

Appendix H

Water Supply Assessment





ANTONIO R. VILLARAIGOSA
Mayor

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S. DAVID FREEMAN
Interim General Manager
RAMAN RAJ
Chief Operating Officer

February 10, 2010

Ms. S. Gail Goldberg
Director of Planning
City Planning Department
Room 525, City Hall
200 North Spring Street
Los Angeles, CA 90012

Dear Ms. Goldberg:

Subject: Water Supply Assessment for the Mangrove Estates Mixed Use Development Project

The Los Angeles Board of Water and Power Commissioners adopted the Water Supply Assessment for the Mangrove Estates Mixed Use Development Project (Project) at its January 19, 2010 meeting. Enclosed is a copy of the adopted Resolution No. 010 199 and Water Supply Assessment.

The proposed Project site is within the Central City North Community Plan. The proposed Project area is located adjacent to the new Little Tokyo/Arts District Gold Line light rail transit station and is generally bounded by Temple Street on the north, Alameda Street on the west, First Street on the south, and Hewitt Street on the east.

The Project will consist of approximately 22,000 square feet of cocktail bar, approximately 22,000 square feet of coffee house (1,467 seats), approximately 20,100 square feet of nightclub dancing area, approximately 525,000 square feet of office space with cooling tower, approximately 528 residential units including 83 live/work units, approximately 22,000 square feet of restaurant space (1,467 seats), approximately 113,900 square feet of retail use, and parking primarily in subterranean (structure) levels.

This Water Supply Assessment will no longer be valid if modifications to the Project require greater water demand than stated. A revised Water Supply Assessment will then be required, which the developer must request through the City Planning Department.

The City Planning Department has acknowledged that all new projects in the City may be subject to additional requirements as a condition of water service, including a potential future fee to fund expansion of the recycled water program. The City Planning Department has also acknowledged that the issuance of a Water Supply Assessment does not exempt the Project from this potential future fee.

Water and Power Conservation ... a way of life

111 North Hope Street, Los Angeles, California 90012-2607 Mailing address: Box 51111, Los Angeles 90051-5700
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In an effort to maximize water-use efficiency within the City, the Los Angeles Department of Water and Power (LADWP) has discussed with the City Planning Department to encourage additional water conservation measures for this Project. The water conservation measures listed below that will be implemented on the Project are in addition to those required by law. A written commitment of the Project's water conservation plans submitted by the City Planning Department is included in Appendix B of the Water Supply Assessment.

**Water Conservation Measures for
the Mangrove Estates Mixed Use Development Project**

- Toilets - High Efficiency with flush volume of 1.0 gallons of water per flush
- Clothes washers (Residential) - High Efficiency with water savings factor of 4.0 or less
- Urinals - Waterless
- Showerheads - No more than one showerhead per stall
- Rotating sprinkler nozzles for landscape irrigation - 0.5 gallons per minute
- Weather-based irrigation controllers
- Drought tolerant plants - 40% of total landscaping
- Clothes washers (Commercial) - High Efficiency with water savings factor of 7.5 or less
- Domestic water heating system located close proximity to point(s) of use
- Individual metering and billing for water use
- Tankless and on-demand water heaters
- Cooling tower conductivity controllers or cooling tower pH conductivity controllers
- Water-saving pool filter
- Leak detection system for swimming pools and Jacuzzi
- Drip/Subsurface irrigation (micro-irrigation)
- Micro-spray
- Proper hydro-zoning (groups plants with similar water requirements together)
- Zoned irrigation
- Landscaping contouring to minimize precipitation runoff
- Rainwater Harvesting
- Faucets - all indoor faucets (other than City Ordinance No. 180822 requirements) with flow rate of 1.5 gallons per minute or less

Ms. S. Gail Goldberg
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LADWP requests that the City Planning Department make implementation of these water conservation commitments a part of the approval process for this Project.

If you have any questions, please contact me at (213) 367-1338, or have a member of your staff contact Mr. Thomas M. Erb, Director of Water Resources, at (213) 367-0873.

Sincerely,



S. David Freeman
Interim General Manager

JLH/TOM:lsf

Enclosures

c/enc: Ms. Patricia Diefenderfer, City Planning Department ✓
Mr. Thomas M. Erb

WHEREAS, on November 5, 2009, the Los Angeles Department of City Planning (Planning Department), requested LADWP to conduct a Water Supply Assessment for the Mangrove Estates Mixed Use Development Project (Project) pursuant to California Water Code Sections 10910-10915; and

WHEREAS, the proposed Project will develop a property historically referred to as the "Mangrove Estates" within the Central City North Community Plan for commercial, retail, and residential land uses; and

WHEREAS, LADWP has prepared a Water Supply Assessment for the Project in compliance with California Water Code Sections 10910-10915; and

WHEREAS, LADWP estimates the annual increase in water demand from the Project site to be 273 acre-feet based on review of information submitted by the Planning Department; and

WHEREAS, the Planning Department, the lead agency for the Environmental Impact Report, has agreed to impose additional conservation measures for the proposed Project, as described in the Water Supply Assessment, that are in addition to those required by law; and

WHEREAS, issuance of the Water Supply Assessment does not exempt this Project from any future fees established by LADWP for recycled water infrastructure improvements; and

WHEREAS, the Planning Department acknowledges that all new projects in the City of Los Angeles may be subject to additional requirements as a condition of water service, including a potential future fee to fund expansion of the recycled water program. The Planning Department acknowledges that the issuance of a Water Supply Assessment does not exempt the Project from this potential future fee; and

WHEREAS, LADWP's water supply system now serves the immediate Project area, and would serve the area of the proposed Project; and

WHEREAS, the projected water demand associated with the Project is within the range of water demand projections anticipated in the City of Los Angeles' Year 2005 Urban Water Management Plan; and

WHEREAS, LADWP anticipates that its projected water supplies available during normal, single-dry, and multiple-dry water years as included in the 25-year projection contained in its 2005 Urban Water Management Plan can accommodate the projected

water demand associated with the Project, in addition to the existing and planned future demands on LADWP; and

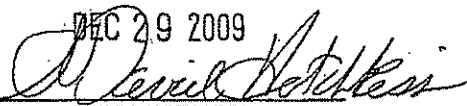
WHEREAS, the Board of Water and Power Commissioners (Board) has adopted Shortage Year Rates for water service effective June 1, 2009, which rates are expected to remain in effect until the water supply currently available to the City is found sufficient for normal demands. The Board finds that the City's current water shortage is a transitory event consistent with historical multiple dry-year water cycles accounted for in the 2005 Urban Water Management Plan. The Board further finds that the price signals contained in the Shortage Year Rates will result in reduced City-wide demands sufficient to meet the projected water demands of the City.

NOW, THEREFORE, BE IT RESOLVED, that the Board finds that LADWP can provide sufficient domestic water supplies to the Project and approves the Water Supply Assessment prepared for the Project, now on file with the Secretary of the Board, and directs that the Water Supply Assessment and a certified copy of this resolution be transmitted to the Planning Department.

I HEREBY CERTIFY that the foregoing is a full, true, and correct copy of a resolution adopted by the Board of Water and Power Commissioners of the City of Los Angeles at its meeting held JAN 19 2010


Secretary

APPROVED AS TO FORM AND LEGALITY
CARMEN A. TRUTANICH, CITY ATTORNEY

DEC 29 2009

BY S. DAVID HOTCHKISS
ASSISTANT CITY ATTORNEY



**WATER SUPPLY ASSESSMENT
FOR THE MANGROVE ESTATES
MIXED USE DEVELOPMENT**

Prepared by:
Water Resources Division

January 19, 2009

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Landscape Water Manager Program v1.4, developed by Irrigation Training and Research Center	
California Department of Water Resources California’s Groundwater Bulletin 118 Update 2003	
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Appendices

- A. The Los Angeles Department of City Planning Request for a Water Supply Assessment letter, dated November 5, 2009 and confirming e-mail dated November 30, 2009
- B. Water Conservation Commitment Letter
- C. Project Location Maps
- D. Water Supply Assessments Adopted by the LADWP Board of Commissioners
- E. Groundwater Pumping Right Judgments
- F. Water Supply Assessment Provisions – California Water Code Section 10910-10915
- G. Metropolitan Water District of Southern California
- H. Water Supply Assessment Checklist

Introduction

Proposed major projects subject to certain requirements in the California Water Code require that the City or County identify any public water system that may supply water to the proposed project and request the public water system to determine whether the projected water demand associated with the proposed project was included as part of the most recently adopted Urban Water Management Plan per California Water Code Section 10910.

The Los Angeles Department of City Planning (Planning Department), serving as the lead agency for the proposed Mangrove Estates Mixed Use Development Project, has identified the Los Angeles Department of Water and Power (LADWP) as the public water system that will supply water to the Mangrove Estates Mixed Use Development Project. In response to the Planning Department's request for a Water Supply Assessment, LADWP has performed the assessment contained herein.

LADWP has served the City of Los Angeles (City) a safe and reliable water supply for over a century. Over time, the City's water supplies have evolved from primarily local groundwater to predominantly imported supplies. Today, the City relies on over 85 percent of its water from imported sources. As such, LADWP has taken an active role in regional and statewide water management. The sustainability of Los Angeles' water supplies are dependent on the City's ability to maximize water conservation and increase recycled water use. The Mayor's action plan, "Securing L.A.'s Water Supply" dated May 2008, states that the City will develop significant additional water conservation and water recycling, as well as other water resource actions to ensure a reliable water supply.

This Water Supply Assessment has been prepared to meet the applicable requirements of state law as set forth in California State Water Code Sections 10910-10915. Significant references and data for this assessment are from the City's 25-year water resource plan, entitled City of Los Angeles Department of Water and Power 2005 Urban Water Management Plan (UWMP). The UWMP is incorporated by reference and is available for review through LADWP's website, www.ladwp.com.

Findings

The proposed Mangrove Estates Mixed Use Development Project (Project) is estimated to increase water demand within the site by approximately 273 acre feet (AF) annually based on review of information submitted by the Planning Department. The Planning Department has committed to requiring implementation of additional water conservation measures that are beyond those required by law.

The Planning Department has acknowledged that all new projects in the City of Los Angeles may be subject to additional requirements as a condition of water service, including a potential future fee to fund expansion of the recycled water program. The Planning Department has also acknowledged that the issuance of a Water Supply Assessment does not exempt the Project from this potential future fee.

LADWP's Water Supply Assessment finds that adequate water supplies will be available to meet the water demands of the Project. LADWP anticipates that the projected water demand from the Project can be met during normal, single-dry, and multiple-dry water years, in addition to the existing and planned future demands on LADWP.

The basis for approving Water Supply Assessments for new developments is the City's UWMP. LADWP's water demand forecast as contained in the UWMP uses a long term demographic projection such as land use, population, and employment. The California Urban Water Management Planning Act requires water suppliers to develop an UWMP every five years to identify short-term and long-term water resources management measures to meet growing water demands during normal, dry, and multiple-dry years.

The LADWP Board of Water and Power Commissioners has adopted Shortage Year Rates and the Los Angeles City Council has implemented Phase III of the Water Conservation Ordinance, both of which became effective June 1, 2009. Shortage Year Rates and higher Phases of the Water Conservation Ordinance are expected to remain in effect until it is determined that the water supply currently available to the City is found sufficient for normal demands. It is LADWP staff's judgment that the City's current water shortage is a transitory event consistent with historical multiple-dry year water cycles accounted for in the LADWP's 2005 Urban Water Management Plan.

The imposition of Shortage Year Rates and Phase III conservation has reduced demands consistent with what occurred in 1991, when the City first implemented water rationing and associated financial penalties for overuse. Water rationing and financial penalties began in March 1991, and remained in place until May 1992. During this period of time, customers were required to reduce water usage by 15 percent. Each customer's allotment of water was 85 percent of their historical usage. Water usage above a customer's allotment was a violation of the Ordinance and was billed at the penalty rate. This action resulted in total City water conservation of approximately 25 percent. The imposition of Shortage Year Rates and higher Phases of the Ordinance resulted in reducing the water usage by 14.4-percent in June 2009, 17.2-percent in July 2009, 22.6-percent in August 2009, 18.5-percent in September 2009, and 19.0-percent in October 2009.

The anticipated water demand from the Project falls within the UWMP's projected water supplies for normal, single-dry, and multiple-dry years through the year 2030 and within the UWMP's 25-year water demand growth projection. Therefore, the Mangrove Estates Mixed Use Development's Water Supply Assessment can be approved based on the fact that this Project's water need falls within the scope of the UWMP's projected increase in citywide water demands, while anticipating multi-year dry water supply conditions occurring at the same time.

Project Description

The following project information was obtained from the Planning Department's Water Supply Assessment Request Letter and confirming email (Appendix A).

Project Name: The Mangrove Estates Mixed Use Development
 Lead Agency: Planning Department
 Planning Community: Central City North

The proposed Project site is within the Central City North Community Plan. The proposed Project area is located adjacent to the new Little Tokyo/Arts District Gold Line light rail transit station area of the City of Los Angeles, and is generally bounded by Temple Street on the north, Alameda Street on the west, First Street on the south, and Hewitt Street on the east. The Project consists of approximately 22,000 square feet of cocktail bar, approximately 22,000 square feet of coffee house (1,467 seats), approximately 20,100 square feet of nightclub dancing area, approximately 525,000 square feet of office space with cooling tower, approximately 528 residential units including 83 live/work units, approximately 22,000 square feet of restaurant space (1,467 seats), approximately 113,900 square feet of retail use, and parking primarily in subterranean (structure) levels.

The site intended for development requires a General Plan Amendment and Zone Change to conform to the density and use of the Project.

This Water Supply Assessment will no longer be valid if modifications to the Project require greater water demand than stated above. A revised Water Supply Assessment will then be required, which the developer will need to request through the Planning Department.

Project Water Demand Estimate

The projected water demand increase for the Project is estimated to be approximately 273 AF annually which includes approximately 20 AF of annual water conservation. The implementation of additional water conservation measures reduced the Project's potable water demand by approximately 6.7 percent. Table I shows a breakdown of current and proposed types of use and the corresponding estimated volume of usage with the implementation of the conservation measures committed to by the Planning Department. The types of use were derived from the Water Supply Assessment Request Letters in Appendix A. The Project's total water demand is based on the projected water use taking into account the conservation measures planned for implementation on the proposed Project. Table II estimates the total volume of water conservation based on conservation measures committed to by the Planning Department.

WATER SUPPLY ASSESSMENT – THE MANGROVE ESTATES MIXED USE DEVELOPMENT

TABLE I Mangrove Estates Mixed Use Development Project Calculated Total Additional Water Demand							
Existing Use ¹	Quantity	Unit	Water Use Factor ² (gpd/unit)	Existing Water Use			
				(gpd)	(af/y)		
Office	19,500	sf	0.15			2,925	3.28
Parking (Surface)	182,225	sf	0.02			3,645	4.08
Existing Total						6,570	7
Proposed Use ¹	Quantity	Unit	Water Use Factor ² (gpd/unit)	Base Demand (gpd)	Water Efficiency Requirements Ordinance Savings (gpd)	Proposed Water Demand	
						(gpd)	(af/y)
Bar: Cocktail, Public Table Area	22,000	sf	0.50	11,000	637	10,363	11.61
Coffee House: Serves prepared food	1,467	seat	30.00	44,010	2,548	41,462	46.45
Dancing Area of Bar or Nightclub	20,100	sf	0.60	12,060	358	11,702	13.11
Office Building with Cooling Tower	525,000	sf	0.18	94,500	4,938	89,562	100.33
Restaurant Full Service - Indoor Seat	1,467	seat	30.00	44,010	2,548	41,462	46.45
Retail Area	113,900	sf	0.08	9,112	284	8,828	9.89
Commercial/Office Total				214,692	11,313	203,379	227.83
Residential Apt. - 1 Bedroom	312	du	120.00	37,440	3,805	33,635	37.68
Residential Apt. - 2 Bedroom	133	du	160.00	21,280	3,357	17,923	20.08
Residential: Artist Residence (3/4 of Total Area)	62	du	80.00	4,980	759	4,221	4.73
Residential: Artist Work (1/4 of Total Area)	21	du	250.00	5,188	253	4,934	5.53
Residential Total				68,888	8,174	60,714	68.01
Landscaping³ Total				3,732	0	3,732	4.18
Total Potable Water Demand						267,825	300
Less Existing Use						-6,570	-7
Less Additional Conservation ⁴						-17,916	-20
Total Additional Water Demand =						243,339 gpd	273 af/y

¹ Provided by the City of Los Angeles Department of City Planning.

² Based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table.

Uses not listed are estimated by the closest type of use available in the table.

³ Landscaping water use is estimated by Landscape Water Management Program v1.4 developed by Irrigation Training and Research Center of California Polytechnic State University, San Luis Obispo.

⁴ Water conservation due to additional conservation commitments agreed by the City of Los Angeles Department of City Planning. See Table II.

Abbreviations:

gpd - gallons per day sf - square feet af/y - acre feet per year bd - bedroom du - dwelling unit

Table II					
Mangrove Estates Mixed Use Development Project					
Estimated Additional Water Conservation					
Conservation Measures ¹	Quantity	Units	Water Saving Factor ² (gpd/unit)	Water Saved	
				(gpd)	(af/y)
Toilet - Commercial/Office	117	ea	6.09	713	0.80
Urinal - Commercial/Office	45	ea	13.67	615	0.69
Faucet (Kitchen)	172	ea	10.40	1,789	2.00
Clothes Washer	58	ea	30.00	1,740	1.95
Commercial/Office Conservation Total				4,856	5.44
Toilet - Residential: Live/Work	83	du	1.54	128	0.14
Toilet - Residential: 1 Bd	312	du	1.54	480	0.54
Toilet - Residential: 2 Bd	133	du	3.85	512	0.57
Kitchen Faucet - Residential: Live/Work	83	du	2.84	235	0.26
Kitchen Faucet - Residential: 1 Bd	312	du	2.84	885	0.99
Kitchen Faucet - Residential: 2 Bd	133	du	7.09	943	1.06
Clothes Washer	528	ea	15.00	7,920	8.87
Residential Conservation Total				11,103	12.44
Weather Based Irrigation Controller	1.21	acre	892.74	1,076	1.21
Drought Tolerant Plants ³ and Rotating Sprinkler Nozzles (40% Native Plants of 1.21 acres of landscaping)				881	0.99
Landscaping Total Conservation				1,957	2.19
Total Water Conserved =				17,916	20.07

¹Water conservation measures agreed to by the Los Angeles Department of City Planning. See Appendix B.

²Based on the Handbook of Water Use and Conservation by Amy Vickers, MWD - Save A Buck Program, and LADWP estimates.

³Native Plants and rotating sprinkler savings is estimated by Landscape Water Management Program v1.4 developed by Irrigation Training and Research Center of California Polytechnic State University, San Luis Obispo.

Abbreviations:

gpd - gallons per day sf - square feet af/y - acre feet per year bd - bedroom du - dwelling unit
 one acre foot = 325,850 gallons

Water Demand Forecast

The UWMP projects yearly water demand to reach 776,000 acre feet by 2030, or an increase of 17 percent from 2005. Water demand projections in 5-year increments through 2030 are available in the UWMP for each of the major customer classes single-family, multi-family, commercial, governmental, and industrial. Demographic data from the Southern California Association of Government's 2004 Regional Transportation Plan as well as billing data for each major customer class, weather, and conservation were factors used in forecasting future water demand growth.

The UWMP used a service area-wide method in developing its water demand projections. This methodology does not rely on individual development demands to determine area-wide growth. Rather, the growth in water use for the entire service area was considered in developing long-term water projections for the City of Los Angeles through the year 2030.

The UWMP is updated every five years as required by California law. This process entails, among other requirements, an update of water supply and water demand projections for water agencies. In the 2010 update, LADWP will develop a revised demand forecast that will factor in the water demand for which all Water Supply Assessments have been prepared in addition to future demands. Water supply planning will be based on meeting these long-term demands.

Efforts are underway to increase water recycling, further conserve local stormwater runoff, and expand LADWP's water conservation program to decrease reliance on imported water for future demand. The City plans to meet all future increases in water demand through a combination of water conservation and water recycling as explained in LADWP's Water Supply Action Plan.

Collaboration between LADWP and the Metropolitan Water District (MWD) is critical in ensuring that the City's anticipated water demands are incorporated into the development of MWD's long-term Integrated Regional Plan (IRP). MWD's IRP directs a continuous regional effort to develop regional water resources involving all of MWD's member agencies. Successful implementation of MWD's IRP has resulted in reliable supplemental water supplies for the City from MWD.

State law further regulates distribution of water in extreme drought conditions. Section 350-354 of the California Water Code states that when a governing body of a distributor of a public water supply declares a water shortage emergency within its service area, water will be allocated to meet needs for domestic use, sanitation, fire protection, and other priorities. This will be done equitably and without discrimination between customers using water for the same purpose(s).

LADWP - Water Supply Action Plan

In response to water supply uncertainties, including those impacting MWD, the Mayor and LADWP released a Water Supply Action Plan (Action Plan) on May 17, 2008. The plan, entitled “Securing L.A.’s Water Supply,” serves as a blueprint for creating sustainable sources of water for the future of Los Angeles to reduce dependence on imported supplies. It is an aggressive multi-pronged approach that includes: investments in state-of-the-art technology; a combination of rebates and incentives; the installation of smart sprinklers, efficient washers and urinals; and long-term measures such as expansion of water recycling and investment in cleaning up the local groundwater supply.¹ The Action Plan also takes into account the realities of climate change and the dangers of drought and dry weather.

The premise of the Action Plan is that the City will meet all new demand for water due to projected population growth through a combination of water conservation and water recycling. In total, the City will conserve or recycle 32.6 billion gallons of water a year.² By the year 2019, half of all new demand will be filled by a six-fold increase in recycled water supplies and by 2030 the other half will be met through ramped-up conservation efforts.³

The Action Plan also specifically addresses current and future State Water Project (SWP) supply shortages. The California Department of Water Resources estimates that the December 15, 2008, U.S. Fish and Wildlife Service’s Biological Opinion on Delta Smelt will limit MWD exports of their anticipated SWP supply by up to 50 percent in a normal year.⁴ The Action Plan concludes, however, that MWD’s actions in response to this threat will ensure continued reliability of its water deliveries. The Action Plan further states that “despite concerns about ongoing water shortages and higher costs, MWD has upheld its pledge to plan for emergencies and natural disasters throughout this region.” MWD’s calendar year 2009 non-emergency storage was 1,072,000 acre-feet in surface and groundwater storage accounts - including Diamond Valley Lake near Hemet – plus an additional 670,000 acre-feet of storage reserved for emergencies. MWD estimates its calendar year 2010 non-emergency storage is currently projected to be 935,000 acre-feet.⁵ In total, this reserve of water supplies will be utilized to buffer the severity of a potential shortage.⁶ Furthermore, by focusing on demand reduction, implementation of the Action Plan will ensure that long-term dependence on MWD supplies will not be exacerbated by potential future shortages.

The Action Plan includes key short-term and long-term strategies to secure water supply described below.

¹ Mayor Antonio Villaraigosa and LADWP, *Securing L.A.’s Water Supply*, at 1 (May 2008).

² *Securing L.A.’s Water Supply* at 1.

³ *Id.* at 1.

⁴ *Appendix G page A-7.*

⁵ *MWD’s Water Surplus and Drought Management Plan (November 19, 2009)*

⁶ *Securing L.A.’s Water Supply* at 8.

Short-Term Conservation Strategies

Enforcing prohibited uses of water. The prohibited uses of water are intended to eliminate waste and increase awareness of the need to conserve water. While in effect at all times, the prohibited uses have not been actively enforced since the early 1990s. In November 2007, LADWP resurrected its Drought Buster (now called the "Water Conservation Team") Program to heighten awareness and educate customers about the prohibited uses. Under enforcement, failure to comply would be subject to penalties, which can range from a written warning for a first violation to monetary fines and water service shutoff for continued non-compliance.⁷

Expanding the prohibited uses of water. In August 2008, the City updated and strengthened its Emergency Water Conservation Plan Ordinance (No. 180148) by expanding the list of prohibited uses of water, developing new phases of conservation depending on the severity of water shortages, and increasing financial penalties for non-compliance. Prohibited uses in effect at all times include:

- No water leaks are allowed to go unattended.
- No outdoor irrigation between the hours of 9:00 a.m. to 4:00 p.m.
- No outdoor irrigation that results in excess water flow leaving the property.
- No outdoor irrigation during rain events.
- No outdoor irrigation with spray head sprinklers and bubblers for more than 10 minutes per station.
- No outdoor irrigation with standard rotors and multi-stream rotary heads for more than 15 minutes per cycle and up to 2 cycles per station.
- No large landscape irrigation systems without automatic shutoff rain sensors.
- No washing paved surfaces (sidewalks, walkways, driveways, or parking areas) unless using a LADWP-approved water conserving spray cleaning device.
- No water for decorative fountains, ponds, or lakes unless the water is part of a recirculating system.
- No installation of single-pass cooling systems in new buildings.
- No installation of non-recirculating systems in new commercial laundry facilities.
- No installation of non-recirculating systems in new conveyor car washes.
- No car washing with a hose, unless an automatic shut-off device is attached.
- No water served to customers in eating establishments, unless requested.
- No daily towel and linen service option must be offered to Hotel and Motel guests.

In addition, the LADWP Board of Water and Power commissioners has adopted Phase III of water conservation which went into effect on June 1, 2009. Phase III conservation prohibits landscape irrigation on days other than Monday and Thursday. This prohibition excludes watering with a self-closing equipped hose, which is allowed everyday of the week except between the hours of 9:00 a.m. and 4:00 p.m.

Extending outreach efforts. LADWP has committed to \$2.3 million for an aggressive conservation outreach and education campaign. Some activities to promote conservation

⁷ *Id.* at 11.

include: increased communication with ratepayers to include LADWP vehicle placards, newspapers, radio, and television, among other types of media; outreach to Homeowner Associations and Neighborhood Councils to promote water conservation; distribute Hotel Towel Door Hangers and Restaurant Table Tent Cards; train LADWP field staff as well as field staff from Public Works, Recreation and Parks, and other appropriate City departments in identifying and reporting prohibited uses of water; and ramp up marketing of water conservation incentive and rebate programs.⁸

Encouraging regional conservation measures. Work with MWD to encourage all water agencies in the region to adopt water conservation ordinances which include prohibited uses and enforcement.⁹

Long-Term Strategies

1.0 Increase water conservation through reduction of outdoor water use and new technology.

The following are new and continuing water conservation programs as well as goals and benchmarks designed to measure their progress through 2030:

Conservation Rebates and Incentives:

Goal: Increase participation in Water Conservation Rebate and Incentive Programs.

Water Savings: 48,457 AFY by 2030.

Action Plan: LADWP is continuing to expand rebates and incentives for homeowners and business owners to encourage them to purchase water-saving technology.¹⁰ Rebate and incentive programs include the following:

High Efficiency Clothes Washer Program. LADWP increased the rebate offered for residential high efficiency clothes washers from \$250 to \$300. Since the program was launched in 1998, more than 68,000 water-saving clothes washers have been installed in Los Angeles residents' homes through the program.¹¹ LADWP will further expand the program through a pilot "Point of Purchase" rebate program, offering customers an instant rebate when they buy the appliance from a Los Angeles retailer.

Commercial Rebate Program. Water conservation rebates and incentives were increased significantly in 2007 to offset the costs of replacing water-wasting toilets and urinals with high efficiency models. The current rebates offset most or all of the total replacement cost (including installation). LADWP will increase program promotion to raise awareness of these significant financial incentives, resulting in increased program participation. Since this program's inception, more than 32,800

⁸ *Id.* at 12.

⁹ *Id.*

¹⁰ *Id.* at 14.

¹¹ *Id.*

toilets have been replaced by commercial, industrial and institutional customers, and LADWP is working to implement a grant-funded Cooling Tower program for commercial customers.¹²

High Efficiency Urinal Programs. Offering perhaps the greatest potential for quick implementation is the replacement of standard urinals with high efficiency urinals (0.5 gallon per flush (gpf) or less, including no-flush). In addition, recent changes in the Los Angeles Building Code now provide for the installation of completely water-free urinals.¹³

Additional Water Saving Efficiency Measures and Programs. As part of the City's ongoing effort to encourage customers to adopt passive water conservation measures (i.e., measures that can help customers conserve water on a daily basis without thinking about it) in their homes and businesses, LADWP continues to distribute water-saving bathroom and kitchen faucet aerators and shower heads free-of-charge. LADWP also plans to add rebates for products such as high-efficiency dishwashers for residential customers to help increase their daily conservation efforts.¹⁴ In an effort to reduce outdoor water use, LADWP launched the Residential and Commercial Drought Resistant Landscape Incentive Program in 2009. This Landscape Program pays customers \$1.00 per square foot of turf removed and replaced with drought tolerant plants, mulch, or permeable hardscapes. A similar rebate program exists for synthetic turf.

Action by Public Agencies:

Goal: Improving water efficiency at all City Department facilities. LADWP provides incentive funding and technical assistance to City Departments for the installation of high efficiency urinals and smart irrigation controllers, and helps them identify other opportunities to improve water use efficiency.

Water Savings: Estimated to save at least 10 percent from existing use, totaling as much as 1,888 AFY in water savings.

Action Plan: LADWP will assist City Departments and other public agencies in leveraging incentive funds to retrofit their facilities. Significant accomplishments include the following highlights:

- In January 2009, a MOU was signed between LADWP and City's General Services Department (GSD) to install 600 water-efficient urinals and 250 high efficiency toilets in city facilities. By the end of June 2009, over 60 percent of these devices had been installed;
- In an effort to reduce water waste and identify areas of potential water conservation, LADWP provided on-site water audit training for GSD Plumbers, Recreation and Parks (R&P) landscapers and Port of Los Angeles (POLA) staff and conducted nearly 200 facility audits.

¹² *Id.*

¹³ *Id.* at 14-15.

¹⁴ *Id.* at 15.

- Ten high-use city facilities have been retrofitted with water efficient toilets, urinals, and facets saving approximately 23 AFY. Locations include City Hall, City Hall East, Pershing Square and LADWP Headquarters.
- Utilizing a \$3M/yr grant from LADWP, R&P installed 155 smart controllers at 67 Parks, resulting in a savings of 12% of normal water usage.

Enhancing Conservation through Review of New Developments:

Goal: Ensure specifications for the Los Angeles Green Building program include water efficiency measures.

Water Savings: The Green Building Program can yield significant water savings through water conservation measures.

Action Plan: LADWP will continue working with the City's Green Building Team to pursue desired changes in local codes and standards to promote water efficiency in new construction projects and major building renovations.¹⁵

Water Efficiency Requirements Ordinance: The City Council approved Ordinance No. 180822 prepared by LADWP, which modifies the City Municipal Code to establish new requirements for water conservation in construction of new buildings, and the installation of new plumbing fixtures in existing buildings to minimize the effects of any water shortages on the customers of the City, effective December 1, 2009.

2.0 Water Recycling

The City's goal is to increase the total amount of recycled water used in the City of Los Angeles six-fold by 2019—expanding from the current 1% to 6% of annual water demand. This will result in a planned water savings of 50,000 AFY by 2019.¹⁶ In order to achieve this goal, the City will take the following actions:

Develop a Recycled Water Master Plan. LADWP has begun in 2009 a detailed Recycled Water Master Plan that will outline the steps and costs of boosting the City's recycled water level to 6 percent of total demand for the City and concepts for going beyond 6 percent. The Master Plan will provide a blueprint for reaching this goal by expanding the existing recycled water pipeline system and using recycled water for groundwater replenishment.¹⁷

Increase Recycled Water for Irrigation and Industrial Use. LADWP's current Water Recycling Capital Budget provides funding for approximately 20 large capital projects that will increase recycled water deliveries from 4,500 AFY to 19,350 AFY by 2014, adding more than 106,300 feet of new pipe and saving potable water for nearly

¹⁵ *Id.* at 21.

¹⁶ *Id.* at 22.

¹⁷ *Id.* at 24.

31,000 households throughout the City.¹⁸ Potential customers in future years include several parks (Elysian, Branford, and Balboa parks); Harbor and Scattergood Generating Stations; Hansen Dam and Van Nuys golf courses; oil refineries in the Harbor area; LAX cooling towers; schools in the Sepulveda Basin, and the Los Angeles Zoo. Under the City's Water/Wastewater Integrated Resources Plan, 30,250 AFY of treated water will continue to be used to support habitat in the Japanese Gardens, Lake Balboa, the Wildlife Lake and the Los Angeles River.¹⁹

Use Recycled Water for Groundwater Replenishment. Advanced treated recycled water can be sent to spreading basins to percolate underground and become part of the City's groundwater system for later use. This process, also termed groundwater replenishment, is a proven alternative for expanding locally produced, safe, high-quality drinking water. The process has been successfully implemented in Orange County, Australia, and Singapore, and is being considered in other U.S. and worldwide locations.²⁰

Initiate Recycled Water Advisory Group (RWAG). LADWP will engage stakeholders through the Recycled Water Master Plan process in getting input from the RWAG on alternatives necessary for maximizing recycled water. These alternatives include implementing groundwater recharge with advanced treatment in the San Fernando Valley as well as expanding the purple pipe system to supply recycled water for irrigation and industrial uses.²¹

Upgrade Tillman Wastewater Treatment Plant: Groundwater replenishment will require upgrading the Tillman Plant with state-of-the-art, advanced treatment capability similar to the Orange County Water District's recently implemented Groundwater Replenishment System, which has received widespread support. Advanced treatment would be constructed at the Tillman Plant, and the highly treated wastewater would be piped to spreading basins for groundwater recharge.²²

3.0 Enhancing Stormwater Capture

The City's goal is to increase groundwater recharge by retrofitting the Big Tujunga Dam and other large-scale projects through cooperative efforts with the Los Angeles County Flood Control District and other agencies. LADWP is moving forward with several stormwater capture projects with the goal of increasing long-term groundwater recharge by a minimum of 20,000 AFY.²³ The following are the large-scale projects that are expected to be completed or in construction within the next five years:

Big Tujunga Dam – San Fernando Basin Groundwater Enhancement Project: On September 18, 2007, the LADWP Board approved Agreement No. 47717 to provide \$9 million to the Los Angeles County Flood Control District for the

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.*

²¹ *Id.* at 25.

²² *Id.*

²³ *Id.* at 26.

construction of the Big Tujunga Dam Project – an effort to seismically retrofit the dam, increase its water storage capacity, improve its reliability as a supply source, enhance flood protection measures, and green the environment. The restoration of the dam is conservatively estimated to result in the additional capture and recharge of 4,500 AFY at the Hansen and Tujunga Spreading Grounds, and more in wet years. The project will make structural improvements to Big Tujunga Dam to restore its historical retention capacity of 6,000 acre-feet; currently the dam is restricted to 1,500 acre-feet of storage capacity.²⁴

- Schedule: In construction; scheduled to be completed by January 2011.
- Budget: \$100 million of which LADWP is providing \$9 million.
- Resources: Los Angeles County Flood Control District is the project manager.
- Potential Water Savings: Capture an additional 4,500 AFY of stormwater on average, up to 10,000 AFY or more in extremely wet years.

Sheldon-Arleta Project – Cesar Chavez Recreation Complex Project Phase I:

On December 19, 2006, the Board of Water and Power Commissioners approved Agreement No. 47448 to provide up to \$5.25 million to the City of Los Angeles Department of Public Works for the construction of the project (the total project cost is about \$9 million). The project will upgrade the methane gas extraction system at the Sheldon-Arleta Landfill that is necessary to allow the full use of the adjacent Tujunga Spreading Grounds. Currently, the spreading grounds are restricted to an operating capacity of 50 cubic feet per second (cfs) or 20 percent of the full operating capacity of 250 cfs.²⁵

- Schedule: Construction completed in November 2009.
- Budget: \$9 million of which LADWP is providing \$5.25 million.
- Resources: Los Angeles Department of Public Works is the project manager.
- Potential Water Savings: Capture of an additional 2,000 to 8,000 AFY of stormwater for the adjacent Tujunga Spreading Grounds.

Hansen Spreading Grounds Enhancement Project: LADWP has entered into Agreement No. 47739 to share the costs of the renovation of the Hansen Spreading Grounds Project with the District. The project will increase the capacity and efficiency of the spreading grounds by: 1) combining and deepening the existing basins, and 2) installing and building a new rubber dam, intake structure, control house, and upgrading the telemetry system. The Los Angeles County Board of Supervisors approved the agreement on March 11, 2008, and the LADWP Board of Commissioners approved it on April 1, 2008.²⁶

²⁴ *Id.* at 27.

²⁵ *Id.*

²⁶ *Id.* at 27-28.

- Schedule: In construction; scheduled to be completed by December 2009.
- Budget: \$10 million of which LADWP is providing up to \$5 million.
- Resources: Los Angeles County Flood Control District is the project manager.
- Potential Water Savings: Capture of an additional 1,200 to 3,000 AFY of stormwater.

Tujunga Spreading Grounds Enhancement Project: This project proposes to deepen the spreading basins, increase their storage capacity, replace the existing diversion structure with two diversion structures, and add remote automation of the operating structures.²⁷

- Schedule: Design 2010-11; construction in 2012-13.
- Budget: \$1.0 million for design; \$24 million for construction (LADWP funded).
- Resources: LADWP will be the project manager.
- Potential Water Savings: Capture of an additional 8,000 to 12,000 AFY of stormwater.

Pacoima Spreading Grounds Enhancement Project: This project proposes to deepen the spreading basins, increase their storage capacity, replace existing diversion structure, and add remote automation of the operating structures.²⁸

- Schedule: Planning and design 2011-12; construction in 2013-14.
- Budget: \$1 million for design; \$28 million for construction (LADWP may provide some funding for this project).
- Resources: Los Angeles County Flood Control District will be the project manager.
- Potential Water Savings: Capture of an additional 1,500 to 3,000 AFY of stormwater.

4.0 Accelerating Clean-Up of the San Fernando Groundwater Basin

The City's goal is to clean up the contaminated San Fernando Groundwater Basin to expand groundwater storage and the ability to fully utilize the City's groundwater supplies. The result will be a reduction of imported water supply of up to 87,000 AFY – LADWP's annual allocation of San Fernando Valley groundwater supplies.²⁹ LADWP will also work to ensure that this Basin remains a consistent, stable and reliable resource for years to come. The following actions are proposed to achieve this goal:

²⁷ *Id.* at 28.

²⁸ *Id.*

²⁹ *Id.* at 29.

Work with Regulatory Agencies and Governmental Officials: LADWP will continue to encourage the EPA to develop a long-term, comprehensive solution for existing and emerging contamination issues in the Basin. In addition to the EPA, LADWP will work with the Los Angeles Regional Water Quality Control Board and the California Department of Toxic Substances to find and hold polluters accountable for cleaning up the Basin.³⁰

Groundwater System Improvement Study (GSIS): LADWP has begun a 6-year, \$19.0-million Groundwater System Improvement Study (GSIS) in the San Fernando Basin (SFB) that will provide vital information to evaluate the groundwater quality in the SFB and recommend treatment options to maximize the utility of the groundwater supply.³¹ As part of the GSIS, LADWP will be securing a monitoring well drilling contract by mid-2010 to install approximately 40 new monitoring wells in the SFB that will provide vital water quality information necessary for the Groundwater System Improvement Study.³² The critical water supply picture in the region has forced LADWP to initiate a fast-tracked and ambitious undertaking to restore its lost groundwater production. This undertaking will also prepare LADWP to safely manage and extract water from future groundwater recharge efforts. LADWP is in the early stages of developing a groundwater purification complex for the SFB. The construction of the purification complex will greatly reduce LADWP's reliance on costly and diminishing imported water supplies, and will compliment LADWP's strategies for securing the City of Los Angeles' future water supply through sustainable means.

Interim Wellhead Treatment: LADWP has just completed the installation of interim treatment for 2 wells in the Tujunga Well Field in order to maintain groundwater pumping production. A capital amount of approximately \$7 million has been included in the budget for this work.³³

5.0 Expanding Groundwater Storage

LADWP is investigating opportunities for increased storage of groundwater, creating a cost-effective, environmentally friendly reserve of water resources in case of extreme drought or other emergencies. Currently, the City has significant amounts of stored groundwater in the San Fernando Basin. However, as noted above, contamination restricts the ability to effectively utilize this resource.³⁴

LADWP is investigating the following opportunities: groundwater storage along the Los Angeles Aqueduct; a groundwater conjunctive use storage project in the Los Angeles County groundwater basins; and construction of an interconnection between the First Los Angeles Aqueduct and the east branch of the State Water Project, located where the two aqueducts intersect in the Antelope Valley. The interconnection will allow for water transfers or exchanges, and could be used to help move water to facilitate groundwater

³⁰ *Id.* at 30.

³¹ *Id.*

³² *Id.*

³³ *Id.*

³⁴ *Id.*

storage opportunities. The design phase of the interconnection is almost complete. LADWP is waiting for a permit to build on land owned by DWR.³⁵ LADWP plans to begin construction in late 2010.

Water Supplies

The Los Angeles Aqueducts (LAA), local groundwater, purchased water from the MWD, and recycled water are the primary sources of water supplies for the City of Los Angeles. Table III shows LADWP water supplies over the last ten years from these sources.

TABLE III
LADWP Water Supply

Year	Los Angeles Aqueducts	Local Groundwater	MWD	Recycled Water	Transfer, Spread, Spills, and Storage	Total
1999	309,037	170,660	164,112	1,812	-3,507	649,128
2000	255,183	87,946	336,116	1,998	2,569	678,674
2001	266,923	79,073	309,234	1,675	-1,994	658,899
2002	179,338	92,376	410,329	1,945	-1,405	685,392
2003	251,942	90,835	322,329	1,759	2,528	664,338
2004	202,547	71,831	391,834	1,774	-2,958	670,944
2005	368,839	56,547	185,346	1,401	3,140	608,993
2006	378,922	63,270	188,781	4,890	-1,336	637,199
2007	129,400	89,018	439,436	3,639	1,044	660,449
2008	147,365	60,149	429,110	7,051	1,664	642,011

Note: Units are in AF

Los Angeles Aqueducts

Snowmelt runoff from the Eastern Sierra Nevada Mountains is collected and conveyed to the City of Los Angeles via the Los Angeles Aqueducts (LAA). LAA supplies come primarily from snowmelt and secondarily from groundwater pumping, and can fluctuate yearly due to the varying hydrologic conditions. In recent years, LAA supplies have been less than the historical average because of environmental restoration obligations in Mono and Inyo Counties.

The City holds water rights in the Eastern Sierra Nevada where LAA supplies originate. These supplies originate from both streams and from groundwater. In 1905, the City approved a bond measure for the purchase of land and water rights in the Owens River Valley. By 1913, the First LAA began its deliveries of water to the City primarily from surface water diversions from the Owens River and its tributaries. Historically, these supplies were augmented from time to time by groundwater extractions from beneath the lands that the City had purchased in the Owens Valley.

³⁵ *Id.* at 31.

In 1940, the First LAA was extended north to deliver Mono Basin water to the City pursuant to water rights permits and licenses granted by the State Water Resources Control Board. In 1970, the Second LAA was completed increasing total delivery capacity of the LAA system to approximately 561,000 AF per year. The Second Los Angeles Aqueduct was to be filled by completing the Mono Basin diversions originally authorized in 1940, by a more effective use of water for agricultural purposes on City-owned lands in the Owens Valley and Mono Basin and by increased groundwater pumping from the City's lands in the Owens Valley.

In 1972, Inyo County filed a California Environmental Quality Act lawsuit challenging the City's groundwater pumping program for the Owens Valley. The lawsuit was finally ended in 1997, with the County of Inyo and the City of Los Angeles entering into a long-term water agreement for the management of groundwater in the Owens Valley. That water agreement, entered as a judgment of the Superior Court in the County of Inyo (County of Inyo vs. City of Los Angeles, Superior Court No. 12908) outlines the management of the City's Owens Valley groundwater resources. As a result of this water agreement and subsequent Memorandum of Understanding, LADWP has dedicated 37,000 AF of water annually for enhancement and mitigation projects throughout Owens Valley which includes the rewatering of 62 miles of the Lower Owens River. LADWP also provides approximately 80,000 AF of water annually for other uses in the Owens Valley such as irrigation, town water supplies, stockwater, wildlife and recreational purposes.

Further, in September 1994 by virtue of the public trust doctrine, the State Water Resources Control Board issued Decision 1631 which placed conditions on LADWP's water gathering activities from Mono Basin. LADWP currently export approximately 16,000 AF of water annually from the Mono Basin. LADWP has implemented an extensive restoration and monitoring programs in Mono Basin to increase the level of Mono Lake and to improve stream conditions, fisheries and waterfowl habitats in Walker, Parker, Rush and Lee Vining Creeks. With reduced diversions from the Mono Basin and favorable hydrologic conditions, Mono Lake's elevation has risen overtime. Once the elevation of Mono Basin reaches 6,391 feet above mean sea level, a moderate increase in water exports from the Mono Basin will be permitted pursuant to the Decision 1631. Currently, up to 74,000 AF of water annually is being utilized for environmental restoration in Mono Basin.

