



• Water Surplus and Drought Management Update *Conditions as of 8/30/2021*

Summary

This report provides an accounting of water supply, demand, and storage conditions for calendar year (CY) 2021 and an outlook for Metropolitan's imported supplies for 2022. This report considers conditions as of August 30, 2021.

The current demand estimate is 1.79 million acre-feet. Given the current 5 percent State Water Project (SWP) allocation and the Colorado River Aqueduct (CRA) supply estimate, the supply/demand gap is estimated to be 652 thousand acre-feet. To satisfy the supply/demand gap, Metropolitan is withdrawing water from its dry-year storage and purchasing north of Delta water transfers. To preserve limited SWP supplies, Metropolitan is making operational adjustments to maximize use of Colorado River supplies, implementing the new Operational Shift Cost-Offset Program, and developing additional drought actions. To help manage demands, Metropolitan declared a Water Supply Alert on August 17, 2021 to help increase drought awareness and call for consumers and businesses to voluntarily reduce their water use.

For 2022, Metropolitan staff anticipates the initial SWP allocation to start as low as 0 percent given the exceptionally dry conditions and low storage in key reservoirs. To satisfy demands for the SWP constrained areas, Metropolitan has been in discussion with the Department of Water Resources (DWR) with regards to drawing water from southern SWP reservoirs beyond the amounts allotted for flexible storage. This is water in storage that Metropolitan counts on for emergencies. In addition, the SWP contract provides DWR the flexibility to serve, at a minimum, essential human health and safety needs throughout the SWP constrained areas. This type of operation may require DWR to seek further emergency declarations from the Governor. Metropolitan is assessing the needs for the SWP constrained areas for 2022. As for Metropolitan's Colorado River supplies in 2022, Metropolitan will have access to water stored in Lake Mead even though Lake Mead will operate at a Level 1 Shortage Condition in 2022.

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

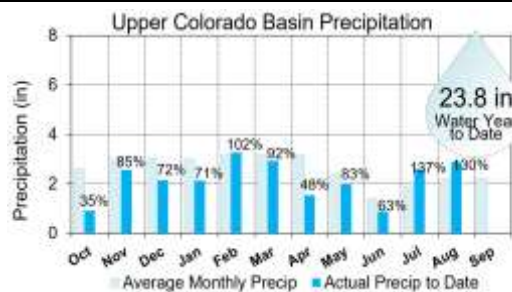
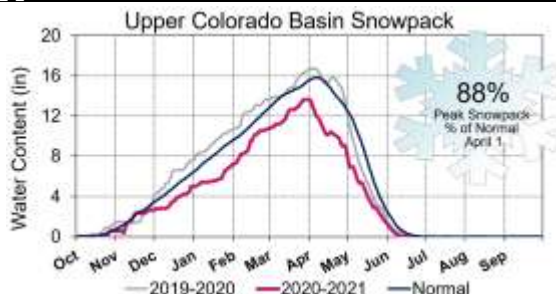
Detailed Report

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. This report also provides an outlook for Metropolitan's imported supplies for 2022.

HYDROLOGIC CONDITIONS

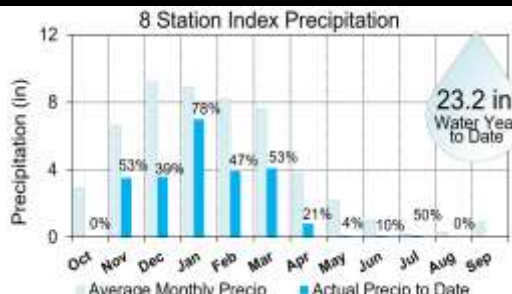
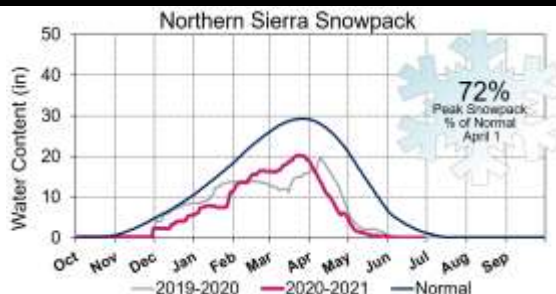
Conditions as of 8/30/2021

Upper Colorado River Basin



- Precipitation measured 23.8 inches or 82% of normal water year to date.
- Runoff into Lake Powell is forecasted to be 32% of average.

