



THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

July 25, 2011

Mr. Steve Hvinden
Area Manager
Boulder Canyon Operations Office
U.S. Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Mr. Hvinden:

Metropolitan's 2012 Plan for the Creation of
Extraordinary Conservation Intentionally Created Surplus

In accordance with Section 3.B.1. of the Interim Guidelines for the Operation of Lake Powell and Lake Mead, enclosed is The Metropolitan Water District of Southern California's (Metropolitan) Plan for the Creation of Extraordinary Conservation Intentionally Created Surplus During Calendar Year 2012 (Plan). We are seeking approval to create 200,000 acre-feet of Extraordinary Conservation Intentionally Created Surplus during 2012. Metropolitan's Plan demonstrates how all requirements of the Guidelines will be met in the creation of Extraordinary Conservation Intentionally Created Surplus.

Metropolitan appreciates the extension of time granted to submit its Plan. In preparing its Plan, Metropolitan has followed the Bureau of Reclamation's November 23, 2010, revised draft "Procedures for Administering the Intentionally Created Surplus and Developed Shortage Supply Program". From Metropolitan's perspective, it is critical that Reclamation adopt final Procedures as soon as feasible after an opportunity for comment is afforded, should additional revisions be proposed.

Metropolitan looks forward to the Secretary of the Interior's review and approval of the Plan in consultation with the Lower Division States. Should you have any questions regarding our Plan, please contact Jan Matusak of Metropolitan's staff at (213) 217-6772.

Very truly yours,


William Hasencamp
Manager of Colorado River Resources

JPM:vs

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Enclosure

The Metropolitan Water District of Southern California

Plan for the Creation of Extraordinary Conservation Intentionally Created Surplus During Calendar Year 2012

Introduction

This plan for the creation of Extraordinary Conservation Intentionally Created Surplus (ICS) has been prepared pursuant to the specifications outlined in Section 3.B.1 on page 40 of the *Record of Decision: Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead* signed by the Secretary of the Interior (Secretary) on December 13, 2007.

Three separate activities are described in this plan, each of which are incorporated as an exhibit to the December 13, 2007, *Lower Colorado River Basin Intentionally Created Surplus Forbearance Agreement* among the Arizona Department of Water Resources, the Palo Verde Irrigation District, the Imperial Irrigation District, the City of Needles, the Coachella Valley Water District, the Metropolitan Water District of Southern California (Metropolitan), the Southern Nevada Water Authority, and the Colorado River Commission of Nevada.

The projected yields of these extraordinary conservation activities for calendar year 2012 are as follows:

	<u>acre-feet</u>
Activity 1: Metropolitan Funded Palo Verde Irrigation District Forbearance and Fallowing Program	116,000*
Activity 2: Metropolitan Funded Imperial Irrigation District Water Conservation Program	105,000**
Activity 3: Metropolitan Funded Water Supply from Desalination	<u>56,300</u>
Total	277,300

*Amount may be reduced depending upon Metropolitan's fallowing call for the period beginning August 1, 2012.

**Amount may be reduced depending upon Coachella Valley Water District's use of up to 20,000 acre-feet.

From the yields of these extraordinary conservation activities, Metropolitan plans to create a total of 200,000 acre-feet of Extraordinary Conservation ICS during 2012.

Documentation that the ICS Plan of Creation is in Conformance with any State or Agency Agreements regarding ICS

The amount of Extraordinary Conservation ICS that Metropolitan plans to create is within the limits of Extraordinary Conservation ICS that can be created and accumulated in Lake Mead by Metropolitan under the December 13, 2007, *California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus*. Absent the creation of

Plan for the Creation of Extraordinary Conservation Intentionally Created Surplus
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Extraordinary Conservation ICS, this water would otherwise be beneficially used by Metropolitan through diversion into the Colorado River Aqueduct. The amount of Extraordinary Conservation ICS that Metropolitan may create is limited to the amount of Colorado River water that, if added to its consumptive use, would not result in an inadvertent overrun pursuant to the Bureau of Reclamation's (Reclamation) October 10, 2003, Inadvertent Overrun and Payback Policy. Reclamation has previously received a copy of the December 13, 2007, Agreement which documents the terms and conditions for the creation and delivery of Extraordinary Conservation ICS by the California water agencies which are parties to the Agreement.

Activity 1: Metropolitan Funded Palo Verde Irrigation District Forbearance and Fallowing Program

Project Description

Under the August 18, 2004, *Forbearance and Fallowing Program Agreement* with the Palo Verde Irrigation District (PVID) and landowner agreements for fallowing in PVID, Metropolitan pays landowners within the Palo Verde Valley to annually fallow a portion of their land, foregoing the planting and irrigation of crops, allowing PVID to forbear use of water on lands that historically were and otherwise would be irrigated, increasing the amount of water available to Metropolitan.

The volume of water that becomes available to Metropolitan is governed by the October 10, 2003, *Quantification Settlement Agreement*¹ (QSA) and the October 10, 2003, *Colorado River Water Delivery Agreement*.² Under these agreements:

- Metropolitan must reduce its consumptive use of Colorado River water by that volume of consumptive use by PVID and holders of Priority 2³ that is greater than 420,000 acre-feet in a calendar year, or
- Metropolitan may increase its consumptive use of Colorado River water by that volume of consumptive use by PVID and holders of Priority 2 that is less than 420,000 acre-feet in a calendar year.

In both cases, each acre-foot of reduced consumptive use by PVID is an additional acre-foot that becomes available to Metropolitan.