In July 1998, LADWP and the Great Basin Unified Air Pollution Control District (GBUAPCD) entered into a Memorandum of Agreement to mitigate dust emissions from Owens Lake. As of December 31, 2008, LADWP has mitigated dust emissions from 29.8 square miles of Owens Lake in accordance with the GBUAPCD's 2003 revised State Implementation Plan. LADWP is currently working on mitigating dust emissions from an additional 12.7 square miles of Owens Lake in accordance with the GBUAPCD's 2008 State Implementation Plan. Upon completion of this latest phase by April 2010, LADWP would have mitigated dust emissions from 39 square miles of Owens Lake requiring approximately 95,000 AF of water annually to sustain the dust mitigation program.

Average deliveries from the LAA system have been approximately 239,100 AF of water annually over the last five fiscal years. Based on computer modeling results, LADWP projects that the average annual LAA delivery is expected to be between approximately 200,000 AF and 230,000 AF.

Groundwater

LADWP traditionally extracts groundwater from nine wellfields throughout the Owens Valley and four local groundwater basins. LADWP owns approximately 315,000 acres of property in the Owens Valley. Groundwater pumping by LADWP from beneath its lands in Owens Valley is used in Owens Valley and in Los Angeles in accordance with a long-term groundwater management plan. Additionally, LADWP currently exercises its adjudicated extraction rights in three local groundwater basins: San Fernando, Sylmar, and Central.

The Owens Valley, located on the eastern slope of the Sierra Nevada Mountains, encompasses approximately 3,300 square miles of drainage area. LADWP has extracted the following quantities of groundwater from the Owens Valley in the last five runoff years (April 1 – March 31):

- 2004-2005 85,820 AF
- 2005-2006 57,412 AF
- 2006-2007 58,621 AF
- 2007-2008 60,337 AF
- 2008-2009 68,149 AF

Owens Valley is not identified as an overdrafted basin in the California Department of Water Resources California's Groundwater Bulletin 118 Update 2003. Further, Bulletin 118 Update 2003 does not project the Owens Valley to become overdrafted if present groundwater management conditions continue.

In 1990, the City of Los Angeles and Inyo County as part of the preparation of the long-term groundwater management agreement, prepared the "Green Book for the Long-Term Groundwater Management Plan for the Owens Valley and Inyo County". It contains plans and procedures to prevent overdraft conditions from groundwater pumping as well as to manage vegetation in the Owens Valley.

The San Fernando and Sylmar basins are subject to the judgment in City of San Fernando vs. the City of Los Angeles. Pumping is reported to the court-appointed Upper Los Angeles River Area (ULARA) Watermaster. The Central Basin is also subject to court judgments. Pumping is reported to the California Department of Water Resources (DWR) who acts as Watermaster.

The San Fernando Basin is the largest of four basins within ULARA. The basin consists of 112,000 acres of land and comprises 91.2 percent of the ULARA valley fill. LADWP has accumulated nearly 406,313 AF of stored water credits in the San Fernando Basin as of October 2008 (120,560 AF of stored water credits that are available to be pumped now and 285,753 AF that are held in reserve). This is water LADWP can withdraw from the basin during normal and dry years or in an emergency, in addition to LADWP's approximately 87,000 AF annual entitlement in the basin. The majority of LADWP's groundwater is extracted from the San Fernando Basin. Sylmar Basin is located in the northern part of the ULARA, consisting of 5,600 acres and comprises 4.6 percent of the ULARA valley fill. LADWP currently has an annual entitlement of 3,405 AF from the Sylmar Basin.

The court decision on pumping rights in the ULARA was implemented in a judgment on January 26, 1979. Enclosed with the assessment are copies of those pages from the judgment showing the entitlements (see Appendix E). Further information about the ULARA is in the ULARA Watermaster Report. The ULARA Watermaster report and the judgment are available for review at the office of the ULARA Watermaster.

LADWP additionally has adjudicated rights to extract groundwater from the Central Basin. Annual entitlement to the Central Basin is 15,000 AF. See Appendix E for copies of relevant portions of the judgments. The complete judgments are available for review at DWR.

For the period of October 2007 to September 2008, LADWP extracted 50,009 AF, 2,996 AF, and 10,754 AF from the San Fernando, Sylmar, and Central Basins, respectively. LADWP plans to continue production from its groundwater basins in the coming years to offset reductions in imported supplies. Extraction from the basins will however be limited by water quality and overdraft protection. Both LADWP and DWR have programs in place to monitor wells to prevent overdrafting. LADWP’s groundwater pumping practice is based on a “safe yield” operation. The objective, over a period of years, is to extract an amount of groundwater equal to the native and imported water that recharges the basin. Extractions by LADWP from the San Fernando, Sylmar, and Central Basins for the last available 5 years are shown on Table IV.

TABLE IV
Local Groundwater Basin Supply

Water Year (Oct-Sep)	San Fernando	Sylmar	Central
2003-2004	68,626	3,033	15,209
2004-2005	49,085	1,110	13,401
2005-2006	38,042	2,175	13,725
2006-2007	76,251	3,919	13,609
2007-2008	50,009	2,997	10,754

Note: Units are in AF

Metropolitan Water District of Southern California (MWD)

MWD is the largest water wholesaler for domestic and municipal uses in Southern California. As one of 26 member agencies, LADWP purchases water from MWD to supplement LADWP supplies from local groundwater and the LAA. MWD imports a portion of its water supplies from Northern California through the State Water Project’s California Aqueduct and from the Colorado River through MWD’s own Colorado River Aqueduct. LADWP will continue to rely on MWD to meet its current and future supplemental water needs.

All 26-member agencies have preferential rights to purchase water from MWD. Pursuant to Section 135 of the MWD Act, “ Each member public agency shall have a preferential right to purchase from the district for distribution by such agency, or any public utility therein empowered by such agency for the purpose, for domestic and municipal uses within the agency a portion of the water served by the district which shall, from time to time, bear the same ratio to all of the water supply of the district as the total accumulation

of amounts paid by such agency to the district on tax assessments and otherwise, excepting purchase of water, toward the capital cost and operating expense of the district's works shall bear to the total payments received by the district on account of tax assessments and otherwise, excepting purchase of water, toward such capital cost and operating expense." This is known as a preferential right. As of June 30, 2006, LADWP has a preferential right to purchase 21.16 percent of MWD's total water supply.

LADWP has worked with MWD in developing a plan for allocating water supplies during periods of shortage. On February 12, 2008 the MWD Board adopted its Water Supply Allocation Plan. LADWP supported the adoption of this plan and intends to work within the plan to acquire its drought supplies from MWD in the future.

MWD has also been developing plans and taking efforts to provide additional water supply reliability for the entire southern California region. LADWP coordinates closely with MWD to ensure implementation of these water resource development plans. Part of this planning effort is the inclusion of a "buffer" supply that is meant to protect against uncertainties in water resource supply like the Federal Courts restrictions on export pumping from the Sacramento-San Joaquin Delta. MWD's long-term plans to meet its member agencies' growing reliability needs are through water transfer programs, outdoor conservation measures, and development of additional local resources, such as recycling, brackish water desalination, and seawater desalination. Additionally, MWD has more than 5.0 million AF of storage capacity available in reservoirs and banking/transfer programs, with approximately 1.08 million AF currently in that storage.

MWD established a policy objective for water supply reliability as part of its Integrated Resources Plan (IRP). The policy objective is: Through the implementation of the IRP, MWD and its member agencies will have the full capability to meet full-service demands at the retail level at all times.

Recent Issues Related to the State Water Project

Federal Endangered Species Act (ESA) Litigation filed by several environmental interest groups in the United States District Court for the Eastern District of California alleged that existing biological opinions and incidental take statements inadequately analyzed impacts on listed species under the Federal ESA. On May 25, 2007, Federal District Judge Wanger issued a decision on summary judgment finding the United States Fish and Wildlife Service's biological opinion for Delta smelt was invalid. On December 14, 2007, Judge Wanger issued his Interim Remedial Order requiring that the State Water Project and Central Valley Project operate according to certain specified criteria until a new biological opinion for the Delta smelt is issued. The United States Fish and Wildlife Service released the new biological opinion on December 15, 2008. Based on the Water Allocation Analysis released by the California Department of Water Resources (DWR) on December 19, 2008, which analyzed the biological opinion's effects on State Water Project operations, export restrictions under median hydrologic conditions could reduce deliveries to Metropolitan by 300,000 to 700,000 acre-feet for 2009. These events have highlighted the challenges that water suppliers throughout the state currently face regarding supplies from the Delta.

On December 1, 2009, the DWR announced an initial 2010 SWP allocation of 5 percent of total contracted water deliveries to the SWP contractors. Five percent of 1,911,500 AFY, which is the MWD's contracted water delivery amount, would be 95,575 AFY. Five percent is the lowest initial allocation percentage since the SWP began delivering water in 1967. The initial allocation figure reflects the low carryover storage levels in the state's major reservoirs, ongoing drought conditions and federally mandated environmental restrictions on water deliveries from the Sacramento-San Joaquin Delta to protect endangered fish species. However, the initial allocation is a very conservative estimate of what DWP expects it can deliver, and historically the initial allocation increased during the year as supply conditions improved.

- **Delta Policy Legislation**

In November 2009, the State Legislature and Governor Arnold Schwarzenegger passed the 2009 Comprehensive Water Package which consists of four policy bills and an \$11.14 billion bond proposal designed to address the water supply reliability needs for California as well as to restore the Sacramento-San Joaquin Delta. Senate Bill No. 1, the Delta Governance bill, repeals the current CALFED Bay Delta Authority governing structure and mandates the creation or reconstitution of several entities responsible for governing the Delta. These include the Delta Stewardship Council, the Delta Conservancy, the Delta Protection Commission, the Delta Watermaster, and the Delta Independent Science Board and Delta Science Program. These entities would be tasked with the co-equal goals of providing for California's water supply needs and restoring and enhancing the ecosystem of the Delta.

The responsibilities of the entities created by the Delta Governance bill are as follows:

- **Delta Stewardship Council**

- The Delta Stewardship Council will be an independent agency of the state composed of seven members with the responsibility to oversee and coordinate state agency actions within the Delta.
- The Council will develop a Delta Plan that will include all state and federal Delta ecosystem, flood management, water supply, and local economic sustainability efforts and will serve as a guide for state and local agencies to ensure that their actions are consistent with the Council's policies.
- The Council will develop Performance measures to assess the progress of achieving the goals of the Delta Plan.
- The Council will determine compliance with the Delta Plan and will serve as the appellate body in the event of disputes over the consistency of a project with the Delta Plan.
- The Council will also ensure the consistency of the Bay-Delta Conservation Plan with the co-equal goals of water supply reliability and Delta restoration.

- **Delta Conservancy**

- The Delta Conservancy will be an eleven member entity with the responsibility to develop and adopt a strategic plan that will coordinate investments in the Delta's natural and cultural resources.
- The Conservancy shall promote the economic vitality in the Delta through increased tourism and the promotion of Delta legacy communities.

- The Conservancy shall also promote environmental education about, and the public use of, public lands in the Delta.
- Delta Protection Commission
 - The Delta Protection Commission will reduce its membership from 23 to 15 members and will continue to provide a forum for Delta residents to engage in decisions regarding actions to recognize and enhance the cultural, recreational, and agricultural resources of the Delta.
 - The Commission is to also adopt an economic sustainability plan for the Delta, which is to include flood protection recommendations to state and local agencies. The economic sustainability plan developed by the Commission is to be included in the Delta Stewardship Council's Delta Plan.
- Delta Watermaster
 - The Delta Watermaster will exercise of the authority of the State Water Resources Control Board and will monitor and enforce Board orders as well as license and permit terms and conditions relating to water diversions in the Delta.
- Delta Independent Science Board and Delta Science Program
 - The Delta Independent Science Board will consist of no more than ten members and will provide oversight of the scientific research, monitoring, and assessment programs that support adaptive management of the Delta.
 - The Delta Science Program will be led by a Delta Stewardship Council appointed lead scientist, and will provide unbiased scientific information to inform decision-making in the Delta.

In addition to the Delta Governance bill, the proposed \$11.14 billion bond would allocate \$2.25 billion for projects to assist in maintaining and restoring the Delta ecosystem. The bond investment will help to reduce the risk posed by seismic activities to water supplies from the Delta, protect drinking water quality and help to alleviate conflicts between water management and environmental protection.

In response to these recent developments in the Delta, MWD is engaged in planning processes that will identify local solutions that, when combined with the rest of its supply portfolio, will ensure a reliable long-term water supply for its member agencies. In the near-term MWD will continue to rely on the plans and policies outlined in its Regional Urban Water Management Plan (RUWMP) and Integrated Water Resources Plan to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. Campaigns for voluntary conservation, curtailment of replenishment water and agricultural water delivery, and mandatory water allocations for municipal and industrial water use are some of the actions currently being taken by MWD which are outlined in their RUWMP. An in depth discussion of MWD is attached in Appendix G.

Secondary Sources and Other Considerations

Water conservation and recycling will play an increasing role in meeting future water demands. LADWP has implemented conservation and recycling programs with efforts under way to further promote and increase the level of these programs. LADWP is committed to supply a higher percentage of the City's water demand through conservation and recycling.

Integrated planning has also filled an important role in developing secondary sources of supply for Los Angeles. It is generally true for large undertakings that a concerted effort with others who share a common goal will produce a higher degree of success. This is an approach that has been taken in southern California with overall water resources planning. The City of Los Angeles works closely with MWD, the City's Bureau of Sanitation (wastewater agency), other regional water providers, and various stakeholder groups to develop and implement programs that reduce overall water use. The City has also pioneered community-based job programs to assist in conservation program implementation. While significantly assisting with program implementation, these community-based organizations also provide important social and economic benefits to neighborhoods.

Integrated resources planning is a process that is being used by many water and wastewater providers to meet their future needs in the most effective way possible, and with the greatest public support. The planning process differs from traditional planning processes in that it incorporates:

- public stakeholders in an open, participatory process;
- multiple objectives such as reliability, cost, water quality, environmental stewardship, and quality of life;
- risk and uncertainty; and
- partnerships with other agencies, institutions, and non-governmental organizations.

Through integrated planning, not only water-use efficiency and recycling activities are maximized, but potential alternative supplies such as water transfer, seawater desalination, and stormwater runoff reuse are considered and evaluated as part of the City's long-term water resources portfolio.

Rates

Capital costs to finance facilities for the delivery of water supply to LADWP's service area are supported through customer-billed water rates. The LADWP Board of Commissioners (Board) sets the rates subject to approval of the City Council by ordinance.

The Board is obligated by the City Charter to establish water rates and collect charges in an amount sufficient to service the water system indebtedness and to meet its expenses of operation and maintenance.

The water rate structure contains water procurement adjustments under which the cost of purchased water from MWD, demand-side management programs which includes water conservation programs, and reclaimed water projects are recovered. In addition, the rate structure contains a water quality improvement adjustment to recover expenditures to upgrade and equalize water quality throughout the City of Los Angeles and to construct facilities to meet state and federal water quality standards, including the payment of debt service on bonds issued for such purposes.

LADWP Board-approved capital program expenditures are either financed through the sale of revenue bonds or the cost of the program is transferred to LADWP customers through rate adjustments.

Findings

The proposed Mangrove Estates Mixed Use Development Project is estimated to increase water demand within the site by 273 acre feet annually based on review of information submitted by the Planning Department.

The approximate 273 acre feet increase falls within the available and projected water supplies for normal, single-dry, and multiple-dry years through the year 2030 as described in LADWP's year 2005 UWMP. LADWP finds that it will be able to meet the water demand of the Mangrove Estates Mixed Use Development Project as well as existing and planned future water demands of its service area.

Appendix A

City of Los Angeles Department of City Planning
Request for Water Supply Assessment

DEPARTMENT OF
CITY PLANNING
200 N. SPRING STREET, ROOM 525
LOS ANGELES, CA 90012-4801
AND
6262 VAN NUYS BLVD., SUITE 351
VAN NUYS, CA 91401

CITY PLANNING COMMISSION

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CITY OF LOS ANGELES
CALIFORNIA



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November 5, 2009

Mr. James McDaniel, Chief Operating Officer – Water System
LOS ANGELES DEPARTMENT OF WATER AND POWER
111 North Hope Street, Room 1455
Los Angeles, California 90012.

Re: Request for Water Supply Assessment – Mangrove Estates Mixed Use Development

Dear Mr. McDaniel:

California Senate Bill (SB) 610, effective January 1, 2002, states that a water supply assessment must be provided to local governments for inclusion in any environmental documentation for certain projects subject to the California Environmental Quality Act (CEQA). Specifically, SB 610 requires that for certain projects, the CEQA lead agency must identify any public water system that may supply water to the proposed project and request the public water system to determine the water demand associated with the project and whether such demand was included as part of the most recently adopted Urban Water Management Plan (UWMP). Per Section 10912 of the California Water Code (hereinafter WC), a project which is subject to the requirements of SB 610 includes; (1) a shopping center or business establishment that will employ more than 1,000 persons or have more than 500,000 square feet of floor space; (2) a commercial office building that will employ more than 1,000 persons or have more than 250,000 square feet of space; or (3) any mixed-use project that would demand an amount of water equal to or greater than the amount of water needed to serve a 500 dwelling unit project.

The City of Los Angeles is proposing to sell an area of under-utilized city-owned land at the northeast corner of 1st Street and Alameda Street. This property has historically been referred to as the "Mangrove Estates" site. The land would be sold with the intention that it be available for a potential large-scale mixed-use development (the project) that meets the above thresholds requiring the preparation of a water supply assessment. Thus, the Los Angeles Department of Water and Power (LADWP) has been identified as a public water system [as defined in WC Section 10912 and CEQA Guidelines Section 15083.5(e)] that would serve the proposed project. Accordingly, the City Planning Department (CEQA lead agency for the proposed project) requests that LADWP; (1) determine whether the estimated water demand associated with the potential mixed-use development of Mangrove Estates site was included as part of LADWP's most recently adopted UWMP; and (2) prepare and approve a water supply assessment using the UWMP or new analyses for the Mangrove Estates Mixed-Use Development pursuant to WC Section 10910 et seq.

The requirements for a water supply assessment include the identification of existing water supply entitlements, water rights, or water service contracts held by LADWP's public water system, and prior years' water deliveries received by LADWP's public water system. Please refer to WC Section 10910 (d)(2) for the documentation required to verify any identified rights to water supply. If LADWP has not received water in prior years as described in WC Section 10910 (e) or if groundwater is a source of supply as described in WC Section 10910 (f), please comply with the requirements of those sections.

The City Planning Department requests that the water supply assessment for the Mangrove Estates Mixed-Use Development include a discussion of whether LADWP's public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to LADWP's public water system's existing and planned future uses, including agricultural and manufacturing uses, pursuant to WC Section 10910 (c)(3).

The proposed project involves a General Plan amendment, zone change and other necessary approvals to allow for the development of mixed retail, office, community space, creative live/work units and residential development. Although no specific development is proposed at this time, the Environmental Impact Report (EIR) will analyze 1.2 million square (sf) feet of floor space, which is the anticipated maximum amount of development that the project site could accommodate.

Table 1 shows the estimated water demand of existing uses to be demolished as part of the proposed project, projected water demand associated with the estimated amount of each of specific use that could be accommodated at the site and the net increase in onsite water demand (future onsite development minus existing water demand).

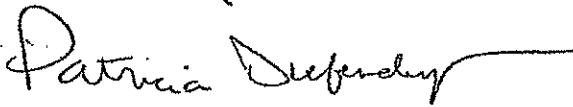
Because no specific development is proposed at this time, specific types of retail, office, community space, creative live/work units and residential development are unknown at this time. As such, in order to provide a more conservative estimate of water demand associated with future onsite development, the retail, office, community space, creative live/work units and residential development were broken down into more specific land uses based on projects of similar size, scale and land uses in the City of Los Angeles (see Table 1). For example, the EIR analyzes a maximum of 200,000 sf of general retail space. Based on the City's water demand factor of 80 gallons per day (gpd) per 1,000 sf of general retail space, the water demand of 200,000 sf of general retail space would be 16,000 gpd. However, in Table 1 the 200,000 sf of retail use was broken down into more specific types of uses, including: 22,000 sf of bar space, 22,000 sf of coffee house space, 20,100 sf of dancing area of bar or nightclub, 22,000 sf of full service indoor restaurant space and 113,900 sf of general retail area. Based on the City's water demand factor of 500 gpd per 1,000 sf of bar space; 30 gpd per seat¹ for coffee house; 600 gpd per 1,000 sf of dancing area of bar or night club; 30 gpd per seat for full service indoor restaurant; and 80 gpd per 1,000 sf of general retail space, the water demand of the bar, coffee house, restaurant and general retail area land uses would be 120,192 gpd. Therefore, the land use assumptions provide a more conservative estimate of water demand that would be generated by potential future onsite development.

The Notice of Preparation (NOP) for the proposed Mangrove Estates Mixed Use Development is included as an attachment to assist in the preparation of the water supply assessment.

¹ Restaurant square footage converted to seats by dividing the square footage by 15 per the Los Angeles Municipal Code, <http://lacodes.lacity.org>, section 57.33.02.

WC Section 10910 (g)(1) requires submission of the assessment within 90 days of this request. We would appreciate the receipt of the water assessment within that timeframe. If you have any questions or need additional information, please give me a call at (213) 978-1179 or call the EIR consultant, Sean Wazlaw, at Rincon Consultants, Inc. at (805) 641-1000, extension 29. Regardless, please call Patricia Diefenderfer to confirm receipt of this request.

S. Gail Goldberg, AICP
Director of Planning



Patricia Diefenderfer
City Planner, Metro/Central Unit
Community Planning Bureau

Enclosures: Notice of Preparation

cc: Honorable Councilmember Jan Perry
S. Gail Goldberg, Director of Planning

Table 1

Projected Water Demand

Land Use	Amount of Development	Generation Factor ^a	Water Demand (gpd)
Anticipated Onsite Development^b			
Bar: Cocktail Public Table Area	22,000 Sq. ft.	500 gpd/1,000 Gr. Sq. ft.	11,000
Coffee House: Serves Prepared Food	22,000 Sq. ft. (1,467 Seats) ^d	30 gpd/seat	44,010
Commercial Use	18,750 Sq. ft.	80 gpd/1,000 Gr. Sq. ft.	1,500
Conference Room of Office Building ^e	25,000 Sq. ft.	180 gpd/1,000 Gr. Sq. ft.	4,500
Dancing Area of Bar or Nightclub	20,100 Sq. ft.	600 gpd/1,000 Gr. Sq. ft.	12,060
Office Building with Cooling Tower	500,000 Sq. ft.	180 gpd/1,000 Gr. Sq. ft.	90,000
Residential: Apt. - 1 Bedroom	370 units	120 gpd/dwelling unit	44,400
Residential: Apt. - 2 Bedroom	158 units	160 gpd/dwelling unit	25,280
Restaurant: Full Service - Indoor Seat	22,000 Sq. ft. (1,467 Seats) ^d	30 gpd/seat	44,010
Retail Area	113,900 Sq. ft.	80 gpd/1,000 Gr. Sq. ft.	9,112
Total Anticipated Onsite Development			285,872
Existing (to be demolished)			
Office (vacant ^e)	19,500 square feet	150 gpd/1,000 square feet	0
Parking	182,225 square feet	20 gpd/1,000 square feet	3,645
Total Existing			3,645
Net Increase in Onsite Water Demand (Total Anticipated Onsite Development - Existing)			282,227

^a Based on City of Los Angeles L.A. CEQA Thresholds Guide, Exhibit M.2-12, "Sewage Generation Factors" Table dated 2006.

^b Anticipated onsite development includes an estimated 743,750 sf of non-residential space, including 200,000 sf of retail space, 500,000 sf of office space, 25,000 sf of community space, and 18,750 sf commercial space within live/work units. The residential component of onsite development would encompass an estimated 456,250 sf. It is anticipated that 445 multiple family residences would be developed onsite and that the live/work component of onsite development would include an additional 83 residential units, for a total of 528 residences. To provide a more conservative estimate of water demand, the retail, office, community space, commercial space and residential units were broken down into more specific land uses based on projects of similar size, scale and land uses in the City of Los Angeles.

^c This was considered to be the most appropriate category for the proposed community space as the proposed community space is anticipated to be used for community events such as meetings and workshops.

^d Restaurant square footage converted to seats by dividing the square footage by 15 per the Los Angeles Municipal Code, <http://llacodes.lacity.org>, section 57.33.02. Assumed to be full service restaurants with indoor seating.

^e There is no water demand associated with the existing onsite office building as it is currently vacant.

October 22, 2009
NOTICE OF PREPARATION
ENVIRONMENTAL IMPACT REPORT

EIR NO.: ENV-2009-3345-EIR

PROJECT LOCATION/ADDRESS: Northeast corner of Alameda Street and First Street, City of Los Angeles, County of Los Angeles

COMMUNITY PLANNING AREA: Central City North

COUNCIL DISTRICT: 9 (Jan Perry)

DUE DATE FOR PUBLIC COMMENTS: November 23, 2009

The City of Los Angeles, Department of City Planning, will be the Lead Agency and will require the preparation of an Environmental Impact Report (EIR) for the project identified herein (the "Project"). The Department of City Planning requests your comments as to the scope and content of the EIR.

The Project description, location, and the potential environmental effects are set forth below. The environmental file is available for review at the Department of City Planning, 200 North Spring Street, Room 667, Los Angeles, CA 90012.

PROJECT DESCRIPTION: The proposed project involves a General Plan amendment and other necessary approvals to allow for the development of mixed retail, office, community space, creative live/work units and residential development adjacent to the new Little Tokyo/Arts District Gold Line light rail transit station. Although no specific development is proposed at this time, it is anticipated that the project site could accommodate a maximum of 1.2 million square (sf) feet of floor space. The maximum amount of each of specific use that could be accommodated at the site is as follows:

- *Retail: 200,000 sf*
- *Office: 500,000 sf*
- *Community Space: 25,000 sf*
- *Creative Live/Work: 75,000 sf (83 units)*
- *Residential: 400,000 sf (445 units)*

The average size of the proposed residential units and creative live/work units is estimated at 900 sf. It is anticipated that approximately 75% of the floor space of each creative live/work unit would be devoted to living area and 25% would be commercial space. Parking would be provided onsite, primarily in subterranean levels. However, it is expected that some parking, including loading/unloading spaces, would be provided at-grade. The maximum height of onsite development is anticipated to be 16 stories above-grade.

Although the maximum amount of onsite development would be 1.2 million sf, the size of each project component could vary from what is shown above. As such, an "equivalency table" will be developed as part of the environmental review to determine what changes in the mix of onsite uses would result in impacts equivalent to or lower than those studied as part of the environmental review.

As part of the proposed project, Hewitt Street would be extended north through First Street, up to East Temple Street. The alignment of the proposed Hewitt Street extension forms the eastern boundary of the project site. In addition, the portions of Banning Street and Turner Street that run through the project site that are currently closed to traffic would be vacated.

In order to accommodate the proposed project, an existing 19,500 sf office building and surface parking lot onsite would be demolished. In addition, future onsite construction would include excavation, grading and other site preparation activities.

PROJECT LOCATION: The project site is located at the northeast corner of Alameda Street and First Street on the edge of the Little Tokyo community, in the City of Los Angeles, County of Los Angeles. The attached figure shows the location of the project site within the site vicinity.

REQUESTED PERMITS/APPROVALS: The City of Los Angeles has sole discretion to approve the Mangrove Estates Site Mixed Use Project. Project approval may entail the approval of:

- *General Plan Amendment*
- *Zone and Height District change*
- *Tract Map/Subdivision*
- *Street Vacations (Turner Street and Banning Street, both of which are currently closed to traffic)*
- *Site Plan Review*
- *Variances for Parking Reductions*
- *Other related entitlements as necessary*

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: An Initial Study (IS) was completed to determine the areas of focus for the EIR. As discussed in the IS, the following issues will be included in the EIR: Aesthetics, Air Quality, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Noise, Public Services, Recreation, Transportation/Traffic and Utilities/Service Systems. All other environmental issues have been found to be less than significant.

You are being notified of the City of Los Angeles' intent, as Lead Agency, to prepare an EIR for this Proposed Project, which is located in an area of interest to you and/or the organization you represent. This EIR will be prepared by outside consultants and submitted to the Department of City Planning, Environmental Review Section, for certification.

PUBLIC SCOPING MEETING: Pursuant to the public participation goals of CEQA, the City of Los Angeles will host an EIR Scoping Meeting to gather additional input on the content and focus of the environmental analysis to be conducted and presented in the EIR. **The scoping meeting will be held on Tuesday, November 3, 2009, from 6:30 PM to 8:00 PM, in the Lotus Room at the Homba Hongwanji Buddhist Temple located at 815 East First Street, Los Angeles, California, 90012.** Parking is available at the temple. Enter through the Vignes Street driveway on the east side of the temple.

COMMENTING ON THE SCOPE OF THE EIR: The Environmental Review Section welcomes all comments regarding environmental impacts of the Project. All comments will be considered in the preparation of the EIR. Written comments must be submitted to this office by November 23, 2009.

Please direct your comments to:

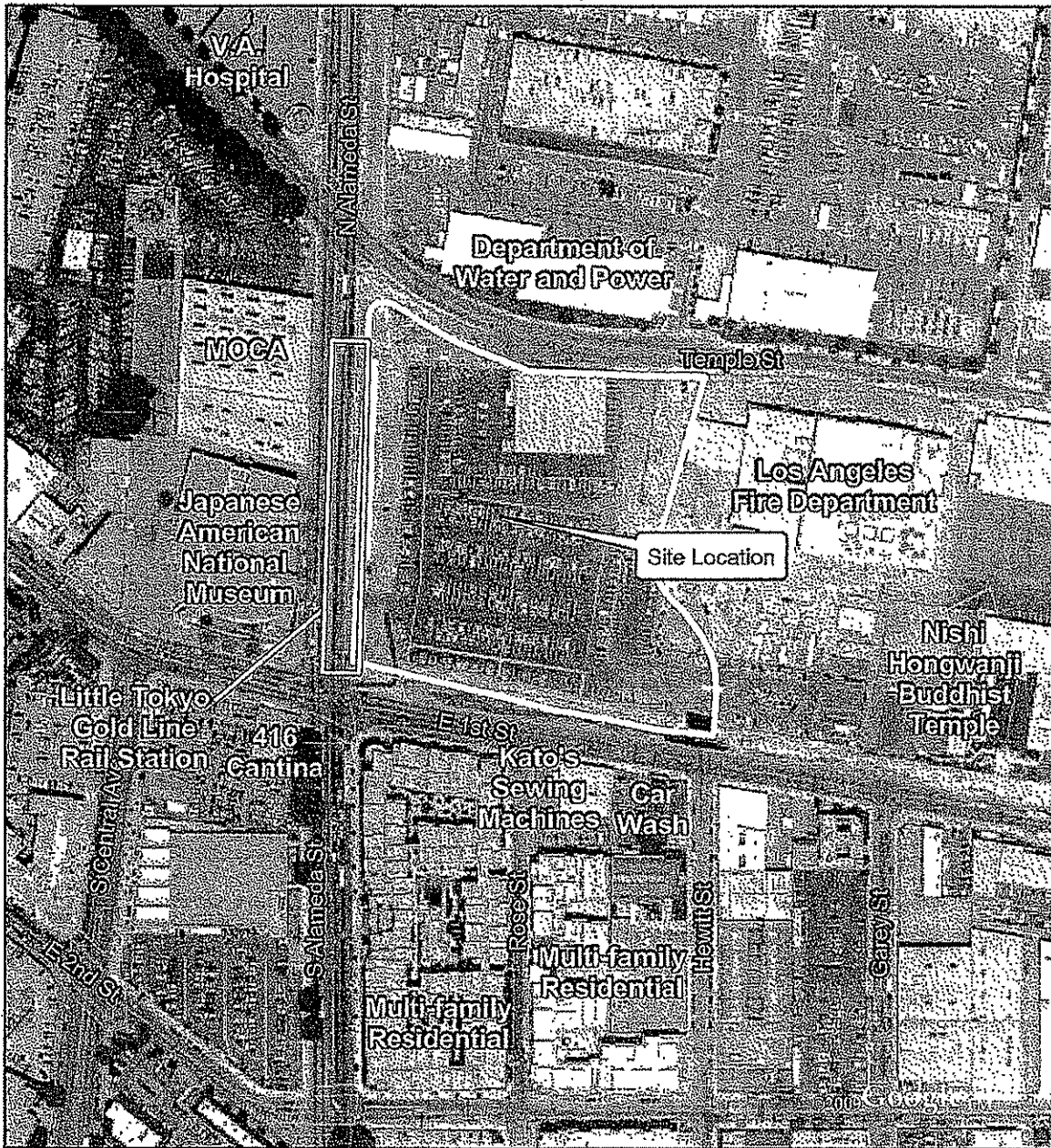
Steven Wechsler, Community Planner
Department of City Planning, Mail Stop 395
200 N. Spring Street, Room 667
Los Angeles, CA 90012
(213) 978-1163
(213) 978-1477 (Fax)
steven.wechsler@lacity.org

S. Gail Goldberg, AICP
Director of Planning

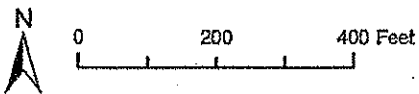
A handwritten signature in black ink, appearing to read "Steven Wechsler". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Steven Wechsler
Community Planner

Enclosures: Site Map



Aerial source: Google Earth Pro, 2009.



Site Map

Hwang, Jin

From: Patricia Diefenderfer [Patricia.Diefenderfer@lacity.org]
Sent: Monday, November 30, 2009 10:59 AM
To: Hwang, Jin
Cc: Steven Wechsler; Hampson, Mark; Kassis, Natali; McCarthy, Terrence; Pettijohn, David; Erb, Thomas
Subject: RE: WSA - Mangrove Estates Mixed Used Development: scopeverification request
Attachments: Patricia Diefenderfer.vcf



Patricia
iefenderfer.vcf (325

Hi Jin,

This scope looks to be consistent with the draft commitment letter so it is correct.

Please let me know if i can provide anything else.

Thanks,

Patricia

Patricia Diefenderfer

City Planner

Community Planning Bureau

Department of City Planning

200 N. Spring St., Room 667

Los Angeles, CA 90012

Mail Stop 395

213/978-1179 (note recent change in phone number)

213/978-1477 (fax)

please note recent changes to e-mail address: patricia.diefenderfer@lacity.org

>>> "Hwang, Jin" <Jin.Hwang@ladwp.com> 11/18/2009 1:00 PM >>>

Patricia,

Please note the revised landscaping area size below.

We are in the process of preparing the Water Supply Assessment (WSA) Board Package for the Mangrove Estates Mixed Used Development Project (Project). The WSA Request letter for this project was received on 11/9/2009 (dated 11/5/2009). To complete the process, the Los Angeles Department of Water and Power (LADWP) would like to request the Planning Department to send us the correct detailed scope of the Project by e-mail.

The scope considered in the LADWP's water demand calculations, as received in the WSA Request Letter and e-mails from the Planning Department, is as follows:

Existing (to be demolished)

Office (vacant) 19,500 sf

Parking 182,225 sf

Proposed

Bar: Cocktail, Public Table Area 22,000 sf

Coffee House: Serves prepared food 1,467 seat

Conference Room of Office Building 25,000 sf

Dancing Area of Bar or Nightclub 20,100 sf

Office Building with Cooling Tower 500,000 sf

Restaurant: Full Service - Indoor Seat 1,467 seat

Retail Area 113,900 sf

Residential Apt. - 1 Bedroom unit 312 dwelling

Residential Apt. - 2 Bedroom unit 133 dwelling

Residential: Live/Work space unit (75% living area, 25% commercial) 83 dwelling

Landscaping 52,490 sf

Parking
primarily in subterranean levels

If the above listed scope is accurate and consistent with the Project, please include the exact same scope and state so in the e-mail. If not, please edit the scope to ensure its consistency with the Project.
Please send the e-mail to me at jin.hwang@ladwp.com.

Your e-mail will be included as part of the WSA, and the project scope the Planning Department verifies needs to match the exact scope we use for calculating the water demand.

Thank you, and please let me know if you have any questions.

Jin Hwang

Civil Engineering Associate

Los Angeles Department of Water and Power

Water Resources Development Group

213-367-4845

-----Confidentiality Notice----- This electronic message transmission contains information from the Los Angeles Department of Water and Power, which may be confidential. If you are not the intended recipient, be aware that any disclosure, copying, distribution or use of the content of this information is prohibited. If you have received this communication in error, please notify us immediately by e-mail and delete the original message and any attachment without reading or saving in any manner.

Appendix B

Water Conservation Commitment Letter

DEPARTMENT OF
CITY PLANNING
200 N. SPRING STREET, ROOM 525
LOS ANGELES, CA 90012-4801
AND
6262 VAN NUYS BLVD., SUITE 351
VAN NUYS, CA 91401

CITY PLANNING COMMISSION

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www.planning.lacity.org

December 1, 2009

James McDaniel
Senior Assistant General Manager for Water Systems
Los Angeles Department of Water & Power
111 North Hope Street, Room 1455
Los Angeles, CA 90012-5701

Re: WATER CONSERVATION COMMITMENTS FOR MANGROVE ESTATES
MIXED USE DEVELOPMENT

Dear Mr. McDaniel:

The City of Los Angeles is proposing to sell an area of under-utilized City-owned land at the northeast corner of 1st Street and Alameda Street. This property has historically been referred to as the "Mangrove Estates" site. The land would be sold with the intention that it be available for a potential large-scale mixed-use development (the project). Land uses surrounding the project site include a Department of Water and Power facility located across East Temple Street to the north of the site; a Veterans' Affairs Hospital located to the northwest of the site on the northwest corner of Alameda Street and East Temple Street; the Little Tokyo/Arts District Gold Line light rail transit station immediately adjacent to the west of the site; the Geffen Contemporary at the Museum of Contemporary Art (MOCA) and the Japanese American National Museum located across Alameda Street to the west of the project site; a restaurant and surface parking lot to the southwest of the site on the southwest corner of First Street and Alameda Street; multi-family residential buildings, a car wash and the Sogo/Chugokaya Hotel located across First Street to the south of the site; and a fire station and the Nishi Hongwanji Buddhist Temple located immediately east of the site.

The proposed Mangrove Estates Mixed Used Development (the Project) analyzed in the EIR involves a General Plan amendment, zone change and other necessary approvals to allow for the development of mixed retail, office, community space, creative live/work units and residential development. However, because the City has not yet selected a development proposal, no specific development is proposed at this time. It is anticipated that the project site could accommodate a maximum of 1.2 million sf of floor space. The estimated amount of each specific use that could be accommodated at the site is shown in Table 1.

Because no specific development is proposed at this time, specific types of retail, office, community space, creative live/work units and residential development are unknown at this time. As such, in order to provide a more conservative estimate of water demand associated with the proposed Mangrove Estates Mixed Used Development (the Project) analyzed in the EIR, the retail, office, community space, creative live/work units and residential development were broken down into more specific land uses based on projects of similar size, scale and land uses in the City of Los Angeles (see Table 2).

**Table 1
Anticipated Onsite Land Uses**

Use	Amount
Retail	200,000 sf
Office	500,000 sf
Community Space	25,000 sf
Creative Live/Work	75,000 sf (83 residential units plus 18,750 sf of commercial space)
Multiple Family Residential	400,000 sf (445 units)
Total	1,200,000 sf

Note: The average size of the proposed residential units and creative live/work units is assumed to be 900 sf. It is anticipated that 75% of the floor space of each creative live/work unit would be devoted to living area and 25% would be commercial space.

**Table 2
Anticipated Onsite Land Uses for Purpose of
Providing Conservative Estimate of Water Demand**

Land Use	Amount of Development
Bar: Cocktail Public Table Area	22,000 Sq. ft.
Coffee House: Serves Prepared Food	22,000 Sq. ft. (1,467 Seats)*
Commercial Use	18,750 Sq. ft.
Conference Room of Office Building	25,000 Sq. ft.
Dancing Area of Bar or Nightclub	20,100 Sq. ft.
Office Building with Cooling Tower	500,000 Sq. ft.
Residential: Apt. - 1 Bedroom	370 units
Residential: Apt. - 2 Bedroom	158 units
Restaurant: Full Service - Indoor Seat	22,000 Sq. ft. (1,467 Seats)*
Retail Area	113,900 Sq. ft.

**Restaurant square footage converted to seats by dividing the square footage by 15 per the Los Angeles Municipal Code, <http://acodes.lacity.org>, section 57.33.02.*

In order to accommodate future onsite uses, the existing onsite 19,500 square foot medical office building and 182,225 square foot surface parking lot would be removed.

The City of Los Angeles' policy is that future water needs shall be met by expanding water recycling and conservation. Consistent with that policy, the City of Los Angeles Planning Department has committed to impose the following water conservation measures on the proposed Mangrove Estates Mixed Used Development (the Project):

- High Efficiency Toilets with flush volume of 1.0 gallons of water per flush
- High Efficiency Clothes Washers (Residential) – water savings factor of 4.0 or less
- Waterless Urinals
- Showerheads – no more than one showerhead per stall
- Rotating Sprinkler Nozzles for Landscape Irrigation – 0.5 gallons per minute
- Weather Based Irrigation Controller
- Drought Tolerant Plants – 40% of total landscaping
- High Efficiency Clothes Washers (Commercial) – water savings factor of 7.5 or less
- Domestic Water Heating System located close proximity to point(s) of use
- Individual Metering and billing for water use
- Tankless and on-demand Water Heaters
- Cooling Tower Conductivity Controllers or Cooling Tower pH Conductivity Controllers
- Water-Saving Pool Filter
- Leak Detection System for swimming pools and Jacuzzi
- Drip/ Subsurface Irrigation (Micro-Irrigation)
- Micro-Spray
- Proper Hydro-zoning/ (groups plants with similar water requirements together)
- Zoned Irrigation

- Landscaping Contouring to minimize precipitation runoff
- Rainwater Harvesting
- Faucets - all indoor faucets (in addition to City Ordinance No.180822 requirements) with flow rate of 1.5 gallons per minute or less

The Planning Department has also committed to require the developer of the Project to comply with the Standard Urban Stormwater Mitigation Plan (SUSMP) and to implement Best Management Practices that have stormwater recharge or reuse benefits for the entire Mangrove Estates Mixed Used Development (the Project) as applicable:

- Infiltration Basin (drainage area of 5-50 acres) – captures first-flush stormwater, removes particulate pollutants and some soluble pollutants, and contributes toward recharging groundwater.
- Infiltration Trench (drainage area of less than 5 acres) – similar to infiltration basin but used for smaller drainage areas.
- Catch Basin Insert - a device that can be inserted into an existing catch basin design to provide some level of runoff contaminant removal
- Catch Basin Screens
- Pervious Pavements – captures runoff by allowing stormwater to infiltrate the surface of pavement layer into a “reservoir” layer
- Cistern - captures stormwater runoff as it comes down through the roof gutter system.
- Greywater Systems
- Primary (On-Site) Waste Water Treatment Systems

The following items are required by City Ordinance No.180822, effective Dec. 1, 2009, and the City of Los Angeles Planning Department acknowledges compliance with the following requirements for the proposed Mangrove Estates Mixed Used Development (the Project):

- Faucets:
 - Private Use Lavatory Faucets – 1.5 gallons per minute
 - Public Use Lavatory Faucets – 0.5 gallons per minute, self-closing
 - Pre-rinse Spray Valve installed in Commercial Kitchens – 1.6 gallons per minute
 - All Other Faucets – 2.2 gallons per minute
- Low-flow Showerheads – maximum flow rate not to exceed 2.0 gallons per minute, except emergency shower heads for health or safety purposes.
- All Installed Dishwashers must be Energy Star Rated and in compliance with the following:
 - The maximum water use for high efficiency commercial dishwashers shall be in accordance with the following table:

Type	High-Temperature Maximum gallons per rack	Chemical-Maximum gallons per rack
Conveyer	0.70	0.62
Door	0.95	1.16
Undercounter	0.90	0.98

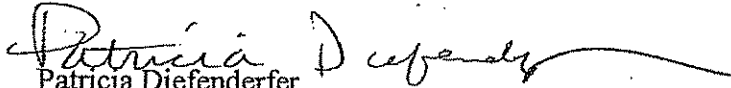
- The maximum water use per washing cycle for high efficiency domestic dishwashers shall be 5.8 gallons.
- All cooling towers must operate at a minimum of 5.5 cycles of concentration
- Single-pass cooling systems are strictly prohibited for use in devices, processes, or equipment installed in commercial, industrial, or multi-family residential buildings. This prohibition shall not apply to devices, processes, or equipment installed for health or safety purposes that cannot operate safely otherwise.

Included in Table 3 on the following page is the estimated number of plumbing fixtures for the proposed Mangrove Estates Mixed Used Development (the Project).

The City of Los Angeles Planning Department acknowledges that all new projects in the City of Los Angeles may be subject to additional requirements as a condition of water service, including a potential future fee to fund expansion of the recycled water program. The City of Los Angeles Planning Department acknowledges that the issuance of a Water Supply Assessment does not exempt the proposed Mangrove Estates Mixed Used Development (the Project) from this potential future fee.

Should you have any questions, please do not hesitate to call at (213) 978-1179.

