Los Angeles Department of Water & Power

BOARD LETTER APPROVAL

RESOLUTION NO. _____

JAMES B. McDANIEL
Senior Assistant General Manager
Water System

MARCIE L. EDWARDS
General Manager

DATE: August 21, 2014

SUBJECT: Water Supply Assessment (WSA) for the MGA Mixed-Use Campus Project (Proposed Project)

SUMMARY

The purpose of this WSA is to meet requirements of the California State Water Code Sections 10910-10915. Governing body of each public water system is required to make a determination on WSAs for major projects. This WSA is for the Proposed Project located within the Chatsworth-Porter Ranch Community Plan of the City of Los Angeles (City). LADWP staff determined the total additional water demand for Proposed Project is 149 acre-feet per year (AFY), and has concluded this additional water demand can be accommodated. Proposed Project's water demand was reduced by 39 AFY by implementing conservation ordinance and code requirements, and an additional 9 AFY by the developer voluntarily implementing additional conservation measures.

City Council approval is not required.

RECOMMENDATION

It is recommended that the Board of Water and Power Commissioners (Board) adopt the attached Resolution authorizing the WSA for Proposed Project.

ALTERNATIVES CONSIDERED

LADWP is required by state law, as set forth in California State Water Code Sections 10910-10915, to prepare this WSA for the Proposed Project. There are no other alternatives.

FINANCIAL INFORMATION

The MGA North, LLC (Applicant) paid $17,000 to cover LADWP's expenses for preparation of this WSA.

BACKGROUND

WSAs are prepared in conformance with California law and City ordinances to ensure proposed projects that utilize water resources are consistent with the City's conservation goals and long-term water supply availability, as detailed in the Water System's 2010 Urban Water Management Plan (UWMP).The 2010 UWMP is the water supply planning document for the City and is prepared by LADWP.

Various conservation measures are required through the following regulations: City's Water Efficiency Requirements Ordinance No. 180822, 2013 California Plumbing Code, 2013 California Green Building Code (CALGreen), 2014 Los Angeles Plumbing Code, and 2014 Los Angeles Green Building Code. All codes above effective January 1, 2014, except Ordinance No. 180822, effective December 2009. For this Proposed Project, these requirements resulted in a savings of approximately 39 AFY. Additional voluntary conservation measures recommended by LADWP and committed to by the Applicant yielded savings of approximately 9 AFY.

Each WSA performed by LADWP is carefully evaluated within the context of the 2010 UWMP and current conditions, such as restrictions on State Water Project (SWP) pumping from the Sacramento-San Joaquin River Delta (Delta) imposed by a Federal Court. The Metropolitan Water District of Southern California (MWD), from whom the City purchases its SWP and Colorado River water supplies, has also been actively developing plans and making efforts to provide additional water supply reliability for the entire Southern California region. LADWP coordinates closely with MWD to ensure implementation of MWD's water resource development plans.

Part of MWD's planning effort is the implementation of its Integrated Water Resources Plan (IRP) and Regional Urban Water Management Plan (RUWMP), which are designed to address potential reductions in water supply due to the effects of variable hydrologic conditions and regulatory restrictions on exports from the Delta. A set of resource options was developed by MWD based on the feasibility of various supply actions. These resource options focus on six main areas: conservation, Colorado River transactions, near-term Delta actions, SWP transactions, groundwater recovery, and local resource development.

The Board adopted Shortage Year Rates and the City Council implemented Phase III restrictions of the Water Conservation Ordinance, both of which became effective June 1, 2009. Phase II restrictions were implemented in August 2010, and are still in effect.

Projected Water Use and Conservation

On May 16, 2014, the City's Department of City Planning (Planning Department), the lead agency for the Proposed Project, requested LADWP perform a WSA. Based on information obtained from the Planning Department, the Proposed Project will redevelop approximately a 23.6-acre site in the Chatsworth-Porter Ranch Community Plan from light industrial land use to a mix of land uses including light industrial, corporate office and residential uses. Proposed Project site is generally bounded by Winnetka Boulevard to the west, institutional land use to the east, Prairie Street to the north, and railroad tracks to the south.

Proposed Project consists of rehabilitation of the existing industrial/office facility, 255,815 square feet (sq ft) as well as construction of four new residential buildings with a total of 700 new residential units, shared recreational amenities located throughout the site and approximately 14,000 sq ft of retail and restaurant uses. Proposed Project will also provide approximately 596,438 sq ft of parking and 256,000 sq ft of new landscaping.

LADWP staff performed the water demand analysis and determined the increase in the water demand for the Proposed Project is 149 AFY.

LADWP staff recommended implementation of additional voluntary water conservation measures to maximize the potential water-use efficiency for the Proposed Project. Recommended voluntary conservation measures are in addition to those required by City's current codes and ordinances. Based on LADWP staff recommendations, Applicant has voluntarily committed to implement the following additional measures that are beyond those required by law:

- Kitchen Faucets with flow rate of 1.5 gallons per minute or less
- Drought Tolerant Plants – 75 percent of total landscaping
- 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

A written commitment of the Proposed Project's planned voluntary water conservation measures was submitted by the Planning Department and is attached with the WSA in Appendix B. With the addition of these voluntary water conservation measures, which yield additional savings of approximately 9 AFY, the total additional maximum water demand is approximately 149 AFY.

Planning Department has also committed to comply with the City's Low Impact Development Ordinance (City Ordinance No. 181899) and to implement Best Management Practices that have stormwater recharge or reuse benefits.

LADWP has met with the Planning Department and the City's Department of Building and Safety (Building and Safety) staff to discuss voluntary commitments made by developers as part of WSA. These two City departments have confirmed the voluntary measures committed to by developers as part of the WSA will be incorporated as requirements for both the Planning Department's approval and Building and Safety's review and approval of projects.

The anticipated 149 acre-feet of total additional annual water demand from the Proposed Project falls within UWMP's projected water supplies for normal, single-dry, and multiple-dry years through the year 2035, and falls within UWMP's 25-year water demand growth projection. Therefore, the Proposed Project is consistent with LADWP's 2010 UWMP.

ENVIRONMENTAL DETERMINATION

In accordance with the California Environmental Quality Act (CEQA), it has been determined that this WSA is exempt from further requirements pursuant to the General Exemption described in CEQA Guideline Section 15268.

CITY ATTORNEY

The Office of the City Attorney reviewed and approved the Resolution as to form and legality.

ATTACHMENTS

- Resolution
- Water Supply Assessment

RESOLUTION NO. _____

WHEREAS, on May 16, 2014, the City of Los Angeles (City) Department of City Planning (Planning Department), requested the Los Angeles Department of Water and Power (LADWP) to conduct a Water Supply Assessment (WSA) for MGA Mixed-Use Campus Project (Proposed Project) pursuant to California Water Code Sections 10910-10915; and

WHEREAS, Proposed Project will redevelop approximately 23.6-acre site area within the Chatsworth-Porter Ranch Community Plan area of the City; and

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

WHEREAS, Proposed Project will require a General Plan Amendment and consistency with the demographic projection for the City from the 2012 Regional Transportation Plan (RTP) by Southern California Association of Governments (SCAG); and

WHEREAS, LADWP staff performed water demand analysis for the Proposed Project and determined the net increase in total water demand for the Proposed Project is 149 acre-feet per year; and

WHEREAS, the MGA North, LLC (Applicant) has agreed to implement additional conservation measures, as described in the WSA, that are in addition to those required by law; and

WHEREAS, Proposed Project is located in the service area of LADWP's water supply system, and LADWP would serve the area of the Proposed Project development; and

WHEREAS, LADWP anticipates that its projected water supply available during normal, single-dry, and multiple-dry water years as included in the 25-year projection contained in its Urban Water Management Plan can accommodate the projected maximum water demand associated with the Proposed Project, in addition to the existing and planned future demands on LADWP; and

WHEREAS, the Board of Water and Power Commissioners (Board) adopted Shortage Year Rates for water service effective June 1, 2009. The Board finds that the price signals contained in the Shortage Year Rates have resulted in reduced Los Angeles City-wide demands sufficient to meet demand projections.

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

BE IT FURTHER RESOLVED that the Board finds that LADWP'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 demands associated with the proposed Project in addition to existing and planned future uses (including agricultural and industrial uses) over the twenty-year horizon.

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

_____

Secretary

APPROVED AS TO FORM AND LEGALITY
MICHAEL N. FEUER, CITY ATTORNEY

AUG 01 2014

BY _____
TINA SHIM
DEPUTY CITY ATTORNEY

WATER SUPPLY ASSESSMENT

FOR THE MGA MIXED-USE CAMPUS PROJECT

Prepared by:
Water Resources Section

September 2, 2014

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Appendices

A. The City of Los Angeles Department of City Planning letter, Request for Water Supply Assessment, received on May 16, 2014, and Scope Confirmation e-mail received on July 29, 2014

B. Water Conservation Commitment Letter

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Introduction

Proposed major projects subject to certain requirements in the California Water Code Sections 10910-10915 require that the city or county identify any public water system that may supply water to the MGA Mixed-Use Campus Project (Proposed Project) and request the public water system to provide a water supply assessment (WSA). The WSA is a determination by the water supplier that the demands associated with the Proposed Project were included in its most recently adopted UWMP showing that there is an adequate 20-year water supply.

The City of Los Angeles (City) Department of City Planning (Planning Department), serving as the lead agency as prescribed by the California Environmental Quality Act (Public Resources Code Section 21000 et seq.), for the Proposed Project, has identified the Los Angeles Department of Water and Power (LADWP) as the public water system that will supply water. In response to the Planning Department's request for a WSA, LADWP has performed the assessment contained herein.

LADWP has served the 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' local water supplies are dependent on the City's ability to maximize water conservation, increase recycled water use, expand stormwater capture and accomplish other local water resource goals.

This WSA is 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 WSA are from the City's 25-year water resource plan, entitled City of Los Angeles Department of Water and Power 2010 UWMP. 2010 UWMP is incorporated by reference and is available for review through LADWP's Web site, www.ladwp.com.

Findings

Proposed Project is estimated to increase the total water demand within the site by 149 acre-feet (AF) annually based on review of information submitted by the Planning Department. The MGA North, LLC (Applicant) has committed to implement additional water use efficiency measures that are beyond those required by current law.

LADWP's WSA finds adequate water supplies will be available to meet the total additional water demand of 149 AF annually for Proposed Project. LADWP anticipates the projected water demand from Proposed Project can be met during normal, single-dry, and multiple-dry water years, in addition to the existing and planned future demands on LADWP.

This WSA approval addresses the City's long-term water supply and demand forecasts to accommodate Proposed Project, and is not an approval for water service connection nor

determination of adequate distribution infrastructure and capacity to serve Proposed Project. A separate request shall be made to LADWP requesting an evaluation of water service connection for Proposed Project.

Basis for approving WSAs for developments is LADWP's most recently adopted UWMP. LADWP's water demand forecast as contained in UWMP uses long-term demographic projections for population, housing, and employment. The California Urban Water Management Planning Act requires water suppliers to develop a UWMP every five years to identify short-term and long-term water resources management measures to meet growing water demands during normal, single-dry, and multiple-dry years. If the projected water demand associated with the Project was not accounted for in the most recently adopted UWMP, the WSA must include a discussion with regard to whether LADWP'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 Proposed Project, in addition to LADWP's existing and planned future uses.

City's water demand projection in the 2010 UWMP was developed based on the 2008 Regional Transportation Plan (RTP) demographic projection by Southern California Association of Governments (SCAG) using the 2000 U.S. Census for the City. The 2012 RTP demographic projection for the City was based on the 2010 U.S. Census, and is lower than the 2008 RTP demographic projection. The region's economic growth is usually a major factor behind net migration and the consequent population growth. The economic recession of 2007-2009 had a negative impact on the region's population growth, resulting in decrease in population growth from 2000 Census to 2010 Census. Our preliminary analysis shows that the City water demand projection to year 2035 based on demographic projection from 2012 RTP using population, housing and employment, as well as water conservation, and weather will be lower than the City's water demand projection in the 2010 UWMP. As a result, City's water supply projections in the 2010 UWMP are sufficient to meet the City's water demand projections based on the 2012 RTP.

The LADWP Board of Water and Power Commissioners (Board) adopted Shortage Year Rates and the City Council implemented Phase III restrictions of the Water Conservation Ordinance (Ordinance), both of which became effective June 1, 2009. Phase II restrictions were implemented in August 2010 and remain in effect today. Current implementation of Shortage Year Rates and higher phases of the Ordinance has resulted in reducing the total customer water usage, on average, by approximately 16.1 percent for the months of June 2009 through June 2014.

Anticipated water demand from Proposed Project falls within the UWMP's projected water supplies for normal, single-dry, and multiple-dry years through the year 2035 and is within the UWMP's 25-year water demand growth projection. Therefore, Proposed Project's WSA can be approved based on the fact that Proposed Project's water need falls within the scope of the UWMP's projected increase in citywide water demands, while anticipating multi-dry year water supply conditions occurring at the same time.

Project Description

The following project information was obtained from the Planning Department's WSA Request Letter and the scope confirmation e-mail (Appendix A):

Project Name:	MGA Mixed-Use Campus Project
Lead Agency:	Department of City Planning
Planning Community:	Chatsworth-Porter Ranch

Proposed Project site is located at 20000 Prairie Street in the City of Los Angeles. The site area is approximately 23.6 acres and the site is generally bounded by Winnetka Boulevard to the west, institutional land use to the east, Prairie Street to the north, and railroad tracks to the south.

Proposed Project consists of rehabilitation of the existing industrial/office facility of 255,815 square feet (sq ft) as well as construction of four new residential buildings with a total of 700 new residential units, shared recreational amenities located throughout the site and approximately 14,000 sq ft of retail and restaurant uses. The Proposed Project would also provide approximately 596,438 square feet of parking and 256,000 sq ft of new landscaping. Estimated net additional water demand for Proposed Project is 149 acre-feet per year (AFY).

General Plan amendment and consistency with the demographic projection for the City from the 2012 RTP are required for the Proposed Project. The Environmental Impact Report will analyze the Proposed Project's consistency with the 2012 RTP demographic projection for the City.

WSA will no longer be valid if one or more of the following occurs: (1) Changes in Proposed Project result in a substantial increase in water demand for Proposed Project, (2) Changes in the circumstances or conditions substantially affecting the ability of LADWP to provide a sufficient supply of water for Proposed Project, or (3) Significant new information becomes available which was not known and could not have been known at the time when the assessment was prepared. A revised WSA may then be required, which the Applicant will need to request through the Planning Department.

Project Water Demand Estimate

Projected total water demand increase for Proposed Project is estimated to be 149 AF annually which includes annual water conservation. Savings due to water conservation ordinances are approximately 39 AFY and savings due to additional voluntary conservation measures are approximately 9 AFY.

In evaluating the Proposed Project's water demand, the Sewer Generation Factors (SGFs), published by LASAN in 2012, are applied to the Proposed Project scope for calculating indoor water use. SGFs are factors of how much wastewater is generated

(gallons per day) per unit (per sq ft, per dwelling unit, per seat, etc.). LASAN publishes a list of SGFs for approximately 175 different building use types in the City, and updates factors to make adjustments necessary due to water conservation efforts and increased efficiencies in new appliances and plumbing fixtures. Outdoor landscape water demand is estimated per California Code of Regulations Title 23 Division 2 Chapter 2.7 Model Water Efficient Landscape Ordinance. Historical billing records are used to establish existing baseline water demand on the property. LADWP also encouraged Proposed Project to implement additional water conservation measures above and beyond the current water conservation ordinance requirements.

The net increase in water demand, which is the projected additional water demand of Proposed Project, is calculated by subtracting the existing baseline water demand and water saving amount from the total proposed water demand.

Table I shows a breakdown of the existing and proposed new types of uses for Proposed Project and the corresponding estimated volume of water usage with the implementation of the conservation measures for Proposed Project. Types of use were derived from the WSA request letter and the scope confirmation e-mail in Appendix A.

Table II estimates the total volume of water conservation based on conservation measures the Applicant has committed to for Proposed Project (Appendix B).

TABLE I
MGA Mixed-Use Campus Project
Calculated Total Additional Water Demand

Existing Use to be Removed[1]	Quantity	Unit		Existing Water Use to be Removed (gpd)	(af/y)
Manufacturing / Industrial Facility with Cooling Tower	255,815	sf			
Garage with Offices	5,500	sf			
Existing to be Removed Water Demand Total[2]				**14,217**	**15.93**

Proposed Use[1]	Quantity	Unit	Water Use Factor[3] (gpd/unit)	Base Demand (gpd)	Required Water Savings[4] (gpd)	Proposed Water Demand (gpd)	(af/y)
1 Bedroom	304	du	110	33,440			
2 Bedroom	372	du	150	55,800			
3 Bedroom	24	du	190	4,560			
Community Center / Gym	440	occupant	3	1,320			
Club House	2,000	sf	0.650	1,300			
Residential Total				96,420	0	96,420	108.01
Office	255,815	sf	0.120	30,698	870	29,828	33.41
Restaurant: Full Casual Dining	200	seat	30	6,000	569	5,431	6.08
Retail	11,000	sf	0.025	275	64	211	0.24
Cooling Tower[5]	800	ton	21.060	16,848	3,120	13,728	15.38
Parking Structure[6]	1,467	stall	0.267	392	0	392	0.44
Landscaping[7]	256,000	sf		15,128	5,247	9,881	11.07
Proposed Water Demand Total						**155,891**	**174.63**
Less Existing to be Removed Total						-14,217	-15.93
Less Additional Conservation[8]						-8,439	-9.45
Net Additional Water Demand =						**133,235 gpd**	**149 af/y**

[1] Provided by City of Los Angeles Department of City Planning in the Request for Water Supply Assessment letter and Scope Confirmation e-mail. See Appendix A.

[2] Existing water demand is based on the LADWP billing data.

[3] Proposed indoor water uses are based on 2012 City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table available at http://www.lacitysan.org/fmd/pdf/sfcfeerates.pdf.

[4] The proposed development land uses will conform to Water-Efficiency Requirements Ordinance No. 180822, 2013 California Plumbing Code, 2013 California Green Building Code (CALGreen), 2014 Los Angeles Plumbing Code, and 2014 Los Angeles Green Building Code.

[5] Operating hours of 12 hours/day, 365 days/year, 5.5 cycles of concentration and 65% of chiller capacity.

[6] Parking water uses: Based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table, 12 times/year cleaning assumption.

[7] Baseline landscaping water use is estimated per California Code of Regulations Title 23 Division 2 Chapter 2.7 Model Water Efficient Landscape Ordinance. Water demand for existing landscape to remain is negligible for estimating purposes.

[8] Water conservation due to additional conservation commitments agreed by the Applicant. See Table II.

Abbreviations:
du – dwelling unit gpd - gallons per day sf - square feet af/y - acre feet per year

TABLE II

MGA Mixed-Use Campus Project
Estimated Additional Water Conservation

Conservation Measures[1]	Quantity	Units	Water Saving Factor[2] (gpd/unit)	Water Saved (gpd)	Water Saved (af/y)
Kitchen Faucet - Residential: 1 Bedroom	304	du	1.22	371	0.42
Kitchen Faucet - Residential: 2 Bedroom	372	du	3.04	1,131	1.27
Kitchen Faucet - Residential: 3 Bedroom	24	du	4.86	117	0.13
Residential Dwelling Unit Total				**1,619**	**1.82**
Kitchen Faucet	6	ea	4.46	27	0.03
Residential Common Area Total				**27**	**0.03**
Kitchen Faucet	7	ea	4.46	31	0.03
Office Conservation Total				**31**	**0.03**
Kitchen Faucet	1	ea	4.46	4	0.00
Restaurant Conservation Total				**4**	**0.00**
Landscaping Conservation Total[3]				**6,758**	**7.57**
Total Additional Water Conserved =				**8,439**	**9**

[1]Water conservation measures agreed to by the Applicant. See Appendix B.

[2]Based on LADWP estimates.

[3]Landscaping water conservation is estimated per California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance.

Abbreviations:

gpd - gallons per day af/y - acre feet per year ea - each du – dwelling unit

Water Demand Forecast

The 2010 UWMP projects yearly water demand to reach 641,622 AF by year 2035 with passive and active water conservation, or an increase of 15 percent from year 2010 actual water demand. Water demand projections in five-year increments through 2035 are available in UWMP for each of the major customer classes single-family, multifamily, commercial/governmental, and industrial. Demographic data from the Southern California Association of Government's 2008 Regional Transportation Plan as well as billing data for each major customer class, weather, conservation, price of water, personal income, family size, economy, and drought conservation effect were factors used in forecasting future water demand growth.

UWMP used a modified unit approach to develop its service area-wide 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 through the year 2035.

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.

Efforts are underway to increase use of recycled water, expand capture of local stormwater runoff, and expand LADWP's water conservation programs to decrease reliance on purchased imported water for future demand. The City plans to meet all future increases in water demand through a combination of local water supply development.

Collaboration between LADWP and MWD is critical in ensuring that the City's anticipated water demands are incorporated into the development of MWD's long-term Integrated Water Resources Plan (IRP). MWD's IRP directs a continuous regional effort to develop regional water resources involving all of MWD's member agencies including the City. 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 dry weather 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 – 2010 UWMP

The California Urban Water Management Planning Act (first effective on January 1, 1984) requires every urban water supplier prepare and adopt an UWMP every five years. The main goal of UWMP is to forecast future water demands and water supplies under

average and dry year conditions, identify future water supply projects such as recycled water, provide a summary of water conservation best management practices (BMP), and provide a single and multi-dry year management strategy.[1]

LADWP's 2010 UWMP, available for reference through www.ladwp.com, serves two purposes: (1) achieve full compliance with requirements of California's Urban Water Management Planning Act and (2) serve as a master plan for water supply and resources management consistent with the City's goals and policy objectives.[2]

A number of important changes have occurred since LADWP prepared its 2005 UWMP. First, LADWP developed more focused strategies in 2008 to address the water reliability issues associated with the lowest snowpack on record in the Sierra Nevada (in 2007), it was the driest year on record for the Los Angeles Basin. There was an increase in water required for environmental mitigation and enhancement in the Owens Valley, San Fernando Basin (SFB) groundwater contamination, and reduced imported water from the Sacramento-San Joaquin River Delta (Delta) due to a prolonged water shortage and environmental restrictions on Delta exports. Second, a number of new requirements were added to the Urban Water Management Planning Act, such as addressing California's new mandate of reducing per capita water use by 20 percent by the year 2020. And third, LADWP developed a new water demand forecast based on a more rigorous analysis of water use trends and measurement of achieved water conservation.[3]

The 2010 UWMP projects a 15 percent lower water demand trend than what was projected in the previous 2005 UWMP. It outlines plans, as described below, to significantly increase water conservation and local water supplies by year 2035. This will allow the City to reduce water purchases from MWD by half.[4]

Conservation Strategies

Enforcing prohibited uses of water. Prohibited uses of water are intended to eliminate waste and increase awareness of the need to conserve water. In effect at all times, prohibited uses have been in place since the early 1990s. 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.[5]

Expanding the prohibited uses of water. In August 2009, and again in August 2010, the City updated the Emergency Water Conservation Plan Ordinance (No. 181288) by clarifying prohibited uses of water, modifying certain water conservation requirements, and developing new phases of conservation depending on the severity of water shortages. Prohibited uses in effect at all times (Phase I) include:[6]

[1] *City of Los Angeles Department of Water and Power 2010 Urban Water Management Plan*, at 1.
[2] *Id*. at 2.
[3] *Id*. at 2.
[4] *Id*. at 25.
[5] *Id.* at 58-59.
[6] *Id*. at 54-55.

- Water leaks allowed to go unattended
- Outdoor irrigation between the hours of 9:00 a.m. to 4:00 p.m.
- Outdoor irrigation that results in excess water flow leaving the property
- Outdoor irrigation during rain events
- Outdoor irrigation with spray head sprinklers and bubblers for more than ten minutes per watering day per station
- Outdoor irrigation with standard rotors and multi-stream rotary heads for more than 15 minutes per cycle and up to two cycles per watering day per station
- Large landscape irrigation systems without automatic shutoff rain sensors
- Washing paved surfaces (sidewalks, walkways, driveways, or parking areas) unless using a LADWP-approved water conserving spray cleaning device
- Water for decorative fountains, ponds, or lakes unless the water is part of a recirculating system
- Installation of single-pass cooling systems in buildings requesting new water service
- Installation of non-recirculating systems in new commercial laundry facilities
- Installation of non-recirculating systems in new conveyor car washes
- Car washing with a hose, unless an automatic shut-off device is attached
- Water served to customers in eating establishments, unless requested
- Daily towel and linen service option must be offered to hotel and motel guests

Phase II of the Water Conservation Ordinance is also currently in effect, and prohibits landscape irrigation on days other than Monday, Wednesday, or Friday for odd-numbered street addresses and Tuesday, Thursday, or Sunday for even-numbers street addresses. Watering time for non-conserving nozzles (spray head sprinklers and bubblers) is no more than eight minutes per watering day per station. These provisions do not apply to drip irrigation supplying water to a food source or to hand-held hose watering of vegetation, if the hose is equipped with a self-closing water shut-off device, which is allowed everyday during Phase II, except between the hours of 9:00 a.m. and 4:00 p.m.

On January 17, 2014, with California facing water shortfalls in the driest year in recorded state history, Governor Jerry Brown proclaimed a Drought State of Emergency. Local urban water suppliers and municipalities are called upon to implement their local water shortage contingency plans immediately, and Californians are encouraged to reduce their water usage by 20 percent. For the City, Phase II restrictions of the Water Conservation Ordinance were implemented in August 2010, and remain in effect today.

Extending outreach efforts. Over the last several years, LADWP has expanded conservation outreach and education. Some activities to promote conservation include: increased communication with ratepayers through Twitter, Facebook, newspapers, radio, and television, among other types of media; outreach to Homeowner Associations and Neighborhood Councils; distribution of hotel towel door hangers and restaurant table tent cards; and ramping up marketing of expanded water conservation incentive and rebate programs.[7]

[7] *Id*. at 59-61.

Encouraging regional conservation measures. LADWP has worked with MWD to encourage all water agencies in the region to promote water conservation and adopt water conservation ordinances which include prohibited uses and enforcement.

Long-Term Strategies

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

Goal

Increase water conservation savings to 64,368 AFY by cutting back on outdoor water use, expanding rebates and incentives, improving water efficiency at public facilities, and enhancing savings through review of new developments.

Water Savings

64,368 AFY by 2035.

Action Plan

Conservation Rebates and Incentives: LADWP is continuing to expand rebates and incentives for homeowners and business owners to encourage them to purchase water-saving technology.[8] Rebate and incentive programs include the following: Commercial Rebate Program; Residential Rebate Program; Direct Install Partnership Program; and Technical Assistance Program. In addition, as part of the City's ongoing effort to encourage customers to adopt active 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. In an effort to reduce outdoor water use, LADWP launched the California Friendly Landscape Incentive Program (Program) in 2009. This Program currently pays customers up to $3.00 per sq ft of turf removed and replaced with low water using plants, mulch, and permeable hardscapes or artificial turf.

Action by Public Agencies: LADWP assists City Departments and other public agencies in leveraging incentive funds to retrofit their facilities with water-efficient hardware. Significant accomplishments include the following highlights:

- In an effort to reduce water waste and identify areas of potential water conservation, LADWP provided on-site water audit training for the City's Department of General Services (GSD) Plumbers, Department of Recreation and Parks (RAP) landscapers and Port of Los Angeles (POLA) staff, and conducted nearly 500 facility audits.

[8] *Id*. at 51.

- In January 2009, a Memorandum of Understanding (MOU) was signed between LADWP and GSD to install 875 water-efficient urinals and 325 high-efficiency toilets in City facilities.
- Ten high-use City facilities have been retrofitted with water-efficient toilets, urinals, and faucets saving approximately 23 AFY. Locations include City Hall, City Hall East, Pershing Square, and LADWP headquarters.
- Utilizing a $3 million per year grant from LADWP, RAP has retrofitted 23 parks with California Friendly landscape and water-efficient irrigation. Through this MOU, RAP completed the Los Feliz Golf Course project in July 2014. Golf course improvements include a fully automated recycled water system, and six acres of grass have been replaced with California Friendly landscaping. Annually 5.5 million gallons of water will be saved due to the changes.

Enhancing Conservation through New Developments: 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. One of the significant accomplishments was the approval of the Water-Efficiency Requirements Ordinance No. 180822 by the City Council, 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.[9] Additional conservation measures are also required through the following regulations: 2013 California Plumbing Code, effective on January 1, 2014, 2013 California Green Building Code (CALGreen), effective on January 1, 2014, 2014 Los Angeles Plumbing Code, effective on January 1, 2014, and 2014 Los Angeles Green Building Code, effective on January 1, 2014. For this development, all requirements above resulted in a savings of approximately 39 AFY. Additional voluntary conservation measures recommended by LADWP and committed to by the Applicant yielded savings of approximately 9 AFY.

In addition, the City adopted Ordinance No. 181899, also known as the "Low Impact Development" Ordinance. Purpose of this Ordinance includes rainwater harvesting and stormwater runoff management, water conservation, and recycled water reuse and gray water use. The Ordinance No. 181899 was effective as of November 14, 2011.

2.0 Water Recycling

The LADWP 2010 UWMP identifies the goal of delivering 59,000 AFY by 2035 to off-set imported water. This will increase recycled water use in the City eight-fold—from the current one percent to eight percent annually. In order to achieve this goal, the City is taking the following steps:

Recycled Water Master Plan (RWMP): In 2012, LADWP completed a three-year RWMP. RWMP documents will guide near-term recycled water planning through 2035, as well as long-term recycled water planning for up to 50 years beyond the 2035 horizon. RWMP documents include an evaluation of recycling alternatives

[9] *Id*. at 54.

that integrate two strategies to increase recycling: groundwater replenishment (GWR) and non-potable reuse (NPR). NPR projects will increase recycled water deliveries to irrigation and industrial customers throughout the City. The GWR project will replenish SFB with up to 30,000 AFY of advance treated purified recycled water.

GWR Environmental Documentation: In September 2013, the City launched the environmental review process for the GWR Project by issuing a notice of preparation of a Draft Environmental Impact Report (EIR) and releasing an Initial Study for public review. The City plans to release the Draft EIR for public review in mid-2015.

Harbor Refineries Pipeline Project: Approximately 85 percent of the project's 40,400 feet of recycled water piping has already been installed in the Harbor Area. The piping that will convey recycled water to large industrial and irrigation customers. This project is anticipated to be completed in April 2017.

Elysian Park Water Recycling Project: The Elysian Park Water Recycling Project will not only irrigate the Elysian Fields Park and parts of the Elysian Park neighborhood, but also provide increased supply and reliability to the recycled water system overall. This project proposes the installation of a nearly two miles of pipeline, two pump stations, and a two million gallon storage tank. Its construction will ensure dependable service to meet Los Angeles' growing demand for recycled water in the Metro area. This project will include demolition of the existing 500,000 gallon tank at Elysian Park and install separate new potable water pipelines for restrooms and drinking fountains in the park. Recycled water will be supplied from the Los Angeles-Glendale Water Reclamation Plant. Anticipated project completion is Fall 2019.

Downtown Water Recycling Project: The Los Angeles-Glendale Water Reclamation Plant will supply recycled water for the Downtown Water Recycling Project. This project proposes installation of 86,500 linear feet of 16-inch purple pipe into and through Downtown Los Angeles. Potable supply will increase up to 2,600 AFY (847 million gallons) with the use of recycled water for non-potable demands—irrigation and industrial uses. Potential anchor customers include University of Southern California and Exposition Park with other pipeline segments to Boyle Heights and South Wetlands Park. Anticipated project completion is Spring 2021.

Recycled Water Outreach: The City developed the RWMP documents with input from stakeholders through ongoing outreach activities beginning in 2009, including the Recycled Water Advisory Group (RWAG), Recycled Water Forums for the general public, elected official briefings, outreach to Kindergarten-12 students, and presentations to Neighborhood Councils and community groups. RWAG is made up of approximately 60 stakeholders, representing neighborhood councils, environmental groups, business organizations, civic groups, and other interests. They provide the City with input and ideas related to water recycling. RWAG has

participated in a series of workshops, facility tours, and update sessions, and continues to provide insightful feedback to the City as projects are implemented.

3.0 Enhancing Stormwater Capture

The Urban Water Management Plan projects that additional stormwater capture projects will provide for increased groundwater pumping rights in the San Fernando Basin of 15,000 AFY. Stormwater capture projects will also provide 10,000 AFY of additional water conservation from capture and reuse solutions such as rain barrels and cisterns, for a total of 25,000 AFY by fiscal year ending 2035. The Stormwater Capture Master Plan will comprehensively evaluate stormwater capture potential within the City. LADWP began its initial research for the Stormwater Capture Master Plan in the fall of 2013 and is expected to produce a final plan by mid-2015.