Palo Verde Valley landowners voluntarily decided in 2004 whether to participate in the 35-year program, with those participants agreeing to stop irrigating from 9 to 35 percent of their land in any year at Metropolitan's request. Upon one-year notice, Metropolitan has the option to change the percentage of land fallowed, with an increase in the percentage effective for a two-year period. The land taken out of agricultural production is maintained and rotated once every one to five years. The maximum amount of farmland taken out of production at any one time is 25,947 acres; however, fallowing in excess of 23,508 acres is limited to a total of ten years under the 35-year program. The landowner is responsible for payment of taxes, PVID water tolls, vegetation abatement, dust control and all other costs related to the fallowed lands. Parcels to be fallowed must be at least 5 acres. Through June 2011, Metropolitan has paid a total of \$172 million in Program costs and anticipates paying another \$16.8 million in Program costs in September 2011.

¹ The parties to the Quantification Settlement Agreement are Imperial Irrigation District, Coachella Valley Water District, and Metropolitan.

² The parties to the Colorado River Water Delivery Agreement are the United States, Imperial Irrigation District, Coachella Valley Water District, Metropolitan, and the San Diego County Water Authority.

³ The Yuma Project Reservation Division holds California's Priority 2.

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Activity 1

Term of the Activity

The Forbearance and Fallowing Program Agreement with PVID terminates on July 31, 2040. Metropolitan has issued a Fallowing Call for 25,947 acres for the period commencing August 1, 2010 through July 31, 2012. Metropolitan will issue a Fallowing Call for the period commencing August 1, 2012 through July 31, 2014 by August 1, 2011.

Estimate of the Amount of Water that Will be Conserved and Description of How it is Estimated

The volume of projected savings during calendar year 2012 is 116,310 acre-feet based on the amount of water used for irrigation in the Palo Verde Valley in 2010. The monthly tabulation of this projected savings is as follows:

Month	Monthly Irrigation Use Fraction*	Number of Acres to be Fallowed	Reduced Consumptive Use (acre-feet)**
January	-0.217130	25,947	-5,634
February	-0.102996	25,947	-2,672
March	0.386872	25,947	10,038
April	0.473307	25,947	12,281
May	0.692521	25,947	17,969
June	0.787393	25,947	20,430
July	0.940505	25,947	24,403
August	0.782556	25,947***	20,305***
September	0.501939	25,947***	13,024***
October	0.156367	25,947***	4,057***
November	0.095415	25,947***	2,476***
December	-0.014151	25,947***	-367***
Total			116,310***

*Monthly fraction of annual use of 4.482598 acre-feet per acre.
**Volumes rounded to the nearest acre-foot.
***Amount may be reduced depending upon fallowing call.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon designation of fallowed acreage, a Metropolitan representative visits the field on the date when fallowing is to commence and verifies that fallowing conditions have been met. The same procedure is followed when program participants make changes in the area or location of fallowed lands.

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Activity 1

In addition to field verification by Metropolitan, Reclamation staff plan to conduct an independent verification during the spring and fall of 2012. Similar to past years' practice, Reclamation staff plans to select 5 percent of the acreage fallowed for inspection. On-site inspection would be made of all selected fields to observe fallowing conditions and take photographs. A report would be prepared that confirms extraordinary conservation implementation, and includes field observations and relevant photographs of fallowing conditions in PVID.

A calendar year 2012 Fallowed Land Verification Report will be prepared jointly by PVID, Metropolitan, and Reclamation. The Report will determine the actual amount of water saved in 2012 by the Program.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to the provisions of the California Environmental Quality Act (CEQA), PVID, certified the "Final Environmental Impact Report for the Proposed Palo Verde Irrigation District Land Management, Crop Rotation and Water Supply Program" and adopted its Findings of Fact on September 18, 2002. Because no significant impacts would result with Program implementation, as determined by PVID, no statement of overriding considerations and no mitigation monitoring or reporting program were required. Metropolitan certified that it reviewed and considered the information in the certified 2002 Final EIR and adopted PVID's findings on October 22, 2002.

Documentation that the Intentionally Created Surplus Is in Addition to Conservation Implemented to Meet Other Obligations

Metropolitan is the beneficiary of the conserved water through the August 18, 2004, *Forbearance and Fallowing Program Agreement* with PVID and landowner agreements for fallowing in PVID. Metropolitan would not transfer the conserved water to another agency, nor would Metropolitan conserve the water for another agency, nor would Metropolitan pay back an Inadvertent Overrun and Payback Policy obligation in 2012 as Metropolitan does not have existing obligations to do so. Reclamation has previously received a copy of the August 18, 2004 Agreement, including its Exhibit A, the form of the *Landowner Agreement for Fallowing in the Palo Verde Irrigation District*, which documents the terms and conditions of the Program.

Total Volume of Water to be Conserved and/or the Time Period for the Conservation Project

The total volume of water to be conserved by the Program is estimated to range from 1.83 million acre-feet to 3.83 million acre-feet over the period January 1, 2005 to July 31, 2040, the date on which the Agreement terminates.

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Activity 1

Capital Investment Required to Implement the Project

Metropolitan invested \$73.5 million in sign-up payments paid to Palo Verde landowners, \$6 million in funding for community improvement programs paid to the Palo Verde Valley Community Improvement Fund, and expended \$3.3 million in Program setup costs.

