THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

BOARD ACTION

- **Board of Directors**
  Finance and Insurance Committee

2/14/2017 Board Meeting

8-1

Subject

Adopt CEQA determination and approve and authorize the distribution of Appendix A for use in the issuance and remarketing of Metropolitan's bonds

Executive Summary

This board letter requests authorization to finalize and distribute Appendix A to Metropolitan's bond offering statements for use with future financings. Following Board approval, staff will work with a finance team to finalize Appendix A for distribution to potential investors as part of an offering statement.

Details

Metropolitan's bond disclosures provide information to investors about Metropolitan's water supply, water delivery system, capital investment plan, governance and management, historical and projected revenues and expenses, and power sources and costs in an appendix to its offering statements titled Appendix A. Federal securities regulations require that bond disclosures not misstate facts that would be material to a reasonable investor in Metropolitan's bonds or omit material facts that, if undisclosed, would mislead investors.

Metropolitan's procedures to ensure compliance with Federal securities regulations include Board review and approval of Appendix A. Metropolitan's procedures provide for the Board's biannual approval of Appendix A, unless there are no financial transactions requiring an update. The Board's approval of the disclosures in Appendix A will support offering statements for financings through the next biannual update. Appendix A may be updated to describe events that occur after distribution of this letter, however, material updates to Appendix A for financings made prior to the Board's next biannual review will be provided to the Board for review and comment in advance of its use for a financing.

In the draft of Appendix A for approval in **Attachment 1**, substantive areas covered in the disclosure remain largely the same but changes have been made to the location, emphasis and context of the various elements of disclosure. **Attachment 2** reflects the changes to Appendix A that have been made to the disclosure since the Board's prior review of a draft dated July 6, 2016.

After Appendix A is approved, staff will work with a finance team, including disclosure counsel, bond counsel, underwriters, remarketing agents, a financial advisor, and counsel for underwriters and remarketing agents, where applicable, to finalize bond offering statements that include or incorporate Appendix A. Once finalized, the General Manager, or other designee of the Ad Hoc Committee authorized in Metropolitan's bond resolutions, will authorize distribution of the bond offering statements. (The Ad Hoc Committee is generally comprised of the Chairman of the Board, the Chairman of the Finance and Insurance Committee, and the General Manager.)

The bond offering statements are then electronically distributed to potential investors to provide material information concerning the issuance of bonds and the financial and operating condition of Metropolitan, to assist with investment decisions concerning the bonds. Appendix A will be posted on the Financial Information-Financial Reports section of the Finance page of Metropolitan's website, under "Investor Information and Related Reports," and on the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System.

Policy

Metropolitan Water District Disclosure Procedures

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is not defined as a project under CEQA because it involves continuing administrative activities, such as general policy and procedure making (Section 15378(b)(2) of the State CEQA Guidelines). In addition, the proposed action is not defined as a project because it involves other government fiscal activities, which do not involve any commitment to any specific project which may result in a potentially significant physical impact on the environment (Section 15378(b)(4) of the State CEQA Guidelines).

The CEQA determination is: Determine that the proposed action is not defined as a project and is not subject to CEQA pursuant to Sections 15378(b)(2) and 15378(b)(4) of the State CEQA Guidelines.

CEQA determination for Option #2:

None required

Board Options

Option #1

Adopt the CEQA determination that the proposed action is not defined as a project under CEQA and is not subject to CEQA, and

a. Approve the draft of Appendix A (**Attachment 1**) attached to this board letter;
b. Authorize the General Manager, or other designee of the Ad Hoc Committee, to finalize Appendix A, with changes approved by the General Manager and General Counsel; and
c. Authorize distribution of Appendix A, substantially in the form of the attached draft Appendix A and as finalized by the General Manager, or other designee of the Ad Hoc Committee, in connection with the sale or remarketing of bonds.

Fiscal Impact: Approval will enable Metropolitan to undertake bond issuance and remarketings which, in current market conditions, could result in attractive borrowing costs for capital needs and/or significant debt service savings.
Business Analysis: It is Metropolitan's practice to take advantage of favorable market opportunities to issue new debt, and to remarket and refund outstanding debt and realize debt service savings.

Option #2

Do not approve Option #1.
Fiscal Impact: Metropolitan would not have a current disclosure in order to participate in bond financings and therefore, would not be able to remarket variable rate debt as it comes due, refund existing debt that would forgo potentially significant reductions in debt service costs, and issue new debt to finance a portion of capital expenditures.
Business Analysis: Metropolitan would forgo the opportunity to take advantage of favorable market conditions to issue new debt and to remarket and refund outstanding debt and realize debt service savings.

Staff Recommendation

Option #1

2/2/2017

Gary Breaux
Chief Financial Officer/Assistant General Manager

Date

2/2/2017

Jeffrey Kightlinger
General Manager

Date

Attachment 1 – Appendix A
Attachment 2 – Appendix A (redline marked against prior Board Distribution Draft dated 7/6/16)

Ref# cfo12647206

Board Distribution Draft, 2/1/17

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, 2016. 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 "–Other Charges" 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 and asserting other claims. 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 18.8 million people lived in Metropolitan's service area in 2016, 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 2013, 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 economy of Metropolitan's service area is exceptionally diverse. In 2015, the economy of the six counties which contain Metropolitan's service area had a gross domestic product larger than all but eleven 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.

GOVERNANCE AND MANAGEMENT

Board of Directors

Metropolitan is governed by a 38-member Board of Directors, made up of representatives from all of Metropolitan's member agencies. 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 or fewer than 38 directors.

The Board includes business, professional and civic leaders. Directors are appointed by member agencies in accordance with those agencies' processes. They 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 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 her current 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 bachelor's degree in civil engineering from the University of Hawaii and a master's degree in civil/environmental engineering from Stanford University.

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 U.S. Bureau of Reclamation ("Bureau of Reclamation"), retiring from the Bureau of Reclamation 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.

Fidencio M. Mares, Interim Assistant General Manager/Chief Administrative Officer – Mr. Mares was appointed the Interim Assistant General Manager/Chief Administrative Officer in July 2015 and is responsible for the strategic direction and management of Metropolitan's administrative functions. His primary responsibilities include managing human resources, information technology, real property and administrative services. Prior to joining Metropolitan, Mr. Mares was the owner of the Mares Company, where he served as a consultant to companies in the overall assessment of their management programs and processes. Prior to becoming a consultant, Mares worked both in the private and public sectors, serving as vice president of human resources and corporate communications for Beckham Coulter and as chief administrative officer of BHP/Pacific Resources and President & CEO of Gas Operations. He worked for more than 15 years for The Gas Company in Hawaii and Southern California Edison Company. A graduate of the California State University, Fresno, he also serves on the National Board of Visitors (Distinguished Graduates) for the University.

Dee Zinke, Assistant General Manager/Chief External Affairs Officer– Ms. Zinke was appointed Assistant General Manager in January 2016. She is responsible for Metropolitan's communications, business 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 January 1, 2017 was 1,765, of whom 1,223 were represented by AFSCME Local 1902, 95 by the Supervisors Association, 294 by the Management and Professional Employees Association and 129 by the Association of Confidential Employees. The remaining 24 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 covered the period January 1, 2011 through December 31, 2016. The MOUs with the Management and Professional Employees Association and with AFSCME Local 1902 covered the period January 1, 2011 to December 31, 2016. The MOU with the Supervisors Association covered the period September 13, 2011 to December 31, 2016. Although the contracts with the bargaining units are expired, the provisions of such contracts will govern until a successor contract is negotiated. Negotiations are underway and are currently expected to be completed in early 2017.

Risk Management

Metropolitan is exposed to various risks of loss related to the design and construction of facilities, and the 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 coverages such as directors' and officers' liability, fiduciary liability and aircraft hull and liability coverage.

Metropolitan self-insures the first $5 million for workers' compensation with statutory excess coverage. The self-insurance retentions and reserve levels currently maintained by Metropolitan may be modified by Metropolitan's Board at its sole discretion.

METROPOLITAN'S WATER SUPPLY

General

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. 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. Water management programs supplement these Colorado River supplies. To secure additional supplies, Metropolitan also has groundwater banking partnerships and water transfer and storage arrangements within and outside its service area. Metropolitan's principal water supply sources, and other supply arrangements and water management are more fully described herein.

Metropolitan faces a number of challenges in providing adequate, reliable and high quality supplemental 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; (4) increased environmental regulations; and (5) climate change. 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." In addition, Metropolitan manages water supplies in response to the prevailing hydrologic conditions by implementing its Water Surplus and Drought Management ("WSDM") Plan, and in times of prolonged or severe shortages, the Water Supply Allocation Plan (the "Water Supply Allocation Plan"). See "CONSERVATION AND WATER SHORTAGE MEASURES–Water Surplus and Drought Management Plan" and "–Water Supply Allocation Plan."

Hydrologic conditions can have a significant impact on Metropolitan's imported water supply sources. For Metropolitan's State Water Project supplies, precipitation in California's northern Sierra Nevada during the fall and winter helps replenish storage levels in Lake Oroville, a key State Water Project facility. The subsequent runoff from the spring snowmelt helps satisfy regulatory requirements in the San Francisco Bay/Sacramento-San Joaquin River Delta ("Bay-Delta") bolstering water supply reliability in the same year. See "–State Water Project – Bay-Delta Proceedings Affecting State Water Project." The source of Metropolitan's Colorado River supplies is primarily the watersheds of the Upper Colorado River basin in the states of Colorado, Utah, and Wyoming. Although precipitation is primarily observed in the winter and spring, summer storms are common and can affect water supply conditions.

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 and Colorado Basin 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 of imported water. 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.

Current Water Conditions

Following the drought period from 2012-2015, current hydrologic conditions have improved. As of January 10, 2017, the northern Sierra precipitation was 221 percent of normal with a snowpack accumulation that was 124 percent of normal. The storage level in Lake Oroville, the principal State Water Project reservoir, was 74 percent of normal. On January 18, 2017, the California Department of Water Resources ("DWR") notified State Water Contractors that its calendar year 2017 allocation estimate to State Water Contractors was 60 percent of contracted amounts, or 1,146,900 acre-feet for Metropolitan. (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.) See "–State Water Project."

As of January 10, 2017, the Upper Colorado River Basin snowpack measured 161 percent of normal and total system storage in the Colorado River Basin was 49 percent of capacity. As of such date, projected net diversions of Colorado River water in calendar year 2017 were estimated to be 886,000 acre-feet. See "–Colorado River Aqueduct."

See also "–Storage Capacity and Water in Storage."

Integrated Water Resources Plan

Overview. The Integrated Water Resources Plan ("IRP") is Metropolitan's principal water resources planning document. Metropolitan, its member agencies, subagencies and groundwater basin managers developed their first IRP as a long-term planning guideline for resources and capital investments. The purpose of the IRP was the development of a portfolio of preferred resources to meet the water supply reliability and water quality needs for the region in a cost-effective and environmentally sound manner. The first IRP was adopted by the Board in January 1996 and has been subsequently updated in 2004, 2010 and 2015.

On January 12, 2016, Metropolitan's Board adopted the most recent IRP update (the "2015 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 2015 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 2015 IRP Update seeks to provide regional reliability through 2040 by stabilizing Metropolitan's traditional imported water supplies and continuing to develop additional conservation programs and 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 seawater desalination.

Specific projects that may be developed by Metropolitan in connection with the implementation of the 2015 IRP Update will be subject to future Board consideration and approval, as well as environmental and regulatory documentation and compliance. The 2015 IRP Update and associated materials are available on Metropolitan's website at: http://www.mwdh2o.com/AboutYourWater/Planning/Planning-Documents/Pages/default.aspx. The information set forth on Metropolitan's website is not incorporated by reference.

An Adaptive Management Strategy. Adaptive water management, as opposed to a rigid set of planned actions over the coming decades, is the most nimble and cost-effective manner for Metropolitan and local water districts throughout Southern California to effectively prepare for the future. An adaptive

management approach began to evolve with Metropolitan's first IRP in 1996, after drought-related shortages in 1991 prompted a rethinking of Southern California's long-term water strategy. Reliance on imported supplies to meet future water needs has decreased steadily over time, replaced by plans for local actions to meet new demands. The 2015 IRP Update continues to build a robust portfolio approach to water management.

The following paragraphs describe the goals, approaches and targets for each of the resource areas that are needed to ensure reliability under planned conditions.

State Water Project. The State Water Project is one of Metropolitan's two major sources of water. The goal for State Water Project supplies is to adaptively manage flow and export regulations in the near term and to achieve a long-term Bay-Delta solution that addresses ecosystem and water supply reliability challenges. Achieving this goal will require continued participation and successful outcomes in the California WaterFix and the California EcoRestore efforts. See "–State Water Project" and "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A. The stated goal of the IRP is to manage State Water Project supplies in compliance with regulatory restrictions in the near-term for an average of 980,000 acre-feet of annual supplies, and to pursue a successful outcome in the California WaterFix and California EcoRestore efforts for long-term average supplies of approximately 1.2 million acre-feet annually from this resource. See "–State Water Project – Bay-Delta Proceedings Affecting State Water Project."

Colorado River Aqueduct. The CRA delivers water from the Colorado River, Metropolitan's original source of supply. Metropolitan has helped to fund and implement agricultural conservation programs, improvements to river operation facilities, land management programs and water transfers and exchanges through agreements with agricultural water districts in southern California, entities in Arizona and Nevada that use Colorado River water, and the Bureau of Reclamation. See "–Colorado River Aqueduct" and "–Water Transfer, Storage and Exchange Programs – Colorado River Aqueduct." The stated goal of the IRP for the CRA supplies is to maintain current levels of water supplies from existing programs, while also developing flexibility through dry-year programs and storage to ensure that a minimum of 900,000 acre-feet of CRA deliveries are available when needed, with a target of 1.2 million acre-feet in dry years.

Water Transfers and Exchanges. Under voluntary water transfer or exchange agreements, agricultural communities using irrigation water may periodically sell or conserve some of their water allotments for use in urban areas. The water may be delivered through existing State Water Project or CRA 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." The stated goal of the IRP is to pursue transfers and exchanges to hedge against shorter-term water demand and supply imbalances while long-term water supply solutions are developed and implemented.

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. With outdoor water use comprising at least 50 percent of residential water demand, Metropolitan has increased its conservation efforts to target outdoor water use reduction in its service area. See "CONSERVATION AND WATER SHORTAGE MEASURES." The stated goal of the IRP is to pursue further water conservation savings of 485,000 acre-feet annually by 2040 through continued increased emphasis on outdoor water-use efficiency using incentives, outreach/education and other programs.

Local Water Supplies. Local supplies are a significant and growing component to the region's diverse water portfolio. While the extent to which each member agency's water supply is provided by

imported water purchased from Metropolitan varies, in the aggregate, local supplies can provide over half of the region's water in a given year, and the maintenance of these supplies remain an integral part of the IRP. Similar to water conservation, local supplies serve the important function of reducing demands for imported water supplies and thereby making regional water system capacity and storage available and accessible to meet the needs of the region. Local water supply projects may include, among other things, recycled water, groundwater recovery, conjunctive use, and seawater desalination. Metropolitan offers financial incentives to member agencies to help fund the development of a number of these types of local supply projects. The stated goal of the IRP is to seek to develop 230,000 acre-feet of additional local supplies produced by existing and future projects, with the region reaching a target of 2.4 million acre-feet of total dependable local supply by 2040. See "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A.

State Water Project

Background

One of Metropolitan's two major sources of water is the State Water Project, which is owned by the State, and managed and operated by DWR. The State Water Project is the largest state-built, multipurpose, user-financed water project in the country. It was designed and built primarily to deliver water, but also provides flood control, generates power for pumping, is used for recreation, and enhances habitat for fish and wildlife. The State Water Project provides irrigation water to 750,000 acres of farmland, mostly in the San Joaquin Valley, and provides municipal and industrial water to approximately 25 million of California's estimated 39.2 million residents, including the population within the service area of Metropolitan.

The State Water Project's watershed encompasses the mountains and waterways around the Feather River, the principal tributary of the Sacramento River, in the Sacramento Valley of Northern California. Through the State Water Project, Feather River water stored in and released from Oroville Dam (located about 70 miles north of Sacramento, east of the city of Oroville, California) and unregulated flows diverted directly from the Bay-Delta are transported south through the Central Valley of California, over the Tehachapi Mountains and into Southern California, 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 long. See "METROPOLITAN'S WATER DELIVERY SYSTEM–Primary Facilities and Method of Delivery – State Water Project" in this Appendix A.

State Water Contract

In 1960, Metropolitan signed a water supply contract (as amended, the "State Water Contract") with DWR to receive water from the State Water Project. Metropolitan is one of 29 agencies and districts that have long-term contracts for water service from DWR (known collectively as the "State Water Contractors" and sometimes referred to herein as "Contractors"). Metropolitan is the largest of the State Water Contractors in terms of the number of people it serves (approximately 18.8 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 52 percent for 2016). Metropolitan received its first delivery of State Water Project water in 1972.

Pursuant to the terms of the State water contracts, all water-supply related expenditures for capital and operations, maintenance, power, and replacement costs associated with the State Water Project facilities are paid for by the State Water Contractors. In exchange, Contractors have the right to participate in the system, with an entitlement to water service from the State Water Project and the right to use the portion of the State Water Project conveyance system necessary to deliver water to them. Each year DWR estimates the total State Water Project water available for delivery to the State Water Contractors and allocates the available project water among the State Water Contractors in accordance with the State water contracts. DWR's total water supply availability projections are refined over the course of the winter season based

upon updated rainfall and snowpack values and allocations to the State Water Contractors are adjusted accordingly.

Metropolitan's State Water Contract has been amended a number of times since its original execution and delivery. Several of the amendments, entered into by DWR and various subsets of State Water Contractors, relate to the financing and construction of a variety of State Water Project facilities and improvements and impose certain cost responsibility therefor on the affected Contractors, including Metropolitan. For a description of Metropolitan's financial obligations under its State Water Contract, including with respect to such amendments, see "METROPOLITAN EXPENSES–State Water Contract Obligations" in this Appendix A.

Amendments, approved by Metropolitan's Board in 1995, and since executed by DWR and 27 of the State Water Contractors (collectively known as the "Monterey Amendment"), among other things, made explicit that the Contractors' rights to use the portion of the State Water Project conveyance system necessary to deliver water to them also includes the right to convey non-State Water Project water at no additional cost as long as capacity exists. These amendments also expanded the ability of the State Water Contractors to carry over State Water Project water in State Water Project storage facilities, allowed participating Contractors to borrow water from terminal reservoirs, and allowed Contractors to store water in groundwater storage facilities outside a Contractor's service area for later use. These amendments provided the means for individual Contractors to increase supply reliability through water transfers and storage outside their service area. Metropolitan has subsequently developed and actively manages a portfolio of water supplies to convey through the California Aqueduct pursuant to these contractual rights. See "–Water Transfer, Storage and Exchange Programs." The Monterey Amendment is the subject of ongoing litigation. See "–Related Litigation – Monterey Amendment Litigation" below.

Under its State Water Contract, Metropolitan has a contractual right to its proportionate share of the State Water Project water that DWR determines annually is available for allocation to the Contractors. This determination is made by DWR each year based on existing supplies in storage, forecasted hydrology, and other factors. Available State Water Project water is then allocated to the Contractors in proportion to the amounts set forth in "Table A" of their respective State water contract. Pursuant to Table A of its State Water Contract, Metropolitan is entitled to approximately 46 percent of the total annual allocation made available to State Water Contractors each year.

Metropolitan's State Water Contract, under a 100 percent allocation, provides Metropolitan 1,911,500 acre-feet of water. The 100 percent allocation is referred to as the contracted amount. Late each year, DWR announces an initial allocation estimate for the upcoming year, but periodically revises the initial estimate and subsequent estimates throughout the year if warranted by developing precipitation and water supply conditions. From calendar years 2004 through 2016, 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 under "–Water Transfer, Storage and Exchange Programs"), varied from a low of 593,000 acre-feet in calendar year 2015 to a high of 1,800,000 acre-feet in 2004. In calendar year 2016, DWR's allocation to State Water Contractors was 60 percent of contracted amounts, or 1,146,000 acre-feet, for Metropolitan.

On December 1, 2016, DWR announced an initial calendar year 2017 allocation of 20 percent. On December 21, 2016, DWR increased the allocation estimate to 45 percent. On January 18, 2017, DWR increased the allocation estimate to 60 percent of contracted amounts based on runoff from storms that increased the combined storage in Oroville and San Luis Reservoir by over 600,000 acre-feet. This increased allocation estimate reflects improving hydrologic conditions in California and increasing storage levels in the State's major reservoirs, but also takes into account federally mandated environmental restrictions that have been imposed upon water deliveries from the Bay-Delta, including the biological

opinions discussed below. See "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project – Delta Smelt and Salmon Federal ESA Biological Opinions." If necessary, Metropolitan may augment its State Water Project deliveries using withdrawals from its storage programs along the State Water Project and through water transfer and exchange programs. However, in light of current water conditions in California and the estimated 2017 allocation, supplies are expected to exceed projected demands and Metropolitan anticipates it will add water to its storage programs. See "–Water Transfer, Storage and Exchange Programs."

The term of Metropolitan's State Water Contract currently extends to December 31, 2035. Upon expiration of the State Water Contract term, Metropolitan has the option to continue service under substantially the same terms and conditions. Metropolitan and other State Water Contractors have undertaken negotiations with DWR to extend their State water contracts. In June 2014, DWR and the State Water Contractors reached an Agreement in Principle (the "Agreement in Principle") on an amendment to the State water contract to extend the contract and to make certain changes related to financial management of the State Water Project in the future. DWR and 25 of the State Water Contractors, including Metropolitan, have signed the Agreement in Principle. Under the Agreement in Principle, the term of the State water contract for each Contractor that signs an amendment would be extended until December 31, 2085. The Agreement in Principle will serve as the "proposed project" for purposes of environmental review under the California Environmental Quality Act ("CEQA"). DWR issued a Notice of Availability of the Draft Environmental Impact Report ("EIR") for the proposed project on August 17, 2016. The review period ended October 17, 2016. Following CEQA review, a State Water Project contract amendment will be prepared. Such amendment will be subject to review by the Legislature.

Bay-Delta Proceedings Affecting State Water Project

General. In addition to being a source of water for diversion into the State Water Project, the Bay-Delta is also the source of water for local agricultural, municipal and industrial needs, and, in addition, supports significant resident and anadromous fish and wildlife resources and important recreational uses of water. Both the State Water Project's upstream reservoir operations and its Bay-Delta diversions can at times affect these other uses of Bay-Delta water directly, or indirectly, through impacts on Bay-Delta water quality. A variety of proceedings and other activities are ongoing with the participation of various State and federal agencies, as well as California's environmental, urban and agricultural communities, in an effort to develop long-term, collectively-negotiated solutions to the environmental and water management issues concerning the Bay-Delta, and Metropolitan actively participates in these proceedings. Metropolitan cannot predict the ultimate outcome of any of the litigation or regulatory processes described below, but believes that a materially adverse impact on the operation of State Water Project pumps, Metropolitan's State Water Project deliveries or Metropolitan's water reserves could result.

SWRCB Regulatory Activities and Decisions. The State Water Resources Control Board (the "SWRCB") is the agency responsible for setting water quality standards and administering water rights throughout California. The SWRCB exercises its regulatory authority over the Bay-Delta by means of public proceedings leading to regulations and decisions that can affect the availability of water to Metropolitan and other users of State Water Project water. These include the Water Quality Control Plan ("WQCP") for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, 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 permits.

The WQCP gets reviewed periodically and new standards and allocations of responsibility can be imposed on the State Water Project as a result. The last review was completed in 2006, and the current review has been ongoing since approximately 2010.

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. In response to ongoing drought conditions in 2014 and 2015, DWR and the Bureau of Reclamation requested temporary relief from certain WQCP standards and filed petitions requesting changes to D-1641 terms that govern outflows and salinity standards in the Bay-Delta. The SWRCB approved temporary urgency changes in the Bay-Delta in 2014 and 2015, enabling water to be conserved in reservoirs in case of continued drought.

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 and disclosed the environmental impacts of a 30-year plan to improve the Bay-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.

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 was originally conceived 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 to be implemented over a 50-year time frame with corresponding long-term permit authorizations from fish and wildlife regulatory agencies. The BDCP includes both alternatives for new water conveyance infrastructure and extensive habitat restoration in the Bay-Delta.

In 2015, the State and federal lead agencies proposed an alternative implementation strategy and new alternatives to the BDCP to provide for the protection of water supplies conveyed through the Bay-Delta and the restoration of the ecosystem of the Bay-Delta, termed "California WaterFix" and "California EcoRestore," respectively. In this alternative approach, DWR and the Bureau of Reclamation would implement planned water conveyance improvements (California WaterFix) as a stand-alone project that would seek incidental take authorization for an unspecified period and would include only limited amounts of habitat restoration. The habitat restoration to be required would be that directly related to construction mitigation and the associated costs of such mitigation which would be underwritten by the public water agencies participating in the California WaterFix project. Ecosystem improvements and habitat restoration more generally (California EcoRestore) would be undertaken under a more phased approach than previously contemplated by the BDCP and would not be linked with the California WaterFix project or permits. Accelerated restoration actions totaling 30,000 acres of tidal marsh habitat were proposed to be undertaken in the coming decade to provide public benefits for listed fish in the Bay-Delta. (See also "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project.") Subsequent actions would be based on the proven merits of restoration. Preliminary cost estimates for the WaterFix alternative are currently estimated to be $17 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 project. The Final EIR/EIS for the BDCP/California WaterFix was completed and made available to the public and other agencies on December 22, 2016. The Notice of Availability of the Final EIR/EIS was published by the Bureau of Reclamation in the Federal Register on December 30, 2016. On January 4, 2017, the U.S. Secretary of the Interior issued an order to federal agencies involved in the California WaterFix stating the U.S. Fish and Wildlife Service will issue a final biological opinion by April 2017. A similar schedule is anticipated for the biological opinion to be issued by the National Marine Fisheries Service. Upon receipt of the biological opinions, the Bureau of Reclamation will be able to issue a Record of Decision for the project. Certification of the EIR/EIS under CEQA and final decision-making by DWR is expected at that same time. See also "–Endangered Species

Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project."

Related Litigation

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 Bay-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 WQCP, and the federal 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. In August 2016, the court dismissed the case without prejudice based on the failure of the petitioners to bring the case to trial within five years of filing their original petition.

Monterey Amendment Litigation. On May 4, 2010, DWR completed an EIR and concluded a remedial CEQA review for the Monterey Amendment, which reflects the settlement of certain disputes regarding the allocation of State Water Project water. See "– State Water Contract" above. 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). In January 2013, the Court ruled that the validation cause of action in Central Delta I was time barred by the statute of limitations. The court also held that DWR must complete a limited scope remedial CEQA review addressing the potential impacts of the Kern Water Bank, a portion of the Monterey Amendment that does not directly affect Metropolitan. The court also ruled that the State Water Project may continue to be operated under the terms of the Monterey Amendment while the remedial CEQA review is prepared and leaves in place the underlying project approvals while DWR prepares the remedial CEQA review. Plaintiffs appealed. Briefing by the parties was completed, but no date for oral argument has been set. Any adverse impact of this litigation and rulings on Metropolitan's State Water Project supplies cannot be determined at this time.

In September 2016, DWR certified the Final Revised Draft EIR for the Monterey Amendment, recorded a Notice of Determination, and filed papers in the trial demonstrating compliance with the court's order for remedial CEQA review. On October 21, 2016, the petitioner group from Central Delta I and a new lead petitioner, Center for Food Safety, filed litigation against DWR challenging this EIR and named Metropolitan and the other State Water Project contractors as respondent parties. Any adverse impact of this litigation and rulings on Metropolitan's State Water Project supplies cannot be determined at this time.

Colorado River Aqueduct

Background

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 (collectively, 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 can also 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.

Construction of the CRA, which is owned and operated by Metropolitan, was undertaken by Metropolitan to provide for the transportation of its Colorado River water entitlement to its service area. The CRA originates at Lake Havasu on the Colorado River and extends approximately 242 miles through a series of pump stations and reservoirs to its terminus at Lake Mathews in Riverside County. Up to 1.25 million acre-feet of water per year may be conveyed through the CRA to Metropolitan's member agencies, subject to availability of Colorado River water for delivery to Metropolitan as described below. Metropolitan first delivered CRA water to its member agencies in 1941.

Colorado River Water Apportionment and Seven-Party Agreement

Pursuant to the federal Boulder Canyon Project Act of 1928, 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 (the "Lower Basin States"). Under an agreement entered into in 1931 among the California entities that expected to receive a portion of California's apportionment of Colorado River water (the "Seven-Party Agreement") and which 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. 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 water apportioned to Arizona and Nevada that was not needed by those states. However, during the 1990s Arizona and Nevada increased their use of water from the Colorado River, and by 2002 no unused apportionment was available for California. As a result, California has limited its annual use to 4.4 million acre-feet since 2003, not including supplies made available under water supply programs such as intentionally-created surplus and certain conservation and storage agreements. In addition, a severe drought in the Colorado River Basin from 2000-2004 reduced storage in system reservoirs, ending the availability of surplus deliveries to Metropolitan. Prior to 2003, Metropolitan could divert over 1.25 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 approximately 1,179,000 acre-feet in 2015, and totaled over 996,000 acre-feet in 2016. Average annual net deliveries for 2007 through 2016 were approximately 962,000 acre-feet, with annual volumes dependent primarily on programs to augment supplies, including transfers of conserved water from agriculture. See "– Quantification Settlement Agreement" and "– Colorado River Operations: Surplus and Shortage Guidelines – Interim Surplus Guidelines" below. See also "–Water Transfer, Storage and Exchange Programs – Colorado River Aqueduct."

The following table sets forth the existing priorities of the California users of Colorado River water established under the 1931 Seven-Party Agreement.

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

Source: Metropolitan.

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

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

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

Quantification Settlement Agreement

The Quantification Settlement Agreement ("QSA"), executed by the Coachella Valley Water District ("CVWD"), Imperial Irrigation District ("IID") and Metropolitan in October 2003, establishes Colorado River water use limits for IID and CVWD, and provides for specific acquisitions of conserved water and water supply arrangements for up to 75 years. The QSA and related agreements provide a framework for Metropolitan to enter into other cooperative Colorado River supply programs and set aside several disputes among California's Colorado River water agencies.

