



### ● **Water Surplus and Drought Management Plan water supply and demand conditions for calendar year 2010**

#### **Summary**

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This report provides a summary of the demand and supply conditions for calendar year (CY) 2010. This report includes an accounting of the actions taken under the Water Surplus and Drought Management Plan (WSDM) and the Five-Year Supply Plan. These actions represent a strategy for managing Metropolitan's resources and adjusting to changing resource conditions throughout the year. The following are report highlights for the year, current as of December 5, 2010:

#### CY 2010 Summary:

- Current Estimated Total Demand, Obligations, and Losses: 1.860 MAF
- Total Colorado River Aqueduct (CRA)-Related Supplies including Five-Year Supply Plan and WSDM Actions: 1.099 MAF
- Total State Water Project (SWP)-Related Supplies, including Five-Year Supply Plan and WSDM Actions: 1.131 MAF
- Net increase in Metropolitan storage reserves: 684 TAF

#### **Attachments**

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[Attachment 1: Five-Year Supply Plan Resources for CY 2010](#)

[Attachment 2: WSDM Supplies for CY 2010](#)

[Attachment 3: Future Payback Obligations](#)

#### **Detailed Report**

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Over the course of CY 2010, Metropolitan's water supply and demand conditions turned out better than anticipated. SWP and available Colorado River supplies were higher than originally forecast as additional water transfers became available and demands remained at levels significantly lower than the Level 2 Water Supply Allocation Plan (WSAP). The combination of improved water supply conditions and lower than expected demands, led to increases in Metropolitan's regional storage reserves. This report provides a summary of the water demand and supply conditions in CY 2010 based on data as of December 5, 2010.

#### **Calendar Year 2010 Demands, Obligations, and Losses**

The total estimated water demands, obligations, and losses for CY 2010 are 1.860 MAF. This estimate incorporates actual water use and estimated demands for the remainder of the year. The estimate also includes a 25 percent reduction under the Interim Agricultural Water Program (IAWP).

These estimates consist of member agency demands, exchange agreements with San Diego County Water Authority (IID Transfer and All-American and Coachella Canal Lining Projects), agreements to deliver water to Desert Water Agency and Coachella Valley Water District (DWCV), Tijuana, and system losses.

The table below shows the total estimated demands for CY 2010.

Board Report (Water Surplus and Drought Management Plan water supply and demand conditions for calendar year 2010)

<b>CY 2010 Demands, Obligations, and Losses (AF)</b>	
Member Agency Demand	1,533,000
Wheeling Obligations to Member Agencies	148,000
Delivery Obligations to Non-Member Agencies	129,000
Payback Obligations Due in 2010	0
System Losses	50,000
<b>Total Current Estimate</b>	<b>1,860,000</b>

**Calendar Year 2010 Supplies**

**Colorado River Aqueduct System Deliveries**

The estimated Colorado River Aqueduct system deliveries to Metropolitan’s service area for CY 2010 are 1.099 MAF. The table below outlines the programs and agreements 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 including water transfers that are diverted at Metropolitan’s intake at Lake Havasu. For more detail, [Attachment 1](#) outlines the yield from each of the Five-Year Supply Plan actions and [Attachment 2](#) shows WSDM storage balances and actions.

<b>CY 2010 Colorado River Aqueduct Delivery System Supplies (AF)</b>	
<b>CRA Base</b>	<b>1,093,000</b>
Basic Apportionment	550,000
IID/MWD Conservation Program	85,000
Exchange with SDCWA (IID Transfer and Canal Lining)	148,000
Canal Lining Water to MWD	16,000
Lower Colorado Water Supply Project	4,000
PVID Land Fallowing	115,000
Deliveries for Tijuana	0
Priority 1, 2, and 3b Agricultural Adjustments	99,000
IID Agricultural Adjustments	75,000
Misc and Indian PPR's	-2,000
Coachella Valley WD	28,000
CVWD QSA Obligation	-25,000
<b>CRA WSDM Actions ( - is Put to Storage)</b>	<b>-69,000</b>
<b>CRA Five Year Actions</b>	<b>75,000</b>
<b>CRA Net Diversions</b>	<b>1,099,000</b>

**State Water Project System Deliveries**

The estimated SWP system deliveries to Metropolitan’s service area for CY 2010 are 1.131 MAF. Metropolitan received 956 TAF of Table A supplies; this figure is based on a Table A allocation of 50 percent of Metropolitan’s Table A contract amount of 1.911 MAF.