Stormwater runoff from urban areas is an underutilized resource. Within the City, the majority of stormwater runoff is directed to storm drains and ultimately channeled into the ocean. Unused stormwater reaching the ocean carries with it many pollutants that are harmful to marine life. In addition, local groundwater aquifers that should be replenished by stormwater are receiving less recharge than in the past due to increased urbanization. Urbanization has increased the City's hardscape, which has resulted in less infiltration of stormwater and a decline in groundwater elevations.

In addition, development has encroached onto waterway floodplains requiring the channelization of these waterways that once recharged the groundwater aquifers with large volumes of stormwater runoff. When the floodplains were undergoing rapid development, LADWP and the Los Angeles County Flood Control District (LACFCD) reserved several parcels of land for use as spreading facilities. These facilities are adjacent to some of the largest tributaries of the Los Angeles River, and the Pacoima and Tujunga Washes.

During average and below average years, these spreading facilities are very effective at capturing a large portion of the stormwater flowing down the tributaries. However, they are incapable of capturing a significant portion of the flows during wet and extremely wet years. Weather patterns in Los Angeles are highly variable, with many periods of dry years and wet years. Some climate studies predict that these patterns may become more extreme in the future.

LADWP is currently partnering with other government and non-governmental agencies in various stormwater enhancement studies and projects that include the following:

Big Tujunga Dam: San Fernando Basin Groundwater Enhancement Project under Cooperative Agreement No. 47717, provided $9 million to the Los Angeles Flood Control District (District), was approved by the LADWP Board of Commissioners in September 2007. The project included upgrading and expanding stormwater capture capabilities at the dam. Construction began in November 2007 and was completed in July 2011.

Hansen Spreading Grounds Enhancement Project: Under Cooperative Agreement No. 47739, provided $4.1 million to the District. Reconstruction of the basins to increase the capacity and efficiency of the spreading grounds was completed in December 2009. Improvements to the intake structure were completed January 2013.

Tujunga Spreading Grounds Enhancement Project: Under Cooperative Agreement No. 47864, provided $1 million to the District for the design of the project. The project will relocate and automate the intake structure on the Tujunga Wash Channel, install a second automated intake to receive flows from the Pacoima Wash Channel, and reconfigure the spreading basins. Designs for the project are 99 percent complete. An agreement for project construction with District was approved by LADWP Board of Commissioners in June 2013.

Sheldon-Arleta Project: Completed by LASAN in December 2009 included the reconstruction of the existing methane gas collection system to allow full utilization of spreading at the Tujunga Spreading Grounds. LADWP provided $6.25 million for the project and is now undergoing performance testing to confirm the increased groundwater recharge capacity afforded by the installation of the new methane gas collection system.

North Hollywood Alley Retrofit Best Management Practice Demonstration Project: Joint project between LADWP, LASAN and the Los Angeles Department of Public Works Bureau of Street Services (BSS). LADWP provided $600,000 to this project which includes retrofit of four alleyway segments for a total of approximately 1,500 feet of alley improvements in the San Fernando Valley. These improvements will create pervious surfaces in the drainage lines of the alleys to allow for stormwater to infiltrate where it falls. These alleyway projects will demonstrate the ability to infiltrate stormwater near its origin which will help to recharge the SFB, improve water quality in the Los Angeles River, and reduce flooding. Three of the four alleyways were completed in October 2011 and the fourth in July 2013.

Woodman Avenue Multi-Beneficial Stormwater Capture Project: Joint project between LADWP, LASAN, BSS and The River Project. LADWP provided $1.2 million to this project which will help recharge the San Fernando Groundwater Basin, improve water quality, and alleviate local flooding. The Project will capture surface runoff from approximately 80 acres that currently runs along street gutters to storm drains, through the Tujunga Wash and the Los Angeles River and into the ocean. Additional benefits of this project include the creation of community open space enhancements such as improved aesthetics and pedestrian access, passive recreation, educational opportunities, and the restoration of native habitat. Construction of the project was completed in February 2014.

Hollywood/Los Angeles Beautification Team (LABT) Stormwater Capture Project: Includes four demonstration projects to encourage stormwater capture, to enhance water conservation, stormwater capture and improve water quality. The demonstration projects include a parkway retrofit along Sheldon St. at Laurel

Canyon Blvd, in progress; community rain barrel workshops, completed April 2012; roof rainwater diversion project at Stonehurst Elementary School, completed June 2012; and a tree well capture system on Santa Monica Boulevard in Hollywood, completed September 2010. Project partners and sponsors include LADWP, Los Angeles Bureau of Street Services, LASAN, the Sun Valley Beautiful Committee, Council District 6, and the Los Angeles Unified School District.

Rory M. Shaw Wetlands Park Project: District-led project which consists of constructing stormwater capture and treatment facilities within the bounds of a 46-acre site formerly used as a gravel pit. This project has the potential to provide groundwater recharge, flood protection, water quality enhancements, habitat restoration, and recreational opportunities. LADWP provided $600,000 for the design of the project which is currently at 60 percent complete.

Garvanza Park Best Management Practices Project: Led by LASAN and was proposed in the Arroyo Seco Watershed Management and Restoration Plan prepared by North East Trees in 2006. This project captures and treats stormwater and urban runoff diverted from a local storm drain into an underground BMP treatment system for infiltration and reuse. LADWP contributed $244,000 for the project which was completed in May 2012.

Big Tujunga Dam Sediment Removal Project: Will remove the accumulated sediment behind the dam which resulted from the 2009 Station Fire in the Angeles National Forest. This project, led by the District, will enhance the reservoir capacity for flood control and stormwater capture. LADWP will provide $10 million for design and construction of this project.

Pacoima Dam Sediment Removal Project: Will remove the accumulated sediment behind the dam which resulted from the Marek, Sayre, and Station fires. This project, led by the District, will enhance the reservoir capacity for flood control and stormwater capture. LADWP will provide $10 million for design and construction of this project.

Pacoima Spreading Grounds Improvement Project: Led by the District, will reconfigure and deepen the recharge basins, improve and automate the intake structure to allow for increased stormwater capture. LADWP will provide up to $15 million for design and construction. Construction is estimated to begin summer 2014.

4.0 Accelerating Clean-Up of the SFB

Fifty percent of the LADWP groundwater production wells in the SFB have been inactivated due to contamination that was not caused by activities of the City. It is likely that the contamination was caused by improper storage, handling and disposal of hazardous chemicals used in the aircraft manufacturing industry, as well as commercial activities associated with automobile and equipment repair, dry cleaners, paint shops, chrome plating, textile manufacturing and fuel storage and dispensing dating back to the 1940s.

Since the 1980 discovery of volatile organic compound (VOC) contamination of groundwater in the SFB, LADWP has been working with state and federal agencies to contain and remediate man-made contaminants in the SFB. Chlorinated solvents such as trichloroethylene (TCE), tetrachloroethylene (PCE) and carbon tetrachloride account for the majority of this groundwater contamination.

In order to meet state and federal drinking water standards and protect public health, LADWP has had to turn off 57 of its 115 production wells in the SFB. Without comprehensive groundwater basin remediation to capture the contaminant plumes and clean up the groundwater within the next decade, the City will lose the ability to use this valuable local resource.

In 2009, LADWP began an $11.5 million 6-year study and development of a comprehensive remediation and cleanup strategy for all groundwater basin contamination in the SFB.

Development of State-of-the-Art Groundwater Basin Remediation Facilities:

- Based on the available groundwater quality information, a groundwater basin remediation complex consisting of centralized as well as localized/well head remediation facilities will be needed for public and environmental benefits as well as to prevent further loss of groundwater.
- Design and construction of the groundwater basin remediation facilities is estimated to cost between $600 and $900 million, and operation and maintenance is estimated to cost an additional $52 million per year.
- New groundwater basin remediation facilities will be able to clean up the majority of contaminants from the SFB within 70 years. Remediation utilizing only the existing USEPA NHOU 2nd Interim Remedy is anticipated to take more than 200 years. In addition, the NHOU 2nd Interim Remedy containment zone covers a very small portion of the SFB.

Groundwater and Treatment System Monitoring:

- In order to fully characterize the SFB groundwater quality as required by the California Department of Public Health guidelines and policies, LADWP has drilled 25 new monitoring wells in SFB.
- Cost to install the monitoring wells is approximately $22 million.

Upon completion of SFB groundwater characterization, LADWP will be able to proceed with the necessary environmental reviews, design, permitting, construction, and start-up of the groundwater basin remediation complex to effectively clean and remove contaminants from SFB. The groundwater basin remediation complex is anticipated to be operational by 2021.

LADWP's groundwater remediation facilities treatment facilities now operating within SFB include:

The North Hollywood Operable Unit: Under the direction of the USEPA, LADWP operates and maintains the North Hollywood Operable Unit (NHOU) pursuant to a Cooperative Agreement between the two agencies. Since the 1980 discovery of VOC contamination in the SFB, LADWP worked closely with the state and federal regulators to implement facilities that will contain and remediate the contaminant plume. NHOU began operations in the late-1980s utilizing an aeration tower for VOC removal followed by vapor-phase GAC to control air emissions. Unfortunately this remedy has not fulfilled its primary objective. Highly-concentrated contaminants have escaped the NHOU containment areas and reached the LADWP groundwater production wells, forcing their closure. Newly emerging constituents, such as hexavalent chromium and 1,4-dioxane, have also reached the NHOU but these contaminants are not removed by the aeration process. This situation has forced the closure of two Operable Unit extraction wells, one of which is currently being pumped to contain the chromium plume with the untreated effluent being discharged to the sanitary sewer. Unfortunately the pumping of this well has failed to prevent the continued migration of this chromium plume. To address the deficiencies of the NHOU, the USEPA conducted a Focused Feasibility study and issued its Record of Decision to replace the NHOU with the North Hollywood Operable Unit Second Interim Remedy (NHOU2IR). USEPA has determined that this new remedy will target containment for only the highest concentrations of contaminants which exceed ten times the maximum contaminant levels (MCLs) mandated by state and federal regulations. Unfortunately, this determination presents a continuing problem of allowing some lower-concentration contaminants which exceed the mandated MCLs to remain unaddressed by the new remedy. However, LADWP continues to work with the USEPA on the NHOU2IR, including negotiating the terms of a Groundwater Management Plan that will provide the assurance of compatible operations between the NHOU2IR and the nearby LADWP wellfields. Concluding these negotiations will clear the way for LADWP to formulate an agreement with Potentially Responsible Parties on compensation, permitting, and operations of the new NHOU2IR.

Liquid-Phase Granular Activated Carbon Pilot Treatment Plant at Tujunga Wellfield: The Liquid-Phase Granular Activated Carbon (GAC) Pilot Treatment Plant removes VOC from two of the twelve production wells in the Tujunga Wellfield, and treats the extracted groundwater for potable use. The pilot facility treats approximately 8,000 gallons-per-minute of groundwater, removes contaminants, and discharges the treated effluent into LADWP's water distribution system for beneficial use pursuant to California Water Code. This pilot facility is a joint project with MWD to demonstrate the effectiveness of utilizing certain liquid phase GAC media for removal of VOC from the groundwater.

The Pollock Wells Treatment Plant: The plant provides four liquid-phase GAC vessels to remove VOC contamination from two groundwater wellheads. LADWP has identified hexavalent chromium as an emerging contaminant that may impair the operation of the Pollock Wells Treatment Plant. In response, LADWP has

initiated studies and the development of additional remediation systems to remove the hexavalent chromium and other emerging contaminants that are not addressed by the GAC treatment system

City's goal is to clean up the contaminated SFB to expand groundwater storage and the ability to fully utilize the City's groundwater supplies. 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.[10] LADWP will also work to ensure that this SFB remains a consistent, stable, and reliable resource for years to come.

Water Supplies

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

TABLE III
LADWP Water Supply

Calendar Year	Los Angeles Aqueducts	Local Groundwater	MWD	Recycled Water	Transfer, Spread, Spills, and Storage	Total
2004	203,190	75,696	391,678	1,774	-2,958	675,296
2005	376,394	57,623	184,605	1,401	3,140	616,883
2006	380,235	67,299	188,598	3,893	-1,336	641,361
2007	127,392	88,041	435,278	3,595	1,044	653,261
2008	148,407	64,604	429,170	7,048	1,664	647,565
2009	137,261	66,998	350,918	7,570	3,052	559,695
2010	251,126	68,346	203,745	6,900	-938	531,055
2011	357,752	49,915	119,381	7,708	-153	534,909
2012	166,858	57,784	325,439	5,965	3,386	552,660
2013	64,801	66,148	438,492	9,253	-2,404	581,098

Note: Units are in AF

Los Angeles Aqueducts

Snowmelt runoff from the Eastern Sierra Nevada Mountains is collected and conveyed to the City via 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

[10] *Id*. at 125.

supplies were augmented from time to time by groundwater extractions from beneath the lands that the City had purchased in the Owens Valley.

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 LAA 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 (CEQA) 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 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 MOU, 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 mitigated dust emissions from 29.8 square-miles of Owens Lake in accordance with GBUAPCD's 2003 revised State Implementation Plan. As of April 1, 2010, LADWP mitigated an additional 9.2 square-miles in accordance with GBUAPCD's 2008 State Implementation Plan. Upon completion of Phase 8 in October 2012, LADWP has mitigated dust emissions from a total of approximately 42 square-miles of Owens Lake requiring approximately 95,000 AF of water annually to sustain the dust mitigation program. After completion of Phase 7a which is currently under construction and scheduled for completion by July 31, 2015,

LADWP will have mitigated dust in 45 square miles. Phase 7a is a water neutral project; no additional water will be required beyond the 95,000 AF.

Average deliveries from the LAA system have been approximately 199,196 AF of water annually over the last five fiscal years (FY). The average annual long-term LAA delivery over the next 25 years, using the 50-year average hydrology from FY 1956/57 to 2005/06, is expected to be approximately 254,000 AFY and gradually decline to 244,000 AFY due to projected climate change impacts.

Groundwater

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.

SFB 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 486,759 AF of stored water credits in SFB as of October 2011. 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. Majority of LADWP's groundwater is extracted from SFB. 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.

Court decision on pumping rights in 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 D). Further information about the ULARA is in ULARA Watermaster Report. The ULARA Watermaster report and some background information on the judgment are available for review at the office of the ULARA Watermaster or on-line at www.ularawatermaster.com.

LADWP additionally has adjudicated rights to extract groundwater from the Central Basin. Annual entitlement to the Central Basin is 15,000 AF. See Appendix D for copies of relevant portions of the judgments. Complete judgments are available for review at DWR. For the period of July 2012 to June 2013, LADWP extracted 50,550 AF, 1,952 AF, and 6,310 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. However, extraction from the basins will 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 five years are shown on Table IV, as well as groundwater pumping projections

for average, single-dry, and multi-year dry weather conditions in five-year increments.

TABLE IV
Local Groundwater Basin Supply

Fiscal Year (July-June)	San Fernando	Sylmar	Central
2008-2009	49,106	576	11,937
2009-2010	62,218	2,998	11,766
2010-2011	44,029	225	5,099
2011-2012	50,244	1,330	9,486
2012-2013	50,550	1,952	6,310
2014-2015*	21,000	4,500	15,000
2019-2020*	76,800	4,500	15,000
2024-2025*	92,000	4,500	15,000
2029-2030*	92,000	4,500	15,000
2034-2035*	92,000	4,500	15,000

Note: Units are in AF,
*projected production : 2010 UWMP Exhibit 6G

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 in addition to the supplies from local groundwater and the LAA. MWD imports a portion of its water supplies from Northern California through the State Water Project's (SWP) 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 water needs.

In ongoing efforts to evaluate MWD's own import reliability, an assessment was done to address changes in demand and supply conditions, and to provide additional resource reserves to mitigate against uncertainties in demand projections and risks in implementing supply programs. All these efforts went into MWD's RUWMP.

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 preferential rights. As of June 30, 2013, LADWP has a preferential right to purchase 20.22 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, MWD Board adopted its Water Supply Allocation Plan. LADWP supported the adoption of this plan to acquire its dry weather condition supplies from MWD.

In response to the 2009 regulatory restrictions on water supplies from Northern California, the MWD Board announced on April 14, 2009, that supply deliveries to the member agencies would be reduced by ten percent. Reduced supply allocation was to be effective from July 1, 2009 through June 30, 2010, but in April 2010, MWD Board approved an extension of the reduced supply allocation through June 30, 2011, primarily to restore the storage balances in MWD's groundwater and surface storage facilities.

On March 31, 2011, California Governor Jerry Brown declared an end to the statewide drought emergency that had been proclaimed earlier on February 27, 2009, by then-Governor of California Arnold Schwarzenegger. MWD's Board subsequently voted on April 12, 2011, to end implementation of the 2010/11 water supply allocation. In the same decision, the MWD Board also voted to not implement a water supply allocation for 2011/12. These actions restored full imported water deliveries to member agencies without risk of allocation penalties effective April 2011.

As extremely dry conditions have persisted since 2012 and Californians are facing water supply shortages with 2014 projected to become driest year on record, Governor Brown proclaimed a drought State of Emergency on January 17, 2014.

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. MWD's long-term plans to meet its member agencies' growing reliability needs are through improvements to the SWP as outlined in the Bay Delta Conservation Plan, water transfer programs, outdoor conservation measures, and development of additional local resources, such as recycling, brackish water desalination, and seawater desalination. These plans are contained in MWD's IRP and RUWMP, which can be found at www.mwdh2o.com. Additionally, MWD has more than 5.0 million AF of storage capacity available in reservoirs and banking/transfer programs, with approximately 2.37 million AF in that storage, and of that approximately 626 thousand AF in emergency storage as of January 1, 2014.

MWD established a policy objective for water supply reliability as part of its IRP. Policy objective is: Through the implementation of its 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 (USFWS) biological opinion for Delta smelt was invalid. On December 14, 2007, Judge Wanger issued his Interim Remedial Order requiring that SWP and Central Valley Project operate according to certain specified criteria until a new biological opinion for the Delta smelt is issued. USFWS released the new biological opinion 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 under median hydrologic conditions reduce deliveries to MWD by approximately 500,000 AF.

MWD and other impacted agencies and stakeholders filed separate lawsuits in federal district court challenging the biological opinion, which the federal court consolidated under the caption Delta Smelt Consolidated Cases. On December 14, 2010, Judge Wanger issued a decision on summary judgment finding that there were major scientific and legal flaws in the Delta smelt biological opinion and remanding the biological opinion to USFWS for reconsideration. The court's decision invalidates some of the restrictions on project operations contained in the Delta smelt biological opinion. On May 18, 2011, Judge Wanger issued a final decision amended judgment directing USFWS to complete a new draft biological opinion by October 1, 2011, and to complete a final biological opinion with environmental documentation by December 1, 2013. Later stipulations and orders changed the October 1, 2011 due date for a draft biological opinion to December 14, 2011, and changed the December 1, 2013 due date for the final biological opinion to December 1, 2014.

A draft biological opinion was issued on December 14, 2011. The draft biological opinion deferred specification of a reasonable and prudent alternative and an incidental take statement pending completion of environmental impact review under the National Environmental Policy Act (NEPA). The federal defendants and environmental intervenors appealed the final judgment invalidating the 2008 Delta smelt biological opinion to the United States Court of Appeals for the Ninth Circuit. State Water Project and Central Valley Project contractor plaintiffs, including MWD, cross-appealed from the final judgment. Those appeals and cross-appeals were argued on September 10, 2012. On March 13, 2014, the Ninth Circuit reversed in part and affirmed in part the district court's decision. The Ninth Circuit reversed those portions of the district court decision which had found the 2008 Delta smelt biological opinion to be arbitrary and capricious, and held, instead, that the 2008 biological opinion was valid and lawful. MWD's deliveries from the State Water Project were previously restricted under the 2008 biological opinion for a period prior to 2011. One practical result of the Ninth Circuit's decision is to legally approve the water supply restrictions in the 2008 biological opinion. These water supply restrictions could have a range of impacts on MWD's deliveries from the State Water Project depending on hydrologic conditions. MWD and others will file motions for reconsideration of the Ninth Circuit's decision by May 12, 2014.

On May 25, 2010, the court granted the plaintiffs' request for preliminary injunction in the Consolidated Salmon Cases, restraining enforcement of two requirements under the salmon biological opinion that limit exported water during the spring months based on San Joaquin River flows into the Bay-Delta and reverse flows on the Old and Middle Rivers. Hearings on motions for summary judgment in the Consolidated Salmon Cases were held on December 16, 2010. On September 20, 2011, Judge Wanger issued a

decision on summary judgment, finding that the salmon biological opinion was flawed, and that some but not all of the project restrictions in the biological opinion were arbitrary and capricious. On December 12, 2011, Judge O'Neill (who was assigned to this case following Judge Wanger's retirement) issued a final judgment in the Consolidated Salmon Cases. The final judgment remands the 2009 salmon biological opinion to the National Marine Fisheries Service, and directs that a new draft salmon biological opinion be issued by October 1, 2014, and that a final biological opinion be issued by February 1, 2016, after completion of environmental impact review under NEPA. The due date for the salmon biological opinion was later extended to February 1, 2017.

In January and February 2012, the federal defendants and environmental intervenors filed appeals of the final judgment in the Consolidated Salmon Cases, and State Water Project and Central Valley Project contractors filed cross-appeals. Those appeals and cross-appeals are now pending in the Ninth Circuit. Oral argument is scheduled for September 2014.

These events have highlighted the challenges that water suppliers throughout the state currently face regarding supplies from the Delta.

For 2014, DWR initially approved on November 19, 2013, a five-percent allocation for long-term SWP contractors. A five percent for MWD contracted water delivery amount is 95,575 AFY. On January 31, 2014, DWR reduced the 2014 SWP water allocation from five percent to zero percent. This decrease was due to the persistent dry conditions. On April 18, 2014, DWR increased the 2014 SWP water allocation back to five percent based on recent precipitation, runoff, and current water supply conditions.

Delta Policy Legislation

In November 2009, the State Legislature and then Governor Arnold Schwarzenegger passed the 2009 Comprehensive Water Package, which consisted of four policy bills and an $11.14 billion bond proposal designed to ensure a reliable water supply for California's future and to restore the Delta and other ecologically sensitive areas. The "Water Bond" is subject to voter approval and is on the November 4, 2014 ballot. The Water Bond Measure was originally certified to be on the state's 2010 ballot. It was removed and placed on the 2012 ballot. The California State Legislature, on July 5, 2012, approved a bill to take the measure off the 2012 ballot and put it on the 2014 ballot.

Senate Bill (SB) X7-1 (Simitian) of the 2009 Water Package established the co-equal goals for the Delta: to provide a more reliable water supply for California and to protect, restore, and enhance the Delta ecosystem. SB X7-1 also established a framework to achieve the co-equal goals for the Delta by creating a new Delta governance structure - including the Delta Stewardship Council, Delta Conservancy; and Delta Protection Commission - and laying out a process for determining the consistency of the Bay Delta Conservation Plan (BDCP) with the co-equal goals.

Implementation of the four policy bills in the 2009 Water Package is currently underway, including the parallel development of the Delta Plan, a comprehensive, long-term management plan for the Delta adopted by the Delta Stewardship Council, and the

BDCP, which will provide the basis for the issuance of endangered species permits for the operation of the State Water Project and Central Valley Project and for Delta conveyance improvements. The Delta Plan and associated Environmental Impact Report were released to the public in May 2013: the BDCP process is expected to conclude in 2014.

Responsibilities of entities created by the Delta Governance Bill are as follows:

- Delta Stewardship Council
  - Independent agency of the state composed of seven members with the responsibility to oversee and coordinate state agency actions within the Delta.
  - 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 their policies.
  - Develop Performance measures to assess the progress of achieving the goals of the Delta Plan.
  - 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.
  - Ensure consistency of BDCP with the co-equal goals of water supply reliability and Delta restoration.

- Delta Conservancy
  - 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.
  - Promote the economic vitality in the Delta through increased tourism and the promotion of Delta legacy communities.
  - Promote environmental education about, and the public use of, public lands in the Delta.

- Delta Protection Commission
  - Reduce its membership from 23 to 15 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.
  - Adopt an economic sustainability plan for the Delta, which is to include flood protection recommendations to state and local agencies, and is to be included in the Delta Stewardship Council's Delta Plan.

- Delta Watermaster
  - Exercise authority of the State Water Resources Control Board and monitor and enforce 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
  - 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.

- 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 Water Bond would allocate funds for projects to assist in achieving BDCP's co-equal goal of maintaining and restoring the Delta ecosystem. BDCP 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. BDCP success is crucial to providing long-term solutions in the Delta and will help to improve and maximize SWP reliability, and consequently MWD's overall reliability. These statewide initiatives along with LADWP's local supply and efficiency programs will insure that LADWP is better prepared to deal with the natural variability of our local water supplies, by having more reliable access to supplemental water supplies purchases from MWD.

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 RUWMP and IRP to address water supply shortages and interruptions (including potential shut downs of SWP pumps) to meet water demands. An in depth discussion on MWD is attached in Appendix F.

Secondary Sources and Other Considerations

Stormwater capture, water conservation, and recycling will play an increasing role in meeting future water demands. LADWP has implemented stormwater capture, 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 local water supply development.

Integrated planning has also filled an important role in developing secondary sources of supply for the City. 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 works closely with MWD, LASAN (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
- 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 transfers and stormwater reuse are considered and evaluated as part of the City's long-term water resources portfolio.

Summary of Water Demand and Supply Projections for 20 Years

Table V tabulates the service reliability assessment for average weather year. Existing water conservation has been already subtracted from projected demands, but new water conservation is included as a supply source.

Table V
Service Area Reliability Assessment for Average Weather Year

Demand and Supply Projections (in acre-feet)	FY2009/10 Actual	Average Weather Conditions (FY 1956/57 to 2005/06) Fiscal Year Ending on June 30				
		2015	2020	2025	2030	2035
Total Demand	555,477	614,800	652,000	675,600	701,200	710,800
Existing / Planned Supplies						
Los Angeles Aqueduct[1]	199,739	252,000	250,000	248,000	246,000	244,000
Groundwater[2]	76,982	40,500	96,300	111,500	111,500	110,405
Conservation	8,178	14,180	27,260	40,340	53,419	64,368
Recycled Water						
- Irrigation and Industrial Use	6,703	20,000	20,400	27,000	29,000	29,000
- Groundwater Replenishment	0	0	0	15,000	22,500	30,000
Water Transfers	0	40,000	40,000	40,000	40,000	40,000
Subtotal	291,602	366,680	433,960	481,840	502,419	517,773
MWD Water Purchases						
With Existing/Planned Supplies	263,875	248,120	218,040	193,760	198,781	193,027
Total Supplies	555,477	614,800	652,000	675,600	701,200	710,800
Potential Supplies						
Stormwater Capture						
- Capture and Reuse (Harvesting)	0	2,000	4,000	6,000	8,000	10,000
- Increased Groundwater Production (Recharge)	0	0	2,000	4,000	8,000	15,000
Subtotal	0	2,000	6,000	10,000	16,000	25,000
MWD Water Purchases						
With Existing/Planned/Potential Supplies	263,875	246,120	212,040	183,760	182,781	168,027
Total Supplies	555,477	614,800	652,000	675,600	701,200	710,800

[1] Los Angeles Aqueduct supply is estimated to decrease 0.1652% per year due to climate change impacts.

[2] North Hollywood/Rinaldi-Toluca Treatment Complex is expected to be in operation in FY 2019-20. Tujunga Groundwater Treatment Plant is expected to be in operation in 2020-21. Storage credit of 5,000 afy will be used to maximize the pumping in FY 2020-21 and thereafter. Sylmar Basin production was increased to 4,500 AFY from FY 2014-15 to FY 2029-30 to avoid the expiration of stored water credits, then go back to its entitlement of 3,405 AFY in FY 2030-31.

Service reliability assessment for single dry year and multiple dry year condition are shown in 2010 UWMP Exhibits 11F through 11K. Demands are met by the available supplies under all scenarios.

Rates

Capital costs to finance facilities for the delivery of water supply to LADWP's service area are supported through customer-billed water rates. 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 for operation and maintenance.

The water rate structure contains a Water Procurement Adjustment Factor under which the cost of purchased water from MWD is recovered, a Demand Side Management and Reclaimed Water Cost Adjustment Factor which recovers the cost of water conservation programs, and reclaimed water projects. In addition, the rate structure contains a Water Quality Improvement Adjustment Factor to recover expenditures to upgrade and equalize water quality throughout the City and to construct facilities to meet state and federal water quality standards, including the payment of debt service on bonds issued for such purposes.

Findings

Proposed Project is estimated to increase the total water demand within the site by 149 AF annually based on review of information submitted by the Planning Department.

The 149 AFY increase in the total water demand for Proposed Project falls within the available and projected water supplies for normal, single-dry, and multiple-dry years through the year 2035 as described in LADWP's UWMP. LADWP finds it will be able to meet the proposed water demand of the Proposed Project, as well as existing and planned future water demands of its service area.

This WSA approval addresses the City's long-term water supply and demand forecasts to accommodate Proposed Project, and is not an approval for water service connection nor determination of adequate distribution infrastructure and capacity to serve Proposed Project. A separate request shall be made to LADWP requesting an evaluation of water service connection for Proposed Project.

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

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INFORMATION
www.planning.lacity.org

May 16, 2014

Mr. James B. McDaniel, Chief Operating Officer – Water Systems
City of Los Angeles
Department of Water and Power
111 North Hope Street, Room 1455
Los Angeles, CA 90012

RE: REQUEST FOR WATER SUPPLY ASSESSMENT FOR PROJECT LOCATED AT 20000 PRAIRIE STREET, LOS ANGELES, CA; (ENVIRONMENTAL CASE NO. ENV-2014-210-EIR)

Dear Mr. McDaniel,

The Department of City Planning is preparing an Environmental Impact Report (EIR) for the proposed MGA Campus project in accordance with the California Environmental Quality Act (CEQA). The existing project site consists of the existing former "LA Times" printing facility which will be renovated (255,815 square feet) as a new headquarters for MGA as well as including additional leased creative space. The proposed project will add four new residential buildings that would in part provide housing for MGA workers.

The Proposed project includes over 500 residential units and 250,000 square feet of office space, and therefore is subject to the water assessment requirements of the State Water Code (California Water Code Sections 10910-10915). Therefore, the Department of City Planning is requesting a water supply assessment from the Department of Water and Power to determine the Project's water demands. Provided below is the description of the proposed project and preliminary estimates of the project's water demands based on standard water consumption rates provided by the City of Los Angeles.

Project Description

The project includes 700 residential units, 255,815 square feet of various light industrial related functions (e.g., production, showroom and assembly) and corporate office space (including 43,000 square feet of leased creative office space), 11,000 square feet of retail space, 3,000 square feet of restaurant space, and approximately 1,467 parking spaces. The proposed development is designed to incorporate a mix of activities that support and encourage pedestrian activity due to the live/work MGA Campus design.

Estimated Water Demands

The proposed project would provide residential apartment units, retail/ commercial space, work spaces at the project site. As summarized in Table 1, we estimate that the proposed project's water consumption would equal to approximately 124,848 gallons of water per day (gpd).

Table 1
Estimated Future Water Demands

Proposed Land Uses	Unit Count/Size	SFC Flow Rate (gpd)	Water Demand Rate (gpd)	Total Water Demand (gpd)
Residential Dwelling Units (DU)				
1-Bedroom	304	110/DU	110/DU	33,440
2-Bedroom	372	150/DU	150/Du	55,800
3-Bedroom	24	190/DU	190/DU	4,560
Subtotal	***700***			***93,800***
Commercial Space				
Retail	14,000 sf	25/1,000 gsf	25/1,000 gsf	350
Office	255,815 sf	120/1,000 gsf	120/1,000 gsf	30,698
Subtotal	***269,815 sf***			***31,048***
			Estimated Water Demand (Total)	**124,848**

Project's Consistency with the General Plan

In order to develop the project as proposed, the following entitlements are required: General Plan Amendment from Light Industrial to Community Manufacturing, a Zone Change from MR2-1 and P-1 to CM-1, establishment of a Modified Parking Requirement District (MPR), Conditional Use Permits to allow an on-site child care facility and alcoholic beverages for on- and off-site consumption, a Vesting Tentative Tract Map, and Site Plan Review as filed under Case Nos. CPC-2014-794-GPA-ZC-CA-CU-CUB–SPR and ENV-2014-210-EIR. Table 2 below illustrates the estimated water demands of a maximum site build-out under the existing General Plan and Zone Category. Note: Approximately 57,815 square feet of the existing 1,027,918 square-foot site lies within the P-1 Zone. A total of 970,104 square feet lies within the existing MR2-1 Zone, which is analyzed with a Floor Area Ratio of 1.5:1.

