



- Water Surplus and Drought Management Plan on water supply and demand as of May 21, 2009

Summary

This is a monthly report providing updates on CY 2009 regional water supply and demand conditions and potential actions under the Water Surplus and Drought Management Plan (WSDM Plan). The WSDM Plan provides the overall strategy for managing Metropolitan's resources to meet the range of estimated demands for the calendar year. This report considers conditions as of May 21, 2009. Staff will provide oral updates to this report at the monthly meeting of the Water Planning and Stewardship Committee. The following are report highlights for this month:

- Estimated January 1, 2009 WSDM Storage Balance: 1.09 MAF
- Total CRA Related Supplies including Five-Year Supply Plan Actions: 1.1 MAF
- Total SWP Contract Related Supplies including Five-Year Supply Plan Actions: 0.914 MAF
- Total WSDM storage withdrawal capacity available at current 40 percent SWP Allocation: 668 TAF
- CY 2009 Estimated Total Demand with WSAP Level 2: 2.16 MAF

Attachments

[Attachment 1: Projected CRA and SWP Supplies for CY 2009](#)

[Attachment 2: Projected WSDM Supplies for CY 2009](#)

[Attachment 3: Future Payback Obligations](#)

Detailed Report

This letter is the sixth in a series of monthly WSDM Plan updates on the developing water supply and demand conditions for CY 2009. These reports apprise the Board of conditions that may impact water supply reliability for CY 2009, and identify any potential WSDM actions that may be required.

The Board approved the implementation of Metropolitan's Water Supply Allocation Plan 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 20, 2010 given the limited supplies available in CY 2009, including limiting withdrawals of storage in order to maintain reasonable reserve levels.

2009 Water Supply and Demand Balance

Colorado River Aqueduct

Staff's estimate of total Colorado River supplies for CY 2009, including related Five-Year Supply Plan actions is approximately 1.1 MAF. This schedule includes 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. A detailed listing of the Colorado supplies is included as [Attachment 1](#).

There has been no change in the estimate of total Colorado River supplies for CY 2009.

Board Report (Water Surplus and Drought Management Plan on water supply and demand as of May 21, 2009)

State Water Project

On May 20, 2009, the California Department of Water Resources (DWR) announced that the Table A allocation has been increased to 40 percent of Table A contract amount. This increase is due to the observed runoff and the following storage and hydrologic conditions: Lake Oroville storage is approximately 64 percent full and the Northern Sierra snowpack is 85 percent of normal for May 17. It is also reflective of the actual and anticipated delivery restrictions in the Delta to protect Delta smelt. These restrictions have had an estimated impact to Metropolitan since the beginning of CY 2009 of approximately 90 TAF. Although the snow surveys are completed for the year, DWR is still expected to review and update the Table A allocation based on runoff and storage conditions.

Under the current 40 percent Table A allocation, Metropolitan would receive Table A supplies of 765 TAF. Metropolitan would also take delivery of 85 TAF from Metropolitan's transfer and exchange agreements with the Desert Water Agency and Coachella Valley Water District (DWCV), and the City of Port Hueneme; the SWP Turnback Pool; and Article 56 carryover water from 2008. Total CY 2009 SWP contract supplies under the current allocation are projected at about 850 TAF. An additional 46 TAF from the related Five Year Resource Options and 18 TAF from the Yuba Multi-Year Transfers results in total SWP supplies of 914 TAF. A detailed listing of SWP supplies is contained in [Attachment 1](#).

There has been an increase of approximately 210 TAF of SWP basic supplies since last month's report due to the recent increase in Table A allocation.

Water Demands

The current trend water demand estimate for CY 2009 is 2.16 MAF. This demand reflects that the region will be operating under a Level 2 Water Supply Allocation Plan implementation, including a 30 percent reduction under the Interim Agricultural Water Program (IAWP). Actual demands for the year will vary based on water sales prior to the July 1, 2009 WSAP implementation and on actual local supply production by the member agencies during the allocation year. The total demands do not include deliveries of water as part of the exchange with DWCV. Metropolitan intends to meet this exchange obligation through the recovery of stored water in the Advance Delivery Account and deliveries from its CRA supply.