Specific programs under the QSA and related agreements include lining portions of the All-American and Coachella Canals, which were completed in 2009 and 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 takes delivery of the remaining 16,000 acre-feet annually. The 16,000 acre-feet provided annually to Metropolitan will eventually 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. Also included under the QSA is a delivery and exchange agreement between Metropolitan and CVWD that provides for Metropolitan, when requested, 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. The QSA and related agreements also authorized the transfer of water (up to a maximum expected amount in 2021 of 205,000 acre-feet) annually by IID to SDCWA. See description below under the caption "– Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" below; 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 Palo Verde Land Management, Crop Rotation and Water Supply Program (described under "Water Transfer, Storage and Exchange Programs–Colorado River Aqueduct" below), which provides up to approximately 133,000 acre-feet of water per year. (Amounts of Colorado River water received by Metropolitan in 2007 through 2016 are discussed under the heading "– Colorado River Aqueduct–Colorado River Water Apportionment and Seven-Party Agreement" above.)

A complicating factor in completing the QSA was the fate of the Salton Sea. The Sea and its environs provide a habitat complex supporting more than 400 species of birds. Located at the lowest elevation of an inland basin and fed primarily by agricultural drainage with no outflows other than evaporation, the Salton Sea was naturally trending towards hyper-salinity, which had 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 flowing into the Salton Sea, which would reduce the volume of water in the Sea, exposing shoreline and accelerating the 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 2002, the SWRCB issued Water Rights Order 2002-0013, which gave approval for the transfer of water from IID to SDCWA and CVWD, and which required Salton Sea mitigation water deliveries from 2003 through 2017.

In 2003, to facilitate implementation of the QSA, the Legislature directed the Secretary for the California Natural Resources Agency to undertake a restoration study to determine a preferred alternative for the restoration of the Salton Sea ecosystem and the protection of wildlife dependent on that ecosystem. In May 2007, the Secretary submitted his $8.9 billion preferred alternative to the Legislature. While withholding authorization of the preferred alternative, in 2008 the Legislature directed the California Natural Resources Agency to undertake demonstration projects and investigations called for in the Secretary's May 2007 recommendation. Since then, the California Natural Resources Agency and the U.S. Fish and Wildlife Service have been developing various pilot-scale projects which are at various stages of planning and implementation.

Concerned that the California Natural Resources Agency has not made sufficient progress to develop a long-term restoration plan for the Salton Sea, in November 2014, IID filed a petition with the SWRCB asking it to modify the SWRCB's 2002 order. IID stated that it is concerned that the scheduled termination of mitigation water deliveries to the Salton Sea at the end of 2017 will result in the shrinking of the Sea and an increase in exposed playa and fugitive dust emissions. IID's petition requested that the SWRCB modify its order to include a requirement that "the State fulfill its statutory obligation to restore the Salton Sea as a

condition of the QSA transfers." See "– Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" below. The SWRCB has held various workshops to receive input on the petition.

During the spring of 2015, the Governor tasked a number of individuals from his staff, known as the "Salton Sea Task Force," to look into actions that could be taken at the Sea. In October 2015, the Salton Sea Task Force announced that it would implement a number of actions to address the Salton Sea ecosystem, including immediate implementation and further development of the Salton Sea management plan, meeting a short-term goal by 2020 of 9,000-12,000 acres of habitat creation and dust suppression projects and a medium-term goal after 2020 of 18,000-25,000 acres of habitat creation and dust suppression projects. In August 2016, the U.S. Department of the Interior and the California Natural Resources Agency entered into an MOU which outlines the manner in which federal agencies would cooperate with State and local agencies to assist the Salton Sea Task Force in achieving its stated goals. While projects that are currently underway or are anticipated to begin in 2017 are not expected to meet the Salton Sea Task Force's short-term goal, the Salton Sea Task Force continues its efforts to identify a long-term plan for the Salton Sea for construction to begin as early as 2018. In the absence of a Salton Sea restoration project, the QSA and related agreements provide for the control of exposed playa by IID as a mitigation measure funded by CVWD, IID, and SDCWA, with the State of California obligated to meet all mitigation costs that exceed $133 million in 2003 dollars. Metropolitan has no obligation to pay any costs associated with 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, then 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 agreement, 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–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 is challenging such charges. In 2016, 178,493 acre-feet were delivered to Metropolitan by SDCWA for exchange, consisting of 100,000 acre-feet of IID conservation plus 78,493 acre-feet of conserved water from the Coachella Canal and All-American Canal lining projects.

Colorado River Operations: Surplus and Shortage Guidelines

General. The Secretary of the Interior is vested with the responsibility of managing the mainstream waters of the lower Colorado River pursuant to federal law. Each year, the Secretary of the Interior is required to declare the Colorado River water supply availability conditions for the Lower Basin States in terms of "normal," "surplus" or "shortage" and has adopted operations criteria in the form of guidelines to determine the availability of surplus or potential shortage allocations among the Lower Basin States and revise reservoir operations for such conditions.

Interim Surplus Guidelines. In January 2001, the Secretary of the Interior adopted guidelines (the "Interim Surplus Guidelines"), initially for use through 2016, in determining if there is surplus Colorado River water available for use in California, Arizona and Nevada. The Interim Surplus Guidelines were amended in 2007 and now extend through 2026. The purpose of the Interim Surplus Guidelines was to provide mainstream users of Colorado River water, particularly those in California who utilize surplus flows, a greater degree of predictability with respect to the availability and quantity of surplus water.

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. In May 2002, the Southern Nevada Water Authority ("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 agreement, SNWA can request that Metropolitan store unused Nevada apportionment in California. The amount of water stored through 2014 under this agreement was approximately 205,000 acre-feet. In subsequent years, SNWA may request recovery of the stored water. As part of a 2012 executed amendment to the agreement, it is expected that SNWA will not request return of the water stored with Metropolitan before 2022. In October 2015, SNWA and Metropolitan executed an additional amendment to the agreement under which Metropolitan paid SNWA approximately $44.4 million and SNWA stored an additional 150,000 acre-feet with Metropolitan during 2015. Of that amount, 125,000 acre-feet has been added to SNWA's storage account with Metropolitan, increasing the total amount of water stored to approximately 330,000 acre-feet. When SNWA requests the return of any of the stored 125,000 acre-feet, SNWA will reimburse Metropolitan for an equivalent proportion of the $44.4 million based on the amount of water returned plus inflation. The stored water allowed Metropolitan to have a full water supply from the Colorado River in 2015.

Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead. In May 2005, the Secretary of the Interior directed the Bureau of Reclamation to develop additional strategies for improving coordinated management of the reservoirs of the Colorado River system. 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, particularly during drought and low reservoir conditions. These 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. Consistent with these legal protections, under the guidelines, Arizona and Nevada are first subject to the initial annual shortages identified by the Secretary up to 500,000 acre-feet.

The guidelines also created the Intentionally Created Surplus ("ICS") program, which allows the Lower Basin States to store conserved water in Lake Mead. Under this program, ICS water (water that has been conserved through an extraordinary conservation measure, such as land fallowing) is eligible for storage in Lake Mead by Metropolitan. See the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "–Storage Capacity and Water in Storage" below. The Secretary of the Interior delivers the stored ICS water to Metropolitan in accordance with the terms of December 13, 2007, January 6, 2010,

and November 20, 2012 Delivery Agreements between the United States and Metropolitan. As of January 1, 2017, Metropolitan had an estimated 71,000 acre-feet in its ICS 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, groundwater desalination, the Warren H. Brock Reservoir Project, and the Yuma Desalting Plant pilot run, which has not been delivered to the region.

Related Litigation

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 (described under "– Colorado River Operations: Surplus and Shortage Guidelines" above) 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, Central Arizona Water Conservation District ("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 were 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 (described under "– Colorado River Operations: Surplus and Shortage Guidelines" above). Metropolitan has used these new guidelines to store over 500,000 acre-feet of water in Lake Mead, a portion of which has been delivered, and the remainder of which may be delivered at Metropolitan's request in future years. 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. On September 19, 2014, the Navajo Nation appealed 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. Briefing by the parties was completed by May 20, 2015. Oral argument in the Ninth Circuit Court of Appeals has been set for February 14, 2017. 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.

Endangered Species Act and Other Environmental Considerations

Endangered Species Act Considerations – State Water Project

General. DWR has altered the operations of the State Water Project to accommodate species of fish listed as threatened or endangered under the Federal ESA or California ESA. 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, the longfin smelt is listed as a threatened species under the California ESA. These changes in project operations have limited the flexibility of the State Water Project and adversely affected State Water Project deliveries to Metropolitan. State Water Project operational requirements may be further modified in the future under new biological opinions for listed species under the Federal ESA or by the California Department of Fish and Wildlife's issuance of incidental take authorizations under the California ESA. 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 the water supply available for export. Such operational constraints are likely to continue until long-term solutions to the problems in the Bay-Delta are identified and implemented. See also "–State Water Project – Bay-Delta Proceedings Affecting State Water Project."

The Federal ESA requires that before any federal agency authorizes funds or carries out an action that may affect a listed species or designated critical habitat, 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.

Delta Smelt and Salmon Federal ESA Biological Opinions. The United States Fish and Wildlife Service (USFWS) released a biological opinion on December 15, 2008 on the impacts of the State Water Project and the federal Central Valley Project on Delta smelt. On June 4, 2009, the National Marine Fisheries Service (NMFS) released a biological opinion for salmonid species. The water supply restrictions imposed by these biological opinions on Delta smelt and salmonid species have a range of impacts on Metropolitan's deliveries from the State Water Project, depending on hydrologic conditions. The impact on total State Water Project deliveries to State Water Contractors attributable to the Delta smelt and salmonid species biological opinions combined is estimated to be one million acre-feet in an average year, reducing total State Water Project deliveries to State Water Contractors from approximately 3.3 million acre-feet to approximately 2.3 million acre-feet for the year under average hydrology. Reductions 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. Total State Water Project delivery impacts to Metropolitan for calendar years 2008 through 2016 are estimated to be 2.0 million acre-feet.

Endangered Species Act Considerations - Colorado River

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 (commencing in 2005). 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).

Invasive Species - Mussel Control Programs

Zebra and quagga mussels are established in many regions of the United States. 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. In January 2007 quagga mussels were discovered in Lake Mead. The most likely source of the quagga mussel infestation in the Colorado River was 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 CRA 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 CRA shutdowns, which have the added benefit of desiccating exposed quagga mussels. Control activities consist of continuous chlorination at Copper Basin, Lake Skinner outlet conduit, and Lake Mathews Forebay, quarterly chlorination of the outlet towers at Lake Skinner and Mathews, and physical removal of mussels from the trash racks in Lake Havasu. Recent shutdown inspections have demonstrated that the combined use of chlorine and regular cleaning during scheduled shutdowns effectively control mussel infestation in the CRA. Metropolitan's costs for controlling quagga mussels are between $4 million and $5 million per year.

Quagga and zebra mussel populations are located within 16 miles of the State Water Project. An isolated population of zebra mussels is established in San Justo Reservoir in Central California and Lake Piru in Southern California has been infested with quagga mussels since 2013. To prevent the further spread of the mussels into the State Water Project, the Bay-Delta and other bodies of water and water systems, DWR has joined the California Department of Fish and Wildlife, as the lead agency, and other state and federal agencies on a number of activities. These include boat inspections, monitoring of water bodies and water systems and education of the public. In addition, DWR has developed a Rapid Response Plan, Vector Management Plan, and Long-Term Mussel Management and Control Plan as mandated by the California Fish and Game Code.

On December 8, 2016, DWR found dead adult mussels in the Angeles Tunnel, which connects Pyramid Lake to Castaic Lake. On December 13, 2016, Metropolitan and DWR inspected a three mile section of the Angeles Tunnel where 10 more dead adult mussels were found. Through DNA testing, they were confirmed to be quagga mussels. As a result of such findings, the California Department of Fish and Wildlife has deemed the State Water Project West Branch (including Pyramid and Castaic Lakes) to be infested with quagga mussels and has implemented boat inspection requirements on boats leaving Pyramid Lake and Castaic Lake to help prevent the spreading of the invasive species. However, there is no evidence of reproducing mussel populations or clumps of mussels on submerged infrastructure. There are no impacts on delivery of State Water Project water at this time and the future level of mussel impacts is unknown. Metropolitan will increase the monitoring of mussels, coordinate with other agencies, and adapt the existing Quagga Mussel Control Program for the State Water Project West Branch.

Water Transfer, Storage and Exchange Programs

General

To supplement its State Water Project and Colorado River water supplies, Metropolitan has developed and actively manages a portfolio of water supply programs, including water transfer, storage and exchange agreements, the supplies created by which are conveyed through the California Aqueduct of the State Water Project, utilizing Metropolitan's rights under its State Water Contract to use the portion of the State Water Project conveyance system necessary to deliver water to it, or through available capacity on the CRA. Consistent with its IRP, Metropolitan will continue to pursue voluntary water transfer and exchange programs with State, federal, public and private water districts and individuals to help mitigate

supply/demand imbalances and provide additional dry-year supply sources. A summary description of certain of Metropolitan's supply programs are set forth below. In addition to the arrangements described below, Metropolitan is entitled to storage and access to stored water in connection with various other storage programs and facilities. See "–Colorado River Aqueduct" above 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."

State Water Project

In addition to the basic State Water Project contract provisions, Metropolitan has other contract rights that accrue to the overall value of the State Water Project. Because each contractor is paying for physical facilities, they also have the right to use the facilities to move water supplies associated with agreements, water transfers and water exchanges. Metropolitan has entered into agreements and exchanges that provide additional water supplies.

Castaic Lake and Lake Perris. Metropolitan has contractual rights to store up to 65,000 acre-feet of water in Lake Perris (East Branch terminal reservoir) and 153,940 acre-feet of water in Castaic Lake (West Branch terminal reservoir). This storage provides Metropolitan with additional options for managing State Water Project deliveries to maximize yield from the project. Any water used must be returned to the State Water Project within five years or it is deducted from allocated amounts in the sixth year.

Metropolitan Article 56 Carryover. Metropolitan has the right to store its allocated contract amount for delivery in the following year. Metropolitan can store between 100,000 and 200,000 acre-feet, depending on the final water supply allocation percentage.

California's agricultural activities consume approximately 34 million acre-feet of water annually, which is approximately 80 percent of the total water used in the State 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. The portfolio of supplemental supplies that Metropolitan has developed to be conveyed through the State Water Project California Aqueduct extend from north of the Bay-Delta to Southern California. Certain of these arrangements are described below.

Yuba River Accord. 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. The agreement permits YCWA to transfer additional supplies at its discretion. Metropolitan, other State Water 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, in dry years through 2025, available water supplies which have ranged from approximately 6,555 acre-feet to 67,068 acre-feet per year.

In addition to water made available under the Yuba River Accord, Metropolitan has developed groundwater storage agreements that allow Metropolitan to store available supplies in the Central Valley for return later. Metropolitan has also developed exchanges and transfers with other State Water Contractors.

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."

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 39,700 acre-feet of water and the maximum annual yield is 231,200 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."

Kern Delta Storage Program. Metropolitan entered into an agreement with Kern Delta Water District ("Kern Delta") in May 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 to permit Metropolitan, at Metropolitan's option, a return of up to 50,000 acre-feet of water annually during hydrologic and regulatory droughts.

Mojave Storage Program. Metropolitan entered into a groundwater banking and exchange transfer agreement with Mojave Water Agency ("Mojave") in October 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 Mojave'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 82,800 acre-feet of water. Metropolitan's current storage account under this program is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "–Storage Capacity and Water in Storage."

Antelope Valley East Kern Storage and Exchange Program. In 2016, Metropolitan entered into an agreement with the Antelope Valley-East Kern Water Agency ("AVEK"), the third largest State Water Project Contractor, to both exchange supplies and store water in the Antelope Valley groundwater basin. Under this agreement, AVEK would provide at least 30,000 acre-feet over ten years of its unused Table A State Water Project water to Metropolitan. For every two acre-feet provided to Metropolitan as part of the exchange, AVEK would receive back one acre-foot in the future. For the one acre-foot that is retained by Metropolitan, Metropolitan would pay AVEK under a set price schedule based on the State Water Project allocation at the time. The payment would range from $587/acre-foot under a 5 percent State Water Project allocation to $38/acre-foot under an 86 percent State Water Project allocation.

San Bernardino Valley Municipal Water District Coordinated Operating Agreement. Metropolitan entered into an agreement with the San Bernardino Valley Municipal Water District ("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. The program includes 50,000 acre-feet of storage capacity for the carryover of water purchased from SBVMWD. 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.

San Gabriel Valley Municipal Water District Exchange Program. In 2013, Metropolitan entered into an agreement with the San Gabriel Valley Municipal Water District ("SGVMWD"). Under this agreement, Metropolitan delivers treated water to a SGVMWD subagency in exchange for twice as much untreated State Water Project supplies delivered into the groundwater basin that supplies this agency and metropolitan subagencies. Metropolitan can purchase at least 5,000 acre-feet per year, in excess of the unbalanced exchange amount. This program has the potential to increase Metropolitan's reliability by providing 115,000 acre-feet through 2035.

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 "–Endangered Species Act and Other Environmental Considerations–Endangered Species Act Considerations - State Water Project." In 2016, Metropolitan entered into an agreement with the State Water Contractors, Inc. to pursue water transfer supplies. These purchases were not completed, however due to the 60 percent State Water Project allocation, which resulted in no conveyance capacity to move the transfer supplies to Metropolitan.

Metropolitan has also entered into an agreement with certain State Water Contractors for the exchange of a portion of its Colorado River supply for their State Water Project contracted amounts. One benefit of the agreement is reducing Metropolitan's State Water Project fixed costs in wetter years when there are more than sufficient supplies to meet Metropolitan's water management goals, while preserving its dry-year State Water Project Supply.

Metropolitan/CVWD/Desert Water Agency Exchange and Advance Delivery Agreement. Metropolitan has agreements with the CVWD and the Desert Water Agency ("DWA") in which Metropolitan exchanges its Colorado River water for those agencies' State Water Project contractual water on an annual basis. Because CVWD and DWA do not have a physical connection to the State Water Project, Metropolitan takes delivery of CVWD's and DWA'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 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/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." In addition to the CVWD/DWA exchange agreements, Metropolitan has entered into separate agreements with CVWD and DWA for delivery of non-State Water Project supplies acquired by CVWD or DWA. Similarly, Metropolitan takes delivery of these supplies from State Water Project facilities and incurs an exchange obligation to CVWD or DWA. From 2008 through 2016, Metropolitan has received a net additional supply of 88,527 acre-feet of water acquired by CVWD and DWA.

Colorado River Aqueduct

Metropolitan has taken steps to augment its share of Colorado River water through agreements with other agencies that have rights to use such water, including through cooperative programs with other water

agencies to conserve and develop supplies and through programs to exchange water with other agencies. These supplies are conveyed through the CRA. Metropolitan determines the delivery schedule of these supplies throughout the year based on changes in the availability of State Water Project and Colorado River water. Under certain of these programs, water may be delivered to Metropolitan's service area in the year made available or in a subsequent year as ICS water from Lake Mead storage. See "–Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead."

IID/Metropolitan Conservation Agreement. Under a 1988 water conservation agreement, as amended in 2003 and 2007 (the "1988 Conservation Agreement") between Metropolitan and IID, Metropolitan provided funding for IID to construct and operate a number of conservation projects that have conserved up to 109,460 acre-feet of water per year that has been provided to Metropolitan. As amended, the agreement's initial term has been extended to at least 2041 or 270 days after the termination of the QSA. In 2016, 105,000 acre-feet of conserved water was made available by IID to Metropolitan. Under the QSA and related agreements, Metropolitan, at the request of CVWD, forgoes up to 20,000 acre-feet of this water each year for diversion by CVWD. In 2015 and 2016, CVWD's requests were for 6,715 and an estimated 15,972 acre-feet, respectively, leaving 101,105 acre-feet in 2015 and an estimated 89,058 acre-feet in 2016 for Metropolitan. See "–Colorado River Aqueduct – Quantification Settlement Agreement."

Palo Verde Land Management, Crop Rotation and Water Supply Program. In August 2004, Metropolitan and the Palo Verde Irrigation District ("PVID") signed the program agreement for a Land Management, Crop Rotation and Water Supply Program. Under this program, participating landowners in the PVID service area are compensated for reducing water use by not irrigating a portion of their land. 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, an additional 24,100 acre-feet and 32,300 acre-feet of water, respectively, 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 under the Land Management, Crop Rotation and Water Supply Program with PVID:

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

Calendar Year	Volume (acre-feet)
2006	105,000
2007	72,300
2008	94,300
2009(1)	144,300
2010(1)	148,600
2011	122,200
2012	73,700
2013	32,750
2014	43,010
2015	94,480
2016(2)	125,000

Source: Metropolitan.

(1) Includes water from the supplemental fallowing program that provided for fallowing of additional acreage in 2009 and 2010.
(2) Estimate.

Lake Mead Storage Program. As described under "–Colorado River Aqueduct–Colorado River Operations: Surplus and Shortage Guidelines–Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead," in December 2007, Metropolitan entered into agreements to set forth the guidelines under which ICS water is developed, and stored in and delivered from Lake Mead. The amount of water stored in Lake Mead must be created through extraordinary conservation, system efficiency, or tributary conservation methods. Metropolitan has participated in projects to create ICS as described below:

Drop 2 (Warren H. Brock) Reservoir. In May 2008, Metropolitan provided $28.7 million to join the CAWCD and the 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 named the Warren H. Brock Reservoir). Construction was completed in October 2010 and the Bureau of Reclamation refunded approximately $3.71 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 water that would otherwise be lost from the system. In return for its funding, Metropolitan received 100,000 acre-feet of water that was stored in Lake Mead for its future use, and has the ability to receive up to 25,000 acre-feet of water in any single year. Besides the additional water supply, the addition of the Warren H. Brock reservoir adds to the flexibility of Colorado River operations by storing underutilized Colorado River water orders caused by unexpected canal outages, changes weather conditions, and high runoff into the Colorado River. As of January 1, 2016, Metropolitan had taken delivery of 43,992 acre-feet of this water, and had 56,008 acre-feet remaining in storage.

Yuma Desalting Plant. 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 approximately $8.4 million, of which approximately $1.1 million was refunded to Metropolitan. Metropolitan's yield from the pilot run of the project was 24,397 acre-feet. As of January 1, 2016, that water was stored in Lake Mead for Metropolitan's future use.

Mexico Pilot Project. 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 was $5 million for 47,500 acre-feet of project supplies. In December 2013, Metropolitan and IID executed an agreement under which IID has paid half of Metropolitan's program costs, or $2.5 million, in return for half of the project supplies, or 23,750 acre-feet. In addition, 23,750 acre-feet of conserved water will be credited to Metropolitan's binational ICS water account no later than December 31, 2017. See "–Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead."

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 CRA, is approximately 5.83 million acre-feet. In 2016, 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 biological opinions issued for listed species. See "–

Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project – Delta Smelt and Salmon Federal ESAs Biological Opinions." Metropolitan replenishes its storage accounts when available 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. See "CONSERVATION AND WATER SHORTAGE MEASURES–Water Supply Allocation Plan." 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 2014, Metropolitan withdrew approximately 1.2 million acre-feet from storage, reducing overall storage to approximately 1.8 million acre-feet. Approximately 300,000 acre-feet were withdrawn from storage reserves in 2015, leaving approximately 1.5 million acre-feet in storage reserves as of January 1, 2016. Approximately 352,000 acre-feet were returned to storage reserves in 2016, providing for 1.9 million acre-feet in reserves as of January 1, 2017. The following table shows three years of Metropolitan's water in storage as of January 1, including emergency storage.

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

Water Storage Resource	Storage Capacity	Water in Storage January 1, 2017	Water in Storage January 1, 2016	Water in Storage January 1, 2015
Colorado River Aqueduct				
Desert / CVWD Advance Delivery Account	800,000	38,000	200,000	249,000
Lake Mead ICS	1,500,000	71,000	80,000	151,000
Subtotal	**2,300,000**	**109,000**	**280,000**	**400,000**
State Water Project				
Arvin-Edison Storage Program	350,000	108,000	124,000	166,000
Semitropic Storage Program	350,000	125,000	137,000	194,000
Kern Delta Storage Program	250,000	99,000	119,000	150,000
San Bernardino Valley MWD Coordinated Operating Agreement	50,000	-0-	-0-	-0-
Mojave Storage Program	390,000[(5)]	27,000	31,000	39,000
Castaic Lake and Lake Perris[(2)]	219,000	154,000	30,000	-0-
Metropolitan Article 56 Carryover[(3)]	200,000[(6)]	213,000	3,000	36,000
Other State Water Project Carryover[(4)]	n/a	-0-	-0-	-0-
Emergency Storage	334,000	328,000	328,000	328,000
Subtotal	**2,143,000**	**1,054,000**	**772,000**	**913,000**
Within Metropolitan's Service Area				
Diamond Valley Lake	810,000	566,000	315,000	394,000
Lake Mathews	182,000	135,000	141,000	78,000
Lake Skinner	44,000	37,000	34,000	30,000
Subtotal[(7)]	**1,036,000**	**738,000**	**490,000**	**502,000**
Member Agency Storage Programs				
Cyclic Storage and Conjunctive Use	352,000	1,000	7,000	28,000

Total	**5,831,000**	**1,902,000**	**1,549,000**	**1,843,000**

Source: Metropolitan.

(footnotes on next page)

(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. Withdrawals must be returned within 5 years.
(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. The January 1, 2017 value includes 42,000 acre-feet of Article 56 carried over by Metropolitan on behalf of Desert Water Agency and Coachella Valley Water District.
(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 298,000 acre-feet of emergency storage in Metropolitan's reservoirs 2015, 2016, and 2017.

CONSERVATION AND WATER SHORTAGE MEASURES

General

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 "METROPOLITAN'S WATER SUPPLY–State Water Project – Bay-Delta Proceedings Affecting Water Supply" and "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project – Delta Smelt and Salmon Federal ESAs Biological Opinions." Conservation reduces the need to import water to deliver to member agencies through Metropolitan's system. Water conservation is an integral component of Metropolitan's IRP, WSDM Plan and Water Supply Allocation Plan.

Metropolitan's conservation program has largely been developed to assist its member agencies in meeting the "best management practices" ("BMPs") 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 most recent IRP Update. See "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan." Under the terms of the CUWCC MOU and Metropolitan's Conservation Credits Program, Metropolitan administers regional conservation programs and also 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 2015-16 was about $731 million. The 2015 IRP Update estimates that 1,197,000 acre-feet of water will be conserved annually in southern California by 2025. See also "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan" in this Appendix A and "–Drought Response Actions" below.

In addition to ongoing conservation, Metropolitan has developed a WSDM Plan, which splits resource actions into two major categories: Surplus Actions and Shortage Actions. See "–Water Surplus and Drought Management Plan." Conservation and water efficiency programs are part of Metropolitan's resource management strategy which makes up these Surplus and Shortage actions.

Metropolitan's Water Supply Allocation Plan allocates Metropolitan's water supplies among its member agencies, based on the principles contained in the WSDM Plan, to reduce water use and drawdowns

from water storage reserves. See "–Water Supply Allocation Plan." 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, 2011-12 and 2015-16.

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. 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 the 2009 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

In addition to the long-term planning guidelines and strategy provided by its IRP, Metropolitan has developed its WSDM Plan for the on-going management of its resources and water supplies in response to hydrologic conditions. 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

In times of prolonged or severe water shortages, Metropolitan manages its water supplies through the implementation of its Water Supply Allocation Plan. The Water Supply Allocation Plan was originally approved by Metropolitan's Board in February 2008, and has been implemented three times since its adoption, including most recently in April 2015. 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. In December 2014, the Board approved certain adjustments to the formula for calculating member agency supply allocations during subsequent periods of 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. See also "–Drought Response Actions."

On April 14, 2015, the Board declared a Water Supply Condition 3 and the implementation of the Water Supply Allocation Plan at a Level 3 Regional Shortage Level, effective July 1, 2015 through June 30, 2016. Implementation of the Water Supply Allocation Plan at a Level 3 Regional Shortage Level, and response to the Governor's Order and related implementing regulations (described under "–Drought

Response Actions"), reduced supplies delivered by Metropolitan to Metropolitan's member agencies to approximately 1.6 million acre-feet in fiscal year 2015-16. See also "CONSERVATION AND WATER SHORTAGE MEASURES–General." Due to improved hydrologic conditions, on May 10, 2016, the Board rescinded the Water Supply Allocation Plan, declared a Condition 2 Water Supply Alert, and decided not to implement the Water Supply Allocation Plan for fiscal year 2016-17. In April 2017, the Board will evaluate current water supply conditions and determine if implementation of the Water Supply Allocation Plan is needed for fiscal year 2017-18. In light of current hydrologic conditions and current DWR State Water Project allocation estimates, implementation of the Water Supply Allocation Plan for fiscal year 2017-18 is not currently expected.

Drought Response Actions

The most recent drought of 2012-2015 represents one of the driest periods in the hydrologic record since 1931-1934. In calendar years 2012-2015, to offset reductions in State Water Project supplies and mitigate impacts of the California drought, in addition to utilizing the limited available supplies from the Colorado River and State Water Project deliveries, Metropolitan met water demands in its service area by supplemental water transfers and purchases, and drawing on storage reserves, while also encouraging responsible and efficient water use to lower demands.

As noted under "–Water Supply Allocation Plan" above, actions taken in response to the drought by the State, Metropolitan's Board, and Metropolitan member agencies have contributed to reduced demands in Metropolitan's service area. Following the declaration by Governor Brown on January 17, 2014 of a drought state of emergency for California, on April 1, 2015 Governor Brown issued an Executive Order ("Order") calling for a 25 percent reduction in consumer water use in response to the historically dry conditions. The Governor's Order was implemented through emergency regulation adopted by the SWRCB. On May 18, 2016, the SWRCB adopted modifications to the emergency regulation which replace the state-mandated conservation targets with a supply-based approach that mandates urban water suppliers take actions to ensure at least a three year supply of water to their customers under drought conditions. As a wholesale water agency providing a supplemental water supply to its member agencies, Metropolitan is not subject to the requirements of the Order, which applies to retail water agencies. However, water sales of Metropolitan's member agencies have declined as a result of conservation efforts and other actions taken to comply with the Order and implementing regulation. In addition, since Governor Brown's initial drought emergency proclamation in January 2014, Metropolitan has worked proactively with its member agencies to conserve water supplies in its service area, and significantly expanded its water conservation and outreach programs and increased funding for conservation incentive programs. See "CONSERVATION AND WATER SHORTAGE MEASURES–General." In calendar year 2016, Metropolitan returned approximately 352,000 acre-feet of water to storage and continued to encourage responsible and efficient water use.

