



## • Water Surplus and Drought Management Update *Conditions as of 5/23/2019*

### Summary

This report provides a preliminary accounting of water supply, demand, and storage conditions for calendar year (CY) 2019. This report considers conditions as of May 23, 2019.

Late season storms in the Upper Colorado River Basin and northern California increased the snowpack in both watersheds. These storm systems will likely increase forecasted inflows into Lake Powell and solidify the State Water Project (SWP) allocation of 70 percent.

On May 20, 2019 representatives of seven Colorado River Basin states and the federal government signed the Colorado River Drought Contingency Plan and related agreements. This action increases the opportunity for Metropolitan to maximize California’s 400 thousand acre-feet (TAF) put capacity into the Intentionally Created Surplus (ICS) program. Given Metropolitan’s total estimated put capacity of 1.12 million acre-feet (MAF) and the estimated 843 TAF of supplies available for storage in 2019, the need for the cost credit program for cyclic deliveries is not anticipated at this time. Metropolitan’s total dry-year storage balance at the end of the year is expected to be roughly 3.2 MAF, the highest storage balance in Metropolitan’s history.

### Purpose

Informational

### Attachments

Attachment 1: 2019 WSDM Storage Detail (Put Capacity at 70% SWP allocation)

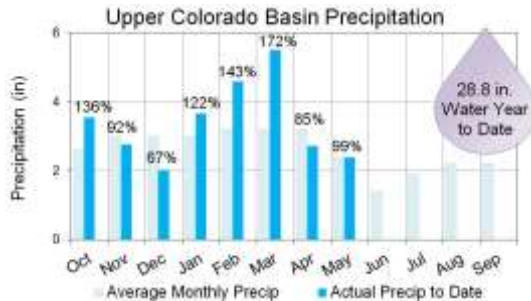
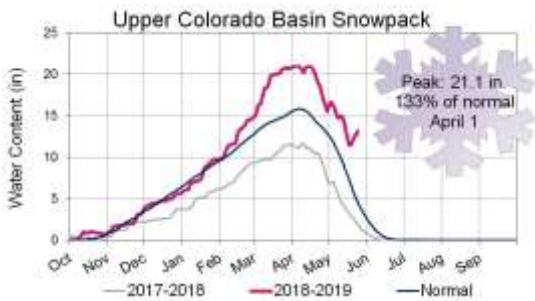
Attachment 2: Agreements to Exchange or Return Stored Water

### Detailed Report

This Water Surplus and Drought Management (WSDM) report and the charts below provide an update on hydrologic conditions and estimated water supply and demand conditions for CY 2019.

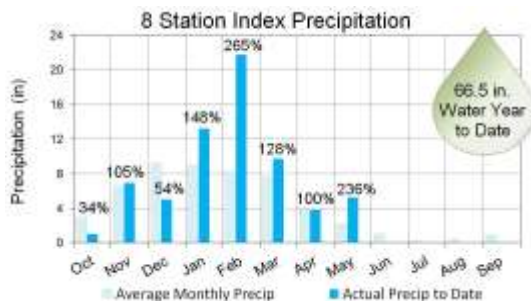
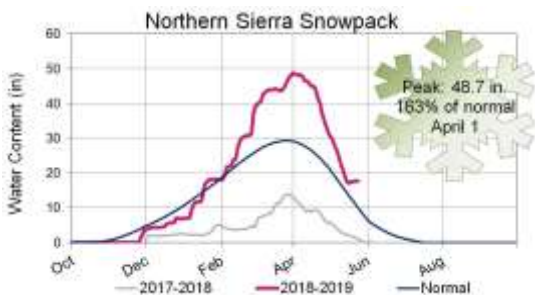
## HYDROLOGIC CONDITIONS

### Upper Colorado River Basin



- Snowpack peaked at 133% of the April 1 average
- Late season snowfall increased snow water content

### Sacramento River Basin



- Snowpack peaked at 163% of the April 1 average
- Late season snowfall increased snow water content