Sincerely,



Patricia Diefenderfer

City Planner, Metro/Central Division
Community Planning Bureau

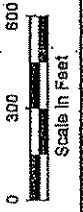
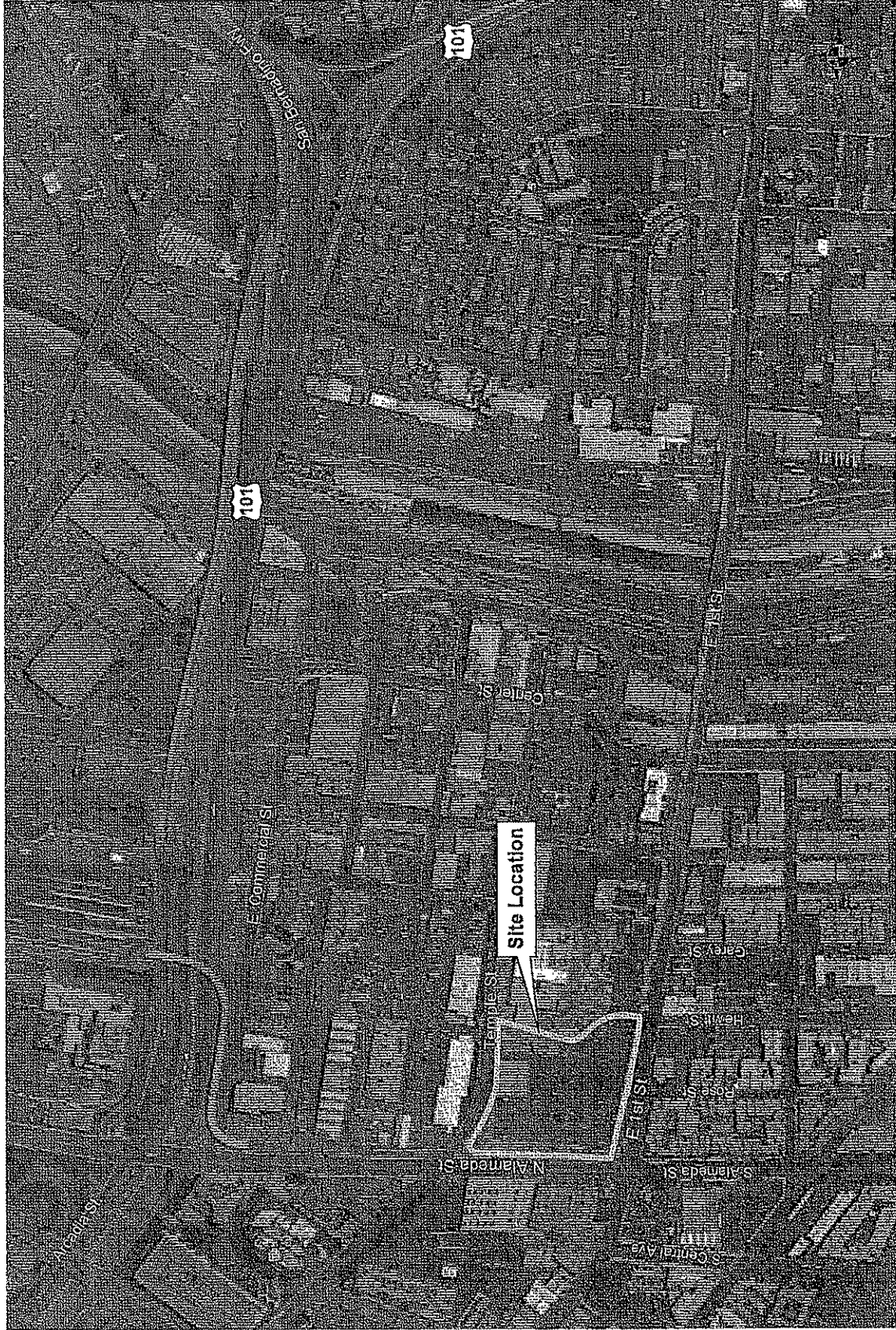
Table 3 - Water Fixture Count

Use	Quantity	Unit	Load Factor	OCC Load	Male Occupants	Female Occupants	Toilets		Urinals	Bath Faucets		Kitchen Faucets	Showerheads	Clothes washer	Dishwasher
							Male	Female		Male	Female				
Retail Wholesale Stores	13,900	sf	200	570	235	285	5	6	3	2	3	5	8	8	9
Restaurant, Lounge, Pub	66,000	sf	30	2870	1435	1435	9	10	10	6	6	119	5	5	33
Auditoriums Dance floors	20,100	sf	15	340	670	670	4	4	5	3	3	2	2	2	2
Office or Public Buildings (Employee Use)	525,000	sf	200	2525	1313	1313	35	36	27	33	33	42	42	42	42
Residential	528	Units												528	528

Appendix C

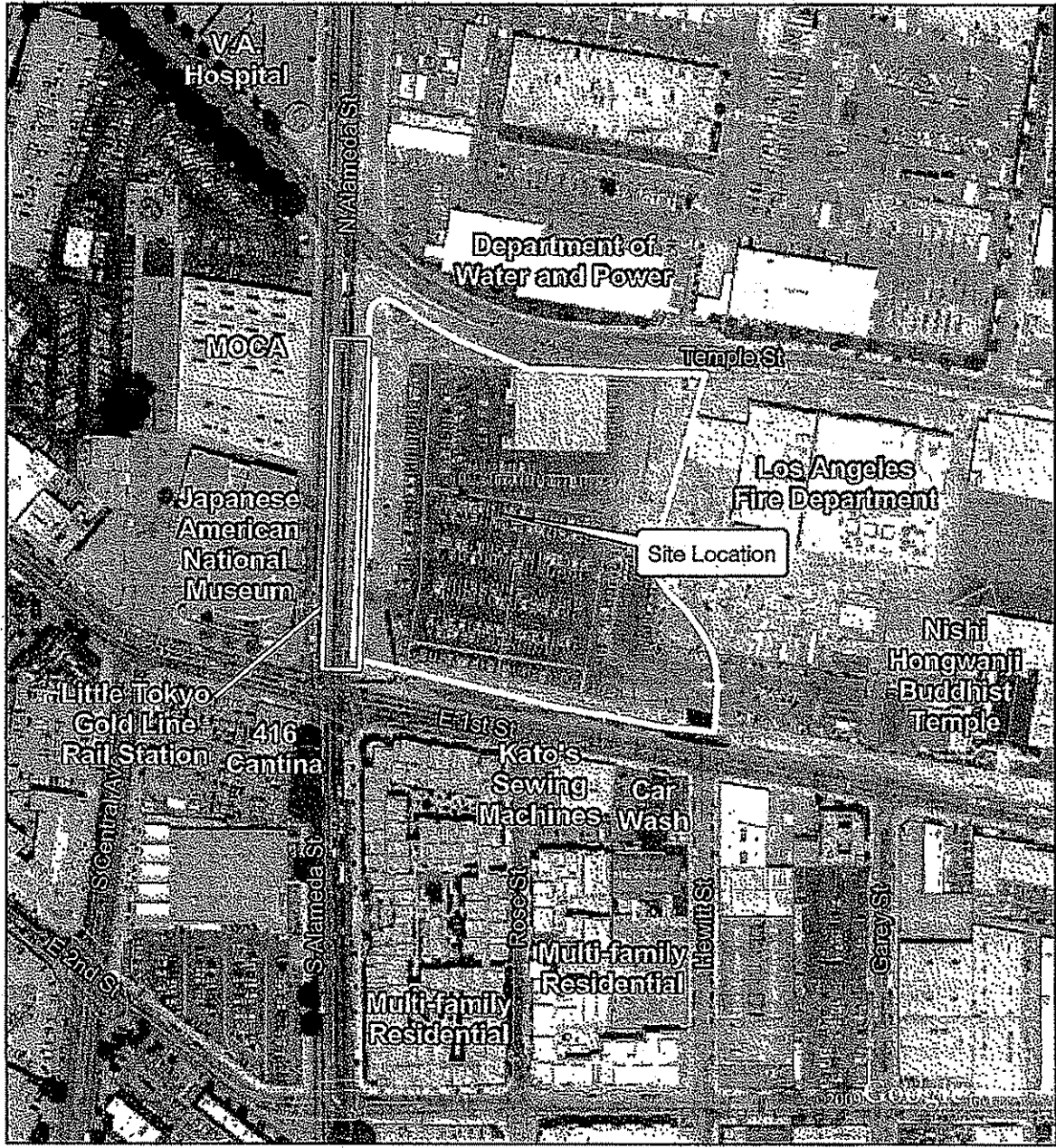
Project Location Map

Mangrove Estates Site Mixed Use Development EIR

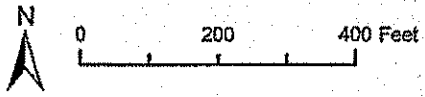


Site Vicinity Map

Aerial source: Google Earth Pro, 2009.



Aerial source: Google Earth Pro, 2009.



Site Map

Appendix D

LADWP Water Supply Assessment Worksheet

**CITY OF LOS ANGELES
DEPARTMENT OF WATER AND POWER
WATER SUPPLY ASSESSMENT WORKSHEET - YEAR 2005-2030**

This worksheet estimates water demands arising from water supply assessment request from developers.
Water Supply Assessments are performed in compliance with California Water Code Sections 10910-10915.

Assess. Number	Project	LADWP Board Action Date	(A)	(B)	(C) = (B) - (A)
			Present Baseline Water Use (afy)	Projected Total Water Use (afy)	Net Increase/Decrease Over Baseline Use (afy)
1	Il Villaggio Toscano Project	3/22/2005	22	123	100
2	USC Health Sciences Campus	3/22/2005	0	277	277
3	9th & Figueroa	3/22/2005	0	124	124
4	University Gateway	11/15/2005	10	123	113
5	8th and Grand Project	11/15/2005	0	197	197
6	Ponte Vista at San Pedro	12/6/2005	59	887	828
7	Herald Examiner	12/6/2005	48	148	102
8	Olympic & Sofo	2/21/2006	23	254	231
9	Wilshire Center	2/21/2006	22	115	93
10	Paseo Plaza	3/7/2006	19	140	121
11	Grand Avenue	4/18/2006	0	975	975
12	Amendment to the Bunker Hill Redevelopment Project Design for Development	5/2/2006	0	2,551	2,551
13	Taylor Yard Transit Village Project	5/2/2006	0	130	130
14	Panorama Place	6/6/2006	23	202	179
15	Figueroa Towers	6/18/2006	6	99	93
16	Amendment to the Laurel Canyon Commercial Corridor Redevelopment Project Design for Development	10/3/2006	84	399	315
17	The New Century Plan	3/6/2007	191	328	137
18	Lexington	6/5/2007	43	129	86
19	Bundy Village and Medical Park Draft Project	6/5/2007	46	216	170
20	Wilshire and La Brea Project	7/3/2007	8	101	93
21	Park 5th Mixed Use Project	11/8/2007	0	164	164
22	Columbia Square Project	2/8/2008	33	186	153
23	Metro Universal Project	7/15/2008	14	317	303
24	Bixel and Lucas Project	11/18/2008	14	119	105
25	Port of Los Angeles San Pedro Waterfront Project	5/5/2009	377	542	165
26	Port of Los Angeles Wilmington Waterfront Development Project	5/5/2009	5	21	16
27	Plaza at the Glen	5/5/2009	66	252	186
28	Village at Westfield Topanga	6/18/2009	38	203	165
29	601 South Main Street	6/18/2009	1	130	129
30	Washington Square Mixed-Use Development Project	7/21/2009	38	124	87
31	Lorenzo Project	9/1/2009	8	238	230
32	Highland Center Project	9/1/2009	13	153	140
33	Loyola Marymount University Master Plan Project	9/15/2009	451	505	54
34	Baldwin Hills Crenshaw Plaza	10/20/2009	180	483	333
35	Boyle Heights Mixed-Use Community Project	11/20/2009	337	780	443
36	909 West Temple Street Project	pending	3	88	83
37	USC Specific Plan Project	pending	744	1,300	558
38	Mangrove Estates Mixed Use Development Project	pending	7	280	273

Notes:

- (1) Projected and planned for increase in water use is contained in LADWP's Year 2005 Urban Water Management Plan. The Plan estimates for a 17% increase (115,000 acre-feet) from year 2005 through 2030.
- (2) Present Baseline Water Use is the most recent water use for the Project site, prior to the proposed (re)development.
- (3) Projected Total Water Use is based on proposed (re)development usage, using factors in the City of Los Angeles Bureau of Sanitation Sewer Generation Rates table, with additional voluntary water savings, including projected conservation savings and the projected use of any recycled water, deducted from the total demand.
- (4) Column (C) is the net increase/decrease in demand with respect to the Present Baseline Water Use shown in Column (A). The water demand projection in LADWP's Year 2005 Urban Water Management Plan is based on citywide growth in water use. When taken in its entire sum, the projects to date in this table are within the anticipated and planned growth in water use within the City of Los Angeles. All projects above are within the anticipated and planned citywide growth rate of 17% through the year 2030.
The water demands shown in this table and other water use not subject to a Water Supply Assessment within LADWP's service area will be taken into account during LADWP's next Urban Water Management Plan update in 2010.
- (5) Definition: afy - acre feet per year.

Appendix E

Adjudicated Groundwater Basin Judgments

- San Fernando Basin – Judgment No. 650079
- Sylmar Basin – Judgment No. 650079
- Central Basin – Judgment No. 786656

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SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

THE CITY OF LOS ANGELES,)
Plaintiff,)
vs.)
CITY OF SAN FERNANDO, ET AL.)
Defendants.)

No. 650079

JUDGMENT

There follows by consecutive paging Recitals (page 1), Definitions and List of Attachments (pages 1 to 6), Designation of Parties (page 6), Declaration re Geology and Hydrology (pages 6 to 12), Declaration of Rights (pages 12 to 21), Injunctions (pages 21 to 22), Continuing Jurisdiction (page 23), Watermaster (pages 23 to 29), Physical Solution (pages 29 to 34), and Miscellaneous Provisions (pages 34 to 35), and Attachments (pages 36 to 46). Each and all of said several parts constitute a single integrated Judgment herein.

1 4.2.3 Separate Ground Water Basins. The physical and geologic characteristics of each
 2 of the ground water basins, Eagle rock, Sylmar, Verdugo and San Fernando, cause impediments
 3 to inter-basin ground water flow whereby there is created separate underground reservoirs. Each
 4 of said basins contains a common source of water supply to parties extracting ground water from
 5 each of said basins. The amount of underflow from Sylmar Basin, Verdugo Basin and Eagle
 6 Rock Basin to San Fernando Basin is relatively small, and on the average has been
 7 approximately 540 acre feet per year from the Sylmar Basin; 80 acre feet per year from Verdugo
 8 Basin; and 50 acre feet per year from Eagle Rock Basin. Each has physiographic, geologic and
 9 hydrologic differences; one from the other, and each meets the hydrologic definition of "basin".
 10 The extractions of water in the respective basins affect the other water users within that basin but
 11 do not significantly or materially affect the ground water levels in any of the other basins. The
 12 underground reservoirs of Eagle Rock, Verdugo and Sylmar Basins are independent of one
 13 another and of the San Fernando Basin.

14 4.2.4 Safe Yield and Native Safe Yield. The safe yield and native safe yield, stated in
 15 acre feet, of the three largest basins for the year 1964-65 was as follows:

16	<u>Basin</u>	<u>Safe Yield</u>	<u>Native Safe Yield</u>
17	San Fernando	90,680	43,660
18	Sylmar	6,210	3,850
19	Verdugo	7,150	3,590

20 The safe yield of Eagle Rock Basin is derived from imported water delivered by Los Angeles.

21 There is no measurable native safe yield.

22 4.2.5 Separate Basins -- Separate Rights. The rights of the parties to extract ground
 23 water within ULARA are separate and distinct as within each of the several ground water basins
 24 within said watershed.

25 4.2.6 Hydrologic Condition of Basins. The several basins within ULARA are in varying
 26 hydrologic conditions, which result in different legal consequences.

27 4.2.6.1 San Fernando Basin. The first full year of overdraft in San Fernando
 28 Basin was 1954-55. It remained in overdraft continuously until 1968, when an injunction

1 LAGERLOF, SENICAL, DRESCHER & SWIFT
2 301 North Lake Avenue, 10th Floor
3 Pasadena, California 91101
4 (818) 793-9400 or (213) 385-4345
5
6
7

8 SUPERIOR COURT OF THE STATE OF CALIFORNIA
9 FOR THE COUNTY OF LOS ANGELES

10 CENTRAL AND WEST BASIN WATER) No. 786,656
11 REPLENISHMENT DISTRICT, etc.,) SECOND AMENDED
12) JUDGMENT
13) Plaintiff,)
14) v.) (Declaring and establishing water rights in
15)) Central Basin and enjoining extractions
16)) therefrom in excess of specified quantities.)
17) CHARLES E. ADAMS, et al.,)
18) Defendants.)
19) CITY OF LAKEWOOD, a municipal)
20) corporation,)
21) Cross-Complaint,)
22) v.)
23) CHARLES E. ADAMS, et al.,)
24) Cross-Defendants.)
25)
26)
27)

The above-entitled matter duly and regularly came on for trial in Department 73 of the above-entitled Court (having been transferred thereto from Department 75 by order of the presiding Judge), before the Honorable Edmund M. Moor, specially assigned Judge, on May 17, 1965, at 10:00 a.m. Plaintiff was represented by its attorneys BEWLEY, KNOOP,

1 of the close of the water year ending September 30, 1978 in accordance with the Watermaster
2 Reports on file with this Court and the records of the Plaintiff. This tabulation does not take into
3 account additions or subtractions from any Allowed Pumping Allocation of a producer for the
4 1978-79 water year, nor other adjustments not representing change in fee title to water rights,
5 such as leases of water rights, nor does it include the names of lessees of landowners where the
6 lessees are exercising the water rights. The exercise of all water rights is subject, however, to the
7 provisions of this Judgment, is hereinafter contained. All of said rights are of the same legal
8 force and effect and are without priority with reference to each other. Each party whose name is
9 hereinafter set forth in the tabulation set forth in Appendix "2" of this judgment, and after whose
10 name there appears under the column "Total Water Right" the figure "0" owns no rights to
11 extract any ground water from Central Basin, and has no right to extract any ground water from
12 Central Basin.

13 (b) Defendant The City of Los Angeles is the owner of the right to extract fifteen
14 thousand (15,000) acre feet per annum of ground water from Central Basin. Defendant
15 Department of Water and Power of the City of Los Angeles has no right to extract ground water
16 from Central Basin except insofar as it has the right, power, duty or obligation on behalf of
17 defendant The City of Los Angeles to exercise the water rights in Central Basin of defendant The
18 City of Los Angeles. The exercise of said rights are subject, however, to the provisions of this
19 judgment hereafter contained, including but not limited to, sharing with other parties in any
20 subsequent decreases or increases in the quantity of extractions permitted from Central Basin,
21 pursuant to continuing jurisdiction of the Court, on the basis that fifteen thousand (15,000) acre
22 feet bears to the Allowed Pumping Allocations of the other parties.

23 (c) No party to this action is the owner of or has any right to extract ground water
24 from Central Basin except as herein affirmatively determined.

25 2. Parties Enjoined as Regards Quantities of Extractions.

Appendix F

Water Supply Assessment Provisions
California Water Code Section 10910-10915

WATER CODE

SECTION 10910-10915

10910. (a) Any city or county that determines that a project, as defined in Section 10912, is subject to the California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) under Section 21080 of the Public Resources Code shall comply with this part.

(b) The city or county, at the time that it determines whether an environmental impact report, a negative declaration, or a mitigated negative declaration is required for any project subject to the California Environmental Quality Act pursuant to Section 21080.1 of the Public Resources Code, shall identify any water system that is, or may become as a result of supplying water to the project identified pursuant to this subdivision, a public water system, as defined in Section 10912, that may supply water for the project. If the city or county is not able to identify any public water system that may supply water for the project, the city or county shall prepare the water assessment required by this part after consulting with any entity serving domestic water supplies whose service area includes the project site, the local agency formation commission, and any public water system adjacent to the project site.

(c) (1) The city or county, at the time it makes the determination required under Section 21080.1 of the Public Resources Code, shall request each public water system identified pursuant to subdivision (b) to determine whether the projected water demand associated with a proposed project was included as part of the most recently adopted urban water management plan adopted pursuant to Part 2.6 (commencing with Section 10610).

(2) If the projected water demand associated with the proposed project was accounted for in the most recently adopted urban water management plan, the public water system may incorporate the requested information from the urban water management plan in preparing the elements of the assessment required to comply with subdivisions (d), (e), (f), and (g).

(3) If the projected water demand associated with the proposed project was not accounted for in the most recently adopted urban water management plan, or the public water system has no urban water management plan, the water supply assessment for the project shall include a discussion with regard to whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

(4) If the city or county is required to comply with this part pursuant to subdivision (b), the water supply assessment for the project shall include a discussion with regard to whether the total projected water supplies, determined to be available by the city or county for the project during normal, single dry, and multiple dry water years during a 20-year projection, will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural and manufacturing uses.

(d) (1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water

supply for the proposed project, and a description of the quantities of water received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall be demonstrated by providing information related to all of the following:

(A) Written contracts or other proof of entitlement to an identified water supply.

(B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.

(C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.

(D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

(e) If no water has been received in prior years by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), under the existing water supply entitlements, water rights, or water service contracts, the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), shall also include in its water supply assessment pursuant to subdivision (c), an identification of the other public water systems or water service contractholders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has identified as a source of water supply within its water supply assessments.

(f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:

(1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.

(2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin

from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project.

A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines, as part of the review required by paragraph (1), that the sufficiency of groundwater necessary to meet the initial and projected water demand associated with the project was addressed in the description and analysis required by paragraph (4) of subdivision (b) of Section 10631.

(g) (1) Subject to paragraph (2), the governing body of each public water system shall submit the assessment to the city or county not later than 90 days from the date on which the request was received. The governing body of each public water system, or the city or county if either is required to comply with this act pursuant to subdivision (b), shall approve the assessment prepared pursuant to this section at a regular or special meeting.

(2) Prior to the expiration of the 90-day period, if the public water system intends to request an extension of time to prepare and adopt the assessment, the public water system shall meet with the city or county to request an extension of time, which shall not exceed 30 days, to prepare and adopt the assessment.

(3) If the public water system fails to request an extension of time, or fails to submit the assessment notwithstanding the extension of time granted pursuant to paragraph (2), the city or county may seek a writ of mandamus to compel the governing body of the public water system to comply with the requirements of this part relating to the submission of the water supply assessment.

(h) Notwithstanding any other provision of this part, if a project has been the subject of a water supply assessment that complies with the requirements of this part, no additional water supply assessment shall be required for subsequent projects that were part of a larger project for which a water supply assessment was completed and that has complied with the requirements of this part and for which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has concluded that its water supplies are sufficient to meet the projected water demand associated with the proposed project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses, unless one or more of the following changes occurs:

(1) Changes in the project that result in a substantial increase in water demand for the project.

(2) Changes in the circumstances or conditions substantially affecting the ability of the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), to provide a sufficient supply of water for the project.

(3) Significant new information becomes available which was not known and could not have been known at the time when the assessment

was prepared.

10911. (a) If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the city or county its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies. If the city or county, if either is required to comply with this part pursuant to subdivision (b), concludes as a result of its assessment, that water supplies are, or will be, insufficient, the city or county shall include in its water supply assessment its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies. Those plans may include, but are not limited to, information concerning all of the following:

(1) The estimated total costs, and the proposed method of financing the costs, associated with acquiring the additional water supplies.

(2) All federal, state, and local permits, approvals, or entitlements that are anticipated to be required in order to acquire and develop the additional water supplies.

(3) Based on the considerations set forth in paragraphs (1) and (2); the estimated timeframes within which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), expects to be able to acquire additional water supplies.

(b) The city or county shall include the water supply assessment provided pursuant to Section 10910, and any information provided pursuant to subdivision (a), in any environmental document prepared for the project pursuant to Division 13 (commencing with Section 21000) of the Public Resources Code.

(c) The city or county may include in any environmental document an evaluation of any information included in that environmental document provided pursuant to subdivision (b). The city or county shall determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses. If the city or county determines that water supplies will not be sufficient, the city or county shall include that determination in its findings for the project.

10912. For the purposes of this part, the following terms have the following meanings:

(a) "Project" means any of the following:

(1) A proposed residential development of more than 500 dwelling units.

(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.

(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.

(4) A proposed hotel or motel, or both, having more than 500 rooms.

(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet

of floor area.

(6) A mixed-use project that includes one or more of the projects specified in this subdivision.

(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

(b) If a public water system has fewer than 5,000 service connections, then "project" means any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

(c) "Public water system" means a system for the provision of piped water to the public for human consumption that has 3000 or more service connections. A public water system includes all of the following:

(1) Any collection, treatment, storage, and distribution facility under control of the operator of the system which is used primarily in connection with the system.

(2) Any collection or pretreatment storage facility not under the control of the operator that is used primarily in connection with the system.

(3) Any person who treats water on behalf of one or more public water systems for the purpose of rendering it safe for human consumption.

10914. (a) Nothing in this part is intended to create a right or entitlement to water service or any specific level of water service.

(b) Nothing in this part is intended to either impose, expand, or limit any duty concerning the obligation of a public water system to provide certain service to its existing customers or to any future potential customers.

(c) Nothing in this part is intended to modify or otherwise change existing law with respect to projects which are not subject to this part.

(d) This part applies only to a project for which a notice of preparation is submitted on or after January 1, 1996.

10915. The County of San Diego is deemed to comply with this part if the Office of Planning and Research determines that all of the following conditions have been met:

(a) Proposition C, as approved by the voters of the County of San Diego in November 1988, requires the development of a regional growth management plan and directs the establishment of a regional planning and growth management review board.

(b) The County of San Diego and the cities in the county, by agreement, designate the San Diego Association of Governments as that review board.

(c) A regional growth management strategy that provides for a comprehensive regional strategy and a coordinated economic development and growth management program has been developed pursuant to Proposition C.

(d) The regional growth management strategy includes a water

element to coordinate planning for water that is consistent with the requirements of this part.

(e) The San Diego County Water Authority, by agreement with the San Diego Association of Governments in its capacity as the review board, uses the association's most recent regional growth forecasts for planning purposes and to implement the water element of the strategy.

(f) The procedures established by the review board for the development and approval of the regional growth management strategy, including the water element and any certification process established to ensure that a project is consistent with that element, comply with the requirements of this part.

(g) The environmental documents for a project located in the County of San Diego include information that accomplishes the same purposes as a water supply assessment that is prepared pursuant to Section 10910.

Appendix G

Metropolitan Water District of Southern California

APPENDIX A

The Metropolitan Water District of Southern California



* *Appendix A to the Official Statement dated December 1, 2009, for Metropolitan's Water Revenue Refunding Bonds, 2009 Series E, and Waterworks General Obligation Refunding Bonds, 2009 Series A*

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INTRODUCTION

Recent Development

On November 30, 2009, the California Department of Water Resources (“DWR”) notified The Metropolitan Water District of Southern California (“Metropolitan”) and other State Water Project contractors that their initial allocation of water from the State Water Project would be five percent of each such contractor's maximum contractual amount for calendar year 2010. For Metropolitan, the initial allocation is 95,575 acre-feet, or five percent of its 1,911,500-acre-foot contractual amount. See “METROPOLITAN’S WATER SUPPLY—State Water Project—*General*” in this Appendix A.

Formation and Purpose

Metropolitan is a metropolitan water district created in 1928 under authority of the Metropolitan Water District Act (California Statutes 1927, Chapter 429, as reenacted in 1969 as Chapter 209, as amended (herein referred to as the “Act”)). The Act authorizes Metropolitan to levy property taxes within its service area; establish water rates; impose charges for water standby and service availability; incur general obligation bonded indebtedness and issue revenue bonds, notes and short-term revenue certificates; execute contracts; and exercise the power of eminent domain for the purpose of acquiring property. In addition, Metropolitan’s Board of Directors (the “Board”) is authorized to establish terms and conditions under which additional areas may be annexed to Metropolitan's service area.

Metropolitan’s primary purpose is to provide a supplemental supply of water for domestic and municipal uses at wholesale rates to its member public agencies. If additional water is available, such water may be sold for other beneficial uses. Metropolitan serves its member agencies as a water wholesaler and has no retail customers.

The mission of Metropolitan, as promulgated by the Board, is to provide its service area with adequate and reliable supplies of high quality water to meet present and future needs in an environmentally and economically responsible way.

Metropolitan’s charges for water sales and availability are fixed by its Board, and are not subject to regulation or approval by the California Public Utilities Commission or any other state or federal agency. Metropolitan imports water from two principal sources: northern California via the Edmund G. Brown California Aqueduct (the “California Aqueduct”) of the State Water Project owned by the State of California and the Colorado River via the Colorado River Aqueduct owned by Metropolitan.

Member Agencies

Metropolitan is comprised of 26 member public agencies, including 14 cities, 11 municipal water districts, and one county water authority, which collectively serve the residents and businesses of more than 300 cities and numerous unincorporated communities. Member agencies request water from Metropolitan at various delivery points within Metropolitan’s system and pay for such water at uniform rates established by the Board for each class of service. Metropolitan’s water is a supplemental supply for its member agencies, most of whom have other sources of water. See “METROPOLITAN REVENUES—Principal Customers” for a listing of the ten member agencies with the highest water purchases from Metropolitan during the fiscal year ended June 30, 2009. No member is required to purchase water from Metropolitan but all member agencies are required to pay readiness-to-serve charges whether or not they purchase water from Metropolitan. See “METROPOLITAN REVENUES—Rate Structure” and “—Member Agency Purchase Orders” for a discussion of the voluntary ten-year purchase order by which a member agency may commit to purchase water.

The following table lists the current 26 member agencies of Metropolitan.

<u>Municipal Water Districts</u>		<u>Cities</u>		<u>County</u> <u>Water Authority</u>
Calleguas	Las Virgenes	Anaheim	Los Angeles	San Diego
Central Basin	Orange County	Beverly Hills	Pasadena	
Eastern	Three Valleys	Burbank	San Fernando	
Foothill	West Basin	Compton	San Marino	
Inland Empire Utilities Agency		Fullerton	Santa Ana	
Upper San Gabriel Valley		Glendale	Santa Monica	
Western of Riverside County		Long Beach	Torrance	

Service Area

Metropolitan's service area comprises approximately 5,200 square miles and includes portions of the six counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura. When Metropolitan began delivering water in 1941, its service area consisted of approximately 625 square miles; its service area has increased by 4,575 square miles since that time. The expansion is primarily the result of annexation of the service areas of additional member agencies.

Of the total population in the six-county area, almost 19 million people, or 85 percent, live within Metropolitan's service area. The California Department of Finance estimates that by the year 2030 the six-county area will have a population of 27 million people, representing an increase of 5.5 million people over 2008 population levels.

The economy of Metropolitan's service area is exceptionally diverse. As measured in 2008, the economy of Metropolitan's service area has a gross domestic product larger than all but fourteen nations of the world. Metropolitan provides between 40 and 60 percent of the water used within its service area in any year. For additional economic and demographic information concerning Metropolitan's service area, see Appendix E – "SELECTED DEMOGRAPHIC AND ECONOMIC INFORMATION FOR METROPOLITAN'S SERVICE AREA."

The climate in Metropolitan's service area ranges from moderate temperatures throughout the year in the coastal areas to hot and dry summers in the inland areas. Annual rainfall in an average year is 13 to 15 inches along the coastal area, up to 20 inches in foothill areas and less than 10 inches inland.

METROPOLITAN'S WATER SUPPLY

Metropolitan faces a number of challenges in providing a reliable and high quality water supply for southern California. These include, among others: (1) population growth within the service area; (2) increased competition for low-cost water supplies; (3) variable weather conditions; and (4) increased environmental regulations. Metropolitan's resources and strategies for meeting these long-term challenges are set forth in its Integrated Water Resources Plan, as updated from time to time. (See "—Integrated Water Resources Plan" below.)

Metropolitan's principal sources of water are the State Water Project and the Colorado River. Recent court decisions have restricted deliveries from the State Water Project as described below under "METROPOLITAN'S WATER SUPPLY—State Water Project—*Endangered Species Act Considerations*." A third consecutive year of dry conditions in the northern Sierra watershed for the State Water Project and low storage levels in Lake Mead and Lake Powell resulting from a multi-year drought in the Colorado River Basin have further affected water deliveries and storage in 2009. Programs and projects for addressing these

challenges over the next five years are described under "METROPOLITAN'S WATER SUPPLY—Five-Year Supply Plan" in this Appendix A.

Integrated Water Resources Plan

Metropolitan, its member agencies, sub-agencies and groundwater basin managers developed an Integrated Water Resources Plan ("IRP") that was adopted by the Board in January 1996 as a long-term planning guideline for resources and capital investments. The purpose of the IRP was the development of a preferred resource mix (see "METROPOLITAN'S WATER SUPPLY—The Preferred Resource Mix" in this Appendix A) to meet the water supply reliability and water quality needs for the region in a cost-effective and environmentally sound manner.

In 2004, the Board adopted an updated IRP that reviewed the goals and achievements of the original IRP, identified changed conditions for water resource development and updated the resource targets through 2025. A key component of the updated plan was the addition of a planning buffer. The planning buffer provided for the identification of additional supplies, both imported and locally developed, to address uncertainty in future supplies and demands from factors such as the level of population and economic growth which directly drive water demands, water quality regulations, new chemicals found to be unhealthful, endangered species affecting sources of supplies, and periodic and new changes in climate and hydrology.

Metropolitan is currently working on the next IRP update, to evaluate supply reliability while incorporating changed conditions and new trends and managing uncertainties. It is expected to be completed in April 2010.

The Preferred Resource Mix

Metropolitan's principal sources of water are the State Water Project and the Colorado River. The IRP's Preferred Resource Mix identifies a balance of local and imported water resources within Metropolitan's service area. Metropolitan expects that the resource targets and capital expenditure strategies for the Preferred Resource Mix will be continually reviewed and updated at least every five years to reflect changing demand and supply conditions.

The following paragraphs describe the elements of the Preferred Resource Mix.

State Water Project. State Water Project supplies are important for maximizing local groundwater potential and the use of recycled water since State Water Project water has lower salinity content than Colorado River Aqueduct water and can be used to increase groundwater conjunctive use applications. See "METROPOLITAN'S WATER SUPPLY—State Water Project" in this Appendix A.

Colorado River Aqueduct. The Colorado River Aqueduct delivers water from the Colorado River, Metropolitan's original source of supply. Metropolitan has helped to fund and implement farm and irrigation district conservation programs, improvements to river operation facilities, land management programs and water transfers and exchanges through arrangements with agricultural water districts in southern California and entities in Arizona and Nevada that use Colorado River water. See "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct" in this Appendix A.

Water Conservation. Conservation and water use efficiency are the foundation of the IRP. Metropolitan has invested in conservation programs since the 1980's. Historically, most of the investments have been in water efficient fixtures in the residential sector. Efforts focus on outdoor water use, including landscaping and commercial/industrial uses. See "METROPOLITAN'S WATER SUPPLY—Water Conservation" in this Appendix A.

Recycled Water. Reclaimed or recycled municipal and industrial water is not potable, but can be used for maintaining lawns, protecting groundwater basins from saltwater intrusion, industrial processes, and recharging local aquifers. Metropolitan offers financial incentives to member agencies for developing economically viable reclamation projects. See “REGIONAL WATER RESOURCES—Local Water Supplies” in this Appendix A.

Conjunctive Use. Conjunctive use is the coordinated use of surface water supplies and groundwater storage. It entails storing surplus imported water during the winter months or wet years in local surface reservoirs and recharging local groundwater basins, then using the stored supplies during dry months and droughts, thus increasing the supply reliability of the region. See “REGIONAL WATER RESOURCES—Local Water Supplies” and “CAPITAL INVESTMENT PLAN—Other Major Projects of Metropolitan’s Capital Investment Plan—Groundwater Storage Programs” in this Appendix A.

Water Transfers. Under voluntary water transfer agreements, agricultural communities using irrigation water may periodically sell some of their water allotments to urban areas. The water is delivered through existing State Water Project or Colorado River Aqueduct facilities. Metropolitan’s policy toward potential transfers states that the transfers must not harm the environment or contribute to the mining of local groundwater supplies. See “METROPOLITAN’S WATER SUPPLY—Water Transfer, Storage and Exchange Programs” in this Appendix A.

Groundwater Recovery. Natural groundwater reservoirs serve an important function as storage facilities for local and imported water. When groundwater storage becomes contaminated, water agencies have to rely more heavily on imported surface water supplies. Treatment for polluted groundwater is quite costly and poses environmental challenges. Metropolitan offers financial incentives to help fund member agency groundwater recovery projects. See “REGIONAL WATER RESOURCES—Local Water Supplies” in this Appendix A.

Desalination. Desalination may eventually become an important component in the Preferred Resource Mix. Metropolitan has signed agreements with three of its member agencies to provide incentives for pilot desalination projects anticipated to produce up to 60,000 acre-feet of desalted sea water annually. (An acre-foot is the amount of water that will cover one acre to a depth of one foot and equals approximately 326,000 gallons, which represents the needs of two average families in and around the home for one year.) Metropolitan is negotiating a similar agreement with the San Diego County Water Authority (“SDCWA”) for its desalination project in Carlsbad, anticipated to produce 56,000 acre-feet per year. The Carlsbad project has obtained permits from the California Coastal Commission, State Lands Commission and San Diego Regional Water Quality Control Board. However, litigation has been filed challenging these approvals.

State Water Project

General. One of Metropolitan’s two major sources of water is the State Water Project, which is owned by the State of California (the “State”) and operated by DWR. This project transports Feather River water stored in and released from Oroville Dam and unregulated flows diverted directly from the San Francisco Bay/Sacramento-San Joaquin River Delta (“Bay-Delta”) south via the California Aqueduct to four delivery points near the northern and eastern boundaries of Metropolitan’s service area. The total length of the California Aqueduct is approximately 444 miles.

In 1960, Metropolitan signed a contract (as amended, the “State Water Contract”) with DWR. Metropolitan is one of 29 agencies that have long-term contracts for water service from DWR, and is the largest agency in terms of the number of people it serves (almost 19 million), the share of State Water Project water that it has contracted to receive (approximately 46 percent), and the percentage of total annual payments made to DWR by agencies with State water contracts (approximately 60 percent in 2008). For information regarding Metropolitan’s obligations under the State Water Contract, see “METROPOLITAN

EXPENDITURES—State Water Contract Obligations” in this Appendix A. Upon expiration of the State Water Contract term (currently in 2035), Metropolitan has the option to continue service under substantially the same terms and conditions. Metropolitan presently intends to exercise this option to continue service to at least 2052.

The State Water Contract, under a 100 percent allocation, provides Metropolitan 1,911,500 acre-feet of water. Water received from the State Water Project by Metropolitan over the past seven years (2002 through 2008), including water from water transfer, groundwater banking and exchange programs, described below under “METROPOLITAN’S WATER SUPPLY—Water Transfer, Storage and Exchange Programs”, varied from a low of 1,040,000 acre-feet in calendar year 2008 to a high of 1,794,000 acre-feet in 2004. Below-normal precipitation in the northern Sierra Mountains in the winter of 2007 and spring of 2008, the season when most of the annual precipitation occurs, ended with record dry conditions during March and April of 2008. Metropolitan’s allocation from the State Water Project for calendar year 2008, as determined by DWR in accordance with the State Water Contract, was 35 percent of its contracted amount, or 669,000 acre-feet. Metropolitan received approximately 1,040,000 acre-feet of water using the State Water Project’s California Aqueduct in 2008, including the allocation from the State Water Project and deliveries from water transfers, groundwater banking and exchange programs. Management of the availability of State Water Project supplies through water marketing and groundwater banking plays an important role in meeting California water needs. See “METROPOLITAN’S WATER SUPPLY—Water Transfer, Storage and Exchange Programs” in this Appendix A.

For calendar year 2009, DWR’s initial allocation estimate to State Water Project contractors was set at 15 percent of contracted amounts. This estimate was adjusted upwards to 20 percent, 30 percent and 40 percent of contracted amounts as of March 18, 2009, April 15, 2009 and May 20, 2009, respectively. Since May 20, 2009, the State Water Project allocation for 2009 has remained at 40 percent of contracted amounts. This allocation reflects that water storage in the State’s major reservoirs and runoff projections remain below average and regulatory restrictions on water exports from the Bay-Delta to protect listed fish species have also reduced water deliveries from the State Water Project. (See “—*Endangered Species Act Considerations*” below.) Under the 40 percent allocation of contracted amounts, Metropolitan will receive approximately 765,000 acre-feet from its basic allocation and approximately 923,000 acre-feet of total water from the State Water Project in 2009, including supplies from water transfers, exchanges and related Five-Year Supply Plan actions that will be delivered through the California Aqueduct.

Following three dry years, DWR’s calendar year 2010 initial allocation estimate of water from the State Water Project was announced on November 30, 2009 as five percent of State Water Project contractors’ contractual amounts. For Metropolitan, the initial allocation is 95,575 acre-feet, or five percent of its 1,911,500-acre-foot contractual amount. DWR stated that its initial allocation is a very conservative estimate of what DWR expects it can deliver as a percentage of deliveries requested by State Water Project contractors for 2010. This initial allocation figure reflects the low carryover storage levels in the State’s major reservoirs, three years of drought conditions and federally mandated environmental restrictions on water deliveries from the Sacramento-San Joaquin Delta. Actual deliveries and revised allocations for 2010 are expected to increase during the year once actual hydrologic and water supply conditions are known.

According to DWR, the five percent initial allocation is the lowest initial allocation percentage since State Water Project deliveries began in 1967. The previous low initial allocation was ten percent in 1993. The 1993 allocation was increased to 100 percent as supply conditions improved that year, however, federally mandated environmental restrictions on water deliveries from the Sacramento-San Joaquin Delta were not in place at that time. See “—*Endangered Species Act Considerations*” and “—*State Water Project Operational Constraints*” below. If the initial allocation of five percent remains, Metropolitan expects to meet regional demands with Colorado River Aqueduct deliveries, storage reserves, supplemental water transfers and purchases and, if necessary, continuation of Metropolitan’s Water Supply Allocation Plan (see “—*Water Supply Allocation Plan*” below).

Due to drought conditions and the court-ordered restrictions described under “—*Endangered Species Act Considerations*” below, California Governor Arnold Schwarzenegger issued a proclamation on February 27, 2009 declaring a statewide drought emergency. The proclamation requests that all urban water users in California increase water conservation and directs that various state agencies take action to address impacts of the drought. These actions include expediting approvals for water transfers (provided that such transfers do not injure other legal users of water or unreasonably affect fish and wildlife); pursuing short-term efforts, such as installation of temporary barriers in the Bay-Delta, to protect water quality and water supply; and expediting regulatory consideration of proposed modifications to Bay-Delta water quality standards. DWR’s drought status update issued on November 30, 2009, stated that DWR is preparing for the likelihood of a fourth year of drought in 2010. The Governor may issue additional orders, including rationing, if drought conditions are not sufficiently mitigated. Some of the projects described under “METROPOLITAN’S WATER SUPPLY—Five-Year Supply Plan” may be expedited under the emergency declaration. However, Metropolitan is unable at this time to assess impacts of the emergency declaration on its State Water Project supplies.

Endangered Species Act Considerations

General. The listing of several fish species as threatened or endangered under the federal or California Endangered Species Acts (respectively, the “Federal ESA” and the “California ESA” and, collectively, the “ESAs”) have adversely impacted State Water Project operations and limited the flexibility of the State Water Project. An annual environmental water account established under the CALFED Bay-Delta Program (described under “—*Bay-Delta Regulatory and Planning Activities*” below) as a means of meeting environmental flow requirements and export limitations has helped to mitigate these impacts. Currently, five species (the winter-run and spring-run Chinook salmon, Delta smelt, North American green sturgeon and Central Valley steelhead) are listed under the ESAs. In addition, on June 25, 2009, the California Fish and Game Commission declared the longfin smelt a threatened species under the California ESA. Protective measures adopted by the Fish and Game Commission for the longfin smelt are described under “—*California ESA Litigation*” below. The United States Fish and Wildlife Service (“USFWS”) announced on April 9, 2009, that the Bay-Delta population of longfin smelt does not qualify as a distinct population segment and cannot be listed under the Federal ESA. The Federal ESA requires that before any federal agency authorizes funds or carries out an action it must consult with the appropriate federal fishery agency to determine whether the action would jeopardize the continued existence of any threatened or endangered species, or adversely modify habitat critical to the species’ needs. The result of the consultation is known as a “biological opinion.” In the biological opinion the federal fishery agency determines whether the action would cause jeopardy to a threatened or endangered species or adverse modification to critical habitat and recommends reasonable and prudent alternatives or measures that would allow the action to proceed without causing jeopardy or adverse modification. The biological opinion also includes an “incidental take statement.” The incidental take statement allows the action to go forward even though it will result in some level of “take,” including harming or killing some members of the species, incidental to the agency action, provided that the agency action does not jeopardize the continued existence of any threatened or endangered species and complies with reasonable mitigation and minimization measures recommended by the federal fishery agency. In 2004 and 2005, the USFWS and National Marine Fisheries Service issued biological opinions and incidental take statements that govern operations of the State Water Project and the federal Central Valley Project with respect to the Delta smelt, the winter-run and spring-run Chinook salmon and the Central Valley steelhead. In July 2006, the Bureau of Reclamation reinitiated consultation with the USFWS and National Marine Fisheries Service with respect to the 2004 and 2005 biological opinions (with the addition of the North American green sturgeon, which was listed in April 2006) following the filing of legal challenges to those biological opinions and incidental take statements described under “*Federal ESA Litigation*” below. In a separate action on May 21, 2009, the National Marine Fisheries Service proposed to adopt a rule under the Federal ESA, applying Federal ESA “take” prohibitions to the North American green sturgeon. Existing restrictions on project operations for the benefit of other listed species will also protect the

North American green sturgeon and it is unclear whether additional restrictions and impacts on project operations could result from the proposed rule.