REGIONAL WATER RESOURCES

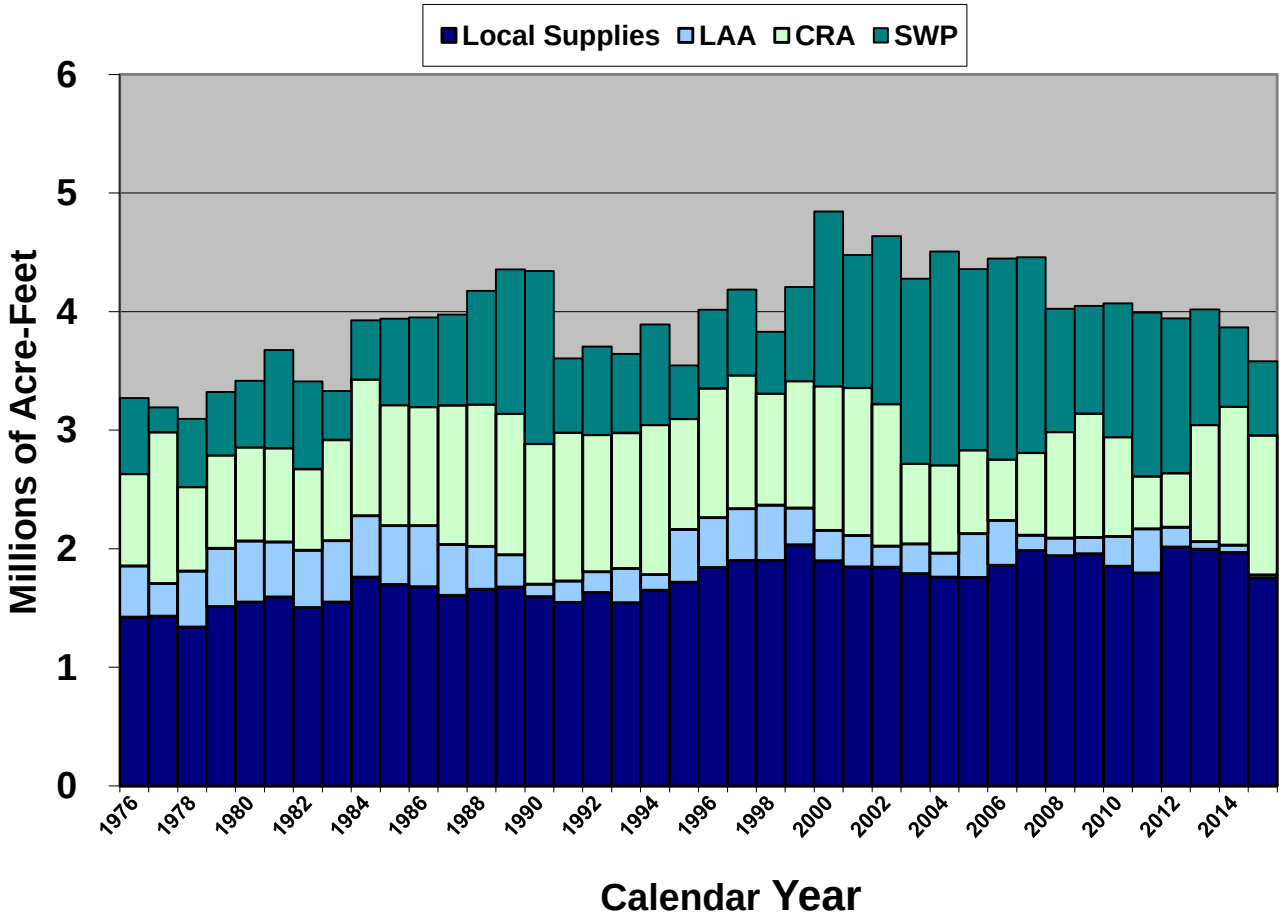
The water supply for Metropolitan's service area is provided in part by Metropolitan and in part by non-Metropolitan sources available to members. Approximately 60 percent of the water supply for Metropolitan's service area is imported water received by Metropolitan from the CRA and the State Water Project 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 "CONSERVATION AND WATER SHORTAGE MEASURES" 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 depend on, among other things, 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 1976 to 2015. Local supplies available within Metropolitan's service area are augmented by water imported by the City through the Los Angeles Aqueduct and Metropolitan supplies provided through the CRA and State Water Project.

Sources of Water Supply in the Metropolitan Service Area (1976-2015)



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 4,500 acre-feet annually when Mono Lake elevation is between 6,377 to 6,380 feet above mean sea level, and 16,000 acre-feet annually when the elevation is between 6,380 to 6,391 feet above mean sea level. As of April 1, 2016, the water level of Mono Lake was 6,378.1 feet above mean sea level. Therefore, Mono Basin water exports by the City will be limited to 4,500 acre-feet annually until the water level in Mono Lake reaches 6,380 feet above mean sea level. Once the elevation of Mono Lake reaches 6,391 feet above mean sea level, a moderate increase in water exports from the Mono Basin above the 16,000 acre-feet limit will be permitted pursuant to Decision 1631.

Pursuant to the City's turnout agreement with DWR, AVEK and Metropolitan, LADWP commenced construction in 2010 of the turnout facilities along the California Aqueduct within AVEK's service area. Upon completion, which is expected in 2017, 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 to the City in amounts not to exceed the supplies lost to the City as a result of its Eastern Sierra environmental obligations.

Historically, the Los Angeles Aqueduct and local groundwater supplies have been nearly sufficient to meet the City's water demands 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 2015-16, approximately 31 to 75 percent of the City's total water requirements were met by Metropolitan. For the five fiscal years ended June 30, 2016, the City's water deliveries from Metropolitan averaged approximately 348,680 acre-feet per year, which constituted approximately 64 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 442,000 acre-feet per year. See "METROPOLITAN REVENUES–Principal Customers" in this Appendix A. According to LADWP's 2015 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, 2015 of 14 percent to 47 percent of its normal year supplies by fiscal year 2039-40. Accordingly, the City's reliance on Metropolitan supplies is expected to decrease from the five year average ending June 30, 2016 of 64 percent to 11 percent of its normal year supplies by fiscal year 2039-40. However, the City may still purchase up to 311,000 acre-feet per year or 44 percent of its dry year supplies from Metropolitan until 2040. This corresponds to an increase from normal to dry years of approximately 237,000 acre-feet in potential demand for supplies from Metropolitan.

LADWP analyzed the additional impacts to the Los Angeles Aqueduct's water supply deliveries for various environmental projects aimed at improving air quality and fish and riparian habitat in the Owens Valley. In November 2014, LADWP reached an agreement over implementation of dust control measures on Owens Lake which saved approximately 12,000 to 14,000 acre-feet of water in 2015 and is expected to expand water savings in the future. LADWP reports that in 2016, 71,400 acre-feet of 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.

Local Water Supplies

Local water supplies are made up of groundwater, groundwater recovery, surface runoff, recycled water, and seawater desalination. Metropolitan supports local resources development through its Local Resources Program ("LRP"), which provides financial incentives up to $340 per acre-foot of water production from local water recycling, groundwater recovery and seawater desalination projects. Metropolitan utilizes conjunctive use of groundwater to encourage storage in groundwater basins. Member agencies and other local agencies have also independently funded and developed additional local supplies, including groundwater 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 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 1.35 million acre-feet per year, about one-third of the annual water demands for approximately 18.8 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.

Member Agency Storage Programs. Metropolitan has developed a number of local programs to work with its member agencies to increase storage in groundwater basins. Metropolitan has encouraged storage through its cyclic and conjunctive use storage programs. These programs allow Metropolitan to deliver water into a groundwater basin in advance of agency demands. Metropolitan has drawn on dry-year supply from cyclic storage accounts and nine contractual conjunctive use storage programs to address shortages from the State Water Project and the CRA.

Cyclic storage agreements allow pre-delivery of imported water for recharge into groundwater basins in excess of an agency's planned and budgeted deliveries making best use of available capacity in conveyance pipelines, use of storm channels for delivery to spreading basins, and spreading basins. This water is then purchased at a later time when the agency has a need for groundwater replenishment deliveries.

Conjunctive use agreements provide for storage of imported water that can be called for use by Metropolitan during dry, drought, or emergency conditions. During a dry period, Metropolitan has the option to call water stored in the groundwater basins pursuant to its contractual conjunctive use agreements. At the time of the call, the member agency pays Metropolitan the prevailing rate for that water. Nine conjunctive use projects provide about 210,000 acre-feet of groundwater storage and have a combined extraction capacity of about 70,000 acre-feet per year. As of January 2017, the balance in the nine accounts was approximately 1,000 acre-feet. 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 25 projects that recover contaminated groundwater with total contract yields of about 118,000 acre-feet per year. During fiscal year 2015-16, Metropolitan provided incentives for approximately 49,000 acre-feet of recovered water under these agreements. Total groundwater recovery use under executed agreements is expected to grow to 79,000 acre-feet in 2020.

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.

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 82 recycled water projects with total contract yields of about 323,000 acre-feet per year. During fiscal year 2015-16, Metropolitan provided incentives for approximately 179,000 acre-feet of reclaimed water under these agreements. Total recycled water use under executed agreements is expected to be approximately 193,000 acre-feet by 2020.

Seawater Desalination. Metropolitan's IRP includes seawater desalination as a part of the region's local supply that could help increase supply reliability in Metropolitan's service area. The IRP also supports foundational actions to lay the groundwork for accelerating seawater desalination development as needed in the future. To encourage local development, Metropolitan has signed Seawater Desalination Program ("SDP") incentive agreements with three of its member agencies: Long Beach, Municipal Water District of Orange County ("MWDOC") and West Basin Municipal Water District. The SDP agreements provide incentives to the member agencies of up to $250 per acre-foot when the desalinated supplies are produced. Agreement terms are for the earlier of 25 years or through 2040 and are designed to phase out if Metropolitan's rates surpass the unit cost of producing desalinated seawater. SDP agreements are subject to final approval by Metropolitan's Board after review of the complete project description and environmental documentation. These projects are currently in the development phase and collectively are anticipated to produce up to 46,000 acre-feet annually. The agreements automatically terminate in 2020 if the projects are not operational by that time. In October 2014, seawater desalination projects became eligible for funding under Metropolitan's Local Resources Program.

In late 2015, Poseidon Resources LLC ("Poseidon") completed and began operating the 56,000 acre-foot capacity Carlsbad Desalination Project ("Carlsbad Project") and associated pipeline. The SDCWA has a purchase agreement with Poseidon for a minimum of 48,000 acre-feet per year with an option to purchase an additional 8,000 acre-feet per year. Other seawater desalination projects that could provide supplies to Metropolitan's service area are under development or consideration. In partnership with the Orange County Water District, Poseidon is also developing a 56,000 acre-feet per year plant in Huntington Beach which is currently in the permitting phase. SDCWA is also 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. Calleguas Municipal Water District is studying the potential for a 20,000 to 80,000 acre-feet per year project in Ventura County. Otay Water District, located in San Diego County along the Mexico border, is considering the feasibility of purchasing water from a seawater desalination project in Rosarito Beach, Mexico. The 56,000 to 112,000 acre-feet per year project is in the pre-construction phase, and could also supply Metropolitan's service area through exchange agreements. Approvals from a number of U.S. and Mexican federal agencies, along with State and local approvals, would be needed for the cross-border project to proceed.

METROPOLITAN'S WATER DELIVERY SYSTEM

Primary Facilities and Method of Delivery

Metropolitan's water delivery system is made up of three basic components: the CRA, 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. Improvements are 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 CRA 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 CRA 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 CRA, which include five pumping 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. The State Water Project, managed and operated by DWR, is one of the largest water supply projects undertaken in the history of water development. The State Water Project facilities dedicated to water delivery consist of a complex system of dams, reservoirs, power plants, pumping plants, canals and aqueducts to deliver water. Water from rainfall and snowmelt runoff is captured and stored in State Water Project conservation facilities and then delivered through State Water Project transportation facilities to water agencies and districts located throughout the Upper Feather River, Bay Area, Central Valley, Central Coast, and Southern California. Metropolitan receives water from the State Water Project through the main stem of the aqueduct system, the California Aqueduct, which is 444 miles long and includes 381 miles of canals and siphons, 49 miles of pipelines or tunnels and 13 miles of channels and reservoirs.

As described herein, Metropolitan is the largest (in terms of number of people it serves, share of State Water Project water it has contracted to receive, and percentage of total annual payments made to DWR therefor) of twenty-nine agencies and districts that have entered into contracts with DWR to receive a water entitlement from the State Water Project. Contractors pay all costs of the facilities in exchange for participation rights in the system. Thus, Contractors also have the right to use the portion of the State Water Project conveyance system necessary to deliver water to them at no additional cost as long as capacity exists. 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, built, owned and operated by Metropolitan, is located southwest of the city of Hemet, California. It 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. 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 CRA 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. Metropolitan's Inland Feeder is a 44-mile-long conveyance system that connects the State Water Project to Diamond Valley Lake and the CRA. 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 cubic feet per second, 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. In recent years, the plants typically treat between 0.8 billion and 1.0 billion gallons of water per day, and have a maximum capacity of approximately 2.6 billion gallons per day. Approximately 50 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 federal Safe Drinking Water Act ("SDWA") establishes drinking water quality standards, monitoring, and public notification and enforcement requirements for public water systems. To achieve these objectives, the USEPA, as the lead regulatory authority, promulgates national drinking water regulations and develops the mechanism for individual states to assume primary enforcement responsibilities. The SWRCB Division of Drinking Water ("DDW"), formerly the Drinking Water Program under the California Department of Public Health ("CDPH"), has primary responsibility for the regulation of public water supply systems in the State. Drinking water delivered to customers must comply with statutory and regulatory water quality standards designed to protect public health and safety that are now administered by DDW. Metropolitan operates its five water treatment plants under a domestic water supply permit issued by DDW which is amended, as necessary, such as when significant facility modifications occur. Metropolitan operates and maintains water storage, treatment and conveyance facilities, implements watershed management and protection activities, performs inspections, monitors drinking water quality, and submits monthly and annual compliance reports. In addition, public water system discharges to state and federal waters are regulated under general National Pollutant Discharge Elimination System ("NPDES") permits. The SWRCB issued these NPDES permits to Metropolitan which contain numerical effluent limitations, monitoring, reporting, and notification requirements for water discharges from the facilities and pipelines of Metropolitan's water supply and distribution system.

Metropolitan continually monitors new water quality laws and regulations and frequently comments on new legislative proposals and regulatory rules. Metropolitan is currently operating in compliance with all state and federal drinking water regulations and permit requirements.

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 either to withstand a maximum probable seismic event or to minimize the potential repair time in the event of damage. The five pumping plants on the CRA have been buttressed to better withstand seismic events. Other components of the CRA 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 CRA 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 (assuming there has been no impairment of Metropolitan's internal distribution network).

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 projects have been completed to upgrade and expand these shops. A total of nearly $40 million has been invested to enhance Metropolitan's capacity not only to provide fabrication and coating services for planned rehabilitation work, maintenance activities, and capital projects, but also to 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- California Aqueduct. 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, CRA 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.

State Water Project-Perris Dam. Perris Dam forms Lake Perris, the southernmost terminal reservoir for the State Water Project in Riverside County, with maximum capacity of approximately 130,000 acre-feet of water. Metropolitan uses water from Lake Perris for delivery to customers in Riverside and San Diego counties. Deliveries from the lake are used as a redundant source for the Mills Water Treatment Plant, drought supply from a flexible storage account, and for consumptive use by Metropolitan's customers. 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 to be completed 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), DWA (3.0 percent) and

CVWD (21.9 percent). DWR recovers the cost of repairs through its annual statement of charges sent to each agency. See "METROPOLITAN EXPENSES–State Water Contract Obligations" in this Appendix A.

Security Measures

Metropolitan conducts ground and air patrols of the CRA and monitoring and testing at all treatment plants and along the CRA. 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 2016-17 and 2017-18, including replacement and refurbishment expenditures, by project type for the fiscal years ending June 30, 2017 through 2021. This estimate is updated every two years 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.

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

Cost of Service	2017	2018	2019	2020	2021	Total
Conveyance & Aqueduct	$ 19,772	$ 32,934	$ 32,433	$ 30,396	$ 29,042	$ 144,578
Storage	1,455	--	--	--	--	1,455
Distribution	50,818	80,197	95,411	107,446	126,015	459,887
Treatment	88,345	67,691	55,746	50,292	37,678	299,753
Administrative and General	36,649	18,846	16,325	11,398	7,229	90,448
Hydroelectric	2,960	332	84	468	36	3,880
Total(2)	$200,000(3)	$200,000	$200,000	$200,000	$200,000	$1,000,000

Source: Metropolitan.

(1) Fiscal years 2016-17 and 2017-18 based on the adopted biennial budget for fiscal years 2016-17 and 2017-18. Fiscal years 2018-19 through 2020-21 based on the ten-year financial forecast provided in the adopted biennial budget. Totals are rounded.

(2) Annual totals include replacement and refurbishment expenditures for fiscal years 2016-17 through 2020-21 of $115 million, $159 million, $176 million, $182 million, and $192 million, respectively, for a total of $823 million for fiscal years 2016-17 through 2020-21.

(3) Fiscal year 2016-17 capital expenditures are currently estimated to be approximately $213 million.

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 requires 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 60 percent of capital program expenditures from current revenues. 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. However, as in prior years, pay-as-you-go funding may be reduced or increased by the Board during the fiscal year.

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, were expected to fund $513 million in capital expenditures for fiscal year 2014-15 and fiscal year 2015-16. On July 14, 2015, Metropolitan's Board approved $264 million to acquire various properties in Riverside and Imperial Counties, with $160 million funded from the Replacement and Refurbishment Fund and the remaining amount from unrestricted reserves. On October 13, 2015, Metropolitan's Board adopted an ordinance finding that the interests of the district require the use of new revenue bonds in an amount not to exceed $500 million. On December 17, 2015, Metropolitan issued its $208,255,000 Water Revenue Bonds, 2015 Authorization Series A to reimburse certain pay-as-you-go capital expenditures and to fund a portion of fiscal year 2016-17 capital expenditures.

Metropolitan's budget assumptions for the adopted biennial budget for fiscal years 2016-17 and 2017-18 and projections for later years provide for the issuance of approximately $80 million of additional water revenue bonds to fund or to reimburse prior capital expenditures in each of fiscal years 2016-17 through 2020-21. These revenue bonds could be issued either as Senior Revenue Bonds under the Senior Debt Resolutions or as Subordinate Revenue Bonds under the Subordinate Debt Resolutions (each as defined under "METROPOLITAN EXPENSES–Limitations on Additional Revenue Bonds" in this Appendix A). The cost of these projected bond issues are reflected in the financial projections under, "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. Metropolitan expects to issue its $80,000,000 Water Revenue Bonds, 2017 Authorization Series A in March 2017 for the purposes of financing a portion of its capital expenditures through fiscal year 2017-18.

On March 8, 2016, Metropolitan's Board authorized the General Manager to enter into an agreement to purchase certain property from Delta Wetlands Properties, LLC in Contra Costa, San Joaquin, and Solano Counties ("the Delta Wetlands Properties"). On July 18, 2016, escrow closed and purchase of these properties was completed. On December 21, 2016, Metropolitan issued its $175,000,000 Subordinate Water Revenue Bonds, 2016 Authorization Series A (Taxable) to reimburse itself for the purchase. See "METROPOLITAN EXPENSES–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations" in this Appendix A.

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 five 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 oxidation retrofit improvements have been completed at three treatment plants: the Henry J. Mills Treatment Plant, the Joseph Jensen Treatment Plant and the Robert B. Diemer Treatment Plant. Completion of the improvements at the F.E. Weymouth plant is expected in 2017. Total oxidation program costs at the F.E. Weymouth plant are estimated to be $270.0 million. Oxidation retrofit at the Robert A. Skinner plant was substantially completed in December 2009 and operational in 2010, with additional follow-up work planned for completion in June 2018. The total estimated cost for all prior and projected oxidation retrofit facilities program improvements at the five treatment plants is approximately $1.12 billion, with $1.07 billion spent through September 2016. Budgeted aggregate capital expenditures for improvements remaining to be completed at the F.E. Weymouth and Robert A. Skinner plants for fiscal years 2016-17 and 2017-18 are $25 million.

F.E. Weymouth Treatment Plant Improvements. The F.E. Weymouth Treatment Plant, built in 1938, is Metropolitan's oldest water treatment facility. It has been subsequently expanded several times since its original construction. 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 filter buildings, 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 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 $407.1 million, with $243 million spent through September 2016. Budgeted aggregate capital expenditures for improvements at the Weymouth plant for fiscal years 2016-17 and 2017-18 are $31.5 million.

Robert B. Diemer Treatment Plant Improvements. The Robert B. Diemer Treatment Plant, built in in 1963 and subsequently expanded in 1968, is Metropolitan's second oldest water treatment facility. 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 $381.1 million, with $234.5 million spent through September 2016. Budgeted aggregate capital expenditures for improvements at the Diemer plant for fiscal years 2016-17 and 2017-18 are $42.3 million.

Colorado River Aqueduct Facilities. As previously noted, deliveries through the CRA began in 1941. Through annual inspections and maintenance activities, the performance and reliability of the various components of the CRA are regularly evaluated. Projects under the CRA facilities program are designed to replace or refurbish facilities and components on the CRA system in order to reliably convey water from the Colorado River to Southern California. A variety of projects have been completed over the past 10 years, including, among other things, 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, replacement of several miles of deteriorated concrete canal liner, new wastewater systems at the Hinds and Eagle Mountain Pumping Plants, and replacement of the outlet gates and appurtenant electrical, mechanical, and control systems at the Copper Basin Reservoir. Refurbishment or replacement of many of the electrical system components, including the transformers, circuit breakers and motor control centers, is currently under way. Additionally, many of the mechanical and electrical 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 $650.2 million. Costs through September 2016 were $208.2 million. Budgeted aggregate capital expenditures for improvements on the CRA for fiscal years 2016-17 and 2017-18 are $87.9 million.

Distribution System – Prestressed Concrete Cylinder Pipe. Metropolitan's distribution system is comprised of approximately 830 miles of pipelines ranging in diameter from 30 inches to over 200 inches. (See "METROPOLITAN'S WATER DELIVERY SYSTEM" in this Appendix A.) 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 through September 2016 were $90.3 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. The estimated cost to reline all 100 miles of PCCP is approximately $2.6 billion and is expected to be undertaken over a period of approximately 20 years. Budgeted aggregate capital expenditures for PCCP rehabilitation for fiscal years 2016-17 and 2017-18 are $39.3 million.

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. 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, lining replacement on the Etiwanda Pipeline and portions of the Orange County Feeder, a new steel liner for the Bernasconi Tunnel, seismic upgrades to the Santa Ana River Bridge, refurbishment to pressure control and hydroelectric power facilities, system improvements to provide drought relief, and various other upgrades totaling approximately $228.2 million through September 2016. The currently projected cost estimate for the prior and planned refurbishment or replacement projects, other than the PCCP relining, is $749.3 million. For fiscal years 2016-17 and 2017-18, budgeted aggregate capital expenditures for improvements on the distribution system, other than PCCP rehabilitation, are $74.2 million.

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 seven percent of revenues in fiscal year 2015-16. See "–Revenue Allocation Policy and Tax Revenues." 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 1992. *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.

The basic rate for untreated water service for domestic and municipal uses is $666 per acre-foot at the Tier 1 level, which became effective January 1, 2017. This rate will increase to $695 effective January 1, 2018. See "–Rate Structure" and "–Water Rates." 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 2016-17. The rates charged by Metropolitan represent the cost of Metropolitan wholesale water service 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 Revenues by Source

The following table sets forth Metropolitan's sources of revenues for the five fiscal years ended June 30, 2016. The table provides cash basis information for fiscal year 2012, and modified accrual basis information for fiscal years 2013-2016. All information is unaudited. Audited financial statements for the fiscal years ended June 30, 2016 and June 30, 2015 and unaudited financial statements for the six months ended December 31, 2016 and December 31, 2015 are provided in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

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

	2012	2013	2014	2015	2016
Water Sales[2]	$1,062	$1,283	$1,485	$1,383	$1,166
Net Tax Collections[3]	90	95	95	104	108
Additional Revenue Sources[4]	167	173	182	199	200
Interest on Investments	18	(2)	19	16	17
Hydroelectric Power Sales	31	25	15	8	7
Other Revenues [5]	54	23	19	163	246
Total Receipts	$1,422	$1,597	$1,815	$1,873	$1,744

Source: Metropolitan.

(1) Does not include any proceeds from the sale of bonded indebtedness.
(2) Gross revenues in each year are for sales in the twelve months ended June 30 of such year. Water sales revenues include revenues from water wheeling and exchanges.
(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.
(5) Includes miscellaneous revenues and Build America Bonds (BABs) subsidy payment of $13.3 million, $12.7 million, $12.3 million, $12.3 million, and $12.3 million, in fiscal years 2011-12 through 2015-16, respectively. In fiscal years 2014-15 and 2015-16, includes $142 million and $222 million of water conservation and water purchase expenditures, funded from a like amount of funds transferred from the Water Management Fund.

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 the Act, 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 Metropolitan's fiscal integrity. For each fiscal year since 2013-14, the Board has exercised that authority and voted to suspend the tax limit clause in the Act, maintaining the fiscal year 2012-13 *ad valorem* tax rate for fiscal years 2013-14 through 2016-17. 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 Senior Debt Resolutions (defined herein under "METROPOLITAN EXPENSES–Limitations on Additional Revenue Bonds").

Water Sales Revenues

General; 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 currently provides two classes of water service (1) full service treated and untreated, and (2) wheeling service. See "–Classes of Water Service."

No member agency of Metropolitan is obligated to purchase water from Metropolitan. However, 21 of Metropolitan's 26 member agencies have entered into 10-year voluntary water supply purchase orders ("Purchase Orders") effective through December 31, 2024. See "–Member Agency Purchase Orders." 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, 2016. Water sales revenues of Metropolitan for the four fiscal years ended June 30, 2013 through June 30, 2016, respectively, on an accrual basis, are shown in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

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

Year	Acre-Feet[(1)] Sold	Water Sales[(2)] (in millions)	Dollars Per Acre-Foot[(3)]	Average Dollars Per 1,000 Gallons
2012	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
2015	1,905,502	1,383.0	726	2.23
2016	1,623,052	1,166.0	718	2.20

Source: Metropolitan.

(1) Year ended April 30 for fiscal year 2011-12, 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) Water Sales in fiscal year 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 through 2015-16 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.

(3) 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" for a description of water rates and classes of service.

Principal Customers

Total water sales accrued for the fiscal year ended June 30, 2016 were 1.62 million acre-feet, generating $1.17 billion in water sales revenues for such period. Metropolitan's ten largest water customers in the year ended June 30, 2016 are shown in the following table, on an accrual basis. The SDCWA has filed litigation challenging Metropolitan's rates. See "–Litigation Challenging Rate Structure."

TEN LARGEST WATER CUSTOMERS
Year Ended June 30, 2016
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	$ 270.9	23.2%	465,568	28.7%
City of Los Angeles	224.3	19.2	332,527	20.5
MWD of Orange County	140.3	12.0	171,666	10.6
West Basin MWD	100.0	8.6	107,319	6.6
Calleguas MWD	77.7	6.7	83,346	5.1
Eastern MWD	53.1	4.6	62,631	3.9
Western MWD	51.6	4.4	65,532	4.0
Three Valleys MWD	42.5	3.6	54,356	3.3
Central Basin MWD	35.5	3.0	46,745	2.9
City of Long Beach	24.3	2.1	27,684	1.7
Total	$1,020.2	87.5%	1,417,374	87.3%
Total Water Sales Revenues	$1,166.0	**Total Acre-Feet**	1,623,052	

Source: Metropolitan.

(1) Includes wheeling and exchange water sales, revenues and deliveries.

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 rate structure recovers supply costs through a two-tiered price structure. The Tier 1 Supply Rate supports a regional approach through the uniform, postage stamp rate. The Tier 1 Supply Rate is calculated as the amount of the total supply revenue requirement that is not covered by the Tier 2 Supply Rate divided by the estimated amount of Tier 1 water sales. The Tier 2 Supply Rate is a volumetric rate that reflects Metropolitan's cost of purchasing water transfers north of the Delta. Member agencies are charged the Tier 1 or Tier 2 Water Supply Rate for water purchases, as described under "–Member Agency Purchase Orders."

System Access Rate. The System Access Rate (SAR) recovers the cost of the Conveyance and Distribution System that is used on an average annual basis through a uniform, volumetric rate. The SAR is charged for each acre-foot of water transported by Metropolitan, regardless of the ownership of the water being transported. All users (including member agencies and third-party wheelers) using the Metropolitan system to transport water pay the same SAR for the use of the system conveyance and distribution capacity to meet average annual demands.

Water Stewardship Rate. The Water Stewardship Rate (WSR) provides a dedicated source of funding for conservation and local resources development through a uniform, volumetric rate. The WSR is charged to each acre-foot of water delivered by Metropolitan, regardless of the water being transported. All users (member agencies and third-party wheelers) benefit from the system capacity made available by investments in Demand Management Programs like Metropolitan's Conservation Credits Program and Local Resources Program. Therefore, all users pay the WSR.

System Power Rate. The System Power Rate (SPR) recovers the cost of energy required to pump water to Southern California through the State Water Project and CRA. The cost of power is recovered through a uniform, volumetric rate. The SPR is applied to all deliveries of Metropolitan water to member agencies. Wheeling parties pay for actual cost (not system average) of power needed to move the water. Member agencies engaging in wheeling transaction of up to one year pay the wheeling rate (consisting of the actual cost of power, SAR, WSR, and an administrative fee). Other wheeling transactions are pursuant to individual contracts.

