



### • Water Surplus and Drought Management Plan

#### Summary

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This is the first monthly report on developing demand and supply conditions for calendar year (CY) 2012.

#### 2011 in Review

Water supply conditions in 2011 were exceptionally favorable in California following years of drought. Northern Sierra and Upper Colorado River Basin watersheds received well above average rainfall during water year 2010/11 (the 12-month period between October 1, 2010 and September 30, 2011).

In April 2011, the state Department of Water Resources (DWR) increased the State Water Project (SWP) Table A allocation for the fourth and final time to 80 percent. On March 30, 2011, the governor’s office announced the end to the drought in California. Metropolitan’s Board of Directors followed suit in mid-April and lifted the 22-month long water supply allocation, allowing full imported water deliveries to Metropolitan’s 26 member agencies without risk of allocation penalties. The SWP allocation along with supplemental SWP and Colorado River Aqueduct (CRA) supplies brought Metropolitan’s total CY 2011 supplies to 2.590 MAF.

Total demands, obligations, and losses are projected to be 1.918 MAF in CY 2011. Mild temperatures and above normal precipitation in Metropolitan’s service area, high levels of Member Agency local supplies, coupled with the implementation of the Water Supply Allocation Plan (WSAP) Level 2 during the first four months of the calendar year contributed to demands that were lower than expected. The high supply/low demand conditions allowed Metropolitan to store 672 TAF while meeting all demands and obligations.

Metropolitan’s WSDM (Water Surplus and Drought Management) storage levels at the start of CY 2011 were 1.7 MAF and will finish the year at approximately 2.4 MAF. The amount of water in storage by the end of CY 2011 will be the highest in Metropolitan’s history. Coupled with 626 TAF of emergency storage supplies, Metropolitan has about 3 MAF in storage reserves to meet dry-year and emergency demands. The following table shows a summary of the projected Calendar 2011 Supply and Demand Balance.

<b>2011 Supply &amp; Demand Balance</b>	
<i>CRA Supply</i>	<i>870,000</i>
<i>SWP Supply</i>	<i>1,720,000</i>
<b>Total Supply</b>	<b>2,590,000</b>
<i>Member Agency Demand</i>	<i>1,645,000</i>
<i>Obligations and Losses</i>	<i>273,000</i>
<b>Total Demand</b>	<b>1,918,000</b>
<b>Net to Storage</b>	<b>672,000</b>

#### Outlook for 2012

On November 18, 2011, DWR announced the initial SWP Table A allocation for 2012 at 60 percent. This is a significant improvement from the 5 percent lowest initial allocation announced two years ago for CY 2010. The total supply from the SWP is 1.148 MAF. Supplies from the CRA system for 2012 are expected to be 902 TAF, bringing the total water supply available to Metropolitan from both SWP and CRA systems is 2.050 MAF. Assuming demand levels similar to the last 12 months, member agency demands, along with obligations and losses bring the total estimated 2012 demand to 1.702 MAF. The balance of 348 TAF is available for storage.

# Metropolitan's Storage Resources

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## Overview

This document provides an overview of each of Metropolitan's water storage programs. The overview for each program includes a table showing the basic program parameters, and a brief description of major considerations that may affect storage operations and decisions to utilize available capacity. The program descriptions are divided into three sections by system; Colorado River Programs, State Water Project Programs, and In-Region Programs. It should be noted that the parameters defined in this report can vary under different conditions. Operational factors occasionally constrain or free-up capacity to deliver or take water from these programs beyond the capacities listed.

## Colorado River Programs

### Lake Mead ICS Account

The Lake Mead Intentionally Created Surplus (ICS) Account is located on the Colorado River in Lake Mead. This program allows Metropolitan to store water in Lake Mead through extraordinary conservation efforts.