# 2019 SUPPLY ESTIMATE

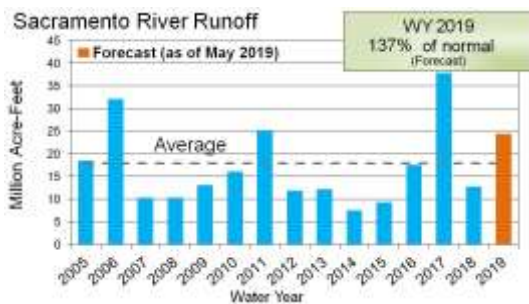
Conditions as of 5/23/2019

CRA Supplies	Acre-Feet
Basic Apportionment	550,000
IID/ MWD Conservation Program	85,000
PVID Fallowing Program	49,000
Exchange w/ SDCWA (IID/Canal Lining)	238,000
Exchange w/ USBR (San Luis Rey Tribe)	16,000
Lower Colorado Water Supply Project	9,000
Agricultural Adjustment	0
<b>Total CRA Supplies</b>	<b>947,000</b>

SWP Supplies	Acre-Feet
Table A (70% SWP allocation)	1,338,000
Article 21	65,000
Port Hueneme	1,000
<b>Total SWP Supplies</b>	<b>1,404,000</b>
<b>Total Supplies (CRA + SWP)</b>	<b>2,351,000</b>
<b>(Prior to storage actions)</b>	



- USBR planning for a 9 MAF water year release from Lake Powell

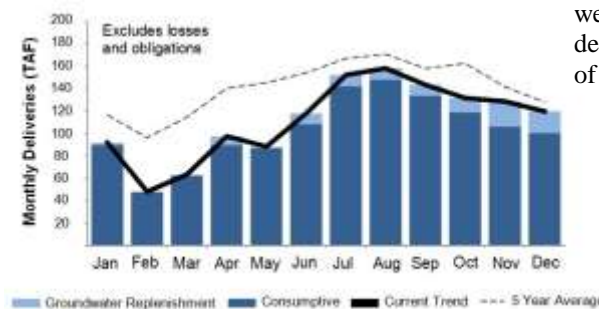


- **SWP Allocation 70%**
- No additional increases to the SWP Allocation are anticipated this year

# 2019 WATER DEMANDS

Current Demand	Acre-Feet
Member Agency Consumptive <sup>1</sup>	1,250,000
Member Agency Replenishment	106,000
Coachella Valley Water District Agreement	35,000
Exchange w/ San Luis Rey Tribe	16,000
System and Storage Losses	101,000
<b>Total Demands</b>	<b>1,508,000</b>

2019 Demand Estimate



- 2019 May demands were the second lowest demands for the month of May on record

<sup>1</sup> Includes exchange w/ SDCWA (IID/Canal Lining)

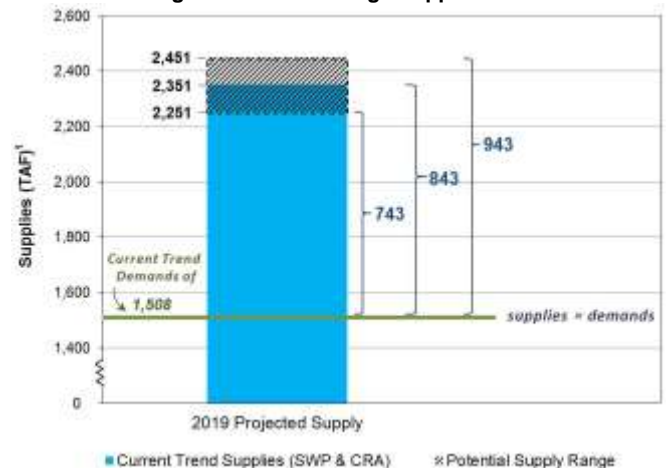
# MANAGING SUPPLIES AND DEMANDS

Supply/Demand Balance	Acre-Feet
Total Supplies	2,351,000
Total Demands	1,508,000
<b>Current Balance Estimate</b>	<b>843,000</b>

## 2019 WSDM Strategies/Actions

1. **Dry-Year Storage:** Initiated all practicable storage programs and projects to manage available supplies in 2019. The cost credit program for cyclic deliveries not recommended at this time.
2. **Article 21 Supplies:** Maximized deliveries to offset carryover loss.
3. **SWP Carryover :** Withdrew storage from San Luis Reservoir to minimize the conversion of carryover supplies to Project Water. Metropolitan may replenish this storage in CY 2019 depending on contractual and operational considerations.
4. **Transfer Supply Purchase:** No purchases are being pursued in 2019.

Potential Storage Actions to Manage Supplies: 70% Allocation



<sup>1</sup> Ranges reflect uncertainty of Colorado River higher priority water use.