Treatment Surcharge. The Treatment Surcharge recovers all of the costs of providing treatment capacity and operations through a uniform, volumetric rate per acre-foot of treated water sales. The Treatment Surcharge is charged to all treated water sales.

The amount of each of these rates since January 1, 2012, is shown in the table entitled "SUMMARY OF WATER RATES" under "–Water Rates."

Member Agency Purchase Orders

The current rate structure allows member agencies to choose to purchase water from Metropolitan by means of a Purchase Order. Purchase Orders are voluntary agreements that determine the amount of water that a member agency can purchase at the Tier 1 Supply Rate. They allow member agencies to purchase a greater amount of water at the lower Tier 1 Supply Rate than would otherwise be authorized by the Administrative Code. In exchange for the higher Tier 1 Maximum, the member agency commits to purchase a specific amount of water (based on past purchase levels) over the term of the agreement. Such agreements allow member agencies to manage costs and provide Metropolitan with a measure of secure revenue.

In November 2014, the Metropolitan Board approved new Purchase Orders effective January 1, 2015 through December 31, 2024 (the "Purchase Order Term"). Twenty-one of the twenty-six member agencies have Purchase Orders, which commit the member agencies to purchase a minimum amount of supply from Metropolitan (the "Purchase Order Commitment").

The key terms of the Purchase Orders include:

- A ten-year term, effective January 1, 2015 through December 31, 2024;
- A higher Tier 1 limit based on the Base Period Demand, determined by the member agency's choice between (1) the Revised Base Firm Demand, which is the highest fiscal year purchases during the 13-year period of fiscal year 1989-90 through fiscal year 2001-02, or (2) the highest year purchases in the most recent 12-year period of fiscal year 2002-03 through 2013-14. The demand base is unique for each member agency, reflecting its use of Metropolitan's system water over time;
- An overall purchase commitment by the member agency based on the Demand Base period chosen, times ten to reflect the ten-year Purchase Order term. Those agencies choosing the more recent 12-year period may have a higher Tier 1 Maximum and commitment. The commitment is also unique for each member agency;

- The opportunity to reset the Base Period Demand using a five-year rolling average;
- 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; and
- An appeals process for agencies with unmet purchase commitments that will allow each acre-foot of unmet commitment to be reduced by the amount of production from a local resource project that commences operation on or after January 1, 2014.

Member agencies that do not have Purchase Orders in effect are subject to Tier 2 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.

Other Charges

The following paragraphs describe the additional charges for the availability of Metropolitan's water:

Readiness-to-Serve Charge. The Readiness-to-Serve Charge ("RTS") recovers the cost of the portion of the system that is available to provide emergency service and available capacity during outages and hydrologic variability. The RTS is a fixed charge that is allocated among the member agencies based on a ten-fiscal year rolling average of firm demands. Water transfers and exchanges are included for purposes of calculating the ten-fiscal-year rolling average. The Standby Charge, described below, will continue to be collected at the request of member agency and applied as a direct offset to the member agency's RTS obligation. The RTS generated $154.0 million in fiscal year 2013-14, $162.0 million in 2014-15, and $155.5 million in 2015-16. Based on the adopted rates and charges, the RTS is projected to generate $144 million in fiscal year 2016-17 and $137.5 million in fiscal year 2017-18.

Water Standby Charges. The Standby Charge is authorized by the State Legislature and has been levied by Metropolitan since fiscal year 1992-93. Metropolitan will continue to levy the Standby Charge only within the service areas of the member agencies that request that the Standby Charge be utilized to help fund a member agency's RTS obligation. See "– Readiness-to-Serve Charge" above. The Standby Charge for each acre or parcel of less than an acre will vary from member agency to member agency, reflecting current rates, which have remained the same since fiscal year 1993-94, and range from $6.94 to $15 for each acre or parcel less than an acre within Metropolitan's service area, subject to specified exempt categories. Standby charges are assessments under the terms of Proposition 218, a State constitutional ballot initiative approved by the voters on November 5, 1996, but Metropolitan's current standby charges are exempt from Proposition 218's procedural requirements. See "–California Ballot Initiatives."

Twenty-two member agencies collect their RTS charges through standby charges. For fiscal years 2013-14, 2014-15, and 2015-16, RTS charges collected by means of such standby charges were $41.7 million, $41.7 million, and $42.8 million, respectively.

Capacity Charge. The Capacity Charge recovers costs incurred to provide peaking capacity within Metropolitan's distribution system. The Capacity Charge provides a price signal to encourage agencies to reduce peak demands on the distribution system and to shift demands that occur during the May 1 through September 30 period into the October 1 through April 30 period. This results in more efficient utilization of Metropolitan's existing infrastructure and deferring capacity expansion costs. Each member agency will pay the Capacity Charge per cubic feet per second based on a three-year trailing maximum peak day demand. Effective January 1, 2014, the Capacity Charge was $8,600 per cubic feet per second. The Capacity Charge was $11,100 per cubic feet per second on January 1, 2015, and $10,900 per cubic feet per second on January 1, 2016, and will be $8,000 per cubic feet per second on January 1, 2017, and $8,700 per cubic feet

per second on January 1, 2018. The Capacity Charge is projected to generate $39.7 million in fiscal year 2016-17 and $35.2 million in fiscal year 2017-18.

Classes of Water Service

Metropolitan offers two classes of water service:

(1) *Full Service Water* - Full service water service, formerly known as non-interruptible water service, includes water sold to member agencies for domestic and municipal uses; and

(2) Wheeling Service - Wheeling Service refers to the use of Metropolitan's facilities, including its rights to use State Water Project facilities, to transport water not owned or controlled by Metropolitan to its member public agencies, in transactions entered into by Metropolitan for a period of up to one year.

The applicable rate components and fixed charges for each class of water service are shown in the chart below.

Current Services and Rate Components

	Rates & Charges That Apply					
Service	**System Access**	**Water Stewardship**	**System Power**	**Tier 1/ Tier 2**	**Readiness to Serve**	**Capacity Charge**
Full Service (Treated or Untreated)	Yes	Yes	Yes	Yes	Yes	Yes
Wheeling Service	Yes	Yes	No	No	Yes	Yes

Metropolitan offers two programs that encourage the member agencies to increase groundwater and emergency storage and for which certain Metropolitan charges are inapplicable.

(1) Conjunctive Use Program. The Conjunctive Use Program is operated through individual agreements with member and retail agencies for groundwater storage within Metropolitan's service area. Wet-year imported supplies are stored to enhance reliability during dry, drought, and emergency conditions. Metropolitan has the option to call water stored in the groundwater basins for the participating member agency pursuant to its contractual conjunctive use agreement. At the time of the call, the member agency pays the prevailing rate for that water, but the deliveries are excluded from the calculation of the Capacity Charge because Conjunctive Use Program deliveries are made at Metropolitan's Discretion. See "REGIONAL WATER RESOURCES–Local Water Supplies."

(2) Emergency Storage Program. The Emergency Storage Program is used for delivering water for emergency storage in surface water reservoirs and storage tanks. Emergency Storage Program purposes include initially filling a newly constructed reservoir or storage tank and replacing water used during an emergency.

The applicable rate components and fixed charges applicable for each such program are shown in the following chart.

Current Programs and Rate Components

	Rates & Charges That Apply					
Full Service Program	**System Access**	**Water Stewardship**	**System Power**	**Tier 1/ Tier 2**	**Readiness to Serve**	**Capacity Charge**
Conjunctive Use Program	Yes	Yes	Yes	Yes	Yes	No
Emergency Storage Program	Yes	Yes	Yes	No*	No	No

*Emergency Storage Program pays the Tier 1 Supply Rate; purchases under Emergency Storage program do not count towards a member agency's Tier 1 Maximum.

Water Rates

The following table sets forth Metropolitan's water rates by category beginning January 1, 2012. 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 also "–Litigation Challenging Rate Structure" for a description of litigation challenging Metropolitan's water rates.

SUMMARY OF WATER RATES
(Dollars per Acre-Foot)

	SUPPLY RATE		SYSTEM ACCESS RATE	WATER STEWARDSHIP RATE	SYSTEM POWER RATE	TREATMENT SURCHARGE
	Tier 1	Tier 2				
January 1, 2012	$164[1]	$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
January 1, 2017*	$201	$295	$289	$52	$124	$313
January 1, 2018*	$209	$295	$299	$55	$132	$320

	FULL SERVICE TREATED[2]		FULL SERVICE UNTREATED[3]		INTERIM AGRICULTURAL PROGRAM		REPLENISHMENT RATE	
	Tier 1	Tier 2	Tier 1	Tier 2	Treated	Untreated	Treated	Untreated
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	**	**	**	**
January 1, 2017*	$979	$1,073	$666	$760	**	**	**	**
January 1, 2018*	$1,015	$1,101	$695	$781	**	**	**	**

Source: Metropolitan.

* Rates effective January 1, 2017 and January 1, 2018 were adopted by Metropolitan's Board on April 12, 2016.

** The Interim Agricultural Water Program and Replenishment Service Program were discontinued after 2012. The Interim Agricultural Water 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. 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.

(1) Includes $58 per acre-foot Delta Supply Surcharge for January 1, 2012.

(2) 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.

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

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. If 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 less than 1.2 times, funds above the target reserve level may be utilized for funding of capital expenditures or for the redemption, defeasance or purchase of outstanding bonds or commercial paper, as determined by the Board. If Metropolitan's fixed charge coverage ratio, is at or above 1.2 times, funds above the target may be used for any lawful purpose of Metropolitan, as determined by the Board. See "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" in this Appendix A.

At June 30, 2016, unrestricted reserves, which consist of the Water Rate Stabilization Fund and the Revenue Remainder Fund, totaled $475 million on a modified accrual basis. As of June 30, 2016, the minimum reserve requirement was $205 million and the target reserve level was $490 million.

From time to time, Metropolitan's Board approves the use of unrestricted reserves. On May 26, 2015, Metropolitan's Board approved the use of $160 million of unrestricted reserves, above the target reserve level, for conservation incentives. In addition, $50 million from the Water Stewardship Fund and $140 million from the Water Management Fund funded conservation incentives. On July 14, 2015, Metropolitan's Board approved $264 million to acquire various properties in Riverside and Imperial Counties, with $160 million funded from the Replacement and Refurbishment Fund and the remaining amount from unrestricted reserves. On September 22, 2015, Metropolitan's Board approved $44.4 million to pay SNWA to store 150,000 acre-feet of water with Metropolitan. Metropolitan took delivery of this water in 2015. When SNWA requests the return of any of the stored water, SNWA will reimburse Metropolitan for an equivalent proportion of the $44.4 million, based on the amount of water returned plus inflation. See "METROPOLITAN'S WATER SUPPLY–Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – Interim Surplus Guidelines" in this Appendix A.

Due to SDCWA's litigation challenging Metropolitan's rates and pursuant to the exchange agreement between Metropolitan and SDCWA, Metropolitan is required to set aside funds based on the quantities of exchange water that Metropolitan provides to SDCWA and the amount of charges disputed by SDCWA. This amount included disputed payments and interest earned thereon, which is based on the rate earned by Metropolitan's investment portfolio. In April 2016, Metropolitan transferred these funds from unrestricted financial reserves to a new designated fund, the Exchange Agreement Set-Aside Fund. As of December 31, 2016, Metropolitan had set aside $278.7 million in the Exchange Agreement Set-Aside Fund. This amount includes disputed payments and interest earned thereon based on the rate earned by Metropolitan's investment portfolio. The amounts held do not include the statutory prejudgment interest, post-judgment interest, attorneys' fees, or costs awards, none of which the exchange agreement requires to be held. 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 payments disputed by SDCWA, until the litigation, including all appeals, is concluded. See "METROPOLITAN'S WATER SUPPLY–Colorado River Aqueduct – Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" and "METROPOLITAN REVENUES–Litigation Challenging Rate Structure" in this Appendix A.

As described below, Metropolitan has executed two $200 million Short-Term Revolving Credit Facilities (as defined below), under which Metropolitan may borrow from time-to-time. Funds drawn under the Short-Term Revolving Credit Facilities may be used for any lawful purpose. In April 2016, Metropolitan drew $125 million from each Short-Term Revolving Credit Facility (as defined below), for a total of $250 million, and deposited these amounts in Metropolitan's unrestricted financial reserves. An additional draw of approximately $50 million is expected by the end of June 2017, with such amount to be deposited in Metropolitan's unrestricted financial reserves. See "METROPOLITAN EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations – Senior Parity Obligations – Short-Term Revolving Credit Facilities" in this Appendix A.

Metropolitan projects that its unrestricted reserves as of June 30, 2017 will be approximately $455 million. This amount does not include funds held in the Exchange Agreement Set-Aside Fund. This projection is based on the assumptions set forth in the table entitled "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" under "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. In addition, this projection is based on the assumption that Metropolitan's Board will not authorize the use of any additional amounts in the unrestricted reserves.

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 retail water service by Metropolitan's member agencies or their agencies 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," unless they were in existence on the effective date of Article XIIID. Metropolitan has imposed its water standby charges since 1992 and therefore its current standby charges are exempt from the Article XIIID procedures. Changes 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 "–Other Charges – 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 makes all taxes general or special taxes and imposes voting requirements for each kind of tax. It also 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 and are allocated in a fair or reasonable manner; 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. Special taxes imposed by a special district such as Metropolitan are subject to approval by two-thirds of the electorate 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. 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. On April 24, 2014, a trial court decision stated such rates, effective in 2013 and 2014, violate Proposition 26. The trial court's rulings, including the decision that specific rates violate certain laws, are on appeal. (See "–Litigation Challenging Rate Structure.")

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.

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. On August 28, 2015, the trial court ruled that SDCWA "is entitled to a judicial declaration (a) that Metropolitan's current methodology for calculating San Diego's preferential rights violates Section 135 of the Metropolitan Water District Act; and (b) directing Metropolitan to include San Diego's payments for the transportation of water under the Exchange Agreement in Metropolitan's calculation of San Diego's preferential rights." This ruling is subject to appeal. See "–Litigation Challenging Rate Structure."

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 certain 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, MWDOC 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 adopted April 13, 2010, and that Metropolitan be mandated to allocate costs associated with the State Water Contract and the Water Stewardship Rate to water supply rates and not to transportation rates. 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 was adopted in 2001 and has been in place since 2003. Nevertheless, to the extent that a final court ruling invalidates Metropolitan's adopted rates, Metropolitan will be obligated to reconsider and modify rates to comply with any final court rulings related to Metropolitan's rates. While components of the rate structure and costs may change as a result of any final ruling, 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 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"); and illegality of the "rate structure integrity" provision in conservation and local resources incentive agreements between Metropolitan and SDCWA. The "rate structure integrity" provision permits 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" provision 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" 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" 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. Subsequently, IID dismissed all claims with prejudice in this second case too, and the City of Glendale withdrew from both cases.

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. On December 4, 2013, the court granted Metropolitan's motion for summary adjudication of the cause of action alleging illegality of the "rate structure integrity" provision in conservation and local resources incentive agreements, dismissing this claim in the first lawsuit.

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. This phase concerned the challenges to Metropolitan's rates. On April 24, 2014, the trial 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. The trial court found that there was not sufficient evidence in the administrative record to support Metropolitan's inclusion in its transportation rates, and hence in its wheeling rate, of 100 percent of (1) payments it makes to the California Department of Water Resources for the State Water Project, or (2) 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 trial court's decision was based on its conclusion that these rates are unfair to wheelers. The trial 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 were tried in a second phase of the case which concluded April 30, 2015. On August 28, 2015, the trial court issued a final statement of decision for the second phase. The decision found in favor of SDCWA on both claims and that SDCWA is entitled to contract damages in the amount of $188,295,602 plus interest. On October 9 and 30, 2015, the trial court granted SDCWA's motion for prejudgment interest at the statutory rate of 10 percent on these damages. The prejudgment interest award through entry of judgment is $46,637,180. After entry of judgment, post-judgment interest began accruing at the statutory rate of 7 percent. On November 18, 2015, the court issued the Final Judgment and a Peremptory Writ of Mandate in the 2010 and 2012 SDCWA v. Metropolitan cases. On January 21, 2016, the trial court awarded $320,084 in costs to SDCWA, after deducting amounts based on Metropolitan's motion. On March 24, 2016, the trial court awarded $8,910,354 in attorneys' fees to SDCWA, rejecting its demand for over $17.0 million. Metropolitan filed a Notice of Appeal of the Judgment and Writ in each case, and SDCWA filed a Notice of Cross-Appeal of the court's ruling on the rate structure integrity provision claim and the attorneys' fees order. Appellate briefing by the parties was completed on October 28, 2016. No date for oral argument has been set. Metropolitan is unable to assess at this time the likelihood of success of this litigation, including the appeal, or any future claims.

Due to SDCWA's litigation challenging Metropolitan's rates, and pursuant to the exchange agreement between Metropolitan and SDCWA, as of December 31, 2016, Metropolitan held $278.7 million in a designated fund, the Exchange Agreement Set-Aside Fund. See "–Financial Reserve Policy." This amount includes both SDCWA's disputed payments and interest earned thereon, which is based on the rate earned by Metropolitan's investment portfolio. 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 payments disputed by SDCWA, until the litigation, including all appeals, is concluded. The amounts held do not include the statutory prejudgment interest, post-judgment interest, attorneys' fees, or costs awards, none of which the exchange agreement requires to be held.

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. On February 9, 2015, pursuant to stipulation by the parties, the San Francisco Superior Court ordered that the case be stayed. The stay may be lifted upon motion by any party. On November 20, 2015, SDCWA filed a motion to partially lift the stay. On December 21, 2015, the trial court decided that motion

and the case remains stayed. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On April 13, 2016, SDCWA filed a new lawsuit that alleges all rates and charges for 2017 and 2018 adopted by Metropolitan's Board on April 12, 2016 violate the California Constitution, statutes, and common law. The Petition for Writ of Mandate and Complaint asserts misallocation of costs as alleged in the previous cases listed above and additional claims of over-collection and misallocation of costs and procedural violations, and states SDCWA intends to amend to allege further claims including breach of contract. In a claim letter dated May 2, 2016, SDCWA asserted three breaches of the exchange agreement: the same breach alleged in the previous cases listed above, breach of the set-aside provision noted above, and breach of a provision concerning characterizing exchange water for certain purposes in the same manner as local water of other member agencies. On June 30, 2016, the nine member agencies that are interested parties to the 2010, 2012, and 2014 cases filed answers to also join the 2016 case as interested parties in support of Metropolitan. On October 27, 2016, SDCWA filed a Motion for Leave to File Amended Complaint alleging the same exchange agreement breach alleged in the previous cases listed above and breach of the set-aside provision noted above relating to the manner in which Metropolitan has set aside the amounts. The proposed amended petition/complaint also requests a judicial declaration that, if a judgment is owed to SDCWA under the exchange agreement, SDCWA will not be required to pay any portion of that judgment, and requests a refund to SDCWA of any amount Metropolitan has collected in excess of the reasonable costs of services provided or, alternatively, a reduction in SDCWA's future fees. On September 27, 2016, the case was transferred to San Francisco Superior Court. On November 10, 2016, pursuant to stipulation by the parties, the court ordered that the case be stayed pending final resolution of the appeals of the 2010 and 2012 SDCWA v. Metropolitan cases. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

Other Revenue Sources

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 the 16 facilities is approximately $176.1 million. Since 2000, annual energy generation sales revenues have ranged between $7.5 million and nearly $29.6 million. Energy generation sales revenues were $8.5 million in fiscal year 2014-15 and $7.5 million in fiscal year 2015-16. Low State Water Project supplies and reduced demands due to mandatory conservation resulted in diminished flows thorough Metropolitan's pipelines and hydroelectric power plants and decreased revenues.

Investment Income. In fiscal years 2013-14, 2014-15, and 2015-16, Metropolitan's earnings on investments, including adjustments for gains and losses and premiums and discounts, including construction account and trust fund earnings, excluding gains and losses on swap terminations, on an accrual basis (audited) were $21.2 million, $22.3 million, and $19.4 million, respectively.

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 securities, 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 EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations" in this Appendix A. Metropolitan's current investments comply with the Statement of Investment Policy.

As of December 31, 2016, the total market value (cash-basis) of all Metropolitan funds was $1.37 billion, including bond reserves of $53.9 million. The market value of Metropolitan's investment portfolio is subject to market fluctuation and volatility and general economic conditions. Over the three years ended December 31, 2016, the market value of the month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) averaged approximately $1.23 billion. The minimum month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) during such period was approximately $936.3 million on August 31, 2016. See Footnote 3 to Metropolitan's audited financial statements in Appendix B for additional information on the investment portfolio.

Metropolitan's administrative code requires 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 2016-17 on June 14, 2016.

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

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

The Statement of Investment Policy requires that investments have a minimum credit rating of "A1/P1/F1" for short-term securities and "A" for longer-term securities at the time of purchase. If immediate liquidation of a security downgraded below these levels is not in the best interests of Metropolitan, the

Treasurer or investment manager, in consultation with an ad hoc committee made up of the Chairman of the Board, the Chairman of the Finance and Insurance Committee and the General Manager, and with the concurrence of the General Counsel, may dispose of the security in an orderly and prudent manner considering the circumstances, under terms and conditions approved by a majority of the members of such ad hoc committee. The Treasurer is required to include a description of any securities that have been downgraded below investment grade and the status of their disposition in the Treasurer's monthly report.

The Statement of Investment Policy also limits the amount of securities that can be purchased by category, as well as by issuer, and prohibits investments that can result in zero interest income. Metropolitan's securities are settled on a delivery versus payment basis and are held by an independent third-party custodian. See APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)" for a description of Metropolitan's investments at September 30, 2016.

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 December 31, 2016, such managers were managing approximately $342.3 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 EXPENSES

General

The following table sets forth a summary of Metropolitan's expenses, by major function, for the five years ended June 30, 2016. The table provides cash basis information for fiscal year 2012, and modified accrual basis information for fiscal years 2013-2016. All information is unaudited. Expenses of Metropolitan for the fiscal years ended June 30, 2016 and June 30, 2015, on an accrual basis, are shown in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

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

	2012	2013	2014	2015	2016
Operation and Maintenance Costs[1]	$ 476	$ 456	$ 512	$ 697	$ 799
Total State Water Project[2]	480	480	465	436	512
Total Debt Service	336	339	384	303	332
Construction Disbursements from Revenues[3]	45	55	117	210	273
Other[4]	3	5	6	7	6
Total Disbursements (net of reimbursements)	$1,340	$1,335	$1,484	$1,653	$1,762

Source: Metropolitan.

(1) Includes operation and maintenance, debt administration, conservation and local resource programs, CRA power, and water supply expenses. For fiscal years 2014-15 and 2015-16, includes $142 million, and $222 million, respectively, of conservation projects funded from transfers from the Water Management Fund.
(2) Includes both operating and capital expense portions.
(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. Includes $160 million for acquiring properties in Riverside and Imperial Counties, funded by $160 million from the Replacement and Refurbishment Fund Reserves. Does not include expenditures of bond proceeds.
(4) Includes operating equipment.

Revenue Bond Indebtedness and Other Obligations

As of February 1, 2017, Metropolitan had total outstanding indebtedness, secured by a lien on Net Operating Revenues, of $4.49 billion. This indebtedness is comprised of $4.06 billion water revenue bonds, issued under the Senior Debt Resolutions (defined below), which includes $3.01 billion fixed rate revenue bonds, and $1.04 billion variable rate revenue bonds; $250.0 million Short-Term Revolving Credit Facilities, which pay a variable rate, and are on parity with the senior lien water revenue bonds; $175.0 million subordinate water revenue bonds issued under the Subordinate Debt Resolutions (defined below), which pay a variable rate; and $8.6 million State of California Revolving Fund Loan, on parity with the subordinate water revenue bonds. In addition, Metropolitan has $493.6 million of fixed-payor interest rate swaps which provides a fixed interest rate hedge to an equivalent amount of variable rate debt. Metropolitan's revenue bonds and other revenue obligations are more fully described in this section below.

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 "Senior Debt Resolutions"), provides for the issuance of Metropolitan's senior lien water revenue bonds. The Senior Debt Resolutions establish limitations on the issuance of additional obligations payable from Net Operating Revenues. Under the Senior Debt 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 Senior Debt Resolutions ("Senior Revenue Bonds") or other obligations of Metropolitan having a lien and charge upon, or being payable from, the Net Operating Revenues on parity with such Senior Revenue Bonds ("Senior Parity Obligations"). No additional Senior Revenue Bonds or Senior Parity Obligations may be issued or incurred unless the conditions of the Senior Debt Resolutions have been satisfied.

Resolution 9199, adopted by Metropolitan's Board on March 8, 2016, as amended and supplemented (collectively with all such supplemental resolutions, the "Subordinate Debt Resolutions," and together with the Senior Debt Resolutions, the "Revenue Bond Resolutions"), provides for the issuance of Metropolitan's subordinate water revenue bonds and other obligations secured by a pledge of Net Operating Revenues that is subordinate to the pledge securing Senior Revenue Bonds and Senior Parity Obligations. The Subordinate Debt Resolutions establish limitations on the issuance of additional obligations payable from Net Operating Revenues. Under the Subordinate Debt Resolutions, with the exception of Senior Revenue Bonds and Senior Parity Obligations, 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 subordinate water revenue bonds authorized by the Subordinate Debt Resolutions ("Subordinate Revenue Bonds" and, together with Senior Revenue Bonds, "Revenue Bonds") or other obligations of Metropolitan having a lien and charge upon, or being payable from, the Net Operating Revenues on parity with the Subordinate Revenue Bonds ("Subordinate Parity Obligations"). No additional Subordinate Revenue Bonds or Subordinate Parity Obligations may be issued or incurred unless the conditions of the Subordinate Debt 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 February 1, 2017, outstanding general obligation bonds, water revenue bonds and other evidences of indebtedness in the amount of $4.58 billion represented approximately 0.18 percent of the fiscal year 2016-17 taxable assessed valuation of $2,583 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, 2016 were $6.88 billion. The aggregate amount of revenue bonds outstanding as of February 1, 2017 was $4.23 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, 2016 and June 30, 2015, respectively, are shown in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2015 AND JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (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 parity with the Senior Revenue Bonds and Subordinate Revenue Bonds of Metropolitan will remain in effect so long as any Senior Revenue Bonds and Subordinate 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 Exposure Policy

As of February 1, 2017, Metropolitan had outstanding $1.30 billion of variable rate obligations issued under the Senior Debt Resolutions, including variable rate Senior Revenue Bonds (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations– Variable Rate and Swap Obligations") and Senior Parity Obligations incurred pursuant to Short-Term Revolving Credit Facilities (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations–Senior Parity Obligations–Short-Term Revolving Credit Facilities" below). In addition, as of February 1, 2017, all of Metropolitan's $175 million of outstanding Subordinate Revenue Bonds issued under the Subordinate Debt Resolutions were variable rate obligations (described under "–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations–Subordinate Revenue Bonds" below.

As of February 1, 2017, of Metropolitan's $1.47 billion of variable rate obligations, $493.6 million of such variable rate demand obligations are treated by Metropolitan as fixed rate debt, by virtue of interest rate swap agreements (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations–Variable Rate and Swap Obligations–Interest Rate Swap Transactions"), for the purpose of calculating debt service requirements. The remaining $974.7 million of variable rate obligations represent approximately 21.7 percent of total outstanding water revenue secured indebtedness (including Senior Revenue Bonds and Senior Parity Debt and Subordinate Revenue Bonds and Subordinate Debt), as of February 1, 2017.

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.

Outstanding Senior Revenue Bonds and Senior Parity Obligations

Senior Revenue Bonds

The water revenue bonds issued under the Senior Debt Resolutions outstanding as of February 1, 2017, are set forth below:

Name of Issue	Principal Outstanding
Water Revenue Refunding Bonds, 1993 Series A	$ 70,340,000
Water Revenue Bonds, 2000 Authorization, Series B-3[(1)]	88,800,000
Water Revenue Bonds, 2006 Authorization, Series A	302,245,000
Water Revenue Refunding Bonds, 2008 Series B	119,830,000
Water Revenue Refunding Bonds, 2008 Series C	27,255,000
Water Revenue Bonds, 2008 Authorization, Series A	174,530,000
Water Revenue Refunding Bonds, 2009 Series A-2[(1)]	104,180,000
Water Revenue Refunding Bonds, 2009 Series B	106,690,000
Water Revenue Refunding Bonds, 2009 Series C	91,165,000
Water Revenue Bonds, 2008 Authorization, Series B	10,360,000
Water Revenue Bonds, 2008 Authorization, Series C[(2)]	78,385,000
Water Revenue Bonds, 2008 Authorization, Series D[(2)]	250,000,000
Water Revenue Refunding Bonds, 2009 Series D	50,005,000
Water Revenue Refunding Bonds, 2009 Series E	12,715,000
Water Revenue Bonds, 2010 Authorization, Series A[(2)]	250,000,000
Water Revenue Refunding Bonds, 2010 Series B	74,325,000
Water Revenue Refunding Bonds, 2011 Series A-1[(1)]	64,305,000
Water Revenue Refunding Bonds, 2011 Series A-2[(1)]	49,920,000
Water Revenue Refunding Bonds, 2011 Series A-3[(1)]	64,300,000
Water Revenue Refunding Bonds, 2011 Series A-4[(1)]	49,920,000
Water Revenue Refunding Bonds, 2011 Series B	5,080,000
Water Revenue Refunding Bonds, 2011 Series C	147,435,000
Water Revenue Refunding Bonds, 2012 Series A	181,180,000
Water Revenue Refunding Bonds, 2012 Series B-1 and B-2[(1)]	98,585,000
Water Revenue Refunding Bonds, 2012 Series C	175,635,000
Water Revenue Refunding Bonds, 2012 Series F	59,335,000
Water Revenue Refunding Bonds, 2012 Series G	111,890,000
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D[(1)]	87,445,000
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series E[(1)]	104,820,000
Water Revenue Refunding Bonds, 2014 Series A	95,935,000
Water Revenue Refunding Bonds, 2014 Series B	10,575,000
Water Revenue Refunding Bonds, 2014 Series C-1–C-3	30,335,000
Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D[(1)]	38,465,000
Water Revenue Refunding Bonds, 2014 Series E	86,060,000
Water Revenue Refunding Bonds, 2014 Series G-2–G-5	43,275,000
Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A-1 and A-2[(1)]	188,900,000
Water Revenue Bonds, 2015 Authorization, Series A	208,255,000
Water Revenue Refunding Bonds, 2016 Series A	239,455,000
Special Variable Rate Water Revenue Refunding Bonds, 2016 Series B-1 and B-2(1)	103,670,000
Total	**$4,055,600,000**

Source: Metropolitan.