#### Basic Program Parameters

Dry-Year Storage Capacity (AF)	Put Capacity (AFY)	Take Capacity (AFY)	1/1/2012 Estimated Storage (AF)
1,500,000	400,000	400,000	428,000

#### Major Factors for Consideration

- Variable program costs of puts and takes are \$0/AF
- Put capacity into the program is based on quantified Intentionally Created Surplus on the CRA system
- Put operations into Lake Mead ICS free up capacity in the Colorado River Aqueduct (CRA)
- Take capacity from the program is limited by the lesser of the take capacity shown above and the remaining capacity in the CRA
- The capacity to put and take from the program may be impacted by declared surplus conditions on the Colorado River
- Water put into the program is subject to an initial 5 percent loss
- Water that remains in storage is subject to an additional 3 percent annual evaporation loss
- Drop 2 Reservoir Project and the Yuma Desalting Plant Pilot Program supplies stored in the program are not subject to losses; currently 90,000 AF of the total shown above
- Water stored in the program may be lost in the event of declared flood control surplus conditions on the Colorado River

### DWCV Advance Delivery Account

The Desert Water/Coachella Valley (DWCV) Advance Delivery Account is located off of the CRA. The two participating agencies, Desert Water Agency (DWA) and Coachella Valley Water District (CVWD) are both State Water Contractors but do not have a physical connection to SWP facilities. Metropolitan takes delivery of their SWP supplies and delivers a like amount from the CRA. The Advance Delivery Account allows Metropolitan to pre-deliver CRA supplies to meet future SWP supply obligations, which provides additional flexibility for managing CRA supplies.

**Basic Program Parameters**

Dry-Year Storage Capacity (AF)	Put Capacity (AFY)	Take Capacity (AFY)	1/1/2012 Estimated Storage (AF)
800,000	250,000	230,100	167,000

**Major Factors for Consideration**

- Variable program costs of puts and takes are \$0/AF
- Puts and takes from the program use CRA capacity
- Put capacity to the program is used to store water in the program and to deliver remaining SWP supply obligations; the total of the both typically cannot exceed 250,000 AF due to the availability of capacity to store
- Take capacity is based on the amount of obligations to deliver water to DWA and CVWD
- Obligations include DWA and CVWD Table A supplies of up to 194,100 AF, and 36,000 AF of CRA supplies to CVWD at a 100 percent Table A allocation
- Additional obligations from SWP supplies such as Article 21, SWP Carryover, and other transfers may be incurred with Metropolitan's agreement
- There are no losses associated with storing water in the program

**State Water Project Programs****SWP Carryover**

The SWP contract allows for carryover storage of annual Table A allocations. Water stored in one year must be taken in the following year.

**Basic Program Parameters**

Dry-Year Storage Capacity (AF)	Put Capacity (AFY)	Take Capacity (AFY)	1/1/2012 Estimated Storage (AF)
297,000	297,000	297,000	265,000

**Major Factors for Consideration*****Costs***

- Variable program costs of puts and takes are \$0/AF
- Stored water is available to help meet demands in portions of Metropolitan's service area served exclusively by SWP supplies
- Put capacity into the program varies based on SWP allocation. The capacity shown in the above table includes only Article 56 carryover; this represents the combined total for Metropolitan, DWA, and CVWD
- SWP carryover storage is subject to spilling and loss if San Luis Reservoir is filled prior to withdrawals of stored water
- Metropolitan generally schedules withdrawals of Article 56 carryover in conjunction with SWP Table A supplies
- The SWP contract allows for other various types of water to be stored by agreement with DWR
- There are no losses associated with storing water in the program, other than the risk of spill as described above

**Castaic Lake (DWR Flexible Storage)**

The SWP Contract allows for flexible storage accounts in the terminal reservoirs of the State Water Project. SWP contractors are allocated capacity based on their proportional use and payments for these facilities. Flexible storage is available to Metropolitan in Castaic Lake and Lake Perris.

**Basic Program Parameters**

Dry-Year Storage Capacity (AF)	Put Capacity (AFY)	Take Capacity (AFY)	1/1/2012 Estimated Storage (AF)
154,000	154,000	154,000	154,000

**Major Factors for Consideration**

- Variable program costs of puts and takes are \$0/AF
- Stored water is available to help meet demands in portions of Metropolitan's service area served exclusively by SWP supplies
- Takes from DWR flexible storage must be paid back within 5 years
- Castaic Lake has an additional 170,600 AF of capacity that belongs to DWR which can be used in an emergency but is not counted in the Dry-Year storage capacity

**Lake Perris (DWR Flexible Storage)**

The SWP Contract allows for flexible storage accounts in the terminal reservoirs of the State Water Project. SWP contractors are allocated capacity based on their proportional use and payments for these facilities. Flexible storage is available to Metropolitan in Castaic Lake and Lake Perris.

