



# Report Water Resource Management Group

## ● Water Surplus and Drought Management Update *Conditions as of 4/28/2020*

### Summary

This report provides a preliminary accounting of water supply, demand, and storage conditions for calendar year (CY) 2020. This report considers conditions as of April 28, 2020.

Dry conditions persist in northern California. The Northern Sierra snowpack peaked at 66 percent of average in early April and has started to melt. Precipitation also measured below normal at 58 percent of average to date. Because of the overall dry conditions, the State Water Project (SWP) allocation remains at 15 percent. It is becoming less likely for the allocation to increase as we move through spring and beyond the primary precipitation-producing months in California. In the Upper Colorado River Basin, the snowpack has also started to melt, peaking at 106 percent of the April 1 average. Precipitation measured slightly below normal at 88 percent of average to date.

A supply/demand gap of 341 thousand acre-feet is currently projected for CY 2020. This supply/demand gap is based on a current demand estimate of 1.63 million acre-feet, the 15 percent SWP allocation, and the Colorado River Aqueduct (CRA) supply estimate. Metropolitan is implementing dry-year WSDM actions to satisfy the projected supply/demand gap. In addition to operational actions that maximize water deliveries from available sources, Metropolitan has started withdrawing water from the SWP Banking Programs and anticipates purchasing surface water supplies from the Yuba Water Agency. Metropolitan has ample dry-year storage available to satisfy the supply gap for 2020.

### Purpose

Informational

### Attachments

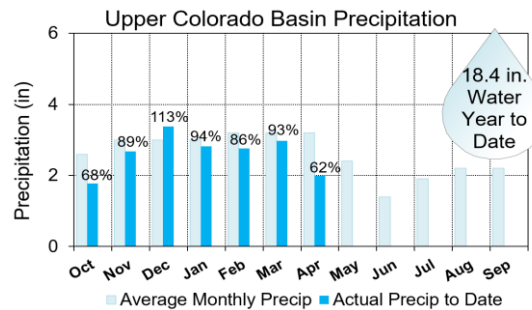
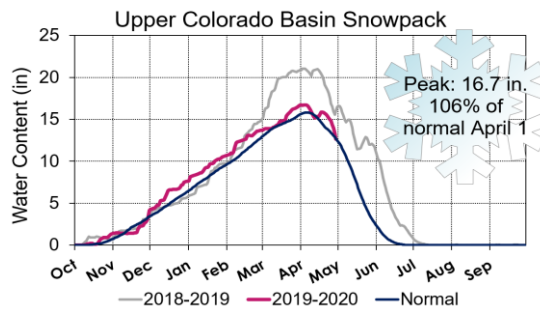
- Attachment 1: Projected 2020 WSDM Storage Detail (15% SWP allocation)
- Attachment 2: Agreements to Exchange or Return Stored Water and Cyclic Program Balances

### 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 2020.

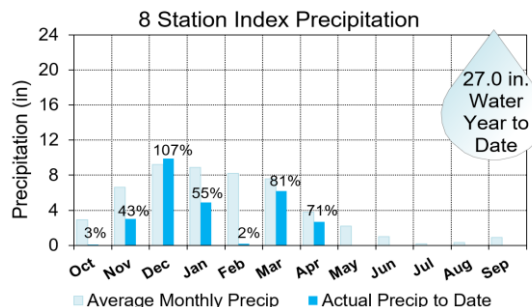
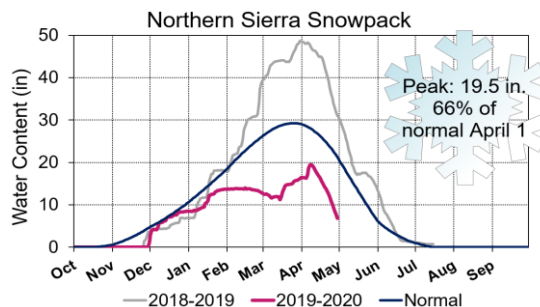
## HYDROLOGIC CONDITIONS

### Upper Colorado River Basin



- Snowpack peaked at 106% of the April 1 average.
- Precipitation measured 18.4 inches or 88% of normal to date.

### Sacramento River Basin

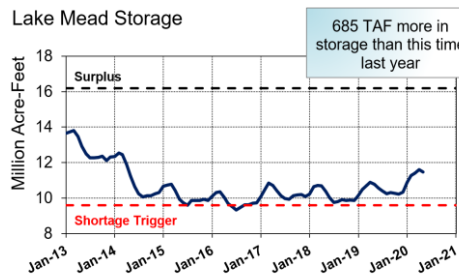


- Snowpack peaked at 66% of April 1 average.
- Precipitation measured 27.0 inches or 58% of normal to date.

