



Report

Water Resource Management Group

• **Water Surplus and Drought Management Update**

Summary

This report highlights water year 2019/2020, and provides an accounting of supply, demand, and preliminary storage balances for the end of calendar year (CY) 2020.

CY 2020 Highlights:

State Water Project Supplies

- Dry hydrologic conditions resulted in a 20 percent SWP Table A allocation.
- Metropolitan managed a record carryover volume of 331,000 acre-feet.
- New federal biological opinions and a new State Incidental Take Permit were implemented in 2020 to protect endangered fish species in the Delta.

Colorado River Aqueduct Supplies

- Despite a normal snowpack in the Upper Colorado River Basin, hot and dry spring and summer conditions contributed to below average runoff which increased the probability of shortage through 2025.
- Wet conditions in the Lower Basin increased Metropolitan's supplies, allowing Metropolitan to add a projected 329,000 acre-feet of water in its Intentionally Created Surplus (ICS) program in CY 2020, which would bring its Lake Mead ICS account balance to a record 1.3 million acre-feet.
- Deliveries to Desert Water Agency/Coachella Valley Water District deliveries are projected to exceed their 2020 State Water Project supplies, resulting in an increase to the advanced delivery account balance.

Demands

- Demands on Metropolitan in CY 2020 remained relatively low, reflecting continued low per-capita water use. In addition, wet weather in the spring, moderate local supplies, and potentially record low replenishment demands following the record high Cyclic pre-deliveries in 2019 also contributed to the low demands.

Storage Balance

- Metropolitan's dry-year storage reserves are projected to be 3.2 million acre-feet at the end of CY 2020, setting a new record for the highest storage balance in Metropolitan's history.

Purpose

Informational

Attachments

Attachment 1: 2020 WSDM Storage Detail

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

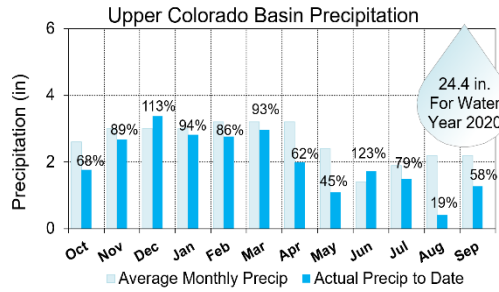
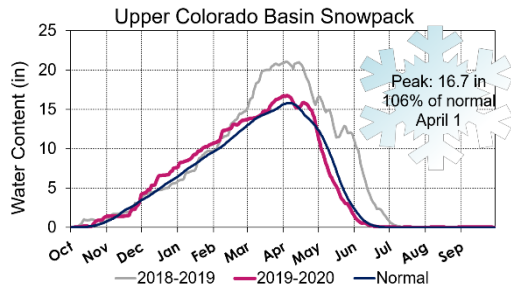
Detailed Report

This Water Surplus and Drought Management (WSDM) report summarizes the hydrologic conditions and water supply and demand conditions for CY 2020.

HYDROLOGIC CONDITIONS

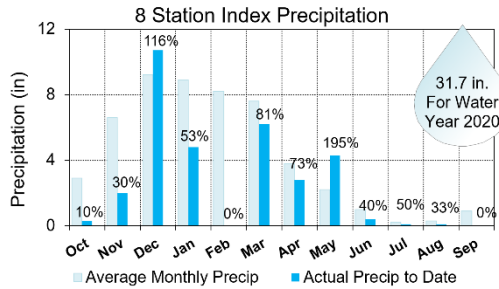
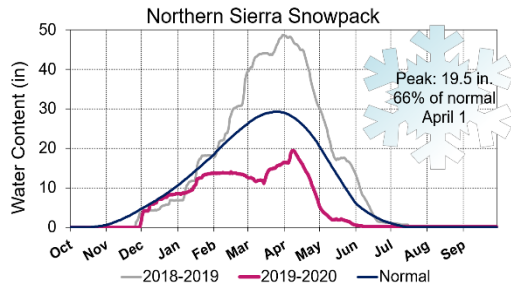
Water Year 19/20 Conditions - Final

Upper Colorado River Basin



- Snowpack peaked at 106% of the April 1 average. Despite a normal snowpack, hot and dry spring and summer conditions contributed to below average runoff.
- Precipitation measured 24.4 inches or 110% of normal.