The table below shows Metropolitan’s Table A supplies as well as related WSDM and Five-Year Supply Plan actions. Details of Five-Year Supply Plan and WSDM actions can be found in [Attachment 1](#) and [Attachment 2](#).

Board Report (Water Surplus and Drought Management Plan water supply and demand conditions for calendar year 2010)

<b>CY 2010 State Water Project Delivery System Supplies (AF)</b>	
<b>SWP</b>	<b>1,141,000</b>
Table A (50 percent allocation)	956,000
Turnback Pool	6,000
Port Hueneme Agreement	1,000
Table A (DWCV)	97,000
Turnback Pool (DWCV)	1,000
Central Valley Purchase (DWCV)	8,000
SBVMWD Transfer	20,000
Yuba Component 2, 3, 4 Water (MWD)	52,000
<b>SWP WSDM Actions ( - is Put to Storage)</b>	<b>-245,000</b>
<b>SWP Five Year Actions</b>	<b>235,000</b>
<b>Total Deliveries from the SWP System into the Region</b>	<b>1,131,000</b>

**In-Region Storage and Actions**

In addition to the supplies and storage actions delivered through the CRA and SWP systems, Metropolitan also used WSDM storage programs within its service area to aid in balancing supplies and demands. An estimated 234 TAF of supplies were stored in the region during CY 2010.

The table below shows the in-region storage actions that were taken during CY 2010. For details on WSDM storage program use and balances, see [Attachment 2](#).

<b>In-Region WSDM Storage (AF)</b>	
Diamond Valley Lake Dry-Year Storage ( - is Put to Storage)	-242,000
Lake Mathews & Skinner Dry-Year Storage ( - is Put to Storage)	-10,000
Conjunctive Use Programs	18,000
<b>Total In-Region WSDM Storage Actions ( - is Put to Storage)</b>	<b>-234,000</b>

**Demand and Supply Balance**

Metropolitan has entered into storage/exchange agreements or withdrawn water from storage accounts that require future return of the water taken or used. A list of the future payback obligations from the exchange and storage programs in which Metropolitan participates is included in [Attachment 3](#).

The following table summarizes the CY 2010 water supply and demand balance for the demands and supplies detailed in this report.

<b>Demand and Supply Balance (AF)</b>	
<b>Current Estimate Demand, Obligations, and System Losses</b>	<b>1,860,000</b>
<b>Total</b>	<b>1,860,000</b>
CRA Supplies	1,099,000
SWP Supplies	1,131,000
In-Region WSDM Storage ( - is Put to Storage)	-234,000
DWCV Advanced Delivery Account ( - is Put to Storage)	-136,000
<b>Water Balance</b>	<b>0</b>

**Conclusions**

As 2010 draws to a close the outlook for the upcoming calendar year has improved. Metropolitan’s regional storage is showing a significant recovery. Based on the CY 2010 water supply and demand balances detailed in this letter, Metropolitan’s WSDM dry-year storage portfolio will be about 1.68 MAF for the beginning of

Board Report (Water Surplus and Drought Management Plan water supply and demand conditions for calendar year 2010)

calendar year 2011. This is an increase of 684 TAF from January 2010 levels. For details on CY 2010 WSDM projected storage program use and balances, see [Attachment 2](#).

**Five-Year Supply Plan Resources for CY 2010**

The following table details the supplies that were identified under the Five-Year Supply Plan and implemented in CY 2010. 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 is already incorporated in the demand forecast discussed in this letter. Similarly, the Los Angeles Groundwater Demonstration project results in reduced demand on Metropolitan by 9 TAF. This project is also already incorporated in the demand projections.

<b>Five Year Plan Resource Options</b>	<b>2010 Supplies Used</b>
<b>Conservation</b>	<b>235,000</b>
Ordinances/Tiered Pricing	235,000
<b>Colorado River Transactions</b>	<b>82,000</b>
Additional PVID Crop Stressing/Fallowing	42,000
Yuma Desalter	15,000
Expand SNWA Agreement	0
ICS Exchange	0
Agreements with CVWD	25,000
Arizona Programs -- CAP	0
<b>SWP Transactions</b>	<b>235,000</b>
SWP Contractors Buyers Group/NOD Transfers	68,000
Westlands WD Exchange	111,000
San Luis WD/Westlands WD Purchase	18,000
Shasta Return	38,000
<b>Groundwater Recovery</b>	<b>9,000</b>
LA DWP GW Demonstration	9,000
<b>Total</b>	<b>561,000</b>

