THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

VIA EMAIL

March 17, 2015

Director Michael T. Hogan
Director Keith Lewinger
Director Yen C. Tu
Director Fern Steiner
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123

Dear Directors:

Your letter dated March 9, 2014 (received March 9, 2015) regarding Board Letter 8-1

This letter addresses your comments, which were received on March 9, 2015 on Draft Appendix A to the Remarketing Statements for Metropolitan's Water Revenue Refunding Bonds, 2011 Series A-2 and A-4 and 2012 Series B-1 and B-2, as attached to Board Letter 8-1. Your general comments are addressed below, followed by your specific comments and Metropolitan's responses.

Appendix A provides material financial and operating information about Metropolitan to potential investors. Appendix A is prepared by Metropolitan staff. As we have pointed out in prior responses to SDCWA comments on bond disclosures, Bond counsel does not serve as disclosure counsel and will not be responding to your letter. Metropolitan's objective is to provide complete and accurate disclosure regarding the bonds being offered and their security and source of payment to potential investors, not to promote Metropolitan's position in any litigation. Appendix A is updated for each bond offering to provide current information. Forward-looking statements or projections are based on current information such as the facts and assumptions contained within the biennial budget and ten-year financial forecast.

The ***General Comments*** in your letter are generally a restatement of the comments from prior letters, which were most recently addressed in Metropolitan's response letter dated November 20, 2014 ("November 2014 Response") to SDCWA's Comment Letter dated

November 17, 2014 ("November Letter"). Metropolitan's November 2014 Response (see Attachment 1) was electronically provided to all SDCWA directors and copied to Metropolitan's Board of Directors on November 20, 2014.

Additionally, your comment regarding past edits to page A-51, prompted additional revisions to Appendix A to clarify the description of *ad valorem* tax levies and limitations, as well as the suspension of the *ad valorem* tax limitation, which is provided for within the MWD Act.

Comments on Draft Appendix A dated February 26, 2015

The following specific SDCWA comments and Metropolitan's responses refer to the draft of Appendix A dated February 26, 2015, showing changes from the November 6, 2014 draft (Attachment 2).

A-3: Metropolitan's Water Supply and A-4: Drought Response Actions. The discussion in these and other sections of the draft Appendix A fails to accurately report the severity of MWD's current water supply conditions in the context of this fourth-consecutive drought year or for 2016 and beyond. See our March 6, 2015 letter to the MWD board RE: Water Planning and Stewardship Committee Agenda/Water Supply Management Strategies Including Use of Storage, incorporated herein by reference. Taken together with other sections of the draft Appendix A, in which water sales are projected for the next five years (see page A-83) but where the source or cost of the water to be sold is not identified, the draft Appendix A fails to present an accurate picture of MWD's water supply situation or financial risk.

> **Metropolitan Response:** See p.2 of the November 2014 Response to the November Letter RE A-4. Appendix A describes the current hydrologic conditions for watersheds that affect Metropolitan's sources of supply, includes a table showing Metropolitan's water storage levels for January 1, 2013 through January 1, 2015, and contains updated information regarding Metropolitan's many agreements and transfer, storage and exchange programs. Furthermore, Metropolitan has identified its plan to meet water demands in 2015, including the possibility of implementation of its water supply allocation plan if hydrologic conditions do not improve.

A-7: State Water Project. We presume the final document will be corrected to reflect the recent action taken by the Department of Water Resources (DWR) to increase the SWP allocation to 20%. With regard to SWP supplies, we believe MWD should also disclose that it used all of its available DWR flex storage in 2014 (219,000 AF) and that those supplies not only will not be available in 2015, but must be paid back to DWR within five years. More broadly, MWD should make full disclosure in the draft Appendix A of all water supplies it has "borrowed" and which therefore include pay-back requirements that could affect the availability of supplies in future years. MWD should also disclose the unique service requirements associated with serving the "SWP-Exclusive Area;" this issue has not previously been addressed in MWD's Integrated Resources Plan (IRP).

Metropolitan Response: Before printing, Appendix A will be updated to reflect the 20 percent State Water Project allocation which was announced on March 2, 2015, and any additional allocation adjustments.

With regard to SWP supplies, Metropolitan has disclosed in the table on Page A-30 that in 2014 it used 219,000 acre-feet of Metropolitan's flexible storage under its State Water Contract. See "METROPOLITAN'S WATER SUPPLY— STORAGE CAPACITY AND WATER IN STORAGE" in Appendix A. To reinforce this point, Metropolitan will describe the use and terms of such flexible storage in the accompanying footnote to the table. Metropolitan has two other "payback" arrangements. As noted below, the arrangement with SNWA is disclosed in Appendix A. Also, as reported to the Board, Metropolitan has entered into a series of payback arrangements with Irvine Ranch totaling less than 10,000 acre feet of water. Metropolitan does not have any other "payback" arrangements.

See p.3 of the November 2014 Response to the November Letter RE A-4 with respect to delivery limitations in areas served exclusively by the State Water Project.

A-16: Colorado River. The draft Appendix A should be revised to include a discussion about current Basin States' efforts to increase storage in Lake Mead and the US Bureau of Reclamation's analysis regarding the probability of shortages on the Colorado River beginning in 2016. These shortages, coupled with continued drought and severe limitations on SWP supplies present material water supply and financial challenges to MWD. MWD has borrowed 162,000 AF of water from the Southern Nevada Water Authority; as noted above, this and other water supply "debt" should be fully disclosed in the Appendix A. At page A-5, MWD added language that the CRA is anticipated to operate at capacity in 2015, "assuming additional supplies are acquired." MWD should identify how much water it needs to keep the CRA operating at capacity and the potential sources of water supplies to do so.

Metropolitan Response: Following the March report to the Board at the Water Planning and Stewardship Committee meeting, Metropolitan anticipates operating the CRA near capacity (capacity is defined in Appendix A as 1.25 million acre-feet), using a combination of Colorado River water that Metropolitan has contractual rights to and water available under other programs that were developed to augment Colorado River supplies. See "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct" in Appendix A. See also Presentation 6b, Water Planning and Stewardship Committee, March 9, 2015. Additional supplies may become available and could increase Metropolitan's Colorado River imports to over 1.1 million acre-feet in 2015.

Metropolitan is a signatory to the December 10, 2014 non-binding MOU for pilot drought response actions. Any actions taken on behalf of this MOU are subject to Board approval and are not expected to affect Metropolitan's water supplies in the near future. Finally, terms of Metropolitan's agreement with Southern Nevada Water Authority relating to Implementation of Interim Colorado River Surplus Guidelines are disclosed in

Appendix A. See "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct-Interim Surplus Guidelines" in Appendix A.

A-30: MWD's Water Storage Capacity and Water in Storage. The amount of water in storage shown does not match data presented in MWD's January 2015 WSDM report; please reconcile the differences. We also believe MWD should amend this presentation to clearly reflect how much water is available for dry-year use and how much is required for emergency storage (626,000 AF).

Metropolitan Response: The minor discrepancies between the storage table presented to the Board in MWD's January 2015 WSDM report and the "STORAGE CAPACITY AND WATER IN STORAGE" table in Appendix A are attributable to end of year accounting adjustments. Accounts listed in the tables are reconciled after the end of the year and minor adjustments are made when the final accounting is done. The fact that the numbers in these tables are subject to accounting updates is stated in footnotes to both tables. The water storage data in Appendix A was accurate as of the date of the distribution and may be updated prior to printing.

A-31: Water Conservation. This section of the draft Appendix A is misleading because MWD has not measured and its conservation programs to do not require any measurement of actual water conservation savings from MWD programs. There is no evidence to support the statement that the 2009-2012 water sales numbers reflect the "success" of MWD's water conservation programs.

Metropolitan Response: Like other water agencies, Metropolitan uses the average water savings numbers established by various sources, including the California Urban Water Conservation Council, agency studies, or engineering estimates to calculate the amount of water saved by device retrofits and other water use efficiency projects. That average saving number is multiplied by the number of devices and projects that received rebates from Metropolitan. Furthermore, for some of Metropolitan's larger conservation programs, rebates are in fact based on reductions measured by meters. Based on calculated savings and metering results, Metropolitan estimates that these programs resulted in approximately 166,000 acre of water conserved in fiscal year 2013-14. See http://www.mwdh2o.com/mwdh2o/pages/yourwater/SB60/archive/SB60_2015.pdf. These programs contributed to the lower than budgeted water sales recorded during 2009-12.

A-32: Water Surplus and Drought Management Plan and Water Supply Allocation Plan. See concerns expressed at A-3, above. Regarding Preferential Rights, contrary to the statement in the draft Appendix A, these rights have been "used" in many ways over the years in allocating MWD's water. MWD itself has been clear that the MWD board does not have the authority to change rights MWD member agencies have under the MWD Act, including Preferential Rights. If MWD persists in making this misleading statement, it should at a minimum disclose as a recent example, that in October 2014, the Central Basin Municipal Water District asserted a

claim to water based on Preferential Rights. The claim was only "rescinded" after MWD agreed to provide additional water supplies it had previously refused to deliver.

> **Metropolitan Response:** See p.4 of the November 2014 Response to the November Letter RE A-32. Contrary to your assertion, to date, preferential rights have not been used in allocating Metropolitan's water. The preferential rights disclosure is included because the statutory right exists and any member agency might exercise its preferential right to purchase water in the future. The example of preferential rights being "used" by Central Basin Municipal Water District is incorrect. Central Basin Municipal Water District cited the preferential rights statute when it requested delivery of State Water Project water to its service connection CENB-48. However, preferential rights do not provide any member agency with a right to delivery of water from a specific source or to a specific connection.

A-51: Metropolitan Revenues. See November Letter at p. 3, RE A-49: Metropolitan Revenues: General. Given the reality that many MWD member agencies are planning to reduce their purchases of MWD water, MWD should describe the role it anticipates tax revenues may play or it believes must play in the future in order to sustain MWD's fiscal integrity.

> **Metropolitan Response:** See p.5 of the November 2014 Response to the November Letter RE A-49. Future findings regarding fiscal integrity, if any, will be within the discretion of Metropolitan's Board and cannot be predicted at this time.

A-55: Litigation Challenging Rate Structure. MWD should disclose that the amount of damages awarded to the Water Authority may be determined by the Court in an amount that exceeds the amount that is held in the escrow account. Further, that the Court's April 24, 2014 Statement of Decision found that Proposition 26 applies to MWD to all rates set after the date of enactment of the measure. Finally, the draft should disclose that the May 2014 case has been stayed by stipulation of the parties.

> **Metropolitan Response:** Thank you for your comment. Metropolitan has revised Appendix A to reflect the trial court's ruling that the set aside provision of the Exchange Agreement is not "a mechanism to set the damages in a dispute over price." A further addition has been made to reflect the court's order staying the 2014 action.

A-57: Member Agency Purchase Orders. MWD should disclose that there is no cost of service basis for the terms described in MWD purchase orders. See also November Letter at p. 4, RE A-56: Member Agency Purchase Orders.

> **Metropolitan Response:** See p.6 of the November 2014 Response to the November Letter RE A-56.

A-58: Classes of Water Service. See November Letter at p. 4, RE A-56: Classes of Water Service.

Metropolitan Response: See p.6 of the November 2014 Response to the November Letter RE A-56.

A-59: Additional Revenue Components. MWD is proposing an edit that is inconsistent with all past cost of service analyses by MWD, namely, to change the statement that the RTS charge is designed to recover "a" portion of capital expenditures for infrastructure projects needed to provide standby service and peak conveyance needs, to the statement that the charge is designed to recover "the" portion of capital expenditures made for those purposes. This is nothing more than ex post facto "sleight of hand" designed to shore up MWD's litigation posture. There is no cost of service analysis to support this change and the change is inconsistent with how MWD's cost of service was performed and with how its rates have been established. If MWD wants to make this change, it must do so as a matter of substance, with an accurate calculation of costs MWD incurs to provide standby service and peak conveyance needs. That is not what is captured by the current RTS charge and that is what the current cost of service report states, which is different than the "edit" MWD is proposing to make in the draft Appendix A.

Metropolitan Response: This change aligns the language in the Official Statement disclosure to Resolution 9173, fixing and adopting the Readiness-to-Serve Charge for calendar year 2015, adopted by the Board on April 8, 2014.

A-60: Financial Reserve Policy. Proposition 26 applies to MWD; as a result, the MWD board does not have complete discretion ex post facto to determine how to spend over-collected revenues that are not based on any cost of service analysis. The planned over-collection of revenues and refusal to account for and track revenues by rate category subjects MWD to the further risk of litigation based on its unlawful practices.

Metropolitan Response: The reserve policy, establishing minimum and target reserve levels, was approved by the Board in the 1999 Update to the Long Range Finance Plan. The policy utilized probability studies of wet periods that affect Metropolitan's water sales. This analysis is described in Chapter Four of the 1999 Update to the Long Range Finance Plan (see Attachment 3). This policy is adopted in section 5202 of the Administrative Code.

The attached ten-year summary (see Attachment 4) shows the calculated reserve minimum, target reserve and actual reserves at the end of each fiscal year and average rate increases. In fiscal years 2009-10 and 2010-11 rate increases would have been higher if not for this use of reserves. In fiscal years 2012-13 and 2013-14 Metropolitan authorized use of reserves over target to fund capital expenditures, reduce long-term obligations and fund drought management programs. Use of reserves is incorporated in the cost-of-service analysis and rate projections.

A-62: Ten Largest Customers. See November Letter at p. 5, RE A-62.

Metropolitan Response: See p.7 of the November 2014 Response to the November Letter RE A-62.

A-63: California Ballot Initiatives. See November Letter at p. 5, RE A-63.

Metropolitan Response: See p.8 of the November 2014 Response to the November Letter RE A-63.

A-76: State Water Contract Obligations. As noted above and in numerous prior letters we have authored on a variety of subjects, the Water Authority believes it is highly misleading for MWD to substitute old estimates or arbitrary numbers for planning purposes when actual numbers (or at least more reasonable estimates based on currently known data) are available. No more clear illustration exists how this skews financial and water resource planning (and, in this context, how it misrepresents information to investors) than MWD's use of "budgeted" State Water Project costs. MWD chose to "budget" based on a 50% water supply allocation at the same time the actual allocation was 5%. In the draft Appendix A, MWD is still using its budget numbers to describe its projected costs for SWP water, even though the SWP allocation is actually 20% with very little if any expectation of change this year. This means that MWD is (mis)representing that it will incur costs to acquire SWP water that it knows it will not incur and sell SWP water that it knows it will not have to sell.

Metropolitan Response: Much of the information contained in Appendix A including information on projected costs for the State Water Project are based on either information presented to Metropolitan's Board at a public meeting or from a Board action. Regarding projections for costs associated with the State Water Project, Metropolitan consistently has used projections that were either approved by the Board (such as projections associated with Metropolitan's adopted biennial budget for FY 2014/15 and 2015/16) or from projections presented to the Board reflecting actual results through a certain period of time. Projections for FY 2014/15 were presented to the Board at its January 2015 meeting and updated to reflect actual results through December 2014 as well as revised projections for the period from January 2015 to June 2015. Should the Board decide to change any of the projections for State Water Project costs from FY 2014/15 to FY 2018/19, then those revisions will be reflected in Appendix A.

A-82: Historical and Projected Revenues and Expenses. Based on the available information, it is unreasonable to predict that MWD water sales will be as described at page A-83 unless the drought ends, MWD finds sources of water supply that it has thus far been able to identify or secure or MWD imposes deeper supply cuts. The description of forecasted MWD water sales should include a more robust analysis of water supplies remaining in storage and where MWD expects to secure the water it needs to meet these sales projections.

Metropolitan Response: Metropolitan delivers a reliable water supply to the region throughout a variety of hydrologic conditions. Metropolitan has a diverse water supply portfolio and has made long-term investments in storage programs, conservation, local

resource development, and drought response to help meet customer demands. Historically, Metropolitan's water sales have varied widely during dry periods. It is reasonable for Metropolitan to base the proposed biennial budget and revenue requirement on a conservative sales estimate of 1.75 million acre-feet (MAF). Variations in revenues and costs due to hydrology will be managed by use of financial reserves established for this purpose, including the use of Water Management designated funds. The Water Management Fund provides funds to cover costs associated with replenishing storage, purchasing transfers, and providing drought response programs.

A-84: Operations Funded from Prior Year Revenues. Please identify 1) why operations are being funded by prior year revenues (and whether the same operations were also included in the current year's budget); 2) the source of revenues used to pay these operating costs; and 3) why operating costs would be paid from revenues deposited to the Water Management Fund.

Metropolitan Response: On April 8, 2014 Metropolitan's Board approved the use of unrestricted reserves over the target reserve level for pay-as-you-go funding of the CIP; for deposit into the OPEB Trust; and for deposit into a Water Management Fund for use to cover costs associated with replenishing storage, purchasing transfers, and for funding drought response programs. The table on page A-84 of the draft Appendix A entitled "Historical and Projected Revenues and Expenses" is set up primarily to conform to provisions contained in Metropolitan's Master Water Revenue Bond Resolution which includes the flow of funds to determine water revenue bond debt service coverage. Board approved expenditures from the Water Management Fund must be recognized as operating expenditures in a given year, but since the expenditures are funded from monies available in the Water Management Fund, the expenditures do not have to be paid from water revenues (or from operating revenues) generated in a given year. As such, those expenditures paid from the Water Management Fund must not be included in the calculation to determine water revenue bond debt service coverage. The line items and the footnotes added to the table on page A-84 reflect the exclusion of expenditures paid from the Water Management Fund from the debt service coverage calculations. The expenditures from the Water Management Fund are classified as O&M expenditures, and were not budgeted for FY 2014/15. Metropolitan will revise the fiscal year projections for expenditures funded from the Water Management Fund should additional expenditures be approved by the Board.

In addition, to clarify the understanding of the wording for the line item at the bottom of the table on page A-84 entitled, "Operations Funded from Prior Year Revenues," Metropolitan will change the wording to "Use of Water Management Funds Designated in Prior Year."

A-87: Water Sales Projections. See discussion above, at A-82. Where will MWD secure the water supplies that water sales projections are based on?

Metropolitan Response: See Metropolitan's response to "*A-82: Historical and Projected Revenues and Expenses"* above.

Thank you for your comments on Metropolitan's Remarketing Statements. We have carefully reviewed and considered them and circulated them to our bond counsel team, financial advisor, and underwriters. Appendix A will be revised to address certain comments as described in this letter.