(1) Outstanding variable rate obligation.

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

Variable Rate and Swap Obligations

As of February 1, 2017, Metropolitan had outstanding $1.30 billion of variable rate obligations issued under the Senior Debt Resolutions, including variable rate Senior Revenue Bonds (described under this caption "–Variable Rate and Swap Obligations") and Senior Parity Obligations incurred pursuant to Short-Term Revolving Credit Facilities (described under "–Short-Term Revolving Credit Facilities" below).

The outstanding variable rate Senior Revenue Bonds include 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.

Index Tender Bonds. The Index Tender Bonds have substantially similar terms and conditions; however, the 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 plus a spread. The Index Tender Bonds outstanding as of February 1, 2017, are summarized in the following table:

Index Tender Bonds

Series	Date of Issuance	Original Principal Amount Issued	Next Scheduled Mandatory Tender Date	Maturity Date
2009 A-2	May 20, 2009	$104,180,000	July 10, 2017	July 1, 2030
2011 A-1	June 2, 2011	64,305,000	July 10, 2017	July 1, 2036
2011 A-2	June 2, 2011	49,920,000	March 27, 2018	July 1, 2036
2011 A-3	June 2, 2011	64,300,000	July 10, 2017	July 1, 2036
2011 A-4	June 2, 2011	49,920,000	March 27, 2018	July 1, 2036
2012 B-1	April 27, 2012	49,295,000	March 27, 2018	July 1, 2027
2012 B-2	April 27, 2012	49,290,000	March 27, 2018	July 1, 2027
2013 E (1)	July 2, 2013	104,820,000	June 5, 2017	July 1, 2030
Total		**$536,030,000**		

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, including on certain scheduled mandatory tender dates (unless earlier remarketed or otherwise retired). 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 any tendered Index Tender Bonds is an unsecured, special limited obligation of Metropolitan payable from Net Operating Revenues. Purchase price payments of Index Tender Bonds are subordinate to both the Senior Revenue Bonds and Senior Parity Obligations and to the Subordinate Revenue Bonds and Subordinate Parity Obligations. 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 Senior Debt Resolutions. 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 an obligation payable on parity with the Senior Revenue Bonds and Senior Parity Obligations and senior to the Subordinate Revenue Bonds and Subordinate Parity Obligations.

Self-Liquidity Bonds. As of February 1, 2017, Metropolitan had $314.8 million of outstanding Self-Liquidity Bonds issued under the Senior Debt Resolutions. 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. Purchase price payments of Self-Liquidity Bonds are subordinate to both the Senior Revenue Bonds and Senior Parity Obligations and to the Subordinate Revenue Bonds and Subordinate Parity Obligations. In addition, Metropolitan's investment policy permits it to purchase tendered Self-Liquidity Bonds as an investment for its investment portfolio (other than from 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 "–Senior Parity Obligations – Wells Fargo Revolving Credit Agreement." 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 Senior Debt Resolutions.

The following table lists the outstanding Self-Liquidity Bonds as of February 1, 2017.

Self-Liquidity Bonds

Name of Issue	Principal Outstanding
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D	$ 87,445,000
Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D	38,465,000
Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A-1 and A-2	188,900,000
Total	$314,810,000

Source: Metropolitan.

Liquidity Supported Bonds. The interest rates for Metropolitan's other variable rate demand obligations issued under the Senior Debt Resolutions, totaling $192.5 million as of February 1, 2017, are reset on a daily basis. Such variable rate demand obligations are supported by Standby Bond Purchase Agreements between Metropolitan and 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. Metropolitan has secured its obligation to repay principal and interest advanced under the Standby Bond Purchase Agreements as Senior Parity Obligations. 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 under the terms of the current liquidity facilities 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 February 1, 2017.

Liquidity Facilities and Expiration Dates

Liquidity Provider	Bond Issue	Principal Outstanding	Facility Expiration
Wells Fargo Bank, N.A.	2000 Authorization Series B-3	$ 88,800,000	April 2017[(1)]
Landesbank Hessen-Thuringen Girozentrale (Helaba)	2016 Series B-1 and Series B-2	$103,670,000	September 2019
Total		$192,470,000	

Source: Metropolitan.

(1) Metropolitan expects to replace such liquidity facility prior to its expiration date.

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.

Metropolitan's obligations to make regularly scheduled net payments under the terms of the interest rate swap agreements are payable on a parity with the Senior Parity Obligations. Termination payments under the 2002A and 2002B interest rate swap agreements would be payable on a parity with the Senior Parity Obligations. Termination payments under all other interest rate swap agreements would be on parity with the Subordinate Parity Obligations.

The following swap transactions were outstanding as of February 1, 2017:

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	158,597,500	Wells Fargo Bank	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.

These interest rate swap agreements entail risk to Metropolitan. The counterparty may fail or be unable to perform, interest rates may vary from assumptions, Metropolitan may be required to post collateral in favor of its counterparties and Metropolitan may be required to make significant payments in the event of an early termination of an interest rate swap. Metropolitan believes that if such an event were to occur, it would not have a material adverse impact on its financial position. Metropolitan seeks to manage counterparty risk by diversifying its swap counterparties, limiting exposure to any one counterparty, requiring collateralization or other credit enhancement to secure swap payment obligations, and by requiring minimum credit rating levels. Initially swap counterparties must be rated at least "Aa3" or "AA-", or equivalent by any two of the nationally recognized credit rating agencies; or use a "AAA" subsidiary as rated by at least one nationally recognized credit rating agency. Should the credit rating of an existing swap counterparty drop below the required levels, Metropolitan may enter into additional swaps if those swaps are "offsetting" and risk-reducing swaps. Each counterparty is initially required to have minimum capitalization of at least $150 million. See Note 5(f) in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (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 December 31, 2016, Metropolitan would have been required to pay to its counterparties termination payments if some of its swaps were terminated on that date. Metropolitan's net exposure to its counterparties for all such termination payments on that date was approximately $75.3 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 December 31, 2016, 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" in this Appendix A.

Term Mode Bonds

As of February 1, 2017, Metropolitan had outstanding $73.6 million of Senior Revenue Bonds bearing interest in a term mode, comprised of $30.3 million of 2014 Series C Bonds in three series, and $43.3 million of 2014 Series G in four series (collectively, 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 Term Mode Bonds outstanding as of February 1, 2017, are summarized in the following table:

Term Mode Bonds

Series	Original Principal Amount Issued	Next Scheduled Mandatory Tender Date
2014 C-1	$ 13,505,000	October 1, 2019
2014 C-2	14,020,000	October 1, 2020
2014 C-3	2,810,000	October 1, 2021
2014 G-2	14,300,000	October 1, 2017
2011 G-3	11,165,000	October 1, 2018
2012 G-4	11,605,000	October 1, 2019
2012 G-5	6,205,000	October 1, 2020
Total	**$ 73,610,000**	

Source: Metropolitan.

Metropolitan will pay the principal of, and interest on, the Term Mode Bonds on parity with its other Senior Revenue 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 any tendered Term Mode Bonds is an unsecured, special limited obligation of Metropolitan payable from Net Operating Revenues. Purchase price payments of Term Mode Bonds are subordinate to both the Senior Revenue Bonds and Senior Parity Obligations and to the Subordinate Revenue Bonds and Subordinate Parity Obligations. 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. Failure to pay the purchase price of a series of Term Mode 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 Term Mode 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 Term Mode Bonds on a scheduled mandatory tender date is not a default under the Senior Debt Resolutions. 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 an obligation payable on parity with the Senior Revenue Bonds and Senior Parity Obligations.

Build America Bonds

Metropolitan previously issued and designated three series of Senior Revenue 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"). Metropolitan currently expects to receive cash subsidies from the United States Treasury (the "Interest Subsidy Payments") equal to 35 percent of the interest payable on all such outstanding Build America Bonds less any federal budget sequestration offsets as described in the following paragraph. The Interest Subsidy Payments in connection with the Build America Bonds do not constitute Operating Revenues under the Senior Debt Resolutions or the Subordinate Debt Resolutions. 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, which are 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 was to receive on or about July 1, 2013 was reduced by 8.7 percent, or $578,000, to $6.06 million. Interest Subsidy Payments processed in the federal fiscal year ended September 30, 2014 were reduced by the federal fiscal year 2014 sequestration rate of 7.2 percent and Interest Subsidy Payments processed in the federal fiscal year ended September 30, 2015 were reduced by the federal fiscal year 2015 sequestration rate of 7.3 percent. Interest Subsidy Payments processed in the federal fiscal year ended September 30, 2016 were reduced by the federal fiscal year 2016 sequestration rate of 6.8 percent, and Interest Subsidy Payments processed on or after October 1, 2016 and on or before September 30, 2017 are anticipated to be reduced by the federal fiscal year 2017 sequestration rate of 6.9 percent. 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.

Senior Parity Obligations

Short-Term Revolving Credit Facilities. In April 2016, Metropolitan entered into a noteholder's agreement with RBC Municipal Products, LLC ("RBC") for the purchase by RBC and sale by Metropolitan of Metropolitan's Index Notes, Series 2016 ("RBC Facility"). Also in April 2016, Metropolitan entered into a note purchase and continuing covenant agreement with U.S. Bank National Association ("US Bank"), for the purchase by US Bank and sale by Metropolitan of Metropolitan's Flexible Rate Revolving Notes, Series 2016 ("US Bank Facility," and together with the RBC Facility, the "Short-Term Revolving Credit Facilities"). Metropolitan is permitted to sell up to $200 million of notes under each of the Short-Term Revolving Credit Facilities during the term of the respective bank's commitment to purchase notes thereunder, which currently extends to April 5, 2019, for an aggregate amount of available borrowings of $400 million. Metropolitan may borrow, pay down and re-borrow amounts under each of the Short-Term Revolving Credit Facilities. Currently, Metropolitan has sold approximately $250 million of notes under the Short-Term Revolving Credit Facilities ($125 million under the RBC Facility and approximately $125 million under the US Bank Facility). Of that amount, Metropolitan has deposited $250 million in its unrestricted financial reserves. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. An additional draw of approximately $50 million is expected by the end of June 2017.

Each of the Short-Term Revolving Credit Facilities bears interest at a variable rate of interest. The US Bank Facility bears interest at a spread to one-month London interbank offering rate ("LIBOR") for taxable borrowings or to 70 percent of one-month LIBOR for tax-exempt borrowings, while the RBC Facility bears interest at a spread to one-month LIBOR for taxable borrowings or to the SIFMA Municipal Swap Index for tax-exempt borrowings. Under the Short-Term Revolving Credit Facilities, upon a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, or other specified events of default, each bank could terminate its commitments and declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the Short-Term Credit Facilities as Senior Parity Obligations.

In the Short-Term Revolving Credit Facilities agreements, Metropolitan designated the principal and interest payable as Excluded Principal Payments under the Senior Debt Resolutions and thus, for purposes of calculating Maximum Annual Debt Service, included the amount of principal and interest due and payable under the Short-Term Revolving Credit Facilities on a schedule of Assumed Debt Service. This schedule of Assumed Debt Service assumes that Metropolitan will pay the principal under the Short-Term Revolving Credit Facilities over a period of 30 years at a fixed interest rate of approximately 3.3 percent.

Wells Fargo Revolving Credit Agreement. On July 1, 2015, Metropolitan executed a revolving credit agreement with Wells Fargo Bank, N.A. (the "Wells Fargo Revolving Credit Agreement"). Under the terms and conditions of the Wells Fargo Revolving Credit Agreement, Metropolitan will be able to borrow up to $180 million for purposes of paying the purchase price of any Self-Liquidity Bonds. The scheduled expiration date of the Wells Fargo Revolving Credit Agreement is July 1, 2018. On November 4, 2015, Wells Fargo Bank assigned $100 million of its share of the Wells Fargo Revolving Credit Agreement to the Industrial and Commercial Bank of China ("ICBC"). Wells Fargo will retain the remaining $80 million commitment. ICBC assumed all of Wells Fargo's obligations with respect to its $100 million share under the Wells Fargo Revolving Credit Agreement.

Under the Wells Fargo Revolving Credit Agreement, a failure by Metropolitan to perform or observe certain covenants could result in a termination of Wells Fargo Bank and ICBC's commitments and entitle them to declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the Wells Fargo Revolving Credit Agreement as Senior Parity Obligations. Metropolitan has no obligation to make borrowings under, maintain, or renew the Wells Fargo Revolving Credit Agreement. See "–Limitations on Additional Revenue Bonds" above.

In the Wells Fargo Revolving Credit Agreement, Metropolitan designated the principal and interest payable as Excluded Principal Payments under the Senior Debt Resolutions and thus, for purposes of calculating Maximum Annual Debt Service, included the amount of principal and interest due and payable under the Revolving Credit Agreements on a schedule of Assumed Debt Service. This schedule of Assumed Debt Service assumes that Metropolitan will pay the principal under the Revolving Credit Agreements over a period of 30 years at a fixed interest rate of 3.75 percent. Pursuant to the terms of the Senior Debt Resolutions, while the Wells Fargo 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 Wells Fargo Revolving Credit Agreement to purchase Self-Liquidity Bonds.

Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations

Subordinate Revenue Bonds

In December 2016, Metropolitan entered into a Continuing Covenant Agreement with Bank of America, N.A. ("BANA", and the "2016 BANA Agreement"), for the purchase by BANA and sale by Metropolitan of Metropolitan's $175 million Subordinate Water Revenue Bonds, 2016 Authorization Series A (the "Subordinate 2016 Series A Bonds"), which is the first series of bonds issued under the Subordinate Debt Resolutions. Proceeds were used to reimburse Metropolitan for the purchase of the Delta Wetlands Properties in the San Francisco Bay\Sacramento-San Joaquin River Delta that was funded from Metropolitan's reserves in July 2016. See "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" and "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A.

The Subordinate 2016 Series A Bonds bear~~s~~ interest at a variable rate of interest, at a spread to one-month LIBOR. Under the 2016 BANA Agreement, upon a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, or other specified events of default, BANA could terminate its commitments and declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the 2016 BANA Agreement as a Subordinate Parity Obligation. The Subordinate 2016 Series A Bonds are Index Tender Bonds and are subject to mandatory tender for purchase on the scheduled mandatory tender date of December 21, 2018, or, if directed by BANA upon the occurrence and continuance of an event of default under the 2016 BANA Agreement, five business days after receipt of such direction. On or before the scheduled mandatory tender date, Metropolitan may request an extension of the 2016 BANA Agreement for another tender period or may request BANA to purchase the Subordinate 2016 Series A Bonds in another interest rate mode, or Metropolitan may seek to remarket the 2016 Series A Bonds to another bank or in the public debt markets. In the event the 2016 BANA Agreement is not extended, Metropolitan is obligated under the 2016 BANA Agreement to cause unremarketed Subordinate 2016 Series A Bonds to be redeemed five business days after the scheduled mandatory tender date in the event the purchase price of the Subordinate 2016 Series A Bonds is not paid from the proceeds of a remarketing or other funds on the scheduled mandatory tender date. A failure to pay the purchase price of the Subordinate 2016 Series A Bonds upon a mandatory tender would constitute a default under the Subordinate Debt Resolutions if not remedied within five business days.

The water revenue bonds issued under the Subordinate Debt Resolutions outstanding as of February 1, 2017, are set forth below:

Name of Issue	Principal Outstanding
Subordinate Water Revenue Bonds, 2016 Authorization Series A[(1)]	$175,000,000

Source: Metropolitan.

(1) Outstanding variable rate obligation.

Subordinate Parity Obligations

In 2003, 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 Senior Revenue Bonds and Senior Obligations and on parity with the Subordinate Revenue Bonds. As of February 1, 2017, the principal balance outstanding was $8.6 million.

Other Junior Obligations

Metropolitan currently is authorized to issue up to $400,000,000 of Commercial Paper Notes payable from Net Operating Revenues on a basis subordinate to both the Senior Revenue Bonds and Senior Parity Obligations and to the Subordinate Revenue Bonds and Subordinate 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.

General Obligation Bonds

As of February 1, 2017, $92,865,000 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, 2009 Series A	$45,515,000	$30,745,000
Waterworks General Obligation Refunding Bonds, 2010 Series A	39,485,000	23,065,000
Waterworks General Obligation Refunding Bonds, 2014 Series A	49,645,000	39,055,000
Total	$134,645,000	$92,865,000

Source: Metropolitan.

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

State Water Contract Obligations

General. As described herein, in 1960, Metropolitan entered into its State Water Contract with DWR to receive water from the State Water Project. All expenditures for capital and operations, maintenance, power and replacement costs associated with the State Water Project facilities used for water delivery are paid for by the 29 Contractors that have executed State Water Contracts with DWR, including Metropolitan. Contractors are 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. In exchange, Contractors have the right to participate in the system, with an entitlement to water service from the State Water Project and the right to use the portion of the State Water Project conveyance system necessary to deliver water to them at no additional cost as long as capacity exists. Metropolitan's State Water Contract accounts for nearly one-half of the total entitlement for State Water Project water contracted for by all Contractors.

DWR and other State Water Project Contractors, including Metropolitan, have reached an Agreement in Principle to extend their State Water Contracts 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.

Metropolitan's payment obligation for the State Water Project for the fiscal year ended June 30, 2016 was $511 million, which amount reflects prior year's credits of $61.6 million. For the fiscal year ended June 30, 2016, Metropolitan's payment obligations under the State Water Contract were approximately 27 percent of Metropolitan's total annual expenses. 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" below 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 the State Water Project capital costs as participation rights in State Water Project facilities as such costs are costs paid in exchange for participation in the system, regardless of whether there is water available to be delivered. Unamortized participation rights essentially represent a prepayment for future costs as Metropolitan will likely continue to participate in the system at least through 2035. Metropolitan's share of system operating and maintenance costs are annually expensed.

DWR and various subsets of the State Water Contractors have entered into amendments to the State Water Contract related to the financing of certain State Water Project facilities. The amendments establish procedures to provide for the payment of construction costs financed by DWR bonds by establishing separate subcategories of charges to produces the revenues required to pay all of the annual financing costs (including coverage on the allocable bonds) relating to the financed project. If any affected Contractor defaults on payment under certain of such amendments, the shortfall may be collected from the non-defaulting affected Contractors, subject to certain limitations.

These amendments represent additional long-term obligations of Metropolitan, 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 2016, this represented a payment of $7.8 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 Independent System Operator. 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.

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 2017 and, for fiscal year 2016-17, preliminary financial results through December 30, 2016. For all other years the projections are based on Metropolitan's adopted biennial budget for fiscal years 2016-17 and 2017-18 and the ten-year financial forecast included in the adopted budget. See "METROPOLITAN'S WATER SUPPLY–State Water Project – Bay-Delta Proceedings Affecting State Water Project – Bay-Delta 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)]
2017	$173.4	$225.0	$150.0	$(46.4)	$502.0
2018	184.2	294.7	158.4	(37.9)	599.4
2019	195.3	315.9	170.4	(36.1)	645.5
2020	212.1	340.5	191.1	(35.0)	708.7
2021	236.3	264.8	212.1	(34.7)	778.6

Source: Metropolitan.

(1) Projections are based upon DWR's Annual Billing to Metropolitan for 2017 and attachments (dated July 1, 2015) and, for fiscal year 2016-17, preliminary financial results through December 31, 2016. For other years, the projections are based on Metropolitan's adopted biennial budget for fiscal years 2016-17 and 2017-18, and the ten-year financial forecast included in the adopted budget. 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 year ended June 30, 2016 and June 30, 2015, in Appendix B, due to the inclusion of allowances for inflation and anticipated construction of additional State Water Project facilities. See "METROPOLITAN EXPENSES–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 DWA/CVWD transfers and exchanges) into Metropolitan's service area and to storage programs are as follows: 0.75 million acre-feet for fiscal year 2016-17, 0.77 million acre-feet for fiscal year 2017-18, 0.82 million acre-feet for fiscal year 2018-19, 0.88 million acre-feet for fiscal year 2019-20, and 0.93 million acre-feet for fiscal year 2020-21. 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" and "–Endangered Species Act and Other Environmental Considerations" in this Appendix A.

(4) Annual totals include California WaterFix related costs for the fiscal years ended June 30, 2017 through June 30, 2021 of $-0- in fiscal year 2016-17 and fiscal year 2017-18, $20 million in fiscal year 2018-19, $38 million in fiscal year 2019-20, and $63 million in fiscal year 2020-21. Projected California WaterFix costs are reflected in the ten-year financial forecast provided in the biennial budget for fiscal years 2016-17 and 2017-18 that was approved by Metropolitan's Board on April 12, 2016.

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 CRA. In fiscal year 2015-16 Metropolitan paid approximately $15.7 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.

Power Sources and Costs

Current and future costs for electric power required for operating the pumping systems of the CRA and the State Water Project are a substantial part of Metropolitan's overall expenses. Expenses for electric power for the CRA (not including credits from power sales and related revenues) for the fiscal years 2014-15 and 2015-16 were approximately $39.2 million, and $35.5 million, respectively. Expenses for electric power and transmission service for the State Water Project for fiscal years 2014-15 and 2015-16 were approximately $140.8 million and $125.4 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 CRA 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 Southern California Edison ("Edison"). These contracts provide Metropolitan with reliable and economical power resources to pump Colorado River water to Metropolitan's service area.

The Hoover Power Allocation Act of 2011 (H.R. 470) requires the Western Area Power Administration (Western) 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. Metropolitan and Western have completed negotiations and have executed the new contract.

As provided for under the Hoover Power Allocation Act of 2011 (H.R. 470), Metropolitan has executed a 50-year agreement with the Western Area Power Administration for the continued purchase of electric energy generated at the Hoover Power Plant through September 2067. Under the successor agreement (which will replace Metropolitan's existing Hoover contract expiring in 2017), Metropolitan will retain 95 percent of its existing power rights.

The remaining approximately 30 to 45 percent of annual pumping power requirements for full capacity pumping on the CRA 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, 2015 and June 30, 2016 were approximately 1.2 million acre-feet and 1.1 million acre-feet, respectively, including Metropolitan's basic apportionment of Colorado River water and supplies from water transfer and 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.

Depending on pumping conditions, Metropolitan can require additional energy 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 also purchases California market-priced power through its agreement with Edison. In fiscal years 2014-15 and 2015-16, Metropolitan purchased approximately 710,000 and 690,000 megawatt-hours, respectively, of additional energy.

The Metropolitan-Edison 1987 Service and Interchange Agreement will expire on September 30, 2017. Metropolitan is negotiating with several parties on successor agreements. In particular, Metropolitan will no longer receive benefit energy from Edison. Metropolitan anticipates market power purchases will replace benefit energy and has reflected the additional costs in the CRA power cost projections for fiscal year 2017-18 and the ten-year financial forecast.

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 Metropolitan (hydropower), Kern River Conservation District (hydropower), Northern California Power Agency (natural gas generation), Alameda Municipal Power (geothermal and landfill gas), Sun Power Corporation (solar) and Dominion Solar Holdings (solar). 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 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. On May 16, 2012, the trial 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. Supplemental briefing was completed in the fall of 2016. No date has been set for oral argument. Regulatory permits and authorizations are also required before the new license can take effect. In December 2016, the National Marine Fisheries Service issued a biological opinion setting forth the terms and conditions under which the relicensing project must operate in order to avoid adverse impacts to threatened and endangered species. This was the last major regulatory hurdle prior to FERC issuing a new license. Metropolitan anticipates that FERC will issue the new license in 2017. However, 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 the California Independent System Operator ("CAISO"), a nonprofit public benefit corporation formed in 1996 pursuant to legislation that restructured and deregulated the electric utility industry in California. The transmission service providers participating in the CAISO 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.

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. Employees hired on or after January 1, 2013 and who are "new" PERS members as defined by Public Employees' Pension Reform Act of 2013 pay a member contribution of 6.75 and 6.00 percent in fiscal years 2016-17 and 2017-18, respectively. 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 2015-16 contribution is based on the June 30, 2013 valuation report, the fiscal year 2016-17 contribution is based on the June 30, 2014 valuation report, and the fiscal year 2017-18 contribution is based on the June 30, 2015 valuation report. The PERS' projected investment return (the discount rate) for each of these fiscal years is 7.5 percent.

For fiscal year 2015-16, Metropolitan contributed 19.74 percent of annual covered payroll. The fiscal year 2015-16 annual pension cost was $50.8 million, of which $12.4 million was for Metropolitan's pick-up of the employees' seven percent share. For fiscal years 2016-17 and 2017-18, Metropolitan is required to contribute 20.75 and 22.89 percent of annual covered payroll, respectively, in addition to member contributions paid by Metropolitan.

Metropolitan's required contributions to PERS fluctuate each year and include a normal cost component and a component equal to an amortized amount of the unfunded liability. Many assumptions are used to estimate the ultimate liability of pensions and the contributions that will be required to meet those obligations. The PERS Board of Administration has adjusted and may in the future further adjust certain assumptions used in the PERS actuarial valuations, which adjustments may increase Metropolitan's required contributions to PERS in future years. Accordingly, Metropolitan cannot provide any assurances that its required contributions to PERS in future years will not significantly increase (or otherwise vary) from any past or current projected levels of contributions.

On April 17, 2013, the PERS Board of Administration approved changes to the amortization and rate 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 beginning with the June 30, 2013 valuations. In addition, PERS no longer uses an actuarial valuation of assets and instead uses the market value of assets to determine contribution rates per PERS direct smoothing policy. These changes will result in higher employer contribution rates in the near term but lower rates in the long term. The new policies are effective for determining contribution requirements beginning fiscal year 2015-16. On December 21, 2016 the PERS Board of Administration approved lowering the discount rate to 7.00 percent over a three year period. As a result, the discount rate for fiscal year 2018-19 will be 7.375 percent, for fiscal year 2019-20 it will be 7.25 percent, and for fiscal year 2020-21 it will be 7.00 percent. PERS has estimated that with a reduction in the rate of return to 7.00 percent, most employers could expect a 1 to 3 percent increase in the normal cost for miscellaneous plans. As a result, required contributions of employers, including Metropolitan, toward unfunded accrued liabilities, and as a percentage of payroll for normal costs, are expected to increase. The following table shows the funding progress of Metropolitan's pension plan.

The following table shows the funding progress of Metropolitan's pension plan.

Metropolitan Pension Plan Assets
(dollars in billions)

				Funded (Unfunded)		Funded Ratios	
Valuation Date	**Accrued Liability**	**Actuarial Value of Assets**	**Market Value of Assets**	**Actuarial Value**	**Market Value**	**Actuarial Value**	**Market Value**
6/30/15	$2.060	N/A	$1.556	N/A	$(0.504)	N/A	75.5%
6/30/14	$1.983	N/A	$1.560	N/A	$(0.423)	N/A	78.7%
6/30/13	$1.805	N/A	$1.356	N/A	($0.449)	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%

Source: California Public Employees' Retirement System.

Effective July 1, 2014, Metropolitan implemented Governmental Accounting Standards Board Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27* (GASB 68), affecting the reporting of pension liabilities for accounting purposes. Under GASB 68, Metropolitan is required to report the Net Pension Liability (*i.e.*, the difference between the Total Pension Liability and the Pension Plan's Net Position or market value of assets) in its financial statements.

For Metropolitan's fiscal year ended June 30, 2016 financial statements, the Net Pension Liability reported for the Miscellaneous Plan was $479.6 million (an increase of $72.8 million over the prior year), representing a Total Pension Liability as of such date of $2,038.6 million (an increase of $69.2 million over the prior year) less the Plan Fiduciary Net Position as of such date of $1,559.0 million (a decrease of $3.5 million over the prior year). For fiscal year 2016, the Miscellaneous Plan Net Pension Liability as a percentage of covered-employee payroll was 231.10 percent and the Plan Net Position as a percentage of the Total Pension Liability was 76.48 percent. The Net Pension Liability for Metropolitan's Miscellaneous Plan for the year ended June 30, 2016 was measured as of June 30, 2015, and the Total Pension Liability used to calculate the Net Pension Liability was determined by an annual actuarial valuation as of that date.

For the fiscal year ended June 30, 2015 financial statements, Metropolitan reported a Net Pension Liability of $406.8 million (a decrease of $118.1 million over the prior year), representing a Total Pension Liability as of such date of $1,969.3 million (an increase of $86.3 million over the prior year) less the Plan Fiduciary Net Position as of such date of $1,562.5 million (an increase of $204.4 million over the prior year). For fiscal year 2015, the Miscellaneous Plan Net Pension Liability as a percentage of covered-employee payroll was 200.53 percent and the Plan Net Position as a percentage of the Total Pension Liability was 79.34 percent. The Net Pension Liability for Metropolitan's Miscellaneous Plan for the year ended June 30, 2015 was measured as of June 30, 2014, and the Total Pension Liability used to calculate the Net Pension Liability was determined by an annual actuarial valuation as of that date.

For more information on the plan, see APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (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 $23.1 million in fiscal year 2015-16. 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.

The actuarial valuation dated June 30, 2015, was released in June of 2016. This valuation indicates that the Annual Required Contribution (ARC) in fiscal years 2016-17 and 2017-18 will be $29.3 million and $30.1 million, respectively. The ARC was based on 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 7.0 percent for non-Medicare plans for 2017, grading down to 5.0 percent for 2021 and thereafter. As of June 30, 2015, the date of the OPEB actuarial report, the unfunded actuarial accrued liability was estimated to be $258.8 million. The unfunded actuarial accrued liability is amortized over a fixed 30-year period starting with fiscal year 2007-08 and ending in 2037. Changes to assumptions, actuarial gains and losses, and plan changes are amortized over a fixed 15-year period.