Under the Federal ESA, critical habitat also must be designated for each listed species. Critical habitat has been designated for each of the currently listed species, including the North American green sturgeon. The National Marine Fisheries Service issued critical habitat designation for the North American green sturgeon on October 9, 2009. The habitat designated as critical for the sturgeon includes the lower Feather River, which could have an adverse impact on State Water Project operations. The extent of any such impacts cannot be determined at this time.

Federal ESA Litigation. Litigation filed by several environmental interest groups (*NRDC v. Kempthorne*; and *Pacific Coast Federation of Fishermen's Associations v. Gutierrez*) in the United States District Court for the Eastern District of California alleged that the 2004 and 2005 biological opinions and incidental take statements inadequately analyzed impacts on listed species under the Federal ESA. On May 25, 2007, Federal District Judge Wanger issued a decision on summary judgment in *NRDC v. Kempthorne*, finding the USFWS biological opinion for Delta smelt to be invalid. On December 14, 2007, Judge Wanger issued his Interim Remedial Order and Findings of Fact and Conclusions of Law requiring that the State Water Project and Central Valley Project operate according to certain specified criteria until a new biological opinion for the Delta smelt is issued. Under the Interim Remedial Order, State Water Project operations were constrained in the winter and spring of 2007-08 by prevailing conditions and the status of the Delta smelt. Export restrictions resulting from the Interim Remedial Order during the winter and spring of 2007-08 reduced State Water Project deliveries to Metropolitan by approximately 250,000 acre-feet, as water that otherwise could have been diverted for delivery through the California Aqueduct bypassed the State Water Project pumps.

The USFWS released a new biological opinion on the impacts of the State Water Project and Central Valley Project on Delta smelt on December 15, 2008. Based on the Water Allocation Analysis released by DWR on December 19, 2008, which analyzed the biological opinion's effects on State Water Project operations, export restrictions could reduce deliveries to Metropolitan by 300,000 to 700,000 acre-feet for 2009 under median hydrologic conditions. The San Luis & Delta Mendota Water Authority, Westlands Water District, Kern County Water Agency, Coalition for a Sustainable Delta and State Water Contractors, a California nonprofit corporation formed by agencies contracting with DWR for water from the State Water Project (the "State Water Contractors") and the Family Farm Alliance have filed separate lawsuits in federal district court challenging the biological opinion. Metropolitan filed its lawsuit challenging the biological opinion on April 8, 2009. The complaints allege, among other things, that the biological opinion is unlawful and invalid because it failed to use the best available scientific data and information and that the "Reasonable and Prudent Alternative" in the biological opinion, which imposes major water export restrictions, was arbitrary and capricious, and lacked necessary findings. On May 29, 2009, the court in the San Luis & Delta Mendota Water Authority lawsuit ruled that the plaintiffs were likely to succeed on their claim that the USFWS failed to comply with the National Environmental Policy Act in its preparation of the Delta smelt biological opinion. The court issued a preliminary injunction requiring the USFWS to take into consideration various environmental impacts of reduced water exports to the federal Central Valley Project service area and provide more detailed explanations when the USFWS imposed certain biological opinion restrictions on exports. These requirements were effective until June 30, 2009. The spring 2009 export restrictions under the Delta smelt biological opinion expired on June 30, 2009.

In another challenge to USFWS' Delta smelt biological opinion, litigation was filed on May 21, 2009, by the Pacific Legal Foundation on behalf of several owners of small farms in California's Central Valley (*Stewart & Jasper Orchards et al. v. U.S. Fish & Wildlife Service et al.*) in the United States District Court for the Eastern District of California. The complaint challenges the validity of the biological opinion based upon alleged limits to federal domestic regulatory power to persons, things or activities involved in or affecting interstate commerce under the U. S. Constitution. The lawsuit requests an injunction against the Delta smelt

protection measures in the biological opinion. The lawsuit also maintains that the USFWS failed to follow its own regulations in the development and issuance of the biological opinion.

The federal court has consolidated the six lawsuits challenging the Delta smelt biological opinion under the caption *Delta Smelt Consolidated Cases*. The court held a hearing on October 2, 2009, on certain motions for summary judgment. On October 8, 2009, the court denied a motion in the *Stewart & Jasper Orchards* case that had contended that the Delta smelt biological opinion exceeded the Federal Government's power under the Commerce Clause. On October 15, 2009, the court also denied a motion by other water contractor-plaintiffs that contended that the Reasonable and Prudent Alternative in the biological opinion should have been supported by findings in the biological opinion itself. The court has scheduled a briefing and a hearing on further motions for summary judgment that challenge the adequacy of the underlying scientific justifications and analysis in the biological opinion. The briefing of these motions and the hearing will occur during the period from December 2009 to April 2010.

On November 13, 2009, the Center for Biological Diversity filed separate lawsuits challenging the USFWS' failure to respond to a petition to change the Delta smelt's federal status from threatened to endangered and the USFWS' denial of federal listing for the longfin smelt. The Delta smelt and longfin smelt cases were filed in the United States District Court for the Eastern and Northern Districts of California, respectively.

On April 16, 2008, the court granted the plaintiffs' motion for summary judgment in *Pacific Coast Federation of Fishermen's Associations v. Gutierrez* and invalidated the 2004 National Marine Fisheries Service's biological opinion for the salmon and other fish species that spawn in rivers flowing into the Bay-Delta. Among other things, the court's summary judgment found that the no-jeopardy conclusions in the biological opinion were inconsistent with some of the factual findings in the biological opinion; that the biological opinion failed to adequately address the impacts of State Water Project and Central Valley Project operations on critical habitat and that there was a failure to consider how climate change and global warming might affect the impacts of the projects on salmonid species.

The National Marine Fisheries Service released its new biological opinion for salmonid species on June 4, 2009. The salmonid species biological opinion contains additional restrictions on State Water Project and Central Valley Project operations. The National Marine Fisheries Service calculated that these restrictions will reduce the amount of water the State Water Project and Central Valley Project combined will be able to export from the Bay-Delta by 5 to 7 percent. DWR estimated a 10 percent average water loss, expected to begin in 2010, under this biological opinion. The impact on State Water Project deliveries attributable to the Delta smelt and salmonid species biological opinions combined is estimated to be one million acre-feet in an average year, reducing State Water Project deliveries from approximately 3.3 million acre-feet to approximately 2.3 million acre-feet for the year under average hydrology.

Six lawsuits have been filed challenging the 2008 salmon biological opinion. These various lawsuits have been brought by the San Luis & Delta Mendota Water Authority, Westlands Water District, Stockton East Water District, Oakdale Irrigation District, Kern County Water Agency, the State Water Contractors and Metropolitan. The court has consolidated the cases under the caption *Consolidated Salmon Cases*.

California ESA Litigation. In addition to the litigation under the Federal ESA, other environmental groups sued DWR on October 4, 2006 in the Superior Court of the State of California for Alameda County alleging that DWR was "taking" listed species without authorization under the California ESA. This litigation (*Watershed Enforcers, a project of the California Sportfishing Protection Alliance v. California Department of Water Resources*) requests that DWR be mandated to either cease operation of the State Water Project pumps, which deliver water to the California Aqueduct, in a manner that results in such "taking" of listed species or obtain authorization for such "taking" under the California ESA. On April 18, 2007, the Alameda County Superior Court issued its Statement of Decision in *Watershed Enforcers v. California*

Department of Water Resources. The Statement of Decision finds that DWR is illegally “taking” listed fish through operation of the State Water Project export facilities. The Superior Court ordered DWR to “cease and desist from further operation” of those facilities within 60 days unless it obtains take authorization from the California Department of Fish and Game.

DWR appealed the Alameda County Superior Court’s order on May 7, 2007. This appeal stays the order pending the outcome of the appeal. On motion of all parties, the Court of Appeal also stayed further processing of the appeal in 2009. This stay was intended to allow time for DWR to obtain incidental take authorization under the California ESA, before the Court of Appeal decides the appeal. DWR applied for incidental take authorization for the Delta smelt and salmon under the California ESA, based on the consistency of the federal biological opinions with California ESA requirements (“Consistency Determinations”). The California Department of Fish & Game subsequently issued Consistency Determinations under the California ESA authorizing the incidental take of both Delta smelt and salmon. Based on having received Consistency Determinations that authorize incidental take under the California ESA, appellants Department of Water Resources and State Water Contractors have dismissed their appeals of the *Watershed Enforcers* decision. A motion to dismiss the remaining appeals in *Watershed Enforcers* on grounds that the controversy is moot is also pending. The State Water Contractors and Kern County Water Agency have filed suit in state court challenging the Consistency Determinations under the California ESA that have been issued for both Delta smelt and salmon. Those lawsuits challenging the Consistency Determinations are pending and are awaiting preparation of the administrative record.

On March 4, 2009, the California Fish and Game Commission listed the longfin smelt for protection under the California ESA. This initiated a review period that concluded with the California Fish and Game Commission’s declaration of the longfin smelt as a threatened species on June 25, 2009. On February 23, 2009, in anticipation of the listing action, the California Department of Fish and Game issued a California ESA section 2081 incidental take permit to DWR authorizing the incidental take of longfin smelt by the State Water Project. This permit authorizes continued operation of the State Water Project under the conditions specified in the section 2081 permit. The section 2081 permit for longfin relies on an adaptive management process to adjust the level of project exports to minimize the take of longfin at the pumps. This adaptive management process uses a variety of information, including salvage data, modeling, fish surveys showing the geographical distribution of longfin and other factors to select what level of project exports is appropriate. The State Water Contractors filed suit against the California Department of Fish and Game on March 25, 2009, alleging that the export restrictions imposed by the section 2081 permit have no reasonable relationship to any harm to longfin smelt caused by State Water Project operations, are arbitrary and capricious and are not supported by the best available science. The lawsuit is pending and the administrative record for the cases was recently completed.

State Water Project Operational Constraints. DWR has altered the operations of the State Water Project to accommodate species of fish listed under the ESAs. These changes in project operations have adversely affected State Water Project deliveries. Restrictions on Bay-Delta pumping under the Interim Remedial Order in *NRDC v. Kempthorne* reduced deliveries of State Water Project water to Metropolitan by approximately 250,000 acre-feet in 2008. The initial allocation to State Water Project contractors for 2009 was only 15 percent of their contracted amounts, based on below-average precipitation and regulatory agency restrictions on water exports from the Bay-Delta to protect listed fish species. DWR revisited this allocation as conditions changed through early 2009 and, on May 20, 2009, announced an allocation of 40 percent (approximately 765,000 acre-feet). Metropolitan anticipates receiving approximately 923,000 acre-feet of total water from the State Water Project in 2009, including its basic allocation and supplies from water transfers, exchanges and related Five-Year Supply Plan actions that will be delivered through the California Aqueduct.

Operational constraints likely will continue until a long-term solution to the problems in the Bay-Delta is identified and implemented. The Delta Vision process, established by Governor Schwarzenegger, is

aimed at identifying long-term solutions to the conflicts in the Bay-Delta, including natural resource, infrastructure, land use and governance issues. In addition, State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay-Delta Conservation Plan (the "BDCP"), which is aimed at addressing ecosystem needs and securing long-term operating permits for the State Water Project. These efforts are described under "*Bay-Delta Regulatory and Planning Activities*" below.

Other issues, such as the recent decline of some fish populations in the Bay-Delta and surrounding regions and certain operational actions in the Bay-Delta, may significantly reduce Metropolitan's water supply from the Bay-Delta. State Water Project operational requirements may be further modified under new biological opinions for listed species under the Federal ESA or by the California Department of Fish and Game's issuance of incidental take authorizations under the California ESA. Biological opinions or incidental take authorizations under the Federal ESA and California ESA might further adversely affect State Water Project and Central Valley Project operations. Additionally, new litigation, listings of additional species or new regulatory requirements could further adversely affect State Water Project operations in the future by requiring additional export reductions, releases of additional water from storage or other operational changes impacting water supply operations. Metropolitan cannot predict the ultimate outcome of any of the litigation or regulatory processes described above but believes they could have a materially adverse impact on the operation of the State Water Project pumps, Metropolitan's State Water Project supplies and Metropolitan's water reserves.

"Area of Origin" Litigation. Four State Water Project contractors located north of the State Water Project's Bay-Delta pumping plant filed litigation against DWR on July 17, 2008, asserting that since they are located in the "area of origin" of State Water Project water they are entitled to receive their entire contract amount before any water is delivered to contractors south of the Bay-Delta. If the plaintiffs are successful in this litigation, State Water Project water available to Metropolitan in a drought period could be reduced by approximately 25,000 acre-feet each year or by as much as 40,000 acre-feet in an exceedingly dry year. Metropolitan and twelve other State Water Project contractors located south of the Bay-Delta filed motions to intervene in this litigation, which were granted on February 25, 2009. A briefing and hearing on motions for summary judgment is scheduled for January, 2010.

Bay-Delta Regulatory and Planning Activities. The State Water Resources Control Board ("SWRCB") is the agency responsible for setting water quality standards and administering water rights throughout California. Decisions of the SWRCB can affect the availability of water to Metropolitan and other users of State Water Project water. The SWRCB exercises its regulatory authority over the Bay-Delta by means of public proceedings leading to regulations and decisions. These include the Bay-Delta Water Quality Control Plan ("WQCP"), which establishes the water quality objectives and proposed flow regime of the estuary, and water rights decisions, which assign responsibility for implementing the objectives of the WQCP to users throughout the system by adjusting their respective water rights. The SWRCB is required by law to periodically review its WQCP to ensure that it meets the changing needs of this complex system.

Since 2000, SWRCB's Water Rights Decision 1641 ("D-1641") has governed the State Water Project's ability to export water from the Bay-Delta for delivery to Metropolitan and other agencies receiving water from the State Water Project. D-1641 allocated responsibility for meeting flow requirements and salinity and other water quality objectives established earlier by the WQCP. D-1641 was challenged in a dozen lawsuits filed primarily by Bay-Delta interests and environmental groups. These cases were consolidated in a single action. D-1641 was, for the most part, affirmed by the California Court of Appeal in the *State Water Resources Control Board Cases* in February 2006. The Court of Appeal decision stated that the "public trust doctrine" does not mandate a preference for environmental purposes, but requires a balancing of competing interests; recognized the dual importance of the State Water Project to provide adequate supply and water quality for the Bay-Delta as well as export supplies; and held that determining the appropriate levels of water supply and Bay-Delta water quality requires a "balancing of all relevant factors and all of the

competing interests in the water that flows through the Delta.” The Court of Appeal held that the SWRCB appropriately weighed that balance in adopting D-1641, although it returned D-1641 to the SWRCB to reconsider its allocation of responsibility for implementation of two of the water quality objectives under the WQCP. The California Supreme Court denied petitions for review of the Court of Appeal’s decision. In December 2006, the SWRCB adopted limited amendments to D-1641 to cure the two issues identified by the Court of Appeal (the flow regime for salmon and deferral of a salinity objective to protect Bay-Delta agriculture). The SWRCB also identified additional issues to review, which could result in future changes in water quality objectives and flows that could affect exports of water from the State Water Project.

The CALFED Bay-Delta Program is a collaborative effort among 23 State and federal agencies to improve water supplies in California and the health of the Bay-Delta watershed. On August 28, 2000, the federal government and the State issued a Record of Decision (“ROD”) and related documents approving the final programmatic environmental documentation for the CALFED Bay-Delta Program. The ROD includes, among other things, pledges to restore the Bay-Delta ecosystem, improve water quality, enhance water supply reliability, and assure long-term protection for Bay-Delta levees. (See “METROPOLITAN’S WATER DELIVERY SYSTEM—Seismic Considerations—*State Water Project Facilities*” in this Appendix A.) Three lawsuits were filed in the fall of 2000 challenging the sufficiency of the CALFED Bay-Delta Program Environmental Impact Report (“EIR”) under the California Environmental Quality Act (“CEQA”). The EIR was upheld by the trial court, but invalidated by the Court of Appeal largely because the CALFED agencies failed to consider a project alternative of reducing exports from the Bay-Delta that, in the Court of Appeal’s view, was feasible because it would curb population growth in southern California. On June 5, 2008, the California Supreme Court found that an EIR is not required to consider an alternative which does not meet the basic project objectives and ruled that the CALFED EIR fully complied with CEQA. The Supreme Court also found that the Court of Appeal erred in not distinguishing between pre-existing environmental problems in the Bay-Delta on one hand and the environmental effects of the CALFED Bay-Delta Program on the other. While recognizing that reducing exports may help address the Bay-Delta’s existing environmental problems, the Supreme Court held that addressing existing problems was not the proper role for CEQA’s alternatives.

The CALFED Bay-Delta Program has resulted in an investment of \$3 billion on a variety of projects and programs to begin addressing the Bay-Delta’s water supply, water quality, ecosystem, and levee stability problems. To guide future development of the CALFED Bay-Delta Program and identify a strategy for managing the Delta as a sustainable resource, in September 2006, Governor Schwarzenegger established by Executive Order a Delta Vision process. The Delta Vision process is tied to legislation that created a cabinet-level committee tasked with developing a Strategic Vision for the Delta. The 41-member Delta Vision Blue Ribbon Task Force issued its Delta Vision Strategic Plan (the “Strategic Plan”) on October 17, 2008, providing its recommendations for long-term sustainable management of the Bay-Delta. The Strategic Plan was reviewed by the Delta Vision Committee, chaired by the State Secretary for Resources. The Implementation Report summarizing the Delta Vision Committee’s recommendations was submitted to Governor Schwarzenegger on December 31, 2008. These recommendations include completing the BDCP and associated environmental assessments to permit ecosystem revitalization and conveyance water improvements, identifying and reducing stressors to the Bay-Delta ecosystem, strengthening levees, increasing emergency preparedness, continuing funding for the CALFED ecosystem restoration program, updating Bay-Delta regulatory flow and water quality standards to protect beneficial uses of water and working with the State Legislature on a comprehensive water bond package to fund Bay-Delta infrastructure projects. On November 4, 2009, the State Legislature authorized an \$11.1 billion water bond measure that includes over \$2 billion for Bay-Delta ecosystem restoration as well as \$3 billion for new water storage and additional funds for water recycling, drought relief, conservation and watershed protection projects. The bonds are subject to voter authorization and will be included on the November 2010 ballot. Related legislation creates a new oversight council for the Bay-Delta and directs that the Bay-Delta be managed with dual goals of water supply reliability and ecosystem protection, sets a statewide conservation target for urban per capita water use of 20 percent reductions by 2020 (with credits for existing conservation), provides

funding for increased enforcement of illegal water diversions and establishes a statewide groundwater monitoring program.

The BDCP is scheduled for completion by the end of 2011, with acquisition of appropriate permits and completion of the associated environmental impact statement/impact report concluding thereafter. On April 13, 2009, Central Delta Water Agency and South Delta Water Agency filed suit in federal court contending that the procedures and process being used to develop the BDCP violate the National Environmental Policy Act, CEQA, the California Natural Community Conservation Planning Act, and the California Open Meeting Act. This lawsuit (*Central Delta Water Agency et al. v. U.S. Fish & Wildlife Service et al.*) named as defendants the federal, State, water contractor and environmental organizations and their officials and employees who are participating in the BDCP, and sought declaratory and injunctive relief regarding the procedures used in the BDCP. The same plaintiffs filed a similar lawsuit in California state court (*Central Delta Water Agency et al. v. California Dept. of Water Resources*) on June 19, 2009. On September 8, 2009, the federal court dismissed the *Central Delta Water Agency et al. v. U.S. Fish & Wildlife Service* lawsuit on various grounds, including lack of final agency action, ripeness and standing. On October 19, 2009, the plaintiffs voluntarily dismissed their state court lawsuit challenging the BDCP (*Central Delta Water Agency et al. v. California Dept. of Water Resources*).

Monterey Agreement Litigation. On September 15, 2000, the Third District Court of Appeal for the State of California issued its decision in *Planning and Conservation League; Citizens Planning Association of Santa Barbara County and Plumas County Flood Control District v. California Department of Water Resources and Central Coast Water Authority*. This case was an appeal of a challenge to the adequacy of the environmental documentation prepared with respect to certain amendments to the State Water Contract (the "Monterey Agreement") which reflects the settlement of certain disputes regarding the allocation of State Water Project water. The Court of Appeal held that the environmental documentation was defective in failing to analyze the environmental effects of the Monterey Agreement's elimination of the permanent shortage provisions of the State Water Contract. Metropolitan intervened in the case in order to fully participate in the issues before the trial court. The parties negotiated a settlement agreement in the fall of 2002. All parties to the litigation and all 29 agencies that have long-term contracts for water service with DWR executed the settlement agreement, which allows continued operation of the State Water Project under the Monterey Agreement principles while a new EIR is being prepared. A draft EIR was issued for public review in October 2007. Plaintiffs raised a number of objections with the administrative draft of the final EIR, which DWR considered and rejected. Under the settlement agreement, plaintiffs may refer their objections to mediation, which could delay issuance of the Final EIR, which is expected to be available in late 2009.

Colorado River Aqueduct

General. The Colorado River was Metropolitan's original source of water after Metropolitan's establishment in 1928. Metropolitan has a legal entitlement to receive water from the Colorado River under a permanent service contract with the Secretary of the Interior. Water from the Colorado River or its tributaries is also available to other users in California, as well as users in the states of Arizona, Colorado, Nevada, New Mexico, Utah, and Wyoming (the "Colorado River Basin States"), resulting in both competition and the need for cooperation among these holders of Colorado River entitlements. In addition, under a 1944 treaty, Mexico has an allotment of 1.5 million acre-feet of Colorado River water annually except in the event of extraordinary drought, or serious accident to the delivery system in the United States, when the water allotted to Mexico would be curtailed. Mexico also can schedule delivery of an additional 200,000 acre-feet of Colorado River water per year if water is available in excess of the requirements in the United States and the 1.5 million acre-feet allotted to Mexico.

The Colorado River Aqueduct, which is owned and operated by Metropolitan, transports water from the Colorado River approximately 242 miles to its terminus at Lake Mathews in Riverside County. After deducting for conveyance losses and considering maintenance requirements, up to 1.2 million acre-feet of

water a year may be conveyed through the Colorado River Aqueduct to Metropolitan's member agencies, subject to availability of Colorado River water for delivery to Metropolitan as described below.

California is apportioned the use of 4.4 million acre-feet of water from the Colorado River each year plus one-half of any surplus that may be available for use collectively in Arizona, California and Nevada. In addition, California has historically been allowed to use Colorado River water apportioned to but not used by Arizona or Nevada when such supplies have been requested for use in California. Under the 1931 priority system that has formed the basis for the distribution of Colorado River water made available to California, Metropolitan holds the fourth priority right to 550,000 acre-feet per year. This is the last priority within California's basic apportionment of 4.4 million acre-feet. In addition, Metropolitan holds the fifth priority right to 662,000 acre-feet of water, which is in excess of California's basic apportionment. See the table "PRIORITIES UNDER THE 1931 CALIFORNIA SEVEN-PARTY AGREEMENT" below. Until 2003, Metropolitan had been able to take full advantage of its fifth priority right as a result of the availability of surplus water and apportioned but unused water. However, Arizona and Nevada increased their use of water from the Colorado River, leaving no unused apportionment available for California since 2002. In addition, a severe drought in the Colorado River Basin reduced storage in system reservoirs, such that Metropolitan stopped taking surplus deliveries in 2003 in an effort to mitigate the effects of the drought. Prior to 2003, Metropolitan could divert over 1.2 million acre-feet in any year, but since that time, Metropolitan's net diversions of Colorado River water have been limited to a low of nearly 633,000 acre-feet in 2006 and a high of approximately 905,000 acre-feet in 2008. Average annual net deliveries for 2003 through 2008 were approximately 762,000 acre-feet, with annual volumes dependent primarily on availability of unused higher priority agricultural water and increasing transfers of conserved water. Metropolitan anticipates that its Colorado River Aqueduct deliveries in 2009 will exceed 1 million acre-feet for the first time since 2002, including diversions anticipated from new programs and transactions under the Five-Year Supply Plan. See "*Quantification Settlement Agreement*", "*Interim Surplus Guidelines*" and "*Five-Year Supply Plan*" below.

PRIORITIES UNDER THE 1931 CALIFORNIA SEVEN-PARTY AGREEMENT⁽¹⁾

Priority	Description	Acre-Feet Annually
1	Palo Verde Irrigation District gross area of 104,500 acres of land in the Palo Verde Valley	3,850,000
2	Yuma Project in California not exceeding a gross area of 25,000 acres in California	
3(a)	Imperial Irrigation District and other lands in Imperial and Coachella Valleys ⁽²⁾ to be served by All-American Canal	
3(b)	Palo Verde Irrigation District - 16,000 acres of land on the Lower Palo Verde Mesa	
4	Metropolitan Water District of Southern California for use on the coastal plain	550,000
	SUBTOTAL	4,400,000
5(a)	Metropolitan Water District of Southern California for use on the coastal plain	550,000
5(b)	Metropolitan Water District of Southern California for use on the coastal plain ⁽³⁾	112,000
6(a)	Imperial Irrigation District and other lands in Imperial and Coachella Valleys to be served by the All-American Canal	300,000
6(b)	Palo Verde Irrigation District - 16,000 acres of land on the Lower Palo Verde Mesa	
	TOTAL	5,362,000
7	Agricultural use in the Colorado River Basin in California	Remaining surplus

Source: Metropolitan.

⁽¹⁾ Agreement dated August 18, 1931, among Palo Verde Irrigation District, Imperial Irrigation District, Coachella Valley County Water District, Metropolitan, the City of Los Angeles, the City of San Diego and the County of San Diego. These priorities were memorialized in the agencies' respective water delivery contracts with the Secretary of the Interior.

⁽²⁾ The Coachella Valley Water District serves Coachella Valley.

⁽³⁾ In 1946, the City of San Diego, the San Diego County Water Authority, Metropolitan and the Secretary of the Interior entered into a contract that merged and added the City and County of San Diego's rights to storage and delivery of Colorado River water to the rights of Metropolitan.

Metropolitan has taken steps to augment its share of Colorado River water through agreements with other agencies that have rights to use such water. Under a 1988 water conservation agreement (the "1988 Conservation Agreement") between Metropolitan and the Imperial Irrigation District ("IID"), IID has constructed and is operating a number of conservation projects that are currently conserving 105,000 acre-feet of water per year. In 2008, the conserved water augmented the amount of water available to Metropolitan by 89,000 acre-feet and, by separate agreement, to the Coachella Valley Water District ("CVWD") by 16,000 acre-feet.

In 1992, Metropolitan entered into an agreement with the Central Arizona Water Conservation District ("CAWCD") to demonstrate the feasibility of CAWCD storing Colorado River water in central Arizona for the benefit of an entity outside of the State of Arizona. Pursuant to this agreement, CAWCD created 80,909 acre-feet of long-term storage credits that may be recovered by CAWCD for Metropolitan. Metropolitan, the Arizona Water Banking Authority, and CAWCD executed an amended agreement for recovery of these storage credits in December 2007. In 2007 and 2008, 16,804 and 28,442 acre-feet were recovered, respectively. Metropolitan anticipates recovery of as much as 30,000 acre-feet in 2009, and expects to request the balance of the storage credits in 2010. Water recovered by CAWCD under the terms of the 1992 agreement allows CAWCD to reduce its use of Colorado River water, resulting in Arizona having unused apportionment. The Secretary of the Interior is making this unused apportionment available to Metropolitan under its Colorado River water delivery contract.

Metropolitan and the Palo Verde Irrigation District ("PVID") signed the program agreement for a Land Management, Crop Rotation and Water Supply Program in August 2004. This program provides up to 133,000 acre-feet of water to be available to Metropolitan in certain years. The term of the program is 35 years. Fallowing of approximately 20,000 acres of land began on January 1, 2005. In 2005, 2006, 2007 and 2008, approximately 108,700, 105,000, 72,300 and 94,300 acre-feet of water, respectively, were saved and made available to Metropolitan. The fallowing program is projected to save 132,500 acre-feet of water in 2009. In March 2009, Metropolitan and PVID entered into a one-year supplemental fallowing program within PVID that provides for the fallowing of additional acreage, with savings projected to be as much as another 61,200 acre-feet. Of that total, about 23,000 acre-feet of water is anticipated in 2009, with the balance to be made available in 2010.

In May 2008, Metropolitan provided \$28.7 million to join the CAWCD and the Southern Nevada Water Authority ("SNWA") in funding the construction of a new 8,000 acre-foot off-stream regulating reservoir near Drop 2 of the All-American Canal in Imperial County. The reservoir is under construction by the Bureau of Reclamation and is anticipated to be completed in 2010. The Drop 2 Reservoir is expected to save up to 70,000 acre-feet of water per year by capturing and storing water that otherwise would not be diverted for irrigation. In return for its funding, Metropolitan received 100,000 acre-feet of water that is stored in Lake Mead, with the ability to deliver up to 34,000 acre-feet of water in any one year. Besides the additional water supply, the new reservoir will add to the flexibility of Colorado River operations.

Management of California's Colorado River Water Supply. With Arizona's and Nevada's increasing use of their respective apportionments and the uncertainty of continued Colorado River surpluses, in 1997 the Colorado River Board of California, in consultation with Metropolitan, IID, PVID, CVWD, the Los Angeles Department of Water and Power and the SDCWA, embarked on the development of a plan for reducing California's use of Colorado River water to its basic apportionment of 4.4 million acre-feet when use of that basic allotment is necessary ("California Plan"). In 1999, IID, CVWD, Metropolitan and the State agreed to a set of Key Terms aimed at managing California's Colorado River supply. These Key Terms were incorporated into the Colorado River Board's May 2000 California Plan that proposed to optimize the use of the available Colorado River supply through water conservation, transfers from higher priority agricultural users to Metropolitan's service area and storage programs.

Quantification Settlement Agreement. Many of the core elements of the California Plan are being put into effect under the October 2003 Quantification Settlement Agreement (the "QSA") executed by CVWD, IID and Metropolitan. The QSA establishes Colorado River water use limits for IID, CVWD and Metropolitan, provides for specific acquisitions of conserved water and water supply arrangements for up to 75 years, and restores the opportunity for Metropolitan to receive any "special surplus water" under the Interim Surplus Guidelines. (See "*Interim Surplus Guidelines*" below.) The QSA also allows Metropolitan to enter into other cooperative Colorado River supply programs. Related agreements modify existing conservation and cooperative water supply agreements consistent with the QSA, and set aside several disputes among California's Colorado River water agencies.

Specific programs under the QSA include lining portions of the All-American and Coachella Canals, which are projected to conserve 96,000 acre-feet annually. As a result, 80,000 acre-feet of conserved water is projected to be delivered to SDCWA by exchange with Metropolitan and 16,000 acre-feet is projected to be delivered for the benefit of the San Luis Rey Settlement Parties by exchange under a water rights settlement annually. An amendment to the IID-Metropolitan 1988 Conservation Agreement and the associated 1989 Approval Agreement extended the term of the 1988 Conservation Agreement and limited the amount of water used by CVWD to 20,000 acre-feet. In 2021, the transfer of water conserved annually by IID to SDCWA is expected to reach 205,000 acre-feet (see discussion below under the caption "*Sale of Water by the Imperial Irrigation District to San Diego County Water Authority*"). With full implementation of the programs identified in the QSA, at times when California is limited to its basic apportionment of 4.4 million acre-feet per year, Metropolitan expects to be able to annually divert to its service area approximately 850,000 acre-feet of Colorado River water plus any unused agricultural water that may be available. This is further augmented by the PVID program, which provides up to 129,800 acre-feet of water per year. (Amounts of Colorado River water received by Metropolitan in 2003 through 2008 are discussed under the heading "*Colorado River Aqueduct—General*" above.)

A complicating factor in completing the QSA was the fate of the Salton Sea. The Salton Sea is an important habitat for a wide variety of fish-eating birds as a stopover spot along the Pacific flyway. Some of these birds are listed as threatened or endangered species under the State and Federal BSAs. Located at the lowest elevations of an inland basin and fed primarily by agricultural drainage with no outflows other than evaporation, the Salton Sea is trending towards hyper-salinity, which has already impacted the Salton Sea's fishery. This fishery has historically been suitable habitat for the fish-eating birds. The transfer of water from IID to SDCWA, one of the core programs implemented under the QSA, would reduce the volume of agricultural run-off from IID into the Salton Sea, which in turn would accelerate this natural trend of the Salton Sea to hyper-salinity. See "*Sale of Water by the Imperial Irrigation District to San Diego County Water Authority*" below. The appropriate mitigation for impacts to the Salton Sea from the IID-SDCWA transfer and the larger issue of Salton Sea restoration was addressed by State legislation facilitating implementation of the QSA. In passing that legislation, the Legislature committed the State to undertake restoration of the Salton Sea ecosystem. Restoration of the Salton Sea is subject to selection and approval of an alternative by the Legislature and funding of the associated capital improvements and operating costs. The Secretary for the California Natural Resources Agency submitted an \$8.9-billion preferred alternative for restoration of the Salton Sea to the Legislature in May 2007. While withholding authorization of the preferred alternative, the Legislature has appropriated funds from Proposition 84 to undertake demonstration projects and investigations called for in the Secretary's recommendation. The QSA implementing legislation also established the Salton Sea Restoration Fund, which will be funded in part by payments made by the parties to the QSA and fees on certain water transfers among the parties to the QSA. Under the QSA agreements Metropolitan will pay \$20 per acre-foot into the Salton Sea Restoration Fund for any special surplus Colorado River water that Metropolitan elects to take under the Interim Surplus Guidelines. Metropolitan also agreed to acquire up to 1.6 million acre-feet of water conserved by IID, excluding water transferred from IID to SDCWA (see "*Sale of Water by the Imperial Irrigation District to San Diego County Water Authority*" below), if such water can be transferred consistent with plans for Salton Sea restoration, at an acquisition price of \$250 per acre-foot (in 2003 dollars), with net proceeds to be deposited

into the Salton Sea Restoration Fund. No conserved water has been made available to Metropolitan under this program. Metropolitan may receive credit for the special surplus water payments against future contributions for the Lower Colorado River Multi-Species Conservation Program (see "*—Environmental Considerations*" below). In consideration of these agreements, Metropolitan will not have or incur any liability for restoration of the Salton Sea. As part of an effort to mitigate the effects of the drought in the Colorado River Basin that began in 2000, Metropolitan elected not to take delivery of special surplus Colorado River water that was available from October 2003 through 2004 and from 2006 through 2007. No special surplus water was available in 2008 or 2009.

Sale of Water by the Imperial Irrigation District to San Diego County Water Authority. On April 29, 1998, SDCWA and IID executed an agreement (the "Transfer Agreement") for SDCWA's purchase from IID of Colorado River water delivered to IID. An amended Transfer Agreement, executed as one of the QSA agreements, set the maximum transfer amount at 205,000 acre-feet in 2021, with the transfer gradually ramping up to that amount over an approximately twenty-year period, stabilizing at 200,000 acre-feet per year beginning in 2023.

No facilities exist to deliver water directly from IID to SDCWA. Under the Transfer Agreement, conserved water from IID is delivered to SDCWA through existing facilities owned by Metropolitan. Metropolitan and SDCWA entered into an exchange contract that provides for conserved Colorado River water acquired by SDCWA from IID and water conserved from lining the All-American and Coachella Canals to be made available to Metropolitan for diversion at Lake Havasu. By exchange from the sources of water available to Metropolitan, an equal volume of water is delivered to SDCWA through Metropolitan's distribution system. The price payable by SDCWA for these deliveries is calculated using the charges set by Metropolitan's Board from time to time that are applicable to the conveyance of water by Metropolitan on behalf of its member agencies. See "METROPOLITAN REVENUES—Wheeling and Exchange Charges" in this Appendix A. In 2007 a total of 73,125 acre-feet were delivered to SDCWA under the exchange contract, consisting of 50,000 acre-feet from IID and 23,125 acre-feet as a result of the completion of the Coachella Canal lining project. In 2008, 80,582 acre-feet were delivered for exchange, 50,000 acre-feet of IID conservation plus 23,197 acre-feet and 7,385 acre-feet of conserved water from the Coachella Canal and All-American Canal lining projects, respectively. Total 2009 exchange deliveries are projected to reach over 131,000 acre-feet.

QSA Related Litigation. On November 5, 2003, IID filed a validation action in Imperial County Superior Court, seeking a judicial determination that thirteen agreements associated with the IID/SDCWA water transfer and the QSA are valid, legal and binding. Other lawsuits also were filed challenging the execution, approval and subsequent implementation of the QSA on various grounds including failure to comply with CEQA, violations of the Water Code, breach of trust and fiduciary duties, unconstitutional taking of property rights, and deprivation of federal civil rights under 42 U.S.C. section 1983. Metropolitan filed an answer in IID's validation proceeding, and has been named as a defendant/respondent/cross-defendant in certain cases pertaining to the QSA and its related agreements. All of the QSA cases have been coordinated in Sacramento Superior Court. Two rounds of pleading challenges that ended in January 2005 narrowed the cases and claims in the coordinated proceedings. In 2005, the Third District Court of Appeal granted the County of Imperial's petition for review of rulings dismissing one County case and dismissing the CEQA causes of action from another. The Court of Appeal then stayed all lower court proceedings pending appellate review. On June 14, 2007, the Court of Appeal affirmed the Superior Court's decision. The Court of Appeal denied a petition for rehearing in July 2007, and the time to petition the California Supreme Court expired. The QSA litigation then resumed in the Superior Court.

During 2007 and 2008, there were a number of pretrial rulings that narrowed the claims in the QSA litigation and set the stage for trial. These rulings included the denial of motions for a preliminary injunction, for class action certification, and for disqualification of certain counsel; granting of only limited discovery of certain parties and issues; resolution of disputes over the scope and content of the administrative record;

issuance of court guidance on the scope of the validation proceeding and the dismissal of one of the QSA cases. An appeal of that dismissal is now pending before the Court of Appeal. In December 2008, some of the plaintiffs challenging the QSA also petitioned the Court of Appeal for a writ of mandate to overturn various pre-trial rulings of the Superior Court. Those writ petitions were denied by the Court of Appeal in January 2009. In April 2009, the parties filed 18 dispositive motions aimed at further limiting the scope of the QSA litigation. With one exception, all of these motions were denied, largely on procedural grounds. One party subsequently filed a petition for writ of mandate seeking to overturn the judge's denial of its motion, which related to the constitutionality of certain funding commitments made by the State. That writ was summarily denied by the Court of Appeal.

The Superior Court has scheduled trial of the outstanding issues in phases, with all claims pertaining to the validity of the QSA and its related agreements to be tried first and any claims related to CEQA compliance to be tried second. Phase 1A, addressing all claims pertaining to the validity of the QSA and its related agreements, began on November 9, 2009. Phase 1B, addressing any CEQA claims related to the QSA Programmatic EIR, is scheduled to begin on December 14, 2009, and Phase 1C, addressing any CEQA claims related to the IID Transfer Project EIR, is scheduled to start on January 4, 2010. Any remaining unresolved claims or issues will be tried in subsequent phases, which have not yet been scheduled.

Success by plaintiffs in the QSA lawsuits described above could delay the implementation of programs authorized under the QSA (described under "*Quantification Settlement Agreement*" above) or result in increased costs or other adverse impacts. The impact that an adverse judgment in any of the QSA cases might have on Metropolitan or its Colorado River supplies cannot be adequately determined at this time.

The Navajo Nation has filed litigation against the Department of the Interior, specifically the Bureau of Reclamation and the Bureau of Indian Affairs, alleging that the Bureau of Reclamation has failed to determine the extent and quantity of the water rights of the Navajo Nation in the Colorado River and that the Bureau of Indian Affairs has failed to otherwise protect the interests of the Navajo Nation. The complaint challenges the adequacy of the environmental review for the Interim Surplus Guidelines (as defined under "*Interim Surplus Guidelines*" below) and seeks to prohibit the Department of the Interior from allocating any "surplus" water until such time as a determination of the rights of the Navajo Nation is completed. Metropolitan has filed a motion to intervene in this action. In October 2004 the court granted the motions to intervene and stayed the litigation to allow negotiations among the Navajo Nation, federal defendants and Arizona parties. The stay has been extended until April 13, 2010. The intervening parties may observe, but may not participate in the negotiations. Negotiations are continuing. This litigation has not delayed implementation of the QSA. Any adverse impact of this litigation on Metropolitan or its Colorado River supplies, if settlement negotiations are not successful, cannot be adequately determined at this time.

Interim Surplus Guidelines. In January 2001, the Secretary of the Interior adopted guidelines (the "Interim Surplus Guidelines") for use through 2016 in determining if there is surplus Colorado River water available for use in California, Arizona and Nevada. The purpose of the Interim Surplus Guidelines is to provide a greater degree of predictability with respect to the availability and quantity of surplus water through 2016. The Interim Surplus Guidelines were later extended through 2026 (See "*Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead*" below). The Interim Surplus Guidelines contain a series of benchmarks for reductions in agricultural use of Colorado River water within California by set dates.

Under the Interim Surplus Guidelines, Metropolitan initially expected to divert up to 1.25 million acre-feet of Colorado River water annually under foreseeable runoff and reservoir storage scenarios from 2004 through 2016. However, an extended drought in the Colorado River Basin reduced these initial expectations. From 2000 to 2004, snow pack and runoff in the Colorado River Basin were well below average. Although runoff was slightly above average in 2005, the runoff in 2006 and 2007 was again below

average, making 2000 through 2007 the driest eight-year period on record. Slightly above-average runoff occurred in water year 2008 and below-average runoff is projected for water year 2009. As of October 18, 2009, storage in Lake Mead was at 42 percent of capacity and Lake Powell was at 63 percent of capacity. Metropolitan's initial 2009 diversion approval from the Bureau of Reclamation totaled 849,700 acre-feet plus any unused Priority 1 through 3 water (see the table "PRIORITIES UNDER THE 1931 CALIFORNIA SEVEN-PARTY AGREEMENT" above). Metropolitan anticipates its ultimate 2009 diversion approval from the Bureau of Reclamation will exceed 1 million acre-feet.

SNWA and Metropolitan entered into an Agreement Relating to Implementation of Interim Colorado River Surplus Guidelines on May 16, 2002, in which SNWA and Metropolitan agreed to the allocation of unused apportionment as provided in the Interim Surplus Guidelines and on the priority of SNWA for interstate banking of water in Arizona. SNWA and Metropolitan entered into a storage and interstate release agreement on October 21, 2004. Under this program, Nevada can request that Metropolitan store unused Nevada apportionment in California. The amount of water stored through 2008 under this agreement was 70,000 acre-feet, with another 50,000 acre-feet expected to be stored in 2009. In subsequent years, Nevada may request recovery of this stored water. As part of a recently executed amendment, it is expected that Nevada will not request return of this water until 2022. The stored water provides flexibility to Metropolitan for blending Colorado River water with State Water Project water and improves near-term water supply reliability.

Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead. In November 2007, the Bureau of Reclamation issued a Final Environmental Impact Statement ("EIS") regarding new federal guidelines concerning the operation of the Colorado River system reservoirs. These new guidelines provide water release criteria from Lake Powell and water storage and water release criteria from Lake Mead during shortage and surplus conditions in the Lower Basin, provide a mechanism for the storage and delivery of conserved system and non-system water in Lake Mead and extend the Interim Surplus Guidelines through 2026. The Secretary of the Interior issued the final guidelines through a Record of Decision signed in December 2007. The Record of Decision and accompanying agreement among the Colorado River Basin States protect reservoir levels by reducing deliveries during drought periods, encourage agencies to develop conservation programs and allow the states to develop and store new water supplies. The Colorado River Basin Project Act of 1968 insulates California from shortages in all but the most extreme hydrologic conditions.

Intentionally-Created Surplus Program. Metropolitan and the Bureau of Reclamation executed an agreement on May 26, 2006 for a demonstration program that allowed Metropolitan to leave conserved water in Lake Mead that Metropolitan would otherwise have used in 2006 and 2007. Only "intentionally-created surplus" water (water that has been conserved through an extraordinary conservation measure, such as land fallowing) was eligible for storage in Lake Mead under this program. See the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "—Storage Capacity and Water in Storage" below. Metropolitan may store additional intentionally-created surplus water in Lake Mead under the federal guidelines for operation of the Colorado River system reservoirs described above under the heading "*Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead.*" The Secretary of the Interior will deliver intentionally created surplus water to Metropolitan in accordance with the terms of a December 13, 2007 Delivery Agreement between the United States and Metropolitan.

