



• Water Surplus and Drought Management Update Conditions As of 4/25/2019

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 April 25, 2019.

Precipitation in the northern Sierra and the Upper Colorado River Basin watersheds already exceeds what is received in an average year. The runoff, in both watersheds, a key indicator of water supply conditions, is also forecasted to be above average. The conditions in northern California supported a 70 percent State Water Project (SWP) allocation. The conditions in the Upper Colorado River Basin will result in higher Lake Mead levels than anticipated earlier in the year. These higher Lake Mead levels reduce the likelihood of shortage in the next few years. Metropolitan projects a net gain in dry-year storage this calendar year. Each supply demand balance scenario shown in this report indicates a record end-of-year dry-year storage balance.

Purpose

Informational

Attachments

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

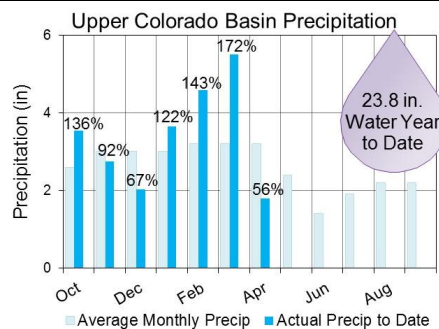
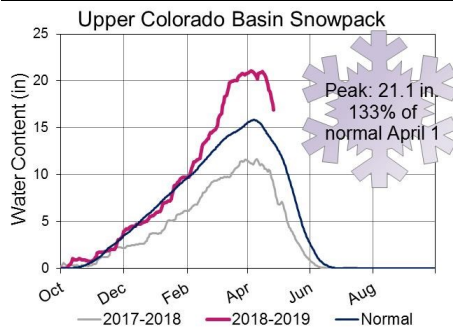
Attachment 2: Agreements to Exchange or Return Stored Water

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.

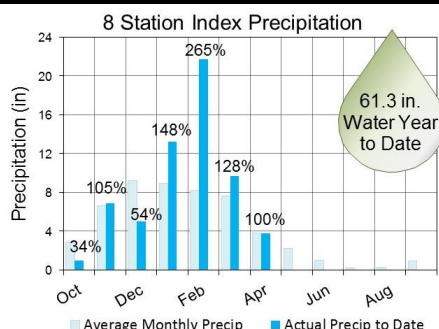
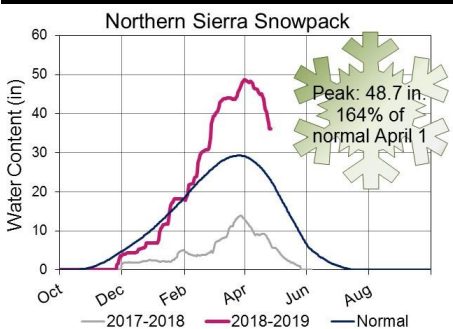
HYDROLOGIC CONDITIONS

Upper Colorado River Basin



- Snowpack peaked at 133% of the April 1 average
- On track as the second highest April through July runoff since CY 2000

Sacramento River Basin



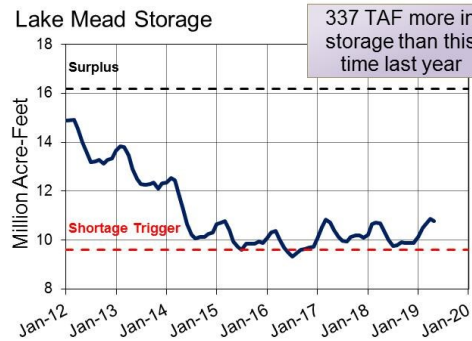
- Snowpack peaked at 164% of the April 1 average
- Overall precipitation to date is well above average, but not at the levels reached in WY 2016-17

2019 SUPPLY ESTIMATE

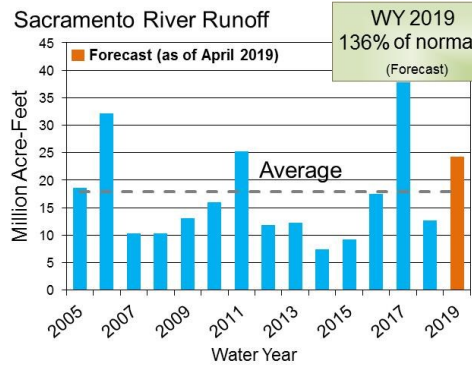
Conditions as of 4/25/2019

CRA Supplies	Acre-Feet
Basic Apportionment	550,000
IID/ MWD Conservation Program	85,000
PVID Following 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
Total CRA Supplies	947,000

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



- USBR planning for a 9 MAF water year release from Lake Powell
- The President authorized the Drought Contingency Plan on April 16, 2019