Table 2
Maximum Build-Out under Existing MR2-1 Zone
Estimated Future Water Demands

Proposed Land Uses	Unit Count/Size	SFC Flow Rate (gpd)	Water Demand Rate (gpd)	Total Water Demand (gpd)
Manufacturing / Industrial Facility (No Industrial Waste Permit)				
Restricted Light Ind.	1,455,156 sf	50/1000 gsf	50/1000 gsf	72,758
Subtotal	***1,455,156 sf***			***72,758***
			Estimated Water Demand (Total)	**72,758**

Existing Water Demand Credits

The project descriptions for the scenarios described above make use of the existing facility located on the property. Both scenarios will make use of the project facility consisting of 255,815 square feet of manufacturing/ Industrial. The square footage of the existing building is an existing water demand, which should be applied as a credit to the project water assessment. Table 3 below outlines the water demand for the facility.

Table 3
Estimated Existing Water Demands

Proposed Land Uses	Unit Count/Size	SFC Flow Rate (gpd)	Water Demand Rate (gpd)	Total Water Demand (gpd)
Manufacturing / Industrial Facility (No Industrial Waste Permit)				
Restricted Light Ind.	255,815 sf	50/1000 gsf	50/1000 gsf	12,791
Subtotal	***255,815 sf***			***12,791***
			Estimated Water Demand (Total)	**12,791**

Should you have any questions or need additional information, please contact Nicholas Hendricks at (818) 374-5046 or directly contact the applicant's engineer, Jose J. Cruz at (661) 284-7462. Thank You.

Sincerely,

Nicholas Hendricks

Nicholas Hendricks, City Planner
Plan Implementation Division, Major Projects Unit
City of Los Angeles, Department of City Planning

cc: Wendy Lockwood, Sirius Environmental (via email attachment)
Jose J. Cruz, Hall & Foreman, Inc. (via email attachment)

Tcharssov, Andrei

From: Nicholas Hendricks <nick.hendricks@lacity.org>
Sent: Tuesday, July 29, 2014 11:34 AM
To: Tcharssov, Andrei
Subject: Re: FW: MGA Mixed-Use Campus Project - Scope Confirmaiton

Hi Andrei,

The information for the WSA is correct except for the demolition square-footage. It is 5,500 sf, not 5,000 sf.. Thanks.

Nick

On Mon, Jul 28, 2014 at 12:24 PM, Tcharssov, Andrei <Andrei.Tcharssov@ladwp.com> wrote:

Nick,

The Los Angeles Department of Water and Power (LADWP) is in the process of completing the Water Supply Assessment (WSA) for the MGA Mixed-Use Campus Project (Proposed Project). LADWP requests the Department of City Planning (Planning Department) to confirm the scope of the Proposed Project.

Please confirm that the project's scope provided below is complete and accurate. The scope is based on your original Request for WSA dated May 16, 2014 and all e-mail communication to date. Please be advised that the scope is the basis for the WSA water demand calculations and your scope confirming e-mail will be included, in part or in full, in an appendix to the WSA.

Proposed Project's scope:

- The project name is "MGA Mixed-Use Campus"
- The developer of the project is MGA North, LLC
- The service address for the Property is 20000 Prairie Street.

  10" Fire Service Line #14719

  6" Domestic #90129899

  4" Domestic #90122467

- Existing Facilities: Multi-Story Light Industrial Building (255,815 sq.ft.)
- Facilities to be removed: Garage w/ Offices (Approx. 5,000 sq.ft.)

- New Development: Adaptive re-use and rehabilitation of existing industrial/office building (255,815 sq.ft.), 700 Rental Units (304 one bedroom, 372 two bedroom and 24 three bedroom units), Retail (11,000 sq.ft.), and Restaurant (3,000 sq.ft.)

- Landscape

  Existing Landscape: 418,895 sq.ft.

  To be removed: 382,817 sq.ft.

  To Remain: 36,078 sq.ft.

  Proposed Landscaping: 292,078 sq.ft. (256,000 sq.ft. proposed + 36,078 sq.ft.

  remaining). Plant Factors: 0.2 Low Water Plant Material and 0.5 for Medium Water Use Plant Material. Low Water Use (75%) = 192,000 SF. Medium Water Use (25%) = 64,000 SF. Hydrozone Areas: Hydrozones to be determined by above plant factors. Plants to be grouped by plant factor for irrigation efficiency.

- Parking

  Existing Surface Parking: 318,010 sq.ft.

  Surface Parking to be removed: 318,010 sq.ft.

  Proposed (Structure) Parking Areas: 596,438 sq.ft. for 1,467 parking spaces

- Restaurant

  Full service restaurant/ Fast Casual Dining

  Outdoor/ Indoor

  Seating: 200

- Cooling Towers

  Existing: 3 chillers (Trane Model#ABSC-051), Lithium Bromide Absorption 566 tons each. The use for the chillers is approximately 80 days per year at 8hrs per day (640hrs/year).

  New: 2 x 400 tons centrifugal units, 12 hour operation

- Swimming Pool

  Sun Plaza Pool: 60 x 40; Club House pool: 75 x 40

- Common Areas:

  Lobby: 2,800 sq.ft.

  Community Room/Gym: 6,600 sq.ft. for 440 occupants

  Club House: 2,000 sq.ft.

- Plumbing fixture/appliance counts/estimates:

	Residential Dwelling Unit	Residential Common Area	Restaurant/ Bar	Retail/ Commercial	Office	Bike Facilities
Toilets	1,096	12	3	2	40	2
Urinals	0	1	1	0	9	0
Bath Faucets	1,096	11	2	2	26	2
Kitchen Faucets	700	6	1	0	7	0
Showerheads	1,096	0	0	0	0	4
Clothes washer	700	0	0	0	0	0
Dishwasher	700	4	3	0	6	0
Water Fountains	0	10	1	1	8	2

- Proposed Project's consistency with the General Plan

  General Plan amendment and consistency with the demographic projection for the City of Los Angeles (City) from the 2012 Regional Transportation Plan (RTP) by Southern California Association of Governments (SCAG) are required for the Proposed Project. The Environmental

Impact Report will analyze the Proposed Project's consistency with the 2012 RTP demographic projection for the City.

If the above listed scope is accurate and consistent with the Proposed Project, please e-mail reply. If not, please edit the scope accordingly and send back to me by e-mail.

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

Andrei Tcharssov

LADWP Water Resources Development

111 N. Hope Street, Room 1450

Los Angeles, CA 90012

(213) 367-2155

--

Nicholas Hendricks
City Planner
Department of City Planning
(818) 374-5046

Appendix B

Water Conservation Commitment Letter

Corporate Office:
16380 Roscoe Blvd.
Van Nuys, CA 91406 USA
Tel 818.894.2525
Fax 818.892.9060

July 21, 2014

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 MGA Mixed-Use Campus

Dear Mr. McDaniel:

MGA North, LLC proposes to develop the MGA Mixed-Use Campus within the Chatsworth-Porter Ranch Community Plan. The project site, which encompasses approximately 23.60 acres, is generally bounded by Prairie Street to the north, Industrial development to the east, Southern Pacific Rail Road to the south, and Winnetka Avenue to the west. The proposed project would develop approximately 11,000 square feet of retail space, approximately 3,000 square feet of restaurant uses, 700 apartment units, approximately 255,815 square feet of re-use rehabilitation of existing industrial/office building, 8,600 square feet of community/gym/ club house uses, courtyards and gathering spaces. The project would also include 596, 438 square feet of parking located within Parking structures. As part of the project, the existing (existing development) that collectively comprise(s) approximately 5,500 square feet of floor area on-site would be removed.

MGA North, LLC understands the City of Los Angeles' policy that future water needs shall be met by expanding water recycling and conservation. MGA North, LLC has committed to implement the following water conservation measures that are in addition to those required by codes and ordinances for the entire MGA Mixed-Use Campus:

- Kitchen Faucets with flow rate of 1.5 gallons per minute or less
- Drought Tolerant Plants – 75% of total landscaping
- 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

Corporate Office:
16380 Roscoe Blvd.
Van Nuys, CA 91406 USA
Tel 818.894.2525
Fax 818.892.9060

MGA North, LLC has also committed to comply with the City of Los Angeles Low Impact Development Ordinance (City Ordinance No. 181899) and to implement Best Management Practices that have stormwater recharge or reuse benefits for the entire MGA Mixed-Use Campus as applicable:

- Infiltration Systems (Drywells) - captures first-flush stormwater, removes particulate pollutants and some soluble pollutants, and contributes toward recharging groundwater.
- Infiltration Basin (drainage area of 5-50 acres) – captures first-flush stormwater, removes particulate pollutants and some soluble pollutants, and contributes toward recharging groundwater.
- 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
- Cistern - captures stormwater runoff as it comes down through the roof gutter system.

The following is the information on plumbing fixture/appliance counts/estimates for MGA Mixed-Use Campus:

	Residential Dwelling Unit	Residential Common Area	Restaurant/ Bar	Retail/ Commercial	Office	Bike Facilities
Toilets	1,096	12	3	2	40	2
Urinals	0	1	1	0	9	0
Bath Faucets	1,096	11	2	2	26	2
Kitchen Faucets	700	6	1	0	7	0
Showerheads	1,096	0	0	0	0	4
Clothes washer	700	0	0	0	0	0
Dishwasher	700	4	3	0	6	0
Water Fountains	0	10	1	1	8	2

Should you have any questions, please do not hesitate to call at (818) 280-7869.

Sincerely,

Jason Larian

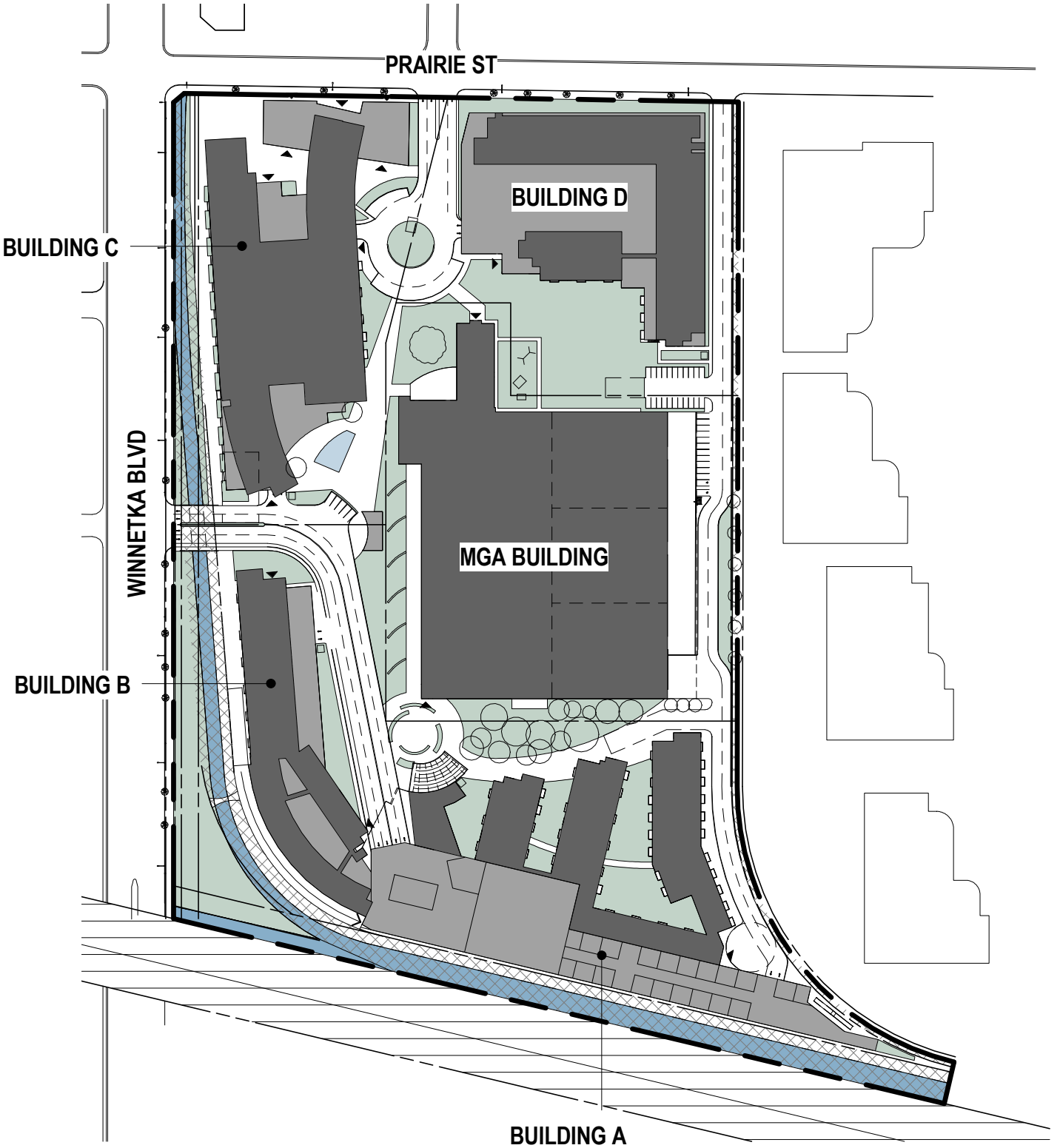
Appendix C

Project Location Maps

SOURCE: OpenStreetMap, 2014

Figure 1

Project Location



SOURCE: Killefer Flammang Architects, 2014

Figure 2

Project Site Plan

Appendix D

Adjudicated Groundwater Basin Judgments

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

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.

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

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

Basin	Safe Yield	Native Safe Yield
San Fernando	90,680	43,660
Sylmar	6,210	3,850
Verdugo	7,150	3,590

The safe yield of Eagle Rock Basin is derived from imported water delivered by Los Angeles. There is no measurable native safe yield.

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

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

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

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

CENTRAL AND WEST BASIN WATER REPLENISHMENT DISTRICT, etc., Plaintiff, v. CHARLES E. ADAMS, et al., Defendants. CITY OF LAKEWOOD, a municipal corporation, Cross-Complaint, v. CHARLES E. ADAMS, et al., Cross-Defendants.	No. 786,656 SECOND AMENDED JUDGMENT (Declaring and establishing water rights in Central Basin and enjoining extractions therefrom in excess of specified quantities.)

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,

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

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

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

2. Parties Enjoined as Regards Quantities of Extractions.

Appendix E

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 F

Metropolitan Water District of Southern California

(APPENDIX A)

APPENDIX A

The Metropolitan Water District of Southern California

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TABLE OF CONTENTS

INTRODUCTION

This Appendix A provides general information regarding The Metropolitan Water District of Southern California ("Metropolitan"), including information regarding Metropolitan's operations and finances. Statements included or incorporated by reference in this Appendix A constitute "forward-looking statements." Such statements are generally identifiable by the terminology used such as "plan," "project," "expect," "estimate," "budget" or other similar words. Such statements are based on facts and assumptions set forth in Metropolitan's current planning documents including, without limitation, its most recent biennial budget. The achievement of results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Actual results may differ from Metropolitan's forecasts. Metropolitan is not obligated to issue any updates or revisions to the forward-looking statements in any event.

Metropolitan maintains a website that may include information on programs or projects described in this Appendix A; however, none of the information on Metropolitan's website is incorporated by reference and none of such information is intended to assist investors in making an investment decision or to provide any additional information with respect to the information included 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 (the "State" or "California") and the Colorado River via the Colorado River Aqueduct ("CRA") 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 water 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" in this Appendix A for a listing of the ten member agencies with the highest water purchases from Metropolitan during the fiscal year ended June 30, 2013. Metropolitan's member agencies may, from time to time, develop additional sources of water. 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", "—Member Agency Purchase Orders" and "—Additional Revenue Components" in this Appendix A.

The following table lists the 26 member agencies of Metropolitan.

Municipal Water Districts		**Cities**		**County Water Authority**
Calleguas	Las Virgenes	Anaheim	Los Angeles	San Diego[(1)]
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	

(1) The San Diego County Water Authority, currently Metropolitan's largest customer, is a plaintiff in litigation challenging the allocation of costs to certain rates adopted by Metropolitan's Board. See "METROPOLITAN REVENUES—Litigation Challenging Rate Structure" in this Appendix A.

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 4,500 square miles since that time. The expansion was primarily the result of annexation of the service areas of additional member agencies.

Metropolitan estimates that approximately 18.4 million people lived in Metropolitan's service area in 2013, based on official estimates from the California Department of Finance and on population distribution estimates from the Southern California Association of Governments ("SCAG") and San Diego Association of Governments ("SANDAG"). Population projections prepared by SCAG in 2012 and SANDAG in 2010, as part of their planning process to update regional transportation and land use plans, show expected population growth of about 18 percent in Metropolitan's service area between 2010 and 2035. The 2010 Census population estimates are incorporated into SCAG's 2012 projections. The 2010 SANDAG regional growth projections do not incorporate the 2010 Census population estimates. The economy of Metropolitan's service area is exceptionally diverse. In 2012, the economy of the six counties which contain Metropolitan's service area had a gross domestic product larger than all but fifteen nations of the world. Metropolitan provides between 40 and 60 percent of the water used within its service area every year. For additional economic and demographic information concerning the six county area containing 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. Court decisions have restricted deliveries from the State Water Project in recent years as described below under "—State Water Project—*Endangered Species Act Considerations.*" Precipitation, in the form of snow or rain, and its resulting runoff and storage levels are key indicators for Metropolitan's supplies from both its State Water Project and Colorado River sources. Snowpack, as presented below, is a percentage of the April 1 historical average water content. April 1 is recognized as the typical peak of the season in any given year.

California hydrology is highly variable from year to year. In March 2011, following a three year drought, California Governor Jerry Brown proclaimed an end to the statewide drought emergency proclaimed in February 2009 by then-Governor Arnold Schwarzenegger. In 2011, California's snowpack peaked at 163 percent of normal. Drier conditions returned for 2012, with California statewide snowpack peaking in mid-April 2012 at 64 percent of normal. After large storms in November and December of 2012, California started 2013 with above normal snowpack conditions for the State. However, the California 2013 snowpack peaked in March at 61 percent of normal, and associated runoff was 65 percent of normal.

Calendar year 2013 was the driest on record in much of California and dry conditions continued through January 2014. As a result of these below-normal water supply conditions, Department of Water Resources ("DWR") storage in key reservoirs is well below normal as of April 7, 2014, despite modest increases to reservoir storage from above-average precipitation in February and March 2014. For example, as of April 7, 2014, storage in Lake Oroville, the principal State Water Project reservoir, was at 65 percent of average capacity and storage in San Luis Reservoir, a joint use facility of the State Water Project and federal Central Valley Project that is located south of the San Francisco Bay/Sacramento-San Joaquin River Delta ("Bay-Delta"), was at 50 percent of average capacity. In April 2014, snowpack for the season peaked at 35 percent of normal and associated runoff was forecasted by DWR to be 42 percent of normal, as of April 7, 2014.

Due to these record-dry conditions and lower than average water levels in State reservoirs, Governor Brown proclaimed a drought emergency on January 17, 2014. On January 31, 2014, DWR reduced the State Water Project allocation percentage to zero, reflecting the severity of California's drought.

On April 18, 2014, DWR increased state water contractors' allocations for State Water Project allocation from zero to five percent due to February and March storms. At five percent, Metropolitan's State Water Project allocation for 2014 is approximately 95,000 acre-feet. DWR may revise allocations if warranted by the year's developing hydrologic and water supply conditions. See "METROPOLITAN'S WATER SUPPLY—State Water Project" in this Appendix A.

Despite improved conditions in February and March 2014, drought conditions continue and state water supplies remain far below average. As a result, Governor Brown issued an executive order on April 25, 2014, strengthening the state's authority to respond to the drought. The executive order expedites approvals of water transfers and exchanges, eases some environmental compliance requirements for drought response actions, and calls upon businesses and homeowners to limit potable water consumption, especially for landscaping.

Metropolitan's other principal source of water supply, the Colorado River, comes from watersheds of the Upper Colorado River basin in the states of Colorado, Utah, and Wyoming. Due to the way that Colorado River Supplies are apportioned, snowpack and runoff levels do not impact Metropolitan water supplies in the current year. Instead, snowpack and runoff impact storage levels at Lake Powell and Lake Mead, which in turn affect the likelihood of surplus or shortage conditions in the future. As of April 7, 2014, snowpack measured at 113 percent of normal to date. As of April 2, 2014, runoff is forecasted by the Bureau of Reclamation to be 103 percent of normal. See "METROPOLITAN'S WATER SUPPLY—Colorado River."

Uncertainties from potential future temperature and precipitation changes in a climate driven by increased concentrations of atmospheric carbon dioxide also present challenges. Areas of concern to California water planners identified by researchers include: reduction in Sierra Nevada snowpack; increased intensity and frequency of extreme weather events; and rising sea levels resulting in increased risk of damage from storms, high-tide events, and the erosion of levees and potential cutbacks of deliveries from the State Water Project. While potential impacts from climate change remain subject to study and debate, climate change is among the uncertainties that Metropolitan seeks to address through its planning processes.

Drought Response Actions

At this time, it is not possible to forecast the impact of the California drought on Metropolitan water supplies. Nevertheless, Metropolitan is well positioned to meet demands in 2014, despite the low allocation from DWR for State Water Project supplies. Having two principal sources of supply that draw from two different watersheds, Metropolitan is able to utilize supplies from the Colorado River to offset reductions in State Water Project supplies and buffer impacts of the California drought. Metropolitan plans to use Colorado River Aqueduct deliveries, storage reserves and supplemental water transfers and purchases to meet regional demands. As of January 1, 2014, Metropolitan held approximately 2.95 million acre-feet of water in storage. See "METROPOLITAN'S WATER SUPPLY— Storage Capacity and Water in Storage."

While sizeable water reserves position Metropolitan to meet demands in its service area in 2014, Metropolitan is encouraging responsible and efficient water use to lower demands. In March 2014, Metropolitan approved $20 million for conservation outreach and advertising in addition to the $20 million in conservation outreach funding in the biennial budget.

Metropolitan's financial reserve policy provides funds to manage through periods of reduced sales. See "METROPOLITAN REVENUES—Financial Reserve Policy." In years when actual sales are less than projections, Metropolitan uses various tools to manage reductions in revenues, such as reducing expenditures below budgeted levels, reducing funding of capital from revenues, and drawing on reserves. In years when actual sales exceed projections, the revenues from water sales during the fiscal year will exceed budget, potentially resulting in an increase in financial reserves. On April 8, 2014, Metropolitan's Board approved multiple uses of certain unrestricted reserves over the target level on June 30, 2014, which include a deposit of funds, currently estimated at $150 million, to a Water Management Fund to cover costs associated with replenishing storage, purchasing transfers and funding drought response programs. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES—Water Sales Revenues."

Integrated Water Resources Plan

Metropolitan, its member agencies, sub-agencies and groundwater basin managers developed their first Integrated Water Resources Plan ("IRP"), which was adopted by the Board in January 1996 and updated in 2004, as a long-term planning guideline for resources and capital investments. The purpose of the IRP was the development of a portfolio of preferred resources (see "—The Integrated Resources Plan Strategy" below) to meet the water supply reliability and water quality needs for the region in a cost-effective and environmentally sound manner.

On October 12, 2010, Metropolitan's Board adopted an IRP update (the "2010 IRP Update") as a strategy to set goals and a framework for water resources development. This strategy enables Metropolitan and its member agencies to manage future challenges and changes in California's water conditions and to balance investments with water reliability benefits. The 2010 IRP Update provides an adaptive management approach to address future uncertainty, including uncertainty from climate change. It was formulated with input from member agencies, retail water agencies, and other stakeholders including water and wastewater managers, environmental and business interests and the community. The framework places an emphasis on regional collaboration.

The 2010 IRP Update seeks to provide regional reliability through 2035 by stabilizing Metropolitan's traditional imported water supplies and continuing to develop additional local resources, with an increased emphasis on regional collaboration. It also advances long-term planning for potential future contingency resources, such as storm water capture and large-scale seawater desalination, in close coordination with Metropolitan's 26 member agencies and other utilities.

The 2010 IRP Update is available on Metropolitan's web site at http://www.mwdh2o.com/mwdh2o/pages/yourwater/irp/. Specific projects that may be developed by Metropolitan in connection with the implementation of the IRP will be subject to future Board consideration and approval, as well as environmental and regulatory documentation and compliance. The information set forth on Metropolitan's website is not incorporated by reference.

The Integrated Resources Plan Strategy

The IRP Strategy identifies a balance of local and imported water resources within Metropolitan's service area. Metropolitan expects that the core resource strategy, uncertainty buffers and foundational actions in the IRP Strategy will be continually reviewed and updated at least every five years to reflect changing demand and supply conditions. Foundational actions include technical studies and research (up to pilot projects, but not full-scale projects) that enable timely, future implementation of challenging resources, including, but not limited to, recycled water, seawater desalination, stormwater capture, and groundwater enhancement.

The following paragraphs describe several elements of the IRP Strategy.

State Water Project. The State Water Project is one of Metropolitan's two major sources of water. In addition to municipal and industrial use of this core supply, 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 "—State Water Project" below and "REGIONAL WATER RESOURCES—Local Water Supplies" 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 agreements with agricultural water districts in southern California and entities in Arizona and Nevada that use Colorado River water. See "—Colorado River Aqueduct" below.

Water Conservation. Conservation and other water use efficiencies are integral components of Metropolitan's IRP. Metropolitan has invested in conservation programs since the 1980s. Historically, most of the investments have been in water efficient fixtures in the residential sector. Current efforts also focus on outdoor and commercial water use. See "—Water Conservation" below.

Recycled Water. Reclaimed or recycled municipal and industrial water is not potable, but can be used for landscape irrigation, agriculture, 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" in this Appendix A.

Water Transfers and Exchanges. Under voluntary water transfer or exchange agreements, agricultural communities using irrigation water may periodically sell some of their water allotments to urban areas. The water may be delivered through existing State Water Project or Colorado River Aqueduct facilities, or may be exchanged for water that is delivered through such facilities. Metropolitan's policy toward potential transfers states that the transfers will be designed to protect and, where feasible, enhance environmental resources and avoid the mining of local groundwater supplies. See "—Water Transfer, Storage and Exchange Programs" below.

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 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.

Seawater Desalination. Seawater desalination is the process of removing salts from ocean water to produce potable supplies. It is a potential new local supply that could help increase supply reliability in Metropolitan's service area. Metropolitan offers financial incentives to member agencies for seawater desalination projects through its Seawater Desalination Program. Currently, a number of seawater desalination projects are under development within Metropolitan's service area. See "REGIONAL WATER RESOURCES—Local Water Supplies" and "METROPOLITAN REVENUES—Rate Structure" in this Appendix A.

State Water Project

General. One of Metropolitan's two major sources of water is the State Water Project, which is owned by 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 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 water supply 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 (approximately 18.4 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 53 percent for 2012). 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.

The State Water Contract, under a 100 percent allocation, provides Metropolitan 1,911,500 acre-feet of water. (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.) The 100 percent allocation is referred to as the contracted amount. Each year in November, DWR announces an initial allocation estimate, but may revise the estimate throughout the year if warranted by developing precipitation and water supply conditions. From calendar years 2003 through 2013, the amount of water received by Metropolitan from the State Water Project, including water from water transfer, groundwater banking and exchange programs delivered through the California Aqueduct, described below under "—Water Transfer, Storage and Exchange Programs," varied from a low of 908,000 acre-feet in calendar year 2009 to a high of 1,800,000 acre-feet in 2004.

For calendar year 2012, DWR's allocation to State Water Project contractors was 65 percent of contracted amounts which provided 1,242,475 acre-feet of Metropolitan's 1,911,500 acre-foot contractual amount. In addition, Metropolitan began 2012 with 243,000 acre-feet of carryover supplies from prior years. In calendar year 2013, DWR's allocation to State Water Project contractors was 35 percent of contracted amounts, or 669,025 acre-feet of Metropolitan's 1,911,500 acre-foot contractual amount. In addition, Metropolitan began 2013 with approximately 281,000 acre-feet of carryover supplies from prior years. See "—Water Transfer, Storage and Exchange Programs" and "—Storage Capacity and Water in Storage" below.

For calendar year 2014, DWR's allocation to State Water Project contractors was announced on April 18, 2014, as five percent of the contracted amount, approximately 95,575 acre-feet. This allocation reflects that calendar year 2013 was the driest on record in much of California, dry conditions have persisted in 2014, storage levels are low in the State's major reservoirs, drought conditions occurred in previous years, and federally mandated environmental restrictions have been imposed upon water deliveries from the Bay Delta.

Metropolitan began 2014 with approximately 223,000 acre-feet of carryover supplies from prior years, all of which can be drawn in 2014. As in previous dry years, Metropolitan may augment these deliveries using withdrawals from its storage programs along the State Water Project and through water transfer and exchange programs. See "METROPOLITAN'S WATER SUPPLY—Water Transfer, Storage and Exchange Programs" in this Appendix A.

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. 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.

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 United States Fish and Wildlife Service ("USFWS") and National Marine Fisheries Service issued biological opinions and incidental take statements governing the coordinated 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. Under the Federal ESA, critical habitat must also be designated for each listed species. Critical habitat has been designated for each of the currently listed species.

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. 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. Metropolitan, 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"), the Family Farm Alliance and the Pacific Legal Foundation, on behalf of several owners of small farms in California's Central Valley, filed separate lawsuits in federal district court challenging the biological opinion. The federal court consolidated these lawsuits under the caption *Delta Smelt Consolidated Cases*.

On December 14, 2010, Judge Wanger issued a decision on summary judgment finding that there were major scientific and legal flaws in the Delta smelt biological opinion. The court found that some but not all of the restrictions on project operations contained in the 2008 Delta smelt biological opinion were arbitrary, capricious and unlawful. On May 18, 2011, Judge Wanger issued a final amended judgment directing the USFWS to complete a new draft biological opinion by October 1, 2011, and a final biological opinion with environmental documentation by December 1, 2013. Later stipulations and orders changed the October 1, 2011 due date for a draft biological opinion to December 14, 2011, and changed the December 1, 2013 due date for the final biological opinion to December 1, 2014. A draft biological opinion was issued on December 14, 2011. The draft biological opinion deferred specification of a reasonable and prudent alternative and an incidental take statement pending completion of environmental impact review under the National Environmental Policy Act ("NEPA"). The federal defendants and environmental intervenors appealed the final judgment invalidating the 2008 Delta smelt biological opinion to the U.S. Court of Appeals for the Ninth Circuit. State Water Project and Central Valley Project contractor plaintiffs, including Metropolitan, cross-appealed from the final judgment. Those appeals and cross-appeals were argued on September 10, 2012.

On March 13, 2014, the Ninth Circuit reversed in part and affirmed in part the district court's decision. The Ninth Circuit reversed those portions of the district court decision which had found the 2008 Delta smelt biological opinion to be arbitrary and capricious, and held, instead, that the 2008 biological opinion was valid and lawful. Metropolitan's deliveries from the State Water Project were previously restricted under the 2008 biological opinion for a period prior to 2011. One practical result of the Ninth Circuit's decision is to legally approve the water supply restrictions in the 2008 biological opinion. These water supply restrictions could have a range of impacts on Metropolitan's deliveries from the State Water Project depending on hydrologic conditions. Metropolitan and others will file motions for reconsideration of the Ninth Circuit's decision by May 12, 2014. The decision is also subject to a petition for certiorari to the U.S. Supreme Court. Any impacts in 2014 will be limited by the 2014 allocation estimate of five percent for

State Water Project supplies and Metropolitan has not completed its assessment of any future impacts the decision may have. See "METROPOLITAN'S WATER SUPPLY—State Water Project—*General*" and "—*State Water Project Operational Constraints*" in this Appendix A.

On February 25, 2011, the federal court approved a settlement agreement modifying biological opinion restrictions on Old and Middle River flows that would have otherwise applied in spring 2011. The settlement agreement expired on June 30, 2011. State Water Project and Central Valley Project contractors also moved to enjoin certain fall salinity requirements in the biological opinion that were set to become operable in September and October 2011. After an evidentiary hearing on the water contractors' motion in July 2011, Judge Wanger issued a decision on August 31, 2011, modifying the fall salinity related requirements in the biological opinion. The effect of the injunction was to reduce water supply impacts from the biological opinion's fall salinity requirements. The federal defendants and the environmental intervenors appealed the injunction on fall salinity requirements but the federal defendants subsequently dismissed their appeal in October 2011. State Water Project and Central Valley Project contractors moved to dismiss the environmental intervenors' appeal of the fall salinity requirement on the ground that the salinity requirement for 2011 has expired, and is therefore moot. On August 23, 2012, the Ninth Circuit granted the water contractors' motion and dismissed the fall salinity appeal as moot.

On April 16, 2008, in *Pacific Coast Federation of Fishermen's Associations v. Gutierrez*, the court 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 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.

On June 4, 2009, the National Marine Fisheries Service released a new biological opinion for salmonid species to replace the 2004 biological opinion. The 2009 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 five to seven percent. DWR had estimated a 10 percent average water loss under this biological opinion. See "—*State Water Project Operational Constraints*" below for the estimated impact to Metropolitan's water supply. Six lawsuits were filed challenging the 2009 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 consolidated the cases under the caption *Consolidated Salmon Cases*.