Annual Operation, Maintenance, and Replacement Costs

Annual payments to landowners, Metropolitan tenants, and for administrative costs to PVID through 2010 have been as follows:

Year	Annual Payments to:	
	Landowners and Metropolitan Tenants (million \$)	PVID (million \$)
2005	21.0	1.0
2006	8.5	0.5
2007	8.7	0.3
2008	15.6	0.1
2009	16.2	0.2
2010	16.6	0.2

Amount of Water Conserved by the Program to Date and Utilization of the Conserved Water to Date to Meet Specific Conservation Requirements Including ICS Creation

Water saved by the Program has assisted in meeting the 2006 and 2009 benchmarks, and the 2005, 2007, 2008, and 2010 targets specified in Exhibit B of the October 10, 2003, *Colorado River Water Delivery Agreement*⁴. The amount of the water saved by the Program to date and the amount of ICS created have been as follows:

Year	Amount of Water Saved (acre-feet)	Amount of ICS Created (acre-feet)
2005	108,666	
2006	102,039*	50,000
2007	65,310**	2,382
2008	94,303	0
2009	120,247***	55,836
2010	116,310****	100,864

* Excludes 3,000 acre-feet of water saved which was provided to Reclamation for system conservation.
 ** Excludes 7,000 acre-feet of water saved which was provided to Reclamation for system conservation.
 *** Excludes 24,078 acre-feet of water saved by the Emergency Following Program.
 **** Excludes 32,304 acre-feet of water saved by the Emergency Following Program.

⁴ All consumptive use of priorities 1 through 3 plus 14,500 acre-feet of miscellaneous and Indian reservations present perfected rights' use must be within 25,000 acre-feet of the amount stated in Exhibit B.

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Activity 1

Time Remaining for the Program and/or the Volume of Water that Remains to be Conserved

The Program is scheduled to end on July 31, 2040. The volume of water that remains to be conserved ranges from a minimum of 1.10 million acre-feet to a maximum of 3.09 million acre-feet over the period January 1, 2012 to July 31, 2040.

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Activity 2: Metropolitan Funded Imperial Irrigation District Water Conservation Program

Project Description

Under the December 22, 1988, *Agreement for the Implementation of a Water Conservation Program and Use of Conserved Water* (1988 Conservation Agreement) as amended and the December 19, 1989, *Approval Agreement* (1989 Approval Agreement) as amended, Metropolitan has funded water efficiency improvements within the Imperial Irrigation District's (IID) service area in return for IID's agreement to not use 105,000 acre-feet of water annually.

The program implemented structural and non-structural measures—extraordinary measures to conserve water—including,

- concrete lining of 13 miles of existing main canals and 200 miles of lateral canals,
- construction of two local reservoirs and three spill-interceptor canals with four reservoirs,
- installation of 14 non-leak gates,
- automation of the distribution system,
- delivery of water to farmers on a 12-hour basis,
- improvements in on-farm water management through the installation of drip irrigation systems, and
- installation of tailwater pumpback systems.

Through June 2011, Metropolitan has paid IID a total of \$254.9 million for program costs.

Term of the Activity

The term of the 1988 Conservation Agreement as amended and the 1989 Approval Agreement as amended, extends through at least December 31, 2041, or 270 days beyond the termination of the October 10, 2003, *Quantification Settlement Agreement*, whichever is later, with extensions to this term as specified in the agreements.

Estimate of the Amount of Water that Will be Conserved

As specified in the May 14, 2007, second amendment to the 1988 Conservation Agreement, 105,000 acre-feet of water will be made available by the program during calendar year 2012. Of this volume, pursuant to the 1989 Approval Agreement, Metropolitan would reduce its use of this water by up to 20,000 acre-feet to leave that water available for diversion by the Coachella Valley Water District (CVWD) should CVWD request delivery of this water. Exhibit H to the *Lower Colorado River Basin ICS Forbearance Agreement* provides that:

“The amount of EC ICS that can be created during any Year is limited to the amount of water resulting from the program that Metropolitan does not consumptively use, up to

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Activity 2

105,000 acre-feet, plus any reduction in calculated IID conveyance losses as a result of IID conveying less water through its conveyance and distribution system due to the conservation of water from this program. The volume of water conserved annually pursuant to this program to be devoted to the creation of EC ICS credits is further limited to the quantities set forth in the following...:

Limitations on Creation of EC ICS

...

- c) The amount of EC ICS created pursuant to this Exhibit is limited to the IID reduction shown in column 4 of Exhibit B to the October 10, 2003 Colorado River Water Delivery Agreement, less any portion of that reduction that results in delivery of water to Coachella Valley Water District.”

Proposed Methodology for Verification of the Amount of Water Conserved

IID’s reduction in net diversions at Imperial Dam permits the Secretary to deliver water made available for Metropolitan absent the creation of Extraordinary Conservation ICS.

Through 2006, the Conservation Verification Consultants prepared and presented to the Water Conservation Measurement Committee an annual report on the estimated amount of water conserved by the program and each project thereof. A Systemwide Monitoring Program was developed to identify and explain trends in IID system performance as a function of the operational environment within which the IID/Metropolitan conservation projects operated. The Systemwide Monitoring Program was designed to function over the life of the IID/Metropolitan program to:

- Identify changes in on-farm irrigation practices.
- Identify changes in main and lateral canal operations and zanjero accounting procedures.
- Provide data support for the five-year verification updates.
- Provide a basis for separating water savings associated with IID/Metropolitan-sponsored conservation projects from water savings associated with measures implemented by others. In this case, the Systemwide Monitoring Program provides valuable baseline data for separating the effects of a new program from those attributable to the IID/Metropolitan program.
- Fulfill the requirement for overall verification specified in the 1989 Approval Agreement.