**Basic Program Parameters**

Dry-Year Storage Capacity (AF)	Put Capacity (AFY)	Take Capacity (AFY)	1/1/2012 Estimated Storage (AF)
65,000	65,000	65,000	65,000

**Major Factors for Consideration**

- Variable program costs of puts and takes are \$0/AF
- Stored water is available to help meet demands in portions of Metropolitan's service area served exclusively by SWP supplies
- Takes from DWR flexible storage must be paid back within 5 years
- Lake Perris has an additional 5,400 AF of capacity that belongs to DWR which can be used in an emergency but is not counted in the Dry-Year storage capacity

**Arvin-Edison Water Management Program**

The Arvin-Edison Program is located along the SWP system in Kern County. This program allows Metropolitan to store water with the Arvin-Edison Water Storage District during wet years, so that during dry years it can be recovered either through direct pumping of groundwater and/or through exchange.

**Basic Program Parameters**

Dry-Year Storage Capacity (AF)	Put Capacity (AFY)	Take Capacity (AFY)	1/1/2012 Estimated Storage (AF)
350,000	100,000	75,000	163,000

**Major Factors for Consideration**

- Variable program costs in 2011 are \$116/AF for puts and \$162/AF for takes
- Stored water is available to help meet demands in portions of Metropolitan's service area served exclusively by SWP supplies
- Puts to this program are subject to a 10 percent initial loss, the put capacity shown is after losses
- The put and take capacities shown above represent contract minimums, these capacities can be exceeded by mutual agreement

**Semitropic Water Banking and Exchange Program**

The Semitropic Program is located along the SWP system in Kern County. This program allows Metropolitan to store water during wet years, so that during dry years it can be recovered either through direct pumping of groundwater and/or through exchange.

**Basic Program Parameters**

Dry-Year Storage Capacity (AF)	Put Capacity (AFY)	Take Capacity (AFY)	1/1/2012 Estimated Storage (AF)
350,000	35,000	78,500	249,000

**Major Factors for Consideration**

- Variable program costs in 2011 are \$74/AF for puts and \$159/AF for takes
- Stored water is available to help meet demands in portions of Metropolitan's service area served exclusively by SWP supplies
- Puts to this program are subject to a 10 percent initial loss, the put capacity shown is after losses
- The put and take capacities shown above represent contract minimums, these capacities can be exceeded by mutual agreement

**Kern Delta Water Management Program**

The Kern Delta Storage Program is located along the SWP system in Kern County. This program allows Metropolitan to store water during wet years, so that during dry years it can be recovered either through direct pumping of groundwater and/or through exchange.

**Basic Program Parameters**

Dry-Year Storage Capacity (AF)	Put Capacity (AFY)	Take Capacity (AFY)	1/1/2012 Estimated Storage (AF)
250,000	50,000	50,000	131,000

**Major Factors for Consideration**

- Variable program costs in 2011 are \$47/AF for puts and \$113/AF for takes
- Variable program costs for puts will revert to \$120/AF after capital cost credits are used up
- Stored water is available to help meet exclusive area demands in low initial allocations
- Puts to this program are subject to an 11 percent initial loss, the put capacity shown is after losses
- The put and take capacities shown above represent contract minimums, these capacities can be exceeded by mutual agreement

## **Mojave Storage Program**

The Mojave Storage Program is located on the East Branch of the SWP system in San Bernardino County. This program allows Metropolitan to store water with the Mojave Water Agency during wet years, Mojave returns the water in dry-years through the exchange of SWP allocation.