On May 25, 2010, the court granted the plaintiffs' request for preliminary injunction in the *Consolidated Salmon Cases*, restraining enforcement of two requirements under the salmon biological opinion that limit exported water during the spring months based on San Joaquin River flows into the Bay-Delta and reverse flows on the Old and Middle Rivers. Hearings on motions for summary judgment in the *Consolidated Salmon Cases* were held on December 16, 2010. On September 20, 2011, Judge Wanger issued a decision on summary judgment, finding that the salmon biological opinion was flawed, and that some but not all of the project restrictions in the biological opinion were arbitrary and capricious. On December 12, 2011, Judge O'Neill (who was assigned to this case following Judge Wanger's retirement) issued a final judgment in the *Consolidated Salmon Cases.* The final judgment remands the 2009 salmon biological opinion to the National Marine Fisheries Service, and directs that a new draft salmon biological opinion be issued by October 1, 2014, and that a final biological opinion be issued by February 1, 2016, after completion of environmental impact review under NEPA. The due date for the salmon biological opinion was later extended to February 1, 2017. On January 19, 2012, Judge O'Neill approved a joint stipulation of the parties that specifies how to comply with one of the salmon biological opinion restrictions that applies to water project operations in April and May of 2012. In January and February 2012, the federal defendants and

environmental intervenors filed appeals of the final judgment in the *Consolidated Salmon Cases,* and State Water Project and Central Valley Project contractors filed cross-appeals. Those appeals and cross-appeals are now pending in the Ninth Circuit. Oral argument is scheduled for September 2014.

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. On April 2, 2010, the USFWS issued a finding that uplisting the Delta smelt was warranted but precluded by the need to devote resources to higher-priority matters. This "warranted but precluded" finding did not change the regulatory restrictions applicable to Delta smelt. For the longfin smelt litigation, a settlement agreement was approved on February 2, 2011. Under the agreement, the USFWS agreed to complete a range-wide status review of the longfin smelt and consider whether the Bay-Delta longfin smelt population, or any other longfin smelt population from California to Alaska, qualifies as a "distinct population" that warrants federal protection. On April 2, 2012, the USFWS issued its finding that the Bay-Delta longfin smelt population warrants protection under the ESA but is precluded from listing as a threatened or endangered species by the need to address other higher priority listing actions. The review identified several threats facing longfin smelt in the Bay-Delta, including reduced freshwater Bay-Delta outflows. The finding includes the determination that the Bay-Delta longfin smelt will be added to the list of candidates for ESA protection, where its status will be reviewed annually.

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)* requested 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 finding that DWR was 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 obtained 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 stayed the order pending the outcome of the appeal. The Court of Appeal stayed processing of the appeal in 2009 to allow time for DWR to obtain 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"). After the California Department of Fish & Game issued the Consistency Determinations under the California ESA, authorizing the incidental take of both Delta smelt and salmon, appellants DWR and State Water Contractors dismissed their appeals of the *Watershed Enforcers* decision. The Court of Appeal subsequently issued a decision finding that DWR was a "person" under the California ESA and subject to its take prohibitions, which was the only issue left in the case. 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. The parties are continuing discussions of adjustments to the incidental take authorizations in light of the summary judgment ruling in the *Delta Smelt Consolidated Cases* and the *Consolidated Salmon Cases,* discussed under the heading *"—Federal ESA Litigation"* above.

The California Fish and Game Commission listed the longfin smelt as a threatened species under the California ESA 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 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 has been 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. The impact on total 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, and are estimated to range from 0.3 million acre-feet during critically dry years to 1.3 million acre-feet in above normal water years. State Water Project deliveries to contractors for calendar years 2008 through 2012 were reduced by a total of approximately 2.3 million acre-feet as a result of pumping restrictions. Pumping restrictions impacting the State Water Project allocation for calendar year 2013 have reduced exports by approximately 596,000 acre-feet.

Operational constraints likely will continue until long-term solutions to the problems in the Bay-Delta are identified and implemented. The Delta Vision process, established by then-Governor Schwarzenegger, was 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, which is aimed at addressing ecosystem needs and securing long-term operating permits for the State Water Project, and includes the Delta Habitat Conservation and Conveyance Program ("DHCCP") (together, the "BDCP"). The BDCP's current efforts consist of the preparation of the environmental documentation and preliminary engineering design for Bay-Delta water conveyance and related habitat conservation measures under the BDCP. The Delta Vision process and the BDCP are discussed further under "*—Bay-Delta Regulatory and Planning Activities*" below.

Other issues, such as the 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 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, because 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. Metropolitan and twelve other State Water Project contractors located south of the Bay-Delta intervened in this litigation. The parties reached a settlement that requires plaintiffs to dismiss the action with prejudice and agree to certain limitations on asserting area of origin arguments in the future. In return, DWR and the intervenors agreed to operational changes that will increase the reliability of plaintiffs' State Water Project supplies at little or

minimal cost to other State Water Project contractors. On March 30, 2014, the court approved the settlement agreement, and dismissed the matter with prejudice.

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. 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. Currently, the SWRCB is reviewing salinity objectives in the Bay-Delta intended to protect Bay-Delta farming and inflow requirements upstream of the Delta to protect aquatic species. DWR and the Bureau of Reclamation filed a petition on January 29, 2014, requesting changes to D-1641 terms that govern outflows in the Bay-Delta. The SWRCB approved temporary urgency changes in the required outflows into the Bay-Delta on January 31, 2014, enabling water to be conserved in reservoirs in case of continued drought. The temporary urgency changes also permit flexible operation of gates that typically remain closed during the late winter and spring to protect fish. Instead, gates may be operated based on evolving water quality conditions and fish migration information, which will enable greater protection against salt water intrusion to the interior portion of the Bay-Delta while protecting fish populations.

The CALFED Bay-Delta Program was a collaborative effort among 25 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 Environmental Impact Report ("EIR") under the California Environmental Quality Act ("CEQA") was challenged in three separate cases, but ultimately upheld by the California Supreme Court in June 2008.

The CALFED Bay-Delta Program 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 and governance for the CALFED Bay-Delta Program and identify a strategy for managing the Bay-Delta as a sustainable resource, in September 2006, then-Governor Schwarzenegger established by Executive Order a Delta Vision process. The Delta Vision process resulted in the creation of a Delta Vision Blue Ribbon Task Force that 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. These recommendations included completing the BDCP and associated environmental assessments to permit ecosystem revitalization and water conveyance 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 (the "Legislature") on a comprehensive water bond package to fund Bay-Delta infrastructure projects.

On November 4, 2009, the 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 bond measure

is subject to voter authorization and was scheduled to be included on the November 2010 ballot; however, in August 2010 the Legislature postponed the bond election to 2012 and in July 2012 the Legislature postponed the bond election to November 2014. As of April 23, 2014, new bond legislation has been introduced in the Legislature that would modify or replace the current bond. Metropolitan is not able to assess at this time the likelihood that any bond legislation will pass or the potential impact that any of the introduced bond legislation may have on Metropolitan.

Delaying the bond election did not impact other parts of the 2009 water legislation. Related legislation created a new oversight council for the Bay-Delta, the Delta Stewardship Council, 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 Delta Stewardship Council, formed on February 3, 2010, is CALFED's successor agency and was directed to adopt and oversee implementation of a comprehensive management plan for the Bay-Delta. The Delta Stewardship Council certified the Program EIR for the Delta Plan and approved the Delta Plan on May 16, 2013, and adopted regulations corresponding to the policies in the Delta Plan on May 17, 2013.

On May 24, 2013, the San Luis & Delta-Mendota Water Authority and Westlands Water District filed litigation in Sacramento Superior Court challenging the adequacy of the Program EIR under CEQA, and alleged that the Delta Plan is invalid because, among other things, it is inconsistent with the Delta Reform Act of 2009. On June 14, 2013, several different actions were filed challenging the adequacy of the Program EIR under CEQA and alleging that the Delta Plan is invalid. The State Water Contractors, Metropolitan, Alameda County Flood Control and Water Conservation District, Zone 7, Santa Clara Valley Water District, Antelope Valley-East Kern Water Agency, and San Bernardino Valley Municipal Water District filed in Sacramento Superior Court; several environmental interest groups, as well as several fishing industry groups and the Winnemem Wintu Tribe filed in San Francisco Superior Court; and the City of Stockton filed in San Joaquin County Superior Court. On June 17, 2013, Save the California Delta Alliance, as well as the Central Delta Water Agency, South Delta Water Agency, Local Agencies of the North Delta, and others filed in San Francisco Superior Court. The impact, if any, that such litigation might have on Metropolitan's State Water Project supplies cannot be determined at this time. In September 2013, the seven cases were coordinated in Sacramento Superior Court as the Delta Stewardship Council Cases. In March 2014, the court set a schedule for lodging of the administrative record and other pre-trial motions. The next case management conference is scheduled for July 2014. No trial date has been set.

On July 25, 2012, Governor Jerry Brown and Secretary of the Interior Ken Salazar announced key proposed elements to advance the BDCP planning process, including north Bay-Delta water diversion facilities with a total capacity of 9,000 cubic-feet per second ("cfs"), two tunnels sized to minimize energy use during operations and a "decision tree" process for unresolved operation criteria such as fall and spring outflows. Preliminary cost estimates for the conveyance portion of this project alternative are approximately $14 billion. When a decision selecting the final project has been made, costs will be updated and allocated. Metropolitan anticipates that it could bear approximately 25 percent of the costs of the conveyance portion of the project.

Public review drafts of both the BDCP and the BDCP EIR/EIS were released on December 9, 2013. The public comment period will extend from December 13, 2013 to June 13, 2014. The planning, environmental documentation and preliminary engineering design for the BDCP are being prepared pursuant to the Delta Habitat Conservation and Conveyance Program Memorandum of Agreement ("MOA") and are also scheduled to be completed in 2014. The parties to the MOA are DWR, the Bureau of Reclamation, the State and Federal Contractors Water Agency, Metropolitan, Kern County Water Agency, State Water Contractors, San Luis & Delta Mendota Water Authority, Westlands Water District and Santa Clara Valley Water District.

Sacramento Regional County Sanitation District Litigation. Metropolitan, along with other State and federal water contractors, has urged action to address water quality concerns with respect to both the aquatic health of the Bay-Delta and drinking water quality. On December 9, 2010, the Central Valley Regional Water Quality Control Board ("Regional Board") approved a National Pollutant Discharge Elimination System ("NPDES") permit for the Sacramento Regional County Sanitation District ("Sanitation District") setting water-quality based requirements for the Sanitation District's wastewater treatment plant that will require advanced treatment upgrades for the Sanitation District's wastewater facility. The Sanitation District's treatment plant is the largest wastewater discharger into the Bay-Delta. The treatment plant provides only a secondary level of treatment and discharges nutrients, pathogens, and total organic carbon into the Bay-Delta water supply. The treatment plant's discharge of nitrogen, particularly ammonia, has been shown to be altering the food chain in the estuary to the detriment of Delta smelt and other native species. The NPDES permit calls for a significant reduction of the nitrogen and particularly ammonia discharge which will require full nitrification and denitrification treatment by 2020, as well as tertiary filtration treatment to meet pathogen removal requirements. The NPDES permit also includes additional permit limits and monitoring requirements for other water quality constituents, including toxic contaminants.

The Sanitation District petitioned the SWRCB for review of the NPDES permit. SWRCB adopted a final order at a December 4, 2012 hearing, which concludes the administrative appeal process. The SWRCB's final order rejects the Sanitation District's arguments, upholds the substantive requirements of the NPDES permit and will impose new more stringent water quality limits. Although the administrative appeal before the SWRCB was then pending, on December 30, 2011, the Sanitation District filed a lawsuit in Sacramento Superior Court against the Regional Board and SWRCB seeking to overturn and relax the NPDES permit. Metropolitan and other water agencies that participated in the NPDES permitting process intervened in the superior court case. On April 29, 2013, in a partial settlement of the litigation, the Sanitation District agreed to drop its challenge of the NPDES permit requirements for ammonia and nitrate removal. As part of the settlement, the Sanitation District will comply with a set of milestones resulting in completion of the construction of treatment facilities necessary for full nitrification and denitrification by 2021. This leaves a cause of action concerning pathogens and filtration requirements to be litigated. In exchange for dropping the ammonia and nitrate challenge, the Sanitation District is receiving two additional years to meet filtration and disinfection requirements, should those requirements remain following conclusion of the litigation.

Metropolitan, other urban State Water Contractor agencies and the Contra Costa Water District earlier brought a successful CEQA challenge in response to significant, unmitigated water quality impacts that would occur from a planned expansion of the Sanitation District's treatment plant. The Sanitation District appealed the trial court ruling and the case remains pending in the Third District Court of Appeal awaiting oral argument.

California Water Impact Network Litigation. On September 3, 2010, the California Water Impact Network and two other non-profit organizations filed a petition for writ of mandate and for declaratory and injunctive relief in Sacramento Superior Court against the SWRCB and DWR. The petition alleges that by permitting and carrying out the export of large volumes of water from the Delta through the State Water Project, the SWRCB and DWR have failed to protect public trust fishery resources in the Delta; have been diverting water from the Bay-Delta wastefully and unreasonably in violation of the prohibition against waste and unreasonable use in the California Constitution; and have failed to enforce and comply with water quality and beneficial use standards in D-1641, the 1995 SWRCB Water Quality Control Plan, and the Porter-Cologne Act. Among the relief sought in the petition is an injunction against Bay-Delta exports by the State Water Project pending compliance with the various laws and administrative orders that are alleged to have been violated. The State Water Contractors filed a motion to intervene in this action, which was granted on March 25, 2011. The court has ordered the plaintiffs to include the Bureau of Reclamation as a party. In response, the Bureau of Reclamation has asserted that federal sovereign immunity bars their inclusion in the state court action. If the court determines that the Bureau of Reclamation is an indispensable party, the lawsuit, or portions of it, may be dismissed.

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. The parties negotiated a settlement agreement in the fall of 2002, which allows continued operation of the State Water Project under the Monterey Agreement principles while a new EIR was prepared. DWR completed the final EIR and concluded the remedial CEQA review for the project on May 4, 2010.

Following DWR's completion of the EIR, three new lawsuits were filed challenging the project. Central Delta Water Agency, South Delta Water Agency, California Water Impact Network, California Sportfishing Protection Alliance, and the Center For Biological Diversity filed a lawsuit against DWR in Sacramento County Superior Court challenging the validity of the EIR under CEQA and the validity of underlying agreements under a reverse validation action (the "*Central Delta I*" case). These same plaintiffs filed a reverse validation lawsuit against the Kern County Water Agency in Kern County Superior Court ("*Central Delta II*"). This lawsuit targets a transfer of land from Kern County Water Agency to the Kern Water Bank, which was completed as part of the original Monterey Amendments. The third lawsuit is an EIR challenge brought by Rosedale-Rio Bravo Water Storage District and Buena Vista Water Storage District against DWR in Kern County Superior Court ("*Rosedal*e"). The two Kern County cases were transferred to Sacramento Superior Court and the three cases consolidated for trial. The *Central Delta II* case was stayed pending resolution of the *Central Delta I* case.

In January 2013, the Court ruled that the validation cause of action in *Central Delta I* was time barred by the statute of limitations. On March 5, 2014 the Court issued its decision in *Central Delta I* and *Rosedale*. In *Central Delta I* the Court ruled that DWR violated CEQA in that the EIR fails to adequately describe, analyze, and mitigate the potential impacts associated with the Kern Water Bank. The court, therefore, granted the petition for writ of mandate. In *Rosedale,* the Court ruled that DWR violated CEQA in the preparation of the EIR because the EIR fails to adequately describe, analyze, and mitigate the potential impacts of the project associated with the Kern Water Bank, particularly as to potential groundwater and water quality impacts. The court, therefore, granted the petition for writ of mandate. In both rulings, the court directed the petitioners to notice a hearing to discuss an appropriate remedy for the CEQA violation. Deciding upon a remedy for the defect in the EIR regarding analysis of the potential impacts of operation of the Kern Water Bank is the next step in the litigation. Any adverse impact of this litigation and ruling on Metropolitan's State Water Project supplies cannot be determined at this time.

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 and 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, in which event 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 1.25 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. 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, during the 1990s Arizona and Nevada increased their use of water from the Colorado River, utilizing their respective basic apportionments by 2002 and significantly reducing unused apportionment available for California. 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 1,105,232 acre-feet in 2009. Average annual net deliveries for 2003 through 2013 were approximately 838,000 acre-feet, with annual volumes dependent primarily on programs to augment supplies, including transfers of conserved water from agriculture. Metropolitan's Colorado River supply was nearly 1,012,000 acre-feet in 2013. See "*—Quantification Settlement Agreement*" and "*—Interim Surplus Guidelines*" below.

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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	
2	Yuma Project in California not exceeding a gross area of 25,000 acres in California	3,850,000
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"), Metropolitan provided funding for IID to construct and operate a number of conservation projects that are currently conserving up to 105,000 acre-feet of water per year that is provided to Metropolitan. Under the October 2003 Quantification Settlement Agreement and related agreements, Metropolitan, at the request of Coachella Valley Water District ("CVWD"), forgoes up to 20,000 acre-feet of this water each year for diversion by CVWD. See "–*Quantification Settlement Agreement*" below. In 2011 and 2012 CVWD's requests were for 4,000 and 10,463 acre-feet respectively, leaving 99,940 acre-feet in 2011 and 93,677 acre-feet in 2012 for Metropolitan. 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, under the agreement as amended, were recovered and delivered to Metropolitan between 2007 and 2010.

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 began on January 1, 2005. In March 2009, Metropolitan and PVID entered into a supplemental fallowing program within PVID that provided for the fallowing of additional acreage in 2009 and 2010. In calendar years 2009 and 2010, respectively, 24,100 acre-feet and 32,300 acre-feet of water were saved and made available to Metropolitan under the supplemental program. The following table shows annual volumes of water saved and made available to Metropolitan:

WATER AVAILABLE FROM PVID LAND MANAGEMENT, CROP ROTATION AND WATER SUPPLY PROGRAM

Calendar Year	Volume (acre-feet)
2005	108,700
2006	105,000
2007	72,300
2008	94,300
2009*	144,300
2010*	148,600
2011	122,200
2012	73,700
2013	31,400

Source: Metropolitan.

* Includes water from the supplemental fallowing program that provided for fallowing of additional acreage in 2009 and 2010.

In May 2008, Metropolitan provided $28.7 million to join the CAWCD and the Southern Nevada Water Authority ("SNWA") in funding the Bureau of Reclamation's construction of an 8,000 acre-foot off-stream regulating reservoir near Drop 2 of the All-American Canal in Imperial County (officially renamed the Warren H. Brock Reservoir). Construction was completed in October 2010. The Warren H. Brock Reservoir conserves about 70,000 acre-feet of water per year by capturing and storing otherwise non-storable water flow. The Bureau of Reclamation has refunded to Metropolitan $2.64 million in unused contingency funds. In return for its funding, Metropolitan received 100,000 acre-feet of water that was stored in Lake Mead, with the ability to deliver up to 40,000 acre-feet of the water which has not yet been used in any one year. Besides the additional water supply, the new reservoir adds to the flexibility of Colorado River operations.

In September 2009, Metropolitan authorized participation with SNWA, the Colorado River Commission of Nevada, the CAWCD and the Bureau of Reclamation in the pilot operation of the Yuma Desalting Plant. The Bureau of Reclamation concluded the pilot operation of the Yuma Desalting Plant in March 2011. Metropolitan's contribution for the funding agreement was $8,395,313, of which $1,087,687 was refunded to Metropolitan. Metropolitan's yield from the pilot run of the project was 24,397 acre-feet.

In November 2012, Metropolitan executed agreements in support of a program to augment Metropolitan's Colorado River supply from 2013 through 2017 through an international pilot project in Mexico. Metropolitan's share of costs will be $5 million for 47,500 acre-feet of project supplies. The costs will be paid between 2014 and 2017, and the conserved water will be credited to Metropolitan's intentionally-

created surplus water account no later than 2017. See "— *Intentionally-Created Surplus Program*" below. In December 2013, Metropolitan and IID executed an agreement under which IID will pay half of Metropolitan's program costs, or $2.5 million, in return for half of the project supplies, or 23,750 acre-feet.

Quantification Settlement Agreement. The Quantification Settlement Agreement ("QSA"), executed by CVWD, IID and Metropolitan in October 2003, establishes Colorado River water use limits for IID and CVWD, provides for specific acquisitions of conserved water and water supply arrangements for up to 75 years, and restored 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 conserve approximately 96,000 acre-feet annually. As a result, about 80,000 acre-feet of conserved water is delivered to the San Diego County Water Authority ("SDCWA") by exchange with Metropolitan. Metropolitan also takes delivery of 16,000 acre-feet annually that will be made available for the benefit of the La Jolla, Pala, Pauma, Rincon and San Pasqual Bands of Mission Indians, the San Luis Rey River Indian Water Authority, the City of Escondido and the Vista Irrigation District, upon completion of a water rights settlement. An amendment to the 1988 Conservation Agreement between Metropolitan and IID and an associated 1989 Approval Agreement among Metropolitan, IID, CVWD and PVID, extended the term of the 1988 Conservation Agreement and limited the single year amount of water used by CVWD to 20,000 acre-feet. Also included under the QSA is the Delivery and Exchange Agreement between Metropolitan and CVWD that provides for Metropolitan to deliver annually up to 35,000 acre-feet of Metropolitan's State Water Project contractual water to CVWD by exchange with Metropolitan's available Colorado River supplies. In calendar year 2011, under a supplemental agreement with CVWD, Metropolitan delivered 105,000 acre-feet, which consisted of the full 35,000 acre-feet for 2011 plus advance delivery of the full contractual amounts for 2012 and 2013. In 2013, Metropolitan entered into a second supplemental agreement with CVWD. Under this agreement, Metropolitan delivered to CVWD 2,508 acre-feet of water in 2013 that would otherwise have been available in 2014. In return, CVWD reduced its 2012 Colorado River water order by 9,537 acre-feet and allowed Metropolitan to use that water conserved by IID. In 2021, the transfer of water conserved annually by IID to SDCWA is expected to reach 205,000 acre-feet. See description below under the caption "*—Sale of Water by the Imperial Irrigation District to San Diego County Water Authority*"; see also "METROPOLITAN REVENUES—Principal Customers" in this Appendix A. 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 water from other water augmentation programs it develops, including the PVID program, which provides up to approximately 130,000 acre-feet of water per year. (Amounts of Colorado River water received by Metropolitan in 2003 through 2013 are discussed under the heading "—Colorado River Aqueduct—*General*" above.)

A complicating factor in completing the QSA was the fate of the Salton Sea, 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 California and Federal ESAs. 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. Without mitigation, the transfer of water from IID to SDCWA, one of the core programs implemented under the QSA, would reduce the volume of agricultural drainage from IID's service area 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. In passing legislation to implement the QSA, 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. On September 25, 2010, then-Governor Schwarzenegger signed Senate Bill 51, establishing the "Salton Sea Restoration Council" as a state agency in the Natural Resources Agency to oversee restoration of the Salton Sea. The council was directed to evaluate alternative Salton Sea restoration plans and to report to the Governor and the Legislature by June 30, 2013 with a recommended plan. However, Governor Brown's 2012 Reorganization Plan, as modified by budget trailer bill SB 1018 (Leno), Chapter 39, Statutes of 2012, effective December 31, 2012, eliminated the council before it ever met. The QSA implementing legislation also established the Salton Sea Restoration Fund, to 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 agreed to 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, if available. 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. 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 has been available since 2007. 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.

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 that is conserved within 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. Accordingly, Metropolitan and SDCWA entered into an exchange contract, pursuant to which SDCWA makes available to Metropolitan at its intake at Lake Havasu on the Colorado River the conserved Colorado River water acquired by SDCWA from IID and water allocated to SDCWA that has been conserved as a result of the lining of the All-American and Coachella Canals. See "*—Quantification Settlement Agreement"* above. Metropolitan delivers an equal volume of water from its own sources of supply through portions of its delivery system to SDCWA. The deliveries to both Metropolitan and SDCWA are deemed to be made in equal monthly increments. In consideration for the conserved water made available to Metropolitan by SDCWA, a lower rate is paid by SDCWA for the exchange water delivered by Metropolitan. The price payable by SDCWA is calculated using the charges set by Metropolitan's Board from time to time to be paid by its member agencies for the conveyance of water through Metropolitan's facilities. See "METROPOLITAN REVENUES–Wheeling and Exchange Charges" and "–Litigation Challenging Rate Structure" in this Appendix A for a description of Metropolitan's charges for the conveyance of water through Metropolitan's facilities and litigation in which SDCWA and IID are challenging such charges. In 2011, 143,243 acre-feet were delivered by SDCWA for exchange, consisting of 63,278 acre-feet of IID conservation plus 79,965 acre-feet of conserved water from the Coachella Canal and All-American Canal lining projects. In 2012, 186,861 acre-feet were delivered by SDCWA for exchange, consisting of 106,722 acre-feet of IID conservation plus 80,139 acre-feet of conserved water from the Coachella Canal and All-American Canal lining projects.

The QSA agreements provided for delivery of 80,000 acre-feet of water conserved by IID in 2011. The delivery of conserved water fell short by 16,722 acre-feet. In accordance with the terms of the exchange contract, Metropolitan served SDCWA with a Notice of Default. The exchange contract provides that SDCWA will pay the lower water rate based on deliveries of exchange water that match the volume of conserved water made available by IID in each calendar year. Metropolitan invoiced SDCWA for its higher water rate on the 16,722 acre-feet of additional non-exchange water delivered in 2011. SDCWA paid this invoice under protest. Metropolitan agreed to exchange with SDCWA up to an additional 16,722 acre-feet in 2012 if IID delivered that volume of conserved water after meeting its 2012 obligation of 90,000 acre-feet. IID was able to obtain and deliver the additional 16,722 acre-feet by reducing its use of Colorado River water and Metropolitan credited back to SDCWA the amount paid under protest.

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 contemporaneously challenging the execution, approval and implementation of the QSA on various grounds. All of the QSA cases were coordinated in Sacramento Superior Court. Between early 2004 and late 2009, a number of pre-trial challenges and dispositive motions were filed by the parties and ruled on by the court, which reduced the number of active cases and narrowed the issues for trial, the first phase of which began on November 9, 2009 and concluded on December 2, 2009. One of the key issues in this first phase was the constitutionality of the QSA Joint Powers Agreement, pursuant to which IID, CVWD and SDCWA agreed to commit $163 million toward certain mitigation and restoration costs associated with implementation of the QSA and related agreements, and the State agreed to be responsible for any costs exceeding this amount. A final judgment was issued on February 11, 2010, in which the trial court held that the State's commitment was unconditional in nature and, as such, violated the appropriation requirement and debt limitation under the California Constitution. The trial court also invalidated eleven other agreements, including the QSA, because they were inextricably interrelated with the QSA Joint Powers Agreement. Lastly, the trial court ruled that all other claims raised by the parties, including CEQA claims related to the QSA Programmatic EIR and the IID Transfer Project EIR, are moot.

In March 2010, Metropolitan, IID, CVWD, SDCWA, the State and others filed notices of appeal challenging various aspects of the trial court's ruling. On December 7, 2011, the court of appeal issued its ruling reversing, in part, the trial court's ruling. In particular, the court of appeal held that while the State's commitment to fund mitigation costs in excess of $163 million was unconditional, actual payment of such costs was subject to a valid appropriation by the Legislature, as required under the California Constitution. Moreover, the State's commitment did not create a present debt in excess of the State Constitution's $300,000 debt limit. Thus, the QSA Joint Powers Agreement was held to be constitutional. The court of appeal also rejected other challenges to this agreement, including that it was beyond the State's authority, there was no "meeting of the minds," and there was a conflict of interest. In light of its ruling, the court of appeal remanded the matter back to the trial court for further proceedings on the claims that had been previously dismissed as moot. A two-day bench trial was held on November 13, 2012. On June 4, 2013 the trial court issued its ruling, holding that IID had acted within its authority in executing these agreements and had complied with all substantive and procedural requirements imposed under State law. In addition, the court held that the environmental reviews conducted in support of the QSA and related agreements complied with CEQA and its implementing regulations in all respects. In short, the trial court rejected all of the claims asserted by opponents of the QSA. Parties challenging the QSA appealed and agencies supporting the QSA filed a cross-appeal. Briefing was completed in April 2014, however the court has not set a hearing date. The impact that this litigation might have on Metropolitan's water supplies cannot be adequately determined at this time.

On January 28, 2010, Metropolitan was served with a federal complaint filed by the County of Imperial and the Imperial County Air Pollution Control District alleging that execution and implementation of three QSA-related agreements violate NEPA and the federal Clean Air Act. The complaint named the Department of the Interior, Secretary of the Interior, Bureau of Reclamation and Commissioner of

Reclamation as defendants, and Metropolitan, CVWD, IID and SDCWA as real parties in interest. With respect to NEPA, the complaint alleged that the environmental impact statement prepared by the Bureau of Reclamation: failed to adequately analyze potential impacts on the Salton Sea and on land use, growth and socioeconomics; improperly segmented various project components; failed to address cumulative impacts; and failed to address mitigation of potential impacts. With respect to the Clean Air Act, the complaint alleged that the Bureau of Reclamation failed to conduct a conformity analysis as required under the Act and Imperial County Air Pollution Control District's own rules. On April 6, 2012, the court ruled against the plaintiffs and in favor of the defendants on all claims. The court held that the plaintiffs lacked standing to pursue NEPA and Clean Air Act claims and that the NEPA claims lacked merit. On May 4, 2012, the plaintiffs filed a notice of appeal. On May 22, 2012, the non-federal defendants filed a notice of cross-appeal. Briefing has been completed, oral argument was heard by the Ninth Circuit Court of Appeals on December 4, 2013, and a ruling is expected in 2014.

Navajo Nation Litigation. The Navajo Nation filed litigation against the Department of the Interior, specifically the Bureau of Reclamation and the Bureau of Indian Affairs, in 2003, 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 and other California water agencies filed motions 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, CAWCD, State of Arizona and Arizona Department of Water Resources. After years of negotiations, a tentative settlement was proposed in 2012 that would provide the Navajo Nation with specified rights to water from the Little Colorado River and groundwater basins under the reservation, along with federal funding for development of water supply systems on the tribe's reservation. The proposed agreement was rejected by tribal councils for both the Navajo and the Hopi, who are now seeking to intervene. On May 16, 2013, the stay of proceedings was lifted. On June 3, 2013, the Navajo Nation filed for leave to file a first amended complaint, which the court granted on June 27, 2013. The amended complaint adds a legal challenge to guidelines adopted by the Secretary of the Interior in 2007 that allow Metropolitan and other Colorado River water users to store water in Lake Mead. Metropolitan has used these new guidelines to store over 500,000 acre-feet of water in Lake Mead that may be delivered at Metropolitan's request in future years. The federal defendants and each of the intervenors, including Metropolitan, filed motions to dismiss the lawsuit. Briefing on the motions was completed in December 2013, and the parties are awaiting the court's ruling. Metropolitan will continue to defend its rights in the litigation. At this time, the impact of the litigation, if any, on Metropolitan cannot be determined.

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 amended in 2007 and now extend 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. On May 16, 2002 SNWA and Metropolitan entered into an Agreement Relating to Implementation of Interim Colorado River Surplus Guidelines, 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, SNWA can request that Metropolitan store unused Nevada apportionment in California. The amount of water stored through 2013 under this agreement is approximately 160,000 acre-feet. In subsequent years, SNWA may request recovery of this stored water. As part of a 2012 executed amendment, it is expected that SNWA will not request return of this water before 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 Colorado River Basin 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. As of January 2013, Metropolitan had approximately 580,000 acre-feet in its intentionally-created surplus accounts. These surplus accounts are made up of water conserved by fallowing in the Palo Verde Valley, projects implemented with IID in its service area, and desalination, specifically the Drop 2 Reservoir Project and the Yuma Desalting Plant pilot run. Metropolitan stored nearly 161,000 acre-feet of intentionally-created surplus water in 2012 and took delivery of an estimated 84,000 acre-feet in 2013.

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. Over the 50 year term of the program, the total cost to Metropolitan will be about $88.5 million (in 2003 dollars), and annual costs will range between $0.8 million and $4.7 million (in 2003 dollars).