Sacramento River Basin

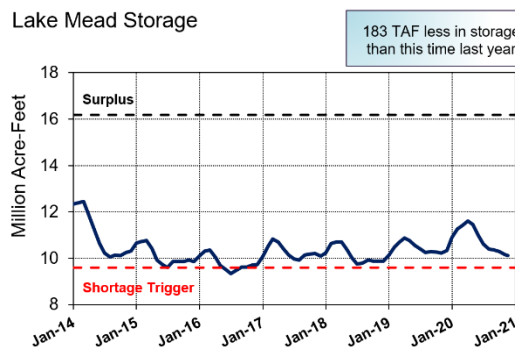


- Snowpack peaked at 66% of the April 1 average.
- Precipitation measured 31.7 inches or 61% of normal.
- Near record dry start in October and November.
- Driest February on record since 1920.

2020 SUPPLY ESTIMATE

Conditions as of 11/19/2020

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
Binational ICS ¹	9,000
Higher Priority Water Use Adjustment ²	166,000
Total CRA Supplies	1,180,000

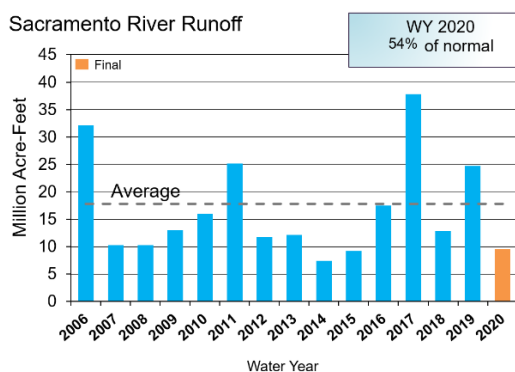


- Lake Mead storage is currently at 10.11 MAF. The November United States Bureau of Reclamation projections show Lake Mead end of CY 2020 storage to be 10.41 MAF which is above the shortage trigger.

¹ Minute 323 provides Metropolitan opportunities to fund conservation projects in Mexico in exchange for a portion of the conserved water.

² Water use by higher priority water users was suppressed due to early season storms and economic slowdown. Through the priority system, a portion of the water not used by the higher priority water users becomes a supply to Metropolitan.

SWP Supplies	Acre-Feet
Table A (20% SWP allocation)	382,000
Article 21	0
Port Hueneme ¹	0
SWP Transfers	5,000
Total SWP Supplies	387,000
Total Supplies (CRA + SWP)	1,567,000
(Prior to storage actions)	



- Dry hydrologic conditions resulted in a 20 percent SWP Table A allocation.

¹ Rounded to the nearest thousand. Supply is 370 AF.

2020 WATER DEMANDS

Current Demand	Acre-Feet
Member Agency Consumptive ¹	1,354,000
Member Agency Replenishment	19,000
Coachella Valley Water District Agreement	50,000
Exchange w/ San Luis Rey Tribe	16,000
System and Storage Losses	72,000
Cyclic Deliveries	2,000
Total Demands	1,513,000

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

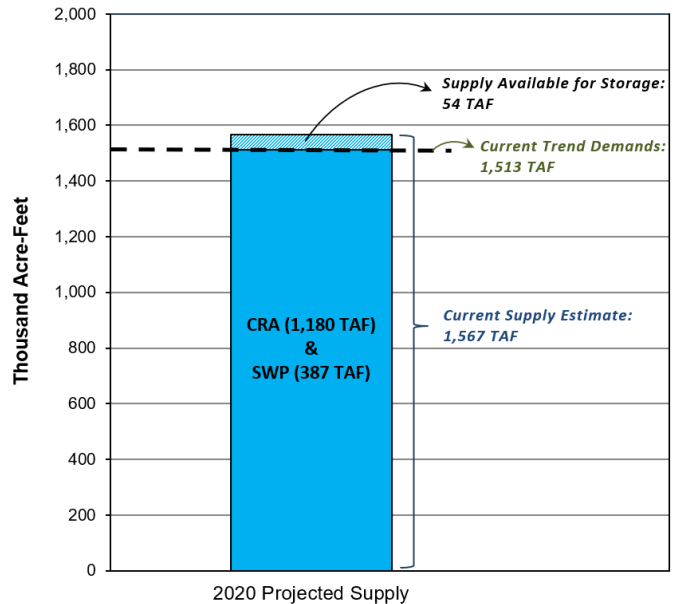


- CY 2020 demand projections are higher than CY 2019 demands, but slightly below the 5-year average.
- CY 2020 replenishment demands are on track to be the lowest in recorded history.