Forty sites were selected and developed to provide data required for systemwide monitoring.

In order to collect and process the flow data needed in support of the water conservation verification activities for the 1988 Conservation Agreement projects, an automated data collection, quality control, processing and retrieval system was developed under the IID/Metropolitan program. The system was designed to include many of the control sites for the

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Activity 2

various projects as well as the sites needed for systemwide monitoring. In December 1995, data processing procedures developed by the Conservation Verification Consultants were institutionalized and incorporated into IID's Water Information System.

Beginning January 1, 1996, conservation verification data were processed and stored using Water Information System applications and capabilities. IID data collected prior to January 1, 1996, which were processed by the Conservation Verification Consultants for use in determining annual projected water conservation savings over the life of the program, were also stored in the Water Information System. The Water Information System management system was developed to generate daily, monthly, calendar year, and water year tables, summary tables and bar charts that have been presented in an annual Processed Flow Data document and an annual Projected Water Conservation Savings report.

The last published Projected Water Conservation Savings report will be made available to Reclamation upon its request.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Metropolitan's Board of Directors certified on December 22, 1988, that it reviewed and considered the environmental information contained in the final program Environmental Impact Report prepared by IID entitled "Proposed Water Conservation Program and Initial Water Transfer". Reclamation complied with the National Environmental Policy Act through execution of Categorical Exclusion No. LC-89-2 on January 6, 1989, for the "Water Conservation Program, Imperial Irrigation District, Imperial County, California".

Project specific documents completed by IID pursuant to the California Environmental Quality Act are described in the table on the following page.

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Activity 2

Project Name	California Environmental Quality Act Documentation
Trifolium Reservoir Project	Negative Declaration filed on August 20, 1986
South Alamo Canal Lining Phase I Project	Categorical Exemption filed on September 11, 1987
South Alamo Canal Lining Phase II Project	Categorical Exemption filed on September 6, 1989
“Z” Reservoir	Initial Environmental Study published in May 1989; Negative Declaration published on September 6, 1989; Addendum to the Negative Declaration filed on November 22, 1989
Lateral Concrete Lining Project, 265 Miles	Environmental Assessment and Initial Study published in January 1990; Categorical Exemption filed on January 26, 1990
Rositas Supply Canal Concrete Lining Project	Environmental Assessment and Initial Study published in June 1990; Categorical Exemption filed on August 15, 1990
Vail Supply Canal Lining Project	Categorical Exemption filed on August 15, 1990
Lateral Interceptor Pilot Project	Initial Environmental Study published in April 1990; Negative Declaration published on May 23, 1990; and an Addendum to the Negative Declaration filed on August 15, 1990
Westside Main Canal Concrete Lining Project	Initial Environmental Study published in June 1990; Negative Declaration filed on October 5, 1990
System Automation Project	Categorical Exemption published in July 1990; Categorical Exemption filed on September 11, 1990
Westside Main Canal Concrete Lining Project	Initial Environmental Study published in June 1990; Negative Declaration filed on October 5, 1990
Non-Leak Gates Project	Categorical Exemption published in August 1990 and filed on September 6, 1990
12-Hour Delivery Project	Categorical Exemption filed on December 21, 1990
Irrigation Water Management Project	IID determined Project to be exempt from the California Environmental Quality Act on August 23, 1991
Modified East Lowline and Trifolium Interceptors, and Completion Projects	Final Environmental Impact Report published in May 1994; on June 8, 1994, IID certified the Final Environmental Impact Report, made a Statement of Findings and adopted a Statement of Overriding Considerations

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Activity 2

Documentation that the Intentionally Created Surplus Is in Addition to Conservation Implemented to Meet Other Obligations

Metropolitan is the beneficiary of the water being conserved through the 1988 Conservation Agreement and the 1989 Approval Agreement. While Metropolitan would not transfer the conserved water to another agency, nor would Metropolitan pay back an Inadvertent Overrun and Payback Policy obligation in 2012 as Metropolitan does not have existing obligations to do so, Metropolitan may be requested to reduce its use of the conserved water by up to 20,000 acre-feet in 2012 by CVWD. Reclamation has previously received a copy of the 1988 Conservation Agreement, 1989 Approval Agreement and amendments, which document the terms and conditions of the Program.

Total Volume of Water to be Conserved and/or the Time Period for the Conservation Project

The total volume of water to be conserved by the Program is estimated to range from 5.08 million acre-feet over the period January 1, 1990 to December 31, 2041 to 8.94 million acre-feet over the period January 1, 1990 to September 27, 2078—which would be 270 days after the termination of the QSA, provided that the QSA does not terminate until December 31, 2077. The agreement could extend beyond September 27, 2078 pursuant to Section 3.5 of the 1988 Conservation Agreement, and would continue thereafter until terminated as specified in Section 7.2 or in Article V of the 1988 Conservation Agreement.

Capital Investment Required to Implement the Project

Metropolitan invested \$112.5 million in capital and \$23 million in indirect payments paid to IID.

