

- Water Surplus and Drought Management Plan on water supply and demand as of May 29, 2007

Summary

Each year, Metropolitan faces a wide range of possible supply and demand conditions. The Water Surplus and Drought Management Plan (WSDM Plan) provides a strategy framework to manage Metropolitan's resources to meet the range of possible hydrologic conditions for the upcoming year. Currently, the approved CRA and SWP base supplies total approximately 2.18 MAF. When combined with the approximately 700 TAF of WSDM supplies and additional WSDM management actions available through the rest of the year, Metropolitan expects to be able to cover the range of estimated demands in CY 2007. Trends in supply and demand conditions for the year have led staff to initiate WSDM actions to mitigate potential deficits in supplies for the year. These actions are detailed in this report as well as a discussion of potential impacts to operations due to Delta Smelt.

Attachments

[Attachment 1: Colorado River and State Water Project Supplies](#)

[Attachment 2: WSDM Supplies for CY 2007](#)

Detailed Report

Each month the Board is apprised of developing water supply and demand conditions for the calendar year. This report covers conditions through May 29, 2007.

Precipitation

The water year 2007 has been a dry year statewide, especially in Central and Southern California. Much of Southern California is on track to have one of the driest years on historical record, potentially surpassing the prior record set in 2001-02. These conditions can lead to higher than normal demands for Metropolitan water, resulting from a combination of elevated retail-level water demands and lower than normal local supplies.

In Northern and Central California, forecasts of unimpaired runoff from Sierra Nevada watersheds are well below average. The Colorado River Basin also had below normal rainfall and snowpack this year, and continues in drought conditions with below average runoff in seven of the last eight years. However, because the snowpack accumulation season is now over, the impact of these conditions on imported water supplies are now known with a high degree of certainty (see below).

Water Supply and Demand Balance

Colorado River Aqueduct

Staff's estimate of Colorado River supplies for CY 2007 is approximately 696 thousand acre-feet (TAF) based on Metropolitan's approved water order from the Federal Bureau of Reclamation (Reclamation). This figure includes 550 TAF of basic total apportionment supplies, approximately 72 TAF of additional CRA base supplies from the Imperial Irrigation District Program and IID/San Diego County Water Authority Transfer & Exchange Agreement in CY 2007, and 63 TAF under the PVID Land Following Program. A detailed listing of the Colorado supplies is included as [Attachment 1](#). The estimate of Colorado River supplies is relatively firm.

State Water Project

Staff's estimate of total SWP supplies for CY 2007 is 1.48 million acre-feet (MAF). This figure includes a SWP Table A allocation of 1.15 MAF based on DWR's latest SWP allocation of 60 percent of Table A amounts. While it is still possible the final SWP allocation could change, this estimate is relatively firm as the majority of the water year has passed (see discussion of risk under this section below). In addition to the Table A supplies, Metropolitan has delivered 28 TAF of SWP supplies from extended carryover supplies stored in CY 2006, and

Date of Report: May 29, 2007

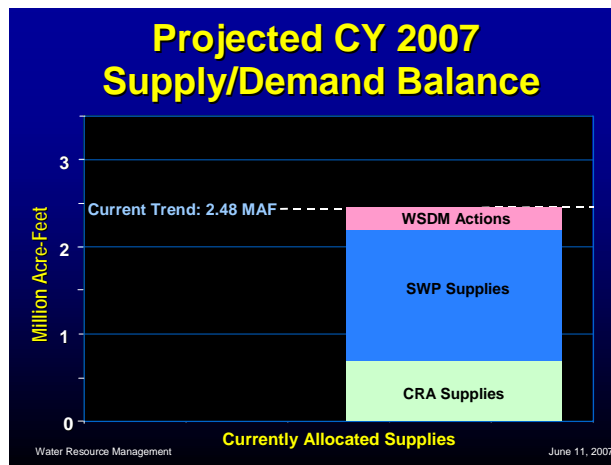
Board Report (Water Surplus and Drought Management Plan on water supply and demand as of May 29, 2007)

167 TAF of Article 21 supplies through the period covered under this update. Metropolitan's exchange agreement with the Desert Water Agency and Coachella Valley Water District, transfer agreement with the San Bernardino Valley Municipal Water District, agreement with the city of Port Hueneme and acquisition of Turnback Pool A supplies are scheduled to provide an additional 134 TAF. A detailed listing of the SWP supplies is included as [Attachment 1](#).