Sincerely,

Gary Breaux
Assistant General Manager/Chief Financial Officer

cc: J. Kightlinger
MWD Board Members
SDCWA Board of Directors and Member Agencies

Attachment 1— Metropolitan's Response Letter dated November 20, 2014 to SDCWA's Comment Letter dated November 17, 2014

Attachment 2— Appendix A draft dated February 26, 2015, showing changes from the November 6, 2015 draft

Attachment 3—Long Range Finance Plan, 1999 Update, Chapter 4 Fund Policies

Attachment 4—Ten-year summary of reserve minimum, target and actual reserves and average rate increases

APPENDIX A

The Metropolitan Water District of Southern California

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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 or 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. The information presented on Metropolitan's website is not part of the Official Statement and should not be relied upon in making investment decisions.

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, 2014. 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~~18.5 million people lived in Metropolitan's service area in ~~2013,~~2014, based on official estimates from the California Department of Finance and on population distribution estimates from the Southern California Association of Governments ("SCAG") and the 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 2013, 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 has historically provided between 40 and 60 percent of the water used annually within its service area. 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 has

historically been approximately 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's principal sources of water supplies are the State Water Project and the Colorado River. Metropolitan receives water delivered from the State Water Project under State Water Contract provisions, including contracted supplies, use of carryover storage in San Luis Reservoir, and surplus supplies. See "—State Water Project" below. Metropolitan holds rights to a basic apportionment of Colorado River water and has priority rights to an additional amount depending on availability of surplus supplies. See "—Colorado River Aqueduct" below. Water management programs supplement these Colorado River supplies. Metropolitan stores State Water Project and Colorado River supplies in Metropolitan surface water reservoirs and through storage and water transfer agreements. See "—Water Transfer, Storage and Exchange Program" and "Storage Capacity and Water in Storage" below.

Metropolitan faces a number of challenges in providing adequate, reliable and high quality water supplies 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.~~In addition, Metropolitan manages water supplies in response to the prevailing hydrologic conditions by implementing its Water Surplus and Drought Management Plan, and in times of prolonged or severe shortages, the Water Supply Allocation Plan. See "—Water Surplus and Drought Management Plan" and "—Water Supply Allocation Plan" below.

Hydrologic conditions can have a significant impact on Metropolitan's water supply. California hydrology~~, which impacts deliveries from the State Water Project,~~ 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~~, which impacts deliveries to Metropolitan from the State Water Project. In 2011, California's snowpack peaked at 163 percent of normal. ~~Drier~~However, drier conditions returned for ~~2012, with~~2012 and California statewide snowpack ~~peaking in mid-April 2012~~peaked 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. Despite above-average precipitation in February and March of 2014, Department of Water Resources ("DWR") storage in key reservoirs has been well below normal in 2014. For example, as of October 5, 2014, storage in Lake Oroville, the principal State Water Project reservoir, was at 49 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 48 percent of average capacity. The 2014 snowpack peaked at 35 percent of normal in April 2014 and associated runoff was 41 percent of normal.~~ . 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 Project Contractors' allocations of State Water Project water from zero to five percent due to February and March storms. Such allocations are made annually as a percentage of contracted amounts. 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~~The 2014 snowpack peaked at 35 percent of normal in April 2014 and associated runoff was 41 percent of normal, the fourth lowest in history. As a result of the persistent dry conditions, Governor Brown issued an executive order on April 25, 2014, strengthening the ~~state~~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.

On January 15, 2015, DWR increased the State Water Project allocation to State Water Project contractors to 15 percent of contracted amounts, replacing the initial 2015 allocation of 10 percent. DWR may revise the allocation estimate if warranted by the year's developing precipitation and water supply conditions. See "—State Water Project—*General*" below.

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. ~~Precipitation in~~

As of February 22, 2015, precipitation in the upper Colorado River Basin was 76 percent of normal, with snowpack at 80 percent of normal for water year ~~2013-14~~2014-15 (October 1 – September 30)~~ was above average~~, resulting in a forecasted unregulated inflow to Lake Powell of approximately ~~100~~78 percent of normal~~, which is only the fourth time this has happened since water year 2003-04. As of September 7, 2014~~. As of February 22, 2015, total system storage in the Colorado River Basin was ~~51~~49 percent of ~~normal, which is equivalent to September 2013 storage levels~~capacity. See "—Colorado River Aqueduct" below.

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 current California drought on Metropolitan water supplies. Metropolitan~~ estimates that~~'s 2014 year-end overall water storage ~~will be between 1.7 million acre-feet and 2.0~~was approximately 1.8 million acre-feet. In 2014, Metropolitan ~~has been able to utilize~~utilized supplies from the Colorado River to offset reductions in State Water Project supplies and mitigate impacts of the California drought. Metropolitan is also encouraging responsible and efficient water use to lower demands. Since Governor Brown's January 2014 drought emergency proclamation, Metropolitan has worked proactively with its member agencies to conserve water supplies in its service area. In February 2014, Metropolitan declared a Water Supply Alert, calling upon local cities and water agencies to immediately implement extraordinary conservation measures and institute local drought

ordinances. Metropolitan also significantly expanded its water conservation and outreach programs. This includes ~~doubling~~increasing the water conservation budget for fiscal years 2013-14 and 2014-15 by a total of $60 million, increasing the incentive for a turf replacement program, and launching the largest media outreach campaign in Metropolitan's history. Metropolitan also increased incentives for large landscape customers to convert from potable water to recycled water for irrigation. See "—Water Conservation" below.

Metropolitan is prepared to meet water demands in its service area in calendar year 2015 using a combination of CRA deliveries, storage reserves and supplemental water transfers and purchases. In 2015, the CRA is anticipated to operate at capacity, assuming additional supplies are acquired, and operations to ~~move~~distribute Colorado River supplies into areas normally served by State Water Project supplies that began in 2014 are expected to continue in 2015. ~~Metropolitan is also working to carryover unused 2014 State Water Project supplies into 2015.~~ These measures will offset ~~potentially~~the low initial State Water Project supply allocations in 2015. Metropolitan also relies upon its Water Surplus and Drought Management ~~Plan~~ ("WSDM ~~Plan~~") Plan to identify resource actions in times of shortage and its Water Supply Allocation Plan for equitable distribution of available water supplies in case of extreme shortages. Should drought conditions continue through 2015, Metropolitan is prepared to implement the Water Supply Allocation Plan. See "—Storage Capacity and Water in Storage," "—Water Conservation," "—Water Surplus and Drought Management Plan" and "—Water Supply Allocation Plan" below.

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 included a deposit of $~~252~~232 million to a Water Management Fund, ~~$232 million of~~ which will cover costs associated with replenishing storage, purchasing transfers and funding drought response programs~~, and $20 million for conservation related programs~~. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES—Water Sales Revenues" in this Appendix A.

Integrated Water Resources Plan

The Integrated Water Resources Plan ("IRP") is Metropolitan's principal water resources planning document. Metropolitan, its member agencies, sub-agencies and groundwater basin managers developed their first 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 ~~next update of the~~ IRP is scheduled to be updated in ~~2015.~~2015-16. 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 a valuable water resource and 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. In cases where groundwater storage has become 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, there are a number of seawater desalination projects either under development or in the planning phase 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~~18.5 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 2013). For information regarding Metropolitan's obligations under the State Water Contract, see "METROPOLITAN EXPENDITURES—State Water Contract Obligations" in this Appendix A. Upon expiration of the State Water Contract term (currently in 2035), Metropolitan has the option to continue service under substantially the same terms and conditions. Metropolitan and other agencies with state water supply contracts are currently in negotiations with DWR to extend the State Water Contract. In June 2014, DWR and the State Water Project Contractors reached an Agreement in Principle ("AIP") to extend the contract to 2085 and to make certain changes related to financial management of the State Water Project in the future. The AIP will serve as the "proposed project" for purposes of environmental review under the California Environmental Quality Act ("CEQA"). DWR issued a Notice of Preparation of an Environmental Impact Report ("EIR") for the proposed project on September 14, 2014. Following CEQA review, a State Water Project amendment will be prepared. Such amendment will be subject to review by the Legislature.

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~~Late each year ~~in November~~, DWR announces an initial allocation estimate for the upcoming year, but may revise the estimate throughout the year if warranted by developing precipitation and water supply conditions. From calendar years ~~2003~~2004 through ~~2013,~~2014, 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~~607,000 acre-feet in calendar year ~~2009~~2014 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 669,000 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. In calendar year 2014, DWR's allocation to State Water Project contractors was five percent of contracted amounts, or 95,575 acre-feet of its contractual amount. In addition, Metropolitan used all of its 223,000 acre-feet of carryover supplies from prior years, but was able to carry over 32,000 acre-feet of unused 2014 State Water Project supplies which will be available for use in 2015. See "—Water Transfer, Storage and Exchange Programs" and "—Storage Capacity and Water in Storage" below.

For calendar year ~~2014,~~2015, DWR's initial allocation estimate to State Water Project Contractors was announced on ~~April 18, 2014,~~December 1, 1014, as ~~five percent of its 1,911,500 acre-foot contractual amount. Under this allocation, Metropolitan will receive approximately 95,575 acre-feet of contracted amounts. In addition, Metropolitan began 2014 with approximately 223,000 acre-feet of carryover supplies from prior years, all of which can be drawn in 2014. Through September 2014, Metropolitan has used 215,000 acre-feet of these carryover supplies and plans to use all 223,000 acre-feet by the end of the year. Although Metropolitan plans to use all carry over State Water Project Supplies accumulated in years prior to 2014, it is also working to carry over unused 2014 State Water Project supplies into 2015. DWR's 2014~~10 percent of contracted amounts. Due to December 2014 storm runoff and storage in the State's major reservoirs, this allocation ~~reflects that calendar year 2013~~ was increased on January 15, 2015 to 15 percent of contracted amounts or 287,000 acre-feet. This allocation follows the driest year on record ~~in~~for much of California~~, in 2013, persisting~~ dry conditions ~~persisted~~ in 2014, low storage levels ~~are low~~ in the State's major reservoirs~~, drought conditions occurred in previous years~~, and federally mandated environmental restrictions which have been imposed upon water deliveries from the Bay Delta, including the ~~potential for additional limitations as a result of the currently controlling Delta smelt~~ biological ~~opinion~~opinions as discussed below. As in previous dry years, Metropolitan is augmenting 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.

Delta Smelt Consolidated Cases. 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. The Court denied the petitions for rehearing filed by the Department of Water Resources, Metropolitan and other State Water Contractors, and the Federal Water Contractors. On ~~October 6, 2014, the Federal and State Water Contractors filed~~DATE, the Supreme Court denied a petition for ~~a writ of~~ certiorari to review the Ninth Circuit's decision filed by Federal and State Water Contractors with the U.S. Supreme Court.~~.~~ Any adverse impact of~~ this litigation and~~ ruling on Metropolitan's State Water Project supplies cannot be determined at this time. See "—State Water Project—*General,*" above and "—*State Water Project Operational Constraints,*" below.

Consolidated Salmon Cases. ~~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)~~On December 12, 2011, the court issued a final judgment ~~in the *Consolidated Salmon Cases.* The final judgment remands~~remanding the 2009 salmon biological opinion to the National Marine Fisheries Service, and ~~directs that~~directing the agency to issue a new ~~draft~~ salmon biological opinion ~~be issued~~ after completion of

environmental impact review under NEPA. The due date for the draft salmon biological opinion was extended to October 1, 2015, and the due date for the final opinion was 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 were argued on September 15, 2014 and the parties are awaiting a decision from the Ninth Circuit.~~ On December 22, 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 2009 salmon biological opinion to be arbitrary and capricious, and held, instead, that the 2009 biological opinion was valid and lawful. Any adverse impact of this ruling on Metropolitan's State Water Project supplies cannot be determined at this time. See "—State Water Project—*General,*" above and "—*State Water Project Operational Constraints,*" below.

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 have been stayed and are awaiting the final rulings in federal court regarding the validity of the Delta smelt and salmon biological opinions. —*See "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. This lawsuit was voluntarily dismissed in 2014 pursuant to a settlement agreement which set up a collaborative multi-year longfin smelt science program to investigate various factors relating to the impacts of water project operations on longfin smelt.~~

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~~2014 were reduced by a total of approximately ~~2.3~~3.0 million acre-feet as a result of pumping restrictions. Pumping restrictions impacting the State Water Project allocation for calendar year ~~2013 have~~2014 reduced exports by approximately ~~596,000~~100,000 acre-feet.

Operational constraints likely will continue until long-term solutions to the problems in the Bay-Delta are identified and implemented. 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. These programs 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.

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.

Bay -Delta Planning Activities. In 2000, several State and federal agencies released the CALFED Bay Delta Programmatic Record of Decision ("ROD") and Environmental Impact Report/Environmental Impact Statement ("EIR/EIS") that outlined a 30-year plan to improve the Delta's ecosystem, water supply reliability, water quality, and levee stability. The CALFED ROD remains in effect and many of the state, federal, and local projects begun under CALFED continue. However, implementation is now coordinated through the Delta Stewardship Council.

Building on CALFED and other Bay-Delta planning activities, in 2006 multiple State and federal resource agencies, water agencies, and other stakeholder groups entered into a planning agreement for the Bay-Delta Conservation Plan ("BDCP"). The BDCP is being developed as a comprehensive conservation strategy for the Bay-Delta designed to restore and protect ecosystem health, water supply, and water quality within a stable regulatory framework. The BDCP would result in long-term permits from regulatory agencies in return for meeting the Bay-Delta's ecological needs. Implementation of the BDCP would occur over a 50-year time frame. The BDCP is intended to create a durable regulatory framework that would allow for fundamental and systematic improvements to water supply reliability and the Bay-Delta's ecosystem health.

The draft BDCP, draft BDCP Environmental Impact Report/Environmental Impact Statement (EIR/EIS) and draft Implementing Agreement were made available for public review and comment in December 2013. A supplemental draft EIR/EIS is currently being prepared and will be released for public review in spring 2015.

The Sacramento-San Joaquin Delta Reform Act ("Reform Act"), passed in 2009, made it state policy to manage the Delta in support of the coequal goals of water supply reliability and ecosystem restoration in a manner that acknowledges the evolving nature of the Bay-Delta as a place for people and communities. The Reform Act created the Delta Stewardship Council and empowered it to develop a comprehensive management plan (the "Delta Plan"). State and local agencies proposing certain actions or projects in the Bay-Delta are required to certify for the Delta Stewardship Council that those efforts are consistent with the Delta Plan. The BDCP is intended to be incorporated into the Delta Plan once environmental approvals and requirements are met.

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 case management conference was held on July 18, 2014. All briefs must be filed by May 21, 2015. 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. However, due in part to the extensive comments received, on August 27, 2014, DWR and the other state and federal agencies leading the BDCP announced that a Recirculated Draft BDCP, EIR/EIS, and Implementing Agreement will be prepared and released in early 2015. The final planning documents are expected to be completed in the fall of 2015. 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 2015. 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.

Water Bond. ~~On August 13, 2014, the Legislature authorized a~~ The $7.12 billion ~~water bond measure, replacing the previous water bond authorized in 2009. The~~ bond measure, Proposition ~~1~~1, was approved by voters on November 4, 2014. Proposition 1 also enacted the Water Quality, Supply, and Infrastructure Improvement Act of 2014. Metropolitan is not able to assess at this time the impact that the water bond measure or the Water Quality, Supply, and Infrastructure Improvement Act of 2014 may have on Metropolitan.

~~*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 concluded the administrative appeal process. The SWRCB's final order rejected the Sanitation District's arguments, upheld the substantive requirements of the NPDES permit and imposed new, more stringent water quality limits.~~

~~While the administrative appeal before the SWRCB was still 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 requirements. Metropolitan and other water agencies that participated in the NPDES permitting process intervened. 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. In early 2014, the parties reached a settlement on the filtration requirements. The settlement still requires the Sanitation District to implement filtration, but at a lower hydraulic capacity than originally required.~~

~~Implementation of the final settlement of the permit litigation required the Central Valley Regional Water Quality Control Board (the "Regional Board") to issue an amended permit. Following publication of a draft permit, the Regional Board adopted the amended permit on August 8, 2014. In September 2014, the parties to the litigation filed the necessary papers with the court to dismiss the case. Final judgment was entered October 8, 2014 concluding this litigation.~~

~~In a related proceeding, in 2005, Metropolitan, other urban State Water Contractor agencies and the Contra Costa Water District 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. In January 2013, the Court of Appeal dismissed the appeal as moot, based on the Sanitation District's representation that the expansion project is no longer planned. That left attorneys' fees for Metropolitan and the other prevailing parties as the only remaining issue in this CEQA case. In September 2014, the parties to the CEQA case reached agreement to settle the attorney fee issue. The settlement calls for the Sanitation District to accelerate completion of a planned treatment component in order to begin nutrient removal two years ahead of the permit compliance date.~~

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. On May 4, 2010, DWR completed the final EIR and concluded ~~the~~a remedial CEQA review for the Monterey Agreement~~ on May 4, 2010~~., which reflects the settlement of certain disputes regarding the allocation of State Water Project water. 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 Agreement. 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 ("*Rosedale*"). The two Kern County cases were transferred to Sacramento Superior Court and the three cases were 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 decisions on the EIR challenges in *Central Delta I* and *Rosedale*. The Court granted the petitions for writ of mandate, holding that DWR violated CEQA because the EIR failed to adequately describe, analyze, and mitigate the potential impacts associated with the Kern Water Bank. On October 2, 2014, the court issued its final rulings in *Central Delta I* and *Rosedale*, holding that DWR must complete a limited scope remedial CEQA review addressing the potential impacts of the Kern Water Bank. ~~It~~However, the court's ruling also allows operation of the State Water Project to continue under the terms of the Monterey Agreement while the remedial CEQA review is prepared~~. And importantly, the ruling~~ and leaves in place the underlying project approvals while DWR prepares the remedial CEQA review.