WSDM Supplies and Management Actions

WSDM Storage Portfolio

In addition to the CRA and SWP related supplies described above, Metropolitan had a total of approximately 1.09 MAF of storage in its WSDM resource portfolio as of the beginning of CY 2009 (this figure excludes water stored for emergency purposes). Accounting for conveyance constraints, approximately 668 TAF of this amount is available in CY 2009. Some of the programs have contract provisions that allow for a supply increase in relation to an increase in SWP allocation. This estimate reflects the contractual minimum amounts of the programs and/or any agreed upon increase in minimum contractual amounts with banking partners. Detailed program level estimates of operational WSDM supplies for 2009 under the current SWP allocation, along with projected storage levels, are shown in [Attachment 2](#). Metropolitan staff will continue to work cooperatively with its member agencies and other partners to ensure coordination and effective program management. [Attachment 2](#) also shows approximately 219 TAF of water supply programs that are currently under development in 2009.

Since last month's report, there has been a net 32 TAF increase in the amount of WSDM storage available. This difference is attributed to an increase in projected supplies from the Central Valley groundwater storage programs as a result of the higher SWP allocation.

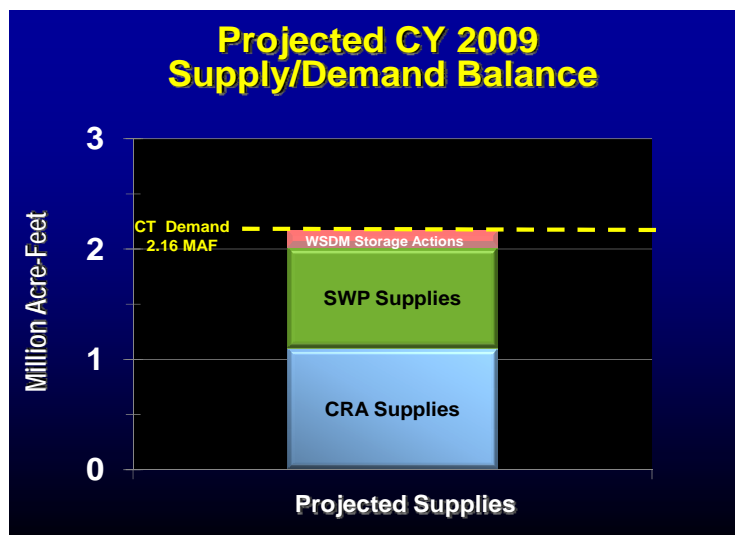
Board Report (Water Surplus and Drought Management Plan on water supply and demand as of May 21, 2009)

Storage/Exchanges

The table in **Attachment 3** shows a list of the future payback obligations from the exchange and storage programs in which Metropolitan has participated. The exchange agreement executed in 2002 with the Southern Nevada Water Authority allows Metropolitan to store unused Nevada apportionment of Colorado River water in California. The total amount of water stored through 2008 under this agreement is 70 TAF. Nevada will request recovery of this stored water in the future. It is expected that Nevada will not request this water until 2018. An agreement specifying return conditions is currently being negotiated and is expected to be brought to the Board for consideration in the next few months. Metropolitan also has an obligation to pay back approximately 79 TAF of Article 54 – Flexible Storage water that was withdrawn from DWR storage in CY 2007 and 2008. The 2007 water must be paid back by 2013, and the 2008 water must be paid back by 2014. In 2003, Metropolitan entered into an agreement with Coachella Valley Water District (CVWD) to credit the agency 32 TAF for CRA deliveries made in 2003. Metropolitan has made payback deliveries in 2007 and 2008 and it is estimated that Metropolitan will pay the remaining balance in full during CY 2010. In 2008, Metropolitan entered into an exchange agreement with Desert Water Agency (DWA) for up to 36 TAF. DWA delivered approximately 8 TAF of non-state project water in 2008. Metropolitan has exchanged a total of 1,200 AF of CRA water in 2008 and 2009. Under the agreement provision, Metropolitan will deliver an annual minimum amount of CRA water until the balance is paid in full. The current balance would be paid in full by no later than 2014.