Environmental Considerations. Federal and state environmental laws protecting fish species and other wildlife species have the potential to affect Colorado River operations. A number of species that are on either "endangered" or "threatened" lists under the ESAs are present in the area of the Lower Colorado River, including among others, the bonytail chub, razorback sucker, southwestern willow flycatcher and Yuma clapper rail. To address this issue, a broad-based state/federal/tribal/private regional partnership that includes water, hydroelectric power and wildlife management agencies in Arizona, California and Nevada have developed a multi-species conservation program for the main stem of the Lower Colorado River (the Lower

Colorado River Multi-Species Conservation Program or "MSCP"). The MSCP allows Metropolitan to obtain federal and state permits for any incidental take of protected species resulting from current and future water and power operations of its Colorado River facilities and to minimize any uncertainty from additional listings of endangered species. The MSCP also covers operations of federal dams and power plants on the river that deliver water and hydroelectric power for use by Metropolitan and other agencies. The MSCP covers 27 species and habitat in the Lower Colorado River from Lake Mead to the Mexican border for a term of 50 years. The total cost of the MSCP to Metropolitan will be about \$88 million (in 2003 dollars), and will range between \$0.8 million and \$4.6 million annually.

The non-profit conservation organization Grand Canyon Trust filed litigation in December 2007 against the Bureau of Reclamation in the United States District Court for the District of Arizona, alleging that the Bureau of Reclamation's planning for, and operation of, the Glen Canyon Dam (which impounds Lake Powell) does not comply with requirements of the National Environmental Policy Act and the Federal ESA. The Trust claims that the Bureau of Reclamation has failed to implement a reasonable and prudent alternative in the USFWS' 1994 Biological Opinion for Glen Canyon Dam operations to protect endangered humpback chub and razorback sucker. Grand Canyon Trust alleges that the Bureau of Reclamation must develop and implement a water release program with steady high flows in the spring and low steady flows in the summer and fall during low water years. Grand Canyon Trust later named the USFWS as a defendant. Metropolitan, IID and CAWCD have intervened in this case. On May 27, 2009, the court ordered the Bureau of Reclamation to reconsider how the dam flows may harm the endangered fish and develop a new operating plan.

Quagga Mussel Control Program. In January 2007 quagga mussels were discovered for the first time in Lake Mead. Quagga mussels can reproduce quickly and, if left unmanaged, can clog intakes and raw water conveyance systems, alter or destroy fish habitats and affect lakes and beaches. Quagga mussels were introduced in the Great Lakes in the late 1980s. These organisms infest much of the Great Lakes basin, the St. Lawrence Seaway, and much of the Mississippi River drainage system. The most likely source of the quagga mussel infestation is recreational boats from water bodies around the Great Lakes, which were transported over 1,000 miles west to Lake Mead. In response to the Lake Mead finding, the California Department of Fish and Game created a multi-agency task force with Metropolitan as one of its members. The initial survey of the Colorado River to ascertain the extent of the quagga mussel colonization detected low densities in Lake Mead, Lake Mohave and Lake Havasu and in the intake of the Central Arizona Project. Quagga mussels were also detected at the Colorado River Aqueduct intake pumping plant, Gene Wash and Copper Basin reservoirs, in portions of the Colorado River Aqueduct and in Lake Skinner. A three-week shutdown of the Colorado River Aqueduct for rehabilitation and repairs in March 2007 also permitted inspection for quagga mussels. Desiccation of mussels from emptying the aqueduct during the shutdown, followed by a week of chlorination to kill or limit spread of any remaining mussels after the aqueduct was placed back in service, helped control mussels found there. Shutdowns of the Colorado River Aqueduct in July 2007, October 2007 and March 2008 permitted additional quagga mussel inspection and facilitated control measures.

Metropolitan is working to enhance its ability to detect the mussels, studying mussel transport and settling in Metropolitan conveyance systems, assessing additional, more cost-effective methods to control mussels and developing and implementing control strategies for mussels in Metropolitan's lakes and reservoirs. The California Department of Fish and Game has approved Metropolitan's recreational facilities and boating plan for Diamond Valley Lake and Lake Skinner, which requires inspection of boats and quarantine of those that are potential carriers of mussels, and Metropolitan's water releases management plan, which should minimize the potential for mussels to be introduced into new water bodies while allowing for water releases associated with dewatering of aqueducts and pipelines for maintenance, repair, or upgrades. In addition, the California Department of Fish and Game provided Metropolitan with a permit approving laboratory research on quagga mussels to advance the understanding of mussel biology in California and benefit future efforts to manage the invasive species. Future quagga mussel control efforts are expected to

include infrastructure upgrades and recommendations on boating practices or additional facilities to control the spread of mussels in the Colorado River Aqueduct system and additional long-term measures. In September 2007, the Board appropriated \$5.91 million for design and construction of interim chlorination facilities at Copper Basin and Lake Mathews, design of permanent chlorination facilities at Copper Basin, Lake Mathews and Diamond Valley Lake and related quagga mussel control measures. In February 2008, the Board appropriated \$1.77 million for a new chlorine injection point at the Lake Skinner Outlet Conduit and for the procurement of liquid chlorine trailers and mobile chlorination units. In August 2008, the Board appropriated an additional \$1.87 million to complete the chlorination facilities at Copper Basin and Lake Mathews and in June 2009, the Board appropriated \$1.13 million for design and construction of a chlorination system to control quagga mussel growth in Skinner oxidation retrofit facilities. Metropolitan estimates that its costs for controlling quagga mussels could exceed \$10 million per year.

Water Transfer, Storage and Exchange Programs

General. California's agricultural activities consume approximately 34 million acre-feet of water annually, which is 80 percent of the total water used for agricultural and urban uses and 40 percent of the water used for all consumptive uses, including environmental demands. Voluntary water transfers and exchanges can make a portion of this agricultural water supply available to support the State's urban areas. Such existing and potential water transfers and exchanges are an important element for improving the water supply reliability within Metropolitan's service area and accomplishing the reliability goal set by Metropolitan's Board of Directors. Metropolitan is currently pursuing voluntary water transfer and exchange programs with State, federal, public and private water districts and individuals. The following are summary descriptions of some of these programs.

Arvin-Edison/Metropolitan Water Management Program. In December 1997, Metropolitan entered into an agreement with the Arvin-Edison Water Storage District ("Arvin-Edison"), an irrigation agency located southeast of Bakersfield, California. Under the program, Arvin-Edison stores water on behalf of Metropolitan. In January 2008, Metropolitan amended the agreement to enhance the program's capabilities and to increase the delivery of water to the California Aqueduct. Up to 350,000 acre-feet of Metropolitan's water may be stored and Arvin-Edison is obligated to return up to 75,000 acre-feet of stored water in any year to Metropolitan, upon request. The agreement will terminate in 2035 unless extended. To facilitate the program, new wells, spreading basins and a return conveyance facility connecting Arvin-Edison's existing facilities to the California Aqueduct have been constructed. The agreement also provides Metropolitan priority use of Arvin-Edison's facilities to convey high quality water available on the east side of the San Joaquin Valley to the California Aqueduct. Metropolitan's current storage account under the Arvin-Edison/Metropolitan Water Management Program is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading, "—Storage Capacity and Water in Storage" below.

Semitropic/Metropolitan Groundwater Storage and Exchange Program. In 1994 Metropolitan entered into an agreement with the Semitropic Water Storage District ("Semitropic"), located adjacent to the California Aqueduct north of Bakersfield, to store water in the groundwater basin underlying land within Semitropic. The minimum annual yield available to Metropolitan from the program is 31,500 acre-feet of water and the maximum annual yield is 223,000 acre-feet of water depending on the available unused capacity and the State Water Project allocation. Metropolitan's current storage account under the Semitropic program is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading, "—Storage Capacity and Water in Storage" below.

California Aqueduct Dry-Year Transfer Program. Metropolitan has entered into agreements with the Kern Delta Water District, the Mojave Water Agency (Demonstration Water Exchange Program) and the San Bernardino Valley Municipal Water District ("SBVMWD") to insure against regulatory and operational uncertainties in the State Water Project system that could impact the reliability of existing supplies. The total

potential yield for the three agreements is approximately 80,000 acre-feet of water per year when sufficient water is available.

Metropolitan entered into an agreement with SBVMWD in April 2001 to coordinate the use of facilities and State Water Project water supplies. The agreement allows for the minimum purchase of 20,000 acre-feet on an annual basis with the option to purchase additional water when available. Also, the program includes 50,000 acre-feet of carryover storage. In addition to water being supplied using the State Water Project, the previously stored water can be returned using an interconnection between the San Bernardino Central Feeder and Metropolitan's Inland Feeder. Metropolitan took delivery of approximately 30,000 acre-feet from SBVMWD under the agreement in calendar year 2007 and no deliveries in 2008. In March 2009, SBVMWD agreed to return \$7.5 million paid by Metropolitan for 50,000 acre-feet of previously stored water that could not be delivered. This program terminates on December 31, 2014. Metropolitan entered into an agreement with Kern Delta Water District on May 27, 2003, for a groundwater banking and exchange transfer program to allow Metropolitan to store up to 250,000 acre-feet of State Water Contract water in wet years and permit Metropolitan, at Metropolitan's option, a return of up to 50,000 acre-feet of water annually during hydrologic and regulatory droughts. Additionally, Metropolitan entered into a groundwater banking and exchange transfer agreement with Mojave Water Agency on October 29, 2003. The agreement allows for Metropolitan to store water in an exchange account for later return. Metropolitan's current storage account under these programs is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading, "—Storage Capacity and Water in Storage" below.

Other Water Purchase, Storage and Exchange Programs in the San Joaquin and Sacramento Valleys. Metropolitan has been negotiating, and will continue to pursue, water purchase, storage and exchange programs with other agencies in the Sacramento and San Joaquin Valleys. These programs involve the storage of both State Water Project supplies and water purchased from other sources to enhance Metropolitan's dry-year supplies and the exchange of normal year supplies to enhance Metropolitan's water reliability and water quality, in view of dry conditions and potential impacts from the ESA cases discussed above under the heading "—State Water Project—*Endangered Species Act Considerations.*" In addition, in the fall of 2008 DWR convened the State Drought Water Bank (the "Drought Water Bank") as a one-year program to help mitigate water shortages in 2009. During 2009, Metropolitan purchased 37,912 acre-feet of Central Valley Water supplies through the Drought Water Bank, resulting in 29,000 acre-feet of water deliveries after accounting for carriage and conveyance losses. (See "METROPOLITAN'S WATER SUPPLY – Five-Year Supply Plan – *State Water Project Transactions*" in this Appendix A.)

Metropolitan entered into an agreement with DWR in December 2007 to purchase a portion of the water released by the Yuba County Water Agency ("YCWA"). YCWA was involved in a SWRCB proceeding in which it was required to increase Yuba River fishery flows. Within the framework of agreements known as the Yuba River Accord, DWR and the Bureau of Reclamation entered into agreements for the long-term purchase of water from YCWA. Metropolitan and other State Water Project contractors entered into separate agreements with DWR for purchase of portions of the water made available. Metropolitan's agreement allows Metropolitan to purchase 13,750 acre-feet to 35,000 acre-feet per year of water supplies in dry years through 2025. The agreement permits YCWA to transfer additional supplies at its discretion. For calendar year 2008, Metropolitan purchased 26,430 acre-feet of water from YCWA under this program. Metropolitan purchased approximately 30,000 acre-feet of water from YCWA in 2009.

Metropolitan/CVWD/Desert Water Agency Exchange and Advance Delivery Agreement. Metropolitan has agreements with the CVWD and the Desert Water Agency ("Desert") that require Metropolitan to exchange its Colorado River water for those agencies' State Water Project entitlement water on an annual basis. Because Desert and CVWD do not have a physical connection to the State Water Project, Metropolitan takes delivery of Desert's and CVWD's State Water Project supplies and delivers a like amount of Colorado River water to the agencies. In accordance with an advance delivery agreement executed by Metropolitan, CVWD and Desert, Metropolitan has delivered Colorado River water in advance to these

agencies for storage in the Upper Coachella Valley groundwater basin. In years when it is necessary to augment available supplies to meet local demands, Metropolitan has the option to meet the exchange delivery obligation through drawdowns of the advance delivery account, rather than deliver its Colorado River supply. Metropolitan's current storage account under the CVWD/Desert program is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading, "—Storage Capacity and Water in Storage" below. In addition to the CVWD/Desert exchange agreements, Metropolitan has entered into separate agreements with CVWD and Desert for delivery of non-State Water Project supplies acquired by CVWD or Desert. Similarly, Metropolitan takes delivery of these supplies from State Water Project facilities and incurs an exchange obligation to CVWD or Desert. During 2008, Metropolitan received a net additional supply of 10,847 acre-feet of water acquired by CVWD and Desert.

Other Agreements. Metropolitan is entitled to storage and access to stored water in connection with various storage programs and facilities. See "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct" and "REGIONAL WATER RESOURCES—Local Water Supplies—*Conjunctive Use*" in this Appendix A, as well as the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading, "—Storage Capacity and Water in Storage" below.

Storage Capacity and Water in Storage

Metropolitan's storage capacity, which includes reservoirs, conjunctive use and other groundwater storage programs within Metropolitan's service area and groundwater and surface storage accounts delivered through the State Water Project or Colorado River Aqueduct, has increased to 5.19 million acre-feet. Approximately 674,000 acre-feet of stored water is emergency storage that is reserved for use in the event of supply interruptions from earthquakes or similar emergencies (see "METROPOLITAN'S WATER DELIVERY SYSTEM—Seismic Considerations" in this Appendix A), as well as extended drought. Metropolitan's ability to replenish water storage, both in the local groundwater basins and in surface storage and banking programs, has been limited by Bay-Delta pumping restrictions under the Interim Remedial Order in *NRDC v. Kempthorne* and the biological opinions issued for listed species. (See "—State Water Project—*Endangered Species Act Considerations*" above.) Metropolitan replenishes its storage accounts when imported supplies exceed demands. Effective storage management is dependent on having sufficient years of excess supplies to store water so that it can be used during times of shortage. Historically, excess supplies have been available in about seven of every ten years. Metropolitan forecasts that, with anticipated supply reductions from the State Water Project due to pumping restrictions, it will need to draw down on storage in about seven of ten years and will be able to replenish storage in about three years out of ten. This reduction in available supplies extends the time required for storage to recover from drawdowns and could require Metropolitan to implement its Water Supply Allocation Plan during extended dry periods.

Over the past three years Metropolitan has drawn down approximately half of its stored water to meet regional demands. At its highest level in July 2006, Metropolitan's storage was 2.74 million acre-feet. With the latest State Water Project allocation increase and the estimated impact of Metropolitan's allocation of supplies under the Water Supply Allocation Plan on its water sales and demands (see "—Water Supply Allocation Plan" below), Metropolitan projects that, by the end of 2009, it will have a net withdrawal from storage of about 200,000 acre-feet for the calendar year. As of January 1, 2010, Metropolitan expects to have approximately 1.32 million acre-feet of water in storage, as shown in the following table.

Groundwater storage and other storage programs may have physical or contractual conditions that affect withdrawal capacity or limit the maximum amount that may be withdrawn each year.

**METROPOLITAN'S WATER STORAGE CAPACITY
AND WATER IN STORAGE
(in Acre-Feet)**

<u>Water Storage Resource</u>	<u>Storage Capacity</u>	<u>Estimated Water in Storage January 1, 2010</u>	<u>Water in Storage January 1, 2009</u>	<u>Water in Storage January 1, 2008</u>
<u>Colorado River Aqueduct</u>				
Desert / Coachella	800,000	42,000	57,000	121,000
Lake Mead ICS	1,500,000	174,000	94,000	41,000
CAWCD	n/a	6,000	36,000	72,000
Subtotal	2,300,000	222,000	187,000	234,000
<u>State Water Project</u>				
Arvin-Edison Storage Program	250,000	97,000	152,000	189,000
Semitropic Storage Program	350,000	47,000	109,000	249,000
Kern Delta Storage Program	250,000	9,000	23,000	31,000
San Bernardino Valley MWD Coordinated Operating Agreement	50,000	-0-	50,000	50,000
Mojave Storage Program	75,000	2,000	10,000	19,000
Castaic Lake and Lake Perris ⁽¹⁾	219,000	175,000	140,000	204,000
Non-Project Carryover	-0-	14,000	-0-	-0-
Metropolitan Article 56 Carryover ⁽²⁾	-0-	111,000	11,000	-0-
Subtotal	1,194,000	455,000	495,000	742,000
<u>Within Metropolitan's Service Area ⁽³⁾</u>				
Diamond Valley Lake	810,000	390,000	410,000	597,000
Lake Mathews	182,000	125,000	75,000	115,000
Lake Skinner	44,000	38,000	36,000	38,000
Subtotal	1,036,000	553,000	521,000	750,000
<u>Member Agency Storage Programs</u>				
Cyclic Storage, Conjunctive Use, and Supplemental Storage	662,000	90,000	188,000	302,000
Total	5,192,000	1,320,000	1,391,000	2,028,000

Source: Metropolitan.

- (1) Flexible storage allocated to Metropolitan under its State Water Contract. Does not include emergency storage (see footnote 3).
- (2) Article 56 Carryover storage capacity is dependent on the annual State Water Project allocation, which varies from year to year. Article 56 water is unused water that is allocated to a state water contractor in a given year pursuant to the State Water Contract. Metropolitan's carryover water is stored in San Luis Reservoir.
- (3) Includes 319,000 acre-feet of emergency storage in Metropolitan's reservoirs. Another 355,000 acre-feet of emergency storage is available to Metropolitan under its State Water Contract and is stored primarily in Castaic Lake, Lake Perris and Pyramid Lake.

Five-Year Supply Plan

In April 2008, Metropolitan staff began working with Metropolitan's member agencies on a Five-Year Supply Plan ("Supply Plan") to identify specific resource and conservation actions over the next five years to manage water deliveries under continued drought conditions and court-ordered restrictions. The Supply Plan focuses on six categories of resource options to improve Metropolitan's reliability from 2009 through 2013. These categories are:

Water Conservation. The Supply Plan targets the following water conservation strategies to increase and accelerate conservation savings by increasing the use of water efficient devices, affecting water use practices in Southern California and reducing prohibited uses of water: (1) increase outreach to heighten the public's awareness of the need to conserve, (2) increase resources and support for water use ordinances and conservation-based rate structures to motivate conservation, and (3) accelerate the installation of water efficient devices. See "METROPOLITAN'S WATER SUPPLY – Water Conservation" in this Appendix A.

Colorado River Transactions. Metropolitan is pursuing additional supplies such as the emergency short-term fallowing program within PVID. Metropolitan's Board authorized participation with the Bureau of Reclamation in pilot operation of the Yuma Desalting Plant that could yield up to 27,000 acre-feet in 2010. New initiatives also include expansion of the 2004 storage and interstate release agreement with SNWA (see "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct—*Interim Surplus Guidelines*"), an agreement with CVWD (see "METROPOLITAN'S WATER SUPPLY—Water Transfer, Storage and Exchange Programs—*Metropolitan/CVWD/Desert Water Agency Exchange and Advance Delivery Agreement*"), a water exchange with Arizona, and a fallowing program with California Indian tribes. Metropolitan estimates that these programs on the Colorado River could provide an additional 140,000 acre-feet of Colorado River Aqueduct supply in 2009, with the potential to increase in the following years.

Near-Term Delta Actions. Near-term Delta actions being developed include measures that protect fish species and reduce supply impacts, such as habitat and hatchery projects, and physical and operational actions with the goal of reducing conflicts between water supply conveyance and environmental needs. The proposed Two-Gate System would provide movable barriers on the Old and Middle Rivers to modify flows and prevent vulnerable fish from being drawn toward the Bay-Delta pumping plants. The Two-Gate System is anticipated to protect fish habitat while allowing up to an estimated additional 150,000 acre-feet per year of water supply export from the Bay-Delta in years when the allocation for State Water Project contractors exceeds 35 percent. The Two-Gate System is subject to operational studies; monitoring; environmental documentation and compliance; acquisition of right-of-way; and completion of design and construction.

State Water Project Transactions. DWR's Drought Water Bank facilitates transfers from willing sellers located upstream of the Bay-Delta to buyers through the State Water Project and Central Valley Project. Prospective buyers submitted expressions of interest to DWR in October 2008. Purchases from the Drought Water Bank are contingent on acquisition by DWR of supplies from willing sellers. Delivery of Drought Water Bank transfers are contingent on sufficient capacity for export of this water through the Bay-Delta. Metropolitan took delivery of 29,000 acre-feet from the Drought Water Bank in 2009.

On April 13, 2009, Butte Environmental Council, California Sportfishing Protection Alliance and California Water Impact Network ("Petitioners") filed suit in Alameda County Superior Court alleging that DWR, the Resources Agency and the Governor violated CEQA by approving the 2009 Drought Water Bank. A wide array of potential participants in the Drought Water Bank (i.e., buyers and sellers), including Metropolitan, also were named as "real parties in interest," although many of these parties have since been dismissed. Additionally, the State Water Contractors were granted leave to intervene in this case on behalf of its 27 member agencies, including Metropolitan. This lawsuit seeks a writ of mandate to set aside and void approval of the Drought Water Bank, as well as injunctive relief to prohibit implementation of the Drought

Water Bank. On June 8, 2009, the parties participated in a mandatory settlement conference, but did not reach agreement on the substance of petitioners' claims. On August 25, 2009, DWR filed a motion to dismiss the lawsuit on the grounds that the Drought Water Bank was exempt from CEQA. Metropolitan and other real parties in interest joined in that motion. On November 2, 2009, the court denied the motion, Petitioners did not request injunctive relief as part of their complaint, and all deliveries from the Drought Water Bank have been completed. Accordingly, various participants on the bank have filed another motion to dismiss on the ground that the lawsuit is now moot. Following a November 17, 2009 hearing on that motion, the Court has taken the matter under submission. The Supply Plan also includes additional transfers with entities within the Bay-Delta (see "—Water Transfer, Storage and Exchange Programs" above) and investigations into the feasibility of crop rotation demonstration projects with Kern County agencies, as well as the return of existing transfers stored in Shasta Lake. In addition, Metropolitan may take up to 27,500 acre-feet of State Water Project water over the next three years available under a water transfer between North Kern Water Storage District and Desert. This water, along with approximately 8,500 acre-feet of water transferred to Metropolitan in 2008, will be returned to Desert in increments of 1,200 acre-feet per year over the next 30 years.

Groundwater Recovery. Groundwater that requires treatment and recovery for consumptive use is a resource that has the potential to yield significant amounts of supply. Based on groundwater inventories conducted by Metropolitan and the member agencies, it is estimated that there is over 300,000 acre-feet of groundwater that could be treated and recovered in Metropolitan's service area. Additionally, it is estimated that the Hayfield groundwater basin located adjacent to the Colorado River Aqueduct has 70,000 to 100,000 acre-feet that could be extracted over the next five to ten years. Also, more than 300,000 acre-feet of recovered groundwater accumulated from agricultural drainage in the San Joaquin Valley could be made available to Metropolitan if Metropolitan funds groundwater treatment facilities.

Local Resources. Metropolitan is working with its member agencies to determine which local projects could be expanded and/or accelerated with a potential to be on line within the next five years. Local projects include recycled water treatment plants, groundwater recovery plants, desalination plants, and new hookups to existing recycled plants. Over 50 potential projects have been identified. No yield is anticipated for 2009, but the combined annual yield for these efforts has the potential to grow to approximately 122,000 acre-feet by 2013.

Metropolitan's estimate of the dry year yield of the above Supply Plan actions is shown in the following table:

ESTIMATED YIELD OF FIVE-YEAR SUPPLY PLAN ACTIONS
(in Thousands of Acre-Feet (TAF))

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Water Conservation	235	235	235	235	235
Colorado River Transactions	140	176	176	176	176
Near Term Delta Actions ⁽¹⁾	0	0	0	0	0
State Water Project Transactions	34	43	43	38	33
Groundwater Recovery	3	17	17	28	28
Local Resources	<u>0</u>	<u>5</u>	<u>20</u>	<u>40</u>	<u>60</u>
Total	412	476	491	517	532

Source: Metropolitan.

⁽¹⁾ Two-Gate System is estimated to provide up to 150 TAF when the State Water Project allocation is greater than about 35 percent. Yield is shown at 0 because of this contingency.

Water Conservation

The central objective of Metropolitan's water conservation activities is to help ensure adequate, reliable and affordable water supplies for Southern California by actively promoting efficient water use. The importance of conservation to the region has increased in 2008 and 2009 because of drought conditions in the State Water Project watershed and court-ordered restrictions on Bay-Delta pumping, as described under "METROPOLITAN'S WATER SUPPLY—State Water Project" in this Appendix A. Water conservation is an integral component of Metropolitan's IRP, Preferred Resource Mix, Five-Year Supply Plan, Water Surplus and Drought Management Plan and Water Supply Allocation Plan, each described in this Appendix A under "METROPOLITAN'S WATER SUPPLY."

Metropolitan's conservation activities have largely been developed to assist its member agencies in meeting the "best management practices" ("BMP") of the California Urban Water Conservation Council's Memorandum of Understanding Regarding Urban Water Conservation in California ("CUWCC MOU") and to meet the conservation goals of the 2004 IRP Update. See "—Integrated Water Resources Plan" in this Appendix A. Under the terms of the CUWCC MOU and Metropolitan's Conservation Credits Program, Metropolitan co-funds member agency conservation programs designed to achieve greater water use efficiency in residential, commercial, industrial, institutional and landscape applications. Direct spending by Metropolitan on active conservation incentives, including rebates for water-saving plumbing fixtures, appliances and equipment, from fiscal year 1989-90 through fiscal year 2008-09 was \$263 million. The 2004 Integrated Water Resources Plan Update estimates that 1,100,000 acre-feet of water will be conserved annually in southern California by 2025. See "METROPOLITAN'S WATER SUPPLY—Integrated Water Resources Plan."

In August 2007, Metropolitan launched a significant public outreach campaign to urge consumers and businesses to voluntarily save water during current record dry conditions. The campaign combines radio, print and on-line advertising with media and community outreach efforts. Along with the message to save water, the campaign is intended to educate the public about the uncertainties of future water supplies. The campaign was intensified following Metropolitan's declaration of a regional Water Supply Alert on June 10, 2008 and with the February 2009 declaration of statewide water emergency by the Governor of California. Metropolitan urged cities, counties and water districts in its service area to achieve extraordinary conservation by adopting and enforcing drought ordinances, accelerating public outreach and conservation messaging, and developing additional local supplies.

Metropolitan's Board also authorized agreements with public agencies to provide financial incentives for water saving measures, ranging from \$195 to \$500 per acre-foot of potable water saved, up to a maximum of \$15 million for the Public Sector Water Efficiency Partnership Demonstration Program. This program aims to continue public support for conservation through public agency accomplishments and efforts.

The Water Surplus and Drought Management Plan ("WSDM Plan"), which was adopted by Metropolitan's Board of Directors in April 1999, evolved from Metropolitan's experiences during the droughts of 1976-77 and 1987-92. The WSDM Plan splits resource actions into two major categories: Surplus Actions and Shortage Actions. The Surplus Actions store surplus water, first inside then outside the region. The Shortage Actions of the WSDM Plan are split into three sub-categories: Shortage, Severe Shortage, and Extreme Shortage. Each category has associated actions that could be taken as a part of the response to prevailing shortage conditions. Conservation and water efficiency programs are part of Metropolitan's resource management strategy through all categories.

Metropolitan's plan for allocation of water supplies in the event of shortage (the "Water Supply Allocation Plan"; see "—Water Supply Allocation Plan" below) allocates Metropolitan's water supplies

among its member agencies, based on the principles contained in the WSDM Plan, to reduce water use and drawdowns from water storage reserves. Metropolitan's member agencies and retail water suppliers in Metropolitan's service area also have the ability to implement water conservation and allocation programs, and some of the retail suppliers in Metropolitan's service area have initiated conservation measures.

Water Supply Allocation Plan

Although the WSDM Plan provides principles for imported water supply allocation, the WSDM Plan stopped short of providing a detailed allocation plan. The Water Supply Allocation Plan was approved by the Board in February 2008. The Water Supply Allocation Plan provides a formula for equitable distribution of available supplies in case of extreme water shortages within Metropolitan's service area. On April 14, 2009, Metropolitan's Board adopted its resolution declaring a regional water shortage and implementing the Water Supply Allocation Plan, effective July 1, 2009. The Board set the "Regional Shortage Level" at Water Supply Allocation Plan Level 2, which requires reduction of regional water use by approximately ten percent and allows for the sale of about 1.98 million acre-feet of Metropolitan water in fiscal year 2009-10. Delivery within a member agency of more than its allocated amount of Metropolitan supplies will subject the member agency to a penalty of from one to four times Metropolitan's full service rate for untreated Tier 2 water, depending on how much the member agency's water use for the twelve-month period beginning on July 1, 2009, exceeds its allocated amount. (See "METROPOLITAN REVENUES—Water Rates by Water Category" in this Appendix A.) Any penalties collected may be rebated to the member agency that paid them to fund water management projects. Metropolitan is scheduled to review the Water Supply Allocation Plan by February 2010 and to consider in April 2010 whether a water supply allocation is needed for fiscal year 2010-11.

Metropolitan's member agencies and retail water suppliers in Metropolitan's service area also may implement water conservation and allocation programs within their respective service territories.

The Central Basin Municipal Water District ("Central Basin") filed litigation against Metropolitan in Los Angeles Superior Court, Central District, on April 16, 2008 challenging Metropolitan's adoption of the Water Supply Allocation Plan. The complaint alleged that the Water Supply Allocation Plan violates Central Basin's preferential right to purchase of water and, if implemented, will be a breach of Central Basin's member agency purchase order (see "METROPOLITAN REVENUES—Member Agency Purchase Orders" and "—Preferential Rights" in this Appendix A); that Metropolitan inappropriately relied on exemptions under CEQA to avoid CEQA compliance; that the Board's adoption of the Water Supply Allocation Plan failed to address "environmental justice"; that the Water Supply Allocation Plan's penalty rate is unfair, unreasonably discriminates against Central Basin and is an unauthorized "special tax" enacted without voter approval; and that adoption of the Water Supply Allocation Plan violated California and United States constitutional rights regarding impairment of contract, due process and equal protection. The court granted Metropolitan's motion to dismiss the CEQA claims on February 9, 2009, and on February 11, 2009, Central Basin voluntarily dismissed its remaining claims, without prejudice to its ability to re-file. On July 23, 2009, Central Basin filed a request for dismissal with prejudice which prohibits Central Basin from filing further litigation on this Water Supply Allocation Plan, thus concluding this litigation.

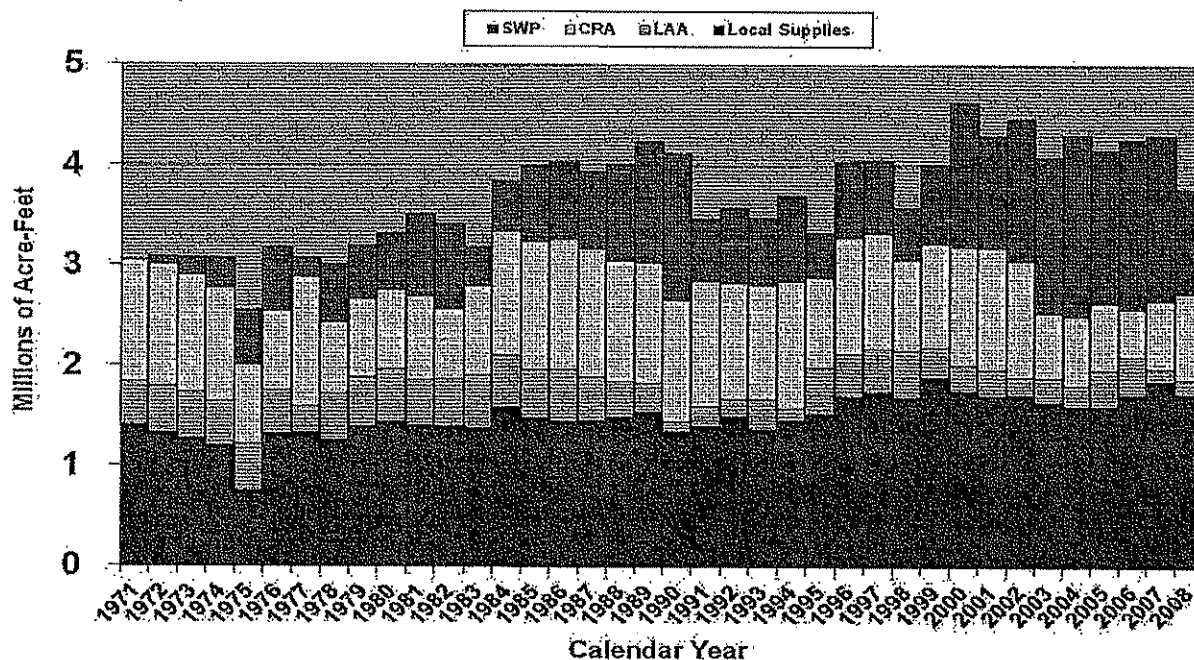
REGIONAL WATER RESOURCES

The water supply for Metropolitan's service area is provided in part by Metropolitan and in part by non-Metropolitan sources available to members. Approximately two-thirds of the water supply for Metropolitan's service area is imported water received by Metropolitan from its Colorado River Aqueduct and the State Water Project and by the City of Los Angeles (the "City") from the Los Angeles Aqueduct. While the City is one of the largest water customers of Metropolitan, it receives a substantial portion of its water from the Los Angeles Aqueduct and local groundwater supply. The balance of water within the region is produced locally, primarily from groundwater supplies and runoff.

Metropolitan's member agencies are not required to purchase or use any of the water available from Metropolitan. Some agencies depend on Metropolitan to supply 100 percent of their water needs, regardless of the weather. Other agencies, with local surface reservoirs or aqueducts that capture rain or snowfall, rely on Metropolitan more in dry years than in years with heavy rainfall, while others, with ample groundwater supplies, purchase Metropolitan water only to supplement local supplies or to recharge groundwater basins. Climatic conditions in Metropolitan's service area and availability of local supplies affect demands for imported water purchased from Metropolitan. For information on Metropolitan's revenues, see "METROPOLITAN REVENUES" and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENDITURES" in this Appendix A.

The following graph shows a summary of the regional sources of water supply for the years 1971 to 2008. Local supplies available within Metropolitan's service area are augmented by water imported by the City through the Los Angeles Aqueduct and Metropolitan supplies provided through the Colorado River Aqueduct and State Water Project.

**Source of Water Supply in the Metropolitan Service Area
(1971-2008)**



Source: Metropolitan.

The major sources of water for Metropolitan's member agencies in addition to supplies provided by Metropolitan are described below.

Los Angeles Aqueduct

The City, through its Department of Water and Power, operates its Los Angeles Aqueduct system to import water from the Owens Valley and the Mono Basin on the eastern slopes of the Sierra Nevada Mountains in eastern California. Prior to the Mono Lake Basin Water Right Decision 1631 (Decision 1631) issued in September 1994, which revised the Department of Water and Power's water rights license in the

Mono Basin, the City had imported an average of 460,000 acre-feet of water annually from the combined Owens Valley/Mono Basin system, of which about 85,000 acre-feet came from the Mono Basin. Under Decision 1631, the City has exported less than 16,000 acre-feet annually from the Mono Basin in recent years.

Pursuant to the City's turnout agreement with DWR, Antelope Valley-East Kern Water Agency ("AVEK") and Metropolitan, the Department of Water and Power may construct facilities along the California Aqueduct within AVEK's service area. Upon completion, the turnout will enable AVEK to deliver water from the California Aqueduct to the Los Angeles Aqueduct. Conditions precedent to such delivery of water include obtaining agreements for the transfer of non-State Water Project water directly from farmers and water districts in Northern and Central California, available capacity in the California Aqueduct and compliance with State Water Project water quality requirements. The agreement limits use of the turnout to delivery of non-State Water Project water annually to the City in amounts not to exceed the supplies lost to the City as a result of its Eastern Sierra environmental obligations, including water for the Lower Owens River Project and Owens Lake Dust Mitigation Project, which used over 88,000 acre-feet of Los Angeles Aqueduct water in 2008. Construction of the turnout is scheduled to begin in summer 2010.

Historically, the Los Angeles Aqueduct and local groundwater supplies have been nearly sufficient to meet the City's water requirements during normal water supply years. As a result, as recently as the late 1980's only about 15 percent of the City's water needs (approximately 100,000 acre-feet) were supplied by Metropolitan. From fiscal year 2000-01 to fiscal year 2008-09, from 34 to 71 percent of the City's total water requirements were met by Metropolitan. For the five fiscal years ended June 30, 2009, the City's water deliveries from Metropolitan averaged approximately 323,000 acre-feet per year, which constituted approximately 51 percent of the City's total water supply. Deliveries from Metropolitan to the City during this period varied between approximately 209,000 acre-feet per year and approximately 436,000 acre-feet per year. See "METROPOLITAN REVENUES—Principal Customers" in this Appendix A. According to the Los Angeles Department of Water and Power's Year 2005 Urban Water Management Plan, the City is planning to purchase approximately 30 to 40 percent of its normal year supplies and 51 to 60 percent of its dry year supplies from Metropolitan over the next 25 years. This corresponds to an increase from normal to dry years of approximately 134,000 acre-feet in potential demand for supplies from Metropolitan.

The Los Angeles Department of Water and Power has indicated that it is currently analyzing additional impacts to the Los Angeles Aqueduct's water supply deliveries of various environmental projects aimed at improving air quality and fish and riparian habitat in the Owens Valley. The City's future reliance on Metropolitan supplies may increase with implementation of these projects.

Local Water Supplies

Local water resources include groundwater production, recycled water production and diversion of surface flows.

Groundwater. Demands for about 1.5 million acre-feet per year, about one-third of the annual water demands for almost 19 million residents of Metropolitan's service area, are met from groundwater production. Local groundwater supplies are supported by recycled water, which is blended with imported water and recharged into groundwater basins, and also used for creating seawater barriers that protect coastal aquifers from seawater intrusion.

Groundwater Storage Programs. Metropolitan has partnered with a number of agencies to develop groundwater storage projects in its service area. These projects are designed to help meet the water delivery reliability goals of storing surplus imported supplies when available so that local agencies can withdraw stored groundwater during droughts or other periods of water supply shortage. Metropolitan was allocated \$45 million in State Proposition 13 bond proceeds to develop groundwater storage projects in Metropolitan's service area. The nine projects in this program, under agreements with Long Beach, Chino Basin, Orange

County Basin, Three Valleys Municipal Water District/City of La Verne, Foothill Municipal Water District, Compton and Western Municipal Water District/Elsinore Valley Municipal Water District, are expected to provide over 210,000 acre-feet of groundwater storage when completed. The groundwater storage program with Calleguas Municipal Water District in the North Las Posas Groundwater Basin in Ventura County has storage capacity of 210,000 acre-feet, with an extraction capacity of over 115,000 acre-feet per year. Metropolitan began calling for extraction from these storage accounts in 2007. Metropolitan anticipates that 10,000 acre-feet will be produced from Metropolitan's storage account in the North Las Posas Groundwater Basin in calendar year 2009. The amount of water stored pursuant to these member agency water storage programs is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under "METROPOLITAN'S WATER SUPPLY—Storage Capacity and Water in Storage" in this Appendix A.

Recovered Groundwater. Contamination of groundwater supplies is a growing threat to local groundwater production. Metropolitan has been supporting increased groundwater production and improved regional supply reliability by offering financial incentives to agencies for production and treatment of degraded groundwater since 1991. Metropolitan has executed agreements with local agencies to provide financial incentives to 23 projects that recover contaminated groundwater with total contract yields of about 84,000 acre-feet per year. During fiscal year 2008-09 Metropolitan provided incentives for approximately 40,500 acre-feet of recovered water under these agreements. Total groundwater recovery use under executed agreements is expected to grow to 69,000 acre-feet by 2015.

Surface Runoff. Local agencies divert about 117,000 acre-feet per year of water from flows in local streams. Local surface water supplies are heavily influenced by year to year local weather conditions, varying from a high of 192,000 acre-feet in fiscal year 1998-99 to a low of 52,000 acre-feet in fiscal year 2003-04.

Conjunctive Use. Conjunctive use is accomplished when groundwater basins are used to store imported supplies during water abundant periods. The stored water is used during shortages and emergencies with a corresponding reduction in surface deliveries to the participating agencies. Regional benefits include enhancing Metropolitan's ability to capture excess surface flows during wet years from both the State Water Project and Colorado River. Groundwater storage is accomplished using spreading basins, injection wells, and in-lieu deliveries where imported water is substituted for groundwater, and the groundwater not pumped is considered stored water.

Metropolitan promotes conjunctive use at the local agency level under its Replenishment Water Program by discounting rates for imported water placed into groundwater or reservoir storage during wet months. The discounted rate and program rules encourage construction of additional groundwater production facilities allowing local agencies to be more self-sufficient during shortages. (See "CAPITAL INVESTMENT PLAN—Other Major Projects of Metropolitan's Capital Investment Plan—*Groundwater Storage Programs*" in this Appendix A.) In calendar year 2006, Metropolitan delivered approximately 228,000 acre-feet of water as replenishment water. In calendar year 2007, Metropolitan delivered approximately 52,000 acre-feet of water as replenishment up to May 1, then discontinued storage deliveries. Metropolitan has not recommenced delivery of water for replenishment.

Recycled Water. Metropolitan has supported recycled water use to offset potable water demands and improve regional supply reliability by offering financial incentives to agencies for production and sales of recycled water since 1991. Metropolitan provided financial incentives to 61 recycled water projects with total contract yields of about 334,000 acre-feet per year. During fiscal year 2008-09, Metropolitan provided incentives for approximately 146,000 acre-feet of reclaimed water under these agreements. Total recycled water use under executed agreements is expected to grow to about 246,000 acre-feet by 2015.

Desalination. Metropolitan authorized an agreement with SDCWA and nine of its local retail agencies on November 10, 2009, to provide financial incentives for desalinated ocean water produced by the Carlsbad Seawater Desalination Project (the "Carlsbad Project"). The Carlsbad Project, to be constructed and

operated by Poseidon Resources LLC, is projected to produce up to 56,000 acre-feet of desalinated seawater annually. Under the agreement, Metropolitan will credit SDCWA up to \$250 per acre-foot for desalinated seawater that the Carlsbad Project delivers to SDCWA's local retail agencies. Metropolitan has signed agreements with three other member agencies (Long Beach, West Basin Municipal Water District and the Municipal Water District of Orange County) to provide incentives for proposed seawater desalination projects, subject to review of complete project descriptions and consideration of environmental documentation by Metropolitan's Board.

METROPOLITAN'S WATER DELIVERY SYSTEM

Method of Delivery

Metropolitan's water delivery system is made up of three basic components: the Colorado River Aqueduct, the California Aqueduct of the State Water Project and Metropolitan's internal water distribution system. Metropolitan's delivery system is integrated and designed to meet the differing needs of its member agencies. Metropolitan seeks redundancy in its delivery system to assure reliability in the event of an outage. Current system expansion and other improvements will be designed to increase the flexibility of the system. Since local sources of water are generally used to their maximum each year, growth in the demand for water is partially met by Metropolitan. Accordingly, the operation of Metropolitan's water system is being made more reliable through the construction of additional storage reservoirs, rehabilitation of key facilities as needed, additional pipelines, improved preventive maintenance programs and the upgrading of Metropolitan's operational control systems. See "CAPITAL INVESTMENT PLAN" in this Appendix A.

Colorado River Aqueduct. Work on the Colorado River Aqueduct commenced in 1933 and water deliveries started in 1941. Additional facilities were completed by 1961 to meet additional requirements of Metropolitan's member agencies. The Colorado River Aqueduct is 242 miles long, starting at the Lake Havasu intake and ending at the Lake Mathews terminal reservoir. Metropolitan owns all of the components of the Colorado River Aqueduct, which include five pump plants, 64 miles of canal, 92 miles of tunnels, 55 miles of concrete conduits and 144 underground siphons totaling 29 miles in length. The pumping plants lift the water approximately 1,617 feet over several mountain ranges to Metropolitan's service area. See "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct" in this Appendix A.

State Water Project. The initial portions of the State Water Project serving Metropolitan were completed in 1973. State Water Project facilities are owned and operated by DWR. Twenty-nine agencies have entered into contracts with DWR to receive water from the State Water Project. See "METROPOLITAN'S WATER SUPPLY—State Water Project" in this Appendix A.

Internal Distribution System. Metropolitan's internal water distribution system includes components that were built beginning in the 1930's and through the present. Metropolitan owns all of these components, including 14 dams and reservoirs, five regional treatment plants, over 800 miles of transmission pipelines, feeders and canals, and sixteen hydroelectric plants with an aggregate capacity of 131 megawatts.