Sacramento River Basin



- Snowpack peaked at 72% of April 1 normal.
- Sacramento River runoff is forecasted to be 38% of average.

2021 SUPPLY ESTIMATE

Conditions as of 8/30/2021

| 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 | 6,000 |
| Higher Priority Water Use Adjustment ¹ | 0 |
| Total CRA Supplies | 1,015,000 |

¹ Final adjustment could range by more than plus or minus 100 TAF.

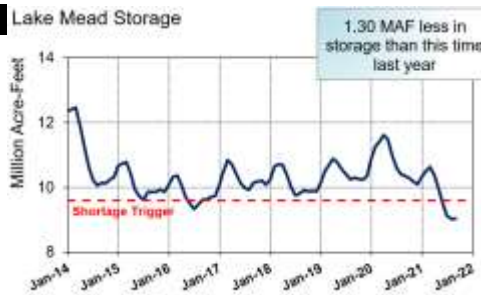
| SWP Supplies | Acre-Feet |
|--|----------------|
| Table A (5% SWP allocation) | 96,000 |
| Article 21 | 0 |
| Port Hueneme ¹ | 0 |
| SWC Buyers Group Transfers ² | 6,000 |
| Yuba Accord Dry-Year Purchase Program ² | 24,000 |
| Total SWP Supplies ³ | 126,000 |

Total Supplies (CRA + SWP) 1,141,000
(Prior to storage actions)

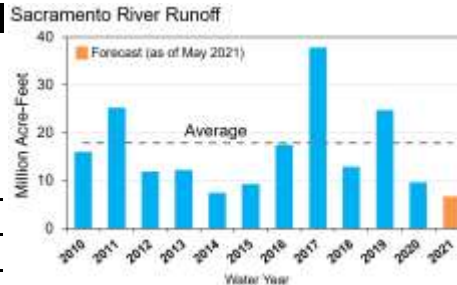
¹ Rounded to the nearest thousand. Supply is 92.5 AF.

² Current estimate subject to seller performance and losses.

³ Staff is aware of two member agency-managed SWP storage programs. Neither are moving water into MWD service area in 2021.



- Lake Mead storage is at 9.04 MAF (elevation 1068.00 feet).
- The Lower Basin will be in a Level 1 shortage for CY 2022 based on the August 24-month study that projects Lake Mead's water elevation to fall below 1,075 feet on January 1, 2022.



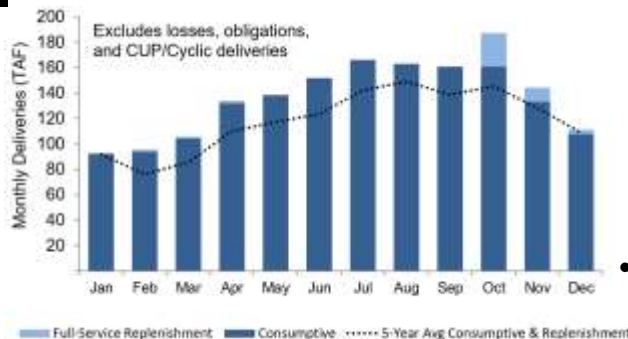
- Staff anticipates the initial SWP allocation for 2022 to start as low as 0 percent. Absent of an allocation, the operation of the SWP may provide for, at a minimum, essential human health and safety needs through the SWP service area. Metropolitan is assessing the health and safety needs for the SWP constrained areas for 2022.

2021 WATER DEMANDS

| Current Demand | Acre-Feet |
|---|------------------|
| Member Agency Consumptive ¹ | 1,630,000 |
| Member Agency Replenishment | 47,000 |
| Coachella Valley Water District Agreement | 50,000 |
| Exchange w/ San Luis Rey Tribe | 16,000 |
| System and Storage Losses | 50,000 |
| Cyclic Deliveries | 0 |
| Total Demands | 1,793,000 |

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

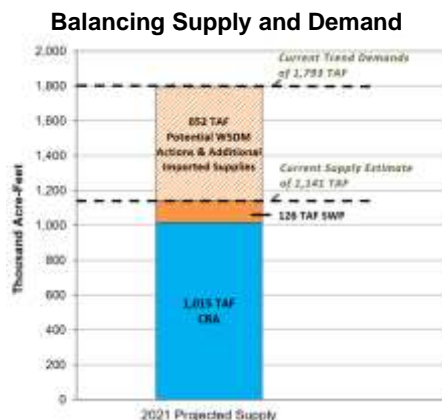
2021 Demand Estimate



- With continued dry and warm conditions, CY 2021 demands are projected to be higher than the 5-year average and August consumptive demands are the highest since 2014.
- Staff will begin reporting conservation performance for the region in October 2021.