The ~~final step for these cases in the trial court is entry of judgment and a writ ordering DWR to decertify the current EIR and prepare the remedial review. Any appeal must be filed 60 days after the entry of judgment. Upon entry of judgment in *Central Delta I*, the stay will lift in *Central Delta II* and it is anticipated that the court will then establish a schedule for resolving the *Central Delta II* case~~plaintiffs have appealed the decision. 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 ranged from a low of nearly 633,000 acre-feet in 2006 to a high of ~~1,105,232~~1,176,000 acre-feet in ~~2009.~~2014. Average annual net deliveries for ~~2003~~2004 through ~~2013~~2014 were approximately ~~838,000~~883,000 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 1,012,715 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~~have conserved 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 ~~2012~~2013 and ~~2013~~2014, CVWD's requests were for ~~10,463 and~~ 6,693 and an estimated 19,812 acre-feet respectively, leaving ~~93,677 acre-feet in 2012 and~~ 98,307 acre-feet in 2013 and an estimated 84,288 acre-feet 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	32,750

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~~2010 and the Bureau of Reclamation refunded $2.64 million in unused contingency funds to Metropolitan. 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~~and has the ability to deliver up to ~~40,000~~25,000 acre-feet of ~~the~~ water ~~which has not yet been used~~ in any ~~one~~single year. Besides the additional water supply, the new reservoir adds to the flexibility of Colorado River operations. As of January 1, 2014, Metropolitan had received 34,000 acre-feet of this water, and had 66,000 acre-feet remaining.

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 total share of costs will be $5 million for 47,500 acre-feet of project supplies. The costs will be paid between ~~2014~~2015 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~~2004 through ~~2013~~2014 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. In 2013, 180,256 acre-feet were delivered by SDCWA for exchange, consisting of 100,000 acre-feet of IID conservation plus 80,256 acre-feet of conserved water from the Coachella Canal and All-American Canal lining projects. In 2014, 179,993 acre-feet were delivered by SDCWA for exchange, consisting of 100,000 acre-feet of IID conservation plus 79,993 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~~ – State Court~~. 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 by the parties to the appeals and cross-appeals was completed in August 2014. The court of appeal subsequently accepted a settlement agreement and issued an order dismissing three parties from further proceedings. As a result, the only remaining QSA opponents involved in the state appellate proceeding are the County of Imperial and the Imperial County Air Pollution Control District. No date for oral argument has been set. The impact that this litigation might have on Metropolitan's water supplies cannot be adequately determined at this time.

~~*QSA Related Litigation – Federal Court.* 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 19, 2014, the Ninth Circuit ruled in favor of the defendants. The court held that the plaintiffs had standing to assert these claims, but that no violation of either NEPA or the Clean Air Act had occurred. On August 1, 2014, the court denied the plaintiffs' petition for rehearing and rejected their petition for rehearing en banc.~~

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 moved for leave to file a first amended complaint, which the court granted on June 27, 2013. The amended complaint added a legal challenge to the Lower Basin Shortage 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.

See "—"*Intentionally-Created Surplus Program*" below. On July 22, 2014, the district court dismissed the lawsuit in its entirety, ruling that the Navajo Nation lacked standing and that the claim was barred against the federal defendants. The district court denied a motion by the Navajo Nation for leave to amend the complaint further after the dismissal. The Navajo Nation filed notice of intent to appeal the decision on September 19, 2014 from the dismissal of its claims related to the Interim Surplus Guidelines, the Lower Basin Shortage Guidelines, and breach of the federal trust obligation to the tribe. Metropolitan is unable to assess at this time the likelihood of success of this appeal or any future claims, or their potential effect on Colorado River water supplies.

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~~2014 under this agreement is approximately ~~160,000~~205,000 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,~~2015, Metropolitan had approximately ~~580,000~~124,000 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 groundwater desalination, specifically the Warren H. Brock 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 93,857 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. On October 14, 2014, the Board approved the extension of this agreement to December 31, 2035.

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 entered into an agreement for the long-term purchase of water from YCWA. Metropolitan, other State Water Project Contractors, and the San Luis Delta Mendota Water Authority entered into separate agreements with DWR for the purchase of portions of ~~the~~ water made available. Metropolitan's agreement allows Metropolitan to purchase ~~at least 13,750~~, in dry years through 2025, available water supplies, which have ranged from approximately 10,000 acre-feet to ~~35,000~~67,068 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,~~years 2013 and 2014, Metropolitan purchased 10,209 acre-feet and approximately 11,000 acre-feet, respectively.

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,~~2013 and 2014, Metropolitan purchased 30,000 acre-feet ~~of these supplies~~and zero acre-feet of these supplies, respectively. DWR is administering a Multi-Year Water Pool during 2015 and 2016 because of continuing dry conditions. The amount of water available for purchase is not yet known.

Metropolitan/CVWD/Desert Water Agency Exchange and Advance Delivery Agreement. Metropolitan has agreements with the CVWD and the Desert Water Agency ("~~Desert~~DWA") that require Metropolitan to exchange its Colorado River water for those agencies' State Water Project contractual water on an annual basis. Because ~~Desert~~DWA and CVWD do not have a physical connection to the State Water

Project, Metropolitan takes delivery of ~~Desert~~DWA'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~~DWA, 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~~DWA 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~~DWA exchange agreements, Metropolitan has entered into separate agreements with CVWD and ~~Desert~~DWA for delivery of non-State Water Project supplies acquired by CVWD or ~~Desert~~DWA. Similarly, Metropolitan takes delivery of these supplies from State Water Project facilities and incurs an exchange obligation to CVWD or ~~Desert~~DWA. From 2008 through ~~2013,~~2014, Metropolitan has received a net additional supply of ~~52,189~~61,965 acre-feet of water acquired by CVWD and ~~Desert~~DWA.

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,~~2014, 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 3.375 million acre-feet, including emergency storage. This was the highest end-of-year total water reserves in Metropolitan's history. In 2013, Metropolitan drew 407,000 acre-feet from storage to meet demands, reducing overall storage to 2.968 million acre-feet. Metropolitan ~~expects to draw between 1.0 million acre-feet and 1.3~~withdrew approximately 1.2 million acre-feet from storage in 2014 and ~~anticipates that its~~ 2014 year-end overall storage ~~will be between 1.7 million acre-feet and 2.0~~was approximately 1.8 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, 2015	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	253,000	260,000	321,000	~~203,000~~
Lake Mead ICS	1,500,000	124,000	474,000	580,000	~~419,000~~
Subtotal	**2,300,000**	**377,000**	**734,000**	**901,000**	~~**622,000**~~
State Water Project					
Arvin-Edison Storage Program	350,000	166,000	180,000	220,000	~~164,000~~
Semitropic Storage Program	350,000	194,000	238,000	285,000	~~245,000~~
Kern Delta Storage Program	250,000	148,000	169,000	179,000	~~135,000~~
San Bernardino Valley MWD Coordinated Operating Agreement	50,000	-0-	-0-	-0-	~~-0-~~
Mojave Storage Program	390,000[5]	39,000	39,000	60,000	~~45,000~~
Castaic Lake and Lake Perris[2]	219,000	-0-	219,000	219,000	~~219,000~~
Metropolitan Article 56 Carryover[3]	200,000[6]	33,000	49,000	156,000	~~200,000~~
Other State Water Project Carryover[4]	n/a	-0-	174,000	124,000	~~43,000~~
Emergency Storage	334,000	328,000	334,000	334,000	~~334,000~~
Subtotal	**2,143,000**	**908,000**	**1,402,000**	**1, 577,000**	~~**1,385,000**~~
Within Metropolitan's Service Area					
Diamond Valley Lake	810,000	394,000	584,000	690,000	~~786,000~~
Lake Mathews	182,000	78,000	139,000	102,000	~~142,000~~
Lake Skinner	44,000	30,000	36,000	38,000	~~37,000~~
Subtotal[7]	**1,036,000**	**502,000**	**759,000**	**830,000**	~~**965,000**~~
Member Agency Storage Programs					
Cyclic Storage, Conjunctive Use, and Supplemental Storage	455,000	26,000	73,000	67,000	~~30,000~~
Total	**5,934,000**	**1,813,000**	**2,968,000**	**3,375,000**	~~**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, WSDM ~~Plan~~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 2013-14 was about $352 million. In ~~fiscal year 2013~~ February 2014, Metropolitan increased the ~~annual conservation budget from $20 million to $40 million, which has been used to fund a $5.5 million outreach campaign and to double~~conservation budget for fiscal years 2013-14 and 2014-15 by a total of $20 million. In December 2014, the Board increased the conservation budget for fiscal years 2013-14 and 2014-15 by an additional $40 million. Also, in May 2014, the Board doubled the incentive for the turf replacement program from $1 per square foot to $2 per square foot. As of ~~August 2014, $15.8~~February 2015, $92.5 million has been committed to the turf replacement program. 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 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~~In addition to ongoing conservation, Metropolitan has developed a WSDM plan, which 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~~See — "Water Surplus and Drought Management Plan" below. Conservation and water efficiency programs are part of Metropolitan's resource management strategy ~~through all categories~~that make up these Surplus and Shortage actions.

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~~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 Surplus and Drought Management Plan

The 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 is a planning document that Metropolitan uses to guide inter-year and intra-year storage operations, and splits resource actions into two major categories: surplus actions and shortage actions. The surplus actions emphasize storage of surplus water inside the region, followed by storage of surplus water outside the region. The shortage actions emphasize critical storage programs and facilities and conservation programs that make up part of Metropolitan's response to shortages. Implementation of the plan is directed by a WSDM team, made up of Metropolitan staff, that meets regularly throughout the year and more frequently between November and April as hydrologic conditions develop. The WSDM team develops and recommends storage actions to senior management on a regular basis and provides updates to the Board on hydrological conditions, storage levels and planned storage actions through detailed reports.

Water Supply Allocation Plan

The Water Supply Allocation Plan was approved by ~~the~~Metropolitan's Board in February 2008. 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. ~~On~~Most recently December 9, 2014, the Board approved adjustments to the formula for calculating member agency supply allocations for 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.

Implementation of the Water Supply Allocation first occurred on April 14, 2009, when Metropolitan's Board adopted a resolution declaring a regional water shortage and implementing the Water Supply Allocation Plan, effective July 1, ~~2009~~2009 through June 30, 2010. 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, effective July 1, 2010 through June 30, 2011, 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 to pre-allocation levels. ~~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.

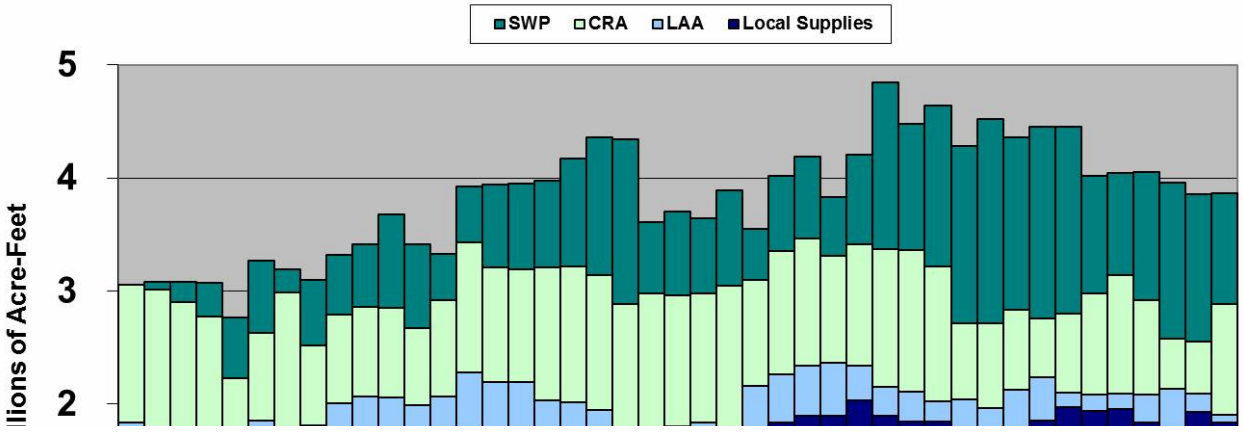
REGIONAL WATER RESOURCES

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 of Water Supply in the Metropolitan Service Area (1971-2013)



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, 2014, the City's water deliveries from Metropolitan averaged approximately 293,000 acre-feet per year, which constituted approximately 53 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~~442,000 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, 2010 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 until 2035. This corresponds to an increase from normal to dry years of approximately 257,000 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. LADWP reports that, in 2013, 62 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,~~In November 2014, LADWP ~~and~~

~~regulators reached a major agreement regarding future dust control on portions of Owens Lake and use of new water-saving dust control measures.~~ reached an agreement over implementation of dust control measures on Owens Lake, which is expected to save nearly 8,600 acre-feet of water in 2015 and expand water savings in the future.

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 ~~18.4~~18.5 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 October 2014, the balance in the nine accounts was approximately 49,000 acre-feet. Metropolitan has called nearly 40,000 acre-feet to be produced from these storage accounts during the 15-month period from April 2014 through June 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 2013-14, Metropolitan provided incentives for approximately 68,400 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~~in 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 until 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 were 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 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 2013-14, Metropolitan provided incentives for approximately 180,000 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 ~~$340~~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. These projects are currently in the development phase and collectively are anticipated to produce up to 46,000 acre-feet annually. In addition, in October 2014, seawater desalination projects became eligible for funding under Metropolitan's Local Resources Program ("LRP").

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~~ the fall of 2015.

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. On February 20, 2013, plaintiffs filed a notice of appeal to the U.S. Court of Appeals for the Ninth Circuit. ~~Plaintiffs are appealing the January 2013 order which granted Metropolitan's motion to dismiss plaintiffs' first amended complaint, as well as the April 2012 order which granted Metropolitan's motion to dismiss plaintiffs' original complaint. Plaintiffs filed their opening brief with the Ninth Circuit on June 27, 2013, and Metropolitan filed its answering brief and motion for judicial notice on August 28, 2013. Plaintiffs filed their reply brief and a request for judicial notice with the Ninth Circuit on October 10, 2013. No trial date has been set~~On February 19, 2015, the Ninth Circuit affirmed the district court's dismissal of the case. Plaintiffs have until March 5, 2015 to file a petition for rehearing, or 90 days from the date of the decision to file petition for a writ of certiorari.

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 in 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. The California Department of Public Health filed the final regulation for chromium 6 on April 15, 2014, setting a new MCL of 10 ppb. The new MCL became effective July 1, 2014, and water utilities will be required to comply with such MCL 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 recently adopted 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. Several construction contracts have been completed over the last few years to upgrade and expand these shops. A total of nearly $37 million has been invested to enhance Metropolitan's capacity to not only provide fabrication and coating services for planned rehabilitation work, maintenance activities, and capital projects, but to also perform emergency fabrication support to Metropolitan and its member agencies. Metropolitan has also maintained reimbursable agreements with DWR to perform machining, fabrication, and coating services for critical repair and rehabilitation of State Water Project facilities. These agreements have enhanced timely and cost-effective emergency response capabilities. 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. 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. 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. 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 evaluated alternatives for repair of the dam. 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. On November 11, 2011, DWR certified the final EIR and filed a Notice of Determination stating its intent to proceed with the preferred alternative. DWR estimates that 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 32.2 percent of these repair costs. 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 (42.9 percent), Desert Water Agency (3.0 percent) and Coachella Valley Water District (21.9 percent). 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 bi-annually as a result of the periodic review and adoption of the capital budget by Metropolitan's Board of Directors. See "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

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

Cost of Service	2015	2016	2017	2018	2019	Total
Conveyance &Aqueduct	$27,193	$22,311	$27,168	$46,281	$46,119	$169,072
Storage	12,244	12,562	1,999	-	-	26,805
Distribution	43,508	51,642	69,826	112,699	135,673	413,348
Treatment	126,149	148,652	121,390	95,124	79,270	570,585
Administrative and General	28,109	30,393	50,357	26,484	23,214	158,557
Hydroelectric	8,212	2,308	4,067	467	120	15,174
Total[2]	$245,415	$267,868	$274,807	$281,055	$284,396	$1,353,541

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.

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 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 fiscal year 2013-14, the pay-as-you-go funding for the capital program was $117 million. On April 8, 2014, Metropolitan's Board approved a total of $466 million for pay-as-you-go expenditures as part of the biennial budget for fiscal year 2014-15 and fiscal year 2015-16. These pay-as-you-go funds, together with funds available in the Replacement and Refurbishment Fund, are expected to fund $513 million in CIP expenditures for fiscal year 2014-15 and fiscal year 2015-16. 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 completed in June 2014. Expenditures at the Skinner plant through ~~June~~December 2014 were $~~243.3~~243.5 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 2015. Program expenditures at the Diemer plant through ~~June~~December 2014 were $~~357.4~~358.9 million and the total program cost is projected to be $370.0 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 ~~June~~December 2014 were $~~141.9~~170.5 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 $422.1 million, with $~~197.7~~202.7 million spent through ~~June~~December 2014. Budgeted aggregate capital expenditures for improvements at the Weymouth plant for fiscal years 2014-15 and 2015-16 are $42.8 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 $384.6 million, with $~~189.4~~197.2 million spent through ~~June~~December 2014. 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, replacement of several miles of deteriorated concrete canal liner, and replacement of the outlet gates and appurtenant electrical, mechanical, and control systems at the Copper Basin Reservoir. Additionally, many of the mechanical components at all five pumping plants will be evaluated and replaced or refurbished over the next several years. The currently projected cost estimate for all prior and planned refurbishment or replacement projects is $468.2 million. Costs through ~~June~~December 2014 were $~~167.3~~169.8 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. The costs for these repairs ~~to date have totaled nearly $60~~through December 2014 were $65.3 million. 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 $500 million. ~~Preliminary~~Final 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.

Distribution System – Refurbishments and Improvements. In addition to the long-term program to rehabilitate Metropolitan's PCCP lines, several other components of the distribution system are being refurbished and/or improved. Past and ongoing projects to ensure the reliability of the distribution system, primarily due to age, include multiple replacements or refurbishments of isolation and control valves and gates, refurbishment to pressure control and hydroelectric power facilities, and various other upgrades totaling over $140 million since fiscal year 2000-01. The currently projected cost estimate for the prior and planned refurbishment or replacement projects is $600 million. ~~Budgeted~~For fiscal years 2014-15 and 2015-16, budgeted aggregate capital expenditures for improvements on the distribution system, other than PCCP rehabilitation ~~for fiscal years 2014-15 and 2015-16~~, are $53.4 million.

Also, as a result of the current statewide drought, Metropolitan initiated a project to enable reverse-flow through a series of existing pipelines to deliver water stored in Diamond Valley Lake to Metropolitan's Henry J. Mills Water Treatment Plant, which has historically received only raw water from DWR's State Water Project. Construction contracts were awarded in June and August 2014 to complete this

effort. The total estimated cost for this project is approximately $37 million. It is planned to be completed by May 2015.

