



● **Water Surplus and Drought Management Plan on water supply and demand as of January 26, 2010**

Summary

This is a monthly report on developing demand and supply conditions for calendar year 2010. Included in these projections is an overview of 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 calendar year, and for adjusting to changing resource conditions throughout the year. The following are report highlights for this month, current as of January 26, 2010:

CY 2010 Projections:

- Current Trend Total Demand including Obligations and Losses: 2.298 MAF
- Total Colorado River Aqueduct (CRA) Related Supplies including Five-Year Supply Plan and WSDM Actions: 1.197 MAF
- Total State Water Project (SWP) Related Supplies including Five-Year Supply Plan and WSDM Actions: 616 TAF
- Total In-Region WSDM Supplies and Actions: 313 TAF
- Remaining Supply Need under Current Demand and Supply conditions: 172 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 current trend estimate for CY 2010 is 23 TAF lower than last month, for a total water demand of 2.298 MAF. This change is due to member agency demands in January trending lower than the estimated WSAP Level 2, and reduced estimates of wheeling obligations and deliveries to Tijuana and Desert Water Agency and Coachella Valley Water District (DWCV).

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 assume a continuation of a Level 2 WSAP implementation through June 2010, and an estimate of demand without a Level 2 WSAP in effect 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. Conservation is implicit in this calculation of demand due to prohibited-use measures and pricing impacts agencies implemented in response to the WSAP that may also continue through the year even if the WSAP is not continued through 2010/11. The table below shows the current trend 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 (Water Surplus and Drought Management Plan on water supply and demand as of January 26, 2010)

		Change from Previous Month
CY 2010 Current Trend Demand		
Member Agency Demand	2,088,000	-9,000
Wheeling Obligations to Member Agencies	148,000	-4,000
Delivery Obligations to Non-Member Agencies	5,000	-10,000
Payback Obligations Due in 2010	0	0
System Losses	57,000	0
Total Current Trend Demand	2,298,000	-23,000

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 1.197 MAF. 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. This figure is adjusted slightly from last month due to decreased anticipated supplies from the IID/MWD Conservation Program, SDCWA Exchange and Tijuana deliveries and increased supplies available for the Canal Lining and Lower Colorado Water Supply Project. 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 Last Month
CRA Base	886,000	-20,000
Basic Apportionment	550,000	0
IID/MWD Conservation Program	85,000	-20,000
Water Exchanged with SDCWA (IID Transfer and Canal Lining)	148,000	-4,000
Canal Lining Water to MWD	16,000	4,000
Lower Colorado Water Supply Project	4,000	2,000
PVID Land Fallowing	115,000	0
Deliveries for Tijuana	3,000	-2,000
MWD Water Budget Agricultural Adjustment	0	0
Exchange with CVWD	-35,000	0
CRA WSDM Actions	126,000	3,000
CRA Five Year Actions	185,000	9,000
Total CRA Diversions	1,197,000	-8,000

State Water Project System Deliveries

The current estimate of SWP system deliveries to Metropolitan’s service area for CY 2010 is 616 TAF, increased 15 TAF from last month due to projected Yuba transfer water. This estimate is based on the November 2009 California Department of Water Resources (DWR) announcement of an initial SWP allocation of 5 percent of Table A contract amount. Metropolitan’s Table A contract amount is 1.911 MAF, such that with the initial Table A allocation, Metropolitan would receive Table A supplies of 96 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 [Attachments 1](#) and [2](#). It is important to note that DWR updates the Table A allocation as the rainfall and snowpack develops through the winter, and that allocations are based on a 9 in 10 probability that the allocation will increase, much as it did in CY 2009 from 15 percent to 40 percent. Also, at this time, staff is projecting 80 TAF (after losses) of

Board Report (Water Surplus and Drought Management Plan on water supply and demand as of January 26, 2010)

supplies from Central Valley drought transfers. This projection will be refined as the transfer market develops and hydrological conditions change.

CY 2010 State Water Project Delivery System	Anticipated 2010	Change from Last Month
SWP Base	131,000	15,000
Table A (5 percent allocation)	96,000	0
Turnback Pool	0	0
Port Hueneme Agreement	0	0
Table A (DWCV)	10,000	0
Drought Water Bank (DWCV)	0	0
Yuba Transfer (DWCV)	2,000	0
SDCWA Transfer	0	0
Yuba Component 2, 3, 4 Water (MWD)	23,000	15,000
SWP WSDM Actions	400,000	0
SWP Five Year Actions	85,000	0
Total SWP to Service Area	616,000	15,000

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 313 TAF of in-region storage is available for use in CY 2010 to aid in balancing supply and demand. The amount of water needed in emergency storage¹ for Metropolitan’s service area decreased, allowing 41 TAF in Diamond Valley Lake to now be available for WSDM use. In addition, the other storage program projections were adjusted based on updated CY 2009 storage balances. For details on WSDM storage program estimates, see [Attachment 2](#).

