

- Water Surplus and Drought Management Plan on water supply and demand as of September 25, 2008

Summary

This is the monthly report on the CY 2008 regional water supply and demand conditions as of September 25, 2008. Staff will provide oral updates to this report at the monthly meeting of the Water Planning and Stewardship Committee. The Water Surplus and Drought Management Plan (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 for this month:

- SWP (35 percent Table A allocation) and CRA Base Supplies¹: 1.46 MAF
- WSDM Storage Balances as of January 1, 2008: 1.75 MAF
- WSDM Storage that is accessible through CY 2008: 754 TAF
- Identified Transfers and Exchanges for CY 2008: 159 TAF
- Current Trend Total Demand: 2.23 MAF
- Firm Supplies accessible in CY 2009 under a 10 percent and 20 percent SWP Allocation: 1.7 – 1.9 MAF
- Resource Options available in CY 2009: 449 TAF – 1.082 MAF

Attachments

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

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

[Attachment 3: 2009 Potential Resource Options](#)

Detailed Report

This letter is the eleventh 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 871 TAF of current diversions, based on Metropolitan's most recent schedule submitted to the Federal Bureau of Reclamation. This schedule 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 731 TAF. A detailed listing of the Colorado River's current diversion schedule is included in [Attachment 1](#).

Since last month's report, the scheduled CRA diversions are unchanged.

State Water Project

Since February 1, 2008, the State Water Project (SWP) allocation for Metropolitan has remained at 35 percent of the Table A contract amount. This allocation reflects the record dry conditions experienced in March through May and the resulting low projection of runoff. This allocation considers conservative assumptions for SWP operational

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, 34 TAF of Drop 2 Reservoir water, and 46 TAF of Lake Mead ICS water.

Board Report (Water Surplus and Drought Management Plan on water supply and demand as of September 25, 2008)

constraints, including Delta export restrictions resulting from the Federal District Court's remedy order to protect Delta smelt.

Since last month's report, the projected amount of SWP supply is lower by 10 TAF. This is due to a change in the projected amount available from the San Bernardino Valley MWD Coordinated Operating Agreement. Under the current 35 percent Table A allocation, Metropolitan is planning on receiving a total SWP supply of 733 TAF in CY 2008. A detailed listing of SWP supplies is listed in [Attachment 1](#).

Water Demands

Metropolitan's current trend estimated for water demand is 2.23 MAF, with a range of 2.14 MAF under wet/cool conditions to 2.31 MAF under hot/dry conditions. This range of estimated demand covers total water deliveries, a part of which is included in Metropolitan's projections of its rates and revenues. It reflects that water sales under the replenishment program have been discontinued, and that water sales under the Interim Agricultural Water Program are reduced by 30 percent. 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.

Since last month's report, total demand at the current trend is higher by about 11 TAF.

WSDM Supplies and Management Actions

WSDM Storage Portfolio

In addition to base CRA and SWP supplies, Metropolitan had a total of approximately 1.75 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 754 TAF. This estimate reflects the contractual minimum amounts of the programs and/or any 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 any water supply programs currently under development (unavailable in 2008) and separates out emergency storage reserves in Metropolitan's reservoirs and in storage facilities operated by the California Department of Water Resources. At this time, Metropolitan has access to approximately 674 TAF of emergency storage supplies.

Since last month's report, there has been a decrease in the projected available WSDM storage supplies for CY 2008 of about 5 TAF. This decrease is due to a change in the projected supply available to Metropolitan from Central Valley Storage Programs.

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. Contracts have been signed for up to 57 TAF in the Sacramento Valley (net of delta conveyance losses), and up to 8 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 under this agreement was stored for CY 2008. In subsequent years, Nevada may request recovery of this stored water. In April, the Board approved the joint funding agreement for the Drop 2 Reservoir Project that will result in approximately 34 TAF of new supplies available to Metropolitan in CY 2008.

