



● **Water Surplus and Drought Management Plan on water supply and demand as of April 23, 2010**

Summary

This is a monthly report on developing demand and supply conditions for calendar year (CY) 2010. 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. The following are report highlights for this month, current as of April 23, 2010:

CY 2010 Projections:

- Current Estimated Total Demand including Obligations and Losses: 2.094 MAF
- Total Colorado River Aqueduct (CRA) Related Supplies including Five-Year Supply Plan and WSDM Actions: 1.146 MAF
- Total State Water Project (SWP) Related Supplies including Five-Year Supply Plan and WSDM Actions: 1.178 TAF
- 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. 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 allocated demand estimate for CY 2010 is 153 TAF lower than last month, for a total water demand of 2.094 MAF. This change is due to member agency demands in January through March that were lower than the estimated Water Supply Allocation Plan (WSAP) Level 2, a WSAP Level 2 for July through December 2010, based on the Board's April 2010 decision to continue the WSAP for fiscal year (FY) 2010/11, and increased exchange obligations to Desert Water Agency/Coachella Valley Water District (DWCV) resulting from the increased State Water Project (SWP) Table A allocation. This demand estimate assumes member agencies purchase up to their prorated monthly allocation estimates in future months. Recent water sales show member agencies, as a group, are purchasing less than their monthly allocation estimates.

Total water demand consists of member agency demands, exchange agreements with San Diego County Water Authority (IID Transfer and All-American and Coachella Canal Lining Project), agreements 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 the rest of the year. 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. 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.

Board Report on (Water Surplus and Drought Management Plan on water supply and demand as of April 23, 2010)

		Change from Previous Month
CY 2010 Current Demand Estimate		
Member Agency Demand	1,814,000	-182,000
Wheeling Obligations to Member Agencies	148,000	0
Delivery Obligations to Non-Member Agencies	75,000	29,000
Payback Obligations Due in 2010	0	0
System Losses	57,000	0
Total Current Demand Estimate	2,094,000	-153,000

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 is 1.146 MAF, decreased due to lower Five Year Action estimates. The table below outlines the programs and agreements that are included in the estimate, including Metropolitan’s Basic Apportionment (550 TAF), related WSDM and FiveYear 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	0
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	0
PVID Land Fallowing	115,000	0
Deliveries for Tijuana	1,000	0
MWD Water Budget Agricultural Adjustment	0	0
Exchange with CVWD	-35,000	0
CRA WSDM Actions	118,000	0
CRA Five Year Actions	145,000	-5,000
Total CRA Diversions	1,146,000	-5,000

State Water Project System Deliveries

The current estimate of SWP system deliveries to Metropolitan’s service area for CY 2010 is 1.178 TAF, increased by 310 TAF from last month due to increased Table A allocations to 30 percent. The California Department of Water Resources’ (DWR) April 23, 2010, announcement of an updated SWP allocation at 30 percent of Table A contract amount, is an increase from the initial November 2009 SWP allocation of 5 percent. Metropolitan’s Table A contract amount is 1.911 MAF, such that with a Table A allocation of 30 percent, Metropolitan would receive Table A supplies of 573 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.

Board Report on (Water Surplus and Drought Management Plan on water supply and demand as of April 23, 2010)

CY 2010 State Water Project Delivery System	Anticipated 2010	Change from Previous Month
SWP Base	668,000	315,000
Table A (30 percent allocation)	573,000	286,000
Turnback Pool	1,000	0
Port Hueneme Agreement	0	0
Table A (DWCV)	58,000	29,000
Drought Water Bank (DWCV)	0	0
Yuba Transfer (DWCV)	3,000	0
SDCWA Transfer	0	0
Yuba Component 2, 3, 4 Water (MWD)	33,000	0
SWP WSDM Actions	430,000	0
SWP Five Year Actions	80,000	-5,000
Total SWP to Service Area	1,178,000	310,000

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

Board Report on (Water Surplus and Drought Management Plan on water supply and demand as of April 23, 2010)

Demand and Supply Balance and WSDM Implications

Under the current demand estimate and the projected base supplies from the SWP and CRA, demands could be met with existing supplies and storage while retaining 529 TAF for use in the future. This is a net increase in the water balance of 458 TAF from last month.

Demand and Supply Balance		Change from Previous Month
Current Estimate Demand and System Losses	2,094,000	-153,000
Total Supplies	2,623,000	305,000
CRA Supplies	1,146,000	-5,000
SWP Supplies	1,178,000	310,000
In-Region Supplies	299,000	0
Water Balance	529,000	458,000

Conclusion

The Board approved implementing Metropolitan’s WSAP at a Level 2 at its April 13, 2010 meeting. This action was taken in order to manage demands through the period of July 1, 2010, through June 30, 2011, given the limited supplies available in CY 2010, including limiting withdrawals of storage in order to maintain reasonable reserve levels.

Under WSAP Level 2 demands for the entire calendar year and with the most recent April 23, 2010 SWP allocation of 30 percent of Table A, Metropolitan can meet demands by implementing WSDM and Five-Year Supply Plan actions, including drawing about one third from its storage reserves. However, based on DWR’s conservative allocation procedures and precipitation that has occurred after the last allocation analysis, the current 30 percent SWP allocation is likely to increase. In addition, demands on Metropolitan are currently tracking lower than the WSAP Level 2 allocation. If this demand trend continues and the SWP supply increases as expected, the draw on storage reserves will be less than one third, with a potential for a net gain in storage this year.

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 509 TAF of additional supply in 2010. However, a maximum of 469 TAF can be used in 2010, if needed, 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, 225 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. 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	145,000	-5,000
Additional PVID Transfers (Crop Stressing/Fallowing)	35,000	35,000	0
Yuma Desalter	10,000	10,000	0
Expand SNWA Agreement	90,000	50,000	-5,000
ICS Exchange	25,000	25,000	0
Agreements with CVWD	25,000	25,000	0
Arizona Programs -- CAP	0	0	0
SWP Transactions	80,000	80,000	-5,000
SWP Contractors Buyers Group/NOD Transfers	80,000	80,000	0
In-Delta Transfers – Delta Wetlands	0	0	-5,000
Groundwater Recovery	9,000	9,000	0
LA DWP GW Demonstration	9,000	9,000	0
Total	509,000	469,000	-10,000

WSDM Supply Options for 2010 by Delivery System

	1/1/2010 Storage Levels	Take under 30% 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 Monks Hill)	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