In-Region WSDM Storage	Available 2010	Change from Last Month
Diamond Valley Lake (Dry-Year Storage)	217,000	41,000
Lake Mathews & Lake Skinner (Dry-Year Storage)	49,000	2,000
Conjunctive Use Programs	47,000	10,000
Supplemental Storage Programs	0	-5,000
Total In-Region WSDM Storage Available	313,000	48,000

Demand and Supply Balance and WSDM Implications

Under the current trend demand estimate and the projected supplies from the SWP and CRA, Metropolitan would have to use 884 TAF or nearly 90 percent of its total available WSDM storage (total WSDM storage use is the sum of WSDM actions from the CRA, SWP, and In-Region less emergency storage). See [Attachment 2](#) for breakdown of projected WSDM storage takes under current demand and supply conditions for 2010. Even with this level of WSDM storage use, there would be a remaining supply need of 172 TAF, a reduction of 78 TAF

¹ Emergency storage is calculated as 75% of Metropolitan’s demand for six months using projected average year demand and supply estimates from Metropolitan’s models. Note that the demands and supplies used in this calculation differ somewhat from WSDM estimates because WSDM considers specific hydrologic and demand conditions for CY 2010 in place of averages.

Board Report (Water Surplus and Drought Management Plan on water supply and demand as of January 26, 2010)

from last month. Without a SWP Table A allocation increase, Metropolitan would have to either augment its supplies through additional water purchases or continue implementation of the WSAP through June 2011.

Demand and Supply Balance		Change from Last Month
Current Trend Demand and System Losses	2,298,000	-23,000
Total Supplies	2,126,000	55,000
CRA Supplies	1,197,000	-8,000
SWP Supplies	616,000	15,000
In-Region Supplies	313,000	48,000
Water Balance	-172,000	78,000

Conclusion

Under the current SWP allocation of 5 percent of Table A, Metropolitan could draw from its storage programs, implement WSDM and Five-Year Supply Plan actions and still have a remaining supply need of 172 TAF. However, based on DWR’s conservative allocation procedures, the initial 5 percent SWP allocation is likely to increase (9 years out of 10, conditions will get better).

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 also has the option of implementing a WSAP for July 1, 2010, through June 2011, should it find this necessary to manage demands and preserve storage.

For 2010, staff continues to pursue resource options focusing on six initiatives: extraordinary conservation, Colorado River transactions, SWP transactions, groundwater recovery, near-term Delta actions and local resources. These supplies and conservation measures will enhance water supply reliability in Metropolitan’s service area given continued dry conditions and restrictions on the SWP deliveries from the Delta.

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, up a net 3 TAF from last month due to updated end of year estimates for CY 2009. As previously noted, 279 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 Annual Yield	Changes from Last Month
Conservation	235,000	0
Ordinances/Tiered Pricing	235,000	0
Colorado River Transactions	185,000	9,000
Additional PVID Transfers (Crop Stressing/Fallowing)	35,000	0
Yuma Desalter	10,000	-5,000
Expand SNWA Agreement	90,000	4,000
ICS Exchange	25,000	0
Agreements with CVWD	25,000	10,000
Arizona Programs -- CAP	0	0
SWP Transactions	85,000	0
Drought Water Bank/NOD Transfers	80,000	0
In-Delta Transfers – Delta Wetlands	5,000	0
Groundwater Recovery	9,000	-6,000
LA DWP GW Demonstration	9,000	-6,000
Total	514,000	3,000

WSDM Supply Options for 2010 by Delivery System

Note that 1/1/2010 estimated storage balances and takes have been updated based on more recent CY 2009 accounting.

2010 WSDM Storage	1/1/2010 Storage Levels	Take under 5% SWP Allocation	Take Change from Last Month
Colorado River Aqueduct Delivery System	158,000	126,000	3,000
Lake Mead ICS Account	150,000	118,000	3,000
Central Arizona Storage Demonstration Project	8,000	8,000	0
State Water Project System	459,000	400,000	0
MWD SWP Carryover	67,000	67,000	3,000
DWCV SWP Carryover	11,000	11,000	0
SWP Non-Project Carryover	52,000	52,000	-2,000
Castaic Lake (DWR Flex Storage)	154,000	154,000	0
Lake Perris (DWR Flex Storage)	21,000	21,000	0
Arvin Edison Storage Program	96,000	40,000	0
Semitropic Storage Program	45,000	45,000	-1,000
Kern Delta Storage Program	10,000	10,000	0
Mojave Storage Program	3,000	0	0
In-Region Supplies and WSDM Actions	636,000	313,000	48,000
Diamond Valley Lake	384,000	217,000	41,000
Lake Mathews	125,000	46,000	2,000
Lake Skinner	36,000	3,000	0
IEUA/TVMWD (Chino Basin)	26,000	26,000	10,000
Long Beach (Cent. Basin)	6,000	0	0
Long Beach (Lakewood)	2,000	2,000	0
Foothill (Raymond and Monkhill)	0	0	0
Calleguas (N. Las Posas)	44,000	10,000	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	-5,000
Other Programs	357,000	45,000	22,000
Other Emergency Storage	334,000	0	0
Advance Delivery Account (DWCV)	23,000	45,000	22,000
Total	1,610,000	884,000	73,000
Emergency	615,000	0	43,000
Total WSDM Storage	995,000	884,000	30,000