Water Balance and Actions

Under the current trend demand estimate of 2.16 MAF, which reflects a WSAP Level 2, and the currently projected supplies on the SWP and CRA of 2.00 MAF, there is a resulting supply need of approximately 154 TAF. This need will be met through the withdrawal of WSDM storage actions as shown in the graphic below.



Five-Year Supply Plan Resource Options

The Board has received reports and updates on the goals and progress of the Five-Year Supply Plan. These options could yield approximately 429 TAF or more of additional supply if successfully implemented. Staff continues to pursue their resource options that focus on six initiatives: extraordinary conservation, Colorado River transactions, near-term Delta actions, SWP transactions, groundwater recovery, and local resources. These supplies and conservation measures would enhance water supply reliability in Metropolitan’s service area given continued dry conditions and restrictions on the State Water Project deliveries from the Delta. As previously noted, related actions from the Five-Year Supply Plan are being accounted for under either the SWP or CRA total delivery estimates. The conservation measures associated with the Five-Year Supply Plan now account for actions that are necessary to achieve water savings needed to meet allocations under a Level 2 WSAP allocation.

CY 2009 Projected CRA and SWP Supplies

CRA BASIC PROGRAMS	
Basic Total Apportionment	550,000
MWD Water Budget Agricultural Adjustment	-60,000
<i>Priority 1,2, and 3b</i>	<i>-56,000</i>
<i>Imperial ID</i>	<i>0</i>
<i>Coachella Valley WD</i>	<i>0</i>
<i>Misc and Indian PPR's</i>	<i>-4,000</i>
DWCV Obligation	-68,000
IID-MWD Conservation Program	85,000
Lower Colorado Water Supply Project	7,000
PVID Land Fallowing	118,000
Canal Lining Water to MWD	15,000
Exchange with CVWD	-35,000
Water Exchanged with SDCWA (IID Transfer & All American Canal Lining)	131,000
Other Programs/Ag Adjustment/DWCV Callback	190,000
<i>Ag Adjustment</i>	<i>60,000</i>
<i>DWCV Callback</i>	<i>40,000</i>
<i>Other Programs</i>	<i>90,000</i>
CRA BASIC PROGRAMS TOTAL	933,000
FIVE YEAR SUPPLY RESOURCE OPTIONS: CRA	
Additional PVID Transfers (Crop Stressing / Fallowing)	30,000
Yuma Desalter	5,000
Arizona Programs	60,000
Expand SNWA Agreement	40,000
Agreements with CVWD	25,000
TOTAL: CRA 5 YEAR SUPPLY RESOURCE OPTIONS	160,000
Colorado River Supplies Total	1,093,000
SWP BASIC PROGRAMS	
MWD Table A	765,000
MWD 2008 Carryover	15,000
Desert Water/Coachella Valley exchange (Table A)	68,000
Port Hueneme Agreement /Turnback Pool/Westland Mitigation	2,000
SWP BASIC SUPPLIES TOTAL	850,000
Yuba Multi Year Transfers	18,000
5 YEAR SUPPLY RESOURCE OPTIONS: SWP	
Drought Water Bank / NOD Transfers	25,000
In-Delta Transfers -- Delta Wetlands	11,000
North Kern / DWA Exchange	10,000
TOTAL: SWP 5 YEAR SUPPLY RESOURCE OPTIONS	46,000
SWP Supplies Total	914,000
TOTAL SUPPLIES WITH 5 YEAR SUPPLY RESOURCE OPTIONS	2,007,000