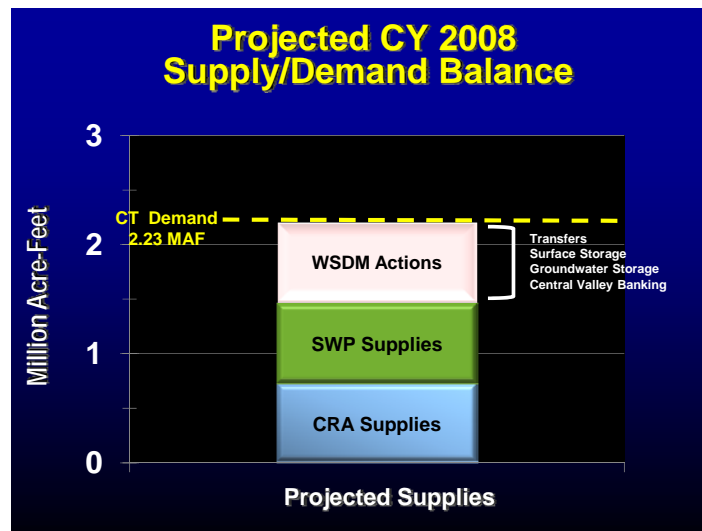
These Colorado River actions could produce a combined total of 94 TAF acre-feet in CY 2008, bringing the total amount of transfers and exchanges identified for the year to 159 TAF.

Board Report (Water Surplus and Drought Management Plan on water supply and demand as of September 25, 2008)

There has been a 6 TAF increase in the projected amount of transfers since last month’s report. This amount reflects both a 9 TAF increase in the projected amount of Sacramento Valley transfers and a 3 TAF decrease in the estimated south of Delta available transfers.

Water Balance and Actions

With currently allocated supplies on the SWP and CRA of 1.46 MAF, Metropolitan would be required to execute approximately 768 TAF of WSDM actions to meet the current trend total demand of 2.23 MAF.



The table below shows the current estimate of the actions that will be taken to balance the currently allocated SWP and CRA base supplies and demand.

Current Trend Demand:	2,231,000
Base Supplies	1,463,000
WSDM ACTIONS	768,000

Table of Identified WSDM Actions	Actions Under Current Trend Demand	Amount Taken to Date
Transfers and Exchanges	159,000	0 *
Central Valley Programs	177,000	112,000
In-Basin Groundwater	51,000	11,700
Surface Water	381,000	122,800
TOTAL	768,000	246,500

* Metropolitan has received some North of Delta transfer water in the months of July-Sept, but is awaiting DWR reconciliation.

In the situation that calendar year demands exceed identified WSDM actions, the additional supply needs will be supplemented by surface storage reserves. Conversely, if the demands turn out to be lower than anticipated, the excess supply will be stored in surface reservoirs, enhancing the flexibility for CY 2009.

Board Report (Water Surplus and Drought Management Plan on water supply and demand as of September 25, 2008)

The table below shows that Metropolitan has a total of 1.34 MAF in surface water storage, of which 667 TAF is available for dry-year yield. Under the current demand and supply projections, 381 TAF of surface water would be utilized, along with the other WSDM actions, to meet the current trend demand. Based on the table below, a balance of 286 TAF of surface water would remain in dry year storage for future years.

Storage	Emergency Storage	Dry-Year	Total
Diamond Valley Lake, Lake Mathews, and Lake Skinner	319,200	417,300	736,500
Flex Storage	-	203,600	203,600
Lake Mead ICS	-	46,200	46,200
DWR Emergency Storage	354,300		354,300
Total	673,500	667,100	1,340,600
Projected Take at Current Trend Demand		381,000	381,000
Remaining Balance	673,500	286,100	959,600

CY 2008 Projected CRA and SWP Supplies

Colorado River Diversion Schedule	
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	6,679
PVID Land Fallowing	82,109
Southern Nevada Water Authority Water Exchange	15,000
System Efficiency ICS (Drop 2 Reservoir)	34,000
Extraordinary Conservation ICS (Lake Mead ICS)	46,170
MWD Water Budget Agricultural Adjustment	-49,276
<i>Priority 1,2, and 3b</i>	-45,834
<i>Imperial ID</i>	0
<i>Coachella Valley WD</i>	0
<i>Misc and Indian PPR's</i>	-3,442
Colorado River Supplies Total	870,682
State Water Project Supplies	
Table A (35 percent allocation)	669,025
Turnback pool	1,689
Desert Water/Coachella Valley exchange (Table A/Turnback Pool)	60,036
Port Hueneme Agreement	1,850
State Water Project Supplies Total	732,600
Total	1,603,282