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 ~~October 15, 2014~~ was ~~1,768,~~1,750, of whom ~~1,238~~1,220 were represented by AFSCME Local 1902, 91 by the Supervisors Association, 288 by the Management and Professional Employees Association and 135 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 85 percent of total revenues and *ad valorem* property taxes have accounted for about 10 percent of revenues, declining to ~~five~~six percent of revenues in fiscal year ~~2012-13.~~2013-14. 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 to pay its outstanding general obligation bonds and to satisfy its State Water Contract obligations. Beginning in fiscal year 1990-91, *ad valorem* taxes ~~were~~have been applied solely to pay annual debt service on Metropolitan's general obligation bonds and a small portion of State Water Contract obligations, pursuant to requirements in the Act 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~~.~~ outstanding as of 1990-91. Under this requirement, Metropolitan's *ad valorem* property tax revenue would gradually decrease, as the bonds are retired. However, the 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 revenue in excess of the restriction is "essential to the fiscal integrity of the district." On June 11, 2013, following such public hearing, the Board adopted a resolution finding that maintaining the *ad valorem* tax rate for fiscal year 2013-14 at the fiscal year 2012-13 tax rate was essential to the fiscal integrity of Metropolitan and suspending the tax limit clause in the Act. On August 19, 2014, following the required hearing and notice, the Board adopted a resolution finding that continuing the *ad valorem* tax rate at the rate levied for fiscal year 2013-14 was essential to the fiscal integrity of Metropolitan and suspending the tax limit clause in the Act. 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 and August 19, 2014, the Board adopted resolutions levying taxes for fiscal years 2013-14 and 2014-15, respectively, 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. This rate ~~will decrease~~ decreased to $582 effective January 1, 2015 and will increase to $594 effective January 1, 2016. See "—Rate Structure" and "—Water Rates by Water Category" below. 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 2014-15. 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, 2014. The table provides cash basis information, which is unaudited. Audited financial statements for the fiscal years ended June 30, 2014 and June 30, 2013 are provided in Appendix B - "THE

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT FOR FISCAL YEAR ENDED JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR ~~FISCAL YEARS~~THE SIX MONTHS ENDED ~~JUNE 30,~~DECEMBER 31, 2014 ~~AND JUNE 30, 2013.~~and 2013 (UNAUDITED)."

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

	2010	2011	2012	2013	2014
Water Sales[2]	$1,011.1	$995.6	$1,062.5	$1,250.9	$1,455.3
Net Tax Collections[3]	97.3	88.0	90.1	96.5	98.4
Additional Revenue Sources[4]	135.3	153.5	167.1	174.2	179.8
Interest on Investments	26.7	18.9	17.8	11.7	14.8
Hydroelectric Power Sales	18.8	22.1	31.0	26.3	15.2
Other Collections & Trust Funds[5]	9.1	61.0	53.6	19.9	20.7
Total Receipts	$1,298.3	$1,339.1	$1,422.1	$1,579.5	$1,784.2

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 to State Water Contract obligations.
(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 and to the requirement under the State Water Contract 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. See "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. From fiscal year 1990-91 through 2012-13, and pursuant to statute, the tax levy was set to not exceed the amount needed to pay debt service on Metropolitan's general obligation bonds and to satisfy a portion of Metropolitan's State Water Contract obligation. However, Metropolitan has authority to impose a greater tax levy to pay debt service on Metropolitan's general obligation bonds and to satisfy Metropolitan's State Water Contract obligations in full if, following a public hearing, the Board finds that such revenue is essential to its fiscal integrity. On June 11, 2013 and August 19, 2014, the Board suspended the tax limit clause in the Act and, for fiscal years 2013-14 and 2014-15, maintained the fiscal year 2012-13 *ad valorem* tax rate. See "METROPOLITAN REVENUES—General" above. 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.

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. On November 18, 2014, the Board approved the terms of new 10 year voluntary water supply purchase orders effective January 1, 2015 through December 31, 2024. 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, 2014. Water sales revenues of Metropolitan for the two fiscal years ended June 30, 2014 and June 30, 2013, respectively, on an accrual basis, are shown in Appendix B - "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT FOR FISCAL YEAR ENDED JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR ~~FISCAL YEARS~~THE SIX MONTHS ENDED ~~JUNE 30,~~DECEMBER 31, 2014 ~~AND JUNE 30, 2013~~ and 2013 (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
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
2014	2,043,720	1,484.6	726	2.23

Source: Metropolitan.

(1) Year ended April 30 for fiscal years 2010-2012, 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.

(Footnotes continued on next page)

(4) Water Sales in fiscal years 2009-10 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 years 2012-13 and 2013-14 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 demand 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 September 1, 2009, 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 and January 1, 2012, 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 trial court decision stated that the System Access Rate, System Power Rate, Water Stewardship Rate and wheeling rate violate specified statutes and the common law and such rates effective in 2013 and 2014 violate Proposition 26. 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 has~~Trial is currently scheduled ~~a case management conference for December 2, 2014. The final judgment in the cases will be subject to appeal.~~ for March 30 and April 1-2, 2015. 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 rates, as of ~~September 30,~~December 31, 2014, Metropolitan held $~~148~~159 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 its claim for breach of the Exchange Agreement.

In May 2014, SDCWA filed a new lawsuit asserting essentially the same rate claims and breach of contract claim in connection with the Board's April 2014 rate adoption. Metropolitan filed its answer on

June 30, 2014. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

Member Agency Purchase Orders

Purchase Orders are voluntary agreements that determine the amount of water that a member agency can purchase at the Tier 1 Supply Rate. In 2001, 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 acre-feet over the original ten-year period. The withdrawal was effective January 1, 2003. On October 10, 2012, the 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.

~~The current rate structure provides for a member agency's agreement to purchase water from Metropolitan by means of a voluntary purchase order~~On November 18, 2014, the Board approved the terms for purchase orders with a ten year term to be effective from January 1, 2015 through December 31, 2024, and authorized the General Manger to execute those purchase orders. In consideration of executing its purchase order, each member agency that ~~executed~~executes a purchase order and whose purchase order is in effect ~~is~~will be allowed to purchase up to 90 percent of its base amount at the Tier 1 Water Supply Rate in any fiscal year during the term of the purchase order~~, and its~~. Member agencies may choose a base amount ~~will be the greater~~ of (1) ~~its~~the 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.~~purchases during the 13-year period of fiscal year 1990 through fiscal year 2002, or (2) the highest year purchases in the most recent 12-year period of fiscal year 2003 through fiscal year 2014. 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 accrue a cumulative Tier 2 obligation by virtue of exceeding their Tier 1 maximum at the end of year five of the purchase order will pay their Tier 2 obligation annually. Otherwise, any obligation to pay the Tier 2 Supply Rate will be calculated over the ten-year period, consistent with the calculation of any purchase order commitment obligation. 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) annually.

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~~the chosen base period demand 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 late 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.

Water Rates by Water Category

The following table sets forth Metropolitan's water rates by category beginning January 1, 2010. 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.

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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				
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	$290	$223	$41	$189	$254
January 1, 2014	$148	$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[3]		FULL SERVICE UNTREATED[4]		INTERIM AGRICULTURAL PROGRAM		REPLENISHMENT RATE	
	Tier 1	Tier 2	Tier 1	Tier 2	Treated	Untreated	Treated	Untreated
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) 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.
(4) 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~~the portion of capital expenditures for infrastructure projects needed to provide standby service~~,~~ and peak conveyance 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 $133.9 million in fiscal year 2011-12, $144.0 million in fiscal year 2012-13, and $154.0 million in 2013-14. 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 2011-12, 2012-13, and 2013-14, RTS charges collected by means of such standby charges were $41.7 million, $41.6 million, and $41.7 million, respectively.

Capacity Charge. The Capacity Charge is a fixed charge intended to recover the cost of providing peak capacity within the distribution system. It is 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 two years prior to the date of the capacity charge. Effective January 1, 2014, the Capacity Charge was $8,600 per cfs. The adopted Capacity Charge ~~will be~~was $11,100 per cfs on January 1, 2015, and will be $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 for any lawful purpose of Metropolitan, as determined by the Board, 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. See "CAPITAL INVESTMENT PLAN—Capital Investment Plan Financing" in this Appendix A.

As of June 30, 2014, the minimum reserve requirement was $202 million. The target reserve level at June 30, 2014 was $487 million. At June 30, 2014, unrestricted reserves, which consist of the Water Rate Stabilization Fund and the Revenue Remainder Fund, totaled $487 million on a modified accrual basis~~,~~ including $137 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 ~~September 30,~~December 31, 2014 was $~~148~~159 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. 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. 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.

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 Replacement and Refurbishment Fund, for pay-as-you-go funding of the CIP; $100 million deposited to the Other Post-Employment Benefits (OPEB) Trust; and the remaining amount over target, $~~252~~232 million, was placed in a Water Management Fund~~, $232 million of which~~ and will cover costs associated with replenishing storage, purchasing transfers and funding drought response programs~~, and $20 million for conservation related programs~~.

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 $89.6 million during fiscal year 2011-12, $74.6 million in fiscal year 2012-13, and $81.3 million during fiscal year 2013-14. 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 $14.6 million and nearly $29.6 million. Energy generation sales revenues were $24.5 million in fiscal year 2012-13 and $14.6 million in fiscal year 2013-14.

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, 2014 were 2.04 million acre-feet, generating $1.48 billion in water sales revenues for such period. Metropolitan's ten largest water customers in the year ended June 30, 2014 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.

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TEN LARGEST WATER CUSTOMERS
Year Ended June 30, 2014
Accrual Basis (Dollars In Millions)

Agency	Water Sales Revenues[1]	Percent of Total	Water Sales in Acre-Feet[1]	Percent of Total
San Diego County Water Authority	$ 328,719,613	22.1%	545,659	26.7%
City of Los Angeles	307,294,389	20.7	441,871	21.6
MWD of Orange County	185,454,744	12.5	231,941	11.3
West Basin MWD	104,897,611	7.1	120,915	5.9
Calleguas MWD	101,576,451	6.8	116,685	5.7
Eastern MWD	80,499,907	5.4	101,622	5.0
Western MWD	60,675,556	4.1	76,194	3.7
Three Valleys MWD	55,639,136	3.7	71,072	3.5
Inland Empire Utilities Agency	40,225,028	2.7	67,833	3.3
Central Basin MWD	29,387,772	2.0	33,951	1.7
Total	$ 1,294,370,207	87.2%	1,807,743	88.5%
Total Water Sales Revenues	$ 1,484,616,187	**Total Acre-Feet**	2,043,720	

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 became effective January 1, 2014, alleged 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 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 ~~September 30,~~December 31, 2014, the total market value (cash-basis) of all Metropolitan funds was $~~1.37~~1.58 billion, including bond reserves of $~~83.8~~84.5 million. The market value of Metropolitan's investment portfolio is subject to market fluctuation and volatility and general economic conditions. In fiscal year 2013-14, 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 $15.7 million. In fiscal year 2012-13, Metropolitan's earnings on investments, on a cash basis (unaudited) were $9.4 million. In fiscal year 2011-12, Metropolitan's earnings on investments, on a cash basis (unaudited) were $13.9 million. Over the three years ended ~~September 30,~~December 31, 2014, the market value of the month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) averaged approximately $1.1 billion. The minimum month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) during such period was approximately $829.5 million on July 31, 2012. 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 2014-15 on June 10, 2014.

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 FOR FISCAL YEAR ENDED JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR ~~FISCAL YEARS~~THE SIX MONTHS ENDED ~~JUNE 30,~~DECEMBER 31, 2014 ~~AND JUNE 30,~~and 2013 (UNAUDITED)" for a description of Metropolitan's investments at June 30, 2014.

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 ~~September 30,~~December 31, 2014, such managers were managing approximately $~~331.2~~333.8 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, 2014. The table provides cash basis information, which is unaudited. Expenses of Metropolitan for the fiscal years ended June 30, 2014 and June 30, 2013, on an accrual basis, are shown in Appendix B - "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT FOR FISCAL YEAR ENDED JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR ~~FISCAL YEARS~~THE SIX MONTHS ENDED ~~JUNE 30,~~DECEMBER 31, 2014 ~~AND JUNE 30, 2013.~~and 2013 (UNAUDITED)."

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

	2010	2011	2012	2013	2014
Operation and Maintenance Costs[1]	$ 441.6	$ 430.8	$ 425.3	$ 413.6	$ 561.3
Total State Water Project and Water Transfers[2]	560.1	593.4	535.4	531.1	472.5
Total Debt Service	287.0	306.7	323.0	326.9	372.0
Construction Disbursements from Revenues[3]	35.1	45.0	44.2	54.7	89.3
Other[4]	5.3	2.4	2.8	6.2	6.3
Total Disbursements (net of reimbursements)[5]	$1,329.1	$1,378.3	$1,330.7	$1,332.5	$1,501.4

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. 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 ~~November~~February 1, ~~2014,~~2015, 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	101,840,000
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	88,800,000	-0-
Water Revenue Bonds, 2000 Authorization, Series B-2	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	-0-
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	162,455,000	-0-
Water Revenue Refunding Bonds, 2004 Series B	274,415,000	-0-
Water Revenue Bonds, 2003 Authorization, Series B-3	262,295,000	-0-
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	391,355,000
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	62,465,000
Water Revenue Refunding Bonds, 2008 Series B	133,430,000	127,200,000
Water Revenue Refunding Bonds, 2008 Series C	79,045,000	41,800,000
Water Revenue Bonds, 2008 Authorization, Series A	200,000,000	~~187,830,000~~183,525,000
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	15,035,000
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	64,740,000
Water Revenue Refunding Bonds, 2009 Series E	26,050,000	18,355,000
~~Water Revenue Refunding Bonds, Special Variable Rate, 2010 Series A~~	~~128,005,000~~	~~0~~

Name of Issue	Original Amount Issued	Principal Outstanding
~~Water Revenue Refunding Bonds, 2010 Series B~~	~~88,845,000~~	~~84,175,000~~

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Water Revenue Refunding Bonds, Special Variable Rate, 2010 Series A	$ 128,005,000	$ -0-
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	73,230,000
Water Revenue Refunding Bonds, 2011 Series C	157,100,000	156,100,000
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	19,605,000
Water Revenue Refunding Bonds, 2012 Series E1	28,420,000	-0-
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 C1-C3	30,335,000	30,335,000
Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D[1]	79,770,000	79,770,000
Water Revenue Refunding Bonds, 2014 Series E	86,060,000	86,060,000
~~Water Revenue Refunding Bonds, 2014 Series F~~	~~7,860,000~~	~~7,860,000~~
Water Revenue Refunding Bonds, 2014 Series G1-G5	57,840,000	57,840,000
Total	**$~~11,232,469,8891~~ 1,224,609,889**	**$~~4,169,270,0004~~, 157,105,000**

Source: Metropolitan.

(1) Outstanding variable rate obligation.
(2) Designated as "Build America Bonds" pursuant to the American Recovery and Reinvestment Act of 2009.

Limitations on Additional Revenue Bonds

Resolution 8329, adopted by Metropolitan's Board on July 9, 1991, as amended and supplemented (collectively with all such supplemental resolutions, the "Revenue Bond Resolutions"), 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 ~~November~~February 1, ~~2014,~~2015, outstanding general obligation bonds, water revenue bonds and other evidences of indebtedness in the amount of $~~4.31~~4.30 billion represented approximately 0.19 percent of the fiscal year 2014-15 taxable assessed valuation of $2,315 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, 2014 were $7.20 billion. The aggregate amount of revenue bonds outstanding as of ~~November~~ February1, ~~2014~~2015 was $~~4.17~~4.16 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, 2014 and June 30, 2013, respectively, are shown in Appendix B – "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT FOR FISCAL YEAR ENDED JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR ~~FISCAL YEARS~~THE SIX MONTHS ENDED ~~JUNE 30,~~DECEMBER 31, 2014 ~~AND JUNE 30, 2013.~~and 2013 (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 ~~November~~February 1, 2014, Metropolitan had outstanding $943.7 million of variable rate obligations, including bonds bearing interest in the Index Mode or Flexible Index Mode (the "Index Tender Bonds"), special variable rate bonds initially designated as self-liquidity bonds (the "Self-Liquidity Bonds"), and variable rate demand obligations supported by standby bond purchase agreements between Metropolitan and various liquidity providers ("Liquidity Supported Bonds").

Index Tender 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 outstanding as of ~~November~~February 1, ~~2014,~~2015, 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~~January 11, 2016	July 1, 2030
2011 A-1	June 2, 2011	64,440,000	January ~~16,~~4, ~~2015~~2016	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,~~4, ~~2015~~2016	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	49,290,000	May 1, 2015	July 1, 2027

2013 E [1]	July 2, 2013	104,820,000	June 5, 2015	July 1, 2030
Total		**$536,460,000**		

Source: Metropolitan.

(1) Flexible Index Mode Bonds. The terms and conditions of Flexible Index Mode Bonds are substantially similar to Index Mode Bonds except that each tender period may not exceed 270 days.

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. Failure to pay the purchase price of a series of Index Tender Bonds on a scheduled mandatory tender date is a default under the related paying agent agreement, upon the occurrence and continuance of which a majority in aggregate principal amount of the owners of such series of Index Tender Bonds may elect a bondholders' committee to exercise rights and powers of such owners under such paying agent agreement. Failure to pay the purchase price of a series of Index Tender Bonds on a scheduled mandatory tender date is not a default under the Master Resolution. 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.

Self-Liquidity Bonds. As of ~~November~~February 1, ~~2014,~~2015, Metropolitan had $167.2 million of outstanding self-liquidity bonds, comprised of $87.4 million Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D, and $79.8 million 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. Failure to pay the purchase price of Self-Liquidity Bonds upon optional or mandatory tender is not a default under the related paying agent agreement or a default under the Master Resolution.

Liquidity Supported Bonds. The interest rates for Metropolitan's other variable rate demand obligations, totaling $240.1 million as of ~~November~~February 1, ~~2014,~~2015, 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 lists the liquidity providers, the expiration date of each facility and the principal amount of outstanding variable rate demand obligations covered under each facility as of ~~November~~February 1, ~~2014.~~2015.

