



- Water Surplus and Drought Management Plan on water supply and demand as of June 25, 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 June 25, 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: 0.925 MAF
- Total WSDM storage withdrawal capacity available at current 40 percent SWP Allocation: 577 TAF
- CY 2009 Estimated Total Demand with WSAP Level 2: 2.09 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 seventh in a series of monthly WSDM Plan updates on the developing water supply and demand conditions for CY 2009. These reports will 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 implementing 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 net change in the estimate of total Colorado River supplies for CY 2009. However, since last month there has been a 30 TAF decrease in the projection of Five Year Supply Resource Options and a decision to decline the option to exercise 40 TAF from the DWCV program. The Lake Mead ICS, the Central Arizona Demonstration Project, and the Advanced Delivery Account storage programs have been included to augment the CRA supplies.

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 was due to the observed runoff and

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storage and hydrologic conditions at the time. It was also reflective of the actual and anticipated delivery restrictions in the Delta to protect Delta smelt. 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 89 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 854 TAF. An additional 36 TAF from the related Five Year Resource Options and 35 TAF from the Yuba Multi-Year Transfers results in a total SWP supplies of 925 TAF. A detailed listing of SWP supplies is contained in [Attachment 1](#).

There has been a net increase of approximately 11 TAF of SWP basic supplies since last month's report due to adjustments to projected Yuba Transfers and Five Year Resource Options.

Water Demands

The current trend water demand estimate for CY 2009 is 2.09 MAF. This demand incorporates actual water use through June 30, 2009 and also reflects that the region will be operating under a Level 2 Water Supply Allocation Plan for the remainder of the year. It also includes a 30 percent reduction under the Interim Agricultural Water Program (IAWP). Actual demands for the year will vary based 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 both the recovery of stored water in the Advance Delivery Account and also through 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 577 TAF of this amount is available in CY 2009, based on a SWP allocation of 40 percent. 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 91 TAF decrease in the amount of WSDM storage available at a 40 percent SWP allocation. This difference is attributed to an adjustment in projected supplies from the Central Valley groundwater storage programs and the reallocation of approximately 79 TAF from the Lake Mead ICS and the Central Arizona Storage Project to augment the CRA base supplies.

Storage/Exchanges

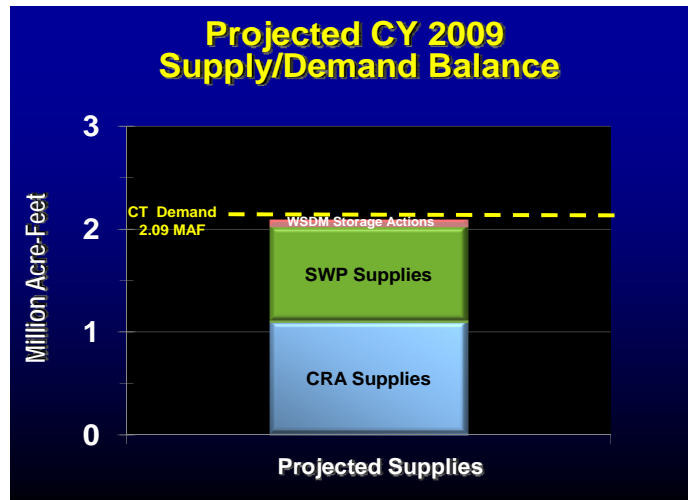
The table in [Attachment 3](#) shows a list of the future payback obligations from the exchange and storage programs in which Metropolitan participates. The exchange agreement executed in 2004 with the Southern Nevada Water Authority (SNWA) allows Metropolitan to store unused Nevada apportionment of Colorado River water in California. 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. As part of the recently executed amendment, it is expected that Nevada will not request this water until 2022. Staff will present a more detailed report on the amendment to the SNWA exchange agreement at this month's board meeting. 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 2012, and the 2008 water must be paid back by 2013. In 2003, Metropolitan entered into an agreement with Coachella Valley Water District (CVWD) to credit the agency 32

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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 no later than 2014.

Water Balance and Actions

Under the current trend demand estimate of 2.09 MAF, which reflects a WSAP Level 2, and the currently projected supplies on the SWP and CRA of 2.03 MAF, there is a resulting supply need of approximately 65 TAF. This need will be met through the withdrawal of additional WSDM storage actions above the amounts already accounted for in the base SWP and CRA supplies, 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 404 TAF or more of additional supply in 2009 if successfully implemented. Staff continues to pursue these 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. For more detailed information on these resource options, refer to the July board report providing an update to the Five Year Supply Plan.

CY 2009 Projected CRA and SWP Supplies

CRA BASIC PROGRAMS		
Basic Total Apportionment		550,000
MWD Water Budget Agricultural Adjustment		35,400
<i>Priority 1,2, and 3b</i>	-81,500	
<i>Imperial ID</i>	102,200	
<i>Coachella Valley WD</i>	17,300	
<i>Misc and Indian PPR's</i>	-2,600	
DWCV Obligation		-72,000
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
Lake Mead ICS Account		48,600
Central Arizona Storage Demonstration Project		30,000
Advanced Delivery Account (DWCV)		57,000
CRA BASIC PROGRAMS TOTAL		970,000
FIVE YEAR SUPPLY RESOURCE OPTIONS: CRA		
Additional PVID Transfers (Crop Stressing / Fallowing)		30,000
Expand SNWA Agreement		50,000
ICS Exchange		25,000
Agreements with CVWD		25,000
TOTAL: CRA 5 YEAR SUPPLY RESOURCE OPTIONS		130,000
Colorado River Supplies Total		1,100,000

SWP BASIC PROGRAMS		
MWD Table A		765,000
MWD 2008 Carryover		15,000
Desert Water/Coachella Valley exchange (Table A)		72,000
Port Hueneme Agreement /Turnback Pool/Westland Mitigation		2,000
SWP BASIC SUPPLIES TOTAL		854,000
SWP TRANSFERS		
Yuba Multi Year Transfers		35,000
SWP TRANSFERS TOTAL		35,000
5 YEAR SUPPLY RESOURCE OPTIONS: SWP		
Drought Water Bank / NOD Transfers		28,000
In-Delta Transfers -- Delta Wetlands		8,000
TOTAL: SWP 5 YEAR SUPPLY RESOURCE OPTIONS		36,000
SWP Supplies Total		925,000

TOTAL BASE SUPPLIES WITH WSDM & 5 YEAR SUPPLY RESOURCE OPTIONS	2,025,000
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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	354,400	354,400	794,000
<i>Lake Mead ICS Account*</i>	92,000	11,400	11,400	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	135,000	140,000	132,000
<i>Arvin Edison Storage Program</i>	152,000	40,000	45,000	45,000
<i>Semitropic Storage Program</i>	126,000	62,000	62,000	32,000
<i>Kern Delta Storage Program</i>	23,000	23,000	23,000	55,000
<i>Mojave Storage Program</i>	10,000	10,000	10,000	0
GROUNDWATER STORAGE PROGRAMS	331,000	88,000	88,000	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 Monkhill)</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	0	0	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	0	0	0
TOTAL	1,092,000	577,400	582,400	1,180,000

* The amount available for these programs are shown as zero because they have been accounted for in base supplies, with the exception of Lake Mead ICS account. The 11,400 of shown is the remaining balance in the account after accounting for estimated withdrawals

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

* Put capacity is 100 taf at SWP allocations below 50%

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	2012
	63,400	2008	2013
	Subtotal	78,800	
Coachella Valley Water District Desert Water Agency	8,000	2003	2009**
	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.