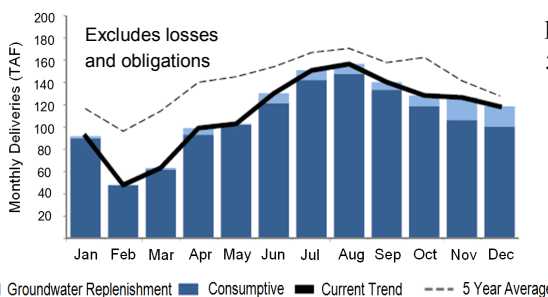


- **SWP Allocation 70%**
- Further increases to the SWP allocation would require higher flows on the San Joaquin river system

2019 WATER DEMANDS

Current Demand	Acre-Feet
Member Agency Consumptive ¹	1,282,000
Member Agency Replenishment	91,000
Coachella Valley Water District Agreement	35,000
Exchange w/ San Luis Rey Tribe	16,000
System and Storage Losses	97,000
Total Demands	1,521,000

2019 Demand Estimate



- Annual demand projection 20% below 5 year average

¹ Includes exchange w/ SDCWA (IID/Canal Lining)

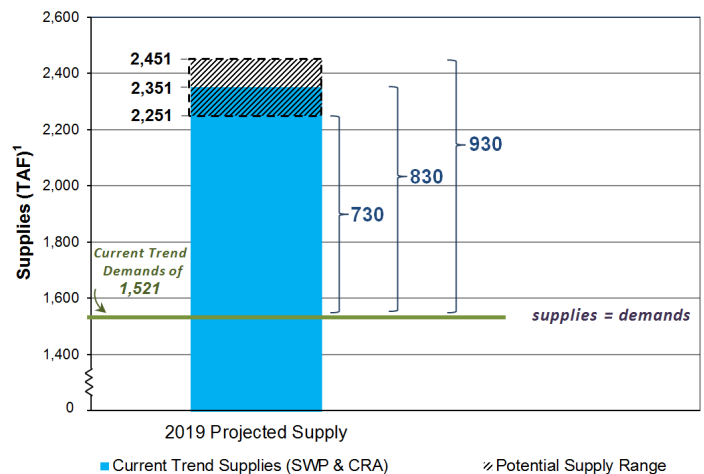
MANAGING SUPPLIES AND DEMANDS

Supply/Demand Balance	Acre-Feet
Total Supplies	2,351,000
Total Demands	1,521,000
Current Balance Estimate	830,000

2019 WSDM Strategies/Actions

1. Dry-Year Storage: Initiate all practicable storage programs and projects to manage available supplies in 2019. The surplus storage 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



¹ 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 ¹	2019 Total Storage Capacity
Colorado River Aqueduct Delivery System	625,000	398,000	1,763,000
Lake Mead ICS	625,000 ²	398,000 ³	1,763,000 ³
State Water Project System	819,000	299,000	1,796,000
MWD SWP Carryover ⁴			
DWCV SWP Carryover ⁴	93,000 ⁵	174,000	267,000
Castaic Lake (DWR Flex Storage)	154,000	0	154,000
Lake Perris (DWR Flex Storage)	65,000	0	65,000
Arvin Edison Storage Program ⁶	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
In-Region Supplies and WSDM Actions	977,000	236,000	1,536,000
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		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	106,000 ⁷	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
Other Programs	563,000	214,000	1,128,000
Other Emergency Storage	328,000	0	328,000
DWCV Advanced Delivery Account	235,000	214,000	800,000
Total	2,984,000	1,147,000	6,223,000
Emergency	626,000	0	626,000
Total WSDM Storage (AF) ⁸	2,358,000	1,147,000	5,597,000

¹ Put capacity assumed under a 70% SWP Table A Allocation.

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

³ The Drought Contingency Plan increases put capacity and total storage.

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

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

⁶ Puts are limited due to water quality considerations.

⁷ Total estimated put capacity across all Conjunctive Use and Cyclic programs.

⁸ Total WSDM Storage level is subject to change based on accounting adjustments.

Agreements to Exchange or Return Stored Water

	Future Returns
Strand Ranch - Irvine Ranch ¹	4,000
Dudley Ridge WD - Irvine Ranch ²	7,000
California ICS Agreement - IID ³	162,000 ⁴
Storage and Interstate Release Agreement with Southern Nevada Water Authority ⁵	330,000
Total (AF)	503,000

¹ To be returned no later than 2024 at Irvine Ranch's request.

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

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

⁴ Increased to reflect previous credit to Metropolitan's ICS account to be returned in the future.

⁵ Up to 30,000 AF per year beginning no earlier than 2022.