



● **Water Surplus and Drought Management Plan on water supply and demand as of March 25, 2010**

Summary

This is a monthly report on developing demand and supply conditions for **calendar** year (CY) 2010, including storage considerations and Water Supply Allocation Plan (WSAP) considerations for fiscal year (FY) 2010-2011. Demand and supply projections include potential actions under the Water Surplus and Drought Management Plan (WSDM) and the Five-Year Supply Plan. These actions provide a strategy for managing Metropolitan's resources to meet the range of estimated demands for the CY, and for adjusting to changing resource conditions throughout the year. These conditions and the preferred level of storage going into CY 2011 may affect the Board decision to implement the WSAP and allocate limited water supplies to the member agencies for the period of July 1, 2010, through June 30, 2011. The following are report highlights for this month, current as of March 25, 2010:

CY 2010 Projections:

- Current Estimated Total Demand including Obligations and Losses: 2.247 MAF
- Total Colorado River Aqueduct (CRA) Related Supplies including Five-Year Supply Plan and WSDM Actions: 1.151 MAF
- Total State Water Project (SWP) Related Supplies including Five-Year Supply Plan and WSDM Actions: 868 TAF (Based on a 15% SWP Allocation issued by DWR in March.)
- Total In-Region WSDM Supplies and Actions: 299 TAF

Attachments

[Attachment 1: Five-Year Supply Plan Resource Options](#)

[Attachment 2: WSDM Supply Options for 2010 by Delivery System](#)

Detailed Report

This report is a continuation of monthly WSDM Plan updates on the developing water supply and demand conditions for CY 2010. Also included is a discussion of Metropolitan's storage reserves and WSAP implementation considerations. These reports apprise the Board of conditions that may impact water supply reliability for CY 2010, and identify potential WSDM actions that may be required.

CY 2010 Demands and Losses

The current trend demand estimate for CY 2010 is 2 TAF lower than last month, for a total water demand of 2.247 MAF. This change is due to member agency demands in January through March that were lower than the estimated WSAP Level 2 and increased exchange obligations to Desert Water Agency/Coachella Valley Water District (DWCV) resulting from the State Water Project (SWP) Table A allocation.

Total water demand consists of member agency demands, exchange obligations with San Diego County Water Authority (IID Transfer and All American and Coachella Canal Lining Project), obligations to deliver water to DWCV and Tijuana, and system losses. The projections of member agency demands contain actual deliveries to date and assume a continuation of a Level 2 WSAP implementation through June 2010, and an estimate of demand without an allocation for July through December. Member agency demands also assume a 25 percent reduction of the remaining demands under the Interim Agricultural Water Program (IAWP), and account for the former IAWP demands that have opted-out of the program effective January 1, 2010. Conservation is implicit in this calculation of demand because agencies have implemented prohibited-use ordinances and pricing measures in response to the WSAP and that may continue throughout the year. The table below shows the current estimate of demand for CY 2010. Actual demands for the year will vary based on actual local supply production by the member agencies, weather conditions and conservation measures during the calendar year.

CY 2010 Current Demand Estimate		Change from Previous Month
Member Agency Demand	1,996,000	-43,000
Wheeling Obligations to Member Agencies	148,000	0
Delivery Obligations to Non-Member Agencies	46,000	41,000
Payback Obligations Due in 2010	0	0
System Losses	57,000	0
Total Current Demand Estimate	2,247,000	-2,000

CY 2010 Supplies and Storage

Colorado River Aqueduct System Deliveries

The current estimate of total CRA system deliveries to Metropolitan’s service area for CY 2010 decreased by 23 TAF to 1.151 MAF due to a low demand-induced, temporary decrease in CRA pumping. The table below outlines the programs and obligations that are included in the estimate, including Metropolitan’s Basic Apportionment (550 TAF), related WSDM and Five-Year Supply Plan actions, and all other Colorado River supplies developed to date, including water transfers that are diverted at Metropolitan’s intake at Lake Havasu. For more detail, [Attachment 1](#) outlines yield from each of the Five-Year Supply Plan actions and [Attachment 2](#) shows WSDM storage balances and actions.