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	
Barclays Bank PLC	2008 Series A-2	$62,465,000	September 2016
Total		$240,065,000	

Source: Metropolitan.

Variable Rate Exposure Policy. Included in Metropolitan's $943.7 million of variable rate obligations are $493.6 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~~approximate the payments that Metropolitan makes on associated variable rate debt. The remaining $450 million of variable rate obligations represent approximately 10.8 percent of total outstanding water revenue bonds, as of ~~November~~February 1, ~~2014.~~2015.

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.

Interest Rate Swap Transactions. 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 one type of interest rate swap, referred to in the table below as "Fixed Payor Swaps." Under this type of swap, 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.

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 ~~November~~February 1, ~~2014~~2015:

FIXED PAYOR SWAPS:

Designation	Notional Amount Outstanding	Swap Counterparty	Fixed Payor Rate	MWD Receives	Maturity Date
2002 A	$75,838,400	Morgan Stanley Capital Services, Inc.	3.300	57.74% of one-month LIBOR	7/1/2025
2002 B	28,371,600	JPMorgan Chase Bank	3.300	57.74% of one-month LIBOR	7/1/2025
2003[(1)]	158,597,500	Deutsche Bank AG	3.257	61.20% of one-month LIBOR	7/1/2030
2003	158,597,500	JPMorgan Chase Bank	3.257	61.20% of one-month LIBOR	7/1/2030
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	29,057,500	JPMorgan Chase Bank	3.360	70% of 3-month LIBOR	7/1/2030
2005	29,057,500	Citigroup Financial Products, Inc.	3.360	70% of 3-month LIBOR	7/1/2030
Total	$493,630,000				

Source: Metropolitan.

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

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 FOR FISCAL YEAR ENDED JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR ~~FISCAL YEARS~~THE SIX MONTHS ENDED ~~JUNE 30,~~DECEMBER 31, 2014 ~~AND JUNE 30, 2013~~ and 2013 (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 ~~September 30,~~December 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 $~~79~~90 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. 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. Effective July 29, 2014, Metropolitan optionally terminated portions of certain interest rate swap agreements totaling a notional amount of $163 million.

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 ~~September 30,~~December 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, 2014 and on or before September 30, 2015 are anticipated to be reduced by the fiscal year 2014-2015 sequestration rate of 7.3 percent, or approximately $964,000 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 ~~November~~February 1, ~~2014,~~2015, Metropolitan had outstanding $61.0 million of 2012 Series E Parity Bonds in two series, $30.3 million of 2014 Series C Parity Bonds in three series, and $57.8 million of 2014 Series G in five 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 two series of the 2012 Series E Bonds are October 1, 2015 and October 1, 2016. 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. For the five series of the 2014 Series G Bonds, the scheduled mandatory tender dates are October 1, 2016, 2017, 2018, 2019, and 2020, respectively. Metropolitan may call the Term Mode Bonds on or after the Call Protection Date for each of the series of Term Mode Bonds.

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 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 ~~November~~February 1, ~~2014,~~2015, the principal balance outstanding was $~~11.2~~10.7 million.

General Obligation Bonds

As of ~~November 1, 2014, $132,275,000~~February 1, 2015, $127,485,000 aggregate principal amount of general obligation bonds payable from *ad valorem* property taxes were outstanding. See "METROPOLITAN REVENUES — General" and "— Revenue Allocation Policy and Tax Revenues" in this Appendix A. 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~~5,670,000	~~60,105,000~~5,670,000
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
Waterworks General Obligation Refunding Bonds, 2014 Series A	49,645,000	49,645,000
Total	$~~218,050,000~~208,660,000	$~~132,275,000~~127,485,000

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.

~~* Metropolitan expects to issue its Waterworks General Obligation Refunding Bonds, 2014 Series A to refund all or a portion of these bonds.~~

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. In June 2014, DWR and State Water Project Contractors reached an AIP to extend the contract to 2085 and to make certain changes related to the financial management of the State Water Project in the future. See "METROPOLITAN'S WATER SUPPLY—State Water Project" in this Appendix A. As of November 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, 2014 was $464.6 million, which amount reflects prior year's credits of $79.5 million. For the fiscal year ended June 30, 2014, Metropolitan's payment obligations under the State Water Contract were approximately 31 percent of Metropolitan's total annual expenditures. A portion of Metropolitan's annual property tax levy is for payment of State Water Contract obligations, 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 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 2015 and projections based on Metropolitan's adopted biennial budget for fiscal years 2014-15 and 2015-16. For fiscal year 2014-15, projections are based on actual financial results through December 2014 and revised projections for the balance of the fiscal year. 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]
2015	$~~161.9~~157.9	$~~182.2~~203.6	$~~189.5~~142.7	$(~~38.0~~56.1)	$~~495.6~~448.1
2016	170.0	184.6	196.8	(36.3)	515.1
2017	183.6	190.1	212.6	(36.6)	549.7
2018	193.3	191.0	221.9	(36.4)	569.8
2019	206.6	192.6	235.2	(35.9)	598.4

Source: Metropolitan.

(1) Projections are based upon DWR's Annual Billing to Metropolitan for 2015 and attachments (dated July 1, 2014) and Metropolitan's adopted biennial budget for fiscal years 2014-15 and 2015-16. The 2014-15 fiscal year, reflects actual financial results through December 2014 and 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 ~~(~~for the fiscal years ended June 30, 2014 and June 30, ~~2013)~~2013, 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~~DWA/CVWD transfers and exchanges) into Metropolitan's service area and to storage programs are as follows: ~~0.91~~0.57 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, 0.93 million acre-feet for fiscal year 2017-18, and 0.93 million acre-feet for fiscal year 2018-19. 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.

(4) Annual totals include BDCP related costs for the fiscal years ended June 30, 2015 through June 30, 2019 of $-0- in fiscal years 2014-15 and 2015-16, $15 million in 2016-17, $24 million in 2017-18, and $46 million in 2018-19. Projected BDCP costs are reflected in the ten-year financial forecast provided in the biennial budget for fiscal years 2014-15 and 2015-16 that was approved by Metropolitan's Board on April 8, 2014.

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 2013-14 Metropolitan paid approximately $29.6 million under this contract. Payments made under the Hoover Power Plant contract are treated as operation and maintenance expenses. 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 and Other Post-Employment Benefits

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 2013-14 contribution requirement was based on the June 30, 2011 valuation report, the fiscal year 2014-15 contribution requirement is based on the June 30, 2012 valuation report, and the fiscal year 2015-16 contribution is based on the June 30, 2013 valuation report. The PERS' projected investment return (the discount rate) for fiscal years 2013-14, 2014-15, and 2015-16 is 7.5 percent, respectively.

For fiscal year 2013-14, Metropolitan contributed 16.3 percent of annual covered payroll. The fiscal year 2013-14 annual pension cost was $47.4 million, of which $13.5 million was for Metropolitan's pick-up of the employees' seven percent share. For fiscal year 2014-15 and fiscal year 2015-16, Metropolitan is required to contribute 17.65 percent and 19.74 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. In addition, PERS will no longer use an actuarial valuation of assets. 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. The following table shows the funding progress of Metropolitan's pension plan.

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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**
6/30/13	$1.805	N/A	$1.356	N/A	$.449	N/A	75.1%
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%

Source: California Public Employees' Retirement System.

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 has changed 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 FOR FISCAL YEAR ENDED JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR ~~FISCAL YEARS~~THE SIX MONTHS ENDED ~~JUNE 30,~~DECEMBER 31, 2014 ~~AND JUNE 30, 2013.~~and 2013 (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 hired on or after January 1, 2012. Payments for this benefit were $13.1 million in fiscal year 2013-14 and are estimated to be $12.8 million in fiscal year 2014-15. Under Governmental Accounting Standards Board Statement No. 45,

Accounting and Financial Reporting by Employers for Post-employment 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 post-employment benefits ("OPEB"), on an accrual basis.

Metropolitan's annual required contribution ("ARC") for OPEB was $39.9 million in fiscal year 2013-14. The ARC was based on a June 30, 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 7.25 percent investment rate of return, (b) a general inflation component of 3.0 percent and (c) increases to basic medical premiums of 8.5 percent for non-Medicare plans for 2014, grading down to 5.0 percent for 2021 and thereafter. As of June 30, 2011, the date of the OPEB actuarial report, the unfunded OPEB liability was estimated to be $367.7 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~~Changes to assumptions 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~~13, the Board approved funding of an additional $25.0~~ million. During fiscal year 2013-14 the Board approved funding of an additional $100.0 million. Accordingly~~million, and accordingly, Metropolitan established an irrevocable OPEB trust fund in September 2013 with an initial deposit of $40.0 million~~, and deposited~~. During fiscal year 2013-14 the Board approved funding of an additional $100.0 million, and $25.0 million per month from May through August ~~2014.~~2014 was deposited into the irrevocable OPEB trust fund.

A June 30, 2013 actuarial valuation was released in February of 2014. This valuation indicates that the ARC in fiscal years 2014-15 and 2015-16 are $29.5 million and $30.3 million, respectively. As of June 30, 2013 the unfunded OPEB liability was estimated to be $315 million. This actuarial valuation used the same assumptions as the June 30, 2011 valuation except that actuarial gains and losses are amortized over a fixed 15 year period. As part of its biennial budget process, the Board approved the full funding of the ARC for fiscal years 2014-15 and 2015-16.

HISTORICAL AND PROJECTED REVENUES AND EXPENSES

The "Historical and Projected Revenues and Expenses" table below, for fiscal years 2010-11 and ~~2012-13,~~2011-12, 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 beginning in fiscal year 2012-13 and the financial projections for fiscal years 2014-15 through 2018-19 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 expenses 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.

Estimated revenues and expenses in the table below reflect, for fiscal year 2014-15, reflect actual financial results for the six-months ending December 31, 2014 and revised projections for the balance of the fiscal year, as reported to the Board in January 2015. Miscellaneous Revenues for fiscal year 2014-15, reflect the projected use of $59.4 million from the Water Management Fund, to fund a like amount of costs for replenishing storage, purchasing transfers and funding drought response programs. Fiscal year 2015-16 reflects the adopted budget for this year. For fiscal years 2016-17 through 2018-19, the projections 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, and~~2014. This includes the projected issuance of ~~additional bonds. Metropolitan anticipates issuing approximately~~ $140 million ~~aggregate principal amount of debt~~of bonds through fiscal year 2018-~~19~~19, to finance the CIP. 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 1.88 million acre-feet in fiscal year 2014-15. Water sales are projected to be 1.75 million acre-feet ~~in~~, for each of fiscal ~~year 2014-15~~years 2015-16 through fiscal year 2018-~~19, respectively.~~19. Rates and charges ~~will increase~~increased by 1.5 percent on January 1, 2015 and will increase by 1.5 percent on January 1, 2016. Rates and charges are projected to increase 3.0 percent to 5.0 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.

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

	Actual				Projected				
	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Water Sales[b]	$996	$1,062	$1,283	$1,485	$~~1,296~~1,395	$1,314	$1,338	$1,378	$1,422
Additional Revenue Sources[c]	153	168	173	182	199	199	196	198	202
Total Operating Revenues	1,149	1,230	1,456	1,667	~~1,495~~1,594	1,513	1,534	1,576	1,624
O&M, CRA Power and Water Transfer Costs[d]	(531)	(476)	(456)	(512)	(~~567~~671)	(577)	(587)	(613)	(640)
Total SWC OMP&R and Power Costs[e]	(322)	(316)	(337)	(342)	(~~361~~315)	(374)	(396)	(408)	(425)
Total Operation and Maintenance	(853)	(792)	(793)	(854)	(~~928~~986)	(951)	(983)	(1,021)	(1.065)
Net Operating Revenues	$ 296	$ 438	$ 663	$ 813	$~~567~~608	$562	$ 551	$555	$559
Miscellaneous Revenue[f][p]	74	56	23	19	~~17~~81	18	18	18	18
Sales of Hydroelectric Power[g]	22	31	25	15	~~19~~5	19	20	21	21
Interest on Investments[h]	17	11	(2)	19	~~16~~15	28	33	32	32
Adjusted Net Operating Revenues[i]	409	536	709	866	~~619~~709	627	622	626	630
Bonds and Additional Bonds Debt Service[j]	(277)	(297)	(298)	(343)	(~~276~~280)	(309)	(310)	(313)	(307)
Subordinate Revenue Obligations[k]	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Funds Available from Operations	$ 131	$ 238	$ 410	$ 522	$ ~~342~~428	$ 317	$ 311	$ 312	$ 322
Bonds and Additional Bonds Debt Service Coverage[l]	1.48	1.81	2.38	2.52	~~2.24~~2.54	2.03	2.01	2.00	~~2.06~~2.05
Debt Service Coverage on all Obligations[m]	1.47	1.80	2.37	2.51	~~2.23~~2.53	2.02	2.00	1.99	2.05
Funds Available from Operations	$ 131	$ 238	$ 410	$ 522	$ ~~342~~428	$ 317	$ 311	$ 312	$ 322
Other Revenues (Expenses)	(2)	(3)	(5)	(6)	(8)	(8)	(8)	(9)	(9)
Pay-As-You Go Construction	(45)	(45)	(55)	(117)	(245)	(221)	(200)	(204)	(201)
~~Water Transfer Capital Costs~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
Total SWC Capital Costs Paid from Current Year Operations	(119)	(112)	(88)	(68)	(~~68~~)61)	(72)	(83)	(84)	(89)
Remaining Funds Available from Operations	(35)	77	262	331	114 ~~21~~	16	20	15	23
Fixed Charge Coverage[n]	1.03	1.31	1.83	2.10	- ~~1.79~~2.08	1.64	1.58	1.57	1.59
Property Taxes	88	90	95	95	90	92	94	96	99
General Obligation Bonds Debt Service	(39)	(39)	(40)	(40)	(~~23~~22)	(23)	(23)	(19)	(14)
SWC Capital Costs Paid from Taxes	(49)	(51)	(55)	(55)	(~~67~~68)	(69)	(71)	(77)	(85)
Net Funds Available from Current Year[o]	$(35)	$77	$262	$331	$~~21~~114	$16	$20	$~~14~~15	$~~22~~23
PAYGO Funded from Prior Year Revenues						$~~(~~47~~)~~	$~~(~~75~~)~~	$~~(~~32~~)~~	
Operations Funded from Prior Year Revenues[p]					$(59)				

Source: Metropolitan.

(a) Unaudited. Prepared on a cash basis for fiscal years ended June 30, 2011 through fiscal year ending June 30, 2012, and on a modified accrual basis for fiscal years ending June 30, 2013 through June 30, 2019. 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~~2014-~~14~~15 include actual financial results for July ~~2013 March~~2014- December 2014 with revised projections for the balance of the fiscal year. (*Footnotes continued on next page*)

~~*(Footnotes continued on next page)*~~

(Footnotes continued from previous page)

(b) During the fiscal years ended June 30, 2011 through June 30, 2014, annual water sales (in acre-feet) were 1.63 million, 1.68 million (including 225,000 acre-feet of replenishment sales), 1.86 million, and 2.04 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 (in acre-feet) are ~~1.75~~1.88 million in fiscal years 2014-15, and 1.75 million for 2015-16, ~~2016-17, 2017-18, and~~ through 2018-19. Projections reflect Board adopted rate and charge increases of 1.5 percent, which ~~will become~~ became 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 expenses 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) May include lease and rental net proceeds, net proceeds from sale of surplus property, reimbursements, and federal interest subsidy payments for Build America Bonds. Federal interest subsidy payments for Build America Bonds in fiscal years 2014-15 to 2018-19 are projected to be $12.2 ~~million~~million and reflect a 7.3 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. For fiscal year 2014-15, reflects use of $59.4 million from the Water Management Fund.

(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~~17, $40 million in fiscal year 2017-18, and $100 million in fiscal year 2018-19. For fiscal years 2013-14 and 2014-15, reflects the defeasance of the 2004 Series B Water Revenue Refunding Bonds, payable on July 1, 2014, through a payment of ~~Metropolitan funds~~ $33.7 million 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.

(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 Water Revenue Refunding 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 Water Revenue Refunding 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 Water Revenue Refunding 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 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~~, $232 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.

(p) Reflects use of $59.4 million from the Water Management Fund.

MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES

Water Sales Revenues

Metropolitan relies on revenues from water sales for about 80 to 85 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 10, 2012, Metropolitan's Board adopted water rate increases of 5.0 percent, effective January 1, 2013 and January 1, 2014. On April 8, 2014, Metropolitan's Board adopted a 1.5 percent water rate increase, ~~to become~~which became effective January 1, 2015, and an additional 1.5 percent water rate increase to become effective January 1, 2016.

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 by the Board on April 8, 2014. 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, with rates projected to increase 3.0 percent to 5.0 percent per year. 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.

Increases in rates and charges reflect increasing operations and maintenance costs due primarily to an increase in retirement-related benefit costs, higher pay-as-you-go funding levels 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. However, 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.

Metropolitan's revenues exceeded expenses during fiscal year 2013-14, resulting in a substantial increase in its unrestricted reserves as of June 30, 2014. Metropolitan's unrestricted reserves were $487 million on June 30, 2014, on a modified accrual basis. On April 8, 2014, Metropolitan's Board approved the use of unrestricted reserves over the target level at June 30, 2014 as follows: $100 million deposit to the Replacement and Refurbishment Fund for pay-as-you-go funding of the CIP; $100 million deposited to the Other Post-Employment Benefits (OPEB) Trust; and the remaining amount of over target reserve levels, $~~252~~232 million, to a Water Management Fund, ~~$232 million of~~ which will cover costs associated with replenishing storage, purchasing transfers and funding drought response programs~~, and $20 million for conservation related programs~~. These amounts include $137 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).

Water Sales Projections

Water sales forecasts in the table above are: 1.88 million acre-feet in fiscal year 2014-15, and 1.75 million acre-feet ~~in~~, for each of fiscal years ~~2014-15~~2015-16 through 2018-19. 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 2010-11. 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 2004-05 through fiscal year 2013-14, actual water sales exceeded budgeted sales for the fiscal year in five fiscal years, with the greatest positive variance in fiscal year 2013-14 when actual sales of 2.04 million acre-feet were 120 percent of budgeted sales (1.70 million 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 1.63 million acre-feet were 84 percent of budgeted sales (1.93 million 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 Expenses

Operation and maintenance expenses in fiscal year 2013-14 were $854 million, which represented approximately 57 percent of total costs. These expenses 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.