In September 2013, Metropolitan's Board established an irrevocable OPEB trust fund with an initial deposit of $40.0 million. During fiscal year 2013-14, the Board approved funding of an additional $100.0 million which was deposited into the irrevocable OPEB trust fund. As part of its biennial budget process, the Board approved the full funding of the ARC for fiscal years 2016-17 and 2017-18.

Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, was issued in June 2015, relating to accounting and financial reporting by state and local governments for OPEB. This statement establishes standards for measuring and recognizing liabilities, deferred outflows and deferred inflows of resources, and expenses. For defined benefit OPEB, this statement identifies the methods and assumptions that should be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about OPEB also are addressed. This statement is effective for Metropolitan for 2018. Major changes would be: (i) the inclusion of net OPEB liabilities on Metropolitan's Statement of Net Position (they are currently included as notes to Metropolitan's financial statements); and (ii) more variable OPEB expense as it will now be based on the net OPEB liability change between reporting dates, with some sources of change recognized immediately and other spread over years, instead of being based on actual contributions.

HISTORICAL AND PROJECTED REVENUES AND EXPENSES

The "Historical and Projected Revenues and Expenses" table below provides a summary of revenues and expenses of Metropolitan prepared on a modified accrual basis. This is consistent with the adopted biennial budget for fiscal years 2016-17 and 2017-18. 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.

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" in this Appendix A. Metropolitan has conservatively set the water sales projections in the following table. Due to the variability of supplemental wholesale water sales and unpredictability of future hydrologic conditions, sales projections are based on long-term average forecasts consistent with Metropolitan's latest Board adopted Integrated Resources Plan, the 2015 IRP Update.

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.

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 "CONSERVATION AND WATER SHORTAGE MEASURES" 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, recycled water, and seawater desalination (see "REGIONAL WATER RESOURCES" in this Appendix A). For example, water sales projections for fiscal year 2016-17 assumed that local projects such as groundwater recovery and desalination projects (see "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A) would become operational and produce local supplies in 2017. 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. As shown in the *Historical Water Sales* chart below, sales can vary significantly from average and demonstrates the degree to which Metropolitan's commitments to meet supplemental demands can impact sales. 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.

Projections for fiscal year 2016-17 in the following table reflect actual financial results through December 31, 2016 and revised projections for the balance of the fiscal year. The financial projection for fiscal years 2017-18 reflects the adopted biennial budget that was approved by the Board on April 12, 2016. Financial projections for fiscal years 2018-19 through 2020-21 are reflected in the ten-year financial forecast provided in the adopted biennial budget. This includes the projected issuance of $320 million of bonds in fiscal years 2017-18 through 2019-21 to finance the CIP. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES–Water Sales Revenues" and "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" in this Appendix A.

Water sales were 1.62 million acre-feet in fiscal year 2015-16. Water sales are projected to be 1.67 million acre-feet in fiscal year 2016-17 and 1.70 million acre-feet for fiscal year 2017-18, and 1.75 million acre-feet for fiscal years 2018-19 through 2020-21. Rates and charges increased by 1.5 percent on January 1, 2015 and by 4.0 percent on January 1, 2017. On April 12, 2016 the Board adopted average increases in rate and charges of 4.0 percent, which will become effective on January 1, 2018. Rates and charges are projected to increase an average of 4.5 percent annually thereafter. Actual rates and charges to be effective in 2019 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.

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

	Actual				Projected				
	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**
Water Sales[b]	$1,283	$1,485	$1,383	$1,166	$1,277	$1,375	$1,473	$1,533	$1,597
Additional Revenue Sources[c]	173	182	199	200	191	173	179	184	192
Total Operating Revenues	1,456	1,667	1,582	1,366	1,467	1,548	1,652	1,717	1,789
O&M, CRA Power and Water Transfer Costs[d]	(456)	(512)	(697)	(799)	(646)	(631)	(661)	(681)	(695)
Total SWC OMP&R and Power Costs[e]	(337)	(342)	(308)	(402)	(365)	(453)	(486)	(532)	(577)
Total Operation and Maintenance	(793)	(854)	(1,005)	(1,201)	(1,011)	(1,084)	(1,147)	(1,212)	(1,272)
Net Operating Revenues	$ 663	$ 813	$ 577	$ 165	$ 456	$ 464	$ 505	$ 505	$ 517
Miscellaneous Revenue[f]	23	19	21	24	21	24	24	24	25
Transfer from Reserve Funds[g]	-	-	142	222	46	-	-	-	-
Sales of Hydroelectric Power[h]	25	15	8	7	13	22	22	23	22
Interest on Investments[i]	(2)	19	16	17	3	12	19	19	20
Adjusted Net Operating Revenues[j]	709	866	761	435	539	521	569	571	584
Senior Bond Service[k]	(298)	(343)	(280)	(309)	(307)	(330)	(328)	(322)	(314)
Subordinate Obligations[l]	(1)	(1)	(1)	(1)	(4)	(4)	(6)	(6)	(6)
Funds Available from Operations	$ 410	$ 522	$ 480	$ 125	$ 228	$ 187	$ 236	$ 243	$ 265
Senior Bond Debt Service Coverage [m]	2.38	2.52	2.72	1.41	1.75	1.58	1.74	1.77	1.86
Subordinate Lien Debt Service Coverage	-	-	-	-	59.56	45.36	43.57	44.83	48.72
Debt Service Coverage on all Senior and Subordinate Bonds[n]	2.37	2.51	2.71	1.40	1.73	1.56	1.71	1.74	1.83
Funds Available from Operations	$ 410	$ 522	$ 480	$ 125	$ 228	$ 187	$ 236	$ 243	$ 265
Other Revenues (Expenses)	(5)	(6)	(7)	(6)	(6)	(6)	(7)	(7)	(7)
Pay-As-You Go Construction[p]	(55)	(117)	(210)	(273)	(133)	(120)	(120)	(120)	(120)
Pay-As-You Go Funded from Replacement & Refurbishment Fund Reserves[p]				160					
Total SWC Capital Costs Paid from Current Year Operations	(88)	(68)	(46)	(24)	(54)	(65)	(71)	(86)	(103)
Remaining Funds Available from Operations	262	331	217	(18)	35	(4)	39	30	35
Fixed Charge Coverage[o]	1.83	2.10	2.33	1.30	1.48	1.31	1.41	1.38	1.38
Property Taxes	95	95	104	108	106	101	103	105	107
General Obligation Bonds Debt Service	(40)	(40)	(22)	(22)	(22)	(23)	(19)	(14)	(14)
SWC Capital Costs Paid from Taxes	(55)	(55)	(82)	(86)	(83)	(75)	(82)	(88)	(91)
Net Funds Available from Current Year[p]	$262	$331	$217	$(18)	$(35)	$(4)	$39	$30	35

Source: Metropolitan.

(Footnotes on next page)

(a) Unaudited. Prepared on a modified accrual basis. Projected revenues and expenses in fiscal year 2016-17 are based on preliminary financial results through December 31, 2016, and revised projections for the balance of FY 2016-17. Projections for fiscal years 2017-18 through 2020-21 are based on assumptions and estimates used in the adopted fiscal years 2016-17 and 2017-18 biennial budget and reflect the projected issuance of additional bonds.

(b) During the fiscal years ended June 30, 2013 through June 30, 2016, annual water sales (in acre-feet) were 1.86 million, 2.04 million, 1.905 million and 1.62 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 1.67 million acre-feet for fiscal year 2016-17, and 1.70 million acre-feet for fiscal years 2017-18, and 1.75 million acre-feet for fiscal years 2018-19, 2019-20 and 2020-21. Projections reflect Board adopted rate and charge increases of 4.0 percent, effective on January 1, 2017 and January 1, 2018. Rates and charges are projected to increase an average of 4.5 percent per fiscal year thereafter, subject to adoption by Metropolitan's Board. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES."

(c) Includes receipts from water standby, readiness-to-serve, and capacity charges. The term Operating Revenues excludes *ad valorem* taxes. See "METROPOLITAN REVENUES–Other Charges" 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 EXPENSES–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.

(g) Reflects transfers from the Water Management Fund, the Water Stewardship Fund, and the Water Rate Stabilization Fund, of $142 million in fiscal year 2014-15, $222 million in fiscal year 2015-16, and projected transfers of $46 million in fiscal year 2016-17 to fund a like amount of costs for conservation and supply programs. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES."

(h) Includes CRA power sales.

(i) 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

(j) 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 Senior Revenue Bonds and Senior Parity Obligations.

(k) Includes debt service on outstanding Senior Revenue Bonds, and additional Senior Revenue Bonds (projected). Assumes issuance of $80 million annually in additional Senior Revenue Bonds as provided in budget assumptions for the adopted biennial budget for fiscal years 2016-17 and 2017-18 and as projected for fiscal years 2018-19, 2019-20, and 2020-21. 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 $33.7 million to an escrow account on May 29, 2014. Fiscal year 2015-16 debt service increased $7.0 million for debt service paid on June 30, 2016, rather than July 1, 2017 and fiscal year 2016-17 debt service was therefore reduced by $7.0 million. See "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" in this Appendix A.

(l) Consisting of subordinate lien California Safe Drinking Water Revolving Fund Loan, and additional Bonds.

(m) Adjusted Net Operating Revenues divided by the sum of debt service on outstanding Senior Revenue Bonds and additional Senior Revenue Bonds (projected).

(n) Adjusted Net Operating Revenues, divided by the sum of debt service on outstanding Senior Revenue Bonds, Senior Parity Obligations, Subordinate Revenue Bonds and Subordinate Parity Obligations, including the subordinate lien California Safe Drinking Water Revolving Fund Loan and projected Revenue Bonds. See "METROPOLITAN EXPENSES–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations" in this Appendix A.

(o) Adjusted Net Operating Revenues, divided by the sum of State Water Contract capital costs paid from current year operations and debt service on outstanding Revenue Bonds, the subordinate lien California Safe Drinking Water Revolving Fund Loan and additional Revenue Bonds (projected).

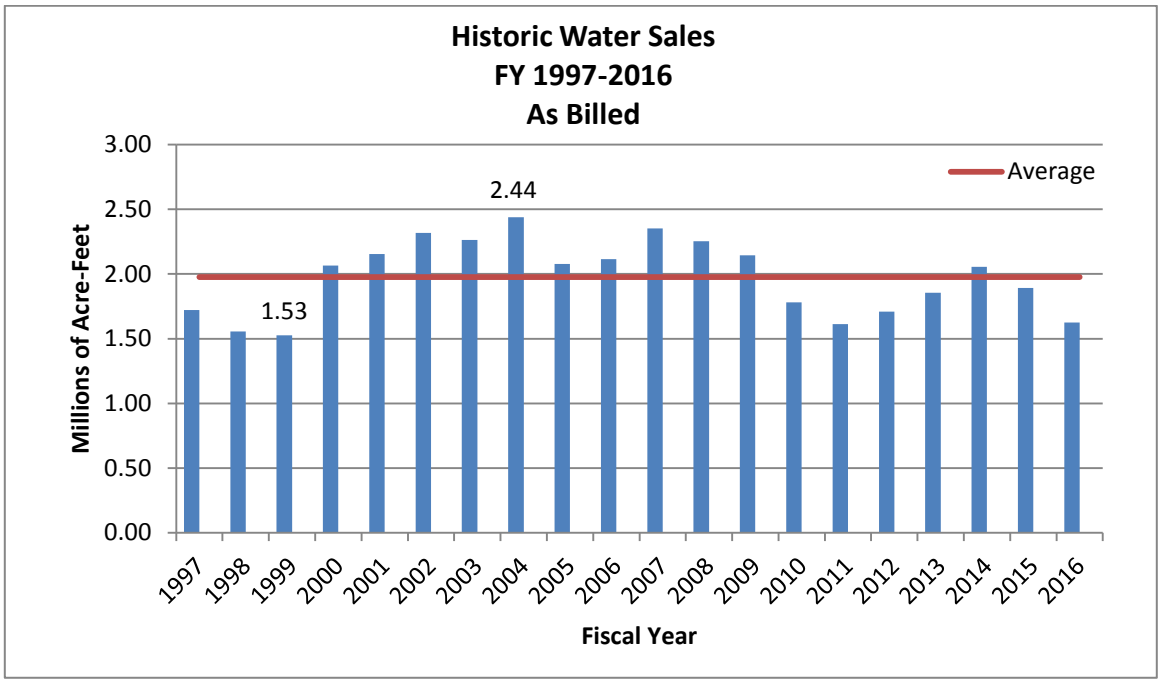
(p) For Fiscal Year 2012-13, includes amounts that were transferred prior to June 30, 2013: $25 million to the Water Transfer Fund, $25 million to a trust to pre-fund Metropolitan's unfunded liability for other post-employment benefits, and $25 million for pay-as-you-go Construction. For Fiscal Year 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 pay-as-you-go Construction, $232 million to the Water Management Fund, for water purchases to replenish storage and funding drought response programs. For Fiscal Year 2014-15, includes amounts transferred prior to June 30, 2015: $160 million to the Water Management Fund, for water conservation programs. For fiscal year 2015-16, Metropolitan used $264 million for acquiring properties in Riverside and Imperial Counties, funded by $160 million from the Replacement and Refurbishment Fund Reserves and the balance from unrestricted reserves. This land purchase is reflected as a pay-as-you-go expenditure for fiscal year 2015-16.

MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES

Water Sales Projections

Water sales forecast in the table above for fiscal year 2016-17 is 1.67 million acre-feet, 25 thousand acre-feet under budget. The water sales forecasts are 1.70 million acre-feet for fiscal year 2017-18, and 1.75 million acre-feet for fiscal years 2018-19 and 2019-21, consistent with the biennial budget and ten-year financial forecast. For purposes of comparison, Metropolitan's highest water sales during the past 20 fiscal

years was approximately 2.44 million acre-feet in fiscal year 2003-04 and the lowest was 1.53 million acre-feet in fiscal year 1998-1999. The chart below shows the last 20 fiscal years of water sales.



Water Sales Revenues

Metropolitan relies on revenues from water sales for about 85 to 90 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 the required 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 annual water rate increases of 5.0 percent, which became effective January 1, 2013 and January 1, 2014. On April 8, 2014, Metropolitan's Board adopted 1.5 percent average water rate increases effective January 1, 2015, and January 1, 2016, and on April 12, 2016, Metropolitan's Board adopted an average 4.0 percent water rate increase, effective January 1, 2017, and an additional average 4.0 percent water rate increase effective January 1, 2018.

Projected Fiscal Year 2016-17 Results

Projections for fiscal year 2016-17, in the table above, are based on preliminary financial results through December 31, 2016, and revised projections for the balance of fiscal year 2016-17. The financial projection for fiscal year 2017-18 reflects the adopted biennial budget for this fiscal year as approved by the Board on April 12, 2016. Financial projections for fiscal years 2018-19 through 2020-21 are reflected in the ten-year financial forecast provided in the adopted biennial budget. The fiscal year 2016-17 and 2017-18 biennial budget and rates set the stage for predictable and reasonable rate increases over the ten-year planning period, with Board adopted rate increases of 4.0 percent annually in both fiscal years 2016-17 and 2017-18, and projected average increases of 4.5 percent per year thereafter. Actual rates and charges to be effective in fiscal year 2018-19 and thereafter are subject to adoption by Metropolitan's Board as part of the

biennial budget process, at which point the ten-year forecast will also be updated as well. Increases in rates and charges reflect the impact of reduced water sales projections, increasing operations and maintenance costs, and increasing State Water Project costs, when compared to prior fiscal years.

Metropolitan's revenues exceeded expenses during fiscal year 2014-15, resulting in a significant increase in unrestricted reserves. On May 29, 2015, Metropolitan's Board approved the use of $160 million of unrestricted reserves over the target reserve level, $50 million from the Water Stewardship Fund, and $140 million from the Water Management Fund to fund conservation incentives. As of June 30, 2015, Metropolitan's unrestricted reserves were $476 million, on a modified accrual basis. On July 14, 2015, Metropolitan's Board approved $264 million to acquire various properties in Riverside and Imperial Counties, with $160 million funded from the Replacement and Refurbishment Fund and the remaining amount from unrestricted reserves. Unrestricted reserves, as of April 30, 2016, include $250 million drawn from Short-Term Revolving Credit Facilities with RBC Municipal Products, LLC, and U.S. Bank N.A, and deposited in Metropolitan's financial reserves. See "METROPOLITAN REVENUES–Financial Reserve Policy" and "METROPOLITAN EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations – Senior Parity Obligations – Short-Term Revolving Credit Facilities" in this Appendix A.

In fiscal years 2014-15 and 2015-16, Miscellaneous Revenues reflect the use of $142 million and $222 million respectively, from reserves to fund a like amount of costs for conservation and supply programs.

Financial projections for fiscal year 2016-17 reflect lower water sales revenues that are estimated to be $28.6 million, or 2 percent, below budget, based on the revised water sales projection of 1.67 million acre-feet, compared to the budgeted 1.70 million acre-feet, a reduction of 1.5 percent.

Operation and maintenance expenses in fiscal year 2016-17 are projected to be $1.01 billion, which represents approximately 67 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. Metropolitan's operation and maintenance expenditures are project to be on budget in fiscal year 2016-17. Metropolitan's State Water Project costs are projected to be $80.3 million lower than budgeted. Overall, projected expenditures for the twelve months ending June 30, 2017 are $1.6 billion. This is $89 million, or 5 percent, less than budgeted expenditures.

The combination of lower than budgeted water sales revenue and expenditures has resulted in projected fiscal year 2016-17 revenue bond debt service coverage to be 1.73x and fixed charge coverage to be 1.48x. Fiscal year 2016-17 capital expenditures, currently estimated at $213 million, will be primarily funded by pay-as-you-go funding and the remainder from bond proceeds. Metropolitan's unrestricted reserves are projected to be approximately $455 million at June 30, 2017. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. This amount does not include funds held in the Exchange Agreement Set-Aside Fund.

See also the "Management's Discussion and Analysis" contained in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

Board Distribution Draft, ~~7~~2/~~6~~1/~~16~~17

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, ~~2015.~~2016. 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~~–Other Charges" 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 and asserting other claims. 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 ~~18.7~~18.8 million people lived in Metropolitan~~'~~'s service area in ~~2015,~~2016, 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,~~2013, 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 2015, the economy of the six counties which contain Metropolitan~~'~~'s service area had a gross domestic product larger than all but ~~fifteen~~eleven 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.

GOVERNANCE AND MANAGEMENT

Board of Directors

Metropolitan is governed by a 38-member Board of Directors, made up of representatives from all of Metropolitan's member agencies. 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 or fewer than 38 directors.

The Board includes business, professional and civic leaders. Directors are appointed by member agencies in accordance with those agencies' processes. They 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~~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~~her current 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'~~bachelor's degree in civil engineering from the University of Hawaii and 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 U.S. Bureau of Reclamation ("Bureau of Reclamation"), retiring from the Bureau of Reclamation 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.

Fidencio M. Mares, Interim Assistant General Manager/Chief Administrative Officer ~~–~~ Mr. Mares was appointed the Interim Assistant General Manager/Chief Administrative Officer in July 2015 and is responsible for the strategic direction and management of Metropolitan~~'~~'s administrative functions. His primary responsibilities include managing human resources, information technology, real property and administrative services. Prior to joining Metropolitan, Mr. Mares was the owner of the Mares Company, where he served as a consultant to companies in the overall assessment of their management programs and processes. Prior to becoming a consultant, Mares worked both in the private and public sectors, serving as vice president of human resources and corporate communications for Beckham Coulter and as chief administrative officer of BHP/Pacific Resources and President & CEO of Gas Operations. He worked for more than 15 years for The Gas Company in Hawaii and Southern California Edison Company. A graduate of the California State University, Fresno, he also serves on the National Board of Visitors (Distinguished Graduates) for the University.

Dee Zinke, Assistant General Manager/Chief External Affairs Officer ~~–~~ Ms. Zinke was appointed Assistant General Manager in January 2016. She is responsible for Metropolitan~~'~~'s communications, business 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 ~~May~~January 1, ~~2016~~2017 was ~~1,754,~~1,765, of whom ~~1,220~~1,223 were represented by AFSCME Local 1902, ~~93~~95 by the Supervisors Association, ~~290~~294 by the Management and Professional Employees Association and ~~128~~129 by the Association of Confidential Employees. The remaining ~~23~~24 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~~covered the period January 1, 2011 through December 31, 2016. The MOUs with the Management and Professional Employees Association and with AFSCME Local 1902 ~~cover~~covered the period January 1, 2011 to December 31, 2016. The MOU with the Supervisors Association ~~covers~~covered the period September 13, 2011 to December 31, 2016. Although the contracts with the bargaining units are expired, the provisions of such contracts will govern until a successor contract is negotiated. Negotiations are underway and are currently expected to be completed in early 2017.

Risk Management

Metropolitan is exposed to various risks of loss related to the design~~,~~ and construction~~,~~ of facilities, and the 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~~coverages such as directors~~'~~' and officers~~'~~' liability, fiduciary liability and aircraft hull and liability coverage.

Metropolitan self-insures the first $5 million for workers~~'~~' compensation with statutory excess coverage. The self-insurance retentions and reserve levels currently maintained by Metropolitan may be modified by Metropolitan~~'~~'s Board at its sole discretion.

METROPOLITAN~~'~~'S WATER SUPPLY

General

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~~To secure additional supplies~~ in~~, Metropolitan ~~surface water reservoirs and through storage and water transfer agreements. See "—Water Transfer, Storage and Exchange Programs" and "—Storage Capacity and Water in Storage" below.~~also has groundwater banking partnerships and water transfer and storage arrangements within and outside its service area. Metropolitan's principal water supply sources, and other supply arrangements and water management are more fully described herein.

Metropolitan faces a number of challenges in providing adequate, reliable and high quality supplemental 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; (4) increased environmental regulations; and (5) climate change. 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~~. "~~—~~In addition, Metropolitan manages water supplies in response to the prevailing hydrologic conditions by implementing its Water Surplus and Drought Management ("WSDM") Plan, and in times of prolonged or severe shortages, the Water Supply Allocation Plan (the "Water Supply Allocation Plan"). See "~~—~~CONSERVATION AND WATER SHORTAGE MEASURES–Water Surplus and Drought Management Plan" and "~~—~~Water Supply Allocation Plan." ~~below.~~

Hydrologic conditions can have a significant impact on Metropolitan~~'~~'s imported water supply sources. For Metropolitan~~'~~'s State Water Project supplies, precipitation in California~~'~~'s northern Sierra Nevada during the fall and winter helps replenish storage levels in Lake Oroville, a key State Water Project facility. The subsequent runoff from the spring snowmelt helps satisfy regulatory requirements in the San Francisco Bay~~/~~-Sacramento-San Joaquin River Delta ("Bay-Delta") bolstering water supply reliability in the same year. See "~~—~~State Water Project~~—*Endangered Species Act Considerations*" below.~~ – Bay-Delta Proceedings Affecting State Water Project." The source of Metropolitan~~'~~'s Colorado River supplies is primarily the watersheds of the Upper Colorado River basin in the states of Colorado, Utah, and Wyoming. Although precipitation is primarily observed in the winter and spring, summer storms are common and can affect water supply conditions.

~~As of April 1, 2016 the northern Sierra snowpack was 95 percent of normal. As of May 1, 2016, the northern Sierra runoff forecast was 104% of normal. The storage level in Lake Oroville, the principal State Water Project reservoir, was above normal. As of May 1, the California Department of Water Resources' ("DWR") calendar year 2016 allocation to State Water Contractors is 60 percent of contracted amounts, or 1,146,900 acre-feet for Metropolitan. (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.) See "— State Water Project — *General*" below.~~

~~As of April 1, 2016, the Upper Colorado River Basin snowpack measured 97 percent of normal and total system storage in the Colorado River Basin was 48 percent of capacity. In calendar year 2016, projected net diversions of Colorado River water are estimated to be 961,000 acre-feet. 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 and Colorado Basin 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 of imported water. 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~~

~~In calendar years 2012-2015, to offset reductions in State Water Project supplies and mitigate impacts of the California drought, Metropolitan met water demands in its service area by utilizing supplies from the Colorado River, State Water Project deliveries, supplemental water transfers and purchases, and drawing on storage reserves, while also encouraging responsible and efficient water use to lower demands. In calendar year 2016, as a result of increased State Water Project supplies and reduced demands, it is increasingly likely that Metropolitan will be able to return water to storage programs and meet water demands in its service area using only State Water Project deliveries and CRA deliveries while continuing to encourage responsible and efficient water use.~~

~~Actions taken in response to the drought by the State, Metropolitan's Board, and Metropolitan member agencies have contributed to reduced demands in Metropolitan's service area. On April 1, 2015, Governor Brown issued an Executive Order ("Order") calling for a 25 percent reduction in consumer water use in response to the historically dry conditions throughout the State of California. As a wholesale water agency providing a supplemental water supply to its member agencies, Metropolitan is not subject to the requirements of the Order, which applies to retail water agencies. However, Metropolitan's member agencies have reduced their water sales in order to comply with the Order. On May 18, 2016, the State Water Resources Control Board ("SWRCB") adopted regulations that mandate urban water suppliers take actions to ensure at least a three year supply of water to their customers under drought conditions.~~

~~To respond to the drought, Metropolitan has relied on its WSDM 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. On April 14, 2015, the Board declared the implementation of the Water Supply Allocation Plan at a Level 3 Regional Shortage Level for the allocation year, effective July 1, 2015 through June 30, 2016. Implementation of the Water Supply Allocation Plan at a Level 3 Regional Shortage Level and the Governor's Order is anticipated to reduce supplies delivered by Metropolitan to Metropolitan's member agencies in fiscal year 2015-16 to approximately 1.6 million acre-feet. See "—~~

Current Water Conditions

Following the drought period from 2012-2015, current hydrologic conditions have improved. As of January 10, 2017, the northern Sierra precipitation was 221 percent of normal with a snowpack accumulation that was 124 percent of normal. The storage level in Lake Oroville, the principal State Water Project reservoir, was 74 percent of normal. On January 18, 2017, the California Department of Water Resources ("DWR") notified State Water Contractors that its calendar year 2017 allocation estimate to State

Water Contractors was 60 percent of contracted amounts, or 1,146,900 acre-feet for Metropolitan. (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.) See "–State Water Project."

As of January 10, 2017, the Upper Colorado River Basin snowpack measured 161 percent of normal and total system storage in the Colorado River Basin was 49 percent of capacity. As of such date, projected net diversions of Colorado River water in calendar year 2017 were estimated to be 886,000 acre-feet. See "–Colorado River Aqueduct."

See also "–Storage Capacity and Water in Storage~~," "– Water Conservation," "– Water Surplus and Drought Management Plan" and "– Water Supply Allocation Plan" below. Due to improved hydrologic conditions, on May 10, 2016, the Board rescinded the Water Supply Allocation Plan, declared a Condition 2 Water Supply Alert, and decided not to implement the Water Supply Allocation Plan for fiscal year 2016-17.~~

~~In addition, since Governor Brown's initial drought emergency proclamation in January 2014, 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, and significantly expanded its water conservation and outreach programs and increased funding for conservation incentive programs by $60 million, for a total of $100 million for fiscal years 2014-15 and 2015-16. Metropolitan has also increased incentives for large landscape customers to convert from potable water to recycled water for irrigation. In May 2015, due to the strong response to the water conservation incentive programs, especially the turf replacement program, Metropolitan increased funding for these programs by $350 million, for total funding of $450 million over fiscal years 2014-15 and 2015-16. On May 26, 2015, Metropolitan's Board approved the funding for this increase from the remaining balance in the Water Management Fund of $140 million, the projected amounts over target financial reserve levels for fiscal year 2014-15 of $160 million, and the remaining balance in the Water Stewardship Fund of $50 million. This is a one-time only increase to the conservation incentive program, and it is expected to result in 172 million square feet of turf removed and water savings of 800,000 acre-feet over the next ten years.~~ ."

Integrated Water Resources Plan

Overview. The Integrated Water Resources Plan ("IRP") is Metropolitan~~'~~'s principal water resources planning document. Metropolitan, its member agencies, ~~sub-agencies~~subagencies and groundwater basin managers developed their first IRP as a long-term planning guideline for resources and capital investments. The purpose of the IRP was the development of a portfolio of preferred resources ~~(see "– The Integrated Resources Plan Strategy" below)~~ to meet the water supply reliability and water quality needs for the region in a cost-effective and environmentally sound manner. The first IRP was adopted by the Board in January 1996 and has been subsequently updated in 2004, 2010 and 2015.

On January 12, 2016, Metropolitan~~'~~'s Board adopted ~~an~~the most recent IRP update (the "2015 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 2015 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 2015 IRP Update seeks to provide regional reliability through 2040 by stabilizing Metropolitan~~'~~'s traditional imported water supplies and continuing to develop additional conservation programs and 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 seawater desalination.

Specific projects that may be developed by Metropolitan in connection with the implementation of the 2015 IRP Update will be subject to future Board consideration and approval, as well as environmental and regulatory documentation and compliance. The 2015 IRP Update and associated materials ~~can be found~~are available on Metropolitan~~'~~'s website at: ~~ηττπ://ωωω.μωδη2ο.χομ/ΑβουτΨουρΩατερ/Πλαννινγ/Πλαννινγ-Δοχυμεντσ/Παγεσ/δεφαυλτ.ασπξ~~ http://www.mwdh2o.com/AboutYourWater/Planning/Planning-Documents/Pages/default.aspx. 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 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.~~

An Adaptive Management Strategy. Adaptive water management, as opposed to a rigid set of planned actions over the coming decades, is the most nimble and cost-effective manner for Metropolitan and local water districts throughout Southern California to effectively prepare for the future. An adaptive management approach began to evolve with Metropolitan's first IRP in 1996, after drought-related shortages in 1991 prompted a rethinking of Southern California's long-term water strategy. Reliance on imported supplies to meet future water needs has decreased steadily over time, replaced by plans for local actions to meet new demands. The 2015 IRP Update continues to build a robust portfolio approach to water management.

The following paragraphs describe ~~several elements of the IRP Strategy.~~the goals, approaches and targets for each of the resource areas that are needed to ensure reliability under planned conditions.