Quagga Mussel Control Program. In January 2007 quagga mussels were discovered 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 in the Colorado River is recreational boats with exposure to water bodies around the Great Lakes. Metropolitan developed a program in 2007 to address the long term introduction of mussel larvae into the Colorado River Aqueduct from the Lower Colorado River, which is now heavily colonized from Lake Mead through Lake Havasu. The quagga mussel control program consists of surveillance activities and control measures. Surveillance activities are conducted annually in conjunction with regularly scheduled two- to three-week long Colorado River Aqueduct shutdowns, which have the added benefit of desiccating exposed quagga mussels. Control activities consist of continuous chlorination at Copper Basin, quarterly use of a mobile chlorinator at outlet towers and physical removal of mussels from the trash racks in Lake Havasu. Recent shutdown inspections have demonstrated that the combined use of chlorine and regularly scheduled shutdowns effectively control mussel infestation in the Colorado River Aqueduct. Metropolitan's costs for controlling quagga mussels are between $4 million and $5 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 approximately 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. 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 and Arvin-Edison 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 from 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 Metropolitan a 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. 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. This agreement was amended in 2011 to allow for the cumulative storage of up to 390,000 acre-feet. The agreement allows for Metropolitan to store water in an exchange account for later return. Through 2021, and when the State Water Project allocation is 60 percent or less, Metropolitan can annually withdraw the Mojave Water Agency's State Water Project contractual amounts in excess of a 10 percent reserve. When the State Water Project allocation is over 60 percent, the reserved amount for Mojave's local needs increases to 20 percent. Under a 100 percent allocation, the State Water Contract provides Mojave Water Agency 82,800 acre-feet of water. 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 36,900 acre-feet of Central Valley Water supplies through the Drought Water Bank, resulting in approximately 29,000 acre-feet of water deliveries after accounting for carriage and conveyance losses. In calendar year 2010, Metropolitan participated with other State Water Contractors as a group to purchase 88,137 acre-feet of water, resulting in approximately 68,000 acre-feet of deliveries to Metropolitan after carriage and conveyance losses. Additionally during 2010, Metropolitan entered into two transactions with the Westlands Water District and the San Luis Water District, neither of which is subject to carriage losses. Under the first transaction, Metropolitan purchased 18,453 acre-feet of water. In the second, Metropolitan accepted delivery of 110,692 acre-feet of water stored in the San Luis Reservoir, a joint use facility of the State Water Project and federal Central Valley Project, and returned two-thirds of that amount from Metropolitan's State Water Project supply in 2011 for a net yield of approximately 37,000 acre-feet.

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 at least 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 years 2008, 2009 and 2010, Metropolitan purchased 26,430 acre-feet, 42,915 acre-feet and 67,068 acre-feet of water, respectively, from YCWA under this program. No purchases were made in calendar years 2011 and 2012, due to favorable water supply conditions. In calendar year 2013, Metropolitan purchased 10,209 acre-feet.

In 2013, in response to dry conditions, DWR established a new Multi-Year Water Pool Demonstration Program to allow two-year sales of State Water Project supplies between State Water Project contractors. In 2013, Metropolitan purchased 30,000 acre-feet of these supplies.

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 contractual 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. From 2008 through 2013, Metropolitan has received a net additional supply of 52,189 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, is approximately 5.93 million acre-feet. In 2013, approximately 626,000 acre-feet of stored water was emergency storage that was 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 emergency storage requirement is established periodically to provide a six-month water supply at 75 percent of member agencies retail demand under normal hydrologic conditions. 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.

As a result of increased State Water Project supplies and reduced demands from 2010 to 2012, Metropolitan rebuilt its storage after several years of withdrawals to approximately 3.356 million acre-feet, including emergency storage. This was the highest end-of-year total water reserves in Metropolitan's history. In 2013, Metropolitan drew 405,000 acre-feet from storage to meet demands, reducing overall storage to 2.951 million acre-feet. The following table shows three years of Metropolitan's water in storage as of January 1, 2014, including emergency storage.

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METROPOLITAN'S WATER STORAGE CAPACITY AND WATER IN STORAGE[1]
(in Acre-Feet)

Water Storage Resource	Storage Capacity	Water in Storage January 1, 2014	Water in Storage January 1, 2013	Water in Storage January 1, 2012
Colorado River Aqueduct				
Desert / CVWD Advance Delivery Account	800,000	260,000	321,000	203,000
Lake Mead ICS	1,500,000	476,000	580,000	419,000
Subtotal	**2,300,000**	**736,000**	**901,000**	**622,000**
State Water Project				
Arvin-Edison Storage Program	350,000	161,000	201,000	164,000
Semitropic Storage Program	350,000	238,000	285,000	245,000
Kern Delta Storage Program	250,000	169,000	179,000	135,000
San Bernardino Valley MWD Coordinated Operating Agreement	50,000	-0-	-0-	-0-
Mojave Storage Program	390,000[5]	39,000	60,000	45,000
Castaic Lake and Lake Perris[2]	219,000	219,000	219,000	219,000
Metropolitan Article 56 Carryover[3]	200,000[6]	49,000	156,000	200,000
Other State Water Project Carryover[4]	n/a	174,000	124,000	43,000
Emergency Storage	334,000	334,000	334,000	334,000
Subtotal	**2,143,000**	**1,383,000**	**1,558,000**	**1,385,000**
Within Metropolitan's Service Area[7]				
Diamond Valley Lake	810,000	584,000	690,000	786,000
Lake Mathews	182,000	139,000	102,000	142,000
Lake Skinner	44,000	36,000	38,000	37,000
Subtotal	**1,036,000**	**759,000**	**830,000**	**965,000**
Member Agency Storage Programs				
Cyclic Storage, Conjunctive Use, and Supplemental Storage	455,000	73,000	67,000	30,000
Total	**5,934,000**	**2,951,000**	**3,356,000**	**3,002,000**

Source: Metropolitan.

(1) Water storage capacity and water in storage are measured based on engineering estimates and are subject to change.
(2) Flexible storage allocated to Metropolitan under its State Water Contract.
(3) Article 56 Carryover storage capacity is dependent on the annual State Water Project allocation, which varies from year to year. Article 56 supplies represent water that is allocated to a State Water Project contractor in a given year and carried over to the next year pursuant to the State Water Contract.
(4) Includes Article 56 Carryover from prior years, non-project carryover, and carryover of curtailed deliveries pursuant to Article 14(b) of Metropolitan's State Water Contract.
(5) The Mojave Storage Program agreement was amended in 2011 to allow for cumulative storage of up to 390,000 acre-feet.
(6) Metropolitan's State Water Project carryover capacity ranges from 100,000 to 200,000 acre-feet, on a sliding scale that depends on the final State Water Project allocation. At allocations of 50 percent or less, Metropolitan may store 100,000 acre-feet, and at allocations of 75 percent or greater, Metropolitan may store up to 200,000 acre-feet. For the purposes of this table, the highest possible carryover capacity is displayed.
(7) Includes 292,000 acre-feet of emergency storage in Metropolitan's reservoirs.

Water Conservation

The central objective of Metropolitan's water conservation program 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 recent years because of drought conditions in the State Water Project watershed and court-ordered restrictions on Bay-Delta pumping, as described under "—State Water Project" above. Water conservation is an integral component of Metropolitan's IRP Strategy, 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 program has 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 2010 IRP Update. See "—Integrated Water Resources Plan" above. Under the terms of the CUWCC MOU and Metropolitan's Conservation Credits Program, Metropolitan assists and co-funds member agency conservation programs designed to achieve greater water use efficiency in residential, commercial, industrial, institutional and landscape uses. Metropolitan uses its Water Stewardship Rate, which is charged for every acre-foot of water conveyed by Metropolitan, together with available grant funds, to fund conservation incentives and other water management programs. All users of Metropolitan's system benefit from the system capacity made available by investments in demand management programs like the Conservation Credits Program. See "METROPOLITAN REVENUES—Rate Structure—*Water Stewardship Rate*" in this Appendix A. 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 2012-13 was about $333 million. The 2010 Integrated Water Resources Plan Update estimates that 1,037,000 acre-feet of water will be conserved annually in southern California by 2025. See "—Integrated Water Resources Plan" above.

The Water Surplus and Drought Management Plan ("WSDM Plan"), which was adopted by Metropolitan's Board 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. The success of conservation measures in conjunction with the Water Supply Allocation Plan is evidenced as a contributing factor in the lower than budgeted water sales during fiscal years 2009-10, 2010-11 and 2011-12.

Legislation approved in November 2009 sets a statewide conservation target for urban per capita water use of 20 percent reductions by 2020 (with credits for existing conservation) at the retail level, providing an additional catalyst for conservation by member agencies and retail suppliers. (See "—State Water Project—*Bay-Delta Regulatory and Planning Activities"* above.) Metropolitan's water sales projections incorporate an estimate of conservation savings that will reduce retail demands. Current projections include an estimate of additional water use efficiency savings that would result from local agencies reducing their per capita water use in response to the 20 percent by 2020 conservation savings goals

required by recent legislation as well as an estimate of additional conservation that would have to occur to reach Metropolitan's IRP goal of reducing overall regional per capita water use by 20 percent by 2020.

Water Supply Allocation Plan

The Water Supply Allocation Plan provides a formula for equitable distribution of available water supplies in case of extreme water shortages within Metropolitan's service area. Delivery within a member agency of more than its allocated amount of Metropolitan supplies will subject the member agency to a penalty of 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 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.

The Water Supply Allocation Plan was approved by the Board in February 2008. On April 14, 2009, Metropolitan's Board adopted a 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 required reduction of regional water use by approximately 10 percent and resulted in a total allocation of about 2.09 million acre-feet of Metropolitan water in fiscal year 2009-10. On April 13, 2010, the Board adopted a resolution recognizing the continuing regional water shortage and again setting the Regional Shortage Level at Water Supply Allocation Plan Level 2, which sustained the regional water use reduction of approximately 10 percent. Due to improved hydrologic and storage conditions, on April 12, 2011, the Board terminated implementation of the 2010-11 Water Supply Allocation Plan, restoring imported water deliveries to member agencies without risk of allocation penalties. Following Board-directed review of the Water Supply Allocation Plan three years after its approval, on September 13, 2011, the Board approved adjustments to the formula for calculating member agency supply allocations for any future implementation of the Water Supply Allocation Plan. Although the Act gives each of Metropolitan's member agencies a preferential entitlement to purchase a portion of the water served by Metropolitan (see "METROPOLITAN REVENUES—Preferential Rights"), historically, these rights have not been used in allocating Metropolitan's water.

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 in times of shortage.

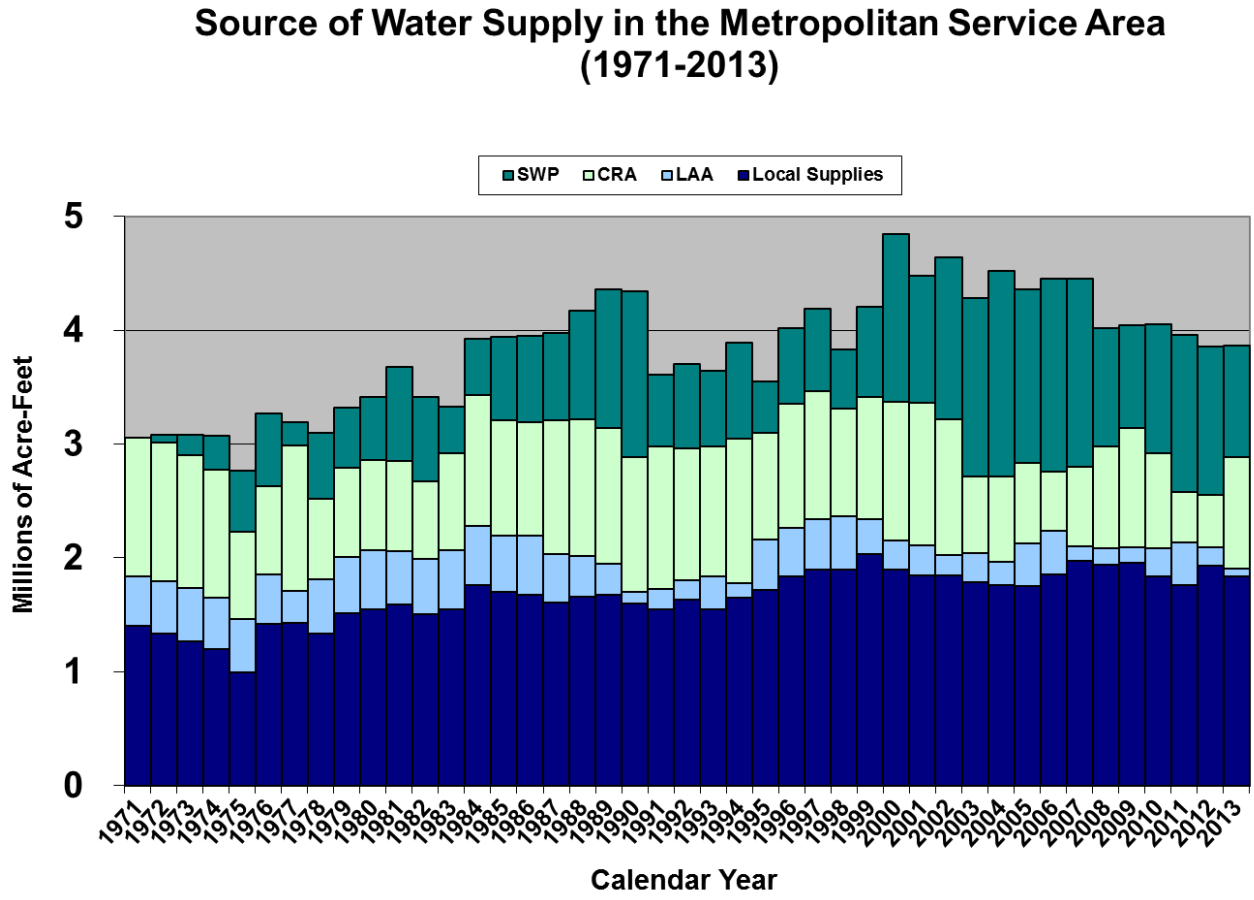
REGIONAL WATER RESOURCES

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 60 percent 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 nearly all 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 and to recharge groundwater basins. The demand for supplemental supplies provided by Metropolitan is dependent on water use at the retail consumer level and the amount of locally supplied and conserved water. See "METROPOLITAN'S WATER SUPPLY—Water Conservation" in this Appendix A and "—Local Water Supplies" below. Consumer demand and locally supplied water vary from year to year, resulting in variability in water sales. Future reliance on Metropolitan supplies will be dependent, among other things, on local projects and the amount of

water, if any, that may be derived from sources other than Metropolitan. In recent years, supplies and demands have been affected by drought, water use restrictions, economic conditions, weather conditions and environmental laws, regulations and judicial decisions, as described in this Appendix A under "METROPOLITAN'S WATER SUPPLY." For information on Metropolitan's water sales revenues, see "METROPOLITAN REVENUES" and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

The following graph shows a summary of the regional sources of water supply for the years 1971 to 2013. Local supplies available within Metropolitan's service area are augmented by water imported by the City through the Los Angeles Aqueduct ("LAA") and Metropolitan supplies provided through the CRA and State Water Project.



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 ("LADWP"), 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 in eastern California. Prior to the 1990-1991 drought, the City had imported an average of 440,000 acre-feet of water annually from the combined Owens Valley/Mono Basin system, of which about

90,000 acre-feet came from the Mono Basin. Under the Mono Lake Basin Water Right Decision (Decision 1631) issued in September 1994, which revised LADWP's water rights licenses in the Mono Basin, the City is limited to export 16,000 acre-feet annually from the Mono Basin until it reaches its target elevation of 6,391 feet above mean sea level.

Pursuant to the City's turnout agreement with DWR, Antelope Valley-East Kern Water Agency ("AVEK") and Metropolitan, LADWP commenced construction in 2010 of the turnout facilities along the California Aqueduct within AVEK's service area. Upon completion, expected by early 2015, the turnout will enable delivery of 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, water districts or others in Northern and Central California, available capacity in the California Aqueduct and compliance with State Water Project water quality requirements. The agreement allows for use of the turnout for 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 the Owens Lake Dust Mitigation Project which could use up to 95,000 acre-feet of Los Angeles Aqueduct water.

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, prior to the 1990-1991 drought only about 13 percent of the City's water needs (approximately 82,000 acre-feet) were supplied by Metropolitan. From fiscal year 2000-01 to fiscal year 2010-11, approximately 31 to 71 percent of the City's total water requirements were met by Metropolitan. For the five fiscal years ended June 30, 2013, the City's water deliveries from Metropolitan averaged approximately 292,000 acre-feet per year, which constituted approximately 52 percent of the City's total water supply. Deliveries from Metropolitan to the City during this period varied between approximately 166,000 acre-feet per year and approximately 435,000 acre-feet per year. See "METROPOLITAN REVENUES—Principal Customers" in this Appendix A. According to LADWP's Year 2010 Urban Water Management Plan, the City is planning to increase locally-developed supplies including recycled water, new conservation, stormwater capture and local groundwater from the average for the five-year period ending June 30, 2010 of 12 percent to 43 percent of its normal year supplies by fiscal year 2034-35. Accordingly, the City's reliance on Metropolitan supplies will decrease from the five year average ending June 30, 2011 of 52 percent to 24 percent of its normal year supplies by fiscal year 2034-35. However, the City may still purchase up to 511,000 acre-feet per year or 82 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 255,000 acre-feet in potential demand for supplies from Metropolitan.

LADWP analyzed the additional impacts to the Los Angeles Aqueduct's water supply deliveries for various environmental projects aimed at improving air quality and fish and riparian habitat in the Owens Valley. In October 2012, LADWP filed a federal lawsuit challenging Owens Valley mitigation demands from air pollution control regulators. LADWP reports that, in 2012, 50 percent of its Los Angeles Aqueduct water was devoted to dust and environmental mitigation projects in the Owens Valley and Eastern Sierra, resulting in the need to purchase an equivalent amount of Metropolitan supply. On June 27, 2013, LADWP and regulators reached a major agreement regarding future dust control on portions of Owens Lake, preservation of historic Native American artifacts and use of new water-saving dust control measures.

Local Water Supplies

Local water resources include groundwater production, recycled water production and diversion of surface flows. While local water resources are non-Metropolitan sources of water supply, Metropolitan has executed agreements for storage of Metropolitan supplies in local groundwater basins and provided incentives for local supply development as described below. Member agencies and other local agencies have also independently funded and developed additional local supplies, including groundwater storage and clean-up, recycled water and desalination of brackish or high salt content water.

Metropolitan's water sales projections are based in part on projections of locally-supplied water. Projections of future local supplies are based on estimated yields from sources and projects that are currently producing water or are under construction at the time a water sales projection is made. Additional reductions in Metropolitan's water sales projections are made to account for future local supply augmentation projects, based on the 2010 IRP Update goals. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES—Water Sales Projections" and "METROPOLITAN'S WATER SUPPLY—Integrated Water Resources Plan" in this Appendix A.

Groundwater. Demands for about 1.5 million acre-feet per year, about one-third of the annual water demands for approximately 18.2 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 executed agreements 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. In 2000, Metropolitan was allocated $45 million in State Proposition 13 bond proceeds to develop groundwater storage projects in Metropolitan's service area. The nine projects provide about 212,000 acre-feet of groundwater storage and have a combined extraction capacity of about 70,000 acre-feet per year. During fiscal year 2008-09, over 70,000 acre-feet of stored water was produced and sold from these storage accounts. Fiscal year 2009-10 sales from the nine accounts totaled nearly 41,000 acre-feet, leaving a balance of approximately 26,000 acre-feet in the storage accounts. Metropolitan began refilling the programs in fiscal year 2010-11. As of March 2014, the balance in the nine accounts was over 66,000 acre-feet. In April 2014, Metropolitan plans to request over 35,000 acre-feet to be produced from these storage accounts by July 1, 2015. See 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 24 projects that recover contaminated groundwater with total contract yields of about 112,500 acre-feet per year. During fiscal year 2012-13, Metropolitan provided incentives for approximately 55,000 acre-feet of recovered water under these agreements. Total groundwater recovery use under executed agreements is expected to grow to 76,000 acre-feet by 2015.

Surface Runoff. Local surface water resources consist of runoff captured in storage reservoirs and diversions from streams. Since 1980, agencies have used an average of 116,000 acre-feet per calendar year of local surface water. Local surface water supplies are heavily influenced by year to year local weather conditions, varying from a high of 188,000 acre-feet in calendar year 1998 to a low of 65,000 acre-feet in calendar year 2003.

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 has promoted conjunctive use at the local agency level under its Replenishment Service Program by discounting rates for imported water placed into groundwater or reservoir storage during wet months. The discounted rate and program rules encouraged construction of additional groundwater production facilities allowing local agencies to be more self-sufficient during shortages. (See "*–Groundwater Storage Programs*" above.) In calendar year 2006, Metropolitan delivered approximately 247,000 acre-feet of water as replenishment water. In calendar year 2007, Metropolitan delivered approximately 46,000 acre-feet of water as replenishment water through May 1, 2007 then discontinued such deliveries through May 10, 2011 when Metropolitan's Board authorized sale of up to 225,000 acre-feet of discounted replenishment service deliveries to member agencies for the remainder of calendar year 2011. In calendar year 2011, Metropolitan delivered approximately 225,000 acre-feet of this discounted replenishment water. No replenishment sales are budgeted for fiscal year 2012-13 and thereafter. The Replenishment Service Program was discontinued effective December 31, 2012. See "METROPOLITAN REVENUES—Classes of Water Service—*Replenishment*" and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES—Water Sales Projections" in this Appendix A.

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 1982. Metropolitan has executed agreements with local agencies to provide financial incentives to 75 recycled water projects with total contract yields of about 307,000 acre-feet per year. During fiscal year 2012-13, Metropolitan provided incentives for approximately 178,000 acre-feet of reclaimed water under these agreements. Total recycled water use under executed agreements is expected to grow to about 187,000 acre-feet by 2015.

Seawater Desalination. Metropolitan's IRP includes seawater desalination as a core local supply and supports foundational actions to lay the groundwork for accelerating seawater desalination development as needed in the future. To encourage local development, Metropolitan has signed Seawater Desalination Program ("SDP") incentive agreements with three of its member agencies: Long Beach, Municipal Water District of Orange County ("MWDOC") and West Basin Municipal Water District. The SDP agreements provide incentives to the member agencies of up to $250 per acre-foot when the desalinated supplies are produced. Agreement terms are for the earlier of 25 years or through 2040 and are designed to phase out if Metropolitan's rates surpass the unit cost of producing desalinated seawater. SDP agreements are subject to final approval by Metropolitan's Board after review of the complete project description and environmental documentation. Collectively these projects are anticipated to produce up to 46,000 acre-feet annually.

In November 2012, SDCWA approved a water purchase agreement with Poseidon Resources LLC ("Poseidon Resources") for a seawater desalination project in Carlsbad (the "Carlsbad Project") to provide a minimum of 48,000 acre-feet and a maximum of 56,000 acre-feet of desalinated supplies to SDCWA per year. The Carlsbad Project is under construction and is anticipated to be completed in 2016.

Other seawater desalination projects that could provide supplies to Metropolitan's service area are under development or consideration. Poseidon Resources is developing a 56,000 acre-feet per year plant in Huntington Beach which is currently in the permitting phase. MWDOC and the Cities of Anaheim, Fullerton, and Santa Ana applied for incentive funding under Metropolitan's Local Resources Program ("LRP") on behalf of the project in October 2013 and Metropolitan is currently reviewing the application. SDCWA is studying the potential for a seawater desalination plant in Camp Pendleton which would initially produce up to 56,000 acre-feet per year and potentially up to 168,000 acre-feet per year with a phased build out. SDCWA, in collaboration with Mexican government agencies, also is considering a 56,000 acre-feet per year facility in Rosarito Beach, Mexico. If developed, SDCWA could receive a portion of the desalinated supplies through a delivery pipeline across the international border to SDCWA. Otay Water District, located in San Diego County along the Mexico border, is separately considering the feasibility of purchasing water from an alternative seawater desalination project at the same site in Rosarito Beach. Approvals from a number of U.S. and Mexican federal agencies, along with State and local approvals, would be needed for either cross-border project to proceed.

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 rehabilitation of key facilities as needed, 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 1930s 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 16 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. 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, 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.

Inland Feeder. The Inland Feeder is a 44-mile-long conveyance system that connects the State Water Project to Diamond Valley Lake and the Colorado River Aqueduct. The Inland Feeder provides greater flexibility in managing Metropolitan's major water supplies and allows greater amounts of State Water Project water to be accepted during wet seasons for storage in Diamond Valley Lake. In addition, the Inland

Feeder increases the conveyance capacity from the East Branch of the State Water Project by 1,000 cfs, allowing the East Branch to operate up to its full capacity. Construction of the Inland Feeder was completed in September 2009 at a total cost of $1.14 billion.

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 60 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 at all five of its treatment plants for regional compliance with Assembly Bill 733, enacted in 1995, which requires fluoridation of any public water supply with over 10,000 service connections in order to prevent tooth decay, subject to availability of sufficient funding. Design and construction of the fluoridation facilities at Metropolitan's five treatment plants were funded primarily by a $5.5 million grant from the California Dental Association Foundation, in conjunction with the California Fluoridation 2010 Work Group. On August 9, 2011, four individuals filed litigation (*Foli, et al. v. Metropolitan Water District of Southern California, et al.*) in federal district court alleging deprivation of civil rights, impairment of civil rights and unfair competition based on fluoridation of Metropolitan's treated water deliveries. On April 10, 2012 the court granted Metropolitan's motion to dismiss the case without prejudice. Plaintiffs filed a first amended complaint on April 24, 2012. Metropolitan's motion to dismiss the first amended complaint was granted on January 25, 2013, dismissing the case with prejudice.

Disinfection By-products. As part of the requirements of the SDWA, the 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 ("DBPs" and, together with disinfectants, "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 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 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, Jensen and Skinner treatment plants. Mills and Jensen treatment plants only receive water from the State Water Project. Ozone facilities at the Mills and Jensen plants began operating in October 2003 and July 2005, respectively. Skinner, Diemer and Weymouth water treatment plants receive a blend of water from the State Water Project and the Colorado River. Ozone facilities at the Skinner plant became operational in October 2010. The Diemer plant is nearing the end of construction of its ozone facilities with an online date anticipated by 2014. Construction of Weymouth ozone facilities is underway and anticipated to be complete in fiscal year 2016-17. See "CAPITAL INVESTMENT PLAN—Major Projects of Metropolitan's Capital Investment Plan" 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, while also improving the aesthetics, such as taste and odor, of water delivered to consumers.

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.

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., an MCL) of 6 ppb for perchlorate. Current perchlorate levels in Metropolitan's Colorado River supplies are below 2 ppb.

Chromium 6. Hexavalent chromium or chromium 6 is one of several forms of chromium that occur in natural waters in the environment. Chromium 6 is the relatively more harmful form of chromium that is regulated under the public health standard MCL of 50 ppb for "total" chromium. There is currently no specific MCL for chromium 6. However, the California Department of Public Health filed the final regulation for chromium 6 on April 15, 2014, setting a new MCL of 10 ppb. Based on the filing date, it is anticipated that the new MCL will become effective July 1, 2014, and that water utilities will be required to comply by the end of 2015. Since monitoring began in 1998, chromium 6 in Metropolitan's treated water has ranged from non-detect (less than 0.03 ppb) to less than 1 ppb. Metropolitan expects that the adoption of a chromium 6 regulation will not materially affect the water supply to Metropolitan or result in significant compliance costs.

Arsenic. The federal and state MCL for arsenic in drinking water is 10 ppb. Arsenic levels in Metropolitan's treated water supplies ranged from not detected (less than 2 ppb) to 2.7 ppb in 2012, which is within the historically expected range.

Seismic Considerations

General. Although the magnitude of damages resulting from a significant seismic event are impossible to predict, 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 water

distribution system's vulnerability to earthquakes. As facilities are evaluated and identified for seismic retrofitting, they are prioritized, with those facilities necessary for delivering or treating water scheduled for upgrade before non-critical facilities. However, major portions of the California Aqueduct and the Colorado River Aqueduct are located near major earthquake faults, including the San Andreas Fault. A significant earthquake could damage structures and interrupt the supply of water, adversely affecting Metropolitan's revenues and its ability to pay its obligations. Therefore, emergency supplies are stored for use 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 and after such events.

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 that 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. Pre-designated 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 its member agencies, DWR, other utilities and the State's Office of Emergency Services. Metropolitan also maintains machine, fabrication and coating shops at its facility in La Verne, California. Materials to fabricate pipe and other appurtenant fittings are kept in inventory at the La Verne site. In the event of earthquake damage, Metropolitan has taken measures to provide the design and fabrication capacity to fabricate pipe and related fittings. Metropolitan is also staffed to perform emergency repairs and has pre-qualified contractors for emergency repair needs at various locations throughout Metropolitan's service area.

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.

While the dams, canals, pump stations and other constructed State Water Project facilities have been designed to withstand earthquake forces, the critical supply of water from Northern California must traverse the Bay-Delta through hundreds of miles of varying levels of engineered levees that are susceptible to major failures due to flood and seismic risk. 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, including development of an emergency freshwater pathway to export facilities in a severe earthquake. 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 and has identified future funding for expanded stockpiles.

Perris Dam. DWR reported in July 2005 that seismic studies indicate that DWR'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 released its draft EIR in January 2010 and final EIR in September 2011. On November 11, 2011, DWR certified the final EIR and filed a Notice of Determination stating its intent to proceed with the preferred alternative. Since that time, DWR has narrowed its scope of work and refined its cost estimates for this project. DWR now estimates that such repairs will cost approximately $141 million with commencement of construction anticipated in 2014 and completion in mid-2017. Under the original allocation of joint costs for this facility, the State would have paid approximately six percent of the repair costs. However, because of the recreational benefit this facility provides to the public, the Legislature has approved a recommendation from DWR that the State assume a greater percentage of these repairs costs, namely 32.2 percent. The remaining 67.8 percent of repairs costs will be paid for by the three agencies that use the water stored in Lake Perris: Metropolitan, Desert Water Agency and Coachella Valley Water District. 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 meet future water demands, ensure system reliability as well as enhance operational efficiency and flexibility, 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 the projected CIP expenditures in the adopted biennial budget for fiscal years 2014-15 and 2015-16, including replacement and refurbishment expenditures, by project type for the fiscal years ending June 30, 2015 through 2019. This estimate is updated annually as a result of the periodic review and revision of the CIP. See "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

CAPITAL INVESTMENT PLAN
PROJECTION OF EXPENDITURES[(1) (2) (3)]
(Fiscal Years Ended June 30 - Dollars in Thousands)

Cost of Service	2015	2016	2017	2018	2019	Total
Source of Supply	$27,193	$22,311	$27,168	$46,281	$46,119	$169,071
Conveyance &Aqueduct	12,244	12,562	1,999	-	-	26,805
Storage	43, 508	51,642	69,826	112,699	135,673	413,349
Administrative & General	8,212	2,308	4,067	487	120	15,174
Distribution	126,149	148,652	121,390	95,124	79,270	570,585
Treatment	28,109	30,393	50,357	26,484	23,214	158,558
Total[(2)]	$245,415	$267,868	$274,807	$281,055	$284,396	$1,353,542

Source: Metropolitan.

(1) Fiscal year 2014-15 through 2018-19 based on the adopted biennial budget for fiscal years 2014-15 and 2015-16. Totals are rounded.

(2) Annual totals include replacement and refurbishment expenditures for fiscal years 2014-15 through 2018-19 of $139 million, $162 million, $159 million, $223 million, and $250 million, respectively, for a total of $932 million for fiscal years 2014-15 through 2018-19.

(3) Based upon actual operations through March 31, 2014 and revised projections through June 2014, CIP expenditures for fiscal year 2013-14 are projected to be $175 million, compared to a budget of $295 million. These variances are attributed to significant cost savings for a single under-budget construction contract, lower than anticipated contract progress payments, and efforts to optimize design and construction scheduling while maintaining reliable service.

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. See "METROPOLITAN'S WATER DELIVERY SYSTEM—Water Treatment" in this Appendix A.

Capital Investment Plan Financing

The CIP will require funding from debt financing (see "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A) 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 and to mitigate financial risks that could occur in upcoming years, actual and projected pay-as-you-go funding has been less than projected amounts during fiscal years 2007-08 through 2012-13. During this period, pay-as-you-go funding was reduced to $256 million, rather than the $521 million originally projected for this period. For fiscal year 2013-14, the pay-as-you-go funding for the capital program is projected to be $150 million. However, based on improved financial operations in FY 2013-14, pay-as-you-go funding levels are projected to increase. As approved by Metropolitan's Board, on April 8, 2014, the biennial budget for FY 2014-15 and FY 2015-16 includes a total of $466 million for pay-as-you-go expenditures, which will fund the total CIP expenditures for those years. As in prior years, pay-as-you-go funding may be reduced or increased by the Board during the fiscal year. 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 $160 million. Amounts above the $160 million limit will be transferred to the Revenue Remainder Fund and may be used for any lawful purpose. See "METROPOLITAN REVENUES—Financial Reserve Policy" in this Appendix A. 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's budget assumptions for the adopted biennial budget for fiscal years 2014-15 and 2015-16 provide for the issuance of no additional water revenue bonds to fund the CIP in fiscal years 2014-15 through 2016-17, $40 million of water revenue bonds in fiscal year 2017-18, and $100 million of water revenue bonds in fiscal year 2018-19.