### **Basic Program Parameters**

<b>Dry-Year Storage Capacity (AF)</b>	<b>Put Capacity (AFY)</b>	<b>Take Capacity (AFY)</b>	<b>1/1/2012 Estimated Storage (AF)</b>
390,000	75,000	75,000	47,000

### **Major Factors for Consideration**

- Variable program costs in 2011 are \$0/AF for puts and \$115/AF for takes
- The take capacity is a function of SWP Table A allocation and Mojave's demand for water
- The take capacity shown above may be reduced or unavailable in years with low SWP Table A allocations
- There are no losses associated with storing water in the program

## **In-Region Programs**

### **Diamond Valley Lake**

Diamond Valley Lake is located in the eastern portion of the service area near Hemet, it is owned and operated by Metropolitan.

### **Basic Program Parameters**

<b>Total Storage Capacity (AF)</b>	<b>Put Capacity (AFY)</b>	<b>Take Capacity (AFY)</b>	<b>1/1/2012 Estimated Storage (AF)</b>
810,000	400,000	400,000	800,000

### **Major Factors for Consideration**

- Variable program costs of puts and takes are \$0/AF
- Additional cost to pump water in if inland feeder is not used, also can generate hydroelectric power on withdrawals of water
- Used as operational storage within a year
- The put and take capacities are an estimate, actual capacities vary with distribution system conditions and member agency demands
- The storage capacity shown above includes approximately of 180,000 AF of emergency storage capacity which is reserved for use only during emergencies
- Currently, only SWP supplies are stored in DVL. CRA supplies can also be stored if Quagga Mussel issues on the CRA are addressed
- Water stored in DVL is subject to evaporative losses of approximately 20,000 AF annually

### **Lake Mathews**

Lake Mathews is the terminal reservoir for the Colorado River Aqueduct; it is located in the eastern portion of the service area in Riverside County and is owned and operated by Metropolitan.

**Basic Program Parameters**

<b>Total Storage Capacity (AF)</b>	<b>Put Capacity (AFY)</b>	<b>Take Capacity (AFY)</b>	<b>1/1/2012 Estimated Storage (AF)</b>
178,500	100,000	100,000	126,000

**Major Factors for Consideration**

- Variable program costs of puts and takes are \$0/AF
- The storage capacity shown above includes approximately of 78,500 AF of emergency storage capacity which is reserved for use only during emergencies
- Primarily for storage of CRA supplies. Limited quantities of SWP supplies can be stored
- Used as operational storage within a year

**Lake Skinner**

Lake Skinner is located in the eastern portion of the service area in Riverside County and is owned and operated by Metropolitan.

**Basic Program Parameters**

<b>Total Storage Capacity (AF)</b>	<b>Put Capacity (AFY)</b>	<b>Take Capacity (AFY)</b>	<b>1/1/2012 Estimated Storage (AF)</b>
43,800	10,000	10,000	40,000

**Major Factors for Consideration**

- Variable program costs of puts and takes are \$0/AF
- The storage capacity shown above includes approximately of 33,800 AF of emergency storage capacity which is reserved for use only during emergencies
- Used as operational storage within a year

**Conjunctive Use**

Through the Conjunctive Use Program, Metropolitan is able to store water in local groundwater basins around the service area to help meet overlying demands in dry years. Metropolitan currently has Conjunctive Use Program agreements with Compton (Central Basin), IEUA/Three Valleys MWD (Chino Basin), Long Beach (Central Basin), Long Beach (Lakewood), Foothill MWD (Raymond and Monkhill), MWDOC (Orange County Basin), Three Valleys MWD (Live Oak), Three Valleys MWD (Upper Claremont), and Western MWD (Elsinore).

**Basic Program Parameters**

<b>Dry-Year Storage Capacity (AF)</b>	<b>Put Capacity (AFY)</b>	<b>Take Capacity (AFY)</b>	<b>1/1/2012 Estimated Storage (AF)</b>
215,000	52,000	69,000	31,000

**Major Factors for Consideration**

- Variable program costs of puts are \$0/AF
- Variable program costs of takes are dependent on power and O&M reimbursement amounts, which are offset by a payment of the Full Service water rate
- The capacities shown above are the combined total of all of the Conjunctive Use Programs
- Puts can be direct spreading or through in-lieu deliveries

- Takes groundwater pumped to meet overlying demands
- Operating Plans, water quality, and institutional issues can vary by program

### **Cyclic Storage**

Through the Cyclic Storage Program, Metropolitan is able to store water in local groundwater basins to help meet demands for replenishment water in dry years. Metropolitan currently has Cyclic Storage Program agreements with Upper San Gabriel Valley MWD, Three Valleys MWD, and IEUA.