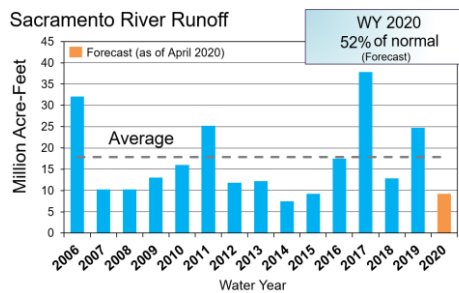
CRA Supplies	Acre-Feet
Basic Apportionment	550,000
IID/ MWD Conservation Program	105,000
PVID Fallowing Program	50,000
Exchange w/ SDCWA (IID/Canal Lining)	270,000
Exchange w/ USBR (San Luis Rey Tribe)	16,000
Lower Colorado Water Supply Project	9,000
Bard Seasonal Fallowing Program	5,000
Higher Priority Water Use Adjustment	0
<b>Total CRA Supplies</b>	<b>1,005,000</b>

SWP Supplies	Acre-Feet
Table A (15% SWP allocation)	287,000
Article 21	0
Port Hueneme <sup>1</sup>	0
<b>Total SWP Supplies</b>	<b>287,000</b>
<b>Total Supplies (CRA + SWP)</b>	<b>1,292,000</b>
<b>(Prior to storage actions)</b>	

<sup>1</sup> Rounded to the nearest thousand. Supply is 278 AF.



- Lake Mead storage is currently at 11.46 MAF (elevation 1096.87 feet), the highest it has been since March 2014. The April United States Bureau of Reclamation projections show Lake Mead end of CY 2020 storage to be 10.40 MAF (elevation 1084.69 feet) which is above the shortage trigger.



**SWP Allocation 15%**

- Further increases to the allocation are still possible should hydrologic conditions in northern California improve, however it is becoming less likely as we move beyond the primary precipitation-producing months.

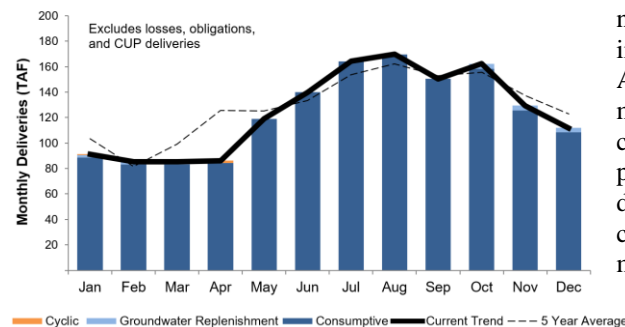
2020 WATER DEMANDS

Current Demand	Acre-Feet
Member Agency Consumptive <sup>1</sup>	1,485,000
Member Agency Replenishment	17,000
Coachella Valley Water District Agreement	50,000
Exchange w/ San Luis Rey Tribe	16,000
System and Storage Losses	63,000
Cyclic Deliveries <sup>2</sup>	2,000
<b>Total Demands</b>	<b>1,633,000</b>

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

<sup>2</sup> This amount includes deliveries to complete cyclic orders made in 2019 and to support maintenance to maintain water quality goals.

2020 Demand Estimate



- Wet weather in April brought above normal precipitation in the service area. As a result, the member agency consumptive demand projection for 2020 decreased as compared to last month.

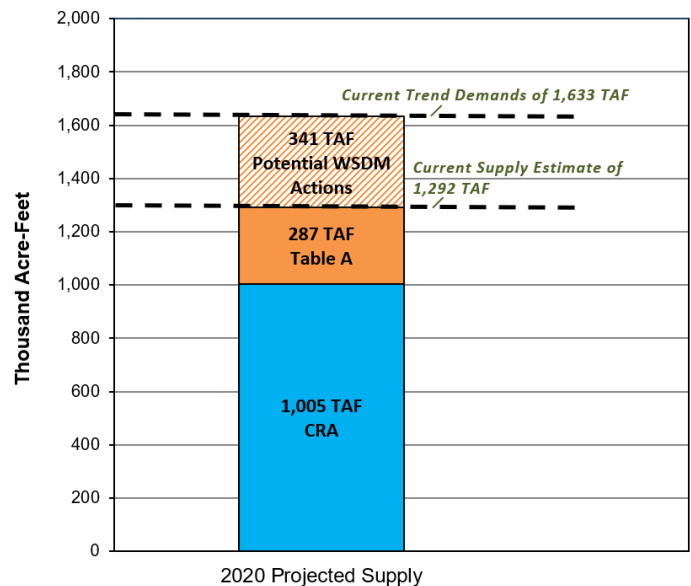
MANAGING SUPPLIES AND DEMANDS

Supply/Demand Balance	Acre-Feet
Total Supplies	1,292,000
Total Demands	1,633,000
<b>Current Balance Estimate</b>	<b>-341,000</b>

WSDM Strategies/Actions

- **SWP Banking Programs:** Metropolitan will satisfy a potential supply gap with takes from its record dry-year storage balance. Metropolitan is coordinating with its SWP Banking Program partners to maximize takes for the remainder of the year.
- **2019 Supply Management:** A portion of Metropolitan's SWP water supply was not delivered due to conveyance constraints in 2019. Metropolitan has secured 34 TAF of these supplies for delivery in 2020.
- **SWP Transfer Supplies:** Metropolitan anticipates purchasing approximately 22 TAF of Yuba Accord surface water transfer supplies.