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Activity 2

Annual Operation, Maintenance, and Replacement Costs

Annual direct payments to IID through June 2011 have been as follows:

Year	(million \$)
1990	0.6
1991	1.1
1992	2.3
1993	2.8
1994	1.9
1995	2.8
1996	1.8
1997	6.5
1998	4.8
1999	5.5
2000	5.5
2001	4.4
2002	5.8
2003	6.8
2004	7.9
2005	8.1
2006	8.8
2007	9.0
2008	9.8
2009	8.7
2010	10.1
2011 through June	4.3

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Activity 2

Amount of Water Conserved by the Program to Date and Utilization of the Conserved Water to Date to Meet Specific Conservation Requirements Including ICS Creation

Water saved by the Program has assisted in meeting the 2003, 2006 and 2009 benchmarks, and the 2004, 2005, 2007, 2008, and 2010 targets specified in Exhibit B of the October 10, 2003, *Colorado River Water Delivery Agreement*¹. The amount of the water saved by the Program to date and the amount of ICS created have been as follows:

Year	Amount of Water Conserved (acre-feet)	Amount of ICS Created (acre-feet)
1990	6,110	
1991	26,700	
1992	33,929	
1993	54,830	
1994	72,870	
1995	74,570	
1996	90,880	
1997	97,740	
1998	107,160	
1999	108,500	
2000	109,460	
2001	106,880	
2002	104,940	
2003	105,130	
2004	101,900	
2005	101,940	
2006	101,160	
2007	105,000	0
2008	105,000	0
2009	105,000	0
2010	105,000	0

Time Remaining for the Program and/or the Volume of Water that Remains to be Conserved

The total volume of water to be conserved by the Program is estimated to range from 3.15 million acre-feet over the period January 1, 2012 to December 31, 2041 to 7.01 million acre-feet over the period January 1, 2012 to September 27, 2078—which would be 270 days after the termination of the QSA, provided that the QSA does not terminate until December 31, 2077. The agreement could extend beyond September 27, 2078 pursuant to Section 3.5 of the 1988 Conservation Agreement, and would continue thereafter until terminated as specified in Section 7.2 or in Article V of the 1988 Conservation Agreement.

¹ All consumptive use of priorities 1 through 3 plus 14,500 acre-feet of miscellaneous and Indian reservations present perfected rights' use must be within 25,000 acre-feet of the amount stated in Exhibit B.

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Activity 3: Metropolitan Funded Water Supply from Desalination

Metropolitan provides financial support to its member agencies to implement groundwater desalination projects in its service area that are described below.

Metropolitan enters into agreements to pay for water produced by each individual project for multi-year terms. Metropolitan contributions are based on a sliding scale up to \$250 per acre-foot. To receive a contribution, project unit costs must exceed a unit rate established by Metropolitan, which is \$817 per acre-foot for calendar year 2012. When the project unit cost is less than or equal to this rate, the Metropolitan contribution is zero.

In order to determine the appropriate Metropolitan contribution, agencies are required to submit to Metropolitan annual project costs and production data at the conclusion of each fiscal year of operation. Metropolitan verifies the amount of desalted water production and associated project unit cost through an annual reconciliation process. In addition, Metropolitan periodically conducts an audit of agencies' records pertaining to desalted water production and costs.

The projected yield of these groundwater desalination projects for calendar year 2012 are as follows:

Project	Projected 2012 Yield (acre-feet)
Beverly Hills Desalter	1,300
Capistrano Beach Desalter	600
Chino Basin Desalination Program	24,600
Irvine Desalter	4,300
Lower Sweetwater Desalter	3,200
Madrona Desalination Facility	1,500
Menifee Desalter	2,800
Oceanside Desalter (Mission Basin Expansion)	2,900
San Juan Basin Desalter	2,400
Temescal Basin Desalter	10,000
Tustin Desalter	2,000
West Basin Desalter	700
Total	56,300

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Activity 3

Beverly Hills Desalter

Project Description

The Beverly Hills Desalter includes a treatment plant, extraction wells, a collection pipeline, a booster pump, a product water pipeline to connect to Beverly Hills' water distribution system, and a concentrate waste disposal pipeline. The project pumps and treats brackish groundwater from the Hollywood Basin. Concentrate is discharged to the sanitary sewer system through which it is conveyed to the City of Los Angeles' Hyperion Wastewater Treatment Plant.

Term of the Activity

The 20-year agreement between Metropolitan and the City of Beverly Hills terminates at the end of April 2023.

Estimate of the Amount of Water that Will be Conserved

The Beverly Hills Desalter is projected to produce 1,300 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the Beverly Hills Desalter.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, Beverly Hills prepared and approved a Mitigated Negative Declaration for the Beverly Hills Desalter. Beverly Hills filed a Notice of Determination for the project on August 19, 1998. Metropolitan's Board of Directors certified that it reviewed and considered the information provided in the Mitigated Negative Declaration for the Beverly Hills Desalter and adopted Beverly Hills' findings related to the project on September 15, 1998.

Capistrano Beach Desalter

Project Description

The Capistrano Beach Desalter includes a treatment plant, extraction wells, a collection pipeline, a booster pump, a product water pipeline to connect to South Coast Water District's water distribution system, and a concentrate waste disposal pipeline. The project pumps and treats brackish groundwater from the San Juan Basin. Concentrate is discharged to the Chiquita Ocean Outfall.

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Activity 3

Term of the Activity

The 20-year agreement between Metropolitan, Municipal Water District of Orange County and the South Coast Water District will terminate on June 30, 2026.

Estimate of the Amount of Water that Will be Conserved

The Capistrano Beach Desalter is projected to produce 600 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the Capistrano Beach Desalter.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, South Coast Water District approved a Program EIR for the San Juan Capistrano Property and the Project in December 2002. An additional Mitigated Negative Declaration for the project was adopted in 2003.

