



• Water Surplus and Drought Management Plan

Summary

This is a monthly report on developing demand and supply conditions for calendar year (CY) 2011.

On January 20, 2011, the Department of Water Resources increased the State Water Project (SWP) Table A allocation from 50 percent to 60 percent. The 10 percent increase in Table A allocation boosted Metropolitan’s SWP supplies by 191 TAF. Currently, Metropolitan has a total of 2.07 MAF of supplies available to the service area in 2011 from the SWP and Colorado River Aqueduct (CRA) at current allocations and conditions.

In-region demands, obligations, and system losses are estimated between 1.72 MAF and 2.28 MAF. On the lower end, the estimated demands are equivalent to CY 2010. On the higher end, the estimated demands are based on actual January deliveries, WSAP Level 2 demands for February through June and WSAP Baseline (no allocation) demands for July through December plus obligations to return or deliver water supply to other agencies and total system losses.

Based on initial water supplies and demands (WSAP allocations and 2010 actual demands), there is a range of outcomes for CY 2011. With demands at a higher end of 2.28 MAF, 214 TAF of additional actions would be needed to balance supplies and demands. If there are no increases in supply or if additional supply programs cannot be identified, Metropolitan has available storage take capacity of 1.52 MAF to meet this potential need. With demands at a lower end of 1.72 MAF, Metropolitan could expect to store 350 TAF. Metropolitan has available storage put capacity of 1.06 MAF to manage this supply if needed.

Supply and demand conditions will continue to be variable through the year. Staff will provide monthly updates to keep the Board apprised of changing conditions.

Supply & Demand Balance	Demand at Full WSAP Use	With 2010 Demand
Colorado River Aqueduct Available To Service Area	847,000	847,000
State Water Project Available to Service Area	1,220,000	1,220,000
Supplies Available to Service Area	2,067,000	2,067,000
In-Region Demands, Obligations, and Total System Losses	2,281,000	1,717,000
Water Balance	-214,000	350,000
Storage Take Capacity	1,521,000	1,521,000
Storage Put Capacity	1,061,000	1,061,000

Attachments

[Attachment 1: WSDM Supplies for CY 2011](#)

Detailed Report

This report apprises the Board of anticipated supply and demand conditions, and identifies potential actions that may be required to ensure reliability. The imported supplies shown in this report are organized to highlight the supplies and demands, obligations, and losses on the CRA and SWP. This allows for a full view of the available sources of supply anticipated for use within the service area. The balance between these supplies and the demands, obligations, and losses within the service area shows in the case of a shortage, the additional supplies or storage that would be needed. In the case of a surplus, the balance shows the amount of water that can potentially be stored. The section on storage highlights the available capacities of Metropolitan’s storage portfolio.

Board Report (Water Surplus Drought Management Plan)

Colorado River Aqueduct System

The current estimate of anticipated CRA supplies for CY 2011 is 1.00 MAF, including Metropolitan's Basic Apportionment (550 TAF) and all other Colorado River supplies developed to date, including water transfers that are diverted at Metropolitan's intake at Lake Havasu. These anticipated supplies are shown in the table below. There is a minor reduction of 2 TAF in the net total since last month based on adjustments made to the Lower Colorado Water Supply Project and the Yuma Desalter.

Anticipated Supplies	
Basic Apportionment	550,000
Canal Lining Water to MWD	16,000
Lower Colorado Water Supply Project	4,000
IID/MWD Conservation Program	85,000
PVID Land Fallowing	120,000
Water Exchanged with SDCWA (IID Transfer and Canal Lining)	161,000
Southern Nevada Water Authority Agreement	60,000
Yuma Desalter	6,000
Total	1,002,000

Demands and obligations on the CRA system increased from 133 TAF to 155 TAF since last reported. The increase reflects the increase in SWP Table A allocation for Desert Water Agency and Coachella Valley Water District (DWCV), which in turn increased Metropolitan's obligation to deliver water through the SWP exchange and delivery agreement with these two agencies. Other changes to this month's accounting include the obligation to deliver water to Desert Water Agency as part of a 2008 exchange agreement and adjustments made to the Indian present and perfected rights use, resulting in additional obligation.

Demands and Obligations	
CVWD QSA Obligation	35,000
DWCV Table A	116,000
DWA Exchange Agreement	1,000
Misc and Indian PPR Use	2,000
Total	155,000

The table below shows the total supplies and demands on the CRA System. This table reflects the increase in obligations as mentioned above. The resulting figure of 847 TAF is the amount of water available to Metropolitan's service area without using storage.