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 fiscal year 2013-14 departmental expenses of $369 million were approximately 7.0 percent and 6.4 percent higher than expenses 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 2011-12, 2012-13 and 2013-14 were approximately $30.0 million, $18.4 million, and $29.6 million, respectively. Expenditures for electric power and transmission service for the State Water Project for fiscal years 2011-12, 2012-13 and 2013-14 were approximately $214.1 million, $218.1 million and $157.4 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, 2013 and June 30, 2014 were approximately 767,622 acre-feet and 1,117,578 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. However, Metropolitan ~~will~~did incur an obligation in ~~2014 and possibly in later years.~~2014. As of ~~October~~December 31, 2014, Metropolitan has spent approximately $3.3 million on cap and trade compliance instruments, such as allowances and offsets.

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CHAPTER 4

FUND POLICIES

INTRODUCTION

The Metropolitan Water District holds investments and cash balances in various funds (accounts) designated for certain purposes as follows:

- Operating Funds
- Debt Service Funds
- Construction Funds
- Rate Stabilization Funds
- State Water Contract Fund
- Trust and Other Funds

Within these categories the District currently maintains 60 active funds which are designated according to purpose. Depending on legal limitations, the individual funds are either restricted (can only be used for a designated purpose), or unrestricted (can be used for any lawful purpose at the discretion of the Board). This chapter will review the current and past reserve policies and analyze proposed policies for holding reserves for the purpose of providing stable and predictable Water Rates.

DESCRIPTION OF FUNDS

◆ OPERATING FUNDS

Operating funds include the *Operations and Maintenance Fund*, a restricted fund in which the District is required to maintain two months of projected operations and maintenance expense to comply with covenants made to holders of outstanding District revenue bonds. Within the *General Fund*, used for general purposes of the District, and the *Revenue Remainder Fund*, the District holds its working capital for emergencies and claims and for revenue shortfalls. The *Water Transfer Fund* is used to fund water transfer and storage programs, to purchase options on future water transfers and will be used to fund the initial filling of the Eastside Reservoir Project.

◆ Debt Service Funds

Debt service funds include all of the District's interest and principal funds used to pay debt service on the District's outstanding revenue and general obligation bonds, and interest on outstanding commercial paper. Also included are the revenue bond reserve funds held in accordance with bond covenants to satisfy debt service requirements if there are insufficient monies in the interest and principal funds.

◆ Construction Funds

Construction funds are designated to pay the design and construction costs of the District's ongoing capital improvement program. They include the *1966 G.O. Bond Construction Fund,* the *Revenue Bond Construction Fund,* the *Pay-As-You-Go Fund (PAYG),* and the *Commercial Paper Note Construction Fund.* The *PAYG Fund* is used to finance a portion of the capital program from current revenues, primarily from the sale of water, to reduce the need to issue debt. The *PAYG Fund* is discussed further in Chapter 5. The bond and commercial paper construction funds are used to finance capital works from proceeds from the sale of the associated debt instruments.

◆ Rate Stabilization Funds

Rate stabilization funds include the *Water Rate Stabilization Fund* and the *Water Treatment Surcharge Stabilization Fund.* These monies are used to smooth out and or mitigate future water rate increases and/or future increases in the treatment surcharge.

◆ State Water Contract Fund

The *State Water Contract Fund* is designated for payment of capital charges under the State Water Contract (SWC). Under Board policy the fund is required to hold a minimum balance on June 30 and December 31 of each year sufficient to pay the SWC capital charges due on July 1 and January 1, respectively. The *Special Tax Fund* holds annexation fees which are transferred to the State Contract Fund to pay a portion of the State contract capital charges.

◆ Trust & Other Funds

Monies held in the District's various trust funds can be used solely for the specific purposes for which the funds were created. The trust funds include the *Employee Deferred Compensation Trust Fund,* the *San Joaquin Reservoir Trust Fund,* the *Iron Mountain Landfill Closure/ Postclosure Maintenance Trust Fund,* the *Bond Excess Earnings Fund,* and escrow accounts held to pay certain costs and to defease certain maturities of outstanding bonds. Under revised federal regulations the *Employee Deferred Compensation Trust Fund* will not be carried as an asset on Metropolitan's financial statements after June 30, 1998.

◆ CURRENT FUND BALANCES

As of June 30, 1998, the District held the following amounts in investments and cash balances:

TABLE 1.
CASH AND INVESTMENTS BY FUND JUNE 30, 1998

	Restricted	Unrestricted		
(Dollars in Millions)		**Committed**	**Uncommitted**	**Total**
Operating Funds:				
General and Revenue Remainder Funds[1]		$ 175		$ 175
O&M Fund	$ 79			79
Water Transfer Fund	36			36
Water Standby Fund	–			–
Sub-Total Operating Funds	**$ 115**	**$ 175**	–	**$ 290**
Debt Service Funds:				
Debt Service Interest and Principal	145			145
Revenue Bond Reserve	15			15
Sub-Total Debt Service Funds	**$ 160**	–	–	**$ 160**
Construction Funds:				
Revenue Bond and Commercial Paper	589			589
Pay-As-You-Go		51	90	141
Sub-Total Construction Funds	**$ 589**	**$ 51**	**$ 90**	**$ 730**
Other Funds:				
Rate Stabilization Funds		111		111
State Water Contract Fund	69			69
Trust and Other Funds	202			202
Sub-Total Other Funds	**$ 271**	**$ 111**	–	**$ 382**
Total Funds:	**$ 1,135**	**$ 337**	**$ 90**	**$ 1,562**

(1) The General and Revenue Remainder Funds hold Metropolitan's "Working Capital" Reserve under the current reserve policies.

Restricted funds can only be used for the specific purpose for which they were created. The restriction can be by law, as with legally required bond funds, or by Board action, as with the Water Transfer Fund or the State Water Contract Fund.

Unrestricted funds can be used for any lawful purpose of Metropolitan but can be committed by Board policy for specific use as with the working capital funds held in the General Fund and the Revenue Remainder Fund or the Water Rate Stabilization Fund which is used to mitigate or smooth future rate increases.

REVIEW OF RESERVE POLICY

◆ BACKGROUND

A key financial objective of the District is to maintain flexibility in managing its financial resources. It is necessary to keep certain funds in reserve to comply with statutory,

covenanted, or contractual requirements. In a larger context, the financial obligations of the District must be met from current revenues or by issuance of debt, with reserves, maintained for financial security. An appropriate level for the magnitude of reserves has previously been established based on such factors as variability of operating revenues, the ratio of fixed costs to variable revenues, levels of risk considered acceptable and the overall financial security of the District.

Since the 1970's Metropolitan's Board has reviewed and changed Metropolitan's reserve policy six times. All of these changes considered: Metropolitan's overall financial condition, the reliance on variable commodity revenues, the total level of fixed obligations, variability in sales and other factors, and actual events as they occurred, to arrive at a method for deriving an appropriate level of reserves. The goal of each of these reviews by the Board was to develop a reserve policy that balanced financial security and water rate stability against the costs of the policy to the Member Agencies. History has shown the impacts to the water rate of not having a balanced policy. The extremely wet winter of 1983 so severally decreased fiscal year 1982-83 water sales revenues that nearly $30 million of the working capital reserve was used to meet current expenses. As a result in January 1984, the Board imposed an emergency mid-year water rate increase of 37 percent to raise needed revenue and restore depleted reserves.

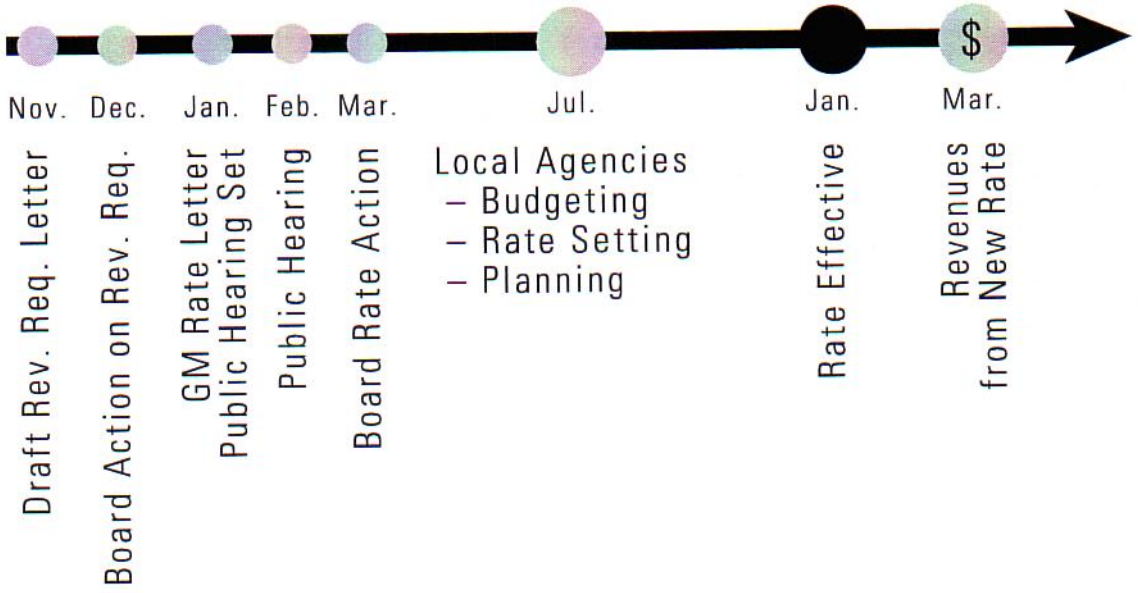
The relationship between continued reliance on variable commodity revenues and increasing levels of fixed costs along with the desire to provide financial security and rate stability without unduly burdening the Member Agencies has again prompted a review of Metropolitan's reserve policy. A review of the current reserve policy was conducted by staff and the Member Agency Finance Work Group (FWG) and an alternative method for determining appropriate reserve levels was developed. The alternative method establishes a process by which the Board makes an annual determination of a minimum and maximum reserve level that reflect current financial conditions and mitigate appropriate future risks.

Rate Stability The stability and predictability of Metropolitan's rates are very important to the region for a number of reasons. Largely due to the fact that Metropolitan has come to supply over 50 percent of the water used in the region, Metropolitan's water rates are often used as a benchmark against which investments in local resources are evaluated and the terms and conditions of transactions between agencies concerning local resources are determined. It has therefore become increasingly important for Metropolitan to consider the impact of rate changes not only in terms of the cost of imported water service, but also in terms of the impacts on local water resources planning and investments. Holding reserves sufficient to protect the water rate from changes caused by weather and other unexpected factors facilitates the resource planning and investment efforts made by local agencies by providing a stable and predictable water rate.

In order to provide local agencies with plenty of time to incorporate any changes in Metropolitan's rates into their own financial planning, budgeting and rate setting processes, Metropolitan determines its water rates well in advance of when the new

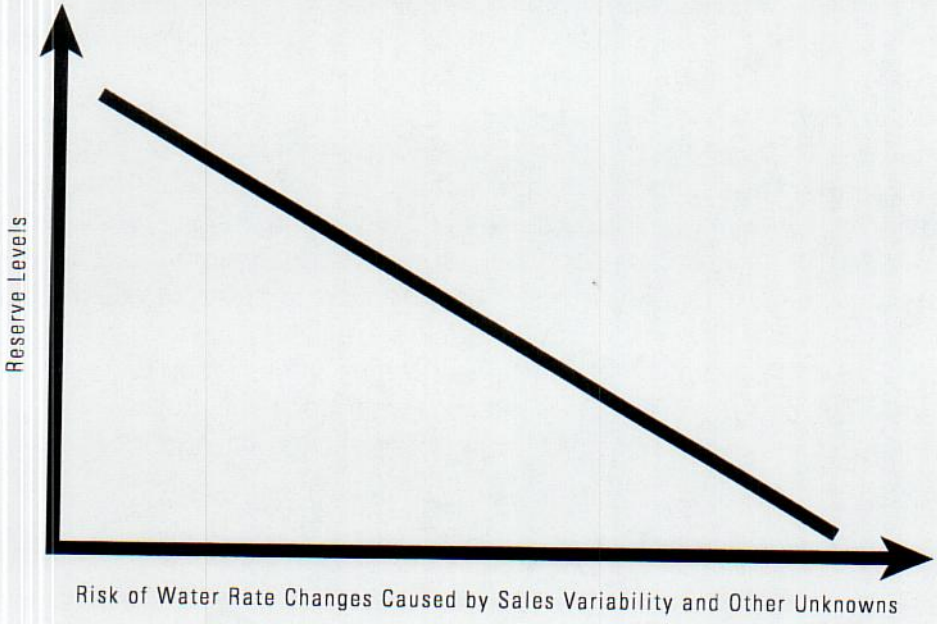
rates actually take effect. Figure 1 illustrates how Metropolitan's rate setting process begins in October when a draft determination of the revenue requirement is prepared for the Board's review. The Board takes action on the revenue requirement in December and receives a letter from the General Manager in January recommending the rates and charges for the year. After a public hearing in February, the Board either approves or modifies the General Manager's recommendation and adopts the rates and charges in March. After the Board's action in March, local agencies have about three months to prepare their budgets and rates (most local agencies operate under a July – June fiscal year), and an additional 6 months before the Metropolitan rates go into effect on January 1. However, because there is a two month billing cycle after an agency receives a delivery from Metropolitan, does not receive any increase in revenue from a rate change until March. Therefore, from the time Metropolitan's rate setting process begins in October until additional revenues are received from a rate change 18 months have elapsed. If properly designed, the reserve system can provide Metropolitan with enough flexibility to absorb any changes in revenues or costs that may occur during this period and not pass this uncertainty on to the local agencies.

FIGURE 1.
MWD RATE SETTING PROCESS



Underlying all of the above discussion about the importance of rate stability is a general relationship between reserve levels and the risk that the water rate will change due to weather conditions or some other unexpected factors. This relationship is illustrated in Figure 2, which shows that as reserve levels decrease the risk that the water rate will be influenced by weather or some other unexpected factors increases.

FIGURE 2.
TRADEOFF BETWEEN RESERVE LEVELS AND
RISK OF CHANGES TO WATER RATE



The remaining discussion of reserve policies in this Chapter centers around this concept. From a policy perspective, the challenge is in determining the degree to which Metropolitan's reserve system should protect the water rate from unexpected and unplanned changes.

Current Rate Stabilization Reserves Currently, Metropolitan reserves up to $350 million for the purpose of mitigating the need for water rate increases caused by periods of low sales revenue and other unexpected factors. These reserves are Metropolitan's working capital and the Water Rate Stabilization Fund (WRSF).

As described above, Working Capital is held in the Revenue Remainder and General Funds. Based on previous experience which has shown that a one year sales shortfall of up to 25 percent has occurred, the "Working Capital Requirement" is currently at a level of $150 million. In addition to the working capital, up to $200 million may be held in the WRSF to mitigate future rate increases by drawing on those funds to balance the annual budget in lieu of increasing current revenues.

If low sales or other factors completely deplete the WRSF, working capital would be used to meet expenses and the Board would need to make a decision regarding replenishment of reserve levels. In effect, the current policy uses working capital as a minimum reserve level and the $200 million cap in the WRSF acts as a maximum reserve level. If the WRSF is at the $200 million maximum balance, unused revenue flows into the PAYG Fund to meet the Board's policy of funding 20 percent of the CIP on a pay-as-you-go basis.

The Revenue Design Study Report conducted by Black and Veatch in 1992 recommended the current level of working capital. Most recently, as part of the 1995 update to the Long-Range Finance Plan, your Board acted to limit the total reserves in the WRSF to $200 million. The following sections present an alternative method for determining minimum and maximum reserve levels developed by Staff and reviewed by the MWD/Member Agency Finance Work Group. A discussion of the use of debt financing to meet operating costs in lieu of reserves when operating revenues are insufficient is also included. In addition, after extensive discussions with the Finance Work Group, the concept of "working cash" has been proposed which, together with the minimum/maximum concept, could replace the current working capital policy. The working cash proposal is discussed later in this chapter.

◆ ALTERNATIVE RESERVE POLICIES

Method Reviewed by Finance Workgroup The alternative methodology for determining an appropriate level of reserves that was reviewed by the Finance Work Group (FWG) also establishes a minimum reserve level and maximum reserve level. But, this alternative procedure relies on the Board to set the minimum reserve level and maximum reserve level to reflect changing financial conditions and assessments of future risks, rather than relying on static minimum and maximum reserve levels established at different points in time.

For the alternative methodology, minimum and maximum reserve levels are defined by parameters that indicate the risk of low water sales and/or other risk factors, given the most recent information.

Minimum Reserve Level at the end of each fiscal year the minimum reserve level would be determined as the difference between the expected water rate revenue requirement and the potential for low water sales revenue for the following 18 months. This amount would be adjusted for estimated reductions in variable power costs and offsetting reductions in interest income.