Major Projects of Metropolitan's Capital Investment Plan

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 program 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 $236.4 million. Oxidation retrofit at the Robert A. Skinner plant was substantially completed in December 2009 and operational in 2010, with follow-up work expected for completion in June 2014. Expenditures at the Skinner plant through December 2013 were $242.95 million. Total oxidation program costs at the Skinner plant are estimated to be $245.5 million. Construction of the oxidation retrofit facilities at the Robert B. Diemer Treatment Plant was completed in June 2013. All testing and start-up work is planned to be complete in 2014. Program expenditures at the Diemer plant through December 2013 were $355.1 million and the total program cost is projected to be $372.9 million. The construction contract for the Weymouth oxidation facilities, the last Metropolitan treatment plant to be retrofitted, was awarded in June 2012. Oxidation program costs at the F.E. Weymouth plant, based upon the adopted budget, were estimated to be $338.5 million. Due to the ongoing highly competitive bidding environment, the awarded construction contract was more than $100 million below the budgeted amount. Expenditures at the Weymouth plant through December 2013 were $118.8 million and completion is expected in fiscal year 2016-17. Total oxidation program costs at the F.E. Weymouth plant are estimated to be $270.0 million.

F.E. Weymouth Treatment Plant Improvements. The F.E. Weymouth Treatment Plant was built in 1938 and subsequently expanded several times over the following 25 years. It is Metropolitan's oldest water treatment facility. Metropolitan has completed several upgrades and refurbishment/replacement projects to maintain the plant's reliability and improve its efficiency. These include power systems upgrades, a residual

solids dewatering facility, refurbishment/replacement of the mechanical equipment in two of the eight flocculation and settling basins, a new plant maintenance facility, new chemical feed systems and storage tanks, replacement of the plant domestic/fire water system, seismic upgrades to the plant inlet structure, and a new chlorine handling and containment facility. Planned projects over the next several years include refurbishment of the plant's filters and settling basins, seismic retrofits to the filter buildings and administration building, and replacement of the valves used to control filter operation. The cost estimate for all prior and projected improvements at the Weymouth plant, not including the ozone facilities, is approximately $442.0 million, with $191.0 million spent through December 2013. Budgeted aggregate capital expenditures for improvements at the Weymouth plant for fiscal years 2014-15 and 2015-16 are $42.3 million.

Robert B. Diemer Treatment Plant Improvements. The Robert B. Diemer Treatment Plant was built in 1963 and subsequently expanded in 1968. It is Metropolitan's second oldest water treatment facility and has a capacity to treat 520 million gallons of water a day. Several upgrades and refurbishment/replacement projects have been completed at the Diemer plant, including power system upgrades, a new residual solids dewatering facility, new vehicle and plant maintenance facilities, new chemical feed systems and storage tanks, a new chlorine handling and containment facility, construction of a roller-compacted concrete slope stabilization system and a new secondary access road. Planned projects over the next several years include refurbishment of the plant's settling basins, seismic retrofits to the filter buildings and administration building, and replacement of the valves used to control filter operation. The current cost estimate for all prior and projected improvements at the Diemer Treatment Plant, not including the ozone facilities, is approximately $384.3 million, with $183.6 million spent through December 2013. Budgeted aggregate capital expenditures for improvements at the Diemer plant for fiscal years 2014-15 and 2015-16 are $59.4 million.

Colorado River Aqueduct Facilities. Deliveries through the Colorado River Aqueduct began 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 under way. Projects completed over the past 10 years include replacement of high voltage circuit breakers and transformers at the five pumping plant switchyards, refurbishment of operators and power centers on the head gates downstream of the pumping plants, refurbishment/replacement of 15 isolation/control gates, replacement of cast iron pipe and other components at over 200 outlet structures with stainless steel components, replacement of pumping plant inlet trash racks, and replacement of several miles of deteriorated concrete canal liner. Additionally, many of the mechanical components at the pumping plants as well as the Copper Basin and Gene Wash Reservoirs will be evaluated and replaced or refurbished over the next few years. The currently projected cost estimate for all prior and planned refurbishment or replacement projects is $285.8 million. Costs through December 2013 were $161.0 million. Budgeted aggregate capital expenditures for improvements on the Colorado River Aqueduct for fiscal years 2014-15 and 2015-16 are $53.3 million.

Distribution System – Prestressed Concrete Cylinder Pipe. Metropolitan's distribution system (see "METROPOLITAN'S WATER DELIVERY SYSTEM" in this Appendix A) is comprised of approximately 830 miles of pipelines ranging in diameter from 30 inches to over 200 inches. 163 miles of the distribution system is made up of prestressed concrete cylinder pipe ("PCCP"). In response to PCCP failures experienced by several water agencies, Metropolitan initiated the PCCP Assessment Program in December 1996 to evaluate the condition of Metropolitan's PCCP lines and investigate inspection and refurbishment methods. As a result, Metropolitan has identified and made repairs to several sections of PCCP. Rather than continue to make spot repairs to pipe segments, Metropolitan has initiated a long-term capital program to rehabilitate approximately 100 miles of PCCP in five pipelines. This rehabilitation, which is currently planned to consist of relining the pipelines with a steel liner, will be performed in stages to minimize delivery impacts to customers. The first PCCP line planned for relining is the Second Lower Feeder. Approximately 30 miles of this line are constructed of PCCP, with diameters ranging from 78 to 84 inches. This effort is anticipated to

take 8 to 10 years to complete at a cost of approximately $520 million. Preliminary design is currently underway. Design for rehabilitation of the remaining four pipelines will be initiated over the next several years. The estimated cost to reline all 100 miles of PCCP is approximately $2.6 billion.

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 as 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.

Marcia Scully, General Counsel – Ms. Scully assumed the position of General Counsel in March 2012. She previously served as Metropolitan's Interim General Counsel from March 2011 to March 2012. Ms. Scully joined Metropolitan in 1995, after a decade of private law practice, providing legal representation to Metropolitan on construction, employment, Colorado River and significant litigation matters. From 1981 to 1985 she was assistant city attorney for the City of Inglewood. Ms. Scully served as president of University of Michigan's Alumnae Club of Los Angeles and is a recipient of the 1996 State Bar of California, District 7 President's Pro Bono Service Award and the Southern California Association of Non-Profit Housing Advocate of the Year Award. She is also a member of the League of Women Voters for Whittier and was appointed for two terms on the City of Whittier's Planning Commission, three years of which were served as chair. Ms. Scully earned a bachelor's degree in liberal arts from the University of Michigan, a master's degree in urban planning from Wayne State University and law degree from Loyola Law School.

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.

Deena Ghaly, Ethics Officer – Ms. Ghaly was appointed Ethics Officer in November 2012. Ms. Ghaly joined Metropolitan with over 20 years of legal and ethics-related experience. Prior to joining Metropolitan, she served as an administrative law judge for the California Office of Administrative Hearings. She previously was head of enforcement and general counsel for the Los Angeles City Ethics Commission, which administers and enforces the laws regarding campaign contributions, lobbying, and government ethics for the city of Los Angeles. Before moving to Southern California in 2001, Ms. Ghaly lived and worked in New York City, where she headed the labor department in the general counsel's office of a large city agency. Licensed to practice law in California, New York and New Jersey, Ms. Ghaly is knowledgeable in workplace investigations, government ethics, regulatory affairs, and labor and employment matters. She has lectured throughout the nation on various topics, including parallel criminal and administrative prosecution, due process in administrative procedures, and effective internal investigations. Ms. Ghaly earned a bachelor's degree in philosophy from Wellesley College in Massachusetts and a law degree from Cornell Law School.

Gary Breaux, Assistant General Manager/Chief Financial Officer – Mr. Breaux has had extensive experience working for local governments since 1983. From 1994 until joining Metropolitan in October 2011, he served as Director of Finance for East Bay Municipal Utility District ("EBMUD"). At EBMUD, he was responsible for all financial areas, including treasury operations, debt management, rates, internal audit, accounting and reporting, risk management and customer and community services. Prior to joining EBMUD, he was Director of Finance for the City of Oakland, California. A native of Colorado, Mr. Breaux received a Bachelor of Science degree in Business from the University of Colorado in 1977 and a master's degree in Public Administration in 1987 from Virginia Commonwealth University.

Debra Man, Assistant General Manager/Chief Operating Officer – Ms. Man was appointed to this position in December 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 has been with Metropolitan for 40 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, Dominquez Hills and holds various professional designations and certifications in management from Pepperdine University and the University of Southern California.

Dee Zinke, Deputy General Manager/External Affairs – Ms. Zinke is responsible for Metropolitan's communications, outreach, education and legislative matters. She joined Metropolitan in 2009 as Manager of the Legislative Services Section. Before coming to Metropolitan, Ms. Zinke was the Manager of Governmental and Legislative Affairs at the Calleguas Municipal Water District for nearly 10 years, where she received recognition for her significant contributions to the Association of California Water Agencies, the Ventura County Special Districts Association and the Association of Water Agencies of Ventura County. During her tenure at Calleguas, she was named Chair of the Ventura County Watersheds Coalition and appointed by then-Secretary of Resources Mike Chrisman to the State Watershed Advisory Committee, a post she still holds today. Prior to her public service, she worked in the private sector as the Executive Officer and Senior Legislative Advocate for Building Industry Association of Greater Los Angeles and Ventura Counties and as Director of Communications for E-Systems, a defense contractor specializing in communication, surveillance and navigation systems in Washington, D.C. Ms. Zinke holds a Bachelor of Arts degree in Communication and Psychology from Virginia Polytechnic Institute and State University.

Employee Relations

The total number of regular full-time Metropolitan employees on April 1, 2014 was 1,745, of whom 1,221 were represented by AFSCME Local 1902, 98 by the Supervisors Association, 274 by the Management and Professional Employees Association and 136 by the Association of Confidential Employees. The remaining 16 employees are unrepresented. The four bargaining units represent 99 percent of Metropolitan's employees. The Memorandum of Understanding ("MOU") with the Association of Confidential Employees covers the period January 1, 2011 through December 31, 2015. The MOUs with the Management and Professional Employees Association and with AFSCME Local 1902 cover the period January 1, 2011 to December 31, 2016. The MOU with the Supervisors Association covers the period September 13, 2011 to December 31, 2016.

Risk Management

Metropolitan is exposed to various risks of loss related to the design, construction, treatment and delivery of water. With the 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 coverage 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 $50 million. Metropolitan separately funds remaining workers' compensation 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, declining to five percent of revenues in fiscal year 2012-13. 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.

Generally, Metropolitan has constitutional and statutory authority, as well as voter authorization, to levy *ad valorem* property taxes as needed to pay its outstanding general obligation bonds and State Water Contract payments. Currently, *ad valorem* taxes are applied solely to pay Metropolitan's general obligation bonds and a small portion of State Water Contract payments, pursuant to MWD Act requirements that limit property tax collections to the amount necessary to pay annual debt service on Metropolitan's general obligation bonds plus the portion of its State Water Contract payment obligation attributable to the debt service on State general obligation bonds for facilities benefitting Metropolitan that were outstanding as of 1990-91. Under this requirement, Metropolitan's *ad valorem* property tax revenue has been decreasing, and will continue to decrease, as the bonds are retired. However, the MWD Act permits Metropolitan to set aside the prescribed reductions in the tax rate if the Board, following a public hearing with 10 days' prior written notice to the Speaker of the California Assembly and the President pro Tempore of the Senate, finds that such revenue is "essential to the fiscal integrity of the district." On June 11, 2013, following such a public hearing, the Board adopted a resolution finding that maintaining the *ad valorem* tax rate for fiscal year 2013-14 is essential to the fiscal integrity of Metropolitan and determining that the tax limit clause in the MWD Act is suspended for fiscal year 2013-14. Factors considered by the Board included current and future State Water Contract payment obligations and a balancing of proper mechanisms for funding them, the appropriate mix of property taxes and water rates and charges to enhance Metropolitan's fiscal stability and a fair distribution of costs across Metropolitan's service area. On August 20, 2013, the Board adopted a resolution levying taxes for fiscal year 2013-14 at the tax rate levied for fiscal year 2012-13 (0.0035 percent of assessed valuation, excluding annexation levies)

The basic rate for untreated water for domestic and municipal uses is $593 per acre-foot for Tier 1 water, effective January 1, 2014. 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 0.0035 percent of full assessed valuation for fiscal year 2012-13. 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, 2013. The table provides cash basis information, which is unaudited. Audited financial statements for the fiscal years ended June 30, 2013 and June 30, 2012 are provided in Appendix B - ""THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2013 AND JUNE 30, 2012 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2013 AND 2012 (UNAUDITED)."

SUMMARY OF RECEIPTS BY SOURCE[1]
Fiscal Years Ended June 30
(Dollars in Millions)

	2009	2010	2011	2012	2013
Water Sales[2]	$ 988.1	$1,011.1	$995.6	$ 1,062.5	$ 1,250.9
Net Tax Collections[3]	105.2	97.3	88.0	90.1	96.5
Additional Revenue Sources[4]	119.7	135.3	153.5	167.1	174.2
Interest on Investments	33.7	26.7	18.9	17.8	11.7
Hydroelectric Power Sales	22.5	18.8	22.1	31.0	26.3
Other Collections & Trust Funds[5]	3.1	9.1	61.0	53.6	19.9
Total Receipts	$1,272.3	$1,298.3	$1,339.1	$1,422.1	$1,579.5

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. Water sales revenues include revenues from water wheeling and exchanges. See "METROPOLITAN REVENUES—Wheeling and Exchange Charges" in this Appendix A. Includes $25.7 million in fiscal year 2010-11, from the Calleguas Municipal Water District related to termination of the Las Posas water storage program.
(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 capacity charges. See "—Rate Structure" and "—Additional Revenue Components" below.
(5) In fiscal year 2010-11 includes $10.8 million reimbursement from State Proposition 13 bond funds and $28.2 million from the termination of the Las Posas water storage program. In fiscal year 2011-12, includes $27.5 million from CVWD for delivery of 105,000 acre-feet under an exchange agreement between Metropolitan and CVWD.

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 State Constitution, the Act and Board policy. 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 EXPENSES" in this Appendix A. On June 11, 2013, the Board suspended the tax limit clause in the Act and, for fiscal year 2013-14, maintained the fiscal year 2012-13 *ad valorem* tax rate. See "METROPOLITAN REVENUES—General" above. 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 provided three classes of water service: (1) full service; (2) replenishment (discontinued effective December 31, 2012); and (3) interim agricultural (discontinued effective December 31, 2012). See "—Classes of Water Service" below.

No member agency of Metropolitan is obligated to purchase water from Metropolitan. However, 24 of Metropolitan's 26 member agencies entered into voluntary water supply purchase orders for water purchases, which had initial 10-year terms ending December 31, 2012. Twenty-two of such purchase orders

have been extended to December 31, 2014, as described under "—Member Agency Purchase Orders" below. Consumer demand and locally supplied water vary from year to year, resulting in variability in water sales revenues. Metropolitan uses its financial reserves and budgetary tools to manage the financial impact of the variability in revenues due to fluctuations in annual water sales. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

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 a payment that is delinquent for no more than 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 member 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 (including sales from water wheeling and exchanges) for the five fiscal years ended June 30, 2013. Water sales revenues of Metropolitan for the two fiscal years ended June 30, 2013 and June 30, 2012, respectively, on an accrual basis, are shown in Appendix B - "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2013 AND JUNE 30, 2012 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2013 AND 2012 (UNAUDITED)."

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

Year	Acre-Feet[1] Sold	Water Sales[4] (in millions)	Dollars Per Acre Foot[5]	Average Dollars Per 1,000 Gallons
2009	2,166,936	$ 988.1	$ 456	$ 1.40
2010	1,857,564	1,011.1	544	1.67
2011[2]	1,632,277	995.6	610	1.87
2012[3]	1,676,855	1,062.5	634	1.94
2013	1,856,685	1,282.5	691	2.12

Source: Metropolitan

(1) Year ended April 30 for fiscal years 2009-2012, water sales recorded on a cash-basis. Beginning fiscal year 2012-13 water sales recorded on an accrual basis, with water sales for the fiscal year ended June 30.
(2) Includes the sale of 34,519 acre-feet and the receipt of $25.7 million from the Calleguas Municipal Water District related to termination of the Las Posas water storage program.
(3) Includes 225,000 acre-feet of replenishment sales.
(4) Water Sales in fiscal years 2008-09 through 2011-12 are recorded on a cash basis 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. Water sales for fiscal year 2012-13 are recorded on a modified accrual basis for sales in the twelve months ended June 30 of such year, with rates and charges recorded as revenues in the same months as invoiced. Includes revenues from water wheeling and exchanges. See "METROPOLITAN REVENUES—Wheeling and Exchange Charges" in this Appendix A.
(5) Gross water sales divided by acre-feet sold. An acre-foot is approximately 326,000 gallons. See table entitled "SUMMARY OF WATER RATES" under "-Water Rates by Water Category" below for a description of water rates and classes of service.

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 entities wheeling or exchanging water; 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 because all users of Metropolitan's system benefit from the system capacity made available by investments in demand management programs.

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.

Delta Supply Surcharge. On April 13, 2010, Metropolitan's Board adopted a Delta Supply Surcharge of $51 and $58 per acre-foot, effective January 1, 2011 and January 1, 2012, respectively, and applicable to all Tier 1, Interim Agricultural Water Program and Replenishment water rates. The Delta Supply Surcharge was 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 was intended to remain in effect until a long-term solution for the Bay-Delta is achieved. Metropolitan anticipated that the Delta Supply Surcharge would be reduced or suspended as interim Delta improvements ease pumping restrictions, resulting in lower costs for additional supplies. On April 10, 2012, the Board suspended the Delta Supply Surcharge, effective January 1, 2013.

The amount of each of these rates since January 1, 2008, is shown in the table entitled "SUMMARY OF WATER RATES" under "—Water Rates by Water Category" below.

Litigation Challenging Rate Structure

SDCWA filed *San Diego County Water Authority v. Metropolitan Water District of Southern California, et al.* on June 11, 2010. The complaint alleges that the rates adopted by the Board on April 13, 2010, which became effective January 1, 2011, misallocate State Water Contract costs to the System Access Rate and the System Power Rate, and thus to charges for transportation of water, and that this results in an overcharge to SDCWA by at least $24.5 million per year. The complaint alleges that all State Water Project costs should be allocated instead to Metropolitan's Supply Rate, even though under the State Water Contract Metropolitan is billed separately for transportation, power and supply costs. It states additionally that Metropolitan will overcharge SDCWA by another $5.4 million per year by including the Water Stewardship Rate in transportation charges. Eight of Metropolitan's member agencies (the Cities of Glendale, Los Angeles and Torrance, Municipal Water District of Orange County and Foothill, Las Virgenes, Three Valleys

and West Basin Municipal Water Districts) answered the complaint in support of Metropolitan. IID joined the litigation in support of SDCWA's challenge to Metropolitan's charges for transportation of water, but withdrew and dismissed all claims against Metropolitan with prejudice on October 30, 2013.

The complaint requested a court order invalidating the rates and charges adopted April 13, 2010, and that Metropolitan be mandated to allocate costs associated with State Water Project supplies and the Water Stewardship Rate to water supply charges and not to transportation charges. Rates in effect in prior years are not challenged in this lawsuit. Metropolitan contends that its rates are reasonable, equitably apportioned among its member agencies and lawful, and were adopted under a valid rate structure and cost of service approach developed in a multi-year collaborative process with its member agencies that has been in place since 2002. Nevertheless, to the extent that a court invalidates Metropolitan's adopted rates and charges, Metropolitan will be obligated to reconsider and modify rates and charges to comply with any court rulings related to Metropolitan's rates. While components of the rate structure and costs may change as a result of any such rulings, Metropolitan expects that aggregate rates and charges would still recover Metropolitan's cost of service. As such, revenues would not be affected. If Metropolitan's rates are revised in the manner proposed by SDCWA in the complaint, other member agencies may pay higher rates unless other actions are taken by the Board.

SDCWA filed its First Amended Petition for Writ of Mandate and Complaint on October 27, 2011, adding five new claims to this litigation, two of which were eliminated from the case on January 4, 2012. The three remaining new claims are for breach of the water exchange agreement between Metropolitan and SDCWA (described herein under "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct—*Sale of Water by the Imperial Irrigation District to San Diego County Water Authority*") based on allegedly illegal calculation of rates; improper exclusion of SDCWA's payments under this exchange agreement from calculation of SDCWA's preferential rights to purchase Metropolitan supplies (see "—Preferential Rights" below); and illegality of "rate structure integrity" provisions in conservation and local resources incentive agreements between Metropolitan and SDCWA. Such "rate structure integrity" provisions permit the Board to terminate incentives payable under conservation and local resources incentive agreements between Metropolitan and a member agency due to certain actions by the member agency to challenge the rates that are the source of incentive payments. In June 2011, Metropolitan's Board authorized termination of two incentive agreements with SDCWA under the "rate structure integrity" provisions in such agreements after SDCWA filed its initial complaint challenging Metropolitan's rates. SDCWA filed a Second Amended Petition for Writ of Mandate and Complaint on April 17, 2012, which contains additional allegations but no new causes of action.

On June 8, 2012, SDCWA filed a new lawsuit challenging the rates adopted by Metropolitan on April 10, 2012 and effective on January 1, 2013 and January 1, 2014. See "–Rate Structure" above and "–Water Rates by Water Category" below for a description of Metropolitan's water rate structure and the rates and charges adopted on April 10, 2012. The complaint contains allegations similar to those in the Second Amended Petition for Writ of Mandate and Complaint and new allegations asserting that Metropolitan's rates, adopted in April 2012, violate Proposition 26. See "–California Ballot Initiatives" below for a description of Proposition 26. Metropolitan contends that its rates adopted on April 10, 2012 are reasonable, equitably apportioned among its member agencies and lawful and were adopted under a valid rate structure and cost of service approach. Ten of Metropolitan's member agencies (the eight member agency parties to SDCWA's first lawsuit, Eastern Municipal Water District and Western Municipal Water District of Riverside County) answered the complaint in support of Metropolitan and IID joined the litigation in support of SDCWA.

SDCWA filed a Third Amended Petition for Writ of Mandate and Complaint on January 23, 2013, to add new allegations that Metropolitan's rates adopted in April 2010 did not meet the requirements of Proposition 26, approved by California voters in November 2010. The court granted Metropolitan's motion to strike allegations relating to Proposition 26 on March 29, 2013, expressly ruling that SDCWA may not allege a violation of Proposition 26 in its challenge to the rates adopted in April 2010. This ruling does not

affect SDCWA's separate challenge to Metropolitan's rates adopted in April 2012, which also includes Proposition 26 allegations.

Trial of the first phase of both lawsuits before the Superior Court of California, County of San Francisco (Case Nos. CPF-10-510830 and CPF-12-512466) concluded January 23, 2014. On April 24, 2014, the court issued its "Statement of Decision on Rate Setting Challenges," determining that SDCWA prevailed on two of its claims and that Metropolitan prevailed on the third claim. Specifically, the court found that there was not sufficient evidence to support Metropolitan's inclusion in its transportation rates, and hence in its wheeling rate, of either (1) payments it makes to the California Department of Water Resources for the State Water Project, or (2) all of the costs incurred by Metropolitan for conservation and local water supply development programs recovered through the Water Stewardship Rate. The court found that SDCWA failed to prove its "dry-year peaking" claim that Metropolitan's rates do not adequately account for variations in member agency purchases.

SDCWA's claims asserting breach of the Exchange Agreement and miscalculation of preferential rights will be tried in a second phase of the case. The court set a case management conference for May 16, 2014, to address the substance and timing of next steps in the litigation. The final judgment in the cases will be subject to appeal. Metropolitan is unable to assess at this time the likelihood of success of this litigation, any possible appeal or any future claims.

Due to SDCWA's litigation challenging Metropolitan's rate structure, as of March 31, 2014, Metropolitan held $126 million in its financial reserves pursuant to the exchange contract between Metropolitan and SDCWA. See "—Financial Reserve Policy" below. Amounts held pursuant to the exchange agreement will continue to accumulate based on the quantities of exchange water that Metropolitan provides to SDCWA and the amount of charges disputed by SDCWA. Amounts held pursuant to the exchange agreement are transferable to SDCWA to pay any amounts awarded by the court in the event SDCWA prevails in the litigation challenging Metropolitan's rate structure.

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, each member agency that executed a purchase order and whose purchase order is in effect is 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. See "—Rate Structure—*Tier 1 and Tier 2 Water Supply Rates*" above. Member agencies that do not have purchase orders in effect are subject to Tier 2 Water Supply Rates for amounts exceeding 60 percent of their base amount (equal to the member agency's highest fiscal year demand between 1989-90 and 2001-02).

Under each purchase order, a member agency agrees to purchase, over the 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 the number of years in the contract. 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 contract period.

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. On November 8, 2011, Metropolitan's Board authorized the General Manager to execute a withdrawal of the City of Compton's Purchase Order committing to purchase 33,720.6 acre-feet over the original ten-year period. The withdrawal

was effective January 1, 2003. This lowered Compton's Tier 1 limit as if its Purchase Order had not been executed and Compton will pay the Tier 2 Supply Rate on any future water purchases over the lower limit.

On October 10, 2012, Metropolitan's Board authorized the General Manager to execute an amended and restated purchase order to provide a two-year extension of existing member agency purchase orders, previously set to expire on December 31, 2012. Twenty-two of the 23 remaining purchase orders were extended to December 31, 2014. As of February 1, 2014, all purchase order commitments were met. Extension or replacement of member agency purchase orders is scheduled to be addressed in the second half of 2014.

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. Full service water sales are the major component of Metropolitan water sales.

Interim Agricultural Water Program. This program provided a discounted rate for agricultural water users that, pursuant to the Act, were permitted to receive only surplus water not needed for domestic or municipal purposes. Metropolitan delivered approximately 40,000 acre-feet of agricultural water under this program in fiscal year 2009-10, approximately 21,000 acre-feet in fiscal year 2010-11 and approximately 29,000 acre-feet in fiscal year 2011-12. 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 reached zero on January 1, 2013.

Replenishment. Under the Replenishment Service Program, water was sold at a discounted rate to member agencies, subject to interruption upon notice by Metropolitan. The program allowed Metropolitan to deliver surplus imported water to local groundwater basins and surface storage facilities when supplies were available, with the intent that member agencies could reduce imported water deliveries from Metropolitan during periods of high demand, emergencies or times of shortage. See table entitled "SUMMARY OF WATER RATES" below.

On December 11, 2012, Metropolitan's Board eliminated the Replenishment Service Program and approved adjustments to increase member agency Tier 1 limits to reflect the historical demand for water used for long-term groundwater and surface storage replenishment. See "—Rate Structure—*Tier 1 and Tier 2 Water Supply Rates*" above. Water for groundwater replenishment now is priced at applicable full service rates. This adjustment provides additional Tier 1 limits for member agencies that historically purchased water for long-term replenishment purposes and limits their exposure to the higher Tier 2 rates. Metropolitan and its member agencies continue discussions of a potential water storage program that would encourage storing water locally and provide regional benefit.

Water Rates by Water Category

The following table sets forth Metropolitan's water rates by category beginning January 1, 2008. See also "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES—Water Sales Revenues" 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. See "—Litigation Challenging Rate Structure" above for a description of litigation challenging Metropolitan's water rates.

SUMMARY OF WATER RATES
(Dollars per Acre-Foot)

	SUPPLY RATE		SYSTEM ACCESS RATE	WATER STEWARDSHIP RATE	SYSTEM POWER RATE	TREATMENT SURCHARGE
	Tier 1	Tier 2				
September 1, 2009	$170[1]	$250	$154	$41	$119	$217
January 1, 2010	$170[1]	$280	$154	$41	$119	$217
January 1, 2011	$155[2]	$280	$204	$41	$127	$217
January 1, 2012	$164[2]	$290	$217	$43	$136	$234
January 1, 2013	$140[3]	$290	$223	$41	$189	$254
January 1, 2014	$148[3]	$290	$243	$41	$161	$297
January 1, 2015*	$158	$290	$257	$41	$126	$341
January 1, 2016*	$156	$290	$259	$41	$138	$348

	FULL SERVICE TREATED[4]		FULL SERVICE UNTREATED[5]		INTERIM AGRICULTURAL PROGRAM		REPLENISHMENT RATE	
	Tier 1	Tier 2	Tier 1	Tier 2	Treated	Untreated	Treated	Untreated
September 1, 2009	$701	$781	$484	$564	$587	$394	$558	$366
January 1, 2010	$701	$811	$484	$594	$615	$416	$558	$366
January 1, 2011	$744	$869	$527	$652	$687	$482	$601	$409
January 1, 2012	$794	$920	$560	$686	$765	$537	$651	$442
January 1, 2013*	$847	$997	$593	$743	**	**	**	**
January 1, 2014*	$890	$1,032	$593	$735	**	**	**	**
January 1, 2015*	$923	$1,055	$582	$714	**	**	**	**
January 1, 2016	$942	$1,076	$594	$728	**	**	**	**

Source: Metropolitan.

* Rates to be effective January 1, 2015 and January 1, 2016 were adopted by Metropolitan's Board on April 8, 2014.
** The Interim Agricultural Water Program and Replenishment Service Program were discontinued after 2012.
(1) Includes $69 per acre-foot Delta Supply Surcharge, which replaced Water Supply Surcharge.
(2) Includes $51 and $58 per acre-foot Delta Supply Surcharge for January 1, 2011 and January 1, 2012, respectively.
(3) Excludes Delta Supply Surcharge, which will be suspended for 2013 and 2014.
(4) 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.
(5) 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 firm deliveries through Metropolitan's system. The RTS generated $119.2 million in fiscal year 2010-11, $133.9 million in fiscal year 2011-12 and $144.0 million in

fiscal year 2012-13. Based on the adopted rates and charges, the RTS is projected to generate $162 million in fiscal year 2014-15, and $155.5 million in fiscal year 2015-16.

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 "—California Ballot Initiatives" 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 2010-11, 2011-12 and 2012-13 RTS charges collected by means of such standby charges were $41.7 million, $41.7 million and $41.6 million, respectively.

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 September 30 for the three-calendar-year period ended December 31, 2010 and December 31, 2011, for charges effective 2012 and 2013 respectively. The Capacity Charge is intended to recover the cost of providing peak capacity within the distribution system. Effective January 1, 2012, the Capacity Charge was $7,400 per cfs of maximum daily flow, which decreased to $6,400 per cfs on January 1, 2013 and increased to $8,600 per cfs on January 1, 2014. The adopted Capacity Charge will be $11,100 per cfs on January 1, 2015, and $10,900 per cfs on January 1, 2016.

Financial 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 target level based on an additional two years revenue shortfall estimate. Funds representing the minimum reserve level are held in the Revenue Remainder Fund, and any funds in excess of the minimum reserve level are held in the Water Rate Stabilization Fund. Metropolitan established the Water Rate Stabilization Fund for the principal purpose of maintaining stable and predictable water rates and charges. Funds above the target reserve level may be utilized for pay-as-you-go funding of capital expenditures, for the redemption, defeasance or purchase of outstanding bonds or, provided that Metropolitan's fixed charge coverage ratio, which measures the 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, is at or above 1.2, for any lawful purpose of Metropolitan, as determined by the Board. See "CAPITAL INVESTMENT PLAN—Capital Investment Plan Financing" in this Appendix A.

As of June 30, 2013, the minimum reserve requirement was $198 million. The target reserve limit at June 30, 2013 was $474 million. At June 30, 2013, unrestricted reserves, which consist of the Water Rate Stabilization Fund and the Revenue Remainder Fund, totaled $536 million on a modified accrual basis, including $93.1 million held in Metropolitan's financial reserves pursuant to the exchange contract between Metropolitan and SDCWA due to SDCWA's litigation challenging Metropolitan's rate structure. The amount held due to SDCWA's litigation challenging Metropolitan's rate structure as of March 31, 2014 was $126 million. See "METROPOLITAN's WATER SUPPLY—Colorado River Aqueduct—Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" and "METROPOLITAN REVENUES—Litigation Challenging Rate Structure" in this Appendix A. As of June 30, 2013, the fiscal year 2012-13 modified accrual-based reserves exclude $7.2 million held by swap counterparties. Unrestricted reserves in excess of the target reserve level may be used for any lawful purpose of Metropolitan as directed by the

Board, provided that Metropolitan's fixed charge coverage ratio is at or above 1.2. Consistent with State legislation, Metropolitan will ensure that any funds in excess of target reserve levels that are distributed to member agencies will be distributed in proportion to water sales revenues received from each member agency. On June 11, 2013, since reserve balances were projected on a modified accrual basis to be $75 million greater than the target reserve level at June 30, 2013, the Board authorized the use of the reserve amounts over the target reserve level to be transferred to the Replacement and Refurbishment (PAYGO) Fund for capital projects, a trust to pre-fund Metropolitan's unfunded liability for other post-employment benefits (see "METROPOLITAN EXPENDITURES—Defined Benefit Pension Plan" in this Appendix A), and the Water Transfer Fund to offset future expenditures for water management actions. These transfers were made prior to June 30, 2013.