**Projected WSDM Storage Use and Balances for CY 2010 by Delivery System**

<b>2010 WSDM Storage</b>	<b>1/1/2010 Storage Levels</b>	<b>Net Takes</b>	<b>12/31/2010 Storage Levels</b>
<b>Colorado River Aqueduct Delivery System</b>	<b>154,000</b>	<b>-69,000</b>	<b>223,000</b>
Lake Mead ICS Account	146,000	-62,000	208,000
Yuma Desalter ICS Account	0	-15,000	15,000
Central Arizona Storage Demonstration Project	8,000	8,000	0
<b>State Water Project System</b>	<b>459,000</b>	<b>-245,000</b>	<b>704,000</b>
MWD SWP Carryover	68,000	68,000	0
Article 14b Carryover	0	-66,000	66,000
DWCV SWP Carryover	11,000	11,000	0
SWP Non-Project Carryover	53,000	-45,000	98,000
Castaic Lake (DWR Flex Storage)	154,000	0	154,000
Lake Perris (DWR Flex Storage)	21,000	-44,000	65,000
Arvin Edison Storage Program	95,000	-23,000	118,000
Semitropic Storage Program	44,000	-74,000	118,000
Kern Delta Storage Program	10,000	-75,000	85,000
Mojave Storage Program	3,000	3,000	0
<b>In-Region Supplies and WSDM Actions</b>	<b>624,000</b>	<b>-234,000</b>	<b>858,000</b>
Diamond Valley Lake	384,000	-242,000	626,000
Lake Mathews	125,000	-10,000	135,000
Lake Skinner	36,000	0	36,000
IEUA/TVMWD (Chino Basin)	16,000	16,000	0
Long Beach (Cent. Basin)	6,000	0	6,000
Long Beach (Lakewood)	1,000	1,000	0
Foothill (Raymond and Monkhill)	1,000	1,000	0
Calleguas (N. Las Posas)	44,000	10,000	34,000
MWDOC (Orange County Basin)	8,000	-9,000	17,000
Three Valleys (Live Oak)	3,000	0	3,000
Three Valleys (Upper Claremont)	0	-1,000	1,000
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
<b>Other Programs</b>	<b>379,000</b>	<b>-136,000</b>	<b>515,000</b>
Other Emergency Storage	334,000	0	334,000
Advance Delivery Account (DWCV)	45,000	-136,000	181,000
<b>Total</b>	<b>1,616,000</b>	<b>-684,000</b>	<b>2,300,000</b>
Emergency	626,000	0	626,000
<b>Total WSDM Storage</b>	<b>990,000</b>	<b>-684,000</b>	<b>1,674,000</b>

### Future Payback Obligations

The following table shows a list of the future payback obligations from the exchange and storage programs in which Metropolitan participates. The exchange agreement executed in 2004 with the Southern Nevada Water Authority (SNWA) allows Metropolitan to store unused Nevada apportionment of Colorado River water in California. Nevada will request recovery of this stored water in the future. As part of a recently executed amendment, it is expected that Nevada will not request this water before 2022. Metropolitan paid back approximately 44 TAF of Article 54 –Flexible Storage Account water on the SWP system, and has no remaining obligations on this account. In 2008, Metropolitan entered into an exchange agreement with Desert Water Agency (DWA) for up to 36 TAF, although only 7,100 AF has been taken to date. Under the agreement provision, Metropolitan will deliver at least the annual minimum amount of CRA water specified under the agreement until the balance is paid in full. The current balance will be paid in full no later than 2014. Finally, Metropolitan entered into an exchange agreement for about 111 TAF from Westlands Water District in 2010. Metropolitan is obligated to return two-thirds of this to Westlands WD in 2011, approximately 74 TAF. This obligation is accounted for in the 2011 Payback Obligations.

Program	Obligation	Year Initiating	Payback Deadline
Storage and Interstate Release Agreement with Southern Nevada Water Authority	10,000	2004	Starting 2022
	10,000	2005	
	5,000	2006	
	45,000	2008	
<b>Subtotal</b>	<b>70,000</b>		
Desert Water Agency	<b>7,100</b>	2008	2014
Westlands WD Exchange	<b>74,000</b>	2010	2011
<b>Total</b>	<b>151,100</b>		
*This is based on the current end of year estimate for net take in 2009.			