There is some uncertainty as to the amount of SWP supplies that will be available for delivery to Metropolitan due to the ongoing issues with pumping operations and actions being taken to protect the endangered Delta Smelt. To date, Metropolitan has remaining SWP Table A scheduled deliveries of approximately 815 TAF acre-feet under a 60 percent allocation. Based on estimates of potential pumping restrictions that may be applied over the remainder of the year for protection of the fishery, staff estimates that the remaining SWP scheduled deliveries may be reduced and that approximately 408 TAF to 570 TAF acre-feet may be delivered. Staff will keep the Board apprised of any additional fish protection actions and associated impacts.

Demand

Current total demands on Metropolitan for CY 2007 are projected to be 2.48 MAF under the current trend. This current trend includes updated information from the member agencies on the impacts of the dry hydrology on their local supplies, most notably from the City of Los Angeles and from the San Diego County Water Authority. These demands no longer include the obligation to deliver water in the amount of 102,660 acre-feet as part of the exchange with Desert Water Agency and Coachella Valley Water District (DWCV). As described below, this is because Metropolitan intends to meet the obligation through water stored in the Advance Delivery Account agreement with those two agencies.



WSDM Supplies and Management Actions

In addition to the base CRA and SWP supplies, Metropolitan entered CY 2007 with approximately 2.5 MAF of supplies in its WSDM resource portfolio. This figure does not include approximately 700 TAF of surface storage set aside for emergency purposes. These supplies, which include surface storage and groundwater storage, will be utilized to meet deficits between supply and demand under an extremely dry scenario. A detailed listing of the WSDM supplies is included as [Attachment 2](#).

Calendar Year Actions

Based on current trend demands, staff has estimated an expected deficit between supply and demand of approximately 300 TAF for 2007 (this figure does not include the risk of SWP Table A allocations being reduced below 60 percent if Delta Smelt actions prevents planned operations). As reported at the April Board Meeting, Metropolitan has initiated calls on its Central Valley storage programs. Metropolitan has initiated replenishment cuts and in-basin groundwater withdrawals in the month of May. Withdrawals from surface storage would be initiated in June if demands indicate a need for additional water supplies. June also marked the release of a region-wide coordinated conservation public outreach effort and media campaign. The WSDM supplies and

Board Report (Water Surplus and Drought Management Plan on water supply and demand as of May 29, 2007)

management actions that would be needed under that projected deficit are listed in the table below. Metropolitan expects to be able to draw the full 115 TAF of Central Valley Storage, the 30 TAF of In-Basin Groundwater, and has the system capability to take well in excess of 50 TAF out of surface storage. Metropolitan has also determined that, in order to maintain maximum flexibility with Colorado River supplies, the current obligation to deliver water to DWCV will be met through a storage withdrawal from the Advance Delivery Account. All of these actions are reflected in **Attachment 2**. Take capacity from the Advance Delivery Account is now accounted for as unavailable for the remainder of the year, and the remaining take capacity (based on amounts taken to date) from the other programs are reflected as well.

Table of Identified WSDM Actions	Action Under Current Trend Demand	Amount Taken to Date
Central Valley	115 TAF	6,575 AF
Replenishment	105 TAF	5,500 AF
In-Basin Groundwater	30 TAF	0
Surface Water	50 TAF	0
TOTAL	300 TAF	12,075 AF

The WSDM actions described above show a reasonable estimate of the actions that will be taken to address the hydrologic and weather conditions that Metropolitan faces this year. Because of the uncertainties related to SWP supplies due to potential Delta smelt operational constraints, it may be necessary to deviate from this plan. Actions that support the protection of surface water storage would be taken in order to provide the best opportunity to manage through extended pumping constraints on the SWP in the future. Such actions may result in a deviation from the normal WSDM Plan implementation.