#### **Basic Program Parameters**

<b>Dry-Year Storage Capacity (AF)</b>	<b>Put Capacity (AFY)</b>	<b>Take Capacity (AFY)</b>	<b>1/1/2012 Estimated Storage (AF)</b>
240,000	240,000	240,000	0

#### **Major Factors for Consideration**

- Variable program costs of puts and takes are 0\$/AF
- The capacities shown above are the combined total of all of the Cyclic Storage programs
- Puts can be direct spreading or through in-lieu deliveries
- Takes can only be used to offset replenishment demands

### **Summary**

The following table provides an accounting of the estimated storage balances for all of Metropolitan's storage programs for the beginning of CY 2012. This table includes all of the programs described in this attachment, as well as Metropolitan's Emergency Storage. While this attachment does not provide details on Metropolitan's Emergency Storage, it is included in the summary table so that the totals are consistent with what is reported in the main body of this Board Report.

<b>Storage Program</b>	<b>1/1/12 Estimated Storage Level</b>
<b>Surface Storage</b>	<b>2,212,000</b>
Lake Mead ICS Storage	428,000
MWD Article 14 B	29,000
MWD SWP Carryover	200,000
DWCV SWP Carryover	36,000
Castaic Lake (DWR Flex Storage)	154,000
Lake Perris (DWR Flex Storage)	65,000
Diamond Valley Lake	800,000
Lake Mathews	126,000
Lake Skinner	40,000
Other Emergency Storage	334,000
<b>Central Valley Banking Programs</b>	<b>590,000</b>
Arvin Edison	163,000
Semitropic	249,000
Kern Delta	131,000
Mojave	47,000
<b>Groundwater Storage Programs</b>	<b>198,000</b>
IEUA/TVMWD CUP (Chino Basin)	0
Long Beach CUP (Central Basin)	6,000
Long Beach CUP (Lakewood)	1,000
Foothill CUP (Raymond and Monkhill)	0
MWDOC CUP (Orange County Basin)	17,000
Three Valleys CUP (Live Oak)	1,000
Three Valleys CUP (Upper Claremont)	2,000
Compton CUP	0
Western CUP	4,000
DWCV Advance Delivery Account	167,000
<b>TOTAL</b>	<b>3,000,000</b>
Emergency	626,000
<b>TOTAL WSDM Storage</b>	<b>2,374,000</b>

## Board Report (Water Surplus and Drought Management Plan)

<b>2012 Supply &amp; Demand Balance</b>	
<i>CRA Supply</i>	902,000
<i>SWP Supply</i>	1,148,000
<b>Total Supply</b>	<b>2,050,000</b>
<i>Member Agency Demand (based on last 12 months)</i>	1,645,000
<i>Obligations and Losses</i>	57,000
<b>Total Demand</b>	<b>1,702,000</b>
<b>Net to Storage</b>	<b>348,000</b>

### Attachments

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#### [Attachment 1: Metropolitan's Storage Program](#)

#### Detailed Report

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##### **CY 2011**

Calendar Year 2011 continued a dramatic turnaround in the water supply picture for Metropolitan and for California in general. The Northern Sierra and Upper Colorado River Basin received well above average rainfall during water year 2010/11 (the 12-month period between October 1, 2010 and September 30, 2011).

In the SWP system, Lake Oroville and San Luis Reservoir started the year below 50 percent of capacity. By year's end, both reservoirs are expected to be above 80 percent of capacity. In April 2011, the California Department of Water Resources made their fourth and final increase of the SWP Allocation to 80 percent of Table A.

On the CRA system, Lake Mead recovered from its lowest elevation level since its initial filling in 1937. By the end of the year, lake levels increased a full 40 feet of elevation, increasing Lake Mead storage by approximately 4 MAF.