Balancing Supply and Demand



## 2020 WSDM Storage Detail

WSDM Storage	1/1/2020 Estimated Storage Levels	CY 2020 Take Capacity <sup>1</sup>	2020 Total Storage Capacity
<b>Colorado River Aqueduct Delivery System</b>	<b>980,000</b>	<b>0</b>	<b>1,739,000</b>
Lake Mead ICS	980,000	0 <sup>2</sup>	1,739,000
<b>State Water Project System</b>	<b>1,193,000</b>	<b>644,000</b>	<b>1,879,000</b>
MWD SWP Carryover <sup>3</sup>	297,000	297,000	350,000
DWCV SWP Carryover <sup>3</sup>			
MWD Articles 14(b) and 12(e) <sup>4</sup>	34,000	34,000	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	143,000	0 <sup>5</sup>	350,000
Semitropic Storage Program	265,000	42,000	350,000
Kern Delta Storage Program	189,000	45,000	250,000
Mojave Storage Program	19,000	0	330,000
AVEK Storage Program	27,000	7,000	30,000
<b>In-Region Supplies and WSDM Actions</b>	<b>1,044,000</b>	<b>634,000</b>	<b>1,246,000</b>
Diamond Valley Lake	796,000	539,000	810,000
Lake Mathews and Lake Skinner	190,000	79,000	226,000
Conjunctive Use Programs (CUP) <sup>6</sup>	58,000	16,000	210,000
<b>Other Programs</b>	<b>677,000</b>	<b>83,000</b>	<b>1,181,000</b>
Other Emergency Storage	381,000	0	381,000
DWCV Advanced Delivery Account	296,000	83,000	800,000
<b>Total</b>	<b>3,894,000</b>	<b>1,361,000</b>	<b>6,045,000</b>
Emergency	750,000	0	750,000
<b>Total WSDM Storage (AF) <sup>7</sup></b>	<b>3,144,000</b>	<b>1,361,000</b>	<b>5,295,000</b>

<sup>1</sup> Take capacity assumed under a 15% SWP Table A Allocation. Storage program losses included where applicable.

<sup>2</sup> No additional aqueduct capacity for the remainder of the year to move ICS supplies given current 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> This represents water not delivered in 2019 due to conveyance constraints. Metropolitan has secured 34 TAF of these supplies for delivery in 2020 per Articles 14(b) and 12(e) of the SWP Contract. This approval by DWR reclassifies system water on January 1 now as Metropolitan supply and thus is shown as a change in January 1 storage balance.

<sup>5</sup> Take amounts could depend on exchange capabilities.

<sup>6</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>7</sup> Total WSDM Storage level subject to change based on accounting adjustments.

## Agreements to Exchange or Return Stored Water

	<b>Future Returns</b>
Unbalanced Exchanges with Other SWP Contractors <sup>1</sup>	0 <sup>2</sup>
California ICS Agreement – IID <sup>3</sup>	168,000
Storage and Interstate Release Agreement with Southern Nevada Water Authority <sup>4</sup>	330,000
<b>Total (AF)</b>	<b>498,000</b> <sup>5</sup>

<sup>1</sup> This includes water managed within Metropolitan's service area for Dudley Ridge Water District, a SWP contractor. The obligation is part of an unbalanced exchange under the MWDOC/IRWD Coordinated Operating Agreement. This water is to be returned by December 31, 2022.

<sup>2</sup> Rounded to the nearest thousand. Remaining balance of approximately 300 AF.

<sup>3</sup> IID can request return in any year, conditional on whether or not Metropolitan is implementing a Water Supply Allocation Plan.

<sup>4</sup> Up to 30,000 AF per year beginning no earlier than 2022.

<sup>5</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	Scheduled Sale	
2019	50,000	147,000	19,000	166,000	90,000	126,000
2020 <sup>1</sup>	126,000	2,000 <sup>2</sup>	0	2,000	33,000	95,000

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

<sup>2</sup> This amount includes deliveries to complete cyclic orders made in 2019 and to support maintenance to maintain water quality goals.