Diamond Valley Lake. Diamond Valley Lake, a man-made reservoir located southwest of the city of Hemet, California, covers approximately 4,410 acres and has capacity to hold approximately 810,000 acre-feet or 265 billion gallons of water. The Diamond Valley Lake was constructed to serve approximately 90 percent of Metropolitan's service area by gravity flow. Associated hydraulic structures consist of an inlet-outlet tower, pumps and generating facilities, a pressure control facility, connecting tunnels and a forebay. Imported water is delivered to Diamond Valley Lake during surplus periods. The reservoir provides more reliable delivery of imported water from the State Water Project and the Colorado River Aqueduct during summer months, droughts and emergencies. In addition, the Diamond Valley Lake is capable of providing more than one-third of Southern California's water needs from storage for approximately six months after a major earthquake (assuming that there has been no impairment of Metropolitan's internal distribution

network). See the table "Metropolitan's Water Storage Capacity and Water in Storage" under "METROPOLITAN'S WATER SUPPLY—Storage Capacity and Water in Storage" in this Appendix A for the amount of water in storage at Diamond Valley Lake. Excavation at the project site began in May 1995. Diamond Valley Lake was completed in March 2000, at a total cost of \$2 billion, and was in full operation in December 2001.

Operations Control Center. Metropolitan's water conveyance and distribution system operations are coordinated from the Operations Control Center ("OCC") located in the Eagle Rock area of Los Angeles. The OCC plans, balances and schedules daily water and power operations to meet member agencies' demands, taking into consideration the operational limits of the entire system.

Water Treatment

Metropolitan filters and disinfects water at five water treatment plants: the F.E. Weymouth Treatment Plant, the Joseph Jensen Treatment Plant, the Henry J. Mills Treatment Plant, the Robert B. Diemer Treatment Plant and the Robert A. Skinner Treatment Plant. The plants treat an average of between 1.7 billion and 2.0 billion gallons of water per day, and have a maximum capacity of approximately 2.6 billion gallons per day. Approximately 70 percent of Metropolitan's water deliveries are treated water.

Federal and state regulatory agencies continually monitor and establish new water quality standards. New water quality standards could affect availability of water and impose significant compliance costs on Metropolitan. The Safe Drinking Water Act ("SDWA") was amended in 1986 and again in 1996. The SDWA establishes drinking water quality standards, monitoring, public notification and enforcement requirements for public water systems. To achieve these objectives, the U.S. Environmental Protection Agency ("USEPA"), as the lead regulatory authority, promulgates national drinking water regulations and develops the mechanism for individual states to assume primary enforcement responsibilities. The California Department of Public Health ("CDPH"), formerly known as the Department of Health Services, has lead authority over California water agencies. Metropolitan continually monitors new water quality laws and regulations and frequently comments on new legislative proposals and regulatory rules.

In October 2007 Metropolitan began adding fluoride to treated water in order to prevent tooth decay. Design and construction of the fluoridation facilities at Metropolitan's five treatment plants were financed primarily by a \$5.5 million grant from the California Dental Association Foundation, in conjunction with the California Fluoridation 2010 Work Group.

Disinfection By-products. As part of the requirements of SDWA, USEPA is required to establish regulations to strengthen protection against microbial contaminants and reduce potential health risks from disinfection by-products. Disinfectants and disinfection by-products ("D/DBPs") were addressed by the USEPA in two stages. In the Stage 1 Disinfectants and Disinfection Byproducts Rule ("Stage 1 DBPR"), the maximum contaminant level ("MCL") for one of the classes of D/DBPs, total trihalomethanes ("TTHM"), was lowered from 100 parts per billion ("ppb") to 80 ppb. MCLs were also set for haloacetic acids ("HAA") and bromate (an ozone D/DBP). In addition, the Stage 1 DBPR includes a treatment requirement to remove disinfection by-product precursors. Compliance with these requirements started in January 2002. Metropolitan already satisfied these requirements for its Colorado River Water, which has lower levels of disinfection by-product precursors than State Water Project water. State Water Project water has a greater amount of disinfection by-product precursors and modifications to the treatment process have been made to meet the requirements of the Stage 1 DBPR. Longer-term D/DBP control has been achieved by switching to ozone as the primary disinfectant at the Mills and Jensen treatment plants, which only receive water from the State Water Project. Ozone facilities at the Mills plant began operating in October 2003. Ozone facilities became operational at the Jensen plant July 1, 2005. Construction of ozone facilities at the Skinner plant was completed in September 2009, and start-up operations and testing are currently underway. Metropolitan's Board has also approved installing ozonation processes at the Weymouth and Diemer treatment plants, which

receive a blend of water from the State Water Project and the Colorado River. (See "CAPITAL INVESTMENT PLAN—Other Major Projects of Metropolitan's Capital Investment Plan—*Water Treatment Facilities*" in this Appendix A.) Ozone will enable these plants to reliably treat water containing higher blends of State Project water and still meet the new microbial and D/DBP standards.

The second stage of the D/DBP Rule ("Stage 2 DBPR") was finalized in January 2006. The Stage 2 DBPR requires water systems to meet the TTHM and HAA standards at individual monitoring locations in the distribution system as opposed to a distribution system-wide average under the Stage 1 DBPR. Metropolitan does not anticipate any further capital improvements in order to meet the Stage 2 DBPR requirements. See "CAPITAL INVESTMENT PLAN—Other Major Projects of Metropolitan's Capital Investment Plan—*Water Treatment Facilities*" in this Appendix A.

The Interim Enhanced Surface Water Treatment Rule and the Long Term 2 Enhanced Surface Water Treatment Rule ("LT2ESWTR") have been implemented to simultaneously provide protection against microbial pathogens while the D/DBP rules provide reduced risk from disinfection by-products. Metropolitan does not anticipate any further capital improvements in order to meet the LT2ESWTR requirements.

Perchlorate. Perchlorate, used in solid rocket propellants, munitions and fireworks, has contaminated some drinking water wells and surface water sources throughout California. Perchlorate also has been detected in Metropolitan's Colorado River water supplies. A chemical manufacturing facility near Lake Mead in Nevada is a primary source of the contamination. Remediation efforts began in 1998 and have been successful at meeting the cleanup objectives, significantly reducing the levels of perchlorate entering into the Colorado River. CDPH has established a primary drinking water standard (i.e., MCL) of 6 ppb for perchlorate. Current perchlorate levels in Metropolitan's Colorado River supplies are at or below 2 ppb.

Chromium 6. Currently the public health standard (MCL) for "total" chromium, which includes chromium 6, is 50 ppb. Chromium 6 is the relatively more harmful form of chromium. On August 20, 2009 the California Office of Environmental Health Hazard Assessment ("OEHHA") released for public comment a proposed public health goal ("PHG") of 0.06 ppb for chromium 6. Following public comment periods and workshops, the CDPH can proceed with finalizing a MCL for chromium 6. Metropolitan's source water has trace concentrations (less than 1 ppb) of Chromium 6. It is expected that the adoption of a chromium 6 regulation will not materially affect the water supply to Metropolitan or result in significant compliance costs.

Arsenic. In January 2001, the USEPA adopted a new drinking water arsenic rule. The rule lowered the federal MCL for arsenic from 50 ppb to 10 ppb effective January 23, 2006. In November 2008, CDPH adopted the MCL of 10 ppb for arsenic. Arsenic levels in Metropolitan's treated water supplies ranged from 0.6 to 2.9 ppb in 2008. The current arsenic MCL is not expected to result in significant compliance costs.

Seismic Considerations

General. Metropolitan's water conveyance and distribution facilities are designed to either withstand a maximum probable seismic event or to minimize the potential repair time in the event of damage. The five pumping plants on the Colorado River Aqueduct have been buttressed to better withstand seismic events. Other components of the Colorado River Aqueduct are monitored for any necessary rehabilitation and repair. Metropolitan personnel and independent consultants periodically reevaluate the internal distribution system's vulnerability to earthquakes. Supplies are dispersed throughout Metropolitan's service area, and a six-month reserve supply of water normally held in local storage (including emergency storage in Diamond Valley Lake) provides reasonable assurance of continuing water supplies during such events. However, major portions of the California Aqueduct, the Colorado River Aqueduct and Metropolitan's internal distribution system are located near major earthquake faults, including the San Andreas Fault. A significant earthquake could damage project structures and interrupt the supply of water, adversely affecting Metropolitan's revenues and its ability to pay its obligations.

Metropolitan has an ongoing surveillance program that monitors the safety and structural performance of its 14 dams and reservoirs. Operating personnel perform regular inspections that include monitoring and analyzing seepage flows and pressures. Engineers responsible for dam safety review the inspection data and monitor the horizontal and vertical movements for each dam. Major on-site inspections are performed at least twice each year. Instruments to transmit seismic acceleration time histories for analysis any time a dam is subjected to strong motion during an earthquake are located at a number of selected sites.

In addition, Metropolitan has developed an emergency plan that calls for specific levels of response appropriate to an earthquake's magnitude and location. Included in this plan are various communication tools as well as a structured plan of management that varies with the severity of the event. Predesignated personnel follow detailed steps for field facility inspection and distribution system patrol. Approximately 40 employees are designated to respond immediately under certain identifiable seismic events. An emergency operations center is maintained at the OCC. The OCC, which is specifically designed to be earthquake resistant, contains communication equipment, including a radio transmitter, microwave capability and a response line linking Metropolitan with DWR and the State's Office of Emergency Services. In the event of earthquake damage, Metropolitan expects its fabrication shop in La Verne, California, to have the capacity to fabricate pipe and related fittings for repairs.

State Water Project Facilities. The California Aqueduct crosses all major faults either by canal at ground level or by pipeline at very shallow depths to ease repair in case of damage from movement along a fault. State Water Project facilities are designed to withstand major earthquakes along a local fault or magnitude 8.1 earthquakes along the San Andreas Fault without major damage. Dams, for example, are designed to accommodate movement along their foundations and to resist earthquake forces on their embankments. Earthquake loads have been taken into consideration in the design of project structures such as pumping and power plants. The location of check structures on the canal allows for hydraulic isolation of the fault-crossing repair.

The water from Northern California passes through 1,600 miles of aging levees in the Bay-Delta. In the event of a failure of the Bay-Delta levees, the quality of the Bay-Delta's water could be severely compromised as salt water comes in from the San Francisco Bay. Metropolitan's supply of State Water Project water would be adversely impacted if pumps that move Bay-Delta water southward to the Central Valley and Southern California are shut down to contain the salt water intrusion. Metropolitan estimates that stored water supplies, Colorado River Aqueduct supplies and local water resources that would be available in case of a levee breach or other interruption in State Water Project supplies would meet demands in Metropolitan's service area for approximately twelve months. (See "METROPOLITAN'S WATER SUPPLY—Storage Capacity and Water in Storage" in this Appendix A). Since the State and Federal governments control the Bay-Delta levees, repair of any levee failures would be the responsibility of and controlled by the State and Federal governments.

Metropolitan, in cooperation with the State Water Contractors, developed recommendations to DWR for emergency preparedness measures to maintain continuity in export water supplies and water quality during emergency events. These measures include improvements to emergency construction materials stockpiles in the Bay-Delta, improved emergency contracting capabilities, strategic levee improvements and other structural measures of importance to Bay-Delta water export interests. DWR utilized \$12 million in fiscal year 2007-08 for initial stockpiling of rock for emergency levee repairs and development of Bay-Delta land and marine loading facilities.

Perris Dam. DWR reported in July 2005 that seismic studies indicate that the Department's Perris Dam facility could sustain damage from moderate earthquakes along the San Jacinto or San Andreas faults due to potential weaknesses in the dam's foundation. The studies used technology not available when the dam was completed in 1974. Perris Dam forms Lake Perris, the terminal reservoir for the State Water Project in Riverside County, with maximum capacity of approximately 130,000 acre-feet of water. In late 2005,

DWR lowered the water level in the reservoir by about 25 feet and reduced the amount of water stored in the reservoir to about 75,000 acre-feet as DWR evaluates alternatives for repair of the dam. The lower lake level elevation was intended to prevent over-topping of the dam crest in the event of a major earthquake and to prevent uncontrolled releases. In December 2006, DWR completed a study identifying various repair options, began additional geologic exploration along the base of Perris Dam and started preliminary design. DWR's preferred alternative is to repair the dam to restore the reservoir to its historical level. DWR estimates that such repairs will cost between \$340 million and \$460 million and take four to eight years to complete, once commenced. Water stored in Lake Perris is used primarily by Metropolitan. Accordingly, Metropolitan likely would be a major contributor toward the cost of repair or replacement of Perris Dam under its State Water Contract. (See "METROPOLITAN EXPENDITURES—State Water Contract Obligations" in this Appendix A.)

Security Measures

Metropolitan conducts ground and air patrols of the Colorado River Aqueduct and monitoring and testing at all treatment plants and along the Colorado River Aqueduct. Similarly, DWR has in place security measures to protect critical facilities of the State Water Project, including both ground and air patrols of the State Water Project.

Although Metropolitan has constructed redundant systems and other safeguards to ensure its ability to continually deliver water to its customers, and DWR has made similar efforts, a terrorist attack or other security breach against water facilities could materially impair Metropolitan's ability to deliver water to its customers, its operations and revenues and its ability to pay its obligations.

CAPITAL INVESTMENT PLAN

General Description

Metropolitan's current Capital Investment Plan (the "Capital Investment Plan" or "CIP") involves expansion and rehabilitation of existing facilities and construction of new facilities to provide for resource development, meet future water demands and comply with water quality regulations. Metropolitan's CIP is regularly reviewed and updated. Implementation and construction of specific elements of the program are subject to Board approval, and the amount and timing of borrowings will depend upon, among other factors, status of construction activity and water demands within Metropolitan's service area. From time to time projects that have been undertaken are delayed, redesigned or deferred by Metropolitan for various reasons and no assurance can be given that a project in the CIP will be completed in accordance with its original schedule or that any project will be completed as currently planned.

Projection of Capital Investment Plan Expenditures

The table below sets forth projected CIP expenditures by project type for the fiscal years ending June 30, 2010 through 2014. The requirements of the CIP from fiscal year 2009-10 through fiscal year 2013-14 are estimated to be approximately \$1.87 billion in escalated dollars. This estimate is updated annually as a result of the periodic review and revision of the CIP. See "HISTORICAL AND PROJECTED REVENUES AND EXPENDITURES."

**CAPITAL INVESTMENT PLAN
PROJECTION OF EXPENDITURES⁽¹⁾
(Fiscal Years Ended June 30 - Dollars in Thousands)**

	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>Total</u>
<u>Cost of Service</u>						
Source of Supply	\$ 15,409	\$ 6,297	\$ -0-	\$ -0-	\$ -0-	\$ 21,706
Conveyance & Aqueduct	75,160	43,574	29,960	15,337	15,039	179,070
Storage	7,124	8,717	10,065	1,805	-0-	27,711
Distribution	44,873	39,514	55,450	79,219	122,177	341,233
Treatment	243,895	192,749	206,525	257,627	274,087	1,174,883
Administrative & General	19,235	28,084	16,939	18,108	10,783	93,149
Hydroelectric	<u>6,376</u>	<u>5,106</u>	<u>3,056</u>	<u>12,050</u>	<u>4,160</u>	<u>30,748</u>
Total⁽²⁾	\$412,072⁽³⁾	\$324,041	\$321,995	\$384,146	\$426,246	\$1,868,500

Source: Metropolitan.

⁽¹⁾ Based on fiscal year 2009-10 budget. Totals are rounded.

⁽²⁾ Annual totals include Renewal and Replacement expenditures for 2010 through 2014 of \$93.7 million, \$141.4 million, \$109.5 million, \$132.6 million and \$154 million, respectively, for a total of \$631.2 million for 2010 through 2014.

⁽³⁾ Expenditures for fiscal year 2009-10 are expected to be \$371.1 million due to scheduling changes and the deferral of land purchases associated with future treatment projects.

The above projections do not include amounts for contingencies, but include escalation at 2.77 percent per year for projects for which formal construction contracts have not been awarded. Additional capital costs may arise in the future as a result of, among other things, federal and State water quality regulations, project changes and mitigation measures necessary to satisfy environmental and regulatory requirements, and for additional facilities to, among other things, replenish groundwater basins and operate groundwater basins conjunctively with surface supplies. See "METROPOLITAN'S WATER DELIVERY SYSTEM—Water Treatment" above.

Capital Investment Plan Financing

The CIP will require significant funding from debt financing as well as from pay-as-you-go funding. The Board has adopted an internal funding objective to fund all capital program expenditures required for replacements and refurbishments of Metropolitan facilities from current revenues. However, in order to reduce drawdowns of reserve balances during fiscal years 2007-08 through 2009-10 and to mitigate financial risks that could occur in upcoming years, pay-as-you-go funding totaled \$34 million in fiscal year 2007-08, rather than the \$85 million originally budgeted for the fiscal year, \$31 million in fiscal year 2008-09, rather than the \$95 million originally budgeted, and is budgeted to be \$37 million in fiscal year 2009-10. To make up for the reduction in pay-as-you-go funding in 2007-08 through 2009-10, Metropolitan plans to increase pay-as-you-go funding to \$95 million in fiscal year 2010-11, to \$125 million per year in fiscal years 2011 through 2013, and to \$150 million in fiscal year 2013-14.

To limit the accumulation of cash and investments in the Replacement and Refurbishment Fund, the maximum balance in this fund at the end of each fiscal year will be \$95 million. Amounts above the \$95 million limit will be transferred to the Revenue Remainder Fund and may be used for any lawful purpose.

The remainder of capital program expenditures will be funded through the issuance from time to time of water revenue bonds, which are payable from Net Operating Revenues. Metropolitan expects to issue additional water revenue bonds to fund the CIP in the future. See "METROPOLITAN EXPENDITURES—Revenue Bond Indebtedness" in this Appendix A.

Inland Feeder Project

The Inland Feeder project currently is Metropolitan's largest capital project. It consists of a pipeline and tunnel conveyance system, approximately 44 miles long and 12 feet in diameter, which carries State Water Project water from Devil Canyon Power Plant in the San Bernardino Mountains to Diamond Valley Lake and the Colorado River Aqueduct, both in Riverside County. The project will provide greater flexibility in managing Metropolitan's major water supplies and will allow greater amounts of State Water Project water to be accepted during wet seasons for storage in Diamond Valley Lake. The Inland Feeder project is planned to increase the conveyance capacity from the East Branch of the State Water Project by 1,000 cubic-feet per second ("cfs"), allowing the East Branch to operate up to its full capacity. The Board approved a total project budget of \$1.2 billion for the Inland Feeder project. Expenditures through September 2009 were approximately \$1.11 billion. For fiscal year 2009-10, \$49.6 million is budgeted.

With the completion of the Arrowhead East and Arrowhead West Tunnels in September 2009, all of the primary construction work for the Inland Feeder has been completed. Water began flowing through the entire 44 miles of pipelines and tunnels and into Diamond Valley Lake in late September 2009. The final site restoration and other remaining tasks will be completed in early 2010. The final cost of the project is estimated to be \$1.19 billion.

Other Major Projects of Metropolitan's Capital Investment Plan

The following is a brief description of other major projects contained in Metropolitan's CIP:

Water Treatment Facilities

Oxidation Retrofit Facilities. The oxidation retrofit facilities program includes the design and construction of oxidation facilities and appurtenances at all of Metropolitan's treatment plants. This project is intended to allow Metropolitan to meet drinking water standards for disinfection by-products and reduce taste and odor incidents. The first phase of the oxidation retrofit program, at Metropolitan's Henry J. Mills Treatment Plant in Riverside County, was completed in 2003. Oxidation retrofit at the Joseph Jensen Treatment Plant was completed July 1, 2005. The cost for these two projects was approximately \$235.4 million. The oxidation retrofit programs at the Robert B. Diemer, F.E. Weymouth and Robert A. Skinner plants are estimated to cost \$364.4 million, \$357.7 million and \$252.0 million, respectively. Expenditures at the Diemer plant through September 2009 were \$211.5 million and \$70.0 million is budgeted for fiscal year 2009-10. Construction completion is expected in fiscal year 2011-12. Expenditures at the Weymouth plant through September 2009 were \$30.0 million, with \$15.2 million budgeted for fiscal year 2009-10. Completion is expected in fiscal year 2013-14. Expenditures at the Skinner plant through September 2009 were \$232.3 million, with \$7.6 million budgeted for fiscal year 2009-10. Completion is expected in November 2009.

Mills Water Treatment Plant Capacity Upgrade. The Mills Water Treatment Plant Capacity Upgrade includes the design and construction of two additional ozone contactors, new enhanced solids handling capability for Modules 1 through 4, upgrade of equipment and processes of Modules 1 and 2 and upgrade of the post-filter disinfection system. These upgrades will enable Metropolitan to maximize the use of the Henry J. Mills plant by increasing its capacity from 160 million gallons per day ("mgd") to 326 mgd. The cost for this program is approximately \$228 million, with \$31.8 million spent through September 2009. Capital

expenditures for fiscal year 2009-10 are budgeted at approximately \$1 million. Completion of the new and upgraded facilities is anticipated by fiscal year 2015-16.

Water Distribution Projects

San Diego Pipeline No. 6. The San Diego Pipeline No. 6 project, a joint project between Metropolitan and SDCWA, includes the construction of a 30-mile, nine to ten foot diameter pipeline and tunnel conveyance system to meet supplemental water needs in Riverside and San Diego Counties. Total costs for Metropolitan's portion of the project are estimated to be \$378.9 million, which assumes construction to the San Diego County line and includes the already completed North Reach. The 6.9-mile North Reach of the pipeline, providing service through a connection with Eastern Municipal Water District, was completed in January 2007 at a construction cost of \$66.3 million. Total expenditures for this program through September 2009 were \$104.2 million. Metropolitan, in conjunction with SDCWA, has completed study of alternative alignments for the remaining portions of Pipeline No. 6. The planned on-line date is 2018.

Perris Valley Pipeline. Metropolitan is constructing the Perris Valley Pipeline to increase the capacity for future deliveries of treated water from Metropolitan's Henry J. Mills Treatment Plant. The 96-inch diameter pipeline will be approximately 6.5 miles long and will have service connections to Eastern and Western Municipal Water Districts. It is anticipated that Metropolitan's cost of the project will be approximately \$150 million. The first portion, the North Reach, has been completed, and the remaining reach is currently under construction. Metropolitan's expenditures as of September 2009, were \$97.5 million, with \$19.5 million budgeted to be spent in fiscal year 2009-10. Final completion of the project is anticipated by summer of 2010.

Infrastructure Reliability Projects

Weymouth Water Treatment Plant Improvements. The Weymouth Water Treatment Plant was built in 1938 and subsequently expanded several times over the following 35 years. It is Metropolitan's oldest water treatment facility. Metropolitan plans major upgrades and refurbishment/replacement projects to maintain its reliability and improve its efficiency. These include upgrading the incoming electrical service from a single 12-kV power line to a new underground 66-kV service line, upgrading and/or replacing the plant's power centers and distribution system and upgrading the emergency power back-up generators and grounding system. An overall master plan of treatment facilities improvements will also be developed, to be constructed after completion of the new ozone facilities. The preliminary cost estimate for all projected improvements at the Weymouth plant, not including the ozone facilities, is approximately \$329.2 million, with \$103.5 million spent through September 2009. Budgeted capital expenditures for improvements at the Weymouth plant for fiscal year 2009-10 are \$49.6 million.

Colorado River Aqueduct Facilities. The Colorado River Aqueduct was originally completed in 1941. Through annual inspections and maintenance activities, the performance and reliability of the various components of the Colorado River Aqueduct are regularly evaluated. A major overhaul of the pump units at the five pumping plants was completed in 1988. Refurbishment or replacement of many of the electrical system components, including the transformers, circuit breakers and motor control centers, is currently being planned. Additionally, many of the mechanical components at the pumping plants as well as the Copper Basin and Gene Wash Reservoirs will be replaced over the next few years. The cost estimate for these refurbishment or replacement projects is currently \$191 million. Costs through September 2009 were \$92.1 million, with \$15.9 million budgeted for fiscal year 2009-10.

GOVERNANCE AND MANAGEMENT

Board of Directors

Metropolitan is governed by a 37-member Board of Directors. Each member public agency is entitled to have at least one representative on the Board, plus an additional representative for each full five percent of the total assessed valuation of property in Metropolitan's service area that is within the member public agency. Changes in relative assessed valuation do not terminate any director's term. Accordingly, the Board may, from time to time, have more than 37 directors.

The Board includes business, professional and civic leaders. Directors serve on the Board without compensation from Metropolitan. Voting is based on assessed valuation, with each member agency being entitled to cast one vote for each \$10 million or major fractional part of \$10 million of assessed valuation of property within the member agency, as shown by the assessment records of the county in which the member agency is located. The Board administers its policies through the Metropolitan Water District Administrative Code (the "Administrative Code"), which was adopted by the Board in 1977. The Administrative Code is periodically amended to reflect new policies or changes in existing policies that occur from time to time.

Management

Metropolitan's day-to-day management is under the direction of its General Manager, who serves at the pleasure of the Board, as do Metropolitan's General Counsel, General Auditor and Ethics Officer. Following is a biographical summary of Metropolitan's principal executive officers.

Jeffrey Kightlinger, General Manager – Mr. Kightlinger was appointed General Manager in February 2006, leaving the position of General Counsel, which he had held since February 2002. Before becoming General Counsel, Mr. Kightlinger was a Deputy General Counsel and then Assistant General Counsel, representing Metropolitan primarily on Colorado River matters, environmental issues, water rights and a number of Metropolitan's water transfer and storage programs. Prior to joining Metropolitan in 1995, Mr. Kightlinger worked in private practice representing numerous public agencies including municipalities, redevelopment agencies and special districts. Mr. Kightlinger earned his bachelor's degree in history from the University of California, Berkeley, and his law degree from Santa Clara University.

Karen Tachiki, General Counsel – Ms. Tachiki assumed the position of General Counsel in February 2007. She previously served as Metropolitan's lead attorney on Colorado River matters and was Metropolitan's Assistant General Counsel from November 1988 to July 2000. From July 2000 to January 2003, Ms. Tachiki was principal resources manager for McGuire Environmental Consultants, Inc. She served as chief counsel of the Southern California Association of Governments ("SCAG") from January 2003 until rejoining Metropolitan. She also served as SCAG's director of government and public affairs from April 2006 to February 2007. She is former chair of the Colorado River Water Users Association's resolutions committee and has served as a member of the resolutions committee of the National Water Resources Association and the legal affairs committee of the Association of California Water Agencies. Ms. Tachiki earned a bachelor's degree in political science and law degree from the University of California at Los Angeles.

Gerald C. Riss, General Auditor – Mr. Riss was appointed as Metropolitan's General Auditor in July 2002 and is responsible for the independent evaluation of the policies, procedures and systems of control throughout Metropolitan. Mr. Riss is a certified fraud examiner, certified financial services auditor and certified risk professional with more than 25 years of experience in accounting, audit and risk management. Prior to joining Metropolitan, Mr. Riss was Vice President and Assistant Division Head of Risk Management Administration at United California Bank/Bank of the West. He also served as Senior Vice President, director of Risk Management and General Auditor of Tokai Bank of California from 1988 until its

reorganization as United California Bank in 2001. He earned a bachelor's degree in accounting and master's degree in business administration from Wayne State University in Detroit, Michigan.

Deni Elliott, Ethics Officer – Ms. Elliott was appointed as Ethics Officer on June 8, 2004. She served as Metropolitan's interim Ethics Officer beginning in September 2003. Ms. Elliott holds the Poynter Jamison Chair in Media Ethics and Press Policy at the University of South Florida, St. Petersburg, where she is a tenured full professor in the Department of Journalism. She has taught ethics for more than 24 years, including at the University of Montana, Dartmouth College, Utah State University and Wayne State University. Ms. Elliott also was founding director of the Dartmouth College Ethics Institute and the Practical Ethics Center at the University of Montana, as well as founding director of the nation's first graduate degree program in teaching ethics. She was awarded an interdisciplinary doctoral degree from Harvard University in the philosophy of education, and earned a master's degree in philosophy from Wayne State University and bachelor's degree in communications from the University of Maryland.

Brian G. Thomas, Assistant General Manager/Chief Financial Officer – Mr. Thomas was appointed as Chief Financial Officer in May 2000. Mr. Thomas previously worked for Metropolitan from 1993 to February 1999, beginning as Assistant Director of Finance before being selected as Assistant Chief of Planning and Resources. From February 1999 to April 2000, Mr. Thomas worked as Assistant General Manager of Finance and Administration for the City of Anaheim's Public Utilities Department, where he was responsible for financial management, budgeting, administration and overseeing the utility's power resources program. Mr. Thomas holds a doctorate and masters degree in economics from the University of California, Riverside and bachelor degrees in biology and economics from California State Polytechnic University, Pomona.

Debra Man, Assistant General Manager/Chief Operating Officer – Ms. Man was appointed to this position on December 15, 2003. Ms. Man has worked at Metropolitan since 1986, beginning as an engineer and advancing to Chief of the Planning and Resources Division. As Chief of Planning and Resources she was responsible for major initiatives adopted by Metropolitan's Board, such as the Integrated Water Resources Plan, rate structure, and facility plans for expansion of Metropolitan's distribution system. In 1999, she was appointed as Vice President of Water Transfers and Exchanges, responsible for securing water supplies through agreements and partnerships with other water and agricultural interests in San Joaquin Valley and Southern California and demonstrating Metropolitan's water supply reliability in compliance with current laws. Ms. Man is a registered professional civil engineer in California and Hawaii. She has a master's degree in civil/environmental engineering from Stanford University and a bachelor's degree in civil engineering from the University of Hawaii.

Roger Patterson, Assistant General Manager/Strategic Initiatives – Mr. Patterson was appointed Assistant General Manager in March 2006. He is responsible for overseeing water supply and planning issues, including the Colorado River and State Water Project. He previously served as a consultant to Metropolitan on Colorado River issues. Mr. Patterson was the director of the Nebraska Department of Natural Resources from 1999 to 2005, where he was responsible for water administration, water planning, flood-plain delineation, dam safety and the state databank. Prior to his work in Nebraska, Mr. Patterson spent 25 years with the Bureau of Reclamation, retiring from the Bureau as the Regional Director for the Mid-Pacific Region. He is a registered professional engineer in Nebraska and Colorado, and earned bachelor's and master's degrees in engineering from the University of Nebraska.

Gilbert F. Ivey, Assistant General Manager/Chief Administrative Officer – Mr. Ivey is the Chief Administrative Officer and is responsible for human resources, real property management, strategic land development and Metropolitan's small business program. Mr. Ivey also administers the Office of the Board of Directors. Mr. Ivey has been with Metropolitan for 35 years, starting as a summer trainee in the Engineering Division. He has held various positions in Finance, Right-of-Way and Land, Operation, Human Resources and Executive Offices. He earned a bachelor's degree in business administration from California

State University, Dominguez Hills and holds various professional designations and certifications in management from Pepperdine University and the University of Southern California.

Linda Waade, Deputy General Manager/External Affairs – Ms. Waade is responsible for Metropolitan’s communications, outreach, education and legislative matters. Prior to joining Metropolitan in August 2006, she coordinated government and community affairs for the Los Angeles office of CH2M Hill, Inc., where she provided counsel on policy development and outreach strategies for environmental and public works projects. She also maintained her own consulting firm, Waade Partners Consulting. Ms. Waade was deputy chief of staff and policy director for then Los Angeles City Councilmember Antonio R. Villaraigosa from July 2003 to January 2004. She served as transportation policy advisor for Los Angeles Mayor Tom Bradley from 1991-93, as chief of staff for U.S. Congressman Mel Levine in his Los Angeles district office from 1988-89 and as the congressman’s special assistant for environmental affairs from 1987-88, and was executive director of the Coalition for Clean Air, a statewide advocacy organization dedicated to air quality issues, from 1994-98. Ms. Waade earned a bachelor’s degree in political science from California State University at Los Angeles. She is a past recipient of the “Environmental Leadership Award” from the California League of Conservation Voters.

Employee Relations

The total number of regular full-time Metropolitan employees on November 2, 2009 was 1,892, of whom 1,353 were represented by AFSCME Local 1902, 101 by the Supervisors Association, 287 by the Management and Professional Employees Association and 111 by the Association of Confidential Employees. The remaining 40 employees are unrepresented. The four bargaining units represent 98 percent of Metropolitan’s employees. The Memorandum of Understanding (“MOU”) with AFSCME Local 1902 covered the period July 1, 2005 to June 30, 2009. The MOU with the Supervisors Association covers the period January 1, 2006 to December 31, 2009. The MOU with the Management and Professional Employees Association covered the period July 1, 2005 through June 30, 2009. The MOU with the Association of Confidential Employees covered the period July 1, 2003 through June 30, 2009. Representatives from all four bargaining units and management negotiated tentative agreements that were ratified by the bargaining units. However, subsequent to reports and discussions at meetings of the Board and Board committees in August, September and October of 2009, Metropolitan withdrew consideration of the tentative agreements from the agenda for the October 2009 Board meeting and requested that all parties return to the bargaining table. The Board has not yet voted on the tentative agreements. When an MOU expires before a new agreement has been executed, the affected employees continue working under the terms of the expired MOU until it is replaced.

In July 1998, a case entitled *Dewayne Cargill et al. v. Metropolitan Water District of Southern California et al.* was filed against Metropolitan. This case is a class action lawsuit brought by various categories of temporary workers against Metropolitan and certain temporary agencies, claiming that Metropolitan misclassified them as temporary workers to avoid providing them the same rights and benefits given to regular employees, and seeking the full benefits of public employment, including membership in the California Public Employees’ Retirement System (“PERS”) on a retroactive basis. (See “METROPOLITAN EXPENDITURES—Defined Benefit Pension Plan” in this APPENDIX A.)

The parties litigated the legal standard of eligibility for PERS benefits. PERS intervened in support of plaintiffs’ position that the common law standard of employment governs. On February 26, 2004, in a case of first impression, the California Supreme Court ruled that Metropolitan is required to enroll in PERS all temporary workers who would be considered Metropolitan employees under California common law. The Supreme Court did not decide whether plaintiffs are in fact common law employees of Metropolitan, whether plaintiffs (if they are determined to be Metropolitan employees for PERS purposes) are entitled to enrollment in PERS as of the dates they were first employed, whether plaintiffs are Metropolitan’s employees for any

purpose other than PERS enrollment, or whether they are entitled to any benefits as employees under other provisions of law.

The legal issue heard by the California Supreme Court was limited to the standard of eligibility for PERS benefits and did not address plaintiffs' claims for rights and benefits under Metropolitan's Administrative Code. The parties have reached a court-approved settlement of the Administrative Code claim, including attorney fees. Pursuant to the settlement, Metropolitan paid \$35 million to a settlement fund. Half of this amount was allocated to operations and maintenance expenses and half to capital costs.

The remaining portion of the case concerns implementing the Supreme Court's ruling establishing common law eligibility for PERS benefits. That effort involves enrolling eligible temporary workers, resolving eligibility disputes and addressing the potential penalties associated with late PERS enrollment. The parties agreed to address eligibility disputes by submitting test cases before administrative judges covering different categories of temporary worker services. Metropolitan received an adverse determination from PERS on the penalty issue. While Metropolitan continues to maintain that PERS should not apply any penalty provision, the parties have entered into a settlement agreement that fully resolves plaintiffs' PERS claim. The settlement provides for a claims process which Metropolitan estimates will result in approximately 1,500 claims for PERS benefits. The estimated potential liability for these claims is in the range of \$15 to \$30 million.

Risk Management

Metropolitan is exposed to various risks of loss related to the design, construction, treatment and delivery of water. With assistance of third party claims administrators, Metropolitan is self-insured for liability, property and workers' compensation. Metropolitan self-insures the first \$25 million per liability occurrence, with commercial liability coverage of \$75 million in excess of the self-insured retention. The \$25 million self-insured retention is maintained as a separate restricted reserve. Metropolitan is also self-insured for loss or damage to its property, with the \$25 million self-insured retention also being accessible for emergency repairs and Metropolitan property losses. In addition, Metropolitan obtains other excess and specialty insurance coverages such as directors' and officers' liability, fiduciary liability and aircraft hull and liability coverage.

Metropolitan self-insures the first \$5 million for workers' compensation with excess coverage of \$25 million. Metropolitan separately funds remaining workers' compensation claims and general liability claims arising from the Diamond Valley Lake and early portions of the Inland Feeder construction projects, which were insured through Owner Controlled Insurance Programs ("OCIPs"). The OCIPs for those projects have been concluded. The costs to settle and close the remaining claims for the Diamond Valley Lake and Inland Feeder construction projects are estimated to be \$1 million and \$300,000, respectively.

The self-insurance retentions and reserve levels currently maintained by Metropolitan may be modified by Metropolitan's Board at its sole discretion.

METROPOLITAN REVENUES

General

Until water deliveries began in 1941, Metropolitan's activities were, by necessity, supported entirely through the collection of *ad valorem* property taxes. Since the mid-1980s, water sales revenues have provided approximately 75 to 80 percent of total revenues and *ad valorem* property taxes have accounted for about 10 percent of revenues, while the remaining revenues have been derived principally from the sale of hydroelectric power, interest on investments and additional revenue sources (water standby charges and availability of service charges) beginning in 1993. *Ad valorem* taxes do not constitute a part of Operating

Revenues and are not available to make payments with respect to the water revenue bonds issued by Metropolitan. *Ad valorem* taxes are applied solely to the payment of principal and interest on Metropolitan's outstanding general obligation bonds and a portion of State Water Contract payments.

The basic rate for untreated water for domestic and municipal uses increased from \$8 per acre-foot in fiscal year 1941-42 to the rate of \$484 per acre-foot for Tier 1 water, effective September 1, 2009. The *ad valorem* tax rate for Metropolitan purposes has gradually been reduced from a peak equivalent rate of 0.1250 percent of full assessed valuation in fiscal year 1945-46 to 0.0043 percent of full assessed valuation for fiscal year 2009-10. See "—Rate Structure" below. The rates charged by Metropolitan represent the wholesale cost of Metropolitan water to its member agencies, and not the cost of water to the ultimate consumer. Metropolitan does not exercise control over the rates charged by its member agencies or their subagencies to their customers.

Summary of Receipts by Source

The following table sets forth Metropolitan's sources of receipts for the five fiscal years ended June 30, 2009. The table provides cash basis information, which is unaudited. Audited financial statements for the two fiscal years ended June 30, 2009 and June 30, 2008, respectively, are provided in Appendix B - "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2009 AND JUNE 30, 2008."

SUMMARY OF RECEIPTS BY SOURCE⁽¹⁾

Fiscal Years Ended June 30

(Dollars in Millions)

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Water Sales ⁽²⁾	\$ 819.3	\$ 826.7	\$ 891.5	\$ 967.8	\$988.1
Net Tax Collections ⁽³⁾	98.3	97.8	101.1	100.4	105.2
Additional Revenue Sources ⁽⁴⁾	112.9	111.4	113.1	114.0	119.7
Interest on Investments	29.4	37.7	41.2	60.3	33.7
Hydroelectric Power Sales ⁽⁵⁾	21.3	29.9	44.9	41.1	22.5
Other Collections & Trust Funds	<u>4.1</u>	<u>12.7</u>	<u>8.8</u>	<u>8.1</u>	<u>3.1</u>
Total Receipts	\$1,085.3	\$1,116.2	\$1,200.6	\$1,291.7	\$1,272.3

Source: Metropolitan.

(1) Does not include any proceeds from the sale of bonded indebtedness.

(2) Gross receipts in each year are for sales in the twelve months ended April 30 of such year.

(3) *Ad valorem* taxes levied by Metropolitan are applied solely to the payment of outstanding general obligation bonds of Metropolitan and a portion of State Water Contract payments.

(4) Includes receipts derived from water standby charges, readiness-to-serve, and connection maintenance or capacity charges. See "—Rate Structure" and "—Additional Revenue Components" below.

(5) Receipts from Colorado River Aqueduct (CRA) power sales are included in fiscal years 2005-06 through 2008-09. CRA power receipts in prior years were reflected as a reduction in CRA power costs. See the table headed "SUMMARY OF EXPENDITURE" under "METROPOLITAN EXPENDITURES" in this Appendix A.

Revenue Allocation Policy and Tax Revenues

The Board determines the water revenue requirement for each fiscal year after first projecting the *ad valorem* tax levy for that year. The tax levy for any year is subject to limits imposed by the Act and Board policy. Currently the tax levy is set to not exceed the amount needed to pay debt service on Metropolitan's general obligation bonds and a portion of Metropolitan's share of the debt service on the general obligation bonds issued by the State to finance the State Water Project. Any deficiency between tax levy receipts and Metropolitan's share of debt service obligations on general obligation bonded debt issued by the State is expected to be paid from Operating Revenues, as defined in the Master Resolution. See "HISTORICAL AND PROJECTED REVENUES AND EXPENDITURES." The State Water Contract requires that in the event that Metropolitan fails or is unable to raise sufficient funds by other means, Metropolitan must levy upon all property within its boundaries not exempt from taxation a tax or assessment sufficient to provide for all payments under the State Water Contract.

Water Sales Revenues

Authority. Water rates are established by the Board and are not subject to regulation or approval by the Public Utilities Commission of California or by any other local, State or federal agency. In accordance with the Act, water rates must be uniform for like classes of service. Metropolitan has three classes of water service: (1) full service; (2) replenishment (formerly seasonal storage); and (3) interim agricultural. See "—Classes of Water Service."

No member agency of Metropolitan is obligated to purchase water from Metropolitan. Twenty-four of Metropolitan's 26 member agencies have entered into voluntary 10-year water supply purchase orders for water purchases. See "—Member Agency Purchase Orders" below.

Payment Procedure. Water is delivered to the member agencies on demand and is metered at the point of delivery. Member agencies are billed monthly and a late charge of one percent of the delinquent payment is assessed for delinquent payments not exceeding five business days. A late charge of two percent of the amount of the delinquent payment is charged for a payment that is delinquent for more than five business days for each month or portion of a month that the payment remains delinquent. Metropolitan has the authority to suspend service to any agency delinquent for more than 30 days. Delinquencies have been rare; in such instances late charges have been collected. No service has been suspended because of delinquencies.

Water Sales. The following table sets forth the acre-feet of water sold and water sales receipts for the five fiscal years ended June 30, 2009. The table provides cash basis information. Water sales revenues of Metropolitan for the two fiscal years ended June 30, 2009 and June 30, 2008, respectively, on an accrual basis, are shown in Appendix B - "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2009 AND JUNE 30, 2008 attached to this Official Statement.

SUMMARY OF WATER SOLD AND WATER SALES RECEIPTS
Fiscal Years Ended June 30

<u>Year</u>	<u>Acre Feet Sold</u>	<u>Gross Receipts⁽¹⁾ (in millions)</u>	<u>Average Receipts Per Acre Foot⁽²⁾</u>	<u>Average Rate Per 1000 Gallons</u>
2005	2,214,399	\$819.3	\$370	\$1.14
2006	2,152,818	826.7	384	1.18
2007	2,247,214	891.5	397	1.22
2008	2,305,364	967.8	420	1.29
2009	2,166,936	988.1	456	1.40

Source: Metropolitan.

⁽¹⁾ Gross receipts in each year are for sales in the twelve months ended April 30 of such year, with rates and charges invoiced in May and payable by the last business day of June of each year. Includes revenues from water wheeling. See "METROPOLITAN REVENUES—Wheeling and Exchange Charges".

⁽²⁾ Gross receipts divided by acre-feet sold. See table entitled "SUMMARY OF WATER RATES" in this Appendix A.

Rate Structure

The following rates and charges are elements of Metropolitan's rate structure for full service water deliveries:

Tier 1 and Tier 2 Water Supply Rates. The Tier 1 and Tier 2 Water Supply Rates are designed to recover Metropolitan's water supply costs. The Tier 2 Supply Rate is designed to reflect Metropolitan's costs of acquiring new supplies. Member agencies are charged the Tier 1 or Tier 2 Water Supply Rate for water purchases, as described under "—Member Agency Purchase Orders" below.

System Access Rate. The System Access Rate is intended to recover a portion of the costs associated with the conveyance and distribution system, including capital, operating and maintenance costs. All users (including member agencies and third-party wheeling entities; see "—Wheeling and Exchange Charges" below) of the Metropolitan system pay the System Access Rate.

Water Stewardship Rate. The Water Stewardship Rate is charged on a dollar per acre-foot basis to collect revenues to support Metropolitan's financial commitment to conservation, water recycling, groundwater recovery and other water management programs approved by the Board. The Water Stewardship Rate is charged for every acre-foot of water conveyed by Metropolitan.

System Power Rate. The System Power Rate is charged on a dollar per acre-foot basis to recover the cost of power necessary to pump water from the State Water Project and Colorado River through the conveyance and distribution system for Metropolitan's member agencies. The System Power Rate is charged for all Metropolitan supplies. Entities wheeling non-Metropolitan water supplies will pay the actual cost of power to convey water on the State Water Project, the Colorado River Aqueduct or the Metropolitan distribution system, whichever is applicable.

Treatment Surcharge. Metropolitan charges a treatment surcharge on a dollar per acre-foot basis for treated deliveries. The treatment surcharge is set to recover the cost of providing treated water service, including capital and operating cost.

Water Supply Surcharge. Effective January 1, 2009, Metropolitan adopted the Water Supply Surcharge of \$25 per acre-foot, applicable to Full Service Tier 1 untreated and treated water rates and to the Interim Agricultural Water Program untreated and treated water rates. The Water Supply Surcharge is intended to recover the costs of additional water transfers purchased to augment supplies from the State Water Project. These costs are anticipated to be about \$50 million in fiscal year 2008-09. However, on April 14, 2009 Metropolitan's Board adopted a Delta Supply Surcharge, which, effective September 1, 2009, eliminates and replaces the Water Supply Surcharge. See "*—Delta Supply Surcharge*" below.