MANAGING SUPPLIES AND DEMANDS

| Supply/Demand Balance | Acre-Feet |
|---------------------------------|-----------------|
| Total Supplies | 1,141,000 |
| Total Demands | 1,793,000 |
| Current Balance Estimate | -652,000 |



Dry-Year WSDM Strategies/Actions

The following WSDM actions are being pursued or are underway to satisfy the estimated supply/demand gap and to preserve SWP storage for a potentially low SWP allocation in 2022.

- Withdrawing water from dry-year storage reserves.
- Purchasing north of Delta transfers through the Yuba Accord and the SWC Buyers Group.
- Adjusting system operations to preserve SWP supplies and maximize use of Colorado River or stored supplies. These actions include pumping at the Greg Avenue pump station, drafting water from Diamond Valley Lake to serve Mills Plant, and shifting demand to Colorado River service connections.
- Three Valleys Municipal Water District began shifting deliveries in September through the Operational Shift Cost-Offset Program.
- Metropolitan, in coordination with member agencies, are evaluating additional drought actions targeted at Metropolitan's SWP constrained areas. Categories for the drought actions are system and operations, shift timing of deliveries, increase local supplies, increase conservation, and expand WSDM programs.

2021 WSDM Storage Detail

| | 1/1/2021 Estimated Storage Levels | CY 2021 Take Capacity ¹ | 2021 Total Storage Capacity |
|--|--------------------------------------|---------------------------------------|--------------------------------|
| WSDM Storage | | | |
| Colorado River Aqueduct Delivery System | 1,293,000 | 91,000 | 1,657,000 |
| Lake Mead ICS | 1,293,000 ² | 91,000 ³ | 1,657,000 |
| State Water Project System | 1,052,000 | 499,000 | 1,879,000 |
| MWD SWP Carryover ⁴ | 207,000 | 207,000 | 350,000 |
| DWCV SWP Carryover ⁴ | | | |
| 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 | 4,000 ⁵ | 350,000 |
| Semitropic Storage Program | 261,000 | 42,000 | 350,000 |
| Kern Delta Storage Program | 177,000 | 27,000 | 250,000 |
| Mojave Storage Program | 19,000 | 0 | 330,000 |
| AVEK Storage Program | 27,000 | 0 | 30,000 |
| In-Region Supplies and WSDM Actions | 872,000 | 494,000 | 1,246,000 |
| Diamond Valley Lake | 704,000 | 447,000 | 810,000 |
| Lake Mathews and Lake Skinner | 127,000 | 14,000 | 226,000 |
| Conjunctive Use Programs (CUP) ⁶ | 41,000 | 33,000 | 210,000 |
| Other Programs | 694,000 | 57,000 | 1,181,000 |
| Other Emergency Storage | 381,000 | 0 | 381,000 |
| DWCV Advanced Delivery Account | 313,000 | 57,000 | 800,000 |
| Total | 3,911,000 | 1,141,000 | 5,963,000 |
| Emergency | 750,000 | 0 | 750,000 |
| Total WSDM Storage (AF) ⁷ | 3,161,000 | 1,141,000 | 5,213,000 |

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

² Reflects USBR's final accounting for 2020, released in May 2021.

³ Take capacity based on planned maintenance activities and current CRA supply estimate.

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

⁵ Take amounts dependent on exchange capabilities. Began receiving exchange of surface water supplies in August.

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 ¹ |
|--|------------------------------------|
| California ICS Agreement – IID ² | 164,000 |
| Storage and Interstate Release Agreement with Southern Nevada Water Authority ³ | 330,000 |
| Total (AF) | 494,000 ⁴ |

¹ Rounded to the nearest thousand.

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

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

⁴ 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 ¹ | 77,000 | 0 | 0 | 0 | 32,000 | 45,000 |

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