

- Water Surplus and Drought Management Plan on water supply and demand as of March 20, 2008

Summary

This is the monthly report on the CY 2008 regional water supply and demand conditions as of March 20, 2008. As is normal practice, staff will provide updates to this report at the monthly meeting of the Water Planning and Stewardship Committee. The WSDM Plan provides the overall strategy for managing Metropolitan's resources to meet the range of estimated demands for the calendar year. The following are report highlights:

- SWP (35% Table A allocation) & CRA Base Supplies¹: 1.50 MAF
- WSDM Storage as of beginning of CY 2008: 1.72 MAF
- Amount of WSDM Storage that is accessible over the remainder of CY 2008: 820 TAF
- Amount of potential transfer and exchanges for CY 2008: 189 TAF
- Current Trend Total Demand: 2.09 MAF

Attachments

[Attachment 1: Projected CRA and SWP Supplies for CY 2008](#)

[Attachment 2: Projected WSDM Supplies for CY 2008](#)

Detailed Report

This letter is the fifth monthly WSDM Plan report on water supplies and demands for CY 2008. The purpose of this report is to keep the Board apprised of developing conditions that may impact water supply reliability and any potential WSDM actions that may be required for the year.

Water Supply and Demand Balance

Colorado River Aqueduct

Staff's estimate of total Colorado River supplies for CY 2008 is approximately 788 TAF of net diversions, based on Metropolitan's approved water order from the Federal Bureau of Reclamation. The approved order includes Metropolitan's Basic Apportionment (550 TAF) and all other Colorado River supplies, including water transfers, that are diverted at Metropolitan's intake at Lake Havasu. Colorado River base supplies, which are net of water transfers, are approximately 728 TAF. A detailed listing of the Colorado River approved order is included as [Attachment 1](#).

Since last month's report, the estimated CRA supplies have increased by about 12 TAF. This increase is attributed to additional deliveries from an agreement to store water made available by the Southern Nevada Water Authority (SNWA), less an update of adjustments made for California agricultural priority use. The program with SNWA is more fully described below under the 'Transfers and Exchanges' portion of this report.

State Water Project

The current SWP allocation is 35 percent of the Table A contract amount, unchanged from last month's report. This allocation reflects the following conditions: Lake Oroville storage is approximately 50 percent full, runoff to date has been 60 percent of normal, and snowpack is 90 percent of normal. The Department of Water Resources will continue to review hydrologic and storage conditions on a monthly basis and update the SWP allocation, as

¹ This figure does not include 15 TAF of water from the SNWA agreement described under 'Transfers and Exchanges', 25 TAF of Central Arizona Storage Recovery water, and the 20 TAF increase in PVID program since last year.

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appropriate, throughout the year. This allocation considers conservative assumptions for SWP operational constraints, including Delta export restrictions resulting from the Federal District Court's remedy order to protect Delta Smelt.

Since last month's report, Metropolitan has purchased approximately 1,690 AF of Turnback Pool A water and Desert Water Agency and Coachella Valley Water District has purchased approximately 150 AF of Turnback Pool A water. Therefore, under a 35 percent allocation, Metropolitan is planning on receiving a total CY 2008 SWP supply of 753 TAF. As a result of the additional Turnback Pool water purchases, the SWP base supplies have increased by 1,840 AF compared to last month's report. A detail listing of SWP supplies is listed in [Attachment 1](#).

Water Sales and Demands

The table below shows the projected range of sales and demand for calendar year 2008. Metropolitan water sales are projected to be 1.98 MAF at the current trend, with a range of 1.79 MAF under wet/cool conditions to 2.18 MAF under hot/dry conditions. This range of estimated sales is included in Metropolitan's projections of its rates and revenues. It also reflects that water sales under the replenishment program have been discontinued, and that sales under the Interim Agricultural Water Program are reduced by 30 percent.

Metropolitan Sales and Demand Table (in Million Acre-Feet)

	Low	Current Trend	High
Sales	1.79	1.98	2.18
Additional Deliveries/Obligations	.107	.107	.107
Total Demand	1.90	2.09	2.29

In addition to the range of estimated sales, Metropolitan is also responsible for delivering water or meeting other needs including Imperial Irrigation District/San Diego County Water Authority Transfer and the supplies from the canal lining projects, and adjustments for Metropolitan system losses. These programs result in additional deliveries of approximately 107 TAF in addition to sales. Therefore, total demands on Metropolitan for CY 2008 are expected to be 2.09 MAF at the current trend, with a range from the low of 1.90 MAF under wet/cool conditions to a high of 2.29 MAF under hot/dry conditions. The total demands do not include deliveries of water as part of the exchange with Desert Water Agency and Coachella Valley Water District (DWCV). At this time, Metropolitan intends to recover water stored in the Advance Delivery Account agreement with those two agencies.