Chino Basin Desalination Program

Project Description

The Chino Basin Desalter No. 1 treats groundwater containing high concentrations of total dissolved solids and nitrates, and conveys product water to the cities of Chino, Chino Hills, and Norco and Jurupa Community Services District. Groundwater is pumped from 14 wells throughout the Chino Basin area to the Desalter, where reverse osmosis is utilized. The project includes a pipeline and structures connecting existing Jurupa and City of Ontario water systems, a three-million gallon reservoir, and two booster pumping stations. Brine is transported by a regional brine line and subsequently discharged to the ocean. The Chino Basin Desalter No. 1 has been expanded to 14.2 million gallons per day by including an ion exchange treatment system and product water is conveyed to the City of Ontario as well.

The Chino Basin Desalter No. 2 serves water to Jurupa, Ontario, Norco and the Santa Ana River Water Company. Groundwater from eight wells in the Mira Loma area is treated by reverse osmosis (six million gallons per day) and ion exchange (four million gallons per day) treatment systems. The project includes pipelines to convey degraded water to the desalting facilities, pipelines to convey treated water to the existing potable systems, a three-million gallon clearwell, a five-million gallon storage reservoir, and three booster pumping stations.

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Activity 3

Term of the Activity

For the Chino Basin Desalter No. 1, the 20-year agreement among Metropolitan, Inland Empire Utilities Agency, and Western Municipal Water District terminates at the end of September 2020.

For the Chino Basin Desalter No. 2, the 25-year agreement among Metropolitan, Inland Empire Utilities Agency, Chino Desalter Authority, and Western Municipal Water District terminates at the end of July 2032.

Estimate of the Amount of Water that Will be Conserved

The Chino Basin Desalination Program is projected to produce 24,600 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for Chino Basin Desalter No. 1 and Chino Basin Desalter No. 2.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, the Santa Ana Watershed Project Authority (SAWPA) prepared three Negative Declarations for the Chino Basin Desalter No. 1. SAWPA signed Notices of Determination for the project on September 16, 1991 (Chino Basin Desalter No. 1), December 30, 1991 (Chino West Desalter), and June 12, 1992 (Chino Basin Desalination System). Mitigation measures were adopted by SAWPA. Metropolitan's Board of Directors certified that it reviewed and considered the Negative Declarations for the project on May 10, 1994.

Metropolitan's Board of Directors determined that the proposed actions, including authorizing the General Manager to execute the Chino Basin Desalter No. 2 agreement, were exempt from CEQA pursuant to Sections 15306 and 15378(b)(4) of the State CEQA Guidelines on June 12, 2007.

Irvine Desalter

Project Description

The Irvine Desalter includes a seven million gallon per day reverse osmosis desalination system, nine wells, yard piping, and brine disposal piping. Treatment facilities consist of threshold inhibitor and acid injection systems, cartridge filters, booster pumps, reverse osmosis membrane units, decarbonation facilities, chlorine disinfection, and an on-site storage reservoir. Brackish

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water is pumped from the Orange County Basin. Product water is delivered to the Irvine Ranch Water District's service area. Brine is discharged at the County Sanitation Districts of Orange County (CSDOC) facility in Fountain Valley.

Term of the Activity

The 20-year agreement between Metropolitan, Municipal Water District of Orange County, Orange County Water District (OCWD) and the Irvine Ranch Water District will terminate at the end of August 2027.

Estimate of the Amount of Water that Will be Conserved

The Irvine Desalter is projected to produce 4,300 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the Irvine Desalter.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, OCWD filed a Notice of Preparation of an Environmental Impact Report (EIR) on October 27, 1989. The final EIR was adopted in 1990.

Lower Sweetwater Desalter

Project Description

The Lower Sweetwater Desalter includes wells, replenishment facilities, a treatment plant, neutralization plant, brine disposal, and pipelines. The treatment plant employs reverse osmosis and blending to desalt brackish water. Product water is pumped to the Sweetwater Authority's distribution system for use by National City and South Bay Irrigation District. Concentrate is discharged to San Diego Bay through the Upper Paradise Creek flood control channel.

Term of the Activity

The 20-year agreement between Metropolitan and the San Diego County Water Authority terminates at the end of January 2020.

Estimate of the Amount of Water that Will be Conserved

The Lower Sweetwater Desalter is projected to produce 3,200 acre-feet of water during calendar year 2012.

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Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the Lower Sweetwater Desalter.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, the Sweetwater Authority prepared and certified an EIR for the Lower Sweetwater Desalter. Mitigation measures were made a condition of approval of the project by the Sweetwater Authority. A Notice of Determination for the project was filed on May 23, 1996. Metropolitan's Board of Directors certified that it reviewed and considered the EIR for the project on July 9, 1996.

Madrona Desalination Facility

Project Description

The Madrona Desalination Facility includes two wells and treatment of water from the West Coast Basin by reverse osmosis. Product water is conveyed to the City of Torrance's distribution system by booster pump. Concentrate is discharged to the ocean.

Term of the Activity

The 20-year agreement between Metropolitan and the City of Torrance terminates at the end of June 2022.

Estimate of the Amount of Water that Will be Conserved

The Madrona Desalination Facility is projected to produce 1,500 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the Madrona Desalination Facility.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, the Water Replenishment District of Southern California (WRD) prepared and approved a Mitigated Negative Declaration for the Madrona Desalination Facility. Metropolitan's Board of Directors certified that it reviewed and considered the Initial Findings

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and Mitigated Negative Declaration for the project and adopted the WRD finding related to the project on October 13, 1998.