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,~~The goal for 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 CRA water and can be used to increase groundwater conjunctive use applications. See "– State Water Project" below~~is to adaptively manage flow and export regulations in the near term and to achieve a long-term Bay-Delta solution that addresses ecosystem and water supply reliability challenges. Achieving this goal will require continued participation and successful outcomes in the California WaterFix and the California EcoRestore efforts. See "–State Water Project" and "REGIONAL WATER RESOURCES~~—~~–Local Water Supplies" in this Appendix A. The stated goal of the IRP is to manage State Water Project supplies in compliance with regulatory restrictions in the near-term for an average of 980,000 acre-feet of annual supplies, and to pursue a successful outcome in the California WaterFix and California EcoRestore efforts for long-term average supplies of approximately 1.2 million acre-feet annually from this resource. See "–State Water Project – Bay-Delta Proceedings Affecting State Water Project."

Colorado River Aqueduct. The CRA delivers water from the Colorado River, Metropolitan~~'~~'s original source of supply. Metropolitan has helped to fund and implement agricultural conservation programs, improvements to river operation facilities, land management programs and water transfers and exchanges through agreements with agricultural water districts in southern California, entities in Arizona and Nevada that use Colorado River water, and the ~~U.S~~ Bureau of Reclamation. See "~~– Colorado River Aqueduct" below.~~ Colorado River Aqueduct" and "–Water Transfer, Storage and Exchange Programs –

Colorado River Aqueduct." The stated goal of the IRP for the CRA supplies is to maintain current levels of water supplies from existing programs, while also developing flexibility through dry-year programs and storage to ensure that a minimum of 900,000 acre-feet of CRA deliveries are available when needed, with a target of 1.2 million acre-feet in dry years.

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. Metropolitan has offered outdoor water conservation programs in both the residential and commercial sectors since the 1990s, but since the end of California's drought in 2010, Metropolitan has increased its conservation efforts targeting outdoor water use in these sectors. See "—Water Conservation" below and "—Drought Response Actions" above.

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. 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 or conserve some of their water allotments for use in urban areas. The water may be delivered through existing State Water Project or CRA 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." The stated goal of the IRP is to pursue transfers and exchanges to hedge against shorter-term water demand and supply imbalances while long-term water supply solutions are developed and implemented.

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. With outdoor water use comprising at least 50 percent of residential water demand, Metropolitan has increased its conservation efforts to target outdoor water use reduction in its service area. See "CONSERVATION AND WATER SHORTAGE MEASURES." The stated goal of the IRP is to pursue further water conservation savings of 485,000 acre-feet annually by 2040 through continued increased emphasis on outdoor water-use efficiency using incentives, outreach/education and other programs.

Groundwater Recovery. Natural groundwater reservoirs serve anLocal Water Supplies. Local supplies are a significant and growing component to the region's diverse water portfolio. While the extent to which each member agency's water supply is provided by imported water purchased from Metropolitan varies, in the aggregate, local supplies can provide over half of the region's water in a given year, and the maintenance of these supplies remain an integral part of the IRP. Similar to water conservation, local supplies serve the 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 new local supply that could help increase supply reliability in Metropolitan's service area.~~ of reducing demands for imported water supplies and thereby making regional water system capacity and storage available and accessible to meet the needs of the region. Local water supply projects may include, among other things, recycled water, groundwater recovery, conjunctive use, and seawater desalination. Metropolitan offers financial incentives to member agencies ~~for seawater desalination projects through its Seawater Desalination Program and Local Resource Program.~~ to help fund the development of a number of these types of local supply projects. The stated goal of the IRP is to seek to develop 230,000 acre-feet of additional local supplies produced by existing and future projects, with the region reaching a target of 2.4 million acre-feet of total dependable local supply by 2040. See "REGIONAL WATER RESOURCES~~—~~–Local Water Supplies" ~~and "METROPOLITAN REVENUES—Rate Structure"~~ in this Appendix A.

State Water Project

Background

~~*General.*~~ One of Metropolitan~~'~~'s two major sources of water is the State Water Project, which is owned by the State, and managed and operated by DWR. ~~This project transports~~The State Water Project is the largest state-built, multipurpose, user-financed water project in the country. It was designed and built primarily to deliver water, but also provides flood control, generates power for pumping, is used for recreation, and enhances habitat for fish and wildlife. The State Water Project provides irrigation water to 750,000 acres of farmland, mostly in the San Joaquin Valley, and provides municipal and industrial water to approximately 25 million of California's estimated 39.2 million residents, including the population within the service area of Metropolitan.

The State Water Project's watershed encompasses the mountains and waterways around the Feather River, the principal tributary of the Sacramento River, in the Sacramento Valley of Northern California. Through the State Water Project, Feather River water stored in and released from Oroville Dam (located about 70 miles north of Sacramento, east of the city of Oroville, California) and unregulated flows diverted directly from the Bay-Delta ~~south~~are transported south through the Central Valley of California, over the Tehachapi Mountains and into Southern California, 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~~-~~ long. See "METROPOLITAN'S WATER DELIVERY SYSTEM–Primary Facilities and Method of Delivery – State Water Project" in this Appendix A.

State Water Contract

In 1960, Metropolitan signed a water supply contract (as amended, the "State Water Contract") with DWR to receive water from the State Water Project. Metropolitan is one of 29 agencies and districts that have long-term contracts for water service from DWR~~, and is the largest agency~~ (known collectively as the "State Water Contractors" and sometimes referred to herein as "Contractors"). Metropolitan is the largest of the State Water Contractors in terms of the number of people it serves (approximately ~~18.7~~18.8 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~~52 percent for ~~2015~~2016). ~~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.~~ Metropolitan received its first delivery of State Water Project water in 1972.

Pursuant to the terms of the State water contracts, all water-supply related expenditures for capital and operations, maintenance, power, and replacement costs associated with the State Water Project facilities are paid for by the State Water Contractors. In exchange, Contractors have the right to participate in the system, with an entitlement to water service from the State Water Project and the right to use the portion of the State Water Project conveyance system necessary to deliver water to them. Each year DWR estimates the total State Water Project water available for delivery to the State Water Contractors and allocates the available project water among the State Water Contractors in accordance with the State water contracts. DWR's total water supply availability projections are refined over the course of the winter season based upon updated rainfall and snowpack values and allocations to the State Water Contractors are adjusted accordingly.

Metropolitan's State Water Contract has been amended a number of times since its original execution and delivery. Several of the amendments, entered into by DWR and various subsets of State Water Contractors, relate to the financing and construction of a variety of State Water Project facilities and improvements and impose certain cost responsibility therefor on the affected Contractors, including Metropolitan. For a description of Metropolitan's financial obligations under its State Water Contract, including with respect to such amendments, see "METROPOLITAN EXPENSES–State Water Contract Obligations" in this Appendix A.

Amendments, approved by Metropolitan's Board in 1995, and since executed by DWR and 27 of the State Water Contractors (collectively known as the "Monterey Amendment"), among other things, made explicit that the Contractors' rights to use the portion of the State Water Project conveyance system necessary to deliver water to them also includes the right to convey non-State Water Project water at no additional cost as long as capacity exists. These amendments also expanded the ability of the State Water Contractors to carry over State Water Project water in State Water Project storage facilities, allowed participating Contractors to borrow water from terminal reservoirs, and allowed Contractors to store water in groundwater storage facilities outside a Contractor's service area for later use. These amendments provided the means for individual Contractors to increase supply reliability through water transfers and storage outside their service area. Metropolitan has subsequently developed and actively manages a portfolio of water supplies to convey through the California Aqueduct pursuant to these contractual rights. See "–Water Transfer, Storage and Exchange Programs." The Monterey Amendment is the subject of ongoing litigation. See "–Related Litigation – Monterey Amendment Litigation" below.

Under its State Water Contract, Metropolitan has a contractual right to its proportionate share of the State Water Project water that DWR determines annually is available for allocation to the Contractors. This determination is made by DWR each year based on existing supplies in storage, forecasted hydrology, and other factors. Available State Water Project water is then allocated to the Contractors in proportion to the amounts set forth in "Table A" of their respective State water contract. Pursuant to Table A of its State Water Contract, Metropolitan is entitled to approximately 46 percent of the total annual allocation made available to State Water Contractors each year.

~~The~~Metropolitan's State Water Contract, under a 100 percent allocation, provides Metropolitan 1,911,500 acre-feet of water. The 100 percent allocation is referred to as the contracted amount. Late each year, DWR announces an initial allocation estimate for the upcoming year, but ~~may revise~~periodically revises the initial estimate and subsequent estimates throughout the year if warranted by developing precipitation and water supply conditions. From calendar years 2004 through ~~2015,~~2016, 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 593,000 acre-feet in calendar year 2015 to a high of 1,800,000 acre-feet in 2004. In calendar year ~~2014,~~2016, DWR~~'~~'s allocation to State Water ~~Project~~ Contractors was ~~five~~60 percent of contracted amounts, or ~~95,575~~1,146,000 acre-feet~~. In~~, for Metropolitan.

On December 1, 2016, DWR announced an initial calendar year ~~2015, DWR's~~2017 allocation ~~to State Water Project Contractors was~~of 20 percent ~~of contracted amounts, or 382,000 acre-feet~~. ~~In calendar year 2016, DWR's current allocation to State Water Project Contractors is~~ On December 21, 2016, DWR increased the allocation estimate to 45 percent. On January 18, 2017, DWR increased the allocation estimate to 60 percent of contracted amounts~~, or 1,146,900~~ based on runoff from storms that increased the combined storage in Oroville and San Luis Reservoir by over 600,000 acre-feet. This increased allocation estimate reflects improving ~~hydrological~~hydrologic conditions in California and increasing storage levels in the State~~'~~'s major reservoirs, but also takes into account federally mandated environmental restrictions ~~which~~that have been imposed upon water deliveries from the Bay-Delta, including the biological opinions discussed below. See "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project – Delta Smelt and Salmon Federal ESA Biological Opinions." If necessary, Metropolitan may augment ~~these~~its State Water Project deliveries using withdrawals from its storage programs along the State Water Project and through water transfer and exchange programs.~~ However it is anticipated that supplies will be higher than demands in calendar year 2016. As a result, Metropolitan staff estimates that storage reserves will increase by approximately 376,000 acre-feet in 2016, depending on developing supply and demand conditions. See "METROPOLITAN'S WATER SUPPLY –~~ However, in light of current water conditions in California and the estimated 2017 allocation, supplies are expected to exceed projected demands and Metropolitan anticipates it will add water to its storage programs. See "–Water Transfer, Storage and Exchange Programs." ~~in this Appendix A.~~

~~*State Water Project Operational Constraints*. DWR has altered the operations of the State Water Project to accommodate species of fish listed under the federal or California Endangered Species Acts (respectively, the "Federal ESA" and the "California ESA" and, collectively, the "ESAs") and to comply with SWRCB regulations and decisions. These changes in project operations have adversely affected State Water Project deliveries.~~

~~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. 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. Operational constraints likely will continue until long-term solutions to the problems in the Bay-Delta are identified and implemented. Metropolitan cannot predict the ultimate outcome of any of the litigation or regulatory processes described below 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.~~

~~*Endangered Species Act Considerations*~~

~~*General*. The listing of several fish species as threatened or endangered under the ESAs has 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, the longfin smelt is listed as 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.~~

~~*Delta Smelt and Salmon Federal ESA Biological Opinions*. The United States Fish and Wildlife Service released a biological opinion on the impacts of the State Water Project and Central Valley Project on Delta smelt on December 15, 2008. On June 4, 2009, the National Marine Fisheries Service released a biological opinion for salmonid species. These biological opinions on delta smelt and salmonid species contain water supply restrictions that could have a range of impacts on Metropolitan's deliveries from the State Water Project, depending on hydrologic conditions. The impact on total State Water Project deliveries to State Water Contractors attributable to the Delta smelt and salmonid species biological opinions combined is estimated to be one million acre-feet in an average year, reducing total State Water Project deliveries to State Water Contractors from approximately 3.3 million acre-feet to approximately 2.3 million acre-feet for the year under average hydrology. Reductions 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. Total State Water Project delivery impacts to Metropolitan for calendar years 2008 through 2015 are estimated to be roughly 1.5 million acre-feet.~~

The term of Metropolitan's State Water Contract currently extends to December 31, 2035. Upon expiration of the State Water Contract term, Metropolitan has the option to continue service under substantially the same terms and conditions. Metropolitan and other State Water Contractors have undertaken negotiations with DWR to extend their State water contracts. In June 2014, DWR and the State Water Contractors reached an Agreement in Principle (the "Agreement in Principle") on an amendment to the State water contract to extend the contract and to make certain changes related to financial management of the State Water Project in the future. DWR and 25 of the State Water Contractors, including Metropolitan, have signed the Agreement in Principle. Under the Agreement in Principle, the term of the State water contract for each Contractor that signs an amendment would be extended until December 31, 2085. The Agreement in Principle will serve as the "proposed project" for purposes of environmental review under the California Environmental Quality Act ("CEQA"). DWR issued a Notice of Availability of the Draft Environmental Impact Report ("EIR") for the proposed project on August 17, 2016. The review period ended October 17, 2016. Following CEQA review, a State Water Project contract amendment will be prepared. Such amendment will be subject to review by the Legislature.

Bay-Delta Proceedings Affecting State Water Project

General. In addition to being a source of water for diversion into the State Water Project, the Bay-Delta is also the source of water for local agricultural, municipal and industrial needs, and, in addition, supports significant resident and anadromous fish and wildlife resources and important recreational uses of water. Both the State Water Project's upstream reservoir operations and its Bay-Delta diversions can at times affect these other uses of Bay-Delta water directly, or indirectly, through impacts on Bay-Delta water quality. A variety of proceedings and other activities are ongoing with the participation of various State and federal agencies, as well as California's environmental, urban and agricultural communities, in an effort to develop long-term, collectively-negotiated solutions to the environmental and water management issues concerning the Bay-Delta, and Metropolitan actively participates in these proceedings. Metropolitan cannot predict the ultimate outcome of any of the litigation or regulatory processes described below, but believes

that a materially adverse impact on the operation of State Water Project pumps, Metropolitan's State Water Project deliveries or Metropolitan's water reserves could result.

SWRCB Regulatory Activities and Decisions. The State Water Resources Control Board (the "SWRCB") is the agency responsible for setting water quality standards and administering water rights throughout California. The SWRCB exercises its regulatory authority over the Bay-Delta by means of public proceedings leading to regulations and decisions that can affect the availability of water to Metropolitan and other users of State Water Project water. These include the Water Quality Control Plan ("WQCP") for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, 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 permits.

The WQCP gets reviewed periodically and new standards and allocations of responsibility can be imposed on the State Water Project as a result. The last review was completed in 2006, and the current review has been ongoing since approximately 2010.

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. In response to the recentongoing drought conditions, in 2014 and 2015, DWR and the Bureau of Reclamation requested temporary relief from certain WQCP standards and filed petitions in 2014 and 2015 requesting changes to D-1641 terms that govern outflows and salinity standards in the Bay-Delta. The SWRCB approved temporary urgency changes in the Bay-Delta in 2014 and 2015, enabling water to be conserved in reservoirs in case of continued drought.

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 and disclosed the environmental impacts of a 30-year plan to improve the Bay-Delta'''s ecosystem, water supply reliability, water quality, and levee stability. The CALFED ROD remains in effect and many of the stateState, federal, and local projects begun under CALFED continue.

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 was originally conceived 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 to be implemented over a 50-year time frame with corresponding long-term permit authorizations from fish and wildlife regulatory agencies. The BDCP includes both alternatives for new water conveyance infrastructure and extensive habitat restoration in the Bay-Delta.

In 2015, the State and federal lead agencies decided to considerproposed an alternative implementation strategy and new alternatives to the BDCP associated with that strategyto provide for the protection of water supplies conveyed through the Bay-Delta and the restoration of the ecosystem of the Bay-Delta, termed "California WaterFix" and "California EcoRestore," respectively. In this alternative approach, DWR and the Bureau of Reclamation would implement planned water conveyance improvements (California WaterFix) as a stand-alone project termed California WaterFix that would seek incidental take authorization for an unspecified period and would include only limited amounts of habitat restoration. The habitat restoration to be required would be that directly related to construction mitigation and the associated costs of such mitigation which would be underwritten by the public water agencies participating in the California WaterFix project. Ecosystem improvements and habitat restoration more generally (California

EcoRestore) would be undertaken under a more phased approach than previously contemplated by the BDCP and would not be linked with the California WaterFix project or permits. Accelerated restoration actions totaling 30,000 acres of tidal marsh habitat were proposed to be undertaken in the coming decade to provide public benefits for listed fish in the Bay-Delta. (See also "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project.") Subsequent actions would be based on the proven merits of restoration. Preliminary cost estimates for ~~this project~~the WaterFix alternative are ~~approximately~~currently estimated to be $17 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 project. ~~A Partially Recirculated Draft EIR/Supplemental Draft~~ The Final EIR/EIS for the ~~revised~~ BDCP/California WaterFix ~~alternatives has been circulated for public review. The public comment period ended on October 30, 2015. The final planning documents are expected to be completed in 2016.~~ was completed and made available to the public and other agencies on December 22, 2016. The Notice of Availability of the Final EIR/EIS was published by the Bureau of Reclamation in the Federal Register on December 30, 2016. On January 4, 2017, the U.S. Secretary of the Interior issued an order to federal agencies involved in the California WaterFix stating the U.S. Fish and Wildlife Service will issue a final biological opinion by April 2017. A similar schedule is anticipated for the biological opinion to be issued by the National Marine Fisheries Service. Upon receipt of the biological opinions, the Bureau of Reclamation will be able to issue a Record of Decision for the project. Certification of the EIR/EIS under CEQA and final decision-making by DWR is expected at that same time. See also "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project."

~~*State of California Water Bond.* On November 4, 2014, California voters approved a state-wide ballot measure, Proposition 1, which authorized the issuance of up to $7.545 billion of State of California, General Obligation Bonds. Proposition 1 also enacted the Water Quality, Supply, and Infrastructure Improvement Act of 2014, which provides for the funding of a broad range of water projects. 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.~~

Related Litigation

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 Bay-Delta through the State Water Project, the SWRCB and DWR have failed to protect public trust fishery resources in the ~~Delta~~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~~WQCP, and the federal 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. The court determined that the Bureau of Reclamation is an indispensable party, and a hearing on its motion to dismiss the lawsuit, or portions of it, has been scheduled for June 3, 2016.~~In August 2016, the court dismissed the case without prejudice based on the failure of the petitioners to bring the case to trial within five years of filing their original petition.

Monterey ~~Agreement~~Amendment Litigation. On May 4, 2010, DWR completed an EIR and concluded a remedial CEQA review for the Monterey ~~Agreement~~Amendment, which reflects the settlement of certain disputes regarding the allocation of State Water Project water. ~~Following DWR's completion of the EIR, three lawsuits were filed challenging the project~~See "– State Water Contract" above. 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 *Central Delta II* and *Rosedale* cases were transferred to Sacramento Superior Court and the three cases were consolidated for trial.~~ 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 October 2, 2014, the court issued its final rulings in *Central Delta I* and *Rosedale*, holding~~The court also held that DWR must complete a limited scope remedial CEQA review addressing the potential impacts of the Kern Water Bank~~. However, the court's ruling~~, a portion of the Monterey Amendment that does not directly affect Metropolitan. The court also ~~allows operation of~~ruled that the State Water Project ~~to~~may continue to be operated under the terms of the Monterey ~~Agreement~~Amendment while the remedial CEQA review is prepared and leaves in place the underlying project approvals while DWR prepares the remedial CEQA review. ~~The *Central Delta II* case was stayed pending resolution of the *Central Delta I* case. The plaintiffs have appealed the decision.~~ Plaintiffs appealed. Briefing by the parties was completed, but no date for oral argument has been set. Any adverse impact of this litigation and ~~ruling~~rulings on Metropolitan~~'~~'s State Water Project supplies cannot be determined at this time.

In September 2016, DWR certified the Final Revised Draft EIR for the Monterey Amendment, recorded a Notice of Determination, and filed papers in the trial demonstrating compliance with the court's order for remedial CEQA review. On October 21, 2016, the petitioner group from Central Delta I and a new lead petitioner, Center for Food Safety, filed litigation against DWR challenging this EIR and named Metropolitan and the other State Water Project contractors as respondent parties. Any adverse impact of this litigation and rulings on Metropolitan's State Water Project supplies cannot be determined at this time.

Colorado River Aqueduct

Background

~~*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 (collectively, 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 can 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~~Construction of the CRA, which is owned and operated by Metropolitan, ~~transports water from~~was undertaken by Metropolitan to provide for the transportation of its Colorado River water entitlement to its service area. The CRA originates at Lake Havasu on the Colorado River and extends approximately 242 miles through a series of pump stations and reservoirs to its terminus at Lake Mathews in Riverside County. Up to 1.25 million acre-feet of water per year may be conveyed through the CRA to Metropolitan~~'~~'s member agencies, subject to availability of Colorado River water for delivery to Metropolitan as described below. Metropolitan first delivered CRA water to its member agencies in 1941.

Colorado River Water Apportionment and Seven-Party Agreement

Pursuant to the federal Boulder Canyon Project Act of 1928, 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 (the "Lower Basin States"). Under the 1931 priority system thatan agreement entered into in 1931 among the California entities that expected to receive a portion of California's apportionment of Colorado River water (the "Seven-Party Agreement") and which 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 water apportioned to Arizona and Nevada that was not needed by those states. However, during the 1990s Arizona and Nevada increased their use of water from the Colorado River, and by 2002 no unused apportionment was available for California. As a result, California has limited its annual use to 4.4 million acre-feet since 2003, not including supplies made available under water supply programs such as intentionally-created surplus and certain conservation and storage agreements. In addition, a severe drought in the Colorado River Basin from 2000-2004 reduced storage in system reservoirs, ending the availability of surplus deliveries to Metropolitan. As a result, California has been limited to 4.4 million acre-feet since 2003. Prior to 2003, Metropolitan could divert over 1.25 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 approximately 1,179,000 acre-feet in 2015. Projected net diversions of Colorado River water are estimated to be approximately 961,0002015, and totaled over 996,000 acre-feet in 2016. Average annual net deliveries for 20062007 through 20152016 were approximately 926,000962,000 acre-feet, with annual volumes dependent primarily on programs to augment supplies, including transfers of conserved water from agriculture. See "– Quantification Settlement Agreement" and "– Colorado River Operations: Surplus and Shortage Guidelines – Interim Surplus Guidelines" below. See also "–Water Transfer, Storage and Exchange Programs – Colorado River Aqueduct."

The following table sets forth the existing priorities of the California users of Colorado River water established under the 1931 Seven-Party Agreement.

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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~~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~~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.

Quantification Settlement Agreement

~~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 have conserved up to 109,460 acre-feet of water per year that has been provided to Metropolitan. In 2015, 107,820 acre-feet of conserved water was made available by IID 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 2014 and 2015, CVWD's requests were for 19,795 and 6,715 acre-feet respectively, leaving 84,305 acre-feet in 2014 and 101,105 acre-feet in 2015 for Metropolitan.~~ The Quantification Settlement Agreement ("QSA"), executed by the Coachella Valley Water District ("CVWD"), Imperial Irrigation District ("IID") and Metropolitan in October 2003, establishes Colorado River water use limits for IID and CVWD, and provides for specific acquisitions of conserved water and water supply arrangements for up to 75 years. The QSA and related agreements provide a framework for Metropolitan to enter into other cooperative Colorado River supply programs and set aside several disputes among California's Colorado River water agencies.

~~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, 24,100 acre-feet and 32,300 acre-feet of water, respectively, 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,**~~

Specific programs under the QSA and related agreements include lining portions of the All-American and Coachella Canals, which were completed in 2009 and 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 takes delivery of the remaining 16,000 acre-feet annually. The 16,000 acre-feet provided annually to Metropolitan will eventually 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. Also included under the QSA is a delivery and exchange agreement between Metropolitan and CVWD that provides for Metropolitan, when requested, 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. The QSA and related agreements also authorized the transfer of water (up to a maximum expected amount in 2021 of 205,000 acre-feet) annually by IID to SDCWA. See description below under the caption "– Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" below; 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 Palo Verde Land Management, Crop Rotation and Water Supply Program (described under "Water Transfer, Storage and Exchange Programs–Colorado River Aqueduct" below), which provides up to approximately 133,000 acre-feet of water per year. (Amounts of Colorado River water received by Metropolitan in 2007 through 2016 are discussed under the heading "–Colorado River Aqueduct–Colorado River Water Apportionment and Seven-Party Agreement" above.)

A complicating factor in completing the QSA was the fate of the Salton Sea. The Sea and its environs provide a habitat complex supporting more than 400 species of birds. Located at the lowest elevation of an inland basin and fed primarily by agricultural drainage with no outflows other than evaporation, the Salton Sea was naturally trending towards hyper-salinity, which had 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 flowing into the Salton Sea, which would reduce the volume of water in the Sea, exposing shoreline and accelerating the 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 2002, the SWRCB issued Water Rights

Order 2002-0013, which gave approval for the transfer of water from IID to SDCWA and CVWD, and which required Salton Sea mitigation water deliveries from 2003 through 2017.

In 2003, to facilitate implementation of the QSA, the Legislature directed the Secretary for the California Natural Resources Agency to undertake a restoration study to determine a preferred alternative for the restoration of the Salton Sea ecosystem and the protection of wildlife dependent on that ecosystem. In May 2007, the Secretary submitted his $8.9 billion preferred alternative to the Legislature. While withholding authorization of the preferred alternative, in 2008 the Legislature directed the California Natural Resources Agency to undertake demonstration projects and investigations called for in the Secretary's May 2007 recommendation. Since then, the California Natural Resources Agency and the U.S. Fish and Wildlife Service have been developing various pilot-scale projects which are at various stages of planning and implementation.

Concerned that the California Natural Resources Agency has not made sufficient progress to develop a long-term restoration plan for the Salton Sea, in November 2014, IID filed a petition with the SWRCB asking it to modify the SWRCB's 2002 order. IID stated that it is concerned that the scheduled termination of mitigation water deliveries to the Salton Sea at the end of 2017 will result in the shrinking of the Sea and an increase in exposed playa and fugitive dust emissions. IID's petition requested that the SWRCB modify its order to include a requirement that "the State fulfill its statutory obligation to restore the Salton Sea as a condition of the QSA transfers." See "– Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" below. The SWRCB has held various workshops to receive input on the petition.

During the spring of 2015, the Governor tasked a number of individuals from his staff, known as the "Salton Sea Task Force," to look into actions that could be taken at the Sea. In October 2015, the Salton Sea Task Force announced that it would implement a number of actions to address the Salton Sea ecosystem, including immediate implementation and further development of the Salton Sea management plan, meeting a short-term goal by 2020 of 9,000-12,000 acres of habitat creation and dust suppression projects and a medium-term goal after 2020 of 18,000-25,000 acres of habitat creation and dust suppression projects. In August 2016, the U.S. Department of the Interior and the California Natural Resources Agency entered into an MOU which outlines the manner in which federal agencies would cooperate with State and local agencies to assist the Salton Sea Task Force in achieving its stated goals. While projects that are currently underway or are anticipated to begin in 2017 are not expected to meet the Salton Sea Task Force's short-term goal, the Salton Sea Task Force continues its efforts to identify a long-term plan for the Salton Sea for construction to begin as early as 2018. In the absence of a Salton Sea restoration project, the QSA and related agreements provide for the control of exposed playa by IID as a mitigation measure funded by CVWD, IID, and SDCWA, with the State of California obligated to meet all mitigation costs that exceed $133 million in 2003 dollars. Metropolitan has no obligation to pay any costs associated with 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, then 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 agreement, 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–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 is challenging such charges. In 2016, 178,493 acre-feet were delivered to Metropolitan by SDCWA for exchange, consisting of 100,000 acre-feet of IID conservation plus 78,493 acre-feet of conserved water from the Coachella Canal and All-American Canal lining projects.

Colorado River Operations: Surplus and Shortage Guidelines

General. The Secretary of the Interior is vested with the responsibility of managing the mainstream waters of the lower Colorado River pursuant to federal law. Each year, the Secretary of the Interior is required to declare the Colorado River water supply availability conditions for the Lower Basin States in terms of "normal," "surplus" or "shortage" and has adopted operations criteria in the form of guidelines to determine the availability of surplus or potential shortage allocations among the Lower Basin States and revise reservoir operations for such conditions.

Interim Surplus Guidelines. In January 2001, the Secretary of the Interior adopted guidelines (the "Interim Surplus Guidelines"), initially for use through 2016, in determining if there is surplus Colorado River water available for use in California, Arizona and Nevada. The Interim Surplus Guidelines were amended in 2007 and now extend through 2026. The purpose of the Interim Surplus Guidelines was to provide mainstream users of Colorado River water, particularly those in California who utilize surplus flows, a greater degree of predictability with respect to the availability and quantity of surplus water.

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. In May 2002, the Southern Nevada Water Authority ("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 agreement, SNWA can request that Metropolitan store unused Nevada apportionment in California. The amount of water stored through 2014 under this agreement was approximately 205,000 acre-feet. In subsequent years, SNWA may request recovery of the stored water. As part of a 2012 executed amendment to the agreement, it is expected that SNWA will not request return of the water stored with Metropolitan before 2022. In October 2015, SNWA and Metropolitan executed an additional amendment to the agreement under which Metropolitan paid SNWA approximately $44.4 million and SNWA stored an additional 150,000 acre-feet with Metropolitan during 2015. Of that amount, 125,000 acre-feet has been added to SNWA's storage account with Metropolitan, increasing the total amount of water stored to approximately 330,000 acre-feet. When SNWA requests the return of any of the stored 125,000 acre-feet, SNWA will reimburse Metropolitan for an equivalent proportion of the $44.4 million based on the amount of water returned plus inflation. The stored water allowed Metropolitan to have a full water supply from the Colorado River in 2015.

Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead. In May 2005, the Secretary of the Interior directed the Bureau of Reclamation to develop additional strategies for improving coordinated management of the reservoirs of the Colorado River system. 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,

particularly during drought and low reservoir conditions. These 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. Consistent with these legal protections, under the guidelines, Arizona and Nevada are first subject to the initial annual shortages identified by the Secretary up to 500,000 acre-feet.