Since last month's report, total demand at the current trend has decreased by approximately 68 TAF.

WSDM Supplies and Management Actions

WSDM Storage Portfolio

In order to manage base supplies and demands, Metropolitan has approximately 1.72 MAF of storage in its WSDM resource portfolio as of the beginning of CY 2008. The available WSDM supplies and management actions for calendar year 2008 are approximately 820 TAF. This estimate reflects the contractual minimum amounts of the programs and/or the agreed upon increase in minimum contractual amounts with banking partners. Some of the programs also have contract provisions that allow for a supply increase in relation to an increase in SWP allocation. Detailed program level estimates of operational WSDM supplies for 2008 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 the programs under development and separates out emergency storage reserves in Metropolitan's reservoirs, showing the additional emergency storage available within DWR's storage facilities. At this time, Metropolitan has access to approximately 674 TAF of emergency storage supplies.

Since last month's report, there has been an increase of approximately 36 TAF in the projected amount of water available to Metropolitan by the Central Valley Storage Programs. These additional supplies increased the available WSDM supplies to 820 TAF for the CY 2008.

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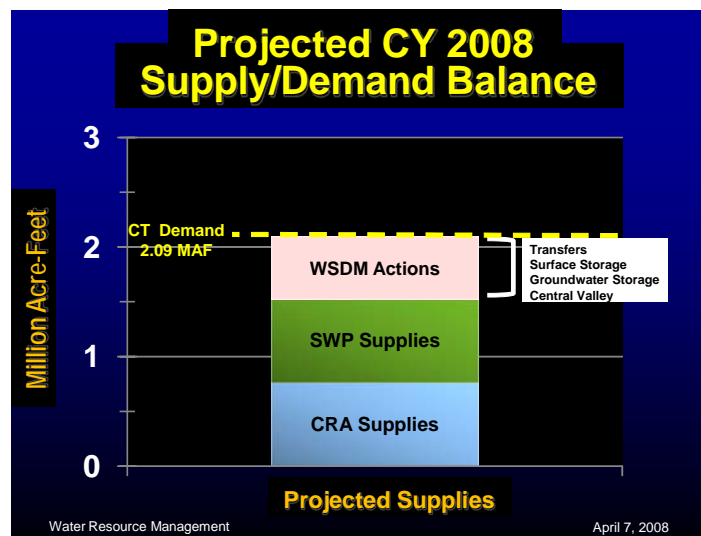
Transfers/Exchanges

In November 2007, the Board authorized the General Manager to enter into an agreement with the State Water Project Contractors Authority to pursue up to 200 TAF of water transfer agreements with sellers located in the Sacramento and San Joaquin valleys for CY 2008. Staff is currently developing up to 88 TAF in the Sacramento Valley (which results in approximately 70 TAF net of delta conveyance losses), and up to 25 TAF south of the Delta.

In addition to these State Water Project transfers, there is 25 TAF of recovered water from the 1992 Central Arizona groundwater storage program and approximately 20 TAF of increased PVID following from last year that would increase CY 2008 supplies. Furthermore, an exchange agreement that started in 2002 with the SNWA allows Metropolitan to store unused Nevada apportionment of Colorado River water in California. Most recently, an additional 15 TAF acre-feet from this agreement was stored for calendar year 2008. In subsequent years, Nevada may request recovery of this stored water. Staff will also be bringing forward for the Board's consideration a joint funding agreement for the Drop 2 Reservoir Project that would result in approximately 34 TAF of new supplies available in CY 2008. These Colorado River actions could produce a combined total of 94 TAF acre-feet in CY 2008, bringing the total amount of transfers and exchanges identified for the year to 189 TAF.

Water Balance and Actions

With currently allocated supplies on the SWP and CRA of 1.5 MAF, Metropolitan would be required to execute approximately 590 TAF of WSDM actions to meet the current trend total demand of 2.09 MAF.



Staff has identified that these WSDM actions would be comprised of water transfers (190 TAF), Surface Storage (100 TAF), Groundwater Storage (70 TAF), and Central Valley Banking (230 TAF).