Projected WSDM Supplies for CY 2008

Program	1/1/2008 Storage Levels	Amount Available at 35% SWP Allocation	CY 2008 Put Capacity
SURFACE STORAGE	667,100	477,000	514,900
<i>Lake Mead ICS Account</i>	46,200	46,200	200,000
<i>Castaic Lake (DWR Flex Storage)</i>	138,600	138,600	15,400
<i>Lake Perris (DWR Flex Storage)</i>	65,000	65,000	0
<i>Diamond Valley Lake</i>	390,100	200,000	213,000
<i>Lake Mathews & Lake Skinner (Dry-Year Storage)</i>	27,200	27,200	86,500
CENTRAL VALLEY BANKING PROGRAMS	489,900	176,800	131,700
<i>Arvin Edison Storage Program</i>	189,400	40,100	45,000
<i>Semitropic Storage Program</i>	250,300	120,000	31,700
<i>Kern Delta Storage Program</i>	31,300	8,200	55,000
<i>Mojave Storage Program</i>	18,900	8,500	0
GROUNDWATER STORAGE PROGRAMS	540,700	50,600	187,950
CONJUNCTIVE USE PROGRAMS	214,600	43,600	37,950
<i>IEUA/TVMWD (Chino Basin)</i>	88,000	22,000	12,000
<i>Long Beach (Cent. Basin)</i>	9,800	2,200	3,300
<i>Long Beach (Lakewood)</i>	1,800	0	900
<i>Foothill (Raymond and Monks Hill)</i>	3,400	1,700	2,250
<i>Calleguas (N. Las Posas)</i>	59,700	6,000	0
<i>MWDOC (Orange County Basin)</i>	49,700	11,000	15,000
<i>Three Valleys (Live Oak)</i>	700	0	750
<i>Three Valleys (upper Claremont)</i>	0	0	750
<i>Compton</i>	1,100	300	0
<i>Western</i>	400	400	3,000
CYCLIC PROGRAMS	63,600	0	0
<i>Cyclic - USG</i>	48,300	<i>Up to stored volume</i>	0
<i>Cyclic - PM (Three Valleys)</i>	15,300	<i>Up to stored volume</i>	0
<i>Cyclic - IEUA (Chino Basin)</i>	0	0	0
SUPPLEMENTAL PROGRAMS	27,000	7,000	0
<i>Supplemental Storage Program (Los Angeles)</i>	20,000	0	0
<i>Supplemental Storage Program (MWDOC)</i>	7,000	7,000	
OTHER PROGRAMS	235,500	0	150,000
<i>Advance Delivery Account (DWCV) *</i>	121,400	0	150,000
<i>SBVMWD Coordinated Operating Agreement **</i>	50,000	0	0
<i>Central Arizona Storage Demonstration Project **</i>	64,100	0	0
OTHER WSDM ACTIONS	50,000	50,000	0
<i>EWA Wet/Dry Exchange</i>	50,000	50,000	
TOTAL	1,747,700	754,400	834,550

* DWCV is shown as zero because it has been accounted for in base supplies.

** Central Arizona and SBVMWD COA are shown as zero because they have been accounted for in Transfers & Exchanges.

Programs Under Development in 2008

Program	1/1/2008 Storage Levels	Amount Available at 35% SWP Allocation	CY 2008 Put Capacity
<i>Conj. Use - Pasadena</i>	21,700	0	0
<i>Hayfield Storage Program</i>	73,000	0	0
<i>MWD '08 Carryover</i>	0	0	200,000
<i>DWCV '08 Carryover</i>	0	0	85,550
<i>Sacramento Valley Transfers Stored in Shasta</i>	47,000	0	0
TOTAL	141,700	0	285,550

Emergency Storage Reserves

Program	1/1/2008 Storage Levels	Amount Available at 35% SWP Allocation	CY 2008 Put Capacity
Metropolitan Emergency Storage	319,200	319,200	n/a
<i>Diamond Valley Lake</i>	206,900	206,900	N/A
<i>Lake Mathews</i>	78,500	78,500	N/A
<i>Lake Skinner</i>	33,800	33,800	N/A
DWR Emergency Storage	354,300	354,300	n/a
<i>Castaic Lake</i>	170,600	170,600	N/A
<i>Pyramid Lake</i>	158,300	158,300	N/A
<i>Silverwood</i>	20,000	20,000	N/A
<i>Lake Perris</i>	5,400	5,400	N/A
TOTAL	673,500	673,500	

2009 Resource Options

<u>Resource Options</u>	<u>Annual Yield</u>
	<u>TAF</u>
Conservation	215 – 415
CR Transactions	93 – 232
Near-Term Delta Actions	0 – 0
SWP Transactions	110 – 348
Groundwater Recovery	26 - 80
Local Resources	5 – 7
Total	449 – 1,082