Delta Supply Surcharge. On April 14, 2009, Metropolitan's Board adopted a Delta Supply Surcharge of \$69 per acre-foot, which will be applicable to all Tier 1, Interim Agricultural Water Program and Replenishment sales effective September 1, 2009. The Delta Supply Surcharge is designed to recover the additional supply costs Metropolitan faces as a result of pumping restrictions associated with the USFWS biological opinion on Delta smelt and other actions to protect endangered fish species. The Delta Surcharge is intended to remain in effect until a long-term solution for the Bay-Delta is achieved. Metropolitan anticipates that the Delta Supply Surcharge will be reduced as interim Delta improvements ease pumping restrictions, resulting in lower costs for additional supplies.

The amount of each of these rates since January 1, 2006, is shown in the table entitled "SUMMARY OF WATER RATES" under "*—Water Rates by Water Category*" below.

Member Agency Purchase Orders

The current rate structure provides for a member agency's agreement to purchase water from Metropolitan by means of a voluntary purchase order. In consideration of executing its purchase order, the member agency is entitled to purchase a greater amount of water at the lower Tier 1 Water Supply Rate, as described in the following paragraph. Under each purchase order, a member agency agrees to purchase, over the ten-year term of the contract, an amount of water equal to at least 60 percent of its highest firm demand for Metropolitan water in any fiscal year from 1989-90 through 2001-02 multiplied by ten. Member agencies are allowed to vary their purchases from year to year, but a member agency will be obligated to pay for the full amount committed under the purchase order, even if it does not take its full purchase order commitment by the end of the ten-year period.

Each member agency that executed a purchase order will be allowed to purchase up to 90 percent of its base amount at the Tier 1 Water Supply Rate in any fiscal year during the term of the purchase order, and its base amount will be the greater of (1) its highest firm demand for Metropolitan water in any fiscal year from 1989-90 through 2001-02 or (2) its ten-year rolling average of firm demand for Metropolitan water. Amounts purchased by such agencies over the applicable base amount will be priced at the Tier 2 Water Supply Rate. Member agencies that did not enter into purchase orders will be permitted in any fiscal year to purchase 60 percent of their base amount (equal to the member agency's highest fiscal year demand between 1989-90 and 2001-02) at the Tier 1 Water Supply Rate. Twenty-four of Metropolitan's 26 member agencies executed purchase orders for an aggregate of 12.5 million acre-feet of water over the ten years ending December 31, 2012. Metropolitan's water sales for the five fiscal years from 2003-04 through 2007-08 ranged from 2.15 million acre-feet to 2.31 million acre-feet per year.

Classes of Water Service

Full Service Water. Full service water service, formerly known as non-interruptible water service, includes water sold for domestic and municipal uses. Full service treated water rates are the sum of the applicable supply rate, system access rate, water stewardship rate, system power rate and treatment surcharge. Full service untreated water rates are the sum of the applicable supply rate, system access rate, water stewardship rate and system power rate. Approximately 88 percent of Metropolitan's total water sales were

sold as full service in fiscal year 2007-08. Full service water sales are expected to remain the major component of Metropolitan water sales in the future.

Interim Agricultural Water Program. This program provides a discounted rate for agricultural water users that, pursuant to the Act, are permitted to receive only surplus water not needed for domestic or municipal purposes. The maximum amount of agricultural water that Metropolitan may deliver in 2009 under this program is 79,595 acre-feet. The terms of the program provide that, should a water shortage occur, Metropolitan may reduce deliveries of agricultural water under the program by 30 percent before imposing conservation measures on Full Service deliveries.

Metropolitan imposed the 30 percent reduction in agricultural water deliveries beginning January 1, 2008, to make this water (approximately 45,000 acre-feet) available to meet other demands. See "METROPOLITAN'S WATER SUPPLY—Five-Year Supply Plan" in this Appendix A. On October 14, 2008, the Board approved annual reductions of the Interim Agricultural Water Program discount beginning January 1, 2010 and discontinuance of the program when the discount reaches zero on January 1, 2013. Customers participating in the program may irrevocably opt out of the program at the beginning of each calendar year during the phase-out period and purchase water at Metropolitan's full service rates.

Replenishment. Replenishment water is sold at a discounted rate to member agencies that store water and subsequently use the water to offset demands on Metropolitan in times of shortage. Metropolitan ceased deliveries under the Replenishment Program on May 1, 2007. Deliveries under the Replenishment Program are not expected to occur until water supply conditions improve. See "METROPOLITAN'S WATER SUPPLY—Five-Year Supply Plan" in this Appendix A.

Water Rates by Water Category

The following table sets forth Metropolitan's water rates by category beginning January 1, 2006. See also "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENDITURES—Water Sales Receipts" in this Appendix A. In addition to the base rates for untreated water sold in the different classes of service, the columns labeled "Treated" include the surcharge that Metropolitan charges for water treated at its water treatment plants. See "—Rate Structure" and "—Classes of Water Service" above for a description of current rates.

**SUMMARY OF WATER RATES
(Dollars per Acre-Foot)**

	<u>SUPPLY RATE</u>		<u>SYSTEM ACCESS RATE</u>	<u>WATER STEWARDSHIP RATE</u>	<u>SYSTEM POWER RATE</u>	<u>TREATMENT SURCHARGE</u>
	<u>Tier 1</u>	<u>Tier 2</u>				
January 1, 2006	\$ 73	\$169	\$152	\$25	\$81	\$122
January 1, 2007	\$ 73	\$169	\$143	\$25	\$90	\$147
January 1, 2008	\$ 73	\$171	\$143	\$25	\$110	\$157
January 1, 2009	\$134 [†]	\$250	\$143	\$25	\$110	\$167
September 1, 2009	\$170 ^{††}	\$250	\$154	\$41	\$119	\$217
January 1, 2010*	\$170 ^{††}	\$280	\$154	\$41	\$119	\$217

	<u>FULL SERVICE TREATED⁽¹⁾</u>		<u>FULL SERVICE UNTREATED⁽²⁾</u>		<u>INTERIM AGRICULTURAL PROGRAM</u>		<u>REPLENISHMENT RATE</u>	
	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 1</u>	<u>Tier 2</u>	<u>Treated</u>	<u>Untreated</u>	<u>Treated</u>	<u>Untreated</u>
January 1, 2006	\$453	\$549	\$331	\$427	\$339	\$241	\$335	\$238
January 1, 2007	\$478	\$574	\$331	\$427	\$364	\$241	\$360	\$238
January 1, 2008	\$508	\$606	\$351	\$449	\$394	\$261	\$390	\$258
January 1, 2009	\$579	\$695	\$412	\$528	\$465 [†]	\$322 [†]	\$436	\$294
September 1, 2009*	\$701	\$781	\$484	\$564	\$587	\$394	\$558	\$366
January 1, 2010*	\$701	\$811	\$484	\$594	\$615	\$416	\$558	\$366

Source: Metropolitan.

* Rates effective September 1, 2009 and January 1, 2010 were adopted by Metropolitan's Board on April 14, 2009.

† Includes \$25 per acre-foot Water Supply Surcharge.

†† Includes \$69 per acre-foot Delta Supply Surcharge, which replaces Water Supply Surcharge.

(1) Full service treated water rates are the sum of the applicable Supply Rate, System Access Rate, Water Stewardship Rate, System Power Rate and Treatment Surcharge.

(2) Full service untreated water rates are the sum of the applicable Supply Rate, System Access Rate, Water Stewardship Rate and System Power Rate.

Additional Revenue Components

Additional charges for the availability of Metropolitan's water are:

Readiness-to-Serve Charge. This charge is designed to recover a portion of the principal and interest payments on water revenue bonds issued to fund capital improvements necessary to meet continuing reliability and water quality needs. The Readiness-to-Serve Charge ("RTS") is allocated to each member agency in proportion to the rolling ten-year share of deliveries through Metropolitan's system. The RTS generated approximately \$80 million in the fiscal year ended June 30, 2007, approximately \$82 million in fiscal year 2007-08 and approximately \$87 million in fiscal year 2008-09.

Water Standby Charges. The Board is authorized to impose water standby or availability of service charges. In May 1993, the Board imposed a water standby charge for fiscal year 1993-94 ranging from \$6.94

to \$15 for each acre or parcel less than an acre within Metropolitan's service area, subject to specified exempt categories. Water standby charges have been imposed at the same rate in each year since 1993-94. Standby charges are assessments under the terms of Proposition 218, a State constitutional ballot initiative approved by the voters on November 5, 1996. See "Proposition 218" below.

Member agencies have the option to utilize Metropolitan's existing standby charge authority as a means to collect all or a portion of their RTS charge. Standby charge collections are credited against the member agencies' RTS charges. See "Readiness-to-Serve Charge" above. Twenty-two member agencies collect their RTS charges through standby charges. For fiscal years 1997-98 through 2008-09, RTS charges collected by means of such standby charges accounted for approximately \$42 million in revenues each year to Metropolitan.

Capacity Charge. The Capacity Charge is a fixed charge levied on the maximum summer day demand placed on Metropolitan's system between May 1 and December 30 for the three-calendar-year period ended December 31, 2006. The Capacity Charge is intended to recover the cost of providing peak capacity within the distribution system. Effective January 1, 2009, the Capacity Charge is \$6,800 per cfs of maximum daily flow, which will increase to \$7,200 per cfs effective January 1, 2010.

Reserve Policy

Metropolitan's reserve policy currently provides for a minimum unrestricted reserve balance at June 30 of each year that is based on probability studies of the wet periods that affect Metropolitan's water sales. The policy establishes a minimum targeted unrestricted reserve level based on an 18-month revenue shortfall estimate and a maximum level based on an additional two years revenue shortfall estimate. As of June 30, 2009, the minimum reserve requirement was \$216 million. The maximum reserve limit at June 30, 2009 was \$535 million. Funds representing the minimum reserve level are held in the Water Revenue Remainder Fund, and any funds in excess of the minimum reserve level (up to the maximum reserve level) are held in the Water Rate Stabilization Fund. Fund balances in the Water Rate Stabilization Fund and the Water Revenue Remainder Fund at June 30, 2009 totaled \$322 million. (See "THE MASTER RESOLUTION—Water Revenue Fund—*Revenue Remainder Fund*" in APPENDIX C—SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS.) Unrestricted reserves in excess of the maximum reserve level may be used for any lawful purpose of Metropolitan, as directed by the Board. Consistent with State legislation, Metropolitan will ensure that any funds in excess of maximum reserve levels that are distributed to member agencies will be distributed in proportion to water sales revenues received from each member agency. Since actual reserve balances were less than the maximum reserve limit at June 30, 2009, no action was taken by the Board. In addition, Metropolitan maintains various restricted reserves, including reserves for risk retention, operations and maintenance expenses, State Water Contract payments, and other obligations and purposes.

Wheeling and Exchange Charges

The process for the delivery of water not owned or controlled by Metropolitan is referred to as "wheeling." Under the current rate structure, wheeling parties pay the System Access Rate and Water Stewardship Rate, Treatment Surcharge (if applicable) and power costs for wheeling transactions. Wheeling and exchange revenues totaled \$26.8 million during fiscal year 2008-09, \$20.2 million during fiscal year 2007-08, and \$13.1 million during fiscal year 2006-07.

Hydroelectric Power Recovery Revenues

Metropolitan has constructed 16 small hydroelectric plants on its distribution system. The plants are located in Los Angeles, Orange, Riverside and San Diego Counties at existing pressure control structures and other locations. The combined generating capacity of these plants is approximately 122 megawatts. The total

capital cost of these 16 facilities is approximately \$176.1 million. Since 2000, annual energy generation sales revenues have ranged between \$16 million and \$27 million. For fiscal year 2008-09, energy generation sales revenues were \$16.8 million.

Power from five of the plants is sold to DWR under an existing contract at a price based on a contractual unit rate methodology to supply power to the State Water Project. This price is renegotiated every six years. For 2007 through 2012, the unit rate is determined by fixed and variable components. One variable component represents an incremental fuel price based on a five-year rolling average gas price.

Power from nine of the plants was sold to the Southern California Edison Company, a subsidiary of Edison International ("Edison") through October 31, 2008. Three new contracts effective November 1, 2008, split power sales from the nine plants among Edison, Los Angeles Department of Water and Power and the Southern California Public Power Authority. All three contracts are for the sale of renewable power and are based on a fixed energy rate for the term of the contracts. The minimum contract term is five years and maximum term is fifteen years.

Energy generation from a fifteenth plant, the Etiwanda Power Plant, is sold to the Pacific Gas and Electric Company ("PG&E") under a contract that was amended in November 2004 to accommodate terminating transmission and scheduling arrangements. The contract energy price is based on a formula that includes a monthly gas rate, a capital related cost and a performance factor. The contract is subject to renegotiation upon the occurrence of specified events and can be terminated by either party under various conditions and circumstances, beginning in 2014.

The sixteenth plant, the Diamond Valley Lake Hydroelectric Power Plant, began generating on May 23, 2001, and its current maximum dependable output is 21 megawatts. Actual generation is determined by water delivery requirements and is sold at market rates to various buyers.

Principal Customers

All of Metropolitan's regular customers are member agencies. Total water sales to the member agencies accrued for the fiscal year ended June 30, 2009 were 2.14 million acre-feet, generating \$977.1 million in water sales revenues for such period. Metropolitan's ten largest water customers in the year ended June 30, 2009 are shown in the following table.

TEN LARGEST WATER CUSTOMERS
Year Ended June 30, 2009
Accrual Basis

<u>Agency</u>	<u>Water Sales Revenues</u>	<u>Percent of Total</u>	<u>Water Sales in Acre-Feet</u>	<u>Percent of Total</u>
San Diego County Water Authority	\$209,316,523	21.4%	593,127	27.7%
City of Los Angeles	197,109,833	20.2%	434,682	20.3%
MWD of Orange County	128,667,533	13.2%	249,904	11.7%
West Basin MWD	66,987,482	6.9%	123,908	5.8%
Calleguas MWD	65,191,134	6.7%	118,670	5.5%
Eastern MWD	51,782,455	5.3%	99,783	4.7%
Western MWD of Riverside	48,966,751	5.0%	99,059	4.6%
Three Valleys MWD	35,843,032	3.7%	80,419	3.8%
Central Basin MWD	28,439,448	2.9%	52,762	2.5%
Inland Empire Utilities Agency	<u>28,157,890</u>	<u>2.9%</u>	<u>74,860</u>	<u>3.5%</u>
Total	\$860,462,081	88.1%	1,927,174	90.0%
 Total Water Sales Revenues	 \$ 977,056,073	 Total Acre-Feet	 2,144,264	

Preferential Rights

Section 135 of the Act provides a preferential entitlement for the purchase of water by each of Metropolitan's member agencies. This preferential right is based upon a ratio of all payments on tax assessments and otherwise, except purchases of water, made to Metropolitan by each member agency compared to total payments made by all member agencies on tax assessments and otherwise since Metropolitan was formed, except purchases of water. Historically, these rights have not been used in allocating Metropolitan's water. The California Court of Appeal has upheld Metropolitan's methodology for calculation of the respective member agencies' preferential rights under Section 135 of the Act.

Proposition 218

Proposition 218, a State ballot initiative known as the "Right to Vote on Taxes Act," was approved by the voters on November 5, 1996 adding Articles XIII C and XIII D to the California Constitution. Article XIII D provides substantive and procedural requirements on the imposition, extension or increase of any "fee" or "charge" levied by a local government upon a parcel of real property or upon a person as an incident of property ownership. As a wholesaler, Metropolitan serves water to its member agencies, not to persons or properties as an incident of property ownership. Thus, Metropolitan's rates and charges are not property-related fees subject to Article XIII D. Water rates charged by Metropolitan to its member agencies are not property-related fees and charges and therefore are exempt from the requirements of Article XIII D. Fees for water service by Metropolitan's member agencies or their agencies providing retail water service are subject to the requirements of Article XIII D.

Article XIII D also imposes certain procedures with respect to assessments. Under Article XIII D, "standby charges" are considered "assessments" and must follow the procedures required for "assessments." Metropolitan has imposed water standby charges since 1992. Any change to Metropolitan's current standby charges could require notice to property owners and approval by a majority of such owners returning mail-in ballots approving or rejecting any imposition or increase of such standby charge. Twenty-two member

agencies have elected to collect all or a portion of their readiness-to-serve charges through standby charges. (See "METROPOLITAN REVENUES—Additional Revenue Components—*Readiness-to-Serve Charge*" and "*Water Standby Charges*.") Even if Article XIII D is construed to limit the ability of Metropolitan and its member agencies to impose or collect standby charges, the member agencies will continue to be obligated to pay the readiness-to-serve charges.

Article XIII C extends the people's initiative power to reduce or repeal previously authorized local taxes, assessments fees and charges. This extension of the initiative power is not limited by the terms of Article XIII C to fees imposed after November 6, 1996 or to property-related fees and charges and absent other authority could result in retroactive reduction in existing taxes, assessments or fees and charges.

Proposition 218 was adopted as a measure that qualified for the ballot pursuant to the State's initiative process. From time to time, other initiative measures could be adopted or legislative measures could be approved by the Legislature, which may place limitations on the ability of Metropolitan or its member agencies to increase revenues or to increase appropriations. Such measures may further affect Metropolitan's ability to collect taxes, assessments or fees and charges, which could have an effect on Metropolitan's revenues.

Investment of Moneys in Funds and Accounts

All moneys in any of the funds and accounts established pursuant to Metropolitan's water revenue or general obligation revenue bond resolutions are invested by the Treasurer in accordance with Metropolitan's Statement of Investment Policy. All Metropolitan funds available for investment are currently invested in United States Treasury and agency securities, commercial paper, negotiable certificates of deposit, banker's acceptances, corporate notes, municipal bonds, asset-backed securities, and the California Local Agency Investment Fund ("LAIF"). The LAIF is a voluntary program created by statute as an investment alternative for California's local governments and special districts. LAIF permits such local agencies to participate in an investment portfolio, which invests hundreds of millions of dollars, using the investment expertise of the State Treasurer's Office.

The Statement of Investment Policy provides that in managing Metropolitan's investments, the primary objective shall be to safeguard the principal of the invested funds. The secondary objective shall be to meet all liquidity requirements and the third objective shall be to achieve a return on the invested funds. Although the Statement of Investment Policy permits investments in some asset-backed securities, the portfolio does not include any of the special investment vehicles related to sub-prime mortgages. Metropolitan's current investments comply with the Statement of Investment Policy, approved on June 9, 2009.

As of October 31, 2009, the total market value of all Metropolitan funds was \$1.2 billion. In fiscal year 2007-08, Metropolitan's earnings on investments, including adjustments for gains and losses and premiums and discounts, on a cash basis (unaudited) were \$60.3 million, including construction account and trust fund earnings. (See Footnote 3 to Metropolitan's audited financial statements in Appendix B for additional information on the investment portfolio.) In fiscal year 2008-09, Metropolitan's earnings on investments, including adjustments for gains and losses and premiums and discounts, on a cash basis (unaudited), including construction account and trust fund earnings, were \$36.4 million.

Metropolitan currently holds corporate notes or bonds issued by Lehman Brothers Holdings, Inc. ("Lehman") which has experienced credit rating downgrades or bankruptcy. The aggregate book value of the downgraded corporate bonds is approximately \$5.264 million as of September 30, 2009. The market price for these bonds continues to be under pressure, and Metropolitan is closely monitoring market developments. The decrease in the market value for these bonds has not materially impacted the financial operations of Metropolitan. Metropolitan filed its claim for the payment of the corporate notes issued by Lehman with the

United States Bankruptcy Court for the Southern District of New York on October 27, 2008. The amount of the claim, representing principal and interest on the notes, is \$5,380,267.

Metropolitan's regulations require that (1) the Treasurer provide an annual Statement of Investment Policy for approval by Metropolitan's Board, (2) the Treasurer provide a monthly investment report to the Board and the General Manager showing by fund the description, maturity date, yield, par, cost and current market value of each security, and (3) the General Counsel review as to eligibility the securities invested in by the Treasurer for that month and report his or her determinations to the Board. The Board approved the Statement of Investment Policy for fiscal year 2009-10 on June 9, 2009.

Subject to the provisions of Metropolitan's water revenue or general obligation bond resolutions, obligations purchased by the investment of bond proceeds in the various funds and accounts established pursuant to a bond resolution are deemed at all times to be a part of such funds and accounts and any income realized from investment of amounts on deposit in any fund or account therein will be credited to such fund or account. The Treasurer is required to sell or present for redemption any investments whenever it may be necessary to do so in order to provide moneys to meet required payments or transfers from such funds and accounts. For the purpose of determining at any given time the balance in any such funds, any such investments constituting a part of such funds and accounts will be valued at the then estimated or appraised market value of such investments.

All investments, including those authorized by law from time to time for investments by public agencies, contain certain risks. Such risks include, but are not limited to, a lower rate of return than expected and loss or delayed receipt of principal. The occurrence of these events with respect to amounts held under Metropolitan's water revenue or general obligation revenue bond resolutions, or other amounts held by Metropolitan, could have a material adverse effect on Metropolitan's finances. These risks may be mitigated, but are not eliminated, by limitations imposed on the portfolio management process by Metropolitan's Statement of Investment Policy.

The Statement of Investment Policy requires that investments have a minimum credit rating of A1/P1/F1 for short-term securities and A for longer-term securities at the time of purchase. If immediate liquidation of a security downgraded below these levels is not in the best interests of Metropolitan, the Treasurer or investment manager, in consultation with an ad hoc committee made up of the Chairman of the Board, the Chairman of the Business and Finance Committee and the General Manager, and with the concurrence of the General Counsel, may dispose of the security in an orderly and prudent manner considering the circumstances, under terms and conditions approved by a majority of the members of such ad hoc committee. The Treasurer is required to include a description of any securities that have been downgraded below investment grade and the status of their disposition in the Treasurer's monthly report.

The Statement of Investment Policy also limits the amount of securities that can be purchased by category, as well as by issuer, and prohibits investments that can result in zero interest income. Metropolitan's securities are settled on a delivery versus payment basis and are held by an independent third-party custodian. See Metropolitan's audited financial statements attached to the Official Statement as Appendix B for a description of Metropolitan's investments at June 30, 2009.

Metropolitan retains two outside investment firms to manage the long-term portion of Metropolitan's portfolio. The outside managers are required to adhere to Metropolitan's Statement of Investment Policy. Currently, such managers are managing approximately \$250 million in investments on behalf of Metropolitan. Metropolitan's Statement of Investment Policy may be changed at any time by the Board (subject to State law provisions relating to authorized investments). There can be no assurance that the State law and/or the Statement of Investment Policy will not be amended in the future to allow for investments that are currently not permitted under State law or the Statement of Investment Policy, or that the objectives of Metropolitan with respect to investments or its investment holdings at any point in time will not change.

METROPOLITAN EXPENDITURES

The following table sets forth a summary of Metropolitan's expenditures, by major function, for the five years ended June 30, 2009. The table provides cash basis information, which is unaudited. Expenses of Metropolitan for the two fiscal years ended June 30, 2009 and June 30, 2008, on an accrual basis, are shown in Appendix B - "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2009 AND JUNE 30, 2008."

SUMMARY OF EXPENDITURES Fiscal Years Ended June 30 (Dollars in Millions)

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>
Operation and Maintenance Costs ⁽¹⁾	\$ 314.4	\$ 379.0	\$ 367.2	\$ 416.9	\$455.6
Total State Water Project and Water Transfers ⁽²⁾	433.3	508.2	408.5	564.9	478.8
Total Debt Service	212.5	229.6	249.9	268.5	281.6
Construction Disbursements from Revenues ⁽³⁾	95.5	90.4	129.7	45.4	30.6
Other ⁽⁴⁾	<u>5.3</u>	<u>7.3</u>	<u>6.1</u>	<u>6.4</u>	<u>8.3</u>
Total Disbursements – Net of Reimbursements ⁽⁵⁾	<u>\$1,061.0</u>	<u>\$1,214.5</u>	<u>\$1,161.4</u>	<u>\$1,302.1</u>	<u>\$1,254.9</u>

Source: Metropolitan.

- (1) Includes inventories, undistributed payroll, local resource, conservation programs and Colorado River Aqueduct (CRA) power, net of CRA power sales receipts from 2004-05. CRA power sales receipts are not funded as an offset to CRA power in 2006-09. See the table headed "Summary of Receipts by Source" under "METROPOLITAN REVENUES" in this Appendix A.
- (2) Includes both operating and capital expense portions. See "METROPOLITAN'S WATER SUPPLY—Water Transfer, Storage and Exchange Programs" and "POWER SOURCES AND COSTS" in this Appendix A.
- (3) At the discretion of the Board, in any given year, Metropolitan may increase or decrease funding available for construction disbursements to be paid from revenues. Disbursements paid from revenues decreased in fiscal years 2007-08 and 2008-09, primarily due to the Board's intent to maintain adequate reserve levels in the rate stabilization funds to mitigate future increases in water rates and charges. Does not include expenditures of bond proceeds.
- (4) Includes operating equipment and arbitrage rebate.
- (5) Disbursements exceed revenues in the fiscal years ended June 30, 2005, 2006 and 2008. See the table headed "Summary of Receipts by Source" under "METROPOLITAN REVENUES" in this Appendix A.

Revenue Bond Indebtedness

Metropolitan has issued the following water revenue bonds, which as of November 1, 2009, were outstanding in the amounts set forth below:

<u>Name of Issue</u>	<u>Original Amount Issued</u>	<u>Principal Outstanding</u>
Water Revenue Bonds, Issue of 1991	\$ 300,000,000	\$ -0-
Water Revenue Bonds, Issue of 1992	550,000,000	-0-
Water Revenue Refunding Bonds, 1993 Series A	168,759,889	105,185,000
Water Revenue Refunding Bonds, 1993 Series B	89,595,000	-0-
Water Revenue Bonds, 1995 Series A	175,000,000	-0-
Water Revenue Refunding Bonds, 1996 Series A	108,375,000	-0-
Water Revenue Refunding Bonds, 1996 Series B	258,875,000	-0-
Water Revenue Bonds, 1996 Series C	377,500,000	-0-
Water Revenue Bonds, 1997 Authorization, Series A	650,000,000	-0-
Water Revenue Bonds, 1997 Authorization, Series B ⁽¹⁾	50,000,000	50,000,000
Water Revenue Bonds, 1997 Authorization, Series C ⁽¹⁾	50,000,000	50,000,000
Water Revenue Refunding Bonds, 1998 Series A	148,705,000	-0-
Water Revenue Bonds, 1999 Authorization, Series A	100,000,000	-0-
Water Revenue Bonds, 1999 Authorization, Series B ⁽¹⁾	50,000,000	50,000,000
Water Revenue Bonds, 1999 Authorization, Series C ⁽¹⁾	50,000,000	50,000,000
Water Revenue Bonds, 2000 Series B1-B4 ⁽¹⁾	355,200,000	266,400,000
Water Revenue Refunding Bonds, 2001 Series A	195,670,000	146,100,000
Water Revenue Refunding Bonds, 2001 Series B1	112,400,000	-0-
Water Revenue Refunding Bonds, 2001 Series B2	112,400,000	-0-
Water Revenue Bonds, 2001 Series C-1 and C-2 ⁽¹⁾	200,000,000	200,000,000
Water Revenue Refunding Bonds, 2002 Series A ⁽¹⁾⁽²⁾	96,640,000	-0-
Water Revenue Refunding Bonds, 2002 Series B ^{(1)(2)*}	35,600,000	34,700,000
Water Revenue Refunding Bonds, 2003 Series A	36,215,000	28,360,000
Water Revenue Bonds, 2003 Authorization, Series B-1 and B-2	200,000,000	200,000,000
Water Revenue Refunding Bonds, 2003 Series C-1, C-2 and C-3	338,230,000	-0-
Water Revenue Refunding Bonds, 2004 Series A-1 and A-2 ⁽¹⁾⁽²⁾	162,455,000	157,960,000
Water Revenue Refunding Bonds, 2004 Series B	274,415,000	225,410,000
Water Revenue Bonds, 2003 Authorization, Series B-3 and B-4	300,000,000	266,385,000
Water Revenue Refunding Bonds, 2004 Series C ⁽¹⁾⁽²⁾	136,090,000	132,765,000
Water Revenue Bonds, 2005 Authorization, Series A	100,000,000	95,435,000
Water Revenue Bonds, 2005 Authorization, Series B-1 and B-2 ⁽¹⁾	100,000,000	100,000,000
Water Revenue Refunding Bonds, 2006 Series A-1 and A-2 ⁽¹⁾⁽²⁾	74,140,000	73,960,000
Water Revenue Bonds, 2005 Authorization, Series C	200,000,000	187,990,000
Water Revenue Bonds, 2005 Authorization, Series D-1 and D-2 ⁽²⁾	100,000,000	-0-
Water Revenue Refunding Bonds, 2006 Series B	45,875,000	45,875,000
Water Revenue Bonds, 2006 Authorization, Series A	400,000,000	400,000,000
Water Revenue Bonds, 2006 Authorization, Series B ⁽²⁾	100,000,000	-0-
Water Revenue Refunding Bonds, 2007 Series A-1 and A-2 ⁽²⁾	218,425,000	-0-
Water Revenue Refunding Bonds, 2007 Series B ⁽²⁾	81,900,000	-0-
Water Revenue Refunding Bonds, 2008 Series A-1 ⁽¹⁾	250,940,000	250,415,000
Water Revenue Refunding Bonds, 2008 Series A-2 ⁽¹⁾	250,635,000	249,635,000
Water Revenue Refunding Bonds, 2008 Series B	133,430,000	128,245,000
Water Revenue Refunding Bonds, 2008 Series C	79,045,000	73,215,000
Water Revenue Bonds, 2008 Authorization, Series A	200,000,000	200,000,000
Water Revenue Refunding Bonds, 2009 Series A-1 and A-2 ⁽¹⁾	208,365,000	208,365,000
Water Revenue Refunding Bonds, 2009 Series B	106,690,000	106,690,000
Water Revenue Refunding Bonds, 2009 Series C	91,165,000	91,165,000
Water Revenue Bonds, 2008 Authorization, Series B	21,615,000	21,615,000
Water Revenue Bonds, 2008 Authorization, Series C ⁽⁴⁾	78,385,000	78,385,000
Water Revenue Bonds, 2008 Authorization, Series D ⁽⁴⁾	250,000,000	250,000,000
Water Revenue Refunding Bonds, 2009 Series D	<u>81,065,000</u>	<u>81,065,000</u>
Total	\$8,853,799,889	\$4,605,320,000

Source: Metropolitan.

(1) Variable rate obligation.

(2) Metropolitan maintains interest rate swap agreements that correspond to these variable rate obligations. See "Variable Rate and Swap Obligations" below.

(3) Auction rate securities (ARS). No ARS were integrated with any interest rate swap agreements. No ARS remain outstanding.

(4) Designated as "Build America Bonds" pursuant to the American Recovery and Reinvestment Act of 2009.

* Metropolitan will issue its \$26,050,000 aggregate principal amount of Water Revenue Refunding Bonds, 2009 Series E and use the proceeds, together with other available moneys of Metropolitan, to redeem in full the Water Revenue Refunding Bonds, 2002 Series B in December 2009.

Limitations on Additional Revenue Bonds

Resolution 8329, adopted by Metropolitan's Board on July 9, 1991, as amended and supplemented (collectively with all such supplemental resolutions, the "Revenue Bond Resolutions") provide for the issuance of Metropolitan's water revenue bonds. The Revenue Bond Resolutions establish limitations on the issuance of additional obligations payable from Net Operating Revenues. Under the Revenue Bond Resolutions, no additional bonds, notes or other evidences of indebtedness payable out of Operating Revenues may be issued having any priority in payment of principal, redemption premium, if any, or interest over any water revenue bonds or Parity Obligations. No additional Parity Bonds or Parity Obligations may be issued or incurred unless the conditions of the Revenue Bond Resolutions have been satisfied.

The laws governing Metropolitan's ability to issue water revenue bonds currently provide two additional limitations on indebtedness that may be incurred by Metropolitan. The Act provides for a limit on general obligation bonds, water revenue bonds and other evidences of indebtedness at 15 percent of the assessed value of all taxable property within Metropolitan's service area. As of November 1, 2009, outstanding general obligation bonds, water revenue bonds and other evidences of indebtedness in the amount of \$4.93 billion represented approximately 0.24 percent of the fiscal year 2009-10 taxable assessed valuation of \$2,081.9 billion. The second limitation under the Act specifies that no revenue bonds may be issued, except for the purpose of refunding, unless the amount of net assets of Metropolitan as shown on its balance sheet as of the end of the last fiscal year prior to the issuance of such bonds, equals at least 100 percent of the aggregate amount of revenue bonds outstanding following the issuance of such bonds. The net assets of Metropolitan at June 30, 2009 were approximately \$6.0 billion. The aggregate amount of revenue bonds outstanding as of November 1, 2009 was \$4.61 billion. The limitation does not apply to other forms of financing available to Metropolitan. Audited financial statements including the net assets of Metropolitan as of June 30, 2009 and June 30, 2008, respectively, are shown in Appendix B – "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2009 AND JUNE 30, 2008." Metropolitan provides no assurance that the Act's limitations on indebtedness will not be revised or removed by future legislation. Limitations under the Revenue Bond Resolutions respecting the issuance of additional obligations payable from Net Operating Revenues on a parity with water revenue bonds of Metropolitan will remain in effect so long as any water revenue bonds authorized pursuant to the Revenue Bond Resolutions are outstanding, provided however, that the Revenue Bond Resolutions are subject to amendment and supplement in accordance with their terms.

Variable Rate and Swap Obligations

As of November 1, 2009, Metropolitan had outstanding \$1.87 billion of variable rate obligations, including \$208.4 million of bonds bearing interest in the Index Mode (the "Index Tender Bonds"). The Index Tender Bonds bear interest at a rate that fluctuates weekly based on the SIFMA Municipal Swap Index published weekly by Municipal Market Data; however, if the purchase price of a series of Index Tender Bonds is not paid from proceeds of a remarketing or other funds following a scheduled mandatory tender, such Index Tender Bonds will bear interest at a default rate of up to twelve percent per annum until purchased by Metropolitan or redeemed. (See "—Other Revenue Obligations" below.)

The interest rates for Metropolitan's other variable rate obligations are reset on a daily or weekly basis. Such variable rate demand obligations are supported by Standby Bond Purchase Agreements between Metropolitan and various liquidity providers. The following table sets forth a listing of the liquidity providers, the expiration date of each facility and the principal amount of outstanding bonds covered under each facility.

<u>Liquidity Provider</u>	<u>Bond Issue</u>	<u>Principal Outstanding</u>	<u>Facility Expiration</u>
Dexia Credit Local	2004 Series C	\$132,765,000	June 2010
Landesbank Baden-Wuerttemberg (LBBW)	2008 Series A-2	<u>249,635,000</u>	March 2011
	Total	\$249,635,000	
Bank of America, N.A.	1999 Series B	\$ 50,000,000	May 2012
	2008 Series A-1	<u>250,415,000</u>	March 2011
	Total	\$300,415,000	
Lloyds TSB Bank	2001 Series C-1	\$100,000,000	December 2011
	2001 Series C-2	100,000,000	December 2011
	2002 Series B	<u>34,700,000</u>	December 2009 ⁽¹⁾
	Total	\$234,700,000	
JP Morgan Chase Bank	1999 Series C	\$ 50,000,000	May 2012
	2004 Series A-1	78,980,000	July 2010
	2004 Series A-2	<u>78,980,000</u>	July 2010
	Total	\$207,960,000	
BNP Paribas	2000 Series B-3	\$ 88,800,000	August 2011
	2000 Series B-4	<u>88,800,000</u>	August 2011
	Total	\$177,600,000	
Banco Bilbao Vizcaya Argentaria, S.A. (BBVA)	2000 Series B-2	\$ 88,800,000	July 2013
	2006 Series A-1	36,980,000	May 2013
	2006 Series A-2	<u>36,980,000</u>	May 2013
	Total	\$162,760,000	
Landesbank Hessen-Thuringen Girozentrale (Helaba)	1997 Series B	\$ 50,000,000	December 2015
	1997 Series C	<u>50,000,000</u>	December 2015
	Total	\$100,000,000	
Citibank, N.A.	2005 Series B-1	\$ 50,000,000	July 2010
	2005 Series B-2	<u>50,000,000</u>	July 2010
	Total	\$100,000,000	
Total		\$1,665,835,000	

Source: Metropolitan.

⁽¹⁾ Metropolitan will issue its \$26,050,000 aggregate principal amount of Water Revenue Refunding Bonds, 2009 Series E and use the proceeds, together with other available moneys of Metropolitan, to redeem in full the Water Revenue Refunding Bonds, 2002 Series B in December 2009.

Included in Metropolitan's \$1.87 billion of variable rate obligations are \$1.16 billion of variable rate demand obligations which, by virtue of interest rate swap agreements, are treated by Metropolitan as fixed rate debt for the purpose of calculating debt service requirements, although the variable payments that Metropolitan receives from swap counterparties do not usually equal the payments that Metropolitan makes on associated variable rate debt. The remaining \$717 million of variable rate obligations represent approximately 16 percent of total outstanding water revenue bonds.

In September 2004 the Board revised the variable rate exposure policy to require that variable rate debt be managed to limit net interest cost increases within a fiscal year as a result of interest rate changes to no more than \$5 million. In addition, the maximum amount of variable interest rate exposure (excluding variable rate bonds associated with interest rate swap agreements) was limited to 40 percent of total outstanding water revenue bond debt. Variable rate debt capacity will be reevaluated as interest rates change and managed within these parameters.

By resolution adopted on September 11, 2001, Metropolitan's Board authorized the execution of interest rate swap transactions and related agreements in accordance with a master swap policy. Metropolitan may execute interest rate swaps if the transaction can be expected to reduce exposure to changes in interest rates on a particular financial transaction or in the management of interest rate risk derived from Metropolitan's overall asset/liability balance, result in a lower net cost of borrowing or achieve a higher net rate of return on investments made in connection with or incidental to the issuance, incurring or carrying of Metropolitan's obligations or investments, or manage variable interest rate exposure consistent with prudent debt practices and Board-approved guidelines. The Chief Financial Officer reports to the Business and Finance Committee of Metropolitan's Board each month on outstanding swap transactions, including notional amounts outstanding, counterparty exposures and termination values based on then-existing market conditions.

Metropolitan currently has two types of interest rate swaps. Under the first type, Metropolitan receives payments that are calculated by reference to a floating interest rate and makes payments that are calculated by reference to a fixed interest rate. These swaps are referred to in the table below as "Fixed Payor Swaps." Under the second type, referred to in the table below as "Basis Swaps," Metropolitan receives payments calculated by reference to a percentage of the taxable index, LIBOR. In return, Metropolitan makes payments that are calculated based on either SIFMA or the taxable short-term index, one-month LIBOR.

Net payments under the terms of the interest rate swap agreements are payable on a parity with the Parity Obligations. Termination payments under the 2001 interest rate swap agreements and the interest rate swap agreements related to the Water Revenue Refunding Bonds, 2002 Series A and the Water Revenue Refunding Bonds, 2002 Series B would be payable on a parity with the Parity Obligations. All other termination payments related to interest rate swap agreements would be subordinate to the Parity Obligations.

The following swap transactions were outstanding as of November 1, 2009:

FIXED PAYOR SWAPS:

<u>Designation</u>	<u>Notional Amount Outstanding</u>	<u>Swap Counterparty</u>	<u>Fixed Payor Rate</u>	<u>MWD Receives</u>	<u>Maturity Date</u>
2001	\$109,900,000	JPMorgan Chase Bank ⁽¹⁾	4.219%	SIFMA-35 bps	7/1/2020
2001	109,900,000	UBS AG	4.219	SIFMA-35 bps	7/1/2020
2002 A	89,785,650	Morgan Stanley Capital Services, Inc.	3.300	57.74% of one-month LIBOR	7/1/2025
2002 B	33,589,350	JPMorgan Chase Bank ⁽¹⁾	3.300	57.74% of one-month LIBOR	7/1/2025
2003	165,882,500	UBS AG	3.257	61.20% of one-month LIBOR	7/1/2030
2003	165,882,500	JPMorgan Chase Bank	3.257	61.20% of one-month LIBOR	7/1/2030
2004 A	157,960,000	Morgan Stanley Capital Services, Inc.	2.917	61.20% of one-month LIB OR	7/1/2023
2004 C	73,020,750	Morgan Stanley Capital Services, Inc.	2.980	61.55% of one-month LIBOR	10/1/2029
2004 C	59,744,250	Citigroup Financial Products, Inc.	2.980	61.55% of one-month LIBOR	10/1/2029
2005 ⁽²⁾	58,547,500	JPMorgan Chase Bank	3.360	70% of 3-month LIBOR	7/1/2030
2005 ⁽²⁾	58,547,500	Citigroup Financial Products, Inc.	3.360	70% of 3-month LIBOR	7/1/2030
2006	31,077,500	UBS AG	3.210	63% of 3-month LIBOR	7/1/2021
2006	31,077,500	JPMorgan Chase Bank	3.210	63% of 3-month LIBOR	7/1/2021
2006	6,027,500	UBS AG	2.911	63% of 3-month LIBOR	7/1/2012
2006	<u>6,027,500</u>	JPMorgan Chase Bank	2.911	63% of 3-month LIBOR	7/1/2012
Total	\$1,156,970,000				

Source: Metropolitan.

(1) Bear Stearns Financial Products Inc. merged with JPMorgan Chase Bank, National Association, effective May 26, 2009.

(2) Interest rate swap agreement not identified with specific variable rate demand obligations.

BASIS SWAPS:

<u>Swap</u>	<u>Notional Amount Outstanding</u>	<u>Swap Counterparty</u>	<u>Met Receives</u>	<u>Met Pays</u>	<u>Maturity Date</u>
2004	\$125,000,000	JPMorgan Chase Bank ⁽¹⁾	70% of one-month LIBOR + 31.5 bp	SIFMA	7/1/2014
2004	<u>125,000,000</u>	JPMorgan Chase Bank	70% of one-month LIBOR + 31.5 bp	SIFMA	7/1/2014
Total	\$250,000,000				

⁽¹⁾ Bear Stearns Financial Products Inc. merged with JPMorgan Chase Bank, National Association, effective May 26, 2009.

These interest rate swap agreements entail risk to Metropolitan. The counterparty may fail or be unable to perform, interest rates may vary from assumptions, Metropolitan may be required to post collateral in favor of its counterparties and Metropolitan may be required to make significant payments in the event of an early termination of an interest rate swap. Metropolitan believes that if such an event were to occur, it would not have a material adverse impact on its financial position. Metropolitan seeks to manage counterparty risk by diversifying its swap counterparties, limiting exposure to any one counterparty, requiring collateralization or other credit enhancement to secure swap payment obligations, and by requiring minimum credit rating levels. Initially swap counterparties must be rated at least "Aa3" or "AA-", or equivalent by any two of the nationally recognized credit rating agencies; or use a "AAA" subsidiary as rated by at least one nationally recognized credit rating agency. Should the credit rating of an existing swap counterparty drop below the required levels, Metropolitan may enter into additional swaps if those swaps are "offsetting" and risk-reducing-swaps. Each counterparty is initially required to have minimum capitalization of at least \$150 million. See Note 5(f) in Appendix B - "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2009 AND JUNE 30, 2008."

Early termination of an interest rate swap agreement could occur due to a default by either party or the occurrence of a termination event. As of June 30, 2009, Metropolitan would have been required to pay to its counterparties termination payments if some of its swaps were terminated on that date and would have been entitled to receive from its counterparties termination payments if other swaps were terminated on that date. Metropolitan estimated its net exposure to its counterparties for all such termination payments at October 31, 2009, to be approximately \$120.1 million. Metropolitan does not presently anticipate early termination of any of its interest rate swap agreements.

Metropolitan is required to post collateral in favor of a counterparty to the extent that Metropolitan's total exposure for termination payments to that counterparty exceeds the threshold specified in the applicable swap agreement. Conversely, the counterparties are required to release collateral to Metropolitan or post collateral for the benefit of Metropolitan as market conditions become favorable to Metropolitan. As of October 31, 2009, Metropolitan had approximately \$2.9 million in collateral posted in favor of its counterparties. The highest amount of collateral Metropolitan has been required to post on any date was approximately \$33.3 million, as of December 22, 2008. The amount of required collateral varies from time to time due primarily to interest rate movements and can change significantly over a short period of time. In the future, Metropolitan may be required to post additional collateral, or may be entitled to a reduction or return of the required collateral amount. Collateral deposited by Metropolitan is held by the counterparties; a bankruptcy of any counterparty holding collateral posted by Metropolitan could adversely affect the return of the collateral to Metropolitan. Moreover, posting collateral limits Metropolitan's liquidity. If collateral requirements increase significantly, Metropolitan's liquidity may be materially adversely affected.

Other Revenue Obligations

Metropolitan received a \$20 million State Revolving Fund Loan, dated as of February 1, 2000, from the California State Water Resources Control Board, for Phase 1 of the Lake Mathews Watershed Project. The outstanding principal amount as of November 1, 2009 was \$12.3 million. The loan will be repaid over 20 years, with annual payments of \$1.32 million through November 2020, on parity with Metropolitan's water revenue bonds.