CY 2010 Colorado River Aqueduct Delivery System	Available 2010	Change from Previous Month
CRA Base	883,000	-3,000
Basic Apportionment	550,000	0
IID/MWD Conservation Program	85,000	0
Water Exchanged with SDCWA (IID Transfer and Canal Lining)	148,000	0
Canal Lining Water to MWD	16,000	0
Lower Colorado Water Supply Project	3,000	-1,000
PVID Land Fallowing	115,000	0
Deliveries for Tijuana	1,000	-2,000
MWD Water Budget Agricultural Adjustment	0	0
Exchange with CVWD	-35,000	0
CRA WSDM Actions	118,000	-8,000
CRA Five Year Actions	150,000	-12,000
Total CRA Diversions	1,151,000	-23,000

State Water Project System Deliveries

The current estimate of SWP system deliveries to Metropolitan’s service area for CY 2010 is 868 TAF, increased by 42 TAF from last month due to increased take capacity from the Arvin Edison Storage program, Turnback Pool availability and higher Yuba transfer estimates. The California Department of Water Resources’ (DWR) March 22, 2010, announcement of an updated SWP allocation remained at 15 percent of Table A contract amount, which is unchanged from February, but up from the initial November 2009 estimate of 5 percent. Metropolitan’s Table A contract amount is 1.911 MAF, such that with a Table A allocation of 15 percent, Metropolitan would receive Table A supplies of 287 TAF. The table below shows Metropolitan’s Table A supplies as well as estimated withdrawals from various WSDM storage programs and Five-Year Plan actions. Details of Five-Year Supply Plan and WSDM actions can be found in [Attachment 1](#) and [Attachment 2](#). It is important to note that DWR bases its allocation estimate on Sierra mountain runoff, which

continues to be lower than average, despite above normal precipitation conditions, and that these allocations are based on a 9 in 10 probability that the allocation will increase further, much as it did in CY 2009 from an initial 15 percent to a final 40 percent.

CY 2010 State Water Project Delivery System	Anticipated 2010	Change from Previous Month
SWP Base	353,000	12,000
Table A (15 percent allocation)	287,000	0
Turnback Pool	1,000	1,000
Port Hueneme Agreement	0	0
Table A (DWCV)	29,000	0
Drought Water Bank (DWCV)	0	0
Yuba Transfer (DWCV)	3,000	1,000
SDCWA Transfer	0	0
Yuba Component 2, 3, 4 Water (MWD)	33,000	10,000
SWP WSDM Actions	430,000	30,000
SWP Five Year Actions	85,000	0
Total SWP to Service Area	868,000	42,000

In-Region Storage and Actions

In addition to the total supplies and storage actions delivered through the CRA and SWP systems, Metropolitan can also use WSDM storage programs within its service area. At the current trend estimate of demand and allocated supplies from the CRA and SWP, approximately 299 TAF of in-region storage is available for use in CY 2010 to aid in balancing supply and demand. For details on WSDM storage program estimates, see [Attachment 2](#).

In-Region WSDM Storage	Available 2010	Change from Previous Month
Diamond Valley Lake (Dry-Year Storage)	204,000	0
Lake Mathews & Lake Skinner (Dry-Year Storage)	49,000	0
Conjunctive Use Programs	46,000	0
Supplemental Storage Programs	0	0
Total In-Region WSDM Storage Available	299,000	0

Demand and Supply Balance and WSDM Implications

Under the current demand estimate and the projected base supplies from the SWP and CRA, all but 71 TAF of available storage can be used to meet the remaining supply gap. This is a net increase in the water balance of 21 TAF from last month.

Demand and Supply Balance		Change from Previous Month
Current Estimate Demand and System Losses	2,247,000	-2,000
Total Supplies	2,318,000	19,000
CRA Supplies	1,151,000	-23,000
SWP Supplies	868,000	42,000
In-Region Supplies	299,000	0
Water Balance	71,000	21,000

Conclusion

Under the most recent March 2010 SWP allocation of 15 percent of Table A, Metropolitan could implement WSDM and Five-Year Supply Plan actions to meet demands by drawing nearly everything from its storage programs. Based on DWR’s conservative allocation procedures, the current fifteen percent SWP allocation is likely to increase. However, without a SWP Table A allocation increase or additional supply augmentation, Metropolitan would need to use nearly all of its available storage or continue the implementation level of the WSAP through June 2011 at the current Level 2 or higher.

It is important to note that DWR updates the Table A allocation as the snowpack and storage conditions develop through the winter, and that allocations are based on a 9 in 10 probability that the allocation will increase, as it did in CY 2009 from the initial 15 percent to the final 40 percent. The Table A allocation is also based on SWP yields under pumping restrictions due to the Biological Opinions on Delta smelt and Chinook salmon. Depending on the actual level of these restrictions the SWP Table A allocation could be increased or decreased.