Meniffee Desalter

Project Description

The Meniffee Desalter treats brackish water from five wells in the Perris and Meniffee Subbasins through reverse osmosis. Product water is pumped into Eastern Municipal Water District's potable distribution system. Concentrate is disposed through the Temescal Valley and Santa Ana regional interceptors to the ocean.

Term of the Activity

The 20-year agreement between Metropolitan and Eastern Municipal Water District terminates at the end of November 2022.

Estimate of the Amount of Water that Will be Conserved

The Meniffee Desalter is projected to produce 2,800 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the Meniffee Desalter.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, the Eastern Municipal Water District prepared an EIR for the Meniffee Desalter. On February 9, 1993, Metropolitan's Board of Directors certified that it considered the environmental effects of the Meniffee Basin Desalter as shown in the EIR prior to making a decision on the project and found that the mitigation measures for the project were within the responsibility and jurisdiction of other public agencies and have been or can and should be adopted by those agencies.

Oceanside Desalter (Mission Basin Expansion)

Project Description

The Oceanside Desalter (Mission Basin Expansion) includes three wells, a cartridge filtration facility, and water conveyance facilities. Brackish water is pumped from the Mission Basin. Product water is delivered to the City of Oceanside. Concentrate is disposed into the ocean.

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Term of the Activity

The 20-year agreement between Metropolitan and the San Diego County Water Authority terminates at the end of July 2023.

Estimate of the Amount of Water that Will be Conserved

The Oceanside Desalter (Mission Basin Expansion) is projected to produce 2,900 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the Oceanside Desalter (Mission Basin Expansion).

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, the City of Oceanside, prepared and approved a Negative Declaration and Notice of Exemption for the Oceanside Desalter (Mission Basin Expansion). Mitigation measures were made a condition of approval of the project by Oceanside. A Notice of Exemption for the project was filed on February 11, 1998 and a Notice of Determination for the project was filed on July 22, 1998. Metropolitan's Board of Directors certified that it reviewed and considered the Negative Declaration and Notice of Exemption for the project and adopted Oceanside's finding related to the project on August 18, 1998.

San Juan Basin Desalter

Project Description

The San Juan Basin Desalter consists of five wells, a four million gallon per day reverse osmosis treatment plant, pretreatment to remove iron and manganese, a pump station, a product water pipeline, and a concentrate disposal pipeline. Brackish water is pumped from the Lower San Juan Basin. Product water is delivered to the Capistrano Valley Water District. Concentrate is conveyed to the ocean through the Chiquita Land Outfall and the Serra Ocean Outfall.

Term of the Activity

The 20-year agreement between Metropolitan and the Municipal Water District of Orange County terminates at the end of December 2024.

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Estimate of the Amount of Water that Will be Conserved

The San Juan Basin Desalter is projected to produce 2,400 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the San Juan Basin Desalter.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, the San Juan Basin Authority prepared and approved a Mitigated Negative Declaration for the San Juan Basin Groundwater Management and Facility Plan that addressed the San Juan Basin Desalter. Metropolitan's Board of Directors certified that it reviewed and considered the information provided in the Mitigated Negative Declaration for the Plan prior to reaching a decision on the project and adopted the San Juan Basin Authority's findings related to the project on August 18, 1998.

Temescal Basin Desalter

Project Description

The Temescal Basin Desalter includes wells, reverse osmosis treatment, transmission, product water, and brine disposal pipelines. Brackish water is pumped from the Temescal Subbasin. Product water is delivered to the City of Corona. Brine is discharged to the ocean through the Santa Ana Regional Interceptor.

Term of the Activity

The 20-year agreement between Metropolitan and Western Municipal Water District terminates at the end of July 2021.

Estimate of the Amount of Water that Will be Conserved

The Temescal Basin Desalter is projected to produce 10,000 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the Temescal Basin Desalter.

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Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, Corona prepared and approved a Mitigated Negative Declaration for the Temescal Basin Desalter. Mitigation measures were made a condition of approval of the project. Metropolitan's Board of Directors certified that it reviewed and considered the information provided in the Mitigated Negative Declaration for the Temescal Basin Desalter and adopted Corona's findings related to the project on February 9, 1999.

Tustin Desalter

Project Description

The Tustin Desalter includes wells, a two million gallon per day reverse osmosis desalination plant, and pipeline. Brackish water is pumped from the Orange County Basin. Product water is delivered to the City of Tustin. Brine is conveyed to the County Sanitation Districts of Orange County wastewater treatment facilities via a sewer.

Term of the Activity

The 20-year agreement between Metropolitan and the Municipal Water District of Orange County terminates at the end of August 2016.

Estimate of the Amount of Water that Will be Conserved

The Tustin Desalter is projected to produce 2,000 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the Tustin Desalter.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, Orange County Water District prepared an Initial Study and Negative Declaration for the Tustin Desalter. Mitigation measures were made a condition of approval of the project. A Notice of Determination for the project was filed on July 18, 1991. Metropolitan's Board of Directors certified that it reviewed and considered the information contained in the Initial Study and Negative Declaration and found that any changes and alterations were within the responsibility of another agency on December 10, 1991.

