

- Water Surplus and Drought Management Plan on water supply and demand as of July 31, 2008

Summary

This is the monthly report on the CY 2008 regional water supply and demand conditions as of July 31, 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% Table A allocation) and CRA Base Supplies¹: 1.47 MAF
- WSDM Storage Balances as of January 1, 2008: 1.75 MAF
- WSDM Storage that is accessible through CY 2008: 761 TAF
- Identified Transfers and Exchanges for CY 2008: 153 TAF
- Current Trend Total Demand: 2.21 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 ninth 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 constraints, including Delta export restrictions resulting from the Federal District Court's remedy order to protect Delta Smelt.

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.

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Since last month's report, there has been an increase of 5 TAF due to changes in the projected amount of water available from the San Bernardino Valley MWD Coordinated Operation Agreement. Under the current 35 percent Table A allocation, Metropolitan is planning on receiving a total SWP supply of 743 TAF in CY2008. A detailed listing of SWP supplies is listed in [Attachment 1](#).

Water Demands

Metropolitan's current trend estimated for water demand is 2.21 MAF, with a range of 2.07 MAF under wet/cool conditions to 2.34 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 agreement with those two agencies.

Since last month's report, total demand at the current trend is unchanged.

WSDM Supplies and Management Actions

WSDM Storage Portfolio

In addition to base CRA and SWP supplies, Metropolitan has 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 761 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 an increase in the projected available WSDM storage supplies for CY 2008 of 26 TAF. This increase is due to a change in the projected supply available to Metropolitan from Central Valley Storage Programs.

Transfers/Exchanges

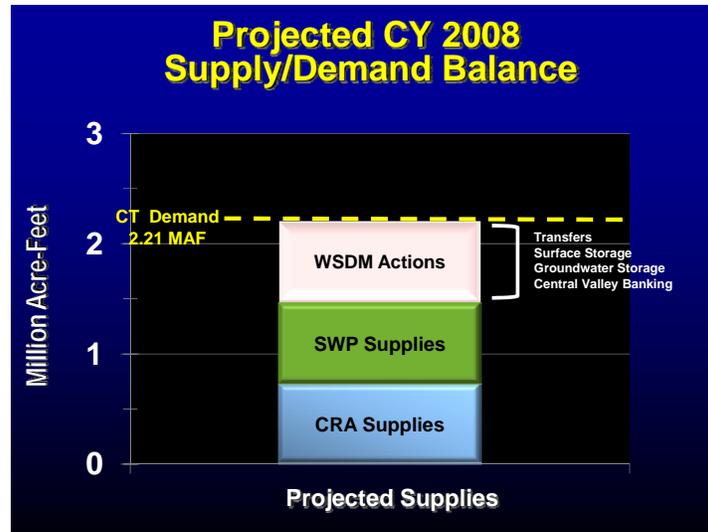
In November 2007, the Board authorized the General Manager to enter into an agreement with the State Water Project Contractors Authority to pursue up to 200 TAF of water transfer agreements with sellers located in the Sacramento and San Joaquin Valleys for CY 2008. Contracts have been signed for up to 47 TAF in the Sacramento Valley (net of delta conveyance losses), and up to 12 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 would 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 153 TAF.

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Water Balance and Actions

With currently allocated supplies on the SWP and CRA of 1.47 MAF, Metropolitan would be required to execute approximately 740 TAF of WSDM actions to meet the current trend total demand of 2.21 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: | 2,213,000 |
| Base Supplies | 1,473,000 |
| WSDM ACTIONS | 740,000 |

| Table of Identified WSDM Actions | Actions Under Current Trend Demand | Amount Taken to Date |
|---|---|-----------------------------|
| Transfers and Exchanges | 153,000 | - |
| Central Valley Programs | 184,000 | 100,530 |
| In-Basin Groundwater | 51,000 | 11,700 |
| Surface Water | 352,000 | - |
| TOTAL | 740,000 | 112,230 |

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.

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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, 352 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 315 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 | | 46,170 | 46,170 |
| DWR Emergency Storage | 354,300 | | 354,300 |
| Total | 673,500 | 667,070 | 1,340,570 |
| Projected Take at Current Trend Demand | | 352,000 | 352,000 |
| Remaining Balance | 673,500 | 315,070 | 988,570 |

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 |
| San Bernardino Valley MWD Coordinated Operation Agreement | 10,000 |
| Port Hueneme Agreement | 1,850 |
| State Water Project Supplies Total | 742,600 |
| Total | 1,613,282 |

Projected WSDM Supplies for CY 2008

| Program | 1/1/2008 Storage Levels | Amount Available at 35% SWP Allocation | CY 2008 Put Capacity |
|---|--------------------------------|---|-----------------------------|
| SURFACE STORAGE | 667,070 | 476,970 | 514,900 |
| <i>Lake Mead ICS Account</i> | 46,170 | 46,170 | 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 | 183,968 | 131,675 |
| <i>Arvin Edison Storage Program</i> | 189,400 | 41,000 | 45,000 |
| <i>Semitropic Storage Program</i> | 250,300 | 126,300 | 31,675 |
| <i>Kern Delta Storage Program</i> | 31,300 | 8,168 | 55,000 |
| <i>Mojave Storage Program</i> | 18,900 | 8,500 | 0 |
| GROUNDWATER STORAGE PROGRAMS | 540,700 | 50,550 | 187,900 |
| CONJUNCTIVE USE PROGRAMS | 214,600 | 43,550 | 37,900 |
| <i>IEUA/TVMWD (Chino Basin)</i> | 88,000 | 22,000 | 12,000 |
| <i>Long Beach (Cent. Basin)</i> | 9,800 | 2,150 | 3,250 |
| <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 | 0 |
| 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 | 0 |
| TOTAL | 1,747,670 | 761,488 | 834,475 |

* 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 | Projected 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 | Projected 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 | |