Colorado River Aqueduct Available to Service Area	
Anticipated Supplies	1,002,000
Demands and Obligations	155,000
Total	847,000

State Water Project System

On January 20, 2011, DWR increased the SWP Table A allocation from 50 percent to 60 percent, boosting Metropolitan's Table A allocation by 191 TAF. The current estimate of SWP supplies available to Metropolitan for CY 2011 is 1.29 MAF. The table below shows Metropolitan's anticipated supplies, including those for DWCV Exchange (obligations to DWCV are met with CRA System supplies and are shown under the CRA System tables). There are also estimates of supply from Metropolitan's agreement with Port Hueneme, San Bernardino Valley Municipal Water District, and from the Yuba Component 3 supply. If the SWP Table A allocation remains at 60 percent by April 21, Yuba is obligated to offer 40 TAF to its buyers and Metropolitan is eligible to purchase 25 percent or 10 TAF.

Board Report (Water Surplus Drought Management Plan)

Anticipated Supplies	
Metropolitan	
Table A (60 percent allocation)	1,147,000
Port Hueneme Agreement	1,000
SBVMWD Transfer	20,000
Yuba Component 3 Water (MWD)	10,000
DWCV	
Table A	116,000
Total	1,294,000

Demands and obligations on the SWP totaling 74 TAF are shown below. At the current time, this is comprised of a return obligation to the Westlands Water District as part of the transfer and exchange program Metropolitan entered with them in CY 2010. The program was for a total of 111 TAF, with two-thirds of the program amount due to be returned in CY 2011.

Demands and Obligations	
Westlands WD Exchange	74,000
Total	74,000

The table below shows the total supplies and demands from the SWP System. The resulting figure of 1.22 MAF is the amount of water available to Metropolitan's service.

State Water Project Available to Service Area	
Anticipated Supplies	1,294,000
Demands, Obligations & Losses	74,000
Total	1,220,000

Storage Balances and Availability

Metropolitan has developed significant storage programs within its service area as well as on the CRA and SWP systems. Water stored in these programs can be used to augment water supplies when needed. At times when supplies exceed demands, water can be stored for future use. Metropolitan's dry-year storage totaled 1.68 MAF at the beginning of 2011, not including emergency storage of 626 TAF. This is a net increase of 4,000 acre-feet over the estimates provided last month. This increase is due to accounting adjustments and certifications that account for actual data through the end of December 2010. If conditions require withdrawals from storage, the estimated take capacity for the year is 1.52 MAF. If conditions require adding water to storage, the estimated put capacity is 1.06 MAF. Similar accounting adjustments were made to take and put capacities, as well as changes to programs that have capacities tied to the SWP Table A allocation. There is a net gain of 13 TAF in take capacity and net reduction of 61 TAF in put capacity. It is important to note that these changes in take and put capacities are not due to lost opportunity for action in the month of January. As the year progresses, take and put capacities may change based on time remaining in the year. For a detailed breakdown of storage see [Attachment 1](#).

Dry-Year Storage Capacities	
Storage Level	1,676,000
Take Capacity	1,521,000
Put Capacity	1,061,000

In-Region Demands, Obligations, and Total System Losses

In the Metropolitan service area, total water demand is comprised of member agency demands, obligations to deliver supplies (i.e. SDCWA/IID Transfer and Canal Lining), and total system losses including those from the CRA.

Board Report (Water Surplus Drought Management Plan)

Since the first implementation of the WSAP in 2009, staff has been providing water demand estimates assuming member agencies make full use of their current WSAP allocations for the first half of the calendar year, combined with an unallocated “WSAP Baseline” demand for the second half of the calendar year. This method allows for transparent adjustments on a monthly basis as actual monthly water use figures replace previously estimated figures. The method also provides for a clearly defined figure that is useful later in the year when the Board is considering potential WSAP implementation for the following year. Based on this method, the estimated in-region demands, obligations, and total system losses as of February is 2.28 MAF. This includes estimated demands for January based on actual January delivery to date, WSAP Level 2 demands for February through June and WSAP Baseline demands for July through December. The estimated January demand based on delivery-to-date was about 51 TAF (or 38 percent) lower than the projected January WSAP Level 2 demand provided in last month’s report.