The Board approved implementing Metropolitan’s WSAP at a Level 2 at its April 14, 2009 meeting. This action was taken in order to manage demands through the period of July 1, 2009, through June 30, 2010, given the limited supplies available in CY 2009, including limiting withdrawals of storage in order to maintain reasonable reserve levels. Metropolitan staff will make a recommendation of WSAP implementation levels at the April meeting, giving the Board the option of implementing a WSAP for July 1, 2010, through June 2011, should it find this necessary to manage demands and preserve storage.

Five-Year Supply Plan Resource Options

Staff is continuing to identify and develop supply resources under the Five-Year Supply Plan. As shown in the following table, implementing all of the options identified would conservatively yield approximately 514 TAF of additional supply in 2010, only 479 TAF of which can be used in 2010 due to aqueduct capacity limitations from low demands and CRA outages. These capacity limitations do not limit how much is available from any specific CRA project, but how much can be taken in 2010 on the aqueduct as a whole. As previously noted, 235 TAF of related actions from the Five-Year Supply Plan are being included under either the SWP or CRA total delivery estimates. Also, the conservation measures associated with the Five-Year Supply Plan coincide with actions that agencies have taken to meet supply allocations under the current Level 2 WSAP allocation. Savings from these prohibited-use measures and pricing impacts may also continue through the year even if the WSAP is not implemented in FY 2010/11. For this reason, the 235 TAF of conservation savings identified from actions under the Five-Year Supply Plan are already incorporated in the demand forecast discussed in this letter.

Five Year Plan Resource Options	2010 Supplies Available	2010 Use	Changes from Previous Month
Conservation	235,000	235,000	0
Ordinances/Tiered Pricing	235,000	235,000	0
Colorado River Transactions	185,000	150,000	-12,000
Additional PVID Transfers (Crop Stressing/Fallowing)	35,000	35,000	0
Yuma Desalter	10,000	10,000	0
Expand SNWA Agreement	90,000	55,000	-12,000
ICS Exchange	25,000	25,000	0
Agreements with CVWD	25,000	25,000	0
Arizona Programs -- CAP	0	0	0
SWP Transactions	85,000	85,000	0
SWP Contractors Buyers Group/NOD Transfers	80,000	80,000	0
In-Delta Transfers – Delta Wetlands	5,000	5,000	0
Groundwater Recovery	9,000	9,000	0
LA DWP GW Demonstration	9,000	9,000	0
Total	514,000	479,000	-12,000

WSDM Supply Options for 2010 by Delivery System

	1/1/2010 Storage Levels	Take under 20% SWP Allocation	Take Change from Previous Month
2010 WSDM Storage			
Colorado River Aqueduct Delivery System	150,000	118,000	0
Lake Mead ICS Account	142,000	110,000	0
Central Arizona Storage Demonstration Project	8,000	8,000	0
State Water Project System	463,000	430,000	0
MWD SWP Carryover	67,000	67,000	0
DWCV SWP Carryover	11,000	11,000	0
SWP Non-Project Carryover	52,000	52,000	0
Castaic Lake (DWR Flex Storage)	154,000	154,000	0
Lake Perris (DWR Flex Storage)	21,000	21,000	0
Arvin Edison Storage Program	100,000	70,000	0
Semitropic Storage Program	45,000	45,000	0
Kern Delta Storage Program	10,000	10,000	0
Mojave Storage Program	3,000	0	0
In-Region Supplies and WSDM Actions	630,000	299,000	0
Diamond Valley Lake	384,000	204,000	0
Lake Mathews	125,000	46,000	0
Lake Skinner	36,000	3,000	0
IEUA/TVMWD (Chino Basin)	19,000	19,000	0
Long Beach (Cent. Basin)	6,000	0	0
Long Beach (Lakewood)	2,000	2,000	0
Foothill (Raymond and Monkhill)	1,000	1,000	0
Calleguas (N. Las Posas)	44,000	15,000	0
MWDOC (Orange County Basin)	9,000	9,000	0
Three Valleys (Live Oak)	3,000	0	0
Three Valleys (Upper Claremont)	1,000	0	0
Compton	0	0	0
Western	0	0	0
Cyclic - USG	0	0	0
Cyclic - PM (Three Valleys)	0	0	0
Cyclic - IEUA (Chino Basin)	0	0	0
Supplemental Storage Program (Los Angeles)	0	0	0
Other Programs	379,000	45,000	2,000
Other Emergency Storage	334,000	0	0
Advance Delivery Account (DWCV)	45,000	45,000	2,000
Total	1,622,000	892,000	2,000
Emergency	626,000	0	0
Total WSDM Storage	996,000	892,000	2,000