Metropolitan's \$208.4 million of Index Tender Bonds are subject to mandatory tender under certain circumstances. Metropolitan anticipates that it will pay the purchase price of tendered Index Tender Bonds from proceeds of remarketing such Index Tender Bonds or from other available funds. Metropolitan's obligation to pay the purchase price of such Index Tender Bonds is an unsecured obligation of Metropolitan that it would pay from Net Operating Revenues only after it has made payments and deposits with respect to its Operating Revenues, the Parity Bonds and Parity Obligations and other obligations secured by Net Operating Revenues. Metropolitan has not secured any liquidity facility or letter of credit to support the payment of the purchase price of tendered Index Tender Bonds of any series. If the purchase price of the Index Tender Bonds of any series is not paid, such Index Tender Bonds will be subject to special mandatory redemption 18, 36 and 54 months following the purchase default. Any such special mandatory redemption payment will constitute a Bond Obligation payable on a parity with the Parity Bonds and Parity Obligations.

Subordinate Revenue Obligations

Metropolitan currently is authorized to issue subordinate debt of up to \$400,000,000 of Commercial Paper Notes payable from Net Operating Revenues on a basis subordinate to the Parity Bonds and the Parity Obligations. Although no Commercial Paper Notes are currently outstanding, the authorization remains in full force and effect and Metropolitan may issue Commercial Paper Notes from time to time. In addition, Metropolitan obtained a \$20 million California Safe Drinking Water Revolving Fund Loan in 2003 at an interest rate of 2.39 percent per annum to reimburse construction costs for oxidation retrofit facilities at the Henry J. Mills Treatment Plant in Riverside County. The loan will be repaid over 20 years, with semiannual payments of \$632,000 through January 1, 2024. The loan payment obligation is subordinate to the Parity Bonds and Parity Obligations. The principal balance outstanding as of November 1, 2009 was \$15.8 million.

General Obligation Bonds

As of November 1, 2009, \$293,425,000 aggregate principal amount of general obligation bonds payable from ad valorem property taxes were outstanding. **Metropolitan's revenue bonds are not payable from the levy of ad valorem property taxes.** Ad valorem taxes levied by Metropolitan must be applied solely to the payment of general obligation bonds and other voter-approved indebtedness.

<u>General Obligation Bonds</u>	<u>Amount Issued⁽¹⁾</u>	<u>Principal Outstanding</u>
Waterworks General Obligation Bonds, Election 1966, Series H*	\$ 50,000,000	\$ 40,155,000
Waterworks General Obligation Refunding Bonds, 1998 Series A*	62,120,000	11,140,000
Waterworks General Obligation Refunding Bonds, 2001 Series A*	49,390,000	9,145,000
Waterworks General Obligation Refunding Bonds, 2001 Series B*	123,560,000	23,135,000
Waterworks General Obligation Refunding Bonds, 2002 Series A	55,185,000	32,530,000
Waterworks General Obligation Refunding Bonds, 2003 Series A	123,865,000	47,150,000
Waterworks General Obligation Refunding Bonds, 2004 Series A	68,345,000	65,835,000
Waterworks General Obligation Refunding Bonds, 2005 Series A	<u>64,705,000</u>	<u>64,335,000</u>
Total	<u>\$597,170,000</u>	<u>\$293,425,000</u>

Source: Metropolitan.

⁽¹⁾ Voters authorized Metropolitan to issue \$850,000,000 of Waterworks General Obligation Bonds, Election 1966, in multiple series, in a special election held on June 7, 1966. This authorization has been fully utilized. This table lists outstanding Waterworks General Obligation Bonds, Election 1966, and bonds that refunded such general obligation bonds.

Metropolitan will issue its \$45,515,000 aggregate principal amount of Waterworks General Obligation Refunding Bonds, 2009 Series A and use the proceeds, together with other available moneys of Metropolitan, to defease all or a portion of these general obligation bonds in December 2009.

State Water Contract Obligations

General. On November 4, 1960, Metropolitan entered into its State Water Contract with DWR, under which Metropolitan receives an entitlement to water service from the State Water Project. Subsequently, other public agencies also entered into water supply contracts with DWR, all of which were patterned after Metropolitan's State Water Contract. Metropolitan's State Water Contract accounts for nearly one-half of the total entitlement for State Water Project water contracted for by all contractors.

The State Water Contract will remain in effect until 2035 or until all DWR bonds issued to finance construction of project facilities are repaid, whichever is longer. At the expiration of the State Water Contract, Metropolitan has the option to continue service under substantially the same terms and conditions. Metropolitan presently intends to exercise this option to continue service to at least 2052. As of November 1, 2009, the latest maturity of outstanding DWR bonds issued for such purpose was December 1, 2032.

Under the State Water Contract, Metropolitan is obligated to pay allocable portions of the cost of construction of the system and ongoing operating and maintenance costs through at least 2035, regardless of quantities of water available from the project. Other payments are based on deliveries requested and actual deliveries received, costs of power required for actual deliveries of water, and offsets for credits received. Metropolitan's payment obligation for the State Water Project for the fiscal year ended June 30, 2009 was \$394.7 million, which amount reflects prior year's credits of \$58.6 million. For the fiscal year ended June 30, 2009, Metropolitan's payment obligations under the State Water Contract were approximately 31 percent of Metropolitan's total annual expenditures. A portion of Metropolitan's annual property tax levy is for payment of State Water Contract capital charges. See Note 9(a) to Metropolitan's audited financial statements in Appendix B for an estimate of Metropolitan's payment obligations under the State Water Contract. Also see "POWER SOURCES AND COSTS" in this Appendix A for a description of current and future costs for electric power required to operate State Water Project pumping systems and a description of litigation involving the federal relicensing of the Hyatt-Thermalito hydroelectric generating facilities at Lake Oroville.

On April 25, 2005, a group of fourteen State Water Project contractors filed suit against DWR challenging the manner in which it allocates certain energy costs and revenues related to operation of the State Water Project. Among other things, these contractors allege that DWR has been and is administering certain provisions of State Water Contract incorrectly, depriving them of "all benefits" derived from the sale or other disposal of electrical energy generated at the Hyatt-Thermalito power facility. The plaintiffs have not alleged

specific amounts for damages. Metropolitan and twelve other State Water Project contractors have intervened in the litigation.

Metropolitan believes that Hyatt-Thermalito energy costs and revenues have been and are being allocated by DWR in a manner that is both legal and equitable. However, if plaintiffs are successful, tens of millions of dollars in annual costs could be shifted from State Water Project contractors located north of the Tehachapi Mountains to State Water Project contractors located south of the Tehachapi Mountains and on the Central Coast, including Metropolitan.

In November 2006, the trial court divided the litigation into two phases, liability and damages. In March 2007, the court further divided the liability phase into a contract interpretation phase and an affirmative defenses phase, and ordered the parties to focus their attentions on the former. A bench trial limited to contract interpretation issues began November 5, 2008, and concluded on December 12, 2008. The parties submitted post-trial briefs on a schedule that extended through May 2009. On September 14, 2009, the court issued a final ruling in which it rejected all of the plaintiff's claims. In accordance with that ruling, defendants submitted a proposed Statement of Decision and Judgment to the court on September 23, 2009. Once the court finalizes those documents, the plaintiffs will have 60 days to appeal. The State Water Contract requires that in the event that Metropolitan fails or is unable to raise sufficient funds by other means, Metropolitan must levy upon all property within its boundaries not exempt from taxation a tax or assessment sufficient to provide for all payments under the State Water Contract. Currently a portion of the capital costs under the State Water Contract are paid from ad valorem taxes levied by Metropolitan. In the opinion of Metropolitan's General Counsel, a tax increase to provide for additional payments under the State Water Contract would be within the exemption permitted under Article XIII A of the State Constitution as a tax to pay pre-1978 voter approved indebtedness.

Metropolitan capitalizes its share of system construction costs as participation rights in State Water Project facilities as such costs are billed by DWR. Unamortized participation rights essentially represent a prepayment for future water deliveries through the State Water Project system. Metropolitan's share of system operating and maintenance costs are annually expensed.

Metropolitan has entered into amendments to the State Water Contract that represent additional long-term obligations, as described below.

Devil Canyon-Castaic Contract. On June 23, 1972, Metropolitan and five other southern California public agencies entered into a contract (the "Devil Canyon-Castaic Contract") with DWR for the financing and construction of the Devil Canyon and Castaic power recovery facilities, located on the aqueduct system of the State Water Project. Under this contract, DWR agreed to build the Devil Canyon and Castaic facilities, using the proceeds of revenue bonds issued by DWR under the State Central Valley Project Act. DWR also agreed to use and apply the power made available by the construction and operation of such facilities to deliver water to Metropolitan and the other contracting agencies. Metropolitan, in turn, agreed to pay to DWR 88.1 percent of the debt service on the revenue bonds issued by DWR. For calendar year 2008, this represents a payment of \$7.0 million. In addition, Metropolitan agreed to pay 78.5 percent of the operation and maintenance expenses of the Devil Canyon facilities and 96 percent of the operation and maintenance expenses of the Castaic facilities. Metropolitan's obligations under the Devil Canyon-Castaic Contract continue until the bonds are fully retired in 2022 even if DWR is unable to operate the facilities or deliver power from these facilities.

Off-Aqueduct Power Facilities. In addition to system "on-aqueduct" power facilities costs, DWR has, either on its own or by joint venture, financed certain off-aqueduct power facilities. The power generated is utilized by the system for water transportation and other State Water Project purposes. Power generated in excess of system needs is marketed to various utilities and the California power exchange market. Metropolitan is entitled to a proportionate share of the revenues resulting from sales of excess power. By

virtue of a 1982 amendment to the State Water Contract and the other water supply contracts, Metropolitan and the other water contractors are responsible for paying the capital and operating costs of the off-aqueduct power facilities regardless of the amount of power generated. Other costs of Metropolitan in relation to the State Water Project and the State Water Contract may increase as a result of restructuring of California's electric utility industry and new Federal Energy Regulatory Commission regulations.

East Branch Enlargement Amendment. In 1986, Metropolitan's State Water Contract and the water supply contracts of certain other State Water Project contractors were amended for the purpose, among others, of financing the enlargement of the East Branch of the California Aqueduct. Under the amendment, enlargement of the East Branch can be initiated either at Metropolitan's request or by DWR finding that enlargement is needed to meet demands. Metropolitan, the other State Water Contractors on the East Branch, and DWR are currently in discussions on the timetable and plan for future East Branch enlargement actions.

The amendment establishes a separate subcategory of the Transportation Charge under the State Water Contract for the East Branch Enlargement and provides for the payment of costs associated with financing and operating the East Branch Enlargement. Under the amendment, the annual financing costs for such facilities financed by bonds issued by DWR are allocated among the participating contractors based upon the delivery capacity increase allocable to each participating contractor. Such costs include, but are not limited to, debt service, including coverage requirements, deposits to reserves, and certain operation and maintenance expenses, less any credits, interest earnings or other moneys received by DWR in connection with this facility.

If any participating contractor defaults on payment of its allocable charges under the amendment, among other things, the non-defaulting participating contractors may assume responsibility for such charges and receive delivery capability that would otherwise be available to the defaulting participating contractor in proportion to the non-defaulting contractor's participation in the East Branch Enlargement. If participating contractors fail to cure the default, Metropolitan will, in exchange for the delivery capability that would otherwise be available to the defaulting participating contractor, assume responsibility for the capital charges of the defaulting participating contractor.

Water System Revenue Bond Amendment. In 1987, the State Water Contract and other water supply contracts were amended for the purpose of financing State Water Project facilities through revenue bonds. This amendment establishes a separate subcategory of the Delta Water Charge and the Transportation Charge for projects financed with DWR water system revenue bonds. This subcategory of charge provides the revenues required to pay the annual financing costs of the bonds and consists of two elements. The first element is an annual charge for repayment of capital costs of certain revenue bond financed water system facilities under the existing water supply contract procedures. The second element is a water system revenue bond surcharge to pay the difference between the total annual charges under the first element and the annual financing costs, including coverage and reserves, of DWR's water system revenue bonds.

If any contractor defaults on payment of its allocable charges under this amendment, DWR is required to allocate a portion of the default to each of the nondefaulting contractors, subject to certain limitations, including a provision that no nondefaulting contractor may be charged more than 125 percent of the amount of its annual payment in the absence of any such default. Under certain circumstances, the nondefaulting contractors would be entitled to receive an allocation of the water supply of the defaulting contractor.

The following table sets forth Metropolitan's projected costs of State Water Project water, based upon DWR's Annual Billing to Metropolitan for 2010.

**PROJECTED COSTS OF METROPOLITAN
FOR STATE WATER PROJECT WATER⁽¹⁾
(Dollars in Millions)**

Year Ending June 30	Existing Capital Costs	Minimum OMP&R ⁽²⁾	Power Costs ⁽³⁾	Refunds & Credits	Total
2010	\$161.7	\$183.9	\$186.9	\$(53.7)	\$478.8
2011	185.0	163.5	206.8	(56.0)	499.3
2012	187.5	152.6	213.4	(90.9)	462.6
2013	194.8	156.4	198.7	(56.0)	493.9
2014	202.7	160.8	191.5	(56.0)	499.0

Source: Metropolitan.

- ⁽¹⁾ Projections are based upon DWR's Annual Billing to Metropolitan for 2010 and attachments, dated July 1, 2009, and Metropolitan water purchase estimates. All costs are adjusted from calendar year to fiscal year periods ending June 30. The total charges shown above differ from those shown in Note 8 of Metropolitan's audited financial statements (for the fiscal years ended June 30, 2009 and June 30, 2008) in Appendix B due to the inclusion above of allowances for inflation and anticipated construction of additional State facilities. The projections above also include State Water Project refunds and credits. See "POWER SOURCES AND COSTS—State Water Project."
- ⁽²⁾ Minimum Operations, Maintenance, Power and Replacement ("OMP&R") represents costs which are fixed and do not vary with the amount of water delivered.
- ⁽³⁾ Based on costs of power for actual deliveries of water, includes capital charges. Assumptions for water deliveries through the California Aqueduct (not including SBVMWD and Desert Water/Coachella Valley transfers and exchanges) are as follows: 0.85 million acre-feet for 2010, 0.89 acre-feet for 2011, 0.96 million acre-feet for 2012, 0.96 million acre-feet for 2013 and 0.96 million acre-feet for 2014. Availability of State Water Project supplies vary and deliveries may include transfers and storage. All deliveries are within maximum contract amount and are based upon availability, as determined by hydrology, water quality and wildlife conditions. See "METROPOLITAN'S WATER SUPPLY—State Water Project—*Endangered Species Act Considerations*" in this Appendix A.

Other Long-Term Commitments

Metropolitan also has various ongoing fixed annual obligations under its contract with the United States for power from the Hoover Power Plant. Under the terms of the Hoover Power Plant contract, Metropolitan purchases energy to pump water through the Colorado River Aqueduct. In fiscal year 2008-09 Metropolitan paid approximately \$17.0 million under this contract. Payments made under the Hoover Power Plant contract are treated as Operation and Maintenance Expenditures. See "POWER SOURCES AND COSTS—Colorado River Aqueduct" in this Appendix A.

Defined Benefit Pension Plan

Metropolitan is a member of the California Public Employees' Retirement System ("PERS"), a multiple-employer pension system that provides a contributory defined-benefit pension for substantially all Metropolitan employees. PERS provides retirement and disability benefits, annual cost-of-living adjustments and death benefits to plan members and beneficiaries. PERS acts as a common investment and administrative agent for participating public entities within the State. PERS is a contributory plan deriving funds from employee contributions as well as from employer contributions and earnings from investments. A menu of benefit provisions is established by State statutes within the Public Employees' Retirement Law. Metropolitan selects optional benefit provisions from the benefit menu by contract with PERS.

Metropolitan makes biweekly contributions to PERS based on actuarially determined employer contribution rates. The actuarial methods and assumptions used are those adopted by the PERS Board of Administration. Employees are required to contribute seven percent of their earnings (excluding overtime

pay) to PERS. Pursuant to current memoranda of understanding, Metropolitan contributes the requisite seven percent contribution for all employees represented by the Management and Professional Employees Association, the Association of Confidential Employees, Supervisors and Professional Personnel Association and AFSCME Local 1902. Metropolitan also contributes the entire seven percent on behalf of the unrepresented employees. In addition, Metropolitan is required to contribute the actuarially determined remaining amounts necessary to fund the benefits for its members.

The contribution requirements of the plan members are established by State statute and the employer contribution rate is established and may be amended by PERS. For fiscal year 2008-09, Metropolitan contributed 11.43 percent of annual covered payroll. In addition, since July 1, 2001, Metropolitan has paid the 7 percent employees' share of the PERS contribution. The fiscal 2008-09 annual pension cost was \$36.0 million, of which \$13.7 million was for Metropolitan's pick-up of the employees' 7 percent share. For fiscal year 2009-10, Metropolitan is required to contribute 11.71 percent of annual covered payroll, in addition to member contributions paid by Metropolitan. The fiscal year 2009-10 contribution requirement is based on the June 30, 2007 valuation report.

As of June 30, 2007, the date of the most recent actuarial valuation report available from PERS, the actuarial value of assets in Metropolitan's pension plan was approximately \$1.153 billion, and the plan had an unfunded liability of approximately \$95 million (92.4 percent funded). This compares to the plan's unfunded liability of \$78 million as of the June 30, 2006 actuarial valuation (93.2 percent funded), unfunded liability of \$76 million as of the June 30, 2005 actuarial valuation (92.9% funded), unfunded liability of \$56 million as of the June 30, 2004 actuarial valuation (94.2 percent funded) and unfunded liability of \$21 million as of the June 30, 2003 actuarial valuation (97.7 percent funded). The pension plan had excess assets of \$95 million as of the June 30, 2002 actuarial valuation. The actuarial value of PERS assets for fiscal years 2002 and 2003 was determined using techniques that smooth the effect of short-term volatility in the market value of investments over a three-year period (smoothed market value). The actuarial value of PERS assets since fiscal year 2003-04 is based on a policy to smooth the market value of investments over a fifteen-year period, in place of three years, to reduce the volatility of employers' future contributions and stabilize pension costs. The increase in unfunded liability is due to the draw-down of excess assets relating to the employer pick-up of the employees' 7 percent share and prior asset losses in PERS investments, and the recognition of gains and losses on an actuarial basis over the "smoothing" period. The market value of PERS assets for fiscal year 2008-09 declined 23.4 percent based upon preliminary investment returns. Final returns will be available during the fourth quarter of 2009. This change in market values, which will be smoothed over a fifteen-year period, is anticipated to result in higher employer payments beginning in fiscal year 2011-12. For more information on the plan, see the financial statements of Metropolitan contained in Appendix B attached to the Official Statement.

Metropolitan provides post-employment medical insurance to retirees. Metropolitan currently pays the post-employment medical insurance premiums to PERS. Metropolitan funds such benefits on a pay-as-you-go basis. Payments were \$10.6 million for fiscal year 2008-09, \$10.2 million for fiscal year 2007-08, \$9.2 million for fiscal year 2006-07, \$8.0 million for fiscal year 2005-06, \$7.8 million for fiscal year 2004-05 and \$7.5 million for fiscal year 2003-04. Under Governmental Accounting Standards Board Statement No. 45, Accounting and Financial Reporting by Employers of Post-employment Benefits Other Than Pensions ("OPEB"), Metropolitan was required to account for and report the outstanding obligations and commitments related to such post-employment employment benefits on an accrual basis for the fiscal year ended June 30, 2008. Metropolitan began accounting for and reporting its OPEB obligations beginning with its financial statements for the fiscal year ended June 30, 2006.

For fiscal year 2008-09, Metropolitan's annual actuarially required OPEB cost was \$31.8 million. Contributions of \$10.6 million equaled the pay-as-you go amount and represented 33 percent of the annual OPEB cost. The required contribution was based on a June 30, 2007 actuarial valuation using the entry-age normal actuarial cost method with contributions determined as a level percent of pay. The actuarial

assumptions included (a) a 5.0 percent investment rate of return, (b) an inflation component of 3.0 percent and (c) certain assumptions regarding health care cost trends. (See Footnote 8(c) to Metropolitan's audited financial statements in Appendix B for additional information on OPEB cost and net OPEB obligation.) As of June 30, 2007, the date of the actuarial report, the unfunded OPEB liability was estimated to be \$393 million. This amount is being amortized over 30 years as a level percent of pay. Metropolitan intends to continue funding on a pay-as-you-go-basis while it reviews various funding options.

In July 1998, in a case entitled *Dewayne Cargill et al. v. Metropolitan Water District of Southern California et al.* a class action was brought by various categories of temporary workers against Metropolitan and certain temporary agencies, claiming that Metropolitan misclassified them as temporary workers to avoid providing them the same rights and benefits given to regular employees and seek the full benefits of public employment, including membership in PERS on a retroactive basis. See "GOVERNANCE AND MANAGEMENT—Employee Relations" above for further information on the case and the court-approved settlement of these claims.

HISTORICAL AND PROJECTED REVENUES AND EXPENDITURES

The following table provides a summary of revenues and expenditures of Metropolitan prepared to conform to the Revenue Bond Resolutions provisions regarding rates and additional Bonds (as defined in the Master Resolution) and Parity Obligations (as defined in the Master Resolution). See "METROPOLITAN EXPENDITURES—Limitations on Additional Revenue Bonds." The table is presented on a cash basis, and does not reflect the accrual basis used to prepare Metropolitan's annual audited financial statements. The projections are based on assumptions concerning future events and circumstances that may impact revenues and expenditures and represent management's best estimates of results at this time. See footnotes to the table below entitled "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENDITURES" for relevant assumptions, including projected water sales and average annual increase in the effective water rate, and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENDITURES" for a discussion of potential impacts. Some assumptions inevitably will not materialize and unanticipated events and circumstances may occur. Therefore, the actual results achieved during the projection period will vary from the projections and the variations may be material.

In addition to the Parity Bonds currently outstanding and the Bonds described in this Official Statement, Metropolitan anticipates issuing approximately \$1.07 billion aggregate principal amount of Parity Bonds through fiscal year 2013-14 to finance the CIP. The debt service coverage ratio is projected to decline as a result of the issuance of additional Parity Bonds to finance Metropolitan's CIP and increased operating costs. However, in September 2004 Metropolitan adopted a goal to maintain a minimum fixed charge coverage ratio, measuring total coverage of all fixed obligations (which includes all revenue bond debt service obligations, State Water Contract capital payments paid from current year operations and subordinate obligations) after payment of operating expenditures, of 1.2 times. This goal is subject to change by future action of Metropolitan's Board.

Estimated revenues and expenditures are based on assumptions and estimates used in developing the adopted budget and revenue requirements for fiscal year 2009-10. The projections assume that water sales will be 1.94 million acre-feet per year in fiscal years 2009-10, 1.9 million acre-feet in fiscal year 2010-11 and 2.00 million acre-feet in fiscal years 2011-12 through 2013-14 and that water rates and charges will increase by 21.5 percent, effective January 1, 2011. Thereafter, rates and charges are projected to increase based on inflationary costs. Actual rates and charges to be effective in 2011 and thereafter are subject to adoption by Metropolitan's Board. The projections were prepared by Metropolitan and have not been reviewed by independent certified public accountants or any entity other than Metropolitan. Dollar amounts are rounded.

HISTORICAL AND PROJECTED REVENUES AND EXPENDITURES
(Dollars in Millions)
(Unaudited Cash Basis)

	Actual				Projected				
	2006	2007	2008	2009	2010	2011	2012	2013	2014
Receipts from Water Sales ^(a)	\$ 827	\$ 892	\$ 968	\$ 988	\$1,065	\$1,209	\$1,472	\$1,511	\$1,549
Additional Revenue Sources ^(b)	<u>111</u>	<u>113</u>	<u>114</u>	<u>120</u>	<u>136</u>	<u>164</u>	<u>183</u>	<u>190</u>	<u>198</u>
Total Operating Revenues	<u>938</u>	<u>1,005</u>	<u>1,082</u>	<u>1,108</u>	<u>1,201</u>	<u>1,373</u>	<u>1,655</u>	<u>1,701</u>	<u>1,747</u>
O&M, CRA Power and Water Transfer Costs ^(c)	(416)	(392)	(470)	(532)	(581)	(641)	(720)	(774)	(827)
SWC OMP&R Costs ^(d)	(237)	(200)	(265)	(197)	(271)	(262)	(272)	(279)	(288)
SWC Off-Aqueduct O&M Costs	<u>(40)</u>	<u>(56)</u>	<u>(56)</u>	<u>(54)</u>	<u>(47)</u>	<u>(48)</u>	<u>(44)</u>	<u>(34)</u>	<u>(8)</u>
Total Operation and Maintenance	<u>(693)</u>	<u>(648)</u>	<u>(792)</u>	<u>(782)</u>	<u>(899)</u>	<u>(951)</u>	<u>(1,036)</u>	<u>(1,087)</u>	<u>(1,123)</u>
Net Operating Revenues	\$ 245	\$ 357	\$ 290	\$ 326	\$ 302	\$ 422	\$ 619	\$ 614	\$ 624
Miscellaneous Revenue ^(e)	24	6	7	20	27	12	13	13	13
Sales of Hydroelectric Power ^(f)	30	45	41	23	25	25	27	27	28
Interest on Investments ^(g)	<u>26</u>	<u>33</u>	<u>46</u>	<u>32</u>	<u>28</u>	<u>35</u>	<u>39</u>	<u>44</u>	<u>48</u>
Adjusted Net Operating Revenues ^(h)	325	441	385	401	382	494	698	698	713
Bonds and Additional Bonds Debt Service ⁽ⁱ⁾	(176)	(200)	(219)	(223)	(255)	(292)	(302)	(325)	(341)
Subordinate Revenue Obligations ^(j)	<u>(1)</u>	<u>(1)</u>	<u>(1)</u>	<u>(1)</u>	<u>(1)</u>	<u>(1)</u>	<u>(1)</u>	<u>(1)</u>	<u>(1)</u>
Funds Available from Operations	\$148	\$ 240	\$ 165	\$ 177	\$ 126	\$ 201	\$ 395	\$ 372	\$ 371
Bonds and Additional Bonds Debt Service Coverage ^(k)	1.85	2.21	1.76	1.80	1.50	1.69	2.31	2.15	2.09
Debt Service Coverage on all Obligations ^(l)	1.84	2.19	1.75	1.79	1.49	1.69	2.30	2.14	2.08
Funds Available from Operations	\$ 148	\$ 240	\$ 165	\$ 177	\$ 126	\$ 201	\$ 395	\$ 372	\$ 371
Other Receipts (Expenditures)	(16)	(26)	(19)	(8)	(5)	(5)	(6)	(6)	(6)
Pay-As-You Go Construction	(82)	(95)	(34)	(31)	(37)	(95)	(125)	(125)	(150)
Water Transfer Capital Costs	(65)	(13)	(48)	(8)	(12)	-0-	-0-	-0-	-0-
SWC Capital Costs Paid from Current Year Operations	(49)	(26)	(55)	(42)	(51)	(113)	(71)	(114)	(123)
SWC Off-Aqueduct Capital Costs	(30)	(34)	(35)	(44)	(38)	(32)	(31)	(23)	(8)
Remaining Funds Available from Operations	(94)	46	(28)	44	(17)	(44)	162	104	84
Tax Receipts	98	101	101	105	92	82	84	85	83
General Obligation Bonds Debt Service	(49)	(49)	(49)	(49)	(48)	(39)	(40)	(41)	(41)
SWC Capital Costs Paid from Taxes	<u>(49)</u>	<u>(52)</u>	<u>(52)</u>	<u>(56)</u>	<u>(44)</u>	<u>(44)</u>	<u>(44)</u>	<u>(44)</u>	<u>(41)</u>
Net Funds Available from Current Year	\$ (94)	\$ 46	\$ (28)	\$ 44	\$ (17)	\$ (44)	\$ 162	\$ 104	\$ 84
Defeasance Escrow Costs	\$ (25)	--	--	--	--	--	--	--	--
Pay-As-You Go Construction-Prior Year Reserves	--	\$(14)	--	--	--	--	--	--	--

^(a) During the four fiscal years, June 30, 2006 through June 30, 2009, annual water sales (in acre-feet) were 2.15 million, 2.25 million, 2.31 million and 2.17 million, respectively. See table entitled "SUMMARY OF WATER SOLD AND WATER SALES RECEIPTS" above. The water receipts projections are based upon estimated annual water sales (in acre-feet) of 1.94 million for 2009-10, 1.90 million for 2010-11, 2.00 million for 2011-12, 2.00 million for 2012-13 and 2.00 million for 2013-14. Projections assume that rates and charges will increase by (footnotes continued on next page)

(footnotes continued from previous page)

- 21.5 percent, effective January 1, 2011. Thereafter, rates and charges are projected to increase based on inflationary costs. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENDITURES" below.
- (b) Includes receipts from water standby, readiness-to-serve and capacity reservation charges. The term Operating Revenues excludes ad valorem taxes. See "METROPOLITAN REVENUES—Additional Revenue Components."
 - (c) Water Transfer Costs are included in Operation and Maintenance Expenditures for purposes of calculating the debt service coverage on all Obligations. Increase in 2009 reflects increased purchases of water transfer supplies.
 - (d) Includes operation, maintenance, power and replacement costs payable under the State Water Contract.
 - (e) Includes lease and rental net proceeds, net proceeds from sale of surplus property and federal interest subsidy payments for Build America Bonds of \$2.3 million in fiscal year 2009-10 and \$5.4 million annually in fiscal years 2010-11 through 2013-14.
 - (f) Includes Colorado River Aqueduct power sales.
 - (g) Does not include interest applicable to Bond Construction Funds, the Excess Earnings Funds, other trust funds and the Deferred Compensation Trust Fund.
 - (h) Adjusted Net Operating Revenues is a sum of all available revenues that the revenue bond resolutions specify may be considered by Metropolitan in setting rates and issuing additional Bonds and Parity Obligations.
 - (i) Net of investment income with respect to reserve funds. Assumes the issuance of additional Bonds and Parity Obligations as follows: \$200 million in 2009-10, \$80 million in 2010-11, \$220 million in 2011-12, \$280 million in 2012-13 and \$290 million in 2013-14. See "OPERATING REVENUES AND DEBT SERVICE—Anticipated Financings" in the Official Statement.
 - (j) Represents California Safe Drinking Water Revolving Fund Loan debt service. See "METROPOLITAN EXPENDITURES—Subordinate Revenue Obligations" above.
 - (k) Represents adjusted Net Operating Revenues divided by the outstanding Bonds and additional Bonds Debt Service.
 - (l) Adjusted Net Operating Revenues, divided by outstanding Revenue Bond Debt Service, additional Bonds Debt Service and non-revenue bond commercial paper and California Safe Drinking Water Revolving Fund Loan debt service, using exact, rather than rounded dollar amounts. Assumes that no Commercial Paper Notes are issued. See "Subordinate Revenue Obligations" above.

MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENDITURES

Water Sales Receipts

Metropolitan relies on receipts from water sales for about 75 to 80 percent of its total revenues. Metropolitan's Board has adopted annual increases in water rates each year beginning with the rates effective January 1, 2004. See "METROPOLITAN REVENUES—Rate Structure" and "—Classes of Water Service" in this Appendix A. Effective January 1, 2009, base water rates and charges increased by 9.8 percent plus a \$25 per acre-foot water supply surcharge. The combined impact was an increase of approximately 14.3 percent. Water rates and charges increased an average of 19.7 percent effective September 1, 2009, and the water supply surcharge will be replaced by a \$69 per acre-foot Delta Supply Surcharge that is intended to recover the costs of additional water transfer purchases to augment State Water Project supplies and to be reduced as interim Delta improvements ease pumping restrictions, resulting in lower costs for additional supplies. See "METROPOLITAN'S WATER SUPPLY—State Water Project" and "—Water Transfer, Storage and Exchange Programs" in this Appendix A. On April 14, 2009, Metropolitan's Board directed staff to evaluate historical cost-of-service methodology with the intent to ensure that all rates and charges recover the full cost of service when Metropolitan's Board establishes rates to be effective January 1, 2011. Increases in rates and charges reflect increasing operations and maintenance costs, including higher treatment costs, financing requirements of the approximately \$1.87 billion five-year CIP (covering the years 2010 to 2014), increasing State Water Project costs, rising demand management costs and water supply purchases, as well as reduced water sales.

Metropolitan's projections assume that water sales will be 1.94 million acre-feet per year in fiscal years 2009-10, 1.90 million acre-feet in 2010-11 and 2.00 million acre-feet per year in fiscal years 2011-12 through 2013-14. Metropolitan's water sales were approximately 2.17 million acre-feet during fiscal year 2008-09. These projections assume that water rates and charges will increase by 21.5 percent, effective January 1, 2011, to recover the full cost of service. Thereafter, rates and charges are projected to increase based on inflationary costs. Actual rates and charges to be effective in 2011 and thereafter are subject to adoption by Metropolitan's Board.

Metropolitan has funded a Water Rate Stabilization Fund and a Water Treatment Surcharge Stabilization Fund with a portion of the water revenues collected. The Board's stated policy is to use moneys in these funds to mitigate the need to increase water rates. Water Rate Stabilization funds decreased by

approximately \$46.0 million in fiscal year 2007-08 and increased by \$27.9 million in fiscal year 2008-09. Projections indicate use of stabilization funds in 2009-2010 and 2010-11, consistent with budgets and revenue requirements approved by the Board. The Water Revenue Remainder Fund balance increased by \$42.7 million in fiscal year 2007-08 and \$7.8 million in 2008-09. The Long-Range Finance Plan adopted by the Board on March 9, 1999 provides for a minimum/maximum reserve policy based on Metropolitan's water sales during wet periods. Funds representing the minimum reserve level are held in the Water Revenue Remainder Fund, and any funds in excess of the minimum reserve level (up to the maximum reserve level) are held in the Water Rate Stabilization Fund. The maximum reserve level on June 30, 2009 was calculated to be \$534.7 million and fund balances in the Water Rate Stabilization Fund and the Water Revenue Remainder Fund at that date totaled \$322.5 million. The minimum reserve requirement as of June 30, 2009, was \$216.4 million. See "METROPOLITAN REVENUES—Reserve Policy" in this Appendix A.

Operation and Maintenance Expenditures

Operation and Maintenance Expenditures in 2008-09 were \$782 million, which represented approximately 65 percent of total costs. These expenditures include the costs of labor, electrical power, materials and supplies of both Metropolitan and its contractual share of the State Water Project. The cost of power for pumping water through the aqueducts is a major component of this category of expenditures.

A major component of the increase in fiscal year 2008-09 operations and maintenance expenditures is due to higher purchases for water transfers and increased operation and maintenance costs associated with Metropolitan's increasing participation in water conservation, reclamation and groundwater cleanup. In fiscal year 2008-09, Metropolitan spent nearly \$76 million in support of these efforts. Water transfers to be funded from the water supply surcharge totaled \$75 million. Metropolitan's Board adopted a budget benchmark in September 2004 to limit the annual increase in departmental operations and maintenance budgets to no more than the five-year rolling average change in the Los Angeles/Orange/Riverside Counties consumer price index.

POWER SOURCES AND COSTS

General

Current and future costs for electric power required for operating the pumping systems of the Colorado River Aqueduct and the State Water Project are a substantial part of Metropolitan's overall expenses. Expenditures for electric power for the Colorado River Aqueduct (not including credits from power sales and related revenues) for the fiscal years ended June 30, 2008 and June 30, 2009 were approximately \$19 million and \$37.4 million, respectively.

Expenditures for electric power and transmission service for the State Water Project were \$80.2 million (not including credits for prior period adjustments) for the fiscal year ended June 30, 2000, but increased to \$105.2 million for the fiscal year ended June 30, 2001 and \$187 million for the fiscal year ended June 30, 2002. As the market prices for energy declined from the crisis levels in 2000 and 2001, State Water Project power costs decreased to \$136.3 million for the fiscal year ended June 30, 2003. Expenditures for the fiscal years ended June 30, 2004, June 30, 2005 and June 30, 2006 were approximately \$182.3 million, \$176.8 million and \$201.4 million, respectively, showing the effect of more State Water Project deliveries. Expenditures for the fiscal years ended June 30, 2007, June 30, 2008 and June 30, 2009 were approximately \$179.3 million, \$257.5 million and \$154.5 million, respectively.

Given the continuing uncertainty surrounding the electricity markets in California and in the electric industry in general, Metropolitan is unable to give any assurance with respect to the magnitude of its power costs.

Colorado River Aqueduct

Generally 55 to 70 percent of the power requirements for pumping at full capacity (1.25 million acre-feet of Colorado River water) in Metropolitan's Colorado River Aqueduct are secured through long-term contracts with the United States for energy generated from facilities located on the Colorado River (Hoover Power Plant and Parker Power Plant) and Edison. These contracts provide Metropolitan with reliable and economical power resources to pump Colorado River water to Metropolitan's service area until 2017, when only the Parker Power Plant contract will remain in effect. However, prior to 2017, the Western Area Power Administration will engage in a public process to determine the remarketing of Hoover Power after 2017. Based on other recent Western remarketing processes, long-term preference power contractors typically receive new long-term contracts with a slightly reduced share of power.

Approximately 30 to 45 percent of pumping power requirements for full utilization of the Colorado River Aqueduct is obtained through energy purchase agreements with municipal and investor-owned utilities or from power marketers. Diversions of water through the Colorado River Aqueduct for the fiscal years ended June 30, 2008 and June 30, 2009 were approximately 805,000 and 1,025,000 acre-feet, respectively, including Metropolitan's basic apportionment of Colorado River water and supplies from water transfer and groundwater storage programs. As the amount of Colorado River water available to Metropolitan decreases, Metropolitan's need to purchase supplemental energy decreases.

The Metropolitan-Edison 1987 Service and Interchange Agreement includes provisions for the sharing of energy savings realized by the integrated operation of Edison's and Metropolitan's electric systems. Under this agreement, with a previously normal maximum pumping operation of eight pumps, Edison provides Metropolitan additional energy (benefit energy) sufficient to pump approximately 100,000 acre-feet annually. As the amount of pumping is reduced, the amount of benefit energy provided by Edison increases.

Under maximum pumping conditions, Metropolitan can require up to one million megawatt-hours per year in excess of the base resources available to Metropolitan from the Hoover Power Plant, the Parker Power Plant, and Edison benefit energy. Metropolitan is a member of the Western Systems Power Pool ("WSPP"), and utilizes its industry standard form contract to make wholesale power purchases at market cost. Metropolitan acquires the majority of its supplemental power from WSPP members. In 2008 and 2009, Metropolitan purchased 244,175 megawatt-hours and 636,000 megawatt-hours, respectively, of energy above its base power resources. In 2010, Metropolitan expects to pump approximately 1.2 million acre-feet of Colorado River water and additional supplies from other Colorado River sources, which will require approximately 1,000,000 megawatt-hours of energy purchases above its base power resources. If pumping requirements continue at the anticipated 2010 levels, Metropolitan would continue to purchase between 900,000 megawatt-hours and 1,100,000 megawatt-hours of supplemental energy per year.

State Water Project

The State Water Project's power requirements are met from a diverse mix of resources, including State-owned hydroelectric generating facilities. DWR has long-term contracts with Nevada Power Company (coal-fired energy), Morgan Stanley (unspecified energy sources), Metropolitan (hydropower) and Kern River Conservation District (hydropower). The remainder of its power needs are met by short-term purchases. Metropolitan pays approximately 70 percent of State Water Project power costs.

DWR is seeking renewal of the license issued by the Federal Energy Regulatory Commission ("FERC") for the State Water Project's Hyatt-Thermalito hydroelectric generating facilities at Lake Oroville. A Settlement Agreement containing recommended conditions for the new license was submitted to FERC in March 2006. That agreement was signed by over 50 stakeholders, including Metropolitan and other State Water Project contractors. With only a few minor modifications, FERC staff recommended that the

Settlement Agreement be adopted as the conditions for the new license. DWR issued a Final EIR for the relicensing project on July 22, 2008. On August 21, 2008, Butte County and Plumas County filed separate lawsuits against DWR challenging the adequacy of the Final EIR. This lawsuit also named all of the signatories to the Settlement Agreement as "real parties in interest," since they could be adversely affected by this litigation. Metropolitan and other State Water Project contractors are working closely with DWR and the California Attorney General in defending this lawsuit. In addition to approvals from FERC and DWR, a number of other regulatory permits and authorizations are required before the new license can take effect. Chief among these is a certification from the State Water Resources Control Board ("SWRCB") that operation of the project under the new license will comply with all applicable state water quality standards. DWR has filed an application requesting this certification. FERC has issued one-year renewals of the existing license since its initial expiration date on January 31, 2007, and is expected to issue successive one-year renewals until a new license is obtained.

DWR receives transmission service from investor-owned utilities under existing contracts and from the California Independent System Operator ("Cal ISO"), a nonprofit public benefit corporation formed in 1996 pursuant to legislation that restructured and deregulated the electric utility industry in California. The transmission service provider may seek increased transmission rates, subject to the approval of FERC. DWR has the right to contest any such proposed increase. DWR may be subject to increases in the cost of transmission service as new electric grid facilities are constructed.

Power Market Redesign

On February 9, 2006, the Cal ISO filed with FERC its Market Redesign and Technology Upgrade ("MRTU") tariff amendment for comprehensive overhaul of the electricity markets administered by the Cal ISO. The programs under the MRTU initiative are designed to implement market improvements for electric grid reliability and more efficient and cost-effective use of resources and to create technology upgrades that would strengthen the entire Cal ISO computer system. MRTU became operational on April 1, 2009 and the MRTU tariff filed with FERC went into effect. At this time, Metropolitan is unable to predict the impact of the market redesign change on the costs for and availability of electricity. Nonetheless, Metropolitan is obligated under the Act to impose rates and charges, together with revenue from any water standby or availability charges, sufficient to pay Metropolitan operating expenses (including power costs), provide for repairs and maintenance; provide for payment of charges for property or services or other rights acquired by Metropolitan and provide for the payment of debt service on its bonded debt.

Energy Management Program

Metropolitan initiated its Energy Management Program in fall 2006 to help Metropolitan design and operate its facilities in the most energy-efficient and cost-effective manner. This program includes setting design standards for energy-efficient facilities; taking advantage of available rebates for energy efficiency and energy-saving projects; operating Metropolitan's facilities in the most energy-efficient manner; and continuing to investigate alternative energy sources, such as solar and wind power. Metropolitan has completed energy efficiency assessments at all five of its water treatment plants and is evaluating recommendations for proposed changes. Metropolitan has completed construction of a one-megawatt solar generation facility at the Skinner treatment plant and is investigating an additional ten megawatts of solar power generation at other treatment plants and facilities. In 2009, Metropolitan will consider wind and solar power feasibility studies and efficiency improvements at its pumping plants along the Colorado River Aqueduct. Metropolitan has begun integrating fuel-efficient hybrid vehicles into its fleet and assessing the use of alternative fuels (biodiesel) for its off-road vehicles and construction equipment. Finally, Metropolitan is assessing the feasibility of expanding its hydroelectric generation capabilities.

In February 2007, the Board authorized Metropolitan's membership in the California Climate Action Registry, a nonprofit voluntary registry for greenhouse gas emissions that was established by the California

Legislature in 2000. Metropolitan has completed and certified its baseline greenhouse gas inventory, or carbon footprint, for calendar years 2005, 2006, 2007 and 2008. Metropolitan also reported required emissions data for 2008 to the California Air Resources Board under mandatory reporting regulations adopted pursuant to AB 32, California's Global Warming Solutions Act. Metropolitan anticipates setting appropriate and feasible goals for the future reduction of carbon dioxide emissions from its operations. Metropolitan staff is also working to identify potential projects, activities, or initiatives that could be used to achieve Metropolitan's reduction goals as well as tracking the regulatory and legislative greenhouse gas developments that may impact Metropolitan.

Appendix H

Water Supply Assessment Checklist

Water Supply Assessment Checklist

Water Code Section	Water Supply Assessment Content	Page # in WSA
10910(c)(2)	Incorporate data from UWMP.	1-27
10910(d)(1)	Identification of existing water supply entitlements, water rights, or water service contracts relevant to identified water supply for proposed project, and description of quantity of water received in prior years.	19-27
10910(d)(2)(A)	Written contracts or other proof of entitlement to an identified water supply.	19-26
10910(d)(2)(B)	Capital outlay program for financing the delivery of a water supply that has been adopted.	26-27
10910(d)(2)(C)	Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.	19-25
10910(d)(2)(D)	Any necessary regulatory approval to deliver/convey the water supply.	19-25
10910(f)(1)	Review of any information contained in the UWMP relevant to the identified water supply for the proposed project.	1-27
10910(f)(2)	Description of any groundwater basin(s) from which proposed project will be supplied. For basins with adjudicated groundwater pumping rights, include a copy of the order/decreed adopted by the court or the board and a description of quantity of groundwater public water system has the legal right to pump under the order/decreed.	21-22, Appendix E
10910(f)(3)	Description and analysis of amount and location of groundwater pumped for the past 5 years from any groundwater basin from which the proposed project will be supplied.	21-22
10910(f)(4)	Description and analysis of amount and location of groundwater that is projected to be pumped from any basin to provided water to the proposed project.	21-22
10910(f)(5)	Analysis of sufficiency of groundwater from the basins from which the proposed project will be supplied to meet projected water demand of the proposed project.	21-22