CRA and SWP Supplies Allocated as of May 29, 2007	
Colorado River Supplies	
Basic Total Apportionment	550,000
IID-MWD Conservation	85,000
SDCWA-IID & canal lining	71,500
San Luis Rey Supplemental Water	4,500
Central Arizona storage recovery	16,804
Lower Colorado Water Supply Project	4,957
Restore Reregulated water	-21,649
Adjustments for USBR System Conservation in PVID	-7,000
PVID Land Fallowing	62,550
MWD Water Budget Adjustment	-70,974
<i>Priority 1,2, and 3b</i>	-66,142
<i>Imperial ID</i>	0
<i>Coachella Valley WD</i>	0
<i>Misc and Indian PPR's</i>	-4,832
<i>Colorado River Supplies Total</i>	695,688
State Water Project Supplies	
Table A (60 percent allocation)	1,146,840
MWD DWCV turnback pool and Article 21	176,281
Carryover and 14b	28,098
Desert Water/Coachella Valley exchange	102,660
San Bernardino Valley MWD Coordinated Operation Agreement	30,000
Point Hueneme Agreement	1,110
<i>State Water Project Supplies Total</i>	1,484,989
Total	2,180,677

WSDM Supplies for CY 2007				
Program	1/1/07 Storage Levels	Capacity Available for Storage	CY 2007 Take Capacity	CY 2007 Put Capacity
<i>CRA Storage</i>				
Advance Delivery Account (DWCV)	224,000	376,000	0	150,000
Lake Mead Storage Demonstration Program	47,500	199,000	0	50,000
Central Arizona Underground Storage Demonstration Project	89,000	0	0	0
<i>Subtotal</i>	<i>360,500</i>	<i>575,000</i>	<i>0</i>	<i>200,000</i>
<i>SWP Storage</i>				
Sac. Valley Transfers Stored in Shasta	47,000	0		0
EWA Wet/Dry Exchange	50,000	100,000	50,000	100,000
Arvin Edison Storage Program	212,500	37,500	24,700	37,500
Semitropic Storage Program	346,000	4,000	56,000	4,000
Kern Delta Storage Program	38,800	211,200	4,000	50,000
SBVMWD Coord. Operating Agmt.	50,000	0	19,400	0
Mojave Storage Program	45,000	0	23,700	0
Castaic Lake (Flex Storage)	154,000	0	154,000	0
Lake Perris (Flex Storage)	65,000	0	65,000	0
MWD Carryover 07/08*	0	0	0	200,000
DWCV Carryover 07/08*	0	0	0	85,000
<i>Subtotal</i>	<i>1,008,300</i>	<i>352,700</i>	<i>396,800</i>	<i>476,500</i>
<i>In-Region Storage</i>				
Diamond Valley Lake	740,000	80,000	200,000	70,000
Lake Mathews & Lake Skinner	173,000	53,000	60,000	44,000
Cyclic - USG	48,300	51,700	0	Varies
Cyclic - PM (Three Valleys)	12,800	27,200	0	Varies
Cyclic - IEUA (Chino Basin)	1,700	98,300	0	0
Conj. Use - IEUA (Chino Basin)	48,000	52,000	0	25,000
Conj. Use - Long Beach (Cent. Basin)	13,000	0	4,300	0
Conj. Use - FM (Live Oak Basin)	500	2,500	0	750
Conj. Use - Calleguas (N. Las Posas)	51,000	159,000	16,700	33,000
Conj. Use - MWDOC	28,000	32,000	0	15,000
Conj. Use - Three Valleys	3,400	0	0	0
Conj. Use - Foothill	2,400	6,600	0	2,500
Conj. Use - Compton	600	1,700	0	500
Conj. Use - Long Beach (Lakewood)	0	3,600	0	900
Conj. Use - Pasadena	22,000	0	0	0
Supplemental Storage Program (MWDOC)	20,000	0	5,000	0
Supplemental Storage Program (Los Angeles)	16,000	0	14,000	0
<i>Subtotal</i>	<i>1,180,700</i>	<i>567,600</i>	<i>300,000</i>	<i>191,650</i>
Total	2,549,500	1,495,300	696,800	868,150

* CY'06 Carryover amounts are included in SWP base supplies*