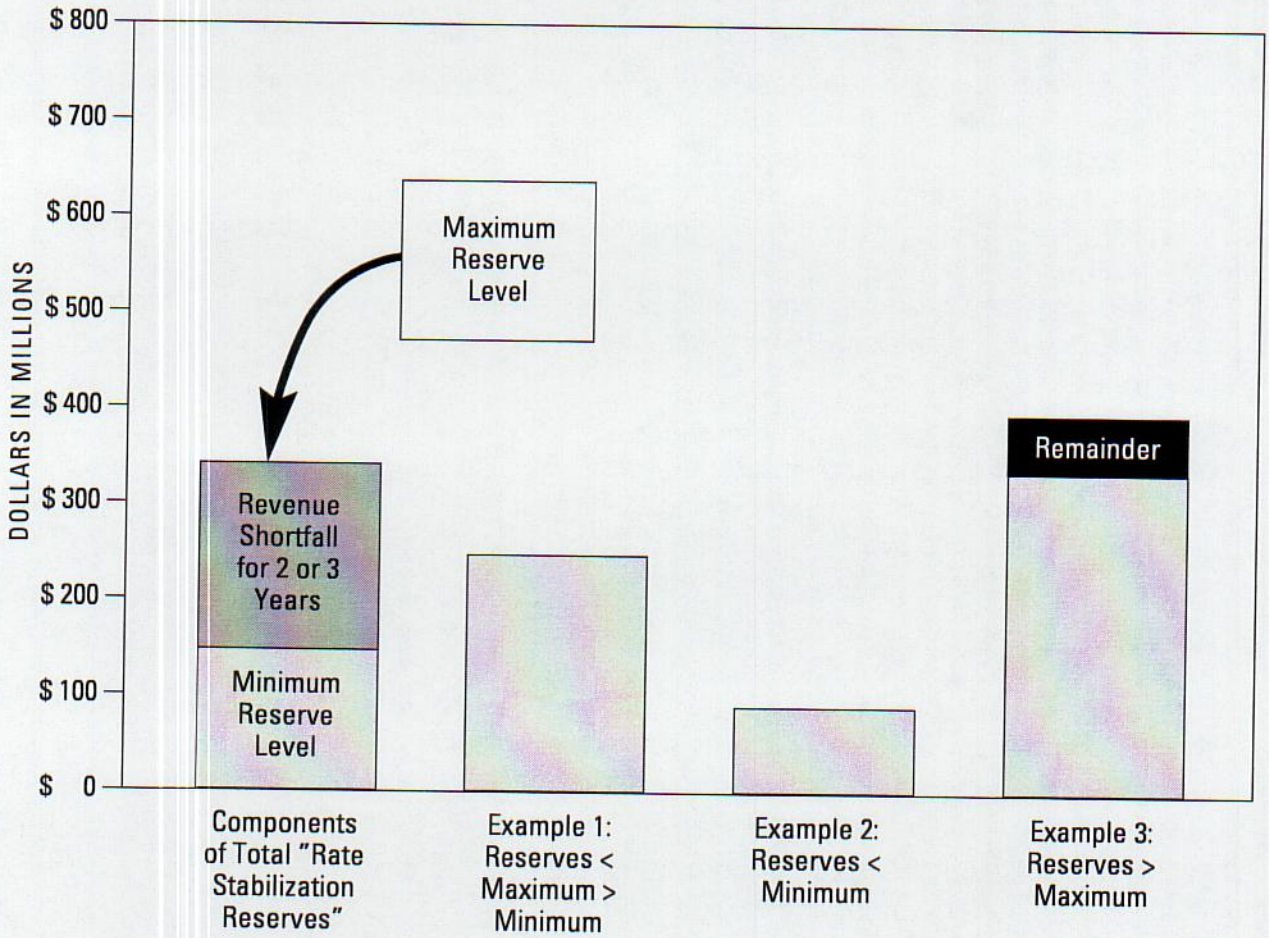
Maximum Reserve Level at the end of each fiscal year the difference between the expected water rate revenue requirement and low water sales revenues for the three or fewer years following the budget year would be estimated and added to the minimum reserve level. This amount would be adjusted for reductions in variable power costs and offsetting reductions in interest income, and as appropriately determined by the Board, other risk factors.

Figure 3 provides an example of how these parameters would help the Board determine an appropriate course of action given different situations that may occur in any given year.

It is assumed in Figure 3 that the Board determines that about $307 million is an appropriate maximum reserve level as of June 30, 1999 to insure against water rate increases caused by reductions in revenues due to wet weather and that other risk factors should not be reserved for. The minimum reserve level is determined to be approximately $130 million as of June 30, 1999. In Example 1, the reserves are greater than the minimum level and less than the maximum reserve level indicating that the

reserves are within an acceptable range and the reserve system is therefore effectively in balance. In Example 2, however, the reserves have fallen below the minimum level either due to an extended period of low sales or other factors and the Board, based on staff recommendations, must decide whether or not the minimum reserve level needs to be replenished or if some other action is appropriate. Finally, in Example 3, reserves are greater than the maximum level, thereby providing the Board with a decision point to determine how best to use the remainder that is over and above the maximum reserve level.

FIGURE 3.
MINIMUM AND MAXIMUM RESERVE LEVEL AND RESERVE FUND BALANCES



◆ PARAMETERS FOR THE REVENUE SHORTFALL RESERVES

As discussed above, as an alternative to the current working capital policy, a minimum revenue shortfall reserve level would be established to cover reasonably expected revenue shortfalls over an 18-month period. These funds would be held in the Revenue Remainder Fund. A maximum revenue shortfall reserve level would be established based on a 2 or 3 year water sales shortfall and held in the Water Rate Stabilization Fund and the Revenue Remainder Fund. The Board will make the determination of whether the 2 or the 3 year level of the maximum reserve is more appropriate. The minimum and maximum levels would serve as triggers for Board consideration of options when reserve levels fall below the minimum or exceed the maximum.

If the revenue shortfall reserves fall below the minimum, the Board consideration should include, at a minimum, the following options:

- Reduce capital costs and/or operating costs (including PAYG).
- Hold reserves at the reduced level and rely on future revenues.
- Issue debt to cover fixed cost obligations.
- Raise water rates.

If the revenue shortfall reserves exceed the maximum the Board should consider the following options:

- Use the funds in lieu of additional debt or to retire outstanding debt to reduce future water revenue requirements thereby providing a long term benefit to the member agencies.
- Reduce water rates.
- Offset or reduce Readiness-to-Serve charges.
- Hold the funds in the WRSF for unexpected needs.
- Refund money to the member agencies.
- Use the remaining funds for any other lawful purpose of the District.

Defining the Maximum Reserve Level **Because the reserve system exists to insure the water rate against unforeseen rate increases, the maximum reserve level should reflect the risk of unexpected water rate increases and the degree to which the Board wants to protect the water rate from these risks.** Low sales revenue caused by wet weather is the principal factor that could cause unexpected increases in the water rate and is therefore used to help define the maximum reserve level. Due to investments in storage programs, water transfers, and after the Eastside Reservoir Project is completed and filled, it is more likely that (at least for the next ten years) Metropolitan will have sufficient supplies under drought conditions and the financial impact of drought shortages is therefore considered to be less of a risk.

Periods of Low Sales Revenue Caused by Wet Weather Because Metropolitan is the supplemental wholesale supplier for its member agencies, large decreases in Metropolitan's water sales occur when wet weather decreases retail demands and increases local supplies through the natural replenishment of local groundwater basins, surface reservoirs, and higher Los Angeles Aqueduct deliveries. Chapter 3 provides a detailed discussion of the factors that affect Metropolitan's water sales.

The alternative reserve policy defines the risk of periods of low sales revenue differently from current policy in three important ways. First, the magnitude of the potential annual decrease in demands has been reduced from 500,000 acre-feet to the difference between expected normal weather demands and low demands estimated at the 95 percent exceedance level. Over the next five years this difference is expected to be about 320,000 acre-feet per year or about 16 percent of total normal demands. Establishing a lower bound on expected sales at the 95 percent exceedance level acknowledges that even during an extremely wet year there is a base level of water sales revenue available to MWD of about $500 to $550 million. It is important to note that this base level water sales revenue only accounts for the effects of weather and assumes that any wheeling through Metropolitan's system generates revenue similar to what would be generated by the water rate and/or provides significant benefits in the form of offsetting reductions in Metropolitan's revenue requirement.

Adjustments made to account for lower variable power costs and lower interest income make up the second important difference from the current methodology. When sales decrease, Metropolitan's variable power costs for pumping on the State Water Project and the Colorado River Aqueduct also decrease. An estimate of these avoided variable power costs is therefore used to reduce the maximum reserve level. However, the maximum reserve level is also adjusted upward to account for decreases in interest income that will occur as reserves are used over time to meet expenditures.

Third, because historical rainfall data indicates that wet years are more likely to occur within at least one year of each other or even consecutively, the alternative methodology extends the duration of a low sales period from 1 year to a range of 2 to 3 years. Two to three years was determined to be a reasonable range for the duration of a wet period by examining 118 years of Los Angeles Civic Center rainfall data (1879 to 1996). The rainfall data was analyzed to determine the probability that 2 and 3 wet years would occur within a three year period. Los Angeles Civic Center rainfall data was used for a proxy measure of regional weather because it is strongly correlated with rainfall data from other parts of the service area and Eastern Sierra snowpack, an indicator of Los Angeles Aqueduct deliveries. The rainfall data indicated that the probability of two out of three years being wet is 23 percent. The probability that 3 years in a row will be wet is 2 percent. These probabilities are only intended to indicate the past frequency of two out of three years being wet and three out of three years being wet. The actual probability that a particular event will occur and have certain impacts on reserve levels is dependent upon many factors, including not only hydrologic conditions in the current year but also conditions in the previous year(s) and may differ substantially from the probabilities given above. Sensitivity analysis conducted to try to estimate the probability of reserves declining below the minimum reserve level is presented later in this chapter.

Table 2 provides an example of how the Maximum Reserve Level for Fiscal Year 1998-99 would be calculated for a two or three year wet period under the Alternative Method reviewed by the FWG. For example, the Maximum Reserve Level for a two year wet period is the sum of the Minimum Reserve Level for Fiscal Year 1999-00 and the adjusted annual revenue shortfall for Fiscal Years 2000-01 and 2001-02.

TABLE 2.
ALTERNATIVE MAXIMUM RESERVE LEVEL(S) FISCAL YEAR 1998-99
($ IN MILLIONS)

Fiscal Year Ending	Water Rate Revenue Requirement Under Normal Weather	Water Rate Revenue at the 95% Exceedance Sales Level	Annual Revenue Shortfall	Estimated Reduction in Power Costs due to Lower Sales	Estimated Reduction in Interest Income	Adjusted Annual Revenue Shortfall	Minimum Reserve Level
	A	B	C=(A-B)	D	E	F=(C-D+E)	G=F* x 1.5
1999							127
2000	587	491	96	17	5	84	121
2001	604	515	89	19	11	81	153
2002	631	524	107	20	15	102	195
2003	670	537	133	21	18	130	
Fiscal Year Ending 1998-99 Maximum Reserve Balance for a 2 Year Wet Period: $310							
Fiscal Year Ending 1998-99 Maximum Reserve Balance for a 3 Year Wet Period: $440							

*F of the following year.

To determine the appropriate maximum level of reserves to insure the water rate against periods of low sales revenue caused by wet weather, the duration (in years) and probability of the period of low sales are the most important variables for the Board to consider. A longer duration (e.g. choosing to reserve for a three year wet period versus a two year wet period) is more likely to insure the water rate against any increases caused by wet weather but will result in a higher maximum reserve level. A shorter duration is more likely to lead to rate increases caused by an extended wet period but will result in a lower maximum reserve level. It is important to note that Metropolitan actually used $380 million from the Rate Stabilization Fund in the 3-year period from 1990-91 to 1992-93. Sensitivity analysis that tests the Maximum Reserve Levels estimated in Table 2 are presented later in this section along with estimated probabilities that reserves will fall below the minimum level. Although the MWD/Member Agency Finance Work Group did not agree on a single definition for the duration of a period of low sales, it was generally agreed that the duration of a period of low sales should be defined as being either 2 or 3 years, with the Board to determine the appropriate duration.

Other Risk Factors In addition to reductions in revenues caused by weather, there are several other factors (e.g. slower growth in sales, higher capital costs, etc.), that may unexpectedly affect the water rate and should therefore be considered in the review of Metropolitan's reserves. The potential impact of other risk factors is more difficult to quantify than the risk of revenue shortfalls due to weather because of the uncertainty surrounding the magnitude and timing of cost and revenue impacts and the unknown

probability that one or more of the factors will occur. To provide an indication of the other risks facing Metropolitan the following examples are provided as general rules of thumb that are helpful in understanding potential other risks.

- If regional economic growth is slower than current estimates, reducing projected sales by 50,000 acre-feet per year, annual water rate revenues could be about $18 million lower per year. The effect of economic growth on sales must be considered separately from the effects of weather.
- For every $100 million that debt financed capital costs exceed current estimates, annual debt service costs could be about $6 to $7 million more per year. The uncertainty surrounding future capital costs is due to the potential for system replacement costs beyond those currently anticipated for both the MWD and SWP systems.
- Although the original IRP estimate has been included in the current financial forecast, Metropolitan's cost for the Bay-Delta solution is unknown at this time. Total cost estimates for the three proposed alternatives range from $4 billion to $12 billion depending upon the selected alternative.
- The cost of the California Plan, designed to ensure that California lives within its entitlement of 4.4 million acre-feet of Colorado River Water, while also providing a full Colorado River Aqueduct, are also largely unknown at this time. Issues surrounding elements of the California Plan such as the proposed SDCWA/IID transfer, Off-Stream Storage costs and other Colorado River Programs are examples of Metropolitan's supply cost uncertainty.
- Salinity management issues could raise operating and capital costs.
- For every $10 per acre-foot that electric industry restructuring increases or decreases Metropolitan's average unit power cost, annual costs could increase or decrease by $18 to $22 million.
- Increasing public concern over water quality issues may impact Metropolitan's cost for providing treated water service sooner than anticipated.

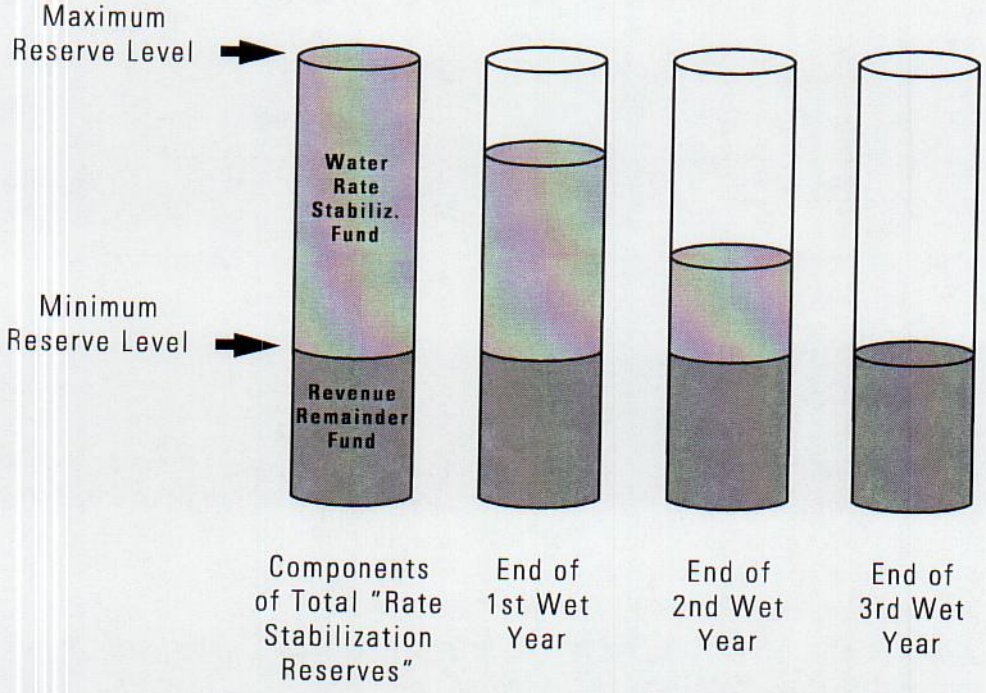
Although reserves can help mitigate rate increases caused by the above factors, it is not always possible, or in the best interests of the member agencies, to fund reserves in anticipation of major long-term changes in Metropolitan's cost or revenue structure. To account for the above risk factors in the Maximum Reserve Level the Board must decide if it is appropriate to hold reserves to mitigate water rate increases caused by these factors. **It should be recognized that many of the other risk factors listed may allow adequate lead time for the Board to consider water rate increases or other mitigating actions**. In addition, the majority of the above risk factors would constitute a long-term change in Metropolitan's cost or revenue structure and could not be indefinitely reserved against.

The Minimum Reserve Level If the Board determines that a water rate increase or cost decrease is required to replenish reserves, a minimum reserve level provides time for such actions to be considered, implemented and to take effect. Similar to the current reserve policy, the Minimum Reserve Level for the alternative methodology would be held in the Revenue Remainder Fund. At the end of each Fiscal Year, the Minimum Reserve Level would be calculated as the potential annual revenue shortfall for the following year and would be adjusted to account for estimated changes in variable power costs and interest income. This estimated annual amount would be increased by 50 percent, effectively allowing 18 months for Board action to replenish reserves to take effect. The first line of Table 2 summarizes how the estimated Minimum Reserve Level for Fiscal Year 1998-99 would be calculated.

The Relationship Between the Maximum and Minimum Reserve Levels For a wet period defined by the Board to not require Board action (i.e. no rate increase or operating cost decrease), the Maximum Reserve Level includes sufficient reserves to fund any shortfall in operating revenues for the duration of the wet period plus the Minimum Reserve Level. In other words, a Maximum Reserve Level designed to insure the water rate against a wet period lasting three years will fund the Minimum Reserve Level for three years and meet the Minimum Reserve Level at the beginning of the fourth year. A Maximum Reserve Level designed to insure the water rate against a wet period lasting two years will fund the Minimum Reserve Level for two years and meet the Minimum Reserve Level at the beginning of the third year.

Figure 4 illustrates the use of reserves over a three year wet period. At the end of the first wet year, low water sales revenue results in a transfer from the WRSF to the Revenue Remainder Fund in order to meet the Minimum Reserve Level. At the end of the second wet year the transfer is repeated, further decreasing the balance of the WRSF. By the end of the third wet year all of the WRSF has been used to meet the Minimum Reserve Level three times. Although the Board may elect to take action prior to the end of the third wet year, no action is required until the end of the third year because sufficient reserves were held in the initial Maximum Reserve Level to fund the Minimum Reserve Level for the beginning of the fourth year. However, this risks depletion of the minimum reserve level prior to receipt of new revenues from a rate increase.

FIGURE 4.
USE OF RATE STABILIZATION RESERVES



Sensitivity Analysis Sensitivity analysis was conducted to test the Maximum Reserve Levels calculated in Table 2. First, the most recent water rate forecast, generated using expected normal demands, was held constant and ending year reserve balances were calculated for two and three year wet periods beginning in 2000. A lower initial reserve level of $200 million was also tested to illustrate how rapidly reserves can be drawn down below the minimum level by an extended wet period. The results of the analysis indicate that the $310 million Maximum Reserve Level is sufficient to fund the Minimum Reserve Level for a two year wet period, the $440 million Maximum Reserve Level is sufficient to fund the Minimum Reserve Level for a three year wet period, and an initial reserve level of $200 million could require a water rate increase or cost decreases as soon as next year if sales were low.