Improved water supply conditions in early CY 2011 saw the Governor of California announce the end to the official drought in California. The conditions also resulted in Metropolitan's Board of Directors lifting the 22-month long implementation of the Water Supply Allocation Plan, restoring full imported water deliveries to Metropolitan's member agencies. Water supply conditions also made it possible to deliver Replenishment Service Program water to groundwater basins and surface storage.

In the service area, mild temperature conditions, above-normal precipitation, continued economic recession and a partial year of restricted water supplies under the Water Supply Allocation Plan contributed to continued low demand levels.

##### ***Colorado River Aqueduct***

Total supply from the CRA system is estimated at 870 TAF for 2011. This total supply includes Metropolitan's Basic Apportionment as well as supplies from the programs and transfers that have been established on the CRA system. The following table shows the detail of supplies from the CRA system.

Board Report (Water Surplus and Drought Management Plan)

<b>2011 Colorado River Aqueduct Supply</b>	
<i>Basic Apportionment</i>	550,000
<i>IID/MWD Conservation Program</i>	85,000
<i>PVID Following</i>	116,000
<i>Transfer to SDCWA (IID Transfer and Canal Lining)</i>	158,000
<i>Canal Lining Water to Metropolitan</i>	16,000
<i>Lower Colorado Water Supply Project</i>	3,000
<i>Yuma Desalter</i>	7,000
<i>Agricultural Adjustments</i>	-65,000
<b>CRA Supply</b>	<b>870,000</b>

**State Water Project System**

The total supply from the SWP system is estimated at 1.720 MAF. This total supply includes Metropolitan’s Table A supplies, Article 21 Interruptible supplies, Turnback Pool purchases, and other supplies. The following table shows the detail of supplies from the SWP system.

<b>2011 State Water Project Supply</b>	
<i>Table A</i>	1,529,000
<i>Article 21</i>	182,000
<i>Turnback Pool</i>	8,000
<i>Port Hueneme</i>	1,000
<b>SWP Supply</b>	<b>1,720,000</b>

**Demands, Obligations, and Losses**

Member Agency demand for water is relatively low compared to prior years due to several factors. Weather conditions have been cooler than normal, particularly during the summer months. Precipitation in Metropolitan’s service area was well above normal, driving demands lower. Member agency local supply production, from resources such as the Los Angeles Aqueduct, groundwater, and surface storage, has been higher this year, further reducing the demand for imported supplies from Metropolitan. Also, member agencies continued to conserve water supplies under Level 2 of the Water Supply Allocation Plan until Metropolitan’s Board of Directors removed the implementation of the WSAP in April. This further depressed demands in the first four months of this year. Figures below for estimated CY 2011 demand are based on monthly actual demand from January-October 2011 and estimates for November and December 2011.

<b>2011 Member Agency Demand</b>	
Full Service Sales	1,241,000
Interim Agricultural Water Program	21,000
Replenishment	225,000
SDCWA/IID Transfer	158,000
<b>Member Agency Demand</b>	<b>1,645,000</b>

## Board Report (Water Surplus and Drought Management Plan)

In addition to Member Agency Demands, Metropolitan supplies are used to meet other obligations and losses. This year's obligations include returning two thirds, or 78 TAF, of the water stored for Westlands Water District last year, returning 5 TAF of Power Plant Exchange water to Desert Water Agency (DWA), and delivering 105 TAF to Coachella Valley Water District (CVWD) as part of the Quantification Settlement Agreement (QSA). Metropolitan paid the current year obligation of 35 TAF plus two additional years in advance, 70 TAF, bringing the total to 105 TAF. Losses this year include the estimate of Metropolitan distribution system losses, estimated at 57 TAF, and losses associated with storing water in the Central Valley storage programs, estimated at 28 TAF.

<b>2011 Obligations and Losses</b>	
Return Westlands Water District Storage	78,000
DWA Power Plant Exchange	5,000
CVWD QSA	105,000
System Losses	57,000
Central Valley Storage Losses	28,000
<b>Obligations and Losses</b>	<b>273,000</b>

### ***Supply and Demand Balance***

The projected supply and demand balance for CY 2011 is shown below.