MANAGING SUPPLIES AND DEMANDS

Supply/Demand Balance	Acre-Feet
Total Supplies	1,567,000
Less Total Demands	1,513,000
Current Balance Estimate	54,000

Supplies to Manage: 20% Allocation

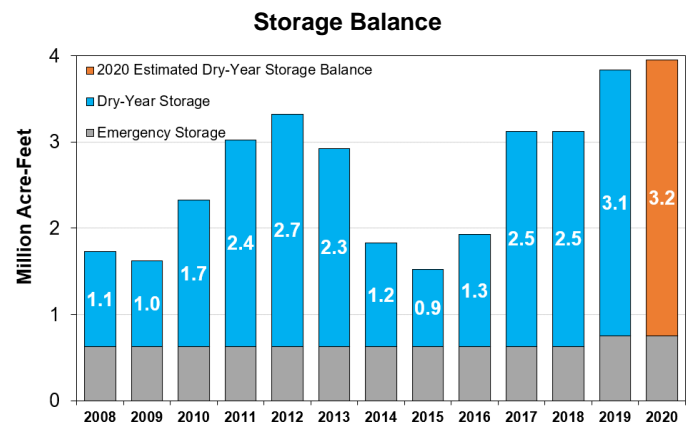


2020 WSDM Strategies/Actions

- **Dry-Year WSDM Actions:** Despite a low SWP allocation, Metropolitan is projecting to store 54 TAF in CY 2020.
- **2019 Supply Management:** A portion of Metropolitan’s SWP water supply was not delivered due to conveyance constraints in 2019. Metropolitan secured 34 TAF of these supplies for delivery in 2020.
- **SWP Transfer Supplies:** Metropolitan secured approximately 5 TAF of supplies through the Yuba Accord surface water transfer program.

END-OF-YEAR STORAGE BALANCE

- Metropolitan is managing surplus supplies available in CY 2020 by adding 54 TAF into storage.
- Dry-year storage reserves estimated to be 3.2 MAF by the end of CY 2020, breaking last year’s record for the highest storage in Metropolitan’s history.
- End of year balance for 2020 is subject to USBR final accounting in May 2021 and DWR adjustments.



2020 WSDM Storage Detail

	1/1/2020 Storage Levels	Preliminary Projected Storage Action ¹ Put (+) / Take (-)	Preliminary Projected End of Year 2020 Balance ²	2020 Total Storage Capacity
WSDM Storage				
Colorado River Aqueduct Delivery System	979,000	329,000	1,308,000	1,664,000
Lake Mead ICS	979,000	329,000	1,308,000	1,664,000 ³
State Water Project System	1,193,000	-127,000	1,066,000	1,879,000
MWD SWP Carryover ⁴				
DWCV SWP Carryover ⁴	297,000	-76,000	221,000	350,000
MWD Articles 14(b) and 12(e)	34,000	-34,000	0	N/A
Castaic Lake (DWR Flex Storage)	154,000	0	154,000	154,000
Lake Perris (DWR Flex Storage)	65,000	0	65,000	65,000
Arvin Edison Storage Program	143,000	0 ⁵	143,000	350,000
Semitropic Storage Program	265,000	-5,000	260,000	350,000
Kern Delta Storage Program	189,000	-12,000	177,000	250,000
Mojave Storage Program	19,000	0	19,000	330,000
AVEK Storage Program	27,000	0	27,000	30,000
In-Region Supplies and WSDM Actions	1,044,000	-182,000	862,000	1,246,000
Diamond Valley Lake	796,000	-93,000	703,000	810,000
Lake Mathews and Lake Skinner	190,000	-71,000	119,000	226,000
Conjunctive Use Programs (CUP) ⁶	58,000	-18,000	40,000	210,000
Other Programs	677,000	34,000	711,000	1,181,000
Other Emergency Storage	381,000	0	381,000	381,000
DWCV Advanced Delivery Account	296,000	34,000	330,000	800,000
Total	3,893,000	54,000	3,947,000	5,970,000
Emergency	750,000	0	750,000	750,000
Total WSDM Storage (AF) ⁷	3,143,000	54,000	3,197,000	5,220,000

¹ Storage program losses included where applicable.

² Preliminary end of year balances, subject to DWR adjustments and USBR final accounting in May 2021.

³ Total storage capacity has been reduced due to Binational ICS (both Metropolitan's and IID's amounts) counting towards the capacity per the Lower Basin Drought Contingency Plan. This capacity also reflects Metropolitan making 10 TAF of ICS accumulation space available for use by Contractors in Arizona.

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

⁵ Puts are limited due to water quality considerations and take amounts dependent on exchange capabilities.

⁶ 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.

⁷ Total WSDM Storage level subject to change based on accounting adjustments.

Agreements to Exchange or Return Stored Water

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

¹ 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.

² Rounded to the nearest thousand.

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

⁴ Up to 30,000 AF per year beginning no earlier than 2022.

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	Scheduled Sale	
2019	50,000	147,000	19,000	166,000	90,000	126,000
2020 ¹	126,000	2,000	0	2,000	33,000	95,000

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