On June 30, 2014, Metropolitan's unrestricted reserves are projected to be $839 million on a modified accrual basis. This amount of unrestricted reserves would be $352 million over the target reserve level for FY 2013-14. On April 8, 2014, Metropolitan's Board approved the use of unrestricted reserves, over the target reserve level, as follows: $100 million deposit to the Renewal and Replacement Fund, for pay-as-you-go funding of the CIP; $100 million deposited to the Other Post-Employment Benefits (OPEB) Trust; and any remaining amounts over target (currently estimated at $150 million) will be placed in a Water Management Fund to cover costs associated with replenishing storage, purchasing transfers and funding drought response programs.

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. See "—Rate Structure" above. These payments are included in Net Operating Revenues. Wheeling and exchange revenues totaled $51.8 million during fiscal year 2010-11, $89.6 million during fiscal year 2011-12, and $74.6 million in fiscal year 2012-13. See "—Litigation Challenging Rate Structure" above for a description of litigation by the SDCWA and IID challenging Metropolitan's System Access Rate and Water Stewardship Rate.

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 131 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 nearly $30 million. Energy generation sales revenues were $29.6 million for fiscal year 2011-12 and $24.5 million in fiscal year 2012-13.

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, 2013 were 1.86 million acre-feet, generating $1.28 billion in water sales revenues for such period. Metropolitan's ten largest water customers in the year ended June 30, 2013 are shown in the following table, on an accrual basis. On June 11, 2010, the SDCWA filed litigation challenging Metropolitan's rates. See "—Litigation Challenging Rate Structure" above.

TEN LARGEST WATER CUSTOMERS
Year Ended June 30, 2013
Accrual Basis (Unaudited)

Agency	Water Sales Revenues[1]	Percent of Total	Water Sales in Acre-Feet[1]	Percent of Total
San Diego County Water Authority	$ 273,653,937	21.3%	475,461	25.6%
City of Los Angeles	249,365,140	19.4	388,402	20.9
MWD of Orange County	165,309,479	12.9	211,028	11.4
West Basin MWD	98,246,614	7.7	119,870	6.5
Calleguas MWD	90,035,514	7.0	109,933	5.9
Eastern MWD	75,323,672	5.9	105,296	5.7
Western MWD	56,629,460	4.4	75,851	4.1
Three Valleys MWD	48,696,560	3.8	68,586	3.7
Inland Empire Utilities Agency	34,013,542	2.7	59,051	3.2
Central Basin MWD	30,666,963	2.4	37,501	2.0
Total	$ 1,121,940,881	87.5%	1,650,979	88.9%
Total Water Sales Revenues	$ 1,282,527,736	**Total Acre-Feet**	1,856,685	

Source: Metropolitan.

(1) Includes wheeling and exchange water sales, revenues and deliveries. See "METROPOLITAN REVENUES—Wheeling and Exchange Charges" in this Appendix A.

Preferential Rights

Section 135 of the Act gives each of Metropolitan's member agencies a preferential entitlement to purchase a portion of the water served by Metropolitan, based upon a ratio of all payments on tax assessments and otherwise, except purchases of water, made to Metropolitan by the 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. SDCWA's litigation challenging Metropolitan's water rates also challenges Metropolitan's exclusion of payments for exchange water from the calculation of SDCWA's preferential right. See "—Litigation Challenging Rate Structure" above.

California Ballot Initiatives

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 XIIIC and XIIID to the California Constitution. Article XIIID 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, 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 XIIID. Fees for water service by Metropolitan's member agencies or their agencies providing retail water service are subject to the requirements of Article XIIID.

Article XIIID also imposes certain procedures with respect to assessments. Under Article XIIID, "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 "—Additional Revenue Components—*Readiness-to-Serve Charge*" and "*—Water Standby Charges*" above. Even if Article XIIID 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 XIIIC 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 XIIIC 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 26, a State ballot initiative aimed at restricting regulatory fees and charges, was approved by the California voters on November 2, 2010. Proposition 26 broadens the definition of "tax" in Article XIIIC of the California Constitution to include levies, charges and exactions imposed by local governments, except for charges imposed for benefits or privileges or for services or products granted to the payor (and not provided to those not charged) that do not exceed their reasonable cost; regulatory fees that do not exceed the cost of regulation; fees for the use of local governmental property; fines and penalties imposed for violations of law; real property development fees; and assessments and property-related fees imposed under Article XIIID of the California Constitution. Taxes imposed by a special district such as Metropolitan are subject to approval by two-thirds of the voters voting on the ballot measure for authorization. Proposition 26 applies to charges imposed or increased by local governments after the date of its approval. Metropolitan believes its water rates and charges are not taxes under Proposition 26. Nevertheless, Metropolitan is assessing whether Proposition 26 may affect future water rates and charges. SDCWA's lawsuit challenging the rates adopted by Metropolitan in April 2012, part of which became effective January 1, 2013 and part of which will become effective January 1, 2014, alleges that such rates violate Proposition 26. (See "–Litigation Challenging Rate Structure" above.)

Propositions 218 and 26 were adopted as measures 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, mortgage-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 billions 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. The

Statement of Investment Policy allows Metropolitan to exceed the portfolio and single issuer limits for purchases of California local agency securities when purchasing Metropolitan tendered bonds in conjunction with its self-liquidity program. See "METROPOLITAN EXPENDITURES—Variable Rate and Swap Obligations" in this Appendix A. Metropolitan's current investments comply with the Statement of Investment Policy.

As of March 31, 2014, the total market value (cash-basis) of all Metropolitan funds was $1.38 billion, including bond reserves of $118.4 million. The market value of Metropolitan's investment portfolio is subject to market fluctuation and volatility and general economic conditions. In fiscal year 2012-13, Metropolitan's earnings on investments, including adjustments for gains and losses and premiums and discounts, including construction account and trust fund earnings, on a cash basis (unaudited) were $11.7 million. In fiscal year 2011-12, Metropolitan's earnings on investments, on a cash basis (unaudited) were $17.8 million. In fiscal year 2010-11, Metropolitan's earnings on investments, on a cash basis (unaudited) were $20.0 million. Over the three years ended March 31, 2014, the market value of the month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) averaged approximately $1.0 billion. The minimum month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) during such period was approximately $811.8 million on August 31, 2011. See Footnote 3 to Metropolitan's audited financial statements in Appendix B for additional information on the investment portfolio.

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 2013-14 on June 11, 2013.

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 Finance and Insurance 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 Appendix B - "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2013 AND JUNE 30, 2012 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2013 AND 2012 (UNAUDITED)" for a description of Metropolitan's investments at December 31, 2013.

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. As of March 31, 2014, such managers were managing approximately $328.7 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

General

The following table sets forth a summary of Metropolitan's expenditures, by major function, for the five years ended June 30, 2013. The table provides cash basis information, which is unaudited. Expenses of Metropolitan for the fiscal years ended June 30, 2013 and June 30, 2012, on an accrual basis, are shown in Appendix B - "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2013 AND JUNE 30, 2012 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2013 AND 2012 (UNAUDITED)."

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

	2009	2010	2011	2012	2013
Operation and Maintenance Costs[1]	$ 455.6	$ 441.6	$ 430.8	$ 425.3	$ 413.6
Total State Water Project and Water Transfers[2]	478.8	560.1	593.4	535.4	531.1
Total Debt Service	281.6	287.0	306.7	323.0	326.9
Construction Disbursements from Revenues[3]	30.6	35.1	45.0	44.2	54.7
Other[4]	8.3	5.3	2.4	2.8	6.2
Total Disbursements (net of reimbursements) [5]	$1,254.9	$1,329.1	$1,378.3	$1,330.7	$1,332.5

Source: Metropolitan.

(1) Includes inventories, undistributed payroll, local resource programs, conservation programs and Colorado River Aqueduct power. 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 year ended June 30, 2009, primarily due to the Board's policy to maintain adequate reserve levels in the rate stabilization funds to mitigate future increases in water rates and charges. See "METROPOLITAN REVENUES—Financial Reserve Policy" in this Appendix A. Does not include expenditures of bond proceeds.

(4) Includes operating equipment and arbitrage rebate.

(5) Disbursements exceeded revenues in the fiscal years ended June 30, 2010 and 2011. See "METROPOLITAN REVENUES—Financial Reserve Policy" in this Appendix A.

Revenue Bond Indebtedness

Metropolitan has issued the following water revenue bonds, which as of May 1, 2014, were outstanding in the amounts set forth below:

Name of Issue	Original Amount Issued	Principal Outstanding
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 and Series C	100,000,000	-0-
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 and Series C	100,000,000	-0-
Water Revenue Bonds, 2000 Authorization, Series B-1(1)	88,800,000	-0-
Water Revenue Bonds, 2000 Authorization, Series B-2(1)	88,800,000	-0-
Water Revenue Bonds, 2000 Authorization, Series B-3 and B-4(1)	177,600,000	177,600,000
Water Revenue Refunding Bonds, 2001 Series A	195,670,000	-0-
Water Revenue Refunding Bonds, 2001 Series B1 and B-2	224,800,000	-0-
Water Revenue Bonds, 2001 Series C-1 and C-2	200,000,000	-0-
Water Revenue Refunding Bonds, 2002 Series A	96,640,000	-0-
Water Revenue Refunding Bonds, 2002 Series B	35,600,000	-0-
Water Revenue Refunding Bonds, 2003 Series A	36,215,000	11,780,000
Water Revenue Bonds, 2003 Authorization, Series B-1	105,580,000	-0-
Water Revenue Bonds, 2003 Authorization, Series B-2	94,420,000	-0-
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)	162,455,000	79,185,000
Water Revenue Refunding Bonds, 2004 Series B*	274,415,000	87,945,000
Water Revenue Bonds, 2003 Authorization, Series B-3	262,295,000	8,540,000
Water Revenue Bonds, 2003 Authorization, Series B-4	37,705,000	-0-
Water Revenue Refunding Bonds, 2004 Series C	136,090,000	-0-
Water Revenue Bonds, 2005 Authorization, Series A	100,000,000	75,620,000
Water Revenue Bonds, 2005 Authorization, Series B-1 and B-2	100,000,000	-0-
Water Revenue Refunding Bonds, 2006 Series A-1 and A-2	74,140,000	-0-
Water Revenue Bonds, 2005 Authorization, Series C	200,000,000	175,000,000
Water Revenue Bonds, 2005 Authorization, Series D-1 and D-2	100,000,000	-0-
Water Revenue Refunding Bonds, 2006 Series B	45,875,000	24,055,000
Water Revenue Bonds, 2006 Authorization, Series A	400,000,000	393,160,000
Water Revenue Bonds, 2006 Authorization, Series B	100,000,000	-0-
Water Revenue Refunding Bonds, 2007 Series A-1 and A-2	218,425,000	-0-
Water Revenue Refunding Bonds, 2007 Series B	81,900,000	-0-
Water Revenue Refunding Bonds, 2008 Series A-1	250,940,000	-0-
Water Revenue Refunding Bonds, 2008 Series A-2(1)	250,635,000	145,985,000
Water Revenue Refunding Bonds, 2008 Series B	133,430,000	127,410,000
Water Revenue Refunding Bonds, 2008 Series C	79,045,000	48,580,000
Water Revenue Bonds, 2008 Authorization, Series A	200,000,000	187,830,000
Water Revenue Refunding Bonds, 2009 Series A-1	104,185,000	-0-
Water Revenue Refunding Bonds, 2009 Series A-2(1)	104,180,000	104,180,000
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	17,275,000
Water Revenue Bonds, 2008 Authorization, Series C(2)	78,385,000	78,385,000
Water Revenue Bonds, 2008 Authorization, Series D(2)	250,000,000	250,000,000
Water Revenue Refunding Bonds, 2009 Series D	81,065,000	70,390,000
Water Revenue Refunding Bonds, 2009 Series E	26,050,000	21,020,000
Water Revenue Refunding Bonds, Special Variable Rate, 2010 Series A(1) *	128,005,000	9,825,000
Water Revenue Refunding Bonds, 2010 Series B	88,845,000	88,845,000

(Continued on next page)

Name of Issue	Original Amount Issued	Principal Outstanding
(Continued from previous page)		
Water Revenue Bonds, 2010 Authorization, Series A[(2)]	$ 250,000,000	$ 250,000,000
Water Revenue Refunding Bonds, 2011 Series A1-A4[(1)]	228,875,000	228,875,000
Water Revenue Refunding Bonds, 2011 Series B	167,885,000	105,645,000
Water Revenue Refunding Bonds, 2011 Series C	157,100,000	156,600,000
Water Revenue Refunding Bonds, 2012 Series A	181,180,000	181,180,000
Water Revenue Refunding Bonds, 2012 Series B-1 and B-2[(1)]	98,585,000	98,585,000
Water Revenue Refunding Bonds, 2012 Series C	190,600,000	190,600,000
Water Revenue Refunding Bonds, 2012 Series D	39,520,000	30,330,000
Water Revenue Refunding Bonds, 2012 Series E1*	28,420,000	28,420,000
Water Revenue Refunding Bonds, 2012 Series E2	29,820,000	29,820,000
Water Revenue Refunding Bonds, 2012 Series E3	31,220,000	31,220,000
Water Revenue Refunding Bonds, 2012 Series F	60,035,000	60,035,000
Water Revenue Refunding Bonds, 2012 Series G	111,890,000	111,890,000
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D[(1)]	87,445,000	87,445,000
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series E[(1)]	104,820,000	104,820,000
Water Revenue Refunding Bonds, 2014 Series A	95,935,000	95,935,000
Water Revenue Refunding Bonds, 2014 Series B	10,575,000	10,575,000
Water Revenue Refunding Bonds, 2014 Series C	30,335,000	30,335,000
Total	**$10,946,989,889**	**$4,317,960,000**

Source: Metropolitan.

(1) Outstanding variable rate obligation.
(2) Designated as "Build America Bonds" pursuant to the American Recovery and Reinvestment Act of 2009.
* Metropolitan expects to issue its Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D to refund all or a portion of these bonds.

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"), provides 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 authorized by the Revenue Bond Resolutions ("Parity Bonds") or other obligations of Metropolitan having a lien and charge upon, or being payable from, the Net Operating Revenues on parity with such water revenue bonds ("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 May 1, 2014, outstanding general obligation bonds, water revenue bonds and other evidences of indebtedness in the amount of $4.46 billion represented approximately 0.20 percent of the fiscal year 2013-14 taxable assessed valuation of $2,183.4 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, 2013 were $6.80 billion. The aggregate amount of revenue bonds outstanding as of May 1, 2014 was $4.32 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, 2013 and June 30, 2012, respectively, are shown in Appendix B – "THE METROPOLITAN WATER DISTRICT OF

SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2013 AND JUNE 30, 2012 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2013 AND 2012 (UNAUDITED)."

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 May 1, 2014, Metropolitan had outstanding $1.04 billion of variable rate obligations, including bonds bearing interest in the Index Mode or Flexible Index Mode (the "Index Tender Bonds") and special variable rate bonds initially designated as self-liquidity bonds (the "Self-Liquidity Bonds"). As of May 1, 2014, the Index Tender Bonds outstanding are summarized in the following table:

Series	Date of Issuance	Original Principal Amount Issued	Next Scheduled Mandatory Tender Date	Maturity Date
2009 A-2	May 20, 2009	$104,180,000	February 9, 2015	July 1, 2030
2011 A-1	June 2, 2011	64,440,000	January 16, 2015	July 1, 2036
2011 A-2	June 2, 2011	50,000,000	May 1, 2015	July 1, 2036
2011 A-3	June 2, 2011	64,435,000	January 16, 2015	July 1, 2036
2011 A-4	June 2, 2011	50,000,000	May 1, 2015	July 1, 2036
2012 B-1	April 27, 2012	49,295,000	May 1, 2015	July 1, 2027
2012 B-2	April 27, 2012	49,295,000	May 1, 2015	July 1, 2027
2013 E [(1)]	July 2, 2013	104,820,000	October 6, 2014	July 1, 2030
Total		**$536,460,000**		

Source: Metropolitan.

(1) Flexible Index Mode Bonds.

The Index Tender Bonds have substantially similar terms and conditions; however, the unscheduled mandatory tender dates and related tender periods for the Index Tender Bonds may differ. 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. The 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 the 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, 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 Index Tender Bonds in connection with a scheduled mandatory tender. If the purchase price of the Index Tender Bonds of any Series is not paid from the proceeds of remarketing or other funds following a scheduled mandatory tender, such Index Tender Bonds then will bear interest at a default rate of up to 12 percent per annum until purchased by Metropolitan or redeemed. If the purchase price of the Index Tender Bonds of any series is not paid on a scheduled mandatory tender date, such Index Tender Bonds will also be subject to special mandatory redemption, in part, 18, 36 and 54 months following the purchase

default. Any such special mandatory redemption payment will constitute a Bond Obligation payable on parity with the Parity Bonds and the Parity Obligations. The 2013E Bonds are Flexible Index Mode Bonds, the terms and conditions of which are substantially similar to Index Mode Bonds except that each tender period may not exceed 270 days.

As of May 1, 2014, Metropolitan had $97.3 million of outstanding self-liquidity bonds, comprised of $9.8 million Special Variable Rate Water Revenue Refunding Bonds, 2010 Series A and $87.4 million Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D. The outstanding 2010 Series A bonds are expected to be refunded from the proceeds of the Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D. The Self-Liquidity Bonds are subject to optional tender upon seven days' notice by the owners thereof and mandatory tender upon specified events. Metropolitan is irrevocably committed to purchase all Self-Liquidity Bonds tendered pursuant to any optional or mandatory tender to the extent that remarketing proceeds are insufficient therefor and no standby bond purchase agreement or other liquidity facility is in effect. Metropolitan's obligation to pay the purchase price of any tendered Self-Liquidity Bonds is an unsecured, special limited obligation of Metropolitan payable from Net Operating Revenues. In addition, Metropolitan's investment policy permits it to purchase tendered Self-Liquidity Bonds as an investment for its investment portfolio (other than amounts in its investment portfolio consisting of bond reserve funds). Thus, while Metropolitan is only obligated to purchase tendered Self-Liquidity Bonds from Net Operating Revenues, it may use the cash and investments in its investment portfolio (other than amounts in its investment portfolio consisting of bond reserve funds and amounts posted as collateral with interest rate swap counterparties as described below) to purchase tendered Self-Liquidity Bonds. Metropolitan has not secured any liquidity facility or letter of credit to pay the purchase price of any tendered Self-Liquidity Bonds; however, Metropolitan has entered into a Revolving Credit Agreement (as described below) pursuant to which it may make borrowings for the purpose of paying the purchase price of Self-Liquidity Bonds. See "— Revolving Credit Agreement" below.

The interest rates for Metropolitan's other variable rate demand obligations, totaling $402.8 million as of May 1, 2014, 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 that provide for purchase of variable rate bonds by the applicable liquidity provider upon tender of such variable rate bonds and a failed remarketing. A decline in the creditworthiness of a liquidity provider will likely result in an increase in the interest rate of the applicable variable rate bonds, as well as an increase in the risk of a failed remarketing of such tendered variable rate bonds. Variable rate bonds purchased by a liquidity provider bear interest at a significantly higher interest rate and Metropolitan's obligation to reimburse the liquidity provider may convert the term of the variable rate bonds purchased by the liquidity provider into a term loan amortizable over a period of up to three years, depending on the applicable liquidity facility.

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 as of May 1, 2014.

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Liquidity Provider	Bond Issue		Principal Outstanding	Facility Expiration
Wells Fargo Bank, N.A.	2000 Authorization Series B-3		$ 88,800,000	February 2017
	2000 Authorization Series B-4		88,800,000	February 2017
		Total	$177,600,000	
U.S. Bank, N.A.	2004 Series A-1		$ 39,590,000	February 2016
	2004 Series A-2		39,595,000	February 2016
		Total	$79,185,000	
Barclays Bank PLC	2008 Series A-2		$145,985,000	September 2016
Total			$402,770,000	

Source: Metropolitan.

Included in Metropolitan's $1.04 billion of variable rate obligations are $658.3 million 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 $378 million of variable rate obligations represent approximately 8.7 percent of total outstanding water revenue bonds, as of May 1, 2014.

Metropolitan's variable rate exposure policy requires 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) is 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, which was subsequently amended by resolutions adopted on July 14, 2009 and May 11, 2010. 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 Finance and Insurance Committee of Metropolitan's Board each quarter 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 2002 A and 2002 B interest rate swap agreements 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 May 1, 2014:

FIXED PAYOR SWAPS:

Designation	Notional Amount Outstanding	Swap Counterparty	Fixed Payor Rate	MWD Receives	Maturity Date
2002 A	$88,301,850	Morgan Stanley Capital Services, Inc.	3.300	57.74% of one-month LIBOR	7/1/2025
2002 B	33,033,150	JPMorgan Chase Bank	3.300	57.74% of one-month LIBOR	7/1/2025
2003[(1)]	163,295,000	Deutsche Bank AG	3.257	61.20% of one-month LIBOR	7/1/2030
2003	163,295,000	JPMorgan Chase Bank	3.257	61.20% of one-month LIBOR	7/1/2030
2004 A	79,185,000	Morgan Stanley Capital Services, Inc.	2.917	61.20% of one-month LIBOR	7/1/2023
2004 C	7,760,500	Morgan Stanley Capital Services, Inc.	2.980	61.55% of one-month LIBOR	10/1/2029
2004 C	6,349,500	Citigroup Financial Products, Inc.	2.980	61.55% of one-month LIBOR	10/1/2029
2005	58,547,500	JPMorgan Chase Bank	3.360	70% of 3-month LIBOR	7/1/2030
2005	58,547,500	Citigroup Financial Products, Inc.	3.360	70% of 3-month LIBOR	7/1/2030
Total	$658,315,000				

Source: Metropolitan.

(1) The obligations under these interest rate swap agreements were assigned by UBS AG to Deutsche Bank AG, New York Branch, pursuant to novation transactions dated July 22, 2010.

BASIS SWAPS:

Swap	Notional Amount Outstanding	Swap Counterparty	Met Receives	Met Pays	Maturity Date
2004	$125,000,000	JPMorgan Chase Bank	70% of one-month LIBOR + 31.5 basis points	SIFMA	7/1/2014
2004	125,000,000	JPMorgan Chase Bank	70% of one-month LIBOR + 31.5 basis points	SIFMA	7/1/2014
Total	$250,000,000				

Source: Metropolitan.

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 BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2013 AND JUNE 30, 2012 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2013 AND 2012 (UNAUDITED)."

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 March 31, 2014, 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 termination payments from its counterparties if other swaps were terminated. Metropolitan's net exposure to its counterparties for all such termination payments on that date was approximately $89 million. Metropolitan does not presently anticipate early termination of any of its interest rate swap agreements due to default by either party or the occurrence of a termination event. However, effective June 28, 2012, Metropolitan exercised optional early termination provisions to terminate all or a portion of certain interest rate swap agreements totaling a notional amount of $322 million. In addition, effective February 12, 2014, Metropolitan exercised optional early termination provisions to terminate a portion of certain interest rate swap agreements, totaling a notional amount of $147 million, in conjunction with the issuance of the Water Revenue Refunding Bonds, 2014 Series A, 2014 Series B and 2014 Series C.

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 March 31, 2014, Metropolitan had no collateral posted with any counterparty. The highest, month-end, amount of collateral posted was $36.8 million, on June 30, 2012, which was based on an outstanding swap notional amount of $1.4 billion. 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. See "METROPOLITAN REVENUES—Financial Reserve Policy" in this Appendix A. 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. See "METROPOLITAN REVENUES—Financial Reserve Policy."

Build America Bonds

Metropolitan previously issued and designated three series of Bonds in the aggregate principal amount of $578,385,000 as "Build America Bonds" under the provisions of the American Recovery and Reinvestment Act of 2009 (the "Build America Bonds"). Except as they may be reduced by sequestration as described in the following paragraph, Metropolitan currently expects to receive cash subsidies from the United States Treasury equal to 35 percent of the interest payable on all such outstanding Build America

Bonds (the "Interest Subsidy Payments"). The Interest Subsidy Payments in connection with the Build America Bonds do not constitute Operating Revenues under the Master Resolution. Such Interest Subsidy Payments will constitute Additional Revenues, which Metropolitan may take into consideration when establishing its rates and charges and will be available to Metropolitan to pay principal of and interest on Metropolitan's Bonds.

The Budget Control Act of 2011 (the "Budget Control Act") provided for increases in the federal debt limit and established procedures designed to reduce the federal budget deficit. The Budget Control Act provided that a failure to reduce the deficit would result in sequestration: automatic, generally across-the-board, spending reductions. These reductions began on March 1, 2013 pursuant to an executive order that reduced budgetary authority for expenditures subject to sequestration, including subsidies for Build America Bonds. Pursuant to this executive order, the approximately $6.64 million interest subsidy payment that Metropolitan received on July 1, 2013 was reduced by 8.7 percent, or $578,000, to $6.06 million. Refund payments processed on or after October 1, 2013 and on or before September 30, 2014 are anticipated to be reduced by the fiscal year 2014 sequestration rate of 7.2 percent, or approximately $950,000 of the $13.2 million originally projected to be received over this period. The sequestration reduction rate will be applied unless and until a law is enacted that cancels or otherwise impacts the sequester, at which time the sequestration reduction rate is subject to change. Metropolitan can offer no assurances as to future subsidy payments and expects that once it receives less than any full 35 percent subsidy payment, the United States Treasury will not thereafter reimburse Metropolitan for payments not made.

Other Revenue Obligations

As of May 1, 2014, Metropolitan had outstanding $89.5 million of 2012 Series E Parity Bonds in three series and $30.3 million of 2014 Series C Parity Bonds in three series, bearing interest in a term mode (the "Term Mode Bonds"). The Term Mode Bonds initially bear interest at a fixed rate for a specified period from their date of issuance, after which there shall be determined a new interest mode for each series (which may be another term mode, a daily mode, a weekly mode, a short-term mode or an index mode) or the Term Mode Bonds may be converted to bear fixed interest rates through the maturity date thereof. The owners of the Term Mode Bonds of a series must tender for purchase, and Metropolitan must purchase, all of the Term Mode Bonds of such series on the specified scheduled mandatory tender date of each term period for such series. The scheduled mandatory tender dates for the three series of the 2012 Series E Bonds are October 1, 2014, October 1, 2015 and October 1, 2016, respectively. For the three series of the 2014 Series C Bonds, the scheduled mandatory tender dates are October 1, 2019, October 1, 2020 and October 1, 2021. Metropolitan may call the Term Mode Bonds on or after the Call Protection Date for each of the series of Term Mode Bonds. Accordingly, Metropolitan plans to call and refund the 2012 Series E-1 Term Mode Bonds on the Call Protection Date of July 1, 2014, from the proceeds of the Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D.

Metropolitan will pay the principal of, and interest on, the Term Mode Bonds on parity with its other Parity Bonds. Metropolitan anticipates that it will pay the purchase price of tendered Term Mode Bonds from the proceeds of remarketing such Term Mode Bonds or from other available funds. Metropolitan's obligation to pay the purchase price of such Term Mode 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 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 Term Mode Bonds in connection with any scheduled mandatory tender. If the purchase price of the Term Mode Bonds of any series is not paid from the proceeds of remarketing or other funds following a scheduled mandatory tender, such Term Mode Bonds will then bear interest at a default rate of up to 12 percent per annum until purchased by Metropolitan or redeemed. If the purchase price of the Term Mode Bonds of any series is not paid on a scheduled mandatory tender date, such Term Mode Bonds will also be subject to special mandatory redemption, in part, 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 the Parity Obligations.

Revolving Credit Agreement

On March 21, 2013, Metropolitan entered into a revolving credit agreement ("Revolving Credit Agreement") with The Bank of New York Mellon ("BNY Mellon"). Under the terms and conditions of the Revolving Credit Agreement, Metropolitan may borrow up to $96,545,900 for purposes of paying the purchase price of any Self-Liquidity Bonds. Under the Revolving Credit Agreement, a failure by Metropolitan to perform or observe certain covenants could result in a termination of BNY Mellon's commitment and entitle BNY Mellon to declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the Revolving Credit Agreement as a Parity Obligation under the Master Resolution. The scheduled expiration date of the Revolving Credit Agreement is March 31, 2016. Metropolitan has no obligation to make borrowings under the Revolving Credit Agreement, maintain the Revolving Credit Agreement or renew the Revolving Credit Agreement. See "—Limitations on Additional Revenue Bonds" above.

When Metropolitan entered into the Revolving Credit Agreement, it designated the principal and interest payable under the Revolving Credit Agreement as Excluded Principal Payments under the Master Resolution and thus, for purposes of calculating Maximum Annual Debt Service, included the amount of principal and interest due and payable under the Revolving Credit Agreement on a schedule of Assumed Debt Service. This schedule of Assumed Debt Service assumes that Metropolitan will pay the principal under the Revolving Credit Agreement over a period of 30 years at a fixed interest rate of 3.75 percent. Pursuant to the terms of the Master Resolution, while the Revolving Credit Agreement is in force and effect, when Metropolitan calculates its covenant relating to the creation or incurrence of additional indebtedness, it will add an amount to its Net Operating Revenues relating to an assumed annual debt service payment that Metropolitan would receive if it were to use the proceeds of the Revolving Credit Agreement to purchase Self-Liquidity Bonds.

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 payment obligation is subordinate to the Parity Bonds and Parity Obligations. As of May 1, 2014, the principal balance outstanding was $11.7 million.

General Obligation Bonds

As May 1, 2014, $132,275,000 aggregate principal amount of general obligation bonds payable from *ad valorem* property taxes were outstanding. *Ad valorem* taxes levied by Metropolitan must be applied solely to the payment of general obligation bonds and other voter-approved indebtedness. Metropolitan's revenue bonds are not payable from the levy of *ad valorem* property taxes.

General Obligation Bonds	Amount Issued[1]	Principal Outstanding
Waterworks General Obligation Refunding Bonds, 2004 Series A	$ 68,345,000	$ 7,090,000
Waterworks General Obligation Refunding Bonds, 2005 Series A	64,705,000	60,105,000
Waterworks General Obligation Refunding Bonds, 2009 Series A	45,515,000	33,650,000
Waterworks General Obligation Refunding Bonds, 2010 Series A	39,485,000	31,430,000
Total	$218,050,000	$132,275,000

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 bonds that refunded such Waterworks General Obligation Bonds, Election 1966.

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. Representatives of DWR and state water contractors have agreed on key terms to extend the State Water Contract through 2085, and are preparing an agreement in principle for review and approval. DWR expects to begin the CEQA review process in July 2014. Following CEQA review, a State Water Project amendment will be prepared. Such amendment will be subject to review by the Legislature. As of April 1, 2014, the latest maturity of outstanding DWR bonds issued for such purpose was December 1, 2035.

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, 2013 was $480.2 million, which amount reflects prior year's credits of $77.2 million. For the fiscal year ended June 30, 2013, Metropolitan's payment obligations under the State Water Contract were approximately 37 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, as described above under "METROPOLITAN REVENUES—General" in this Appendix A. 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.

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 XIIIA 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 2013, this represented a payment of $6.7 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 ("FERC") 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 calendar year 2014 and projections based on Metropolitan's adopted biennial budget for fiscal years 2014-15 and 2015-16. Projections for fiscal year 2013-14 include actual results for July 2013 through March 2014 with revised projections for the balance of the fiscal year. The projections include projected costs to complete the planning phase of the BDCP. If a Bay-Delta improvement alternative is identified and funding is approved, construction may commence in 2016. See "METROPOLITAN'S WATER SUPPLY—State Water Project—Bay-Delta Regulatory and Planning Activities" in this Appendix A.

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

Year Ending June 30	Capital Costs	Minimum OMP&R[(2)]	Power Costs[(3)]	Refunds & Credits	Total[(4)]
2014	$153.9	$189.2	$136.2	$(66.4)	$412.9
2015	161.9	182.2	189.5	(38.0)	495.7
2016	170.0	184.6	196.8	(36.3)	515.0
2017	183.6	190.1	212.6	(36.6)	549.6
2018	193.3	191.0	221.9	(36.4)	669.8

Source: Metropolitan

(1) Projections are based upon DWR's Annual Billing to Metropolitan for 2014 and attachments (dated July 1, 2013) and Metropolitan's adopted biennial budget for fiscal years 2014-15 and 2015-16. Projections for fiscal year 2013-14 include actual results for July 2013 through March 2014 with revised projections for the balance of the fiscal year. 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 9 of Metropolitan's audited financial statements *(Footnotes continued on next page)*

(for the fiscal years ended June 30, 2013 and June 30, 2012) in Appendix B due to the inclusion above of allowances for inflation and anticipated construction of additional State Water Project facilities. The projections above also include State Water Project refunds and credits. See "POWER SOURCES AND COSTS—State Water Project" in this Appendix A.