<b>2011 Supply &amp; Demand Balance</b>	
<i>CRA Supply</i>	870,000
<i>SWP Supply</i>	1,720,000
<b>Total Supply</b>	<b>2,590,000</b>
<i>Member Agency Demand</i>	1,645,000
<i>Obligations and Losses</i>	273,000
<b>Total Demand</b>	<b>1,918,000</b>
<b>Net to Storage</b>	<b>672,000</b>

### ***Storage***

Metropolitan has developed significant storage programs on the CRA and SWP systems and within its service area. Water stored in these programs can be used to augment water supplies when needed. At times when supplies exceed demands, water can be stored for future use. [Attachment 1](#) provides an overview of Metropolitan's water storage programs, including a review of the basic program parameters and an outline of the major factors for consideration for each program.

Metropolitan's WSDM dry-year storage totaled 1.702 MAF at the end of CY 2010. With a projected 672 TAF moving to storage this year, the end of CY 2011 dry-year storage is estimated to be 2.374 MAF. With an additional 626 TAF of emergency storage, Metropolitan will have about 3 MAF in total storage reserves to meet dry-year and emergency demands.

### **CY 2012**

#### ***Colorado River Aqueduct***

Total supply from the CRA system is estimated at 902 TAF for 2012.

## Board Report (Water Surplus and Drought Management Plan)

<b>2012 Colorado River Aqueduct Supply</b>	
<i>Basic Apportionment</i>	550,000
<i>IID/MWD Conservation Program</i>	85,000
<i>PVID Following</i>	77,000
<i>Transfer to SDCWA (IID Transfer and Canal Lining)</i>	171,000
<i>Canal Lining Water to Metropolitan</i>	16,000
<i>Lower Colorado Water Supply Project</i>	3,000
<i>Agricultural Adjustments</i>	0
<b>CRA Supply</b>	<b>902,000</b>

### ***State Water Project System***

On November 18, 2011, DWR announced the initial SWP Table A allocation for 2012 at 60 percent. This is a significant improvement from the 5 percent lowest initial allocation announced two years ago for CY 2010. The total supply from the SWP system is 1.148 MAF.

<b>2012 State Water Project Supply</b>	
<i>Table A</i>	1,147,000
<i>Port Hueneme</i>	1,000
<b>SWP Supply</b>	<b>1,148,000</b>

### ***Demands, Obligations, and Losses***

Assuming demand levels similar to the last 12 months, member agency demands are estimated at 1.645 MAF.

<b>2012 Member Agency Demand</b>	
Member Agency Demand (based on last 12 months)	<b>1,645,000</b>

Currently, there are no outstanding obligations for 2012. Losses this year include an estimate of Metropolitan distribution system losses at 57 TAF.

<b>2012 Obligations and Losses</b>	
System Losses	57,000
<b>Obligations and Losses</b>	<b>57,000</b>

### ***Supply and Demand Balance***

The supply and demand balance for CY 2012 is shown below.

<b>2012 Supply &amp; Demand Balance</b>	
<i>CRA Supply</i>	902,000
<i>SWP Supply</i>	1,148,000
<b>Total Supply</b>	<b>2,050,000</b>
<i>Member Agency Demand (based on last 12 months)</i>	1,645,000
<i>Obligations and Losses</i>	57,000
<b>Total Demand</b>	<b>1,702,000</b>
<b>Net to Storage</b>	<b>348,000</b>

## Board Report (Water Surplus and Drought Management Plan)

### *Storage*

Metropolitan's WSDM storage at the beginning of CY 2012 is estimated to be 2.374 MAF. With the currently projected net storage of 348 TAF, storage would increase to 2.722 by the end of 2012. Demands and supplies will change over the course of the year as conditions develop, so actual end of 2012 storage will be different. At the current SWP allocation level of 60 percent, Metropolitan's estimated put capacity to manage supplies into storage for CY 2012 is approximately 500 TAF. **Attachment 1** provides a discussion of storage capacities and major considerations for Metropolitan's storage programs.