## 2019 WSDM Storage Detail

WSDM Storage	1/1/2019 Storage Levels	Annual Available Put Capacity <sup>1</sup>	2019 Total Storage Capacity	
<b>Colorado River Aqueduct Delivery System</b>	<b>625,000</b>	<b>398,000</b>	<b>1,763,000</b>	
Lake Mead ICS	625,000 <sup>2</sup>	398,000 <sup>3</sup>	1,763,000 <sup>3</sup>	
<b>State Water Project System</b>	<b>819,000</b>	<b>299,000</b>	<b>1,796,000</b>	
MWD SWP Carryover <sup>4</sup>	93,000 <sup>5</sup>	174,000	267,000	
DWCV SWP Carryover <sup>4</sup>				
Castaic Lake (DWR Flex Storage)	154,000	0	154,000	
Lake Perris (DWR Flex Storage)	65,000	0	65,000	
Arvin Edison Storage Program <sup>6</sup>	154,000	0	350,000	
Semitropic Storage Program	187,000	65,000	350,000	
Kern Delta Storage Program	138,000	50,000	250,000	
Mojave Storage Program	19,000	0	330,000	
AVEK Storage Program	9,000	10,000	30,000	
<b>In-Region Supplies and WSDM Actions</b>	<b>977,000</b>	<b>254,000</b>	<b>1,536,000</b>	
Diamond Valley Lake	702,000	108,000	810,000	
Lake Mathews	141,000	19,000	182,000	
Lake Skinner	37,000	3,000	44,000	
CUP - IEUA/TVMWD (Chino Basin)	42,000	124,000 <sup>7</sup>	100,000	
CUP - Long Beach (Central Basin)	0		13,000	
CUP - Long Beach (Lakewood)	0		4,000	
CUP - Foothill (Raymond and Monkhill)	0		9,000	
CUP - MWDOC (Orange County Basin)	0		66,000	
CUP - Three Valleys (Live Oak)	0		3,000	
CUP - Three Valleys (Upper Claremont)	1,000		3,000	
CUP - Western	5,000		12,000	
Cyclic - Upper San Gabriel	48,000		100,000	
Cyclic - Three Valleys	0		40,000	
Cyclic - Burbank	0		35,000	
Cyclic - Calleguas	0		5,000	
Cyclic - Eastern	1,000		10,000	
Cyclic - MWDOC	0		100,000	
<b>Other Programs</b>	<b>563,000</b>		<b>168,000</b>	<b>1,128,000</b>
Other Emergency Storage	328,000		0	328,000
DWCV Advanced Delivery Account	235,000		168,000	800,000
<b>Total</b>	<b>2,984,000</b>	<b>1,119,000</b>	<b>6,223,000</b>	
Emergency	626,000	0	626,000	
<b>Total WSDM Storage (AF) <sup>8</sup></b>	<b>2,358,000</b>	<b>1,119,000</b>	<b>5,597,000</b>	

<sup>1</sup> Put capacity assumed under a 70% SWP Table A Allocation.

<sup>2</sup> Increased to reflect excess conservation created by IID in 2017 and credited to Metropolitan's ICS account.

<sup>3</sup> The Drought Contingency Plan increases programs that qualify for ICS storage and total ICS storage.

<sup>4</sup> Total Storage Capacity varies year to year based on prior year remaining balance added to current year contractual limits.

<sup>5</sup> Carryover balance adjusted to reflect the conversion of approximately 163 TAF to State Water Project supply.

<sup>6</sup> Puts are limited due to water quality considerations.

<sup>7</sup> Total estimated put capacity across all Conjunctive Use and Cyclic programs.

<sup>8</sup> Total WSDM Storage level is subject to change based on accounting adjustments.

## Agreements to Exchange or Return Stored Water

	<b>Future Returns</b>
Strand Ranch – Irvine Ranch <sup>1</sup>	4,000
Dudley Ridge WD – Irvine Ranch <sup>2</sup>	7,000
California ICS Agreement – IID <sup>3</sup>	168,000 <sup>4</sup>
Storage and Interstate Release Agreement with Southern Nevada Water Authority <sup>5</sup>	330,000
<b>Total (AF)</b>	<b>509,000<sup>6</sup></b>

<sup>1</sup> To be returned no later than 2024 at Irvine Ranch's request.

<sup>2</sup> Half to be returned to Dudley Ridge Water District and the other half to Irvine Ranch no later than 2022.

<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> Increased to reflect previous credit to Metropolitan's ICS account to be returned in the future.

<sup>5</sup> Up to 30,000 AF per year beginning no earlier than 2022.

<sup>6</sup> Subject to change based on accounting adjustments.