(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) Assumptions for water deliveries through the California Aqueduct (not including SBVMWD and Desert Water/CVWD transfers and exchanges) into Metropolitan's service area and to storage programs are as follows: 0.97 million acre-feet for fiscal year 2013-14, 0.91 million acre-feet for fiscal year 2014-15, 0.91 million acre-feet for fiscal year 2015-16, 0.91 million acre-feet for fiscal year 2016-17 and 0.91 million acre-feet for fiscal year 2017-18. 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. *(Footnotes continued on next page)*

(4) Annual totals include BDCP related costs for the fiscal years ended June 30, 2014 through June 30, 2018 of $7.2 million in fiscal year 2013-2014, $-0- in each fiscal year for fiscal year 2014-15 through 2016-17, and $14.8 million in 2017-18. BDCP related costs are included in Capital Costs.

Other Long-Term Commitments

Metropolitan also has various ongoing fixed annual obligations under its contract with the United States Department of Energy 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 2012-13 Metropolitan paid approximately $18.2 million under this contract. Payments made under the Hoover Power Plant contract are treated as Operation and Maintenance Expenditures. On March 12, 2014, Metropolitan and the other Hoover Contractors, funded the defeasance of $124 million of bonds issued by the U.S. Treasury Department for facilities related to the Hoover Dam and Power Plant. Following this repayment, Metropolitan expects to reduce its annual payment for Hoover power by approximately $2.3 million. 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 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 the 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 and who were hired prior to January 1, 2012. Employees in all four bargaining units who were hired on or after January 1, 2012, pay the full seven percent employee contribution to PERS. Metropolitan contributes the entire seven percent on behalf of 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. The fiscal year 2012-13 contribution requirement was based on the June 30, 2010 valuation report, the fiscal year 2013-14 contribution requirement is based on the June 30, 2011 valuation report and the fiscal year 2014-15 contribution requirement is based on the June 30, 2012 valuation report. The June 30, 2012 valuation report includes a

projected employer contribution rate for fiscal year 2015-16 of 19.3 percent of annual covered payroll. The PERS' projected investment return (the discount rate) for fiscal years 2012-13, 2013-14 and 2014-15 is 7.75, 7.5, and 7.5 percent, respectively.

Accordingly, for fiscal year 2012-13, Metropolitan contributed 15.0 percent of annual covered payroll. In addition, from July 1, 2001 through December 31, 2011, Metropolitan paid the seven percent employees' share of the PERS contribution for all employees. The fiscal year 2012-13 annual pension cost was $40.7 million, of which $12.8 million was for Metropolitan's pick-up of the employees' seven percent share. For fiscal year 2013-14 and fiscal year 2014-15, Metropolitan is required to contribute 16.31 percent and 17.65 percent, respectively, of annual covered payroll, in addition to member contributions paid by Metropolitan.

On April 17, 2013, the PERS Board of Administration approved changes to the amortization and smoothing policies to spread all gains and losses over a fixed 30-year period from a rolling 30-year period, and to recognize increases or decreases in investment returns over a 5-year period versus a 15-year period. These changes will result in higher employer contribution rates in the near term but lower rates in the long term. The new policies will be effective for fiscal year 2015-16 and could increase the fiscal year 2015-16 rate by two percent. The new valuations will be performed in the fall of 2014. The following table shows the funding progress of Metropolitan's pension plan.

Metropolitan Pension Plan Assets
(dollars in billions)

				Funded (Unfunded)		Funded Ratios	
Valuation Date	**Accrued Liability**	**Actuarial Value of Assets**	**Market Value of Assets**	**Actuarial Value**	**Market Value**	**Actuarial Value**	**Market Value**
6/30/12	$1.731	$1.471	$1.227	($0.260)	($0.504)	85.0%	70.9%
6/30/11	$1.674	$1.416	$1.257	($0.258)	($0.417)	84.5%	75.1%
6/30/10	$1.563	$1.351	$1.059	($0.212)	($0.504)	86.4%	67.7%
6/30/09	$1.478	$1.287	$0.940	($0.191)	($0.538)	87.1%	63.6%
6/30/08	$1.334	$1.232	$1.256	($0.102)	($0.078)	92.3%	94.1%
6/30/07	$1.248	$1.153	$1.335	($0.095)	$0.087	92.4%	107.0%

As of June 30, 2002, the actuarial and market values of assets in Metropolitan's pension plan were approximately $896 million and $815 million, respectively, resulting in excess actuarial and market assets of $95 million and $13 million, respectively. The increase in unfunded liability since 2002 is due to the draw-down of excess assets relating to the employer pick-up of the employees' seven percent share and prior asset losses in PERS investments, and the recognition of gains and losses on an actuarial basis over a "smoothing" period. 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 to reduce the volatility of employers' future contributions and stabilize pension costs. However, in June 2009, the PERS Board adopted temporary modifications to the asset smoothing method in order to phase in over a three year period the impact of the 24 percent investment loss experienced in fiscal year 2008-09. In its June 2010 and June 2011 valuation reports, PERS continued the effects of the temporary modification. The phase-in provides short-term relief to local

government employers and is designed to strengthen the long-term financial health of the pension funds. As described above, in its June 2013 valuation report, PERS will change its amortization and smoothing methods in setting the fiscal year 2015-16 employer contribution rates. The changes will result in higher employer contribution rates in the near term but lower rates in the long term. For more information on the plan, see Appendix B - "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2013 AND JUNE 30, 2012 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2013 AND 2012 (UNAUDITED)."

Metropolitan currently provides post-employment medical insurance to retirees and pays the post-employment medical insurance premiums to PERS. On January 1, 2012, Metropolitan implemented a longer vesting schedule for retiree medical benefits, which applies to all new employees. Payments for this benefit were $13.2 million in fiscal year 2012-13 and are estimated to be $14.3 million in fiscal year 2013-14. Under Governmental Accounting Standards Board Statement No. 45, Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions, Metropolitan is required to account for and report the outstanding obligations and commitments related to such benefits, commonly referred to as other postemployment benefits ("OPEB"), on an accrual basis.

Metropolitan's annual required contribution ("ARC") was $53.5 million in fiscal year 2012-13. Pay-as-you-go contributions were $13.2 million in fiscal year 2012-13, which represent 24.7 percent of the ARC . The ARC was based on a January 1, 2011 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 4.5 percent investment rate of return, (b) a general inflation component of 3.0 percent and (c) increases to basic medical premiums of 9.0 percent for non-Medicare plans for 2013, grading down to 5.0 percent for 2021 and thereafter. As of January 1, 2011, the date of the OPEB actuarial report, the unfunded OPEB liability was estimated to be $545 million. The unfunded actuarial accrued liability is amortized over a fixed 30-year period starting with fiscal year 2007-08 and ending in 2037. Assumption changes are amortized over a fixed 20-year period. Actuarial gains and losses are amortized over a rolling 15-year period. In its biennial budget for fiscal years 2012-13 and 2013-14, Metropolitan's Board approved contributions to an irrevocable OPEB trust fund of $5.0 million and $10.0 million, respectively. During fiscal year 2012-13 the Board approved funding of an additional $25.0 million. Accordingly, Metropolitan established an irrevocable OPEB trust fund in September 2013 with an initial deposit of $40.0 million.

A June 30, 2013 actuarial valuation was released in February of 2014. This valuation indicates that the ARC in fiscal year 2013-14 is $29.5 million. This actuarial valuation used the same assumptions as the January 1, 2011 valuation, except the investment rate of return utilized was 7.25% due to the transfer of $40 million to the OPEB trust and a commitment to fund the full ARC each year. In addition, actuarial gains and losses are now amortized over a fixed 15 year period. As of June 30, 2013 the unfunded OPEB liability was estimated to be $315 million. As part of its biennial budget process for fiscal years 2014-15 and 2015-16, the Board approved an additional $100 million contribution to the OPEB trust.

HISTORICAL AND PROJECTED REVENUES AND EXPENSES

The "Historical and Projected Revenues and Expenses" table below, for fiscal years 2009-10 through 2012-13, provides a summary of revenues and expenditures of Metropolitan prepared on a cash basis, which conforms to the Revenue Bond Resolution 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" in this Appendix A. Under cash basis accounting, water sales revenues are recorded when received (two months after billed) and expenses when paid (approximately one month after invoiced). The actual financial reports for fiscal year 2012-13 and the financial projections for fiscal years 2013-14 through 2017-18 are prepared on a modified accrual basis. This is consistent with the adopted biennial budget for fiscal years 2014-15 and 2015-16, which was prepared on a modified accrual basis instead of a cash basis. The table does not reflect the accrual basis of accounting,

which is used to prepare Metropolitan's annual audited financial statements. The modified accrual basis of accounting varies from the accrual basis of accounting in the following respects: depreciation and amortization will not be recorded and payments of debt service will be recorded when due and payable. Under the modified accrual basis of accounting, revenues are recognized in the fiscal year in which they are earned and expenses are recognized when incurred. Thus water sales revenues are recognized in the month the water is sold and expenses are recognized when goods have been received and services have been rendered. The change to modified accrual accounting is for budgeting purposes and Metropolitan will continue to calculate compliance with its rate covenant, limitations on additional bonds and other financial covenants in the Resolutions in accordance with their terms.

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 EXPENSES" 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 EXPENSES" 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 the Official Statement to which this Appendix A is attached, Metropolitan anticipates issuing approximately $140 million aggregate principal amount of debt through fiscal year 2018-19 to finance the CIP. 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 in the table below are based on assumptions and estimates used in the adopted biennial budget for fiscal years 2014-15 and 2015-16, and reflect the projected issuance of additional bonds. Projections for fiscal year 2013-14 include actual financial results for July 2013 through March 2014 with revised projections for the balance of the fiscal year. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES—Water Sales Revenues" in this Appendix A.

The projections in the table below assume that water sales will be 2.02 million acre-feet in fiscal year 2013-14, and 1.75 million acre-feet in fiscal year 2014-15 through fiscal year 2017-18, respectively. Rates and charges will increase by 1.5 percent on January 1, 2015 and 1.5 percent on January 1, 2016. Rates and charges are projected to increase 3.0 percent annually thereafter. Actual rates and charges to be effective in 2017 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.

Metropolitan's resource planning projections are developed using a comprehensive analytical process that incorporates demographic growth projections from recognized regional planning entities, historical and projected data acquired through coordination with local agencies, and the use of generally accepted empirical and analytical methodologies. See "METROPOLITAN'S WATER SUPPLY—Integrated Water Resources Plan" and "—The Integrated Resources Plan Strategy" in this Appendix A. Metropolitan has conservatively set the water sales projections in the following table which are below its projections for resource planning purposes. Metropolitan estimates that its water sales projections have a seventy percent statistical likelihood of being exceeded, compared to the fifty percent exceedance levels in the projections of water sales used to set prior years' budgets and rates. Nevertheless, Metropolitan's assumptions have been questioned by directors representing SDCWA on Metropolitan's Board. Metropolitan has reviewed SDCWA's concerns

and, while recognizing that assumptions may vary, believes that the estimates and assumptions that support Metropolitan's projections are reasonable based upon history, experience and other factors as described above.

HISTORICAL AND PROJECTED REVENUES AND EXPENSES[a]
(Dollars in Millions)

	Actual				Projected				
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Water Sales[b]	$1,011	$996	$1,062	$1,283	$1,469	$1,296	$1,314	$1,337	$1,378
Additional Revenue Sources[c]	135	153	168	173	182	199	199	196	198
Total Operating Revenues	1,146	1,149	1,230	1,456	1,651	1,495	1,513	1,543	1,576
O&M, CRA Power and Water Transfer Costs[d]	(551)	(531)	(476)	(456)	(559)	(567)	(577)	(587)	(613)
Total SWC OMP&R and Power Costs[e]	(274)	(322)	(316)	(337)	(284)	(361)	(374)	(396)	(408)
Total Operation and Maintenance	(825)	(853)	(792)	(793)	(843)	(928)	(951)	(983)	(1,021)
Net Operating Revenues	$ 321	$ 296	$ 438	$ 663	$ 808	$567	$562	$ 551	$555
Miscellaneous Revenue[f]	33	74	56	23	18	17	18	18	18
Sales of Hydroelectric Power[g]	19	22	31	25	16	19	19	20	21
Interest on Investments[h]	19	17	11	(2)	15	16	28	33	32
Adjusted Net Operating Revenues[i]	392	409	536	709	857	620	626	622	625
Bonds and Additional Bonds Debt Service[j]	(244)	(277)	(297)	(298)	(342)	(276)	(309)	(310)	(313)
Subordinate Revenue Obligations[k]	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Funds Available from Operations	$ 147	$ 131	$ 238	$ 410	$ 514	$ 343	$ 316	$ 311	$311
Bonds and Additional Bonds Debt Service Coverage[l]	1.61	1.48	1.81	2.38	2.51	2.25	2.03	2.00	2.00
Debt Service Coverage on all Obligations[m]	1.60	1.47	1.80	2.37	2.50	2.24	2.02	2.00	2.00
Funds Available from Operations	$ 147	$ 131	$ 238	$410	$ 514	$ 343	$316	$ 311	$311
Other Revenues (Expenditures)	(5)	(2)	(3)	(5)	(8)	(8)	(8)	(8)	(9)
Pay-As-You Go Construction	(35)	(45)	(45)	(55)	(125)	(245)	(221)	(200)	(204)
Water Transfer Capital Costs	(12)	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Total SWC Capital Costs Paid from Current Year Operations	(115)	(119)	(112)	(88)	(79)	(68)	(72)	(83)	(84)
Remaining Funds Available from Operations	(20)	(35)	77	262	302	22	15	21	14
Fixed Charge Coverage[n]	1.09	1.03	1.31	1.83	2.03	1.80	1.64	1.58	1.57
Property Taxes	97	88	90	95	90	90	92	94	96
General Obligation Bonds Debt Service	(48)	(39)	(39)	(40)	(40)	(23)	(23)	(23)	(19)
SWC Capital Costs Paid from Taxes	(49)	(49)	(51)	(55)	(50)	(67)	(69)	(71)	(78)
Net Funds Available from Current Year[o]	$(20)	$(35)	$77	$262	$302	$22	$15	$21	$14
PAYGO Funded from Prior Year Revenues					$(25)		$(47)	$(75)	$(32)

Source: Metropolitan.

(a) Unaudited. Prepared on a cash basis for fiscal years ended June 30, 2010 through fiscal year ending June 30, 2012, and on a modified accrual basis for fiscal years ending June 30, 2013 through June 30, 2018. Projected revenues and expenditures are based on assumptions and estimates used in the adopted 2014-15 and 2015-16 biennial budget and reflect the projected issuance of additional bonds. Projected revenues and expenditures for fiscal year 2013-14 include actual financial results for July 2013-March 2014 with revised projections for the balance of the fiscal year.

(Footnotes continued on next page)

(b) During the fiscal years ended June 30, 2010 through June 30, 2013, annual water sales (in acre-feet) were 1.86 million, 1.63 million, 1.68 million (including 225,000 acre-feet of replenishment sales), and 1.86 million, respectively. See "METROPOLITAN REVENUES—Water Sales Revenues," the table entitled "SUMMARY OF WATER SOLD AND WATER SALES" in this Appendix A. The water sales projections are based upon estimated annual water sales (in acre-feet) of 2.02 million in fiscal year 2013-14 and 1.75 million in fiscal years 2014-15, 2015-16, 2016-17 and 2017-18. Projections reflect Board adopted rate and charge increases of 1.5 percent, which will become effective on January 1, 2015 and 1.5 percent, which will become effective on January 1, 2016. Rates and charges are projected to increase 3.0 percent to 5.0 percent per fiscal year thereafter, subject to adoption by Metropolitan's Board. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" below.

(c) Includes receipts from water standby, readiness-to-serve and capacity charges. The term Operating Revenues excludes *ad valorem* taxes. See "METROPOLITAN REVENUES — Additional Revenue Components" in this Appendix A.

(d) Water Transfer Costs are included in Operation and Maintenance Expenditures for purposes of calculating the debt service coverage on all Obligations.

(e) Includes on and off aqueduct power and operation, maintenance, power and replacement costs payable under the State Water Contract. See "METROPOLITAN EXPENDITURES—State Water Contract Obligations" in this Appendix A.

(f) Includes lease and rental net proceeds, net proceeds from sale of surplus property and federal interest subsidy payments for Build America Bonds of $6.6 million in fiscal year 2009-10, $3.6 million in fiscal year 2010-11, $6.6 million in fiscal year 2011-12 and $13 million in each fiscal year from 2012-13 through fiscal year 2017-18. Federal interest subsidy payments in fiscal years 2012-13 to 2017-2018 reflect a 7.2 percent reduction pursuant to federal budget sequestration. Includes in fiscal year 2010-11, $8 million from surplus property sales and a $28.2 million capital reimbursement received from the Calleguas Municipal Water District in fiscal year 2010-11 related to termination of the Las Posas water storage program. See "REGIONAL WATER RESOURCES—Local Water Supplies—*Groundwater Storage Programs*" in this Appendix A. Also includes in fiscal year 2011-12 $27.5 million from CVWD for delivery of 105,000 acre-feet under an exchange agreement between Metropolitan and CVWD. See "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct—*Quantification Settlement Agreement*" in this Appendix A.

(g) Includes Colorado River Aqueduct power sales.

(h) Does not include interest applicable to Bond Construction Funds, the Excess Earnings Funds, other trust funds and the Deferred Compensation Trust Fund. Fiscal year 2012-13 included Fair Value Adjustment of $(13.8) million, as per modified accrual accounting

(i) Adjusted Net Operating Revenues is the 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.

(j) Includes debt service on outstanding Bonds, the parity lien State Revolving Fund Loan which was repaid on July 1, 2011 and additional Bonds (projected). Assumes issuance of additional Bonds as provided in budget assumptions for the adopted biennial budget for fiscal years 2014-15 and 2015-16 as follows: $-0- in each fiscal year for fiscal year 2014-15 through fiscal year 2016-17 and $40 million in fiscal year 2017-18. For fiscal years 2013-14 and 2014-15, reflects the defeasance of the 2004 Series B bonds, payable on July 1, 2014, through a payment of Metropolitan funds to an escrow account on May 29, 2014. See "CAPITAL INVESTMENT PLAN—Capital Investment Plan Financing" in this Appendix A.

(k) Consisting of subordinate lien California Safe Drinking Water Revolving Fund Loan debt service. For fiscal years 2013-14 and 2014-15, reflects the defeasance of the 2004 Series B bonds, payable on July 1, 2014, through a payment of Metropolitan funds to an escrow account on May 29, 2014. See "METROPOLITAN EXPENDITURES—Subordinate Revenue Obligations" in this Appendix A.

(l) Adjusted Net Operating Revenues divided by the sum of debt service on outstanding Bonds, the parity lien State Revolving Fund Loan which was repaid on July 1, 2011 and additional Bonds (projected). For fiscal years 2013-14 and 2014-15, reflects the defeasance of the 2004 Series B bonds, payable on July 1, 2014, through a payment of Metropolitan funds to an escrow account on May 29, 2014.

(m) Adjusted Net Operating Revenues, divided by the sum of debt service on outstanding Bonds, the parity lien State Revolving Fund Loan which was repaid on July 1, 2011, the subordinate lien California Safe Drinking Water Revolving Fund Loan and additional Bonds (projected). See "METROPOLITAN EXPENDITURES—Subordinate Revenue Obligations" in this Appendix A. For fiscal years 2013-14 and 2014-15, reflects the defeasance of the 2004 Series B bonds, payable on July 1, 2014, through a payment of Metropolitan funds to an escrow account on May 29, 2014.

(n) Adjusted Net Operating Revenues, divided by the sum of State Water Contract capital costs paid from current year operations and debt service on outstanding Bonds, the parity lien State Revolving Fund Loan which was repaid on July 1, 2011, the subordinate lien California Safe Drinking Water Revolving Fund Loan, and additional Bonds (projected). For fiscal years 2013-14 and 2014-15, reflects the defeasance of the 2004 Series B bonds, payable on July 1, 2014, through a payment of Metropolitan funds to an escrow account on May 29, 2014.

(o) For Fiscal Year 2012-13, includes amounts that were transferred prior to June 30, 2013: $25 million to the Water Transfer Fund, $25 million to a trust to pre-fund Metropolitan's unfunded liability for other post-employment benefits, and $25 million for PAYGO Construction. For Fiscal Year 2013-14, includes amounts expected to be transferred prior to June 30, 2014: $100 million to a trust to pre-fund Metropolitan's unfunded liability for other post-employment benefits; $100 million for PAYGO Construction; an amount currently estimated at $150 million to the Water Management Fund for water purchases to replenish storage and funding drought response programs. See "METROPOLITAN REVENUES-Financial Reserve Policy" in this Appendix A.

MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES

Water Sales Revenues

Metropolitan relies on revenues from water sales for about 75 to 80 percent of its total revenues. In adopting the budget and rates and charges for each fiscal year, Metropolitan's board reviews the anticipated revenue requirements and projected water sales to determine the rates necessary to produce substantially the revenues to be derived from water sales during the fiscal year. Metropolitan sets rates and charges estimated to provide operating revenues sufficient, with other sources of funds, to provide for payment of its expenses. See "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

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. On April 8, 2014, Metropolitan's Board adopted a 1.5 percent water rate increase, to become effective January 1, 2015, and an additional 1.5 percent water rate increase to become effective January 1, 2016. Increases in rates and charges reflect increasing operations and maintenance costs due primarily to an increase in retirement-related benefit costs, financing requirements for the next two fiscal years of approximately $513 million for the CIP, and increasing State Water Project costs when compared to fiscal year 2013-14. On April 10, 2012, Metropolitan's Board adopted water rate increases of 5.0 percent, effective January 1, 2013 and January 1, 2014. On April 13, 2010, Metropolitan's Board adopted water rate increases of 7.5 percent, effective January 1, 2011 and January 1, 2012.

Metropolitan is projecting revenues will exceed expenses during fiscal year 2013-14, resulting in a substantial increase its unrestricted reserves by June 30, 2014. Metropolitan's unrestricted reserves are projected to be $839 million on June 30, 2014, on a modified accrual basis. This amount of unrestricted reserves would be $352 million over the target reserve level for fiscal year 2013-14. (See "METROPOLITAN REVENUES—Financial Reserve Policy.") On April 8, 2014, Metropolitan's Board approved the use of unrestricted reserves over the target level as follows: $100 million deposit to the Renewal and Replacement Fund for pay-as-you-go funding of the CIP; $100 million deposited to the Other Post-Employment Benefits (OPEB) Trust; and any remaining amounts over target (currently estimated at $150 million) to a Water Management Fund to cover costs associated replenishing storage, purchasing transfers and funding drought response programs. The target reserve level on June 30, 2013, was calculated to be $474 million and the minimum reserve requirement as of June 30, 2013, was calculated to be $198 million. The actual fund balances in the Water Rate Stabilization Fund and the Revenue Remainder Fund on June 30, 2013 totaled $536 million. These amounts include $93.1 million held in Metropolitan's financial reserves pursuant to the exchange contract between Metropolitan and SDCWA due to SDCWA's litigation challenging Metropolitan's rate structure (see "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct—Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" and "METROPOLITAN REVENUES—Litigation Challenging Rate Structure" in this Appendix A) and exclude $7.2 million held as collateral by Metropolitan's swap counterparties (see "METROPOLITAN EXPENDITURES—Variable Rate and Swap Obligations"). "METROPOLITAN REVENUES—Financial Reserve Policy" and "CAPITAL INVESTMENT PLAN—Capital Investment Plan Financing" in this Appendix A.

The financial projections in the table above reflect the ten-year financial forecast provided in the biennial budget for fiscal years 2014/15 and 2015/16 that was approved on April 8, 2014. The projections include the Board's actions to increase water rates and charges by 1.5 percent, to be effective January 1, 2015 and 1.5 percent to be effective January 1, 2016 and use of reserves over target as described above. The 2014/15 and 2015/16 biennial budget and rates set the stage for predictable and reasonable rate increases over the ten-year planning period. Higher levels of revenue funding for the CIP and the use of reserves over target reduce revenue requirements in the later years of the forecast. Rates are projected to increase 3.0 percent to 5.0 percent per year thereafter for the remainder of the ten-year planning period. Actual rates and charges to be effective in 2017 and thereafter are subject to adoption by Metropolitan's Board as part of the biennial budget process, and the ten-year forecast will be updated as well.

Water Sales Projections

Water sales forecasts in the table above are: 2.02 million acre-feet in fiscal year 2013-14 and 1.75 million acre-feet in fiscal years 2014-15 through 2017-18. For purposes of comparison, Metropolitan's highest water sales during the past six fiscal years was approximately 2.3 million acre-feet in fiscal year 2007-08 and lowest was 1.63 million acre-feet in fiscal year 2011. See "METROPOLITAN REVENUES—Water Sales Revenues" in this Appendix A.

Metropolitan's water sales projections are the result of a comprehensive retail demand, conservation, and local supply estimation process, including supply projections from member agencies and other water

providers within Metropolitan's service area. Retail demands for water are estimated with a model driven by projections of relevant demographics provided by SCAG and SANDAG. Retail demands are adjusted downward for conservation savings and local supplies, with the remainder being the estimated demand for Metropolitan supplies. Conservation savings estimates include all conservation programs in place to date as well as estimates of future conservation program goals that will result from regional 20 percent reductions by 2020 conservation savings. See "METROPOLITAN'S WATER SUPPLY—Water Conservation" in this Appendix A. Local supplies include water produced by local agencies from various sources including but not limited to groundwater, surface water, locally-owned imported supplies, and recycled water (see "REGIONAL WATER RESOURCES"). For example, water sales projections for both years of the biennial budget for fiscal years 2014/15 and 2015/16 assume that local projects such as groundwater recovery and desalination projects (see "REGIONAL WATER RESOURCES—Local Water Supplies") will become operational and produce local supplies in 2016. For additional description of Metropolitan's water sales projections, see "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

The water sales projections used to determine water rates and charges assume an average year hydrology. Actual water sales are likely to vary from projections. Over the ten-year period from fiscal-year 2003-04 through 2012-13, actual water sales exceeded budgeted sales for the fiscal year in five fiscal years, with the greatest positive variance in fiscal year 2005-06 when actual sales of 2.2 million acre-feet were 114 percent of budgeted sales (1,895,730 acre-feet). Actual sales were less than budgeted sales in five fiscal years, with the greatest negative variance in fiscal year 2010-11 when actual sales of 1,632,277 acre-feet were 85 percent of budgeted sales (1,927,875 acre-feet). Over the ten fiscal years from 2003-04 through 2012-13, average actual sales were 100 percent of average budgeted sales. In fiscal year 2012-13, actual sales were 1,856,685 acre-feet, representing 109 percent of budgeted sales of 1,700,000 acre-feet. In years when actual sales exceed projections, the revenues from water sales during the fiscal year will exceed budget, potentially resulting in an increase in financial reserves. In years when actual sales are less than projections, Metropolitan uses various tools to manage reductions in revenues, such as reducing expenses below budgeted levels, reducing funding of capital from revenues, and drawing on reserves. See "METROPOLITAN REVENUES—Financial Reserve Policy" in this Appendix A. Metropolitan considers actual sales, revenues and expenses, and financial reserve balances in setting rates for future fiscal years.

Operation and Maintenance Expenditures

Operation and maintenance expenditures in fiscal year 2012-13 were $793 million, which represented approximately 60 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.

The 2013-14 projected operation and maintenance expenditures are $843 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. The projected fiscal year 2013-14 departmental expenditures of $384 million is approximately 11.3 percent and 10.7 percent higher than expenditures in fiscal years 2012-13 and 2011-12, respectively.

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 2010-11, 2011-12 and 2012-13 were approximately $46.9 million, $30.0 million and $18.4 million, respectively. Expenditures for electric power and transmission service for the State Water Project for fiscal years 2010-11, 2011-12 and 2012-13 were approximately $189.8 million, $214.1, and $218.1 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 future power costs.

Colorado River Aqueduct

Generally 55 to 70 percent of the annual 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 Department of Energy 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.

On December 20, 2011, President Obama signed into law the Hoover Power Allocation Act of 2011 (H.R. 470). This new law requires the Western Area Power Administration to renew existing contracts for electric energy generated at the Hoover Power Plant for an additional 50 years through September 2067. The contractors will retain 95 percent of their existing power rights. The law will allow Metropolitan to continue to receive a significant amount of power from the Hoover power plant after the current contract expires in 2017.

The remaining approximately 30 to 45 percent of annual pumping power requirements for full capacity pumping on the Colorado River Aqueduct is obtained through energy purchases from municipal and investor-owned utilities or power marketers. Gross diversions of water from Lake Havasu for the fiscal years ended June 30, 2012 and June 30, 2013 were approximately 724,413 acre-feet and 767,574 acre-feet, respectively, including Metropolitan's basic apportionment of Colorado River water and supplies from water transfer and groundwater storage programs.

The Metropolitan-Edison 1987 Service and Interchange Agreement includes provisions for the sharing of the benefits realized by the integrated operation of Edison's and Metropolitan's electric systems. Under this agreement, with a prior year pumping operation of 1 million acre-feet, Edison provides Metropolitan additional energy (benefit energy) sufficient to pump approximately 140,000 acre-feet annually. As the amount of pumping is increased, the amount of benefit energy provided by Edison is reduced.

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 calendar years 2010 and 2011, Metropolitan purchased 755,000 megawatt- hours and 100,000 megawatt-hours, respectively, of energy above its base power resources. In calendar year 2013, Metropolitan pumped approximately 1.013 million acre-feet of its Colorado River water and additional supplies from other Colorado River sources but did not purchase any additional energy supplies above its base power resources.

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 Morgan Stanley (unspecified energy sources), Metropolitan (hydropower), Kern River Conservation District (hydropower) and the Northern California Power Agency (natural gas generation). The remainder of its power needs is 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 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 condition 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. A trial was conducted in January 2012. On May 16, 2012, the court found that the EIR prepared in conjunction with the relicensing was adequate and dismissed the lawsuit against DWR. On August 7, 2012, Butte and Plumas Counties filed a notice of appeal. Briefing on the appeal was completed in May 2013. No date has been set for oral argument. Regulatory permits and authorizations are required before the new license can take effect. Chief among these is a biological opinion from the National Marine Fisheries Service setting forth the terms and conditions under which the relicensing project must operate in order to avoid adverse impacts to threatened and endangered species. DWR has filed an application requesting this biological opinion. 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, 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.

Energy Management Program

Metropolitan staff completed a comprehensive Energy Management and Reliability Study in late 2009 and Metropolitan's Board adopted energy management policies in August 2010 that provide objectives for future energy-related projects to contain costs and reduce Metropolitan's exposure to energy price volatility, increase operational reliability through renewable energy projects, provide a revenue stream to offset energy costs and move Metropolitan toward energy independence.

Metropolitan's Energy Management Program mandates that 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 Robert A. Skinner Treatment Plant and is investigating additional solar power generation at other treatment plants and facilities. 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 Legislature in 2000. Metropolitan began annual reporting of its certified baseline greenhouse gas inventory, or carbon footprint, in calendar year 2005 to the California Climate Action Registry. In calendar year 2010, Metropolitan's emissions reporting transitioned from the California Climate Action Registry to The Climate Registry, a nonprofit North American emission registry. Metropolitan also reports required emissions data to the California Air Resources Board ("CARB") under mandatory reporting regulations adopted pursuant to AB 32, California's Global Warming Solutions Act. On December 16, 2010, CARB adopted a regulation for a California cap on greenhouse gas emissions under AB 32, and after additional workshops, public comment and further consideration, approved the regulation on October 20, 2011, with compliance deferred to 2013. Under the regulation, Metropolitan is regulated as an importer of energy and is required to purchase allowances to cover any greenhouse gas emissions associated with its supplemental imported energy. Metropolitan did not incur cap and trade allowance obligations in 2013. The need for supplemental imported energy and resulting cap and trade allowances for 2014, if any, cannot be determined at this time.

Appendix G

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.	1-31
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.	18-30
10910(d)(2)(A)	Written contracts or other proof of entitlement to an identified water supply.	18-30
10910(d)(2)(B)	Capital outlay program for financing the delivery of a water supply that has been adopted.	31
10910(d)(2)(C)	Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply.	14-31
10910(d)(2)(D)	Any necessary regulatory approval to deliver/convey the water supply.	14-31
10910(f)(1)	Review of any information contained in the UWMP relevant to the identified water supply for the proposed project.	1-31
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/decree 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/decree.	18-21, 23-24, Appendix D
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.	23-24
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.	18-21, 23-24
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.	18-21, 23-24