Demands in CY 2010 were significantly below the allowable WSAP Level 2, and this lower level of demand may continue through CY 2011. After final accounting, the actual in-region demands, obligations and total system losses for CY 2010 were estimated at approximately 1.72 MAF.

The table below shows a range of demands from calculated WSAP allocations to last year’s actual demands.

In-Region Demands, Obligations, and Total System Losses	Demand at Full WSAP Use	With 2010 Demand
Member Agency Demand	2,063,000	1,508,000
Water Exchanged with SDCWA (IID Transfer and Canal Lining)	161,000	152,000
System Losses	57,000	57,000
Total	2,281,000	1,717,000

Water Balance

Based on the current anticipated supplies from the CRA and SWP, the water balance for Metropolitan will range from needing an additional 214 TAF of supply or storage to delivering approximately 350 TAF into storage. This range is based on estimates of CY 2011 demands that vary by about 564 TAF, depending on whether demand levels seen in CY 2010 continue through CY 2011 or if demand increases to WSAP levels. If additional actions are needed, this can come from Metropolitan’s storage programs or from increases in supplies. The table below shows that, in either case, there is enough storage take and put capacity to manage the potential balances. Based on the supply and demand assumptions outlined in this report, the estimated end-of-year storage balance will range from 1.46 MAF to 2.03 MAF.

Supply & Demand Balance	Demand at Full WSAP Use	With 2010 Demand
Colorado River Aqueduct Supplies		
Anticipated Supplies	1,002,000	1,002,000
Demands and Obligations	155,000	155,000
<i>Colorado River Aqueduct Available To Service Area</i>	<i>847,000</i>	<i>847,000</i>
State Water Project Supplies		
Anticipated Supplies	1,294,000	1,294,000
Demands and Obligations	74,000	74,000
<i>State Water Project Available to Service Area</i>	<i>1,220,000</i>	<i>1,220,000</i>
Supplies Available to Service Area	2,067,000	2,067,000
In-Region Demands, Obligations, and Total System Losses	2,281,000	1,717,000
Water Balance	-214,000	350,000
Storage Take Capacity	1,521,000	1,521,000
Storage Put Capacity	1,061,000	1,061,000
Estimated End-of-Year Storage	1,462,000	2,026,000

Board Report (Water Surplus and Drought Management Plan on water supply and demand)

Projected WSDM Storage Use and Balances for CY2001 by Delivery System

2011 WSDM Storage	1/1/2011 Storage Levels	CY 2011 Take Capacity	CY 2011 Put Capacity
Colorado River Aqueduct Delivery System	245,000	245,000	206,000
Lake Mead ICS Account	227,000	227,000	200,000
Yuma Desalting Plant	18,000	18,000	6,000
State Water Project System	666,000	572,000	415,000
MWD SWP Carryover	0	0	140,000
DWCV SWP Carryover	0	0	68,000
SWP Non-Project Carryover	100,000	100,000	100,000
Article 14b Carryover	56,000	56,000	0
Castaic Lake (DWR Flex Storage)	154,000	154,000	0
Lake Perris (DWR Flex Storage)	65,000	65,000	0
Arvin Edison Storage Program	108,000	75,000	45,000
Semitropic Storage Program	105,000	57,000	32,000
Kern Delta Storage Program	78,000	65,000	30,000
Mojave Storage Program	0	0	0
In-Region Supplies and WSDM Actions	879,000	588,000	306,000
Diamond Valley Lake	638,000	459,000	172,000
Lake Mathews	139,000	61,000	43,000
Lake Skinner	40,000	6,000	4,000
IEUA/TVMWD (Chino Basin)	2,000	2,000	25,000
Long Beach (Cent. Basin)	6,000	6,000	3,000
Long Beach (Lakewood)	1,000	1,000	1,000
Foothill (Raymond and Monkhill)	1,000	1,000	2,000
Calleguas (N. Las Posas)	35,000	35,000	33,000
MWDOC (Orange County Basin)	15,000	15,000	17,000
Three Valleys (Live Oak)	1,000	1,000	1,000
Three Valleys (Upper Claremont)	1,000	1,000	1,000
Compton	0	0	1,000
Western	0	0	3,000
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	512,000	116,000	134,000
Other Emergency Storage	334,000	0	0
Advance Delivery Account (DWCV)	178,000	116,000	134,000
Total	2,302,000	1,521,000	1,061,000
Emergency	626,000	0	0
Total WSDM Storage	1,676,000	1,521,000	1,061,000