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West Basin Desalter

Project Description

The West Basin Desalter includes a 1.5 million gallon per day reverse osmosis desalination system, yard piping, and brine disposal piping. Treatment facilities consist of threshold inhibitor and acid injection systems, cartridge filters, booster pumps, reverse osmosis membrane units, decarbonation facilities, chlorine disinfection, and an on-site storage reservoir. Brackish water is pumped from the West Coast Basin. Product water is delivered to the California Water Service Company. Brine is disposed and conveyed to the Los Angeles County Sanitation District's Carson Industrial Wastewater Treatment Plant.

Term of the Activity

The 20-year agreement between Metropolitan and West Basin Municipal Water District terminates at the end of May 2013.

Estimate of the Amount of Water that Will be Conserved

The West Basin Desalter is projected to produce 700 acre-feet of water during calendar year 2012.

Proposed Methodology for Verification of the Amount of Water Conserved

Upon request, Metropolitan will make available to Reclamation for inspection Metropolitan's verification file for the West Basin Desalter.

Documentation Regarding State or Federal Permits or Other Regulatory Approvals

Pursuant to CEQA, West Basin MWD prepared an Initial Study and Negative Declaration for the West Basin Desalter. Mitigation measures were made a condition of approval of the project. A Notice of Determination for the project was filed on December 12, 1991. Metropolitan's Board of Directors considered the Initial Study and Negative Declaration and found that any mitigation changes and alterations were within the responsibility of another agency on February 11, 1992.

Documentation that the Intentionally Created Surplus Is in Addition to Conservation Implemented to Meet Other Obligations

Metropolitan is the beneficiary of the water being desalted through each of the 12 projects. Metropolitan would not transfer the desalted water to another agency, nor would Metropolitan desalt the water for another agency, nor would Metropolitan pay back an Inadvertent Overrun and Payback Policy obligation in 2012 as Metropolitan does not have existing obligations to do

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so. A copy of the agreements which Metropolitan has executed to provide financial support to implement the desalination projects is available upon Reclamation's request.

Total Volume of Water to be Conserved and/or the Time Period for the Conservation Project

The total volume of water to be conserved and the time period for each desalting project is as follows:

Project	Time Period for Metropolitan Financial Support	Total Volume of Water to be Conserved (acre-feet)
Beverly Hills Desalter	2003-2023	35,000
Capistrano Beach Desalter	2007-2027	19,000
Chino Basin Desalination Program	2000-2031	670,000
Irvine Desalter	2007-2027	104,000
Lower Sweetwater Desalter	2000-2020	62,000
Madrona Desalination Facility	2002-2022	35,000
Menifee Desalter	2002-2022	49,000
Oceanside Desalter (Mission Basin Expansion)	1994-2023	100,000
San Juan Basin Desalter	2004-2024	66,000
Temescal Basin Desalter	2001-2021	194,000
Tustin Desalter	1996-2016	44,000
West Basin Desalter	1993-2013	15,000
Total		1,393,000

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Capital Investment Required to Implement the Project and Annual Operation, Maintenance, and Replacement Costs

Metropolitan's payments for water desalted by each of the projects and the amount of desalted water for which payment has been made is as follows:

Project	Total Payments through Fiscal Year 2010-11 (million \$)
Beverly Hills Desalter	2.5
Capistrano Beach Desalter	0.6
Chino Basin Desalination Program	32.2
Irvine Desalter	3.6
Lower Sweetwater Desalter	6.9
Madrona Desalination Facility	3.5
Meniffee Desalter	4.3
Oceanside Desalter (Mission Basin Expansion)	6.6
San Juan Basin Desalter	4.0
Temescal Basin Desalter	9.5
Tustin Desalter	3.2
West Basin Desalter	2.5
Total	79.4

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Amount of Water Conserved by the Program to Date and Utilization of the Conserved Water to Date to Meet Specific Conservation Requirements Including ICS Creation

The amount of desalted water for which Metropolitan payments have been made and the amount of ICS created have been as follows:

Project	Amount of Water for Which Payments Have Been Made (acre-feet)	Amount of ICS Created (acre-feet)
Beverly Hills Desalter	9,939	
Capistrano Beach Desalter	2,447	
Chino Basin Desalination Program	128,843	
Irvine Desalter	14,304	
Lower Sweetwater Desalter	34,381	
Madrona Desalination Facility	14,129	
Menifee Desalter	17,768	
Oceanside Desalter (Mission Basin Expansion)	38,725	
San Juan Basin Desalter	15,890	
Temescal Basin Desalter	94,544	
Tustin Desalter	31,494	
West Basin Desalter	10,084	
Total	412,548	0

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Time Remaining for the Program and/or the Volume of Water that Remains to be Conserved

The amount of time remaining for each desalting project and the volume of water for which Metropolitan financial support is anticipated are:

Project	Remaining Time Period for Metropolitan Financial Support	Estimate of Total Volume of Water to be Conserved (acre-feet)
Beverly Hills Desalter	2011-2023	25,100
Capistrano Beach Desalter	2011-2027	16,600
Chino Basin Desalination Program	2011-2031	541,200
Irvine Desalter	2011-2027	89,700
Lower Sweetwater Desalter	2011-2020	27,600
Madrona Desalination Facility	2011-2022	20,900
Menifee Desalter	2011-2022	31,200
Oceanside Desalter (Mission Basin Expansion)	2011-2023	61,300
San Juan Basin Desalter	2011-2024	50,100
Temescal Basin Desalter	2011-2021	99,500
Tustin Desalter	2011-2016	12,500
West Basin Desalter	2011-2013	4,900
Total		980,600