CY 2009 Projected WSDM Supplies

Program	Projected 1/1/2009 Storage Levels	Amount Available at 40% SWP Allocation	Amount Available at 50% SWP Allocation	CY 2009 Put Capacity
SURFACE STORAGE	450,000	403,000	403,000	794,000
<i>Lake Mead ICS Account</i>	92,000	60,000	60,000	200,000
<i>MWD '08 Carryover*</i>	15,000	0	0	0
<i>Castaic Lake (DWR Flex Storage)</i>	79,000	79,000	79,000	75,000
<i>Lake Perris (DWR Flex Storage)</i>	61,000	61,000	61,000	4,000
<i>Diamond Valley Lake</i>	203,000	203,000	203,000	400,000
<i>Lake Mathews & Lake Skinner (Dry-Year Storage)</i>	0	0	0	115,000
CENTRAL VALLEY BANKING PROGRAMS	311,000	147,000	189,000	132,000
<i>Arvin Edison Storage Program</i>	152,000	35,000	52,000	45,000
<i>Semitropic Storage Program</i>	126,000	86,000	104,000	32,000
<i>Kern Delta Storage Program</i>	23,000	23,000	23,000	55,000
<i>Mojave Storage Program</i>	10,000	3,000	10,000	0
GROUNDWATER STORAGE PROGRAMS	331,000	118,000	118,000	254,000
CONJUNCTIVE USE PROGRAMS	165,000	75,000	75,000	87,000
<i>IEUA/TVMWD (Chino Basin)</i>	63,000	30,000	30,000	25,000
<i>Long Beach (Cent. Basin)</i>	7,000	0	0	3,000
<i>Long Beach (Lakewood)</i>	2,000	1,000	1,000	1,000
<i>Foothill (Raymond and Monks Hill)</i>	1,000	1,000	1,000	2,000
<i>Calleguas (N. Las Posas)</i>	54,000	20,000	20,000	33,000
<i>MWDOC (Orange County Basin)</i>	36,000	22,000	22,000	17,000
<i>Three Valleys (Live Oak)</i>	1,000	0	0	1,000
<i>Three Valleys (upper Claremont)</i>	0	0	0	1,000
<i>Compton</i>	1,000	1,000	1,000	1,000
<i>Western</i>	0	0	0	3,000
CYCLIC PROGRAMS	13,000	13,000	13,000	0
<i>Cyclic - USG</i>	0	0	0	0
<i>Cyclic - PM (Three Valleys)</i>	13,000	13,000	13,000	0
<i>Cyclic - IEUA (Chino Basin)</i>	0	0	0	0
SUPPLEMENTAL PROGRAMS	10,000	0	0	0
<i>Supplemental Storage Program (Los Angeles)</i>	10,000	0	0	0
OTHER PROGRAMS	143,000	30,000	30,000	167,000
<i>Advance Delivery Account (DWCV) *</i>	57,000	0	0	167,000
<i>SBVMWD Coordinated Operating Agreement</i>	50,000	0	0	0
<i>Central Arizona Storage Demonstration Project</i>	36,000	30,000	30,000	0
TOTAL	1,092,000	668,000	710,000	1,180,000

* MWD '08 Carryover and DWCV, and are shown as zero because they have been accounted for in base supplies

Programs Under Development in 2009

Program	Projected 1/1/2009 Storage Levels	Amount Available at 40% SWP Allocation	Amount Available at 50% SWP Allocation	CY 2009 Put Capacity
<i>Conj. Use - Pasadena</i>	22,000	0	0	0
<i>MWD '09 Carryover</i>	0	0	0	200,000
<i>DWCV '09 Carryover</i>	0	0	0	86,000
<i>Hayfield Storage Program</i>	100,000	0	0	0
<i>EWA Wet/Dry Exchange</i>	50,000	0	0	
<i>Sac. Valley Transfers Stored in Shasta</i>	47,000	0	0	0
TOTAL	219,000	0	0	286,000

Future Payback Obligations

Program	Amount (Acre-Feet)	Year Initiated	Payback Deadline
Storage and Interstate Release Agreement with Southern Nevada Water Authority	10,000	2004	As requested*
	10,000	2005	
	5,000	2006	
	45,000	2008	
Subtotal	70,000		
SWP Flexible Storage Account	15,400	2007	2013
	63,400	2008	2014
Subtotal	78,800		
Coachella Valley Water District Desert Water Agency	8,000	2003	2010**
	7,100	2008	2014
Subtotal	15,100		
TOTAL	163,900		

* Metropolitan wouldn't be expected to pay back the water until at least 2018

** Letter agreement under development to defer payback deadline.