

<sup>1</sup> Take capacity assumed under a 5 percent SWP Table A Allocation. Storage program losses included where applicable.

<sup>2</sup> Take capacity based on planned maintenance activities and current CRA supply estimate.

<sup>3</sup> Total storage capacity varies year to year based on prior year remaining balance added to current year contractual limits.

<sup>4</sup> Take amounts dependent on exchange capabilities.

<sup>5</sup> Total of all CUP programs including IEUA/TVMWD (Chino Basin); Long Beach (Central Basin); Long Beach (Lakewood); Foothill (Raymond and Monk Hill); MWDOC (Orange County Basin); Three Valleys (Live Oak); Three Valleys (Upper Claremont); and Western.

<sup>6</sup> Total WSDM Storage level subject to change based on accounting adjustments.

## Agreements to Exchange or Return Stored Water

	<b>Future Returns <sup>1</sup></b>
California ICS Agreement – IID <sup>2</sup>	164,000
Storage and Interstate Release Agreement with Southern Nevada Water Authority <sup>3</sup>	330,000
<b>Total (AF)</b>	<b>494,000 <sup>4</sup></b>

<sup>1</sup> Rounded to the nearest thousand.

<sup>2</sup> IID can request return in any year, conditional on whether or not Metropolitan is implementing a Water Supply Allocation Plan.

<sup>3</sup> Up to 30,000 AF per year beginning no earlier than 2022.

<sup>4</sup> 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	50,000	147,000	19,000	166,000	91,000	125,000
2020	125,000	2,000	0	2,000	50,000	77,000
2021 <sup>1</sup>	77,000	0	0	0	32,000	45,000

<sup>1</sup> Projected Cyclic program activity for the year. Subject to change.