Figure 5 illustrates that if two wet years were to occur beginning in 2000, an initial reserve level of $200 million could result in reserves falling below the Minimum Reserve Level as early as Fiscal Year 1999-00. However, a Maximum Reserve Level of $310 million is sufficient to ensure that reserves do not fall below the Minimum Reserve Level for the duration of the two year wet period. The higher Maximum Reserve Level of $440 million, estimated for a three year wet period, adequately ensures that the reserves do not fall below the Minimum Reserve Level for the duration of the two year wet period.

FIGURE 5.
ANNUAL RESERVE BALANCES FOR A TWO YEAR WET PERIOD

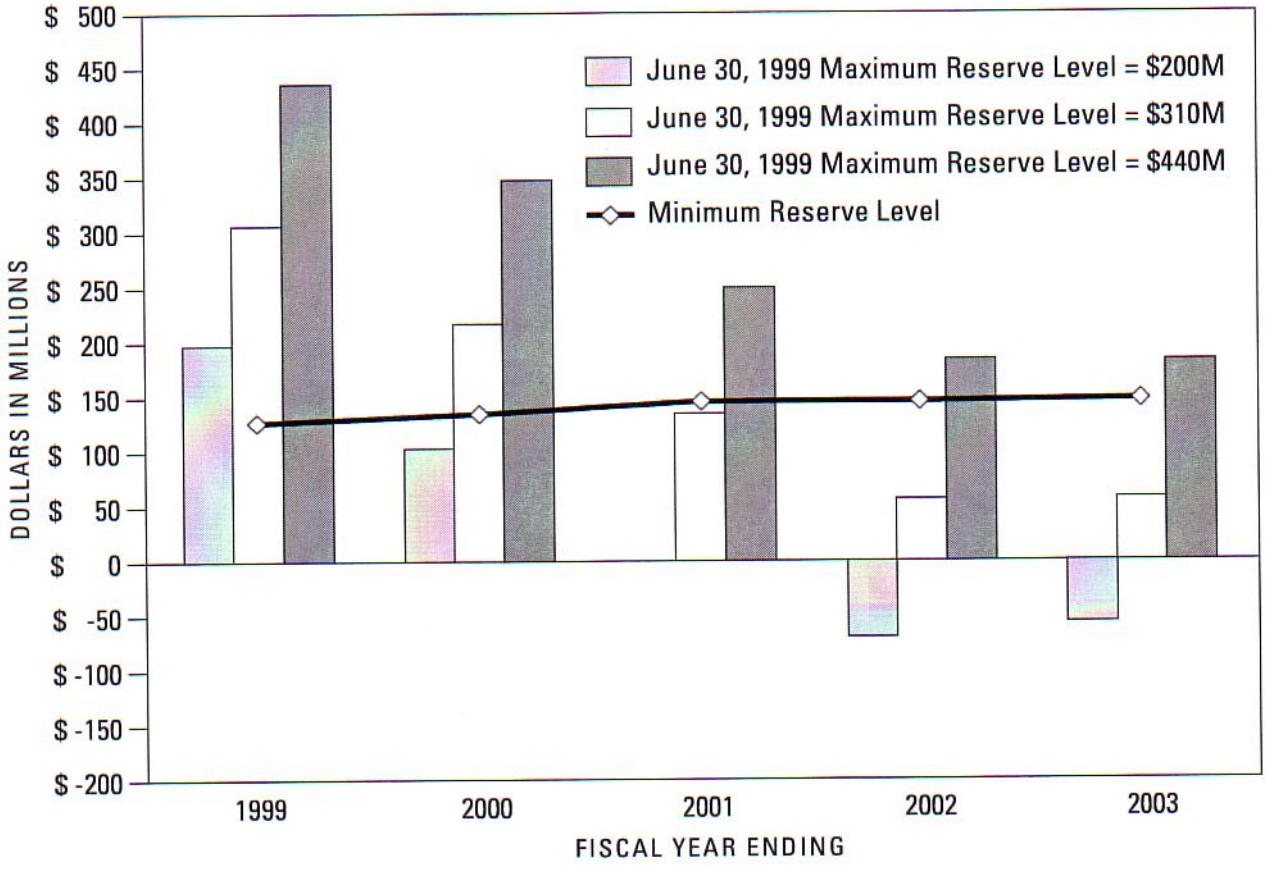
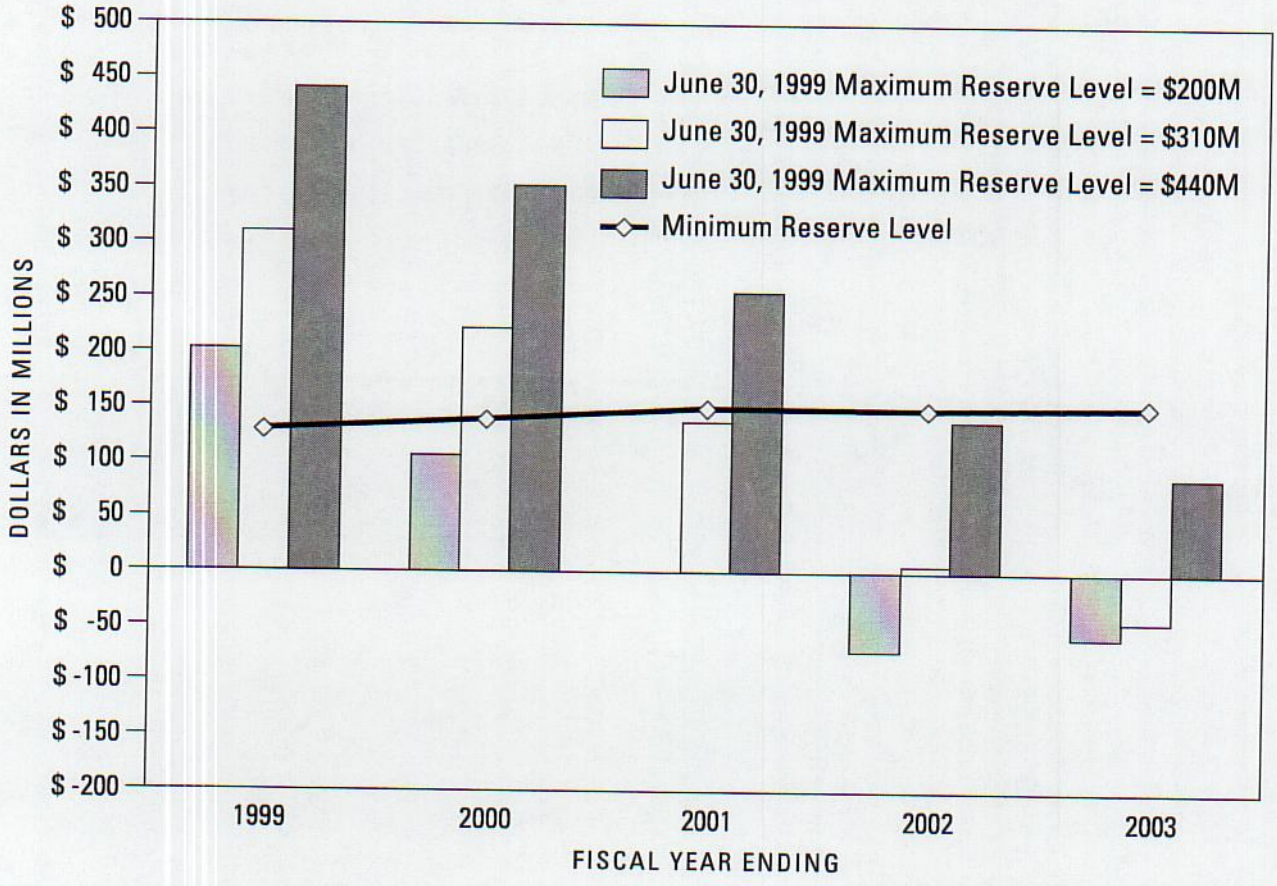


Figure 6 illustrates the effect of extending the duration of the wet period from two to three years. The result for all three initial reserve levels is identical to that shown in Figure 5 through Fiscal Year 2000-01. Although historic rainfall data indicates that the chance of a third consecutive wet year is relatively small (2 percent or less), if year 2002 were also wet, or if sales in previous years were lower than the levels used to define the maximum reserve levels from Table 2, reserves could fall below the minimum level if the reserve policy is based on a two year wet period. A Maximum Reserve Level of $440 million ensures that the reserves do not decrease below the Minimum Level for the duration of a three year wet period.

FIGURE 6.
ANNUAL RESERVE BALANCES FOR A THREE YEAR WET PERIOD



The second step in the sensitivity analysis estimated rate increases required to fund the Minimum Reserve Level in years when the reserves fell below the minimum. Table 3 shows the change in the water rate by year 2003 that could result from a two or three year wet period and different Maximum Reserve Levels. For an extreme example, combining an initial reserve level of $200 million with 3 consecutive wet years beginning in 2000, could increase the water rate by $61 dollars per acre-foot. However, an initial

Maximum Reserve Level of $440 million fully protects the water rate from a three year wet period and no water rate increase is necessary. Additionally, an initial Maximum Reserve Level of $310 million adequately protects the water rate from increases caused by a two year wet period, but, if a three year wet period were to occur, a $64 dollar per acre-foot increase in the water rate may be necessary to meet the Minimum Reserve Level.

TABLE 3.
INCREASE IN WATER RATE BY YEAR 2002
REQUIRED TO MAINTAIN MINIMUM RESERVE LEVEL

	Duration of Wet Period (Beginning 1999)	
June 30, 1998 Maximum Reserve Level ($ Millions)	2 Years	3 Years
$200M	$31	$61
$310M	**$ 0**	$64
$440M	**$ 0**	**$ 0**

Probability Analysis of Alternative Reserve Policy The alternative reserve methodology developed by staff and reviewed by the Finance Workgroup was further tested by generating projected reserve balances in each future year under 70 different hydrologic conditions (1922-1998). By counting the number of times that the reserve balances are estimated to fall below the minimum reserve level it is possible to calculate the probability that reserves will be below the minimum balance in any future year.

Table 4 summarizes the probability that reserves will fall below the minimum reserve level in the future. For example, if an initial maximum reserve level of $310 million (2 year wet period) is chosen by the Board, there is a 14.3 percent chance that reserves will fall below the minimum level by the end of Fiscal Year 2001-02. If the higher initial reserve balance of $440 million (3 year wet period) were selected by the Board, there is a 1.4 percent chance that reserves will decrease below minimum levels by the end of Fiscal Year 2001-02.

It is interesting to note that the higher probabilities shown in the later years result from the conditional effects of wet years occurring in previous years. In other words, as the forecast is extended there is a greater chance that reserve balances in the later years will be adversely impacted by events in previous years. This conditional dependence is an important factor to consider when evaluating appropriate reserve levels. For example, if the Board chooses to reserve for a 2 year wet period, the probability of reserves falling below the minimum reserve level increases from 14.3 percent in Fiscal Year Ending 2002 to 20.0 percent in Fiscal Year Ending 2003 because adding one year again captures 70 different weather conditions, some of which are wet.

TABLE 4.
ESTIMATED PROBABILITY OF RESERVES FALLING BELOW MINIMUM LEVEL

	Minimum Reserve Level	2 Year Wet Period Reserve	3 Year Wet Period Reserve
	Dollars in Millions		
Fiscal Year Ending			
1999	$127	0.0%	0.0%
2000	$121	0.0%	0.0%
2001	$153	2.9%	0.0%
2002	$195	14.3%	1.4%
2003	$191	20.0%	4.3%

(1) The probability of reserves falling below the minimum level is estimated from 70 different outcomes based on 1922-1991 hydrologic conditions. Each future years outcome is dependent on the simulated conditions in the prior year(s).

Simplified Formula for Determining Reserve Levels Although technically rigorous, the alternative formula (see Table 2) for determining reserve levels is not as easily calculated or explained as other methods which may serve to adequately define appropriate reserve levels. The ability for anyone interested in Metropolitan's reserves to simply calculate and understand the reasoning behind an appropriate reserve level is a significant advantage of a simpler formula. Some water agencies simply set their reserve levels based on a percentage of fixed costs recovered by variable commodity rates. The percentage of fixed costs is most often associated with the expected level of variability in sales and can be adjusted for other factors such as time lags associated with budgeting and rate setting cycles, reasonable expectations of periods of potential revenue shortfalls, and other adjustments.

The following example in Table 5 applies a simple formula to arrive at maximum reserve levels that are not unlike the maximum reserve levels derived from the more technical formula used in Table 2. Although the previous chapter stated that the expected variability in Metropolitan's sales could be as much as ±20 percent, the technical method reviewed by the Finance Workgroup assumed sales would vary annually by about 16 percent and included adjustments for changes in variable power costs and lost interest income. For the purposes of developing a simple formula for defining maximum reserve levels, a sales variability level of 17.5 percent was chosen to express the amount of fixed costs recovered by the water rate that should be included in the reserves. This percentage generates maximum reserve levels consistent with the technical method reviewed by the Finance Workgroup and supported by the analysis presented earlier in this chapter.

TABLE 5.
SIMPLIFIED APPROACH FOR DETERMINING RESERVE LEVELS

Dollars in Millions	Fiscal Year Ending 1999	1999-00	2000-01	2001-02	2002-03
Total Normal Water Rate Revenue Requirement		$595	$631	$670	$663
less Variable Costs		(105)	(113)	(109)	(105)
Fixed Costs Recovered by Water Rate		$490	$517	$562	$558
Percent Reserved		17.5%	17.5%	17.5%	17.5%
Reserved Amount		$ 86	$ 91	$ 98	$98
Fiscal Year Ending 1998-99 Reserve Components Minimum Reserve Level (18 months)	$129				
Maximum Reserve Level for 2 Wet Years	$318				
Maximum Reserve Level for 3 Wet Years	$415				

Using this simplified approach, the maximum reserve level can be simply defined at the end of each Fiscal Year as 17.5 percent of the fixed costs recovered by the water rates for the first 18 months immediately following the most recent fiscal year plus an additional 2 or 3 years.

Debt Financing Operating Revenue Shortfalls One alternative to holding cash reserves to mitigate unexpected revenue shortfalls would be to secure a line of credit (LOC) as a substitute for some amount of the rate stabilization reserves. Substituting a LOC for reserves would, however, impact Metropolitan's water rate, and debt capacity, and therefore its ability to finance capital, and possibly its long-term financial integrity.

In general, Metropolitan's Financial Advisor has identified the costs associated with substituting a LOC for each $100 million in reserves as $6.125 million per year. This estimate is made up of two components: (1) $6 million for the lost interest income earned on $100 million at 6 percent per year and (2) $0.125 for annual LOC fees. At current sales levels this cost translates into almost a $4 per acre-foot increase in the water rate. This cost does not include the interest cost (at commercial financing rates rather than tax-exempt rates) which would become payable on the principle amount of any drawdown.

Metropolitan's Financial Advisor has cautioned that the annual LOC fees are related to the District's liquidity and may increase as reserves decrease. Further, the Financial Advisor has cautioned that a policy of using a LOC to fund operating revenue shortfalls may impact Metropolitan's credit rating and further increase LOC annual fees.

This type of an arrangement would result in Metropolitan's rate payers paying interest and annual fees for the LOC versus earning interest (which helps reduce the water rate) on the reserves. To the extent that Metropolitan's reserves earn a return comparable to the interest on investments earned by the Member Agencies, the financial advantages of

substituting a LOC for a portion of Metropolitan's reserves are limited and are likely outweighed by the potential negative implications of such a policy over the long-term.

◆ WORKING CASH

The MWD/Member Agency Finance Work Group determined that Metropolitan's current definition of working capital was possibly inconsistent with established industry norms. The concept of working cash was developed as an alternative. The O&M Fund was identified as Metropolitan's true working cash. The O&M Fund, required under revenue bond covenants, holds funds to cover two months of O&M expenditures and is used to handle timing mismatches between receipt of revenues and payments of expenses. The working cash would work together with the minimum reserve level to ensure that Metropolitan can cover fixed costs during periods of short-term revenue shortfalls.

◆ SELF-INSURED RETENTION

Metropolitan currently maintains a self-insured retention reserve of $25 million for emergency repairs and claims. The monies are held in the Revenue Remainder Fund and have been considered part of the working capital. The MWD/Member Agency Work Group, as part of the redefining of working capital, recommended that the self-insured retention should be held in a separate fund and clearly identified as a reserve for this purpose.

◆ WATER TRANSFER FUND

The Water Transfer Fund is maintained to purchase water for storage programs, to purchase options for future water purchases, and to fund the filling of the Eastside Reservoir Project. The fund is currently scheduled to sunset in the year 2004. The Work Group with the exception of the San Diego County Water Authority, is in agreement with the purpose and management of the fund but feels that it needs to be re-evaluated after the Eastside Reservoir Project becomes operational.

◆ FLOW OF FUNDS

Metropolitan's current flow of funds ends with the Pay-As-You-Go Fund into which remaining monies on hand at year-end are placed after all other reserve requirements are satisfied. The Water Rate Stabilization Fund (WRSF) has been capped at $200 million with monies above this level flowing to the PAYG Fund. An alternative flow of funds has been suggested by the MWD/Member Agency Finance Work Group. The alternative would remove the cap from the WRSF and make this fund the last in the flow of funds, after the required balance in the PAYG Fund has been met.

In addition it was recommended that the year-end PAYG Fund requirement be revised. Current Board policy calls for the June 30 PAYG Fund balance to be equal to the amount budgeted for the following year's PAYG expenditures. It was noted that this level tends to be higher than needed to fund the PAYG program since revenues are raised during the year for PAYG purposes. The proposed revision is to set the June 30 PAYG Fund balance requirement at 1/2 of the amount budgeted for PAYG expenditures in the following year.

◆

Attachment 4

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Ten-Year Summary of Reserve Minimum, Target and Actual Reserves and Average Rate Increases

Fiscal Years 2004 through 2013

(Dollars in Millions)

Fiscal Year Ending June 30[1]	Minimum	Target	Reserves[2]	Average Rate Increase
2004	$159	$377	$365	2.0%
2005	153	383	339	4.4
2006	159	390	258	1.6
2007	167	411	290	3.4
2008	209	479	285	5.8
2009	216	535	323	14.3
2010	218	542	285	19.7
2011	191	483	236	7.5
2012	191	458	281	7.5
2013	198	474	536	5.0

[1] Fiscal years 2004 through 2012, on cash basis accounting. Fiscal year 2013, on a modified accrual basis of accounting.

[2] Combined balances in Water Revenue Remainder and Water Rate Stabilization Funds.