CY 2008 Projected CRA and SWP Supplies	
Colorado River Approved Order	
Basic Total Apportionment	550,000
IID-MWD Conservation Program	85,000
Water Exchanged with SDCWA (IID Transfer & All American Canal Lining)	71,500
Canal Lining Water to MWD	4,500
Central Arizona storage recovery	25,000
Lower Colorado Water Supply Project	6,729
PVID Land Fallowing	82,109
Southern Nevada Water Authority Water Exchange	15,000
MWD Water Budget Agricultural Adjustment	-51,558
<i>Priority 1,2, and 3b</i>	-52,394
<i>Imperial ID</i>	3,680
<i>Coachella Valley WD</i>	1,511
<i>Misc and Indian PPR's</i>	-4,355
Colorado River Supplies Total	788,280
State Water Project Supplies	
Table A (25 percent allocation)	669,025
Turnback pool	1,689
Carryover and 14b	0
Desert Water/Coachella Valley exchange (Table A/Turnback Pool)	60,036
San Bernardino Valley MWD Coordinated Operation Agreement	20,000
Port Hueneme Agreement	1,850
State Water Project Supplies Total	752,600
Total	1,540,880

Projected WSDM Supplies for CY 2008

Program	1/1/2008 Storage Levels	Amount Available at 35% SWP Allocation	CY 2008 Put Capacity
CRA Storage			
Advance Delivery Account (DWCV) *	121,400	0	150,000
Lake Mead ICS Account	23,100	23,100	200,000
Central Arizona Underground Storage Demonstration Project *	64,100	0	0
Subtotal	208,600	23,100	350,000
SWP Storage			
EWA Wet/Dry Exchange	50,000	50,000	
Arvin Edison Storage Program	189,400	70,000	45,000
Semitropic Storage Program	250,300	143,300	31,675
Kern Delta Storage Program	31,300	10,000	55,000
SBVMWD Coord. Operating Agmt.	50,000	15,000	0
Mojave Storage Program	18,900	6,700	0
Castaic Lake (Flex Storage)	138,600	138,600	15,400
Lake Perris (Flex Storage)	65,000	65,000	0
Subtotal	793,500	498,600	147,075
In-Region Dry-Year Storage			
Diamond Valley Lake	390,100	200,000	213,000
Lake Mathews & Lake Skinner	27,200	27,200	86,500
Cyclic - USG	48,300	Up to stored volume	0
Cyclic - PM (Three Valleys)	15,300	Up to stored volume	0
Cyclic - IEUA (Chino Basin)	0	0	0
Conj. Use - IEUA/TVMWD (Chino Basin)	88,000	24,750	12,000
Conj. Use - Long Beach (Cent. Basin)	9,800	4,300	3,250
Conj. Use - Long Beach (Lakewood)	1,800	1,000	900
Conj. Use - Foothill (Raymond and Monkhill)	3,400	2,500	2,250
Conj. Use - Calleguas (N. Las Posas)	59,700	10,000	0
Conj. Use - MWD OC (Orange County Basin)	49,700	11,000	15,000
Conj. Use - Three Valleys (Live Oak)	700	700	750
Conj. Use - Three Valleys (upper Claremont)	0	0	750
Conj. Use - Compton	1,100	300	0
Conj. Use - Western	400	400	3,000
Supplemental Storage Program (Los Angeles)	20,000	10,000	0
Supplemental Storage Program (MWD OC)	7,000	7,000	
Subtotal	722,500	299,150	337,400
Total	1,724,600	820,850	834,475

*Both DWCV and the Central Arizona amounts have been shown as zero because they have been accounted for already in base supplies.

Programs Under Development in 2008

Program	Projected 1/1/2008 Storage Levels	Amount Available at 35% SWP Allocation	CY 2008 Put Capacity
Conj. Use - Pasadena	21,700		
<i>CRA Storage</i>			
Hayfield Storage Program	73,000	0	0
<i>SUBTOTAL</i>	<i>94,700</i>	<i>0</i>	<i>0</i>
<i>SWP Storage</i>			
MWD '08 Carryover *		0	200,000
DWCV '08 Carryover *	-	0	85,550
Sac. Valley Transfers Stored in Shasta	47,000	0	0
<i>SUBTOTAL</i>	<i>47,000</i>	<i>0</i>	<i>285,550</i>
TOTAL	141,700	0	285,550
Emergency Storage Reserves			
<i>Metropolitan Emergency Storage</i>			
Diamond Valley Lake	206,900	206,900	N/A
Lake Mathews	78,500	78,500	N/A
Lake Skinner	33,800	33,800	N/A
<i>SUBTOTAL</i>	<i>319,200</i>	<i>319,200</i>	
<i>DWR Emergency Storage</i>			
Castaic Lake	170,600	170,600	N/A
Pyramid Lake	158,300	158,300	N/A
Silverwood	20,000	20,000	N/A
Lake Perris	5,400	5,400	N/A
<i>SUBTOTAL</i>	<i>354,300</i>	<i>354,300</i>	
TOTAL	673,500	673,500	

Future Payback Obligations

Program	Amount (Acre-Feet)	Year Initiated	Payback Deadline
Storage and Interstate Release Agreement with Southern Nevada Water Authority	10,000	2002	As requested*
	10,000	2004	
	15,000	2008	
Subtotal	35,000		
SWP Flexible Storage Account	14,500	2007	2012
Coachella Valley Water District	16,000	2003	TBD
TOTAL	65,500		

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