The guidelines also created the Intentionally Created Surplus ("ICS") program, which allows the Lower Basin States to store conserved water in Lake Mead. Under this program, ICS water (water that has been conserved through an extraordinary conservation measure, such as land fallowing) is eligible for storage in Lake Mead by Metropolitan. See the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "–Storage Capacity and Water in Storage" below. The Secretary of the Interior delivers the stored ICS water to Metropolitan in accordance with the terms of December 13, 2007, January 6, 2010, and November 20, 2012 Delivery Agreements between the United States and Metropolitan. As of January 1, 2017, Metropolitan had an estimated 71,000 acre-feet in its ICS 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, groundwater desalination, the Warren H. Brock Reservoir Project, and the Yuma Desalting Plant pilot run, which has not been delivered to the region.

Related Litigation

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 (described under "– Colorado River Operations: Surplus and Shortage Guidelines" above) 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, Central Arizona Water Conservation District ("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 were 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 (described under "– Colorado River Operations: Surplus and Shortage Guidelines" above). Metropolitan has used these new guidelines to store over 500,000 acre-feet of water in Lake Mead, a portion of which has been delivered, and the remainder of which may be delivered at Metropolitan's request in future years. 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. On September 19, 2014, the Navajo Nation appealed 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.

Briefing by the parties was completed by May 20, 2015. Oral argument in the Ninth Circuit Court of Appeals has been set for February 14, 2017. 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.

Endangered Species Act and Other Environmental Considerations

Endangered Species Act Considerations – State Water Project

General. DWR has altered the operations of the State Water Project to accommodate species of fish listed as threatened or endangered under the Federal ESA or California ESA. 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, the longfin smelt is listed as a threatened species under the California ESA. These changes in project operations have limited the flexibility of the State Water Project and adversely affected State Water Project deliveries to Metropolitan. State Water Project operational requirements may be further modified in the future under new biological opinions for listed species under the Federal ESA or by the California Department of Fish and Wildlife's issuance of incidental take authorizations under the California ESA. 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 the water supply available for export. Such operational constraints are likely to continue until long-term solutions to the problems in the Bay-Delta are identified and implemented. See also "–State Water Project – Bay-Delta Proceedings Affecting State Water Project."

The Federal ESA requires that before any federal agency authorizes funds or carries out an action that may affect a listed species or designated critical habitat, 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.

Delta Smelt and Salmon Federal ESA Biological Opinions. The United States Fish and Wildlife Service (USFWS) released a biological opinion on December 15, 2008 on the impacts of the State Water Project and the federal Central Valley Project on Delta smelt. On June 4, 2009, the National Marine Fisheries Service (NMFS) released a biological opinion for salmonid species. The water supply restrictions imposed by these biological opinions on Delta smelt and salmonid species have a range of impacts on Metropolitan's deliveries from the State Water Project, depending on hydrologic conditions. The impact on total State Water Project deliveries to State Water Contractors attributable to the Delta smelt and salmonid species biological opinions combined is estimated to be one million acre-feet in an average year, reducing total State Water Project deliveries to State Water Contractors from approximately 3.3 million acre-feet to approximately 2.3 million acre-feet for the year under average hydrology. Reductions 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. Total State Water Project delivery impacts to Metropolitan for calendar years 2008 through 2016 are estimated to be 2.0 million acre-feet.

Endangered Species Act Considerations - Colorado River

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 (commencing in 2005). 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).

Invasive Species - Mussel Control Programs

Zebra and quagga mussels are established in many regions of the United States. 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. In January 2007 quagga mussels were discovered in Lake Mead. The most likely source of the quagga mussel infestation in the Colorado River was 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 CRA 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 CRA shutdowns, which have the added benefit of desiccating exposed quagga mussels. Control activities consist of continuous chlorination at Copper Basin, Lake Skinner outlet conduit, and Lake Mathews Forebay, quarterly chlorination of the outlet towers at Lake Skinner and Mathews, and physical removal of mussels from the trash racks in Lake Havasu. Recent shutdown inspections have demonstrated that the combined use of chlorine and regular cleaning during scheduled shutdowns effectively control mussel infestation in the CRA. Metropolitan's costs for controlling quagga mussels are between $4 million and $5 million per year.

Quagga and zebra mussel populations are located within 16 miles of the State Water Project. An isolated population of zebra mussels is established in San Justo Reservoir in Central California and Lake Piru in Southern California has been infested with quagga mussels since 2013. To prevent the further spread of the mussels into the State Water Project, the Bay-Delta and other bodies of water and water systems, DWR has joined the California Department of Fish and Wildlife, as the lead agency, and other state and federal agencies on a number of activities. These include boat inspections, monitoring of water bodies and water systems and education of the public. In addition, DWR has developed a Rapid Response Plan, Vector Management Plan, and Long-Term Mussel Management and Control Plan as mandated by the California Fish and Game Code.

On December 8, 2016, DWR found dead adult mussels in the Angeles Tunnel, which connects Pyramid Lake to Castaic Lake. On December 13, 2016, Metropolitan and DWR inspected a three mile section of the Angeles Tunnel where 10 more dead adult mussels were found. Through DNA testing, they were confirmed to be quagga mussels. As a result of such findings, the California Department of Fish and

Wildlife has deemed the State Water Project West Branch (including Pyramid and Castaic Lakes) to be infested with quagga mussels and has implemented boat inspection requirements on boats leaving Pyramid Lake and Castaic Lake to help prevent the spreading of the invasive species. However, there is no evidence of reproducing mussel populations or clumps of mussels on submerged infrastructure. There are no impacts on delivery of State Water Project water at this time and the future level of mussel impacts is unknown. Metropolitan will increase the monitoring of mussels, coordinate with other agencies, and adapt the existing Quagga Mussel Control Program for the State Water Project West Branch.

Water Transfer, Storage and Exchange Programs

General

To supplement its State Water Project and Colorado River water supplies, Metropolitan has developed and actively manages a portfolio of water supply programs, including water transfer, storage and exchange agreements, the supplies created by which are conveyed through the California Aqueduct of the State Water Project, utilizing Metropolitan's rights under its State Water Contract to use the portion of the State Water Project conveyance system necessary to deliver water to it, or through available capacity on the CRA. Consistent with its IRP, Metropolitan will continue to pursue voluntary water transfer and exchange programs with State, federal, public and private water districts and individuals to help mitigate supply/demand imbalances and provide additional dry-year supply sources. A summary description of certain of Metropolitan's supply programs are set forth below. In addition to the arrangements described below, Metropolitan is entitled to storage and access to stored water in connection with various other storage programs and facilities. See "–Colorado River Aqueduct" above 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."

State Water Project

In addition to the basic State Water Project contract provisions, Metropolitan has other contract rights that accrue to the overall value of the State Water Project. Because each contractor is paying for physical facilities, they also have the right to use the facilities to move water supplies associated with agreements, water transfers and water exchanges. Metropolitan has entered into agreements and exchanges that provide additional water supplies.

Castaic Lake and Lake Perris. Metropolitan has contractual rights to store up to 65,000 acre-feet of water in Lake Perris (East Branch terminal reservoir) and 153,940 acre-feet of water in Castaic Lake (West Branch terminal reservoir). This storage provides Metropolitan with additional options for managing State Water Project deliveries to maximize yield from the project. Any water used must be returned to the State Water Project within five years or it is deducted from allocated amounts in the sixth year.

Metropolitan Article 56 Carryover. Metropolitan has the right to store its allocated contract amount for delivery in the following year. Metropolitan can store between 100,000 and 200,000 acre-feet, depending on the final water supply allocation percentage.

California's agricultural activities consume approximately 34 million acre-feet of water annually, which is approximately 80 percent of the total water used in the State 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. The portfolio of supplemental supplies that Metropolitan has developed to be conveyed through the State Water Project California Aqueduct extend from north of the Bay-Delta to Southern California. Certain of these arrangements are described below.

Yuba River Accord. 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. The agreement permits YCWA to transfer additional supplies at its discretion. Metropolitan, other State Water 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, in dry years through 2025, available water supplies which have ranged from approximately 6,555 acre-feet to 67,068 acre-feet per year.

In addition to water made available under the Yuba River Accord, Metropolitan has developed groundwater storage agreements that allow Metropolitan to store available supplies in the Central Valley for return later. Metropolitan has also developed exchanges and transfers with other State Water Contractors.

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."

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 39,700 acre-feet of water and the maximum annual yield is 231,200 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."

Kern Delta Storage Program. Metropolitan entered into an agreement with Kern Delta Water District ("Kern Delta") in May 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 to permit Metropolitan, at Metropolitan's option, a return of up to 50,000 acre-feet of water annually during hydrologic and regulatory droughts.

Mojave Storage Program. Metropolitan entered into a groundwater banking and exchange transfer agreement with Mojave Water Agency ("Mojave") in October 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 Mojave'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 82,800 acre-feet of water. Metropolitan's current

storage account under this program is shown in the table "Metropolitan's Water Storage Capacity and Water in Storage" under the heading "–Storage Capacity and Water in Storage."

Antelope Valley East Kern Storage and Exchange Program. In 2016, Metropolitan entered into an agreement with the Antelope Valley-East Kern Water Agency ("AVEK"), the third largest State Water Project Contractor, to both exchange supplies and store water in the Antelope Valley groundwater basin. Under this agreement, AVEK would provide at least 30,000 acre-feet over ten years of its unused Table A State Water Project water to Metropolitan. For every two acre-feet provided to Metropolitan as part of the exchange, AVEK would receive back one acre-foot in the future. For the one acre-foot that is retained by Metropolitan, Metropolitan would pay AVEK under a set price schedule based on the State Water Project allocation at the time. The payment would range from $587/acre-foot under a 5 percent State Water Project allocation to $38/acre-foot under an 86 percent State Water Project allocation.

San Bernardino Valley Municipal Water District Coordinated Operating Agreement. Metropolitan entered into an agreement with the San Bernardino Valley Municipal Water District ("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. The program includes 50,000 acre-feet of storage capacity for the carryover of water purchased from SBVMWD. 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.

San Gabriel Valley Municipal Water District Exchange Program. In 2013, Metropolitan entered into an agreement with the San Gabriel Valley Municipal Water District ("SGVMWD"). Under this agreement, Metropolitan delivers treated water to a SGVMWD subagency in exchange for twice as much untreated State Water Project supplies delivered into the groundwater basin that supplies this agency and metropolitan subagencies. Metropolitan can purchase at least 5,000 acre-feet per year, in excess of the unbalanced exchange amount. This program has the potential to increase Metropolitan's reliability by providing 115,000 acre-feet through 2035.

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 "–Endangered Species Act and Other Environmental Considerations–Endangered Species Act Considerations - State Water Project." In 2016, Metropolitan entered into an agreement with the State Water Contractors, Inc. to pursue water transfer supplies. These purchases were not completed, however due to the 60 percent State Water Project allocation, which resulted in no conveyance capacity to move the transfer supplies to Metropolitan.

Metropolitan has also entered into an agreement with certain State Water Contractors for the exchange of a portion of its Colorado River supply for their State Water Project contracted amounts. One benefit of the agreement is reducing Metropolitan's State Water Project fixed costs in wetter years when there are more than sufficient supplies to meet Metropolitan's water management goals, while preserving its dry-year State Water Project Supply.

Metropolitan/CVWD/Desert Water Agency Exchange and Advance Delivery Agreement. Metropolitan has agreements with the CVWD and the Desert Water Agency ("DWA") in which Metropolitan exchanges its Colorado River water for those agencies' State Water Project contractual water on an annual basis. Because CVWD and DWA do not have a physical connection to the State Water Project, Metropolitan takes delivery of CVWD's and DWA'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 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/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." In addition to the CVWD/DWA exchange agreements, Metropolitan has entered into separate agreements with CVWD and DWA for delivery of non-State Water Project supplies acquired by CVWD or DWA. Similarly, Metropolitan takes delivery of these supplies from State Water Project facilities and incurs an exchange obligation to CVWD or DWA. From 2008 through 2016, Metropolitan has received a net additional supply of 88,527 acre-feet of water acquired by CVWD and DWA.

Colorado River Aqueduct

Metropolitan has taken steps to augment its share of Colorado River water through agreements with other agencies that have rights to use such water, including through cooperative programs with other water agencies to conserve and develop supplies and through programs to exchange water with other agencies. These supplies are conveyed through the CRA. Metropolitan determines the delivery schedule of these supplies throughout the year based on changes in the availability of State Water Project and Colorado River water. Under certain of these programs, water may be delivered to Metropolitan's service area in the year made available or in a subsequent year as ICS water from Lake Mead storage. See "–Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead."

IID/Metropolitan Conservation Agreement. Under a 1988 water conservation agreement, as amended in 2003 and 2007 (the "1988 Conservation Agreement") between Metropolitan and IID, Metropolitan provided funding for IID to construct and operate a number of conservation projects that have conserved up to 109,460 acre-feet of water per year that has been provided to Metropolitan. As amended, the agreement's initial term has been extended to at least 2041 or 270 days after the termination of the QSA. In 2016, 105,000 acre-feet of conserved water was made available by IID to Metropolitan. Under the QSA and related agreements, Metropolitan, at the request of CVWD, forgoes up to 20,000 acre-feet of this water each year for diversion by CVWD. In 2015 and 2016, CVWD's requests were for 6,715 and an estimated 15,972 acre-feet, respectively, leaving 101,105 acre-feet in 2015 and an estimated 89,058 acre-feet in 2016 for Metropolitan. See "–Colorado River Aqueduct – Quantification Settlement Agreement."

Palo Verde Land Management, Crop Rotation and Water Supply Program. In August 2004, Metropolitan and the Palo Verde Irrigation District ("PVID") signed the program agreement for a Land Management, Crop Rotation and Water Supply Program. Under this program, participating landowners in the PVID service area are compensated for reducing water use by not irrigating a portion of their land. 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, an additional 24,100 acre-feet and 32,300 acre-feet of water, respectively, 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 under the Land Management, Crop Rotation and Water Supply Program with PVID:

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

Calendar Year	Volume (acre-feet)

2006	105,000
2007	72,300
2008	94,300
2009*(1)	144,300
2010(1)	148,600
2010*	148,600
2011	122,200
2012	73,700
2013	32,750
2014	43,010
2012	73,700
2013	32,750
2014	43,010
2015	94,480
2016(2)	125,000

Source: Metropolitan.

*

(1) 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 Central Arizona Water Conservation District ("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 named the Warren H. Brock Reservoir). Construction was completed in October 2010 and the Bureau of Reclamation refunded approximately $3.71 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 water that would otherwise be lost from the system. In return for its funding, Metropolitan received 100,000 acre-feet of water that was stored in Lake Mead for its future use. Besides the additional water supply, the new reservoir adds to the flexibility of Colorado River operations. As of January 1, 2016, Metropolitan had received 43,992 acre-feet of this water, and had 56,008 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 approximately $8.4 million, of which approximately $1.1 million was refunded to Metropolitan. Metropolitan's yield from the pilot run of the project was 24,397 acre-feet. That water is stored in Lake Mead for Metropolitan's future use.

(2) Estimate.

Lake Mead Storage Program. As described under "–Colorado River Aqueduct–Colorado River Operations: Surplus and Shortage Guidelines–Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead," in December 2007, Metropolitan entered into agreements to set forth the guidelines under which ICS water is developed, and stored in and delivered from Lake Mead. The amount of water stored in Lake Mead must be created through extraordinary conservation, system efficiency, or tributary conservation methods. Metropolitan has participated in projects to create ICS as described below:

Drop 2 (Warren H. Brock) Reservoir. In May 2008, Metropolitan provided $28.7 million to join the CAWCD and the 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 named the Warren H. Brock Reservoir). Construction was completed in October 2010 and the Bureau of Reclamation refunded approximately $3.71 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 water that would otherwise be lost from the system. In return for its funding, Metropolitan received 100,000 acre-feet of water that was stored in Lake Mead for its future use, and has the ability to receive up to 25,000 acre-feet of water in any single year. Besides the additional water supply, the addition of the Warren H. Brock reservoir adds to the flexibility of Colorado River operations by storing underutilized Colorado River water orders caused by unexpected canal outages, changes weather conditions, and high runoff into the Colorado River. As of January 1, 2016, Metropolitan had taken delivery of 43,992 acre-feet of this water, and had 56,008 acre-feet remaining in storage.

Yuma Desalting Plant. 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 approximately $8.4 million, of which approximately $1.1 million was refunded to Metropolitan. Metropolitan's yield from the pilot run of the project was 24,397 acre-feet. As of January 1, 2016, that water was stored in Lake Mead for Metropolitan's future use.

Mexico Pilot Project. 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~~'s total share of costs was $5 million for 47,500 acre-feet of project supplies. In December 2013, Metropolitan and IID executed an agreement under which IID ~~will pay half of Metropolitan'~~has paid half of Metropolitan's program costs, or $2.5 million, in return for half of the project supplies, or 23,750 acre-feet. In addition, 23,750 acre-feet of conserved water will be credited to Metropolitan~~'s intentionally created surplus~~'s binational ICS water account no later than ~~2017. See "*Intentionally Created Surplus Program*" below.~~

~~*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, and provides for specific acquisitions of conserved water and water supply arrangements for up to 75 years. The QSA and related agreements provide a framework for Metropolitan to enter into other cooperative Colorado River supply programs and set aside several disputes among California's Colorado River water agencies.~~

~~Specific programs under the QSA and related agreements 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. Also included under the QSA is the delivery and exchange agreement between Metropolitan and CVWD that provides for Metropolitan, when requested, 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 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 133,000 acre-feet of water per year. (Amounts of Colorado River water received by Metropolitan in 2006 through 2015 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 (in 2003 dollars) into the Salton Sea Restoration Fund for any special surplus Colorado River water that Metropolitan receives 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, then 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 agreement, 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 is challenging such charges. In 2015, 179,347 acre-feet were delivered by SDCWA for exchange, consisting of 100,000 acre-feet of IID conservation plus 79,347 acre-feet of conserved water from the Coachella Canal and All-American Canal lining projects.~~

~~*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, a portion of which has been delivered, and the remainder of which 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. On September 19, 2014, the Navajo Nation appealed 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. Briefing by the parties was completed by May 20, 2015. No date for oral argument has been set. 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).~~

~~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 2014 under this agreement is approximately 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 the water stored with Metropolitan before 2022. In October 2015, SNWA and Metropolitan executed an amendment under which Metropolitan will pay SNWA approximately $44.4 million and SNWA will store an additional 150,000 acre-feet with Metropolitan during 2015. Of that amount, 125,000 acre-feet will be added to SNWA's storage account with Metropolitan, increasing the total amount of water stored to 330,000 acre-feet. When SNWA requests the return of any of the stored 125,000 acre-feet, SNWA will reimburse Metropolitan for an equivalent proportion of the $44.4 million based on the amount of water returned plus inflation. The stored water allowed Metropolitan to have a full water supply from the Colorado River in 2015.~~

~~*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 may store 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*." Only "intentionally created surplus" water (water that has been conserved through an extraordinary conservation measure, such as land fallowing) is 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. The Secretary of the Interior delivers intentionally created surplus water to Metropolitan in accordance with the terms of December 13, 2007 and January 6, 2010 Delivery Agreements between the United States and Metropolitan. As of January 1, 2016, Metropolitan had approximately 80,405 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, groundwater desalination, the Warren H. Brock Reservoir Project and the Yuma Desalting Plant pilot run.~~

~~*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 CRA 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 CRA 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 CRA. 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 39,700 acre-feet of water and the maximum annual yield is 231,200 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*. Through agreements with the Kern Delta Water District, the Mojave Water Agency and the San Bernardino Valley Municipal Water District ("SBVMWD"), the California Aqueduct Dry-Year Transfer Program insures 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. The program includes 50,000 acre-feet of storage capacity for the carryover of water purchased from SBVMWD. 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") to help mitigate water shortages. In 2015, Metropolitan participated in the Drought Water Bank with other State Water Contractors, resulting in deliveries of 9,886 acre-feet to Metropolitan.~~

~~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. The agreement permits YCWA to transfer additional supplies at its discretion. 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 water made available. Metropolitan's agreement allows Metropolitan to purchase, in dry years through 2025, available water supplies which have ranged from approximately 6,555 acre-feet to 67,068 acre-feet per year.~~

~~*Metropolitan/CVWD/Desert Water Agency Exchange and Advance Delivery Agreement*. Metropolitan has agreements with the CVWD and the Desert Water Agency ("DWA") in which Metropolitan exchanges its Colorado River water for those agencies' State Water Project contractual water on an annual basis. Because DWA and CVWD do not have a physical connection to the State Water Project, Metropolitan takes delivery of 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 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/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/DWA exchange agreements, Metropolitan has entered into separate agreements with CVWD and DWA for delivery of non-State Water Project supplies acquired by CVWD or DWA. Similarly, Metropolitan takes delivery of these supplies from State Water Project facilities and incurs an exchange obligation to CVWD or DWA. From 2008 through 2015, Metropolitan has received a net additional supply of 71,461 acre-feet of water acquired by CVWD and 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.~~December 31, 2017. See "–Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead."

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 CRA, is approximately 5.83 million acre-feet. In ~~2015,~~2016, 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 biological

opinions issued for listed species. See "~~– State Water Project –~~Endangered Species Act ~~*Considerations*" above.~~and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project – Delta Smelt and Salmon Federal ESAs Biological Opinions." Metropolitan replenishes its storage accounts when available 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. See "CONSERVATION AND WATER SHORTAGE MEASURES–Water Supply Allocation Plan." 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.~~'s history. In 2014, Metropolitan withdrew approximately 1.2 million acre-feet from storage, reducing overall storage to approximately 1.8 million acre-feet. Approximately 300,000 acre-feet were withdrawn from storage reserves in 2015, leaving approximately ~~1.54~~1.5 million acre-feet in storage reserves as of January 1, 2016. ~~Metropolitan staff estimates that storage reserves will increase by approximately 376,000 acre-feet in 2016 depending on developing supply and demand conditions.~~ Approximately 352,000 acre-feet were returned to storage reserves in 2016, providing for 1.9 million acre-feet in reserves as of January 1, 2017. The following table shows three years of Metropolitan~~'~~'s water in storage as of January 1, including emergency storage.

~~[Remainder of page intentionally left blank.]~~

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

Water Storage Resource	Storage Capacity	Water in Storage January 1, 2017	Water in Storage January 1, 2016	Water in Storage January 1, 2015	~~Water in Storage January 1, 2014~~
Colorado River Aqueduct					
Desert / CVWD Advance Delivery Account	800,000	38,000	~~201,000~~200,000	249,000	~~260,000~~
Lake Mead ICS	1,500,000	71,000	80,000	151,000	~~474,000~~
Subtotal	**2,300,000**	**109,000**	**~~281,000~~280,000**	**400,000**	**~~734,000~~**
State Water Project					
Arvin-Edison Storage Program		108,000	~~123,000~~124,0	~~165,000~~166,0	~~180,000~~

	350,000	125,000	00 128,000137,000	00 186,000194,000	238,000
Semitropic Storage Program	350,000	99,000	120,000119,000	152,000150,000	169,000
Kern Delta Storage Program	250,000	-0-	-0-	-0-	-0-
San Bernardino Valley MWD Coordinated Operating Agreement	50,000	27,000	31,000	39,000	39,000
Mojave Storage Program	390,000(5)	154,000	30,000	-0-	219,000
Castaic Lake and Lake Perris(2)	219,000	213,000	2,0003,000	36,000	49,000
Metropolitan Article 56 Carryover(3)	200,000(6)	-0-	-0-	-0-	174,000
Other State Water Project Carryover(4)	n/a	328,000	328,000	328,000	334,000
Emergency Storage	334,000	**1,054,000**	762,000772,000	906,000913,000	1,402,000
Subtotal	**2,143,000**				
Within Metropolitan's Service Area					
Diamond Valley Lake	810,000	566,000	315,000	394,000	584,000
Lake Mathews	182,000	135,000	141,000	78,000	139,000
Lake Skinner	44,000	37,000	34,000	30,000	36,000
Subtotal(7)	**1,036,000**	**738,000**	**490,000**	**502,000**	**759,000**
Member Agency Storage Programs					
Cyclic Storage, and Conjunctive Use, and Supplemental Storage	352,000	1,000	7,000	28,000	73,000
Total	**5,831,000**	**1,902,000**	1,540,000**1,549,000**	1,836,000 **1,843,000**	2,968,000

Source: Metropolitan.

(footnotes on next page)

(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. Withdrawals must be returned within 5 years.
(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. The January 1, 2017 value includes 42,000 acre-feet of Article 56 carried over by Metropolitan on behalf of Desert Water Agency and Coachella Valley Water District.
(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 292,000298,000 acre-feet of emergency storage in Metropolitan's reservoirs in 2014, and 298,000 acre-feet in 2015 and 2016.2015, 2016, and 2017.

Water Conservation

CONSERVATION AND WATER SHORTAGE MEASURES

General

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. METROPOLITAN'S WATER SUPPLY–State Water Project – Bay-Delta Proceedings Affecting Water Supply" and "–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project – Delta Smelt and Salmon Federal ESAs Biological Opinions." Conservation reduces the need to import water to deliver to member agencies through Metropolitan's system. Water conservation is an integral component of Metropolitan's IRP Strategy's IRP, WSDM plan and Water Supply Allocation Plan, each described in this Appendix A under "METROPOLITAN'S WATER SUPPLY." Metropolitan's conservation Plan and Water Supply Allocation Plan.

Metropolitan's conservation program has largely been developed to assist its member agencies in meeting the "best management practices" ("BMPBMPs") 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 most recent IRP Update. See "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan" above." Under the terms of the CUWCC MOU and Metropolitan's Conservation Credits Program, Metropolitan assists andadministers regional conservation programs and also 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 2014-152015-16 was about $487 million. On May 26, 2015, the Board approved an additional $350 million for Metropolitan's conservation budget, resulting in total funding of $450 million over fiscal years 2014-15 and 2015-16. As of March 2016, $340 million was rebated and an additional $18 million has been committed to the turf replacement program731 million. The 2015 IRP Update estimates that 1,197,000 acre-feet of water will be conserved annually in southern California by 2025. See "also "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan" in this Appendix A and "–Drought Response Actions" abovebelow.

In addition to ongoing conservation, Metropolitan has developed a WSDM ~~plan~~Plan, which splits resource actions into two major categories: Surplus Actions and Shortage Actions. See "~~–~~ Water Surplus and Drought Management Plan~~" below~~." Conservation and water efficiency programs are part of Metropolitan~~'~~'s resource management strategy which makes up these Surplus and Shortage actions.

Metropolitan~~'s plan for allocation of water supplies in the event of shortage (the "~~'s 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. See "– Water Supply Allocation Plan." 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~~11, 2011-~~12.~~12 and 2015-16.

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. 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~~the 2009 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~~In addition to the long-term planning guidelines and strategy provided by its IRP, Metropolitan has developed its WSDM Plan for the on-going management of its resources and water supplies in response to hydrologic conditions. 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~~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

In times of prolonged or severe water shortages, Metropolitan manages its water supplies through the implementation of its Water Supply Allocation Plan. The Water Supply Allocation Plan was originally approved by Metropolitan~~'~~'s Board in February ~~2008~~2008, and has ~~since~~ been implemented three times since its adoption, including ~~the~~ most ~~recent~~recently in April 2015. 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.~~'s service area. In December 2014, the Board approved certain adjustments to the formula for calculating member agency supply allocations during subsequent periods of 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. See also "–Drought Response Actions."

On 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. On April 14, 2015, the Board declared a Water Supply Condition 3 and the implementation of the Water Supply Allocation Plan at a Level 3 Regional Shortage Level, effective July 1, 2015 through June 30, 2016. Implementation of the Water Supply Allocation Plan at a Level 3 Regional Shortage Level, and response to the Governor's Order (see "–and related implementing regulations (described under "–Drought Response Actions" above) is anticipated to reduce), reduced supplies delivered by Metropolitan to Metropolitan's member agencies to approximately 1.6 million acre-feet in fiscal year 2015-16. See also "CONSERVATION AND WATER SHORTAGE MEASURES–General." Due to improved hydrologic conditions, on May 10, 2016, the Board rescinded the Water Supply Allocation Plan, declared a Condition 2 Water Supply Alert, and decided not to implement the Water Supply Allocation Plan for fiscal year 2016-17. See "–Drought Response Actions" aboveIn April 2017, the Board will evaluate current water supply conditions and determine if implementation of the Water Supply Allocation Plan is needed for fiscal year 2017-18. In light of current hydrologic conditions and current DWR State Water Project allocation estimates, implementation of the Water Supply Allocation Plan for fiscal year 2017-18 is not currently expected.

Drought Response Actions

The most recent drought of 2012-2015 represents one of the driest periods in the hydrologic record since 1931-1934. In calendar years 2012-2015, to offset reductions in State Water Project supplies and mitigate impacts of the California drought, in addition to utilizing the limited available supplies from the Colorado River and State Water Project deliveries, Metropolitan met water demands in its service area by supplemental water transfers and purchases, and drawing on storage reserves, while also encouraging responsible and efficient water use to lower demands.

As noted under "–Water Supply Allocation Plan" above, actions taken in response to the drought by the State, Metropolitan's Board, and Metropolitan member agencies have contributed to reduced demands in Metropolitan's service area. Following the declaration by Governor Brown on January 17, 2014 of a drought state of emergency for California, on April 1, 2015 Governor Brown issued an Executive Order ("Order") calling for a 25 percent reduction in consumer water use in response to the historically dry conditions. The Governor's Order was implemented through emergency regulation adopted by the SWRCB. On May 18, 2016, the SWRCB adopted modifications to the emergency regulation which replace the state-mandated conservation targets with a supply-based approach that mandates urban water suppliers take actions to ensure at least a three year supply of water to their customers under drought conditions. As a wholesale water agency providing a supplemental water supply to its member agencies, Metropolitan is not subject to the requirements of the Order, which applies to retail water agencies. However, water sales of Metropolitan's member agencies have declined as a result of conservation efforts and other actions taken to comply with the Order and implementing regulation. In addition, since Governor Brown's initial drought emergency proclamation in January 2014, Metropolitan has worked proactively with its member agencies to conserve water supplies in its service area, and significantly expanded its water conservation and outreach programs and increased funding for conservation incentive programs. See "CONSERVATION AND WATER SHORTAGE MEASURES–General." In calendar year 2016, Metropolitan returned approximately 352,000 acre-feet of water to storage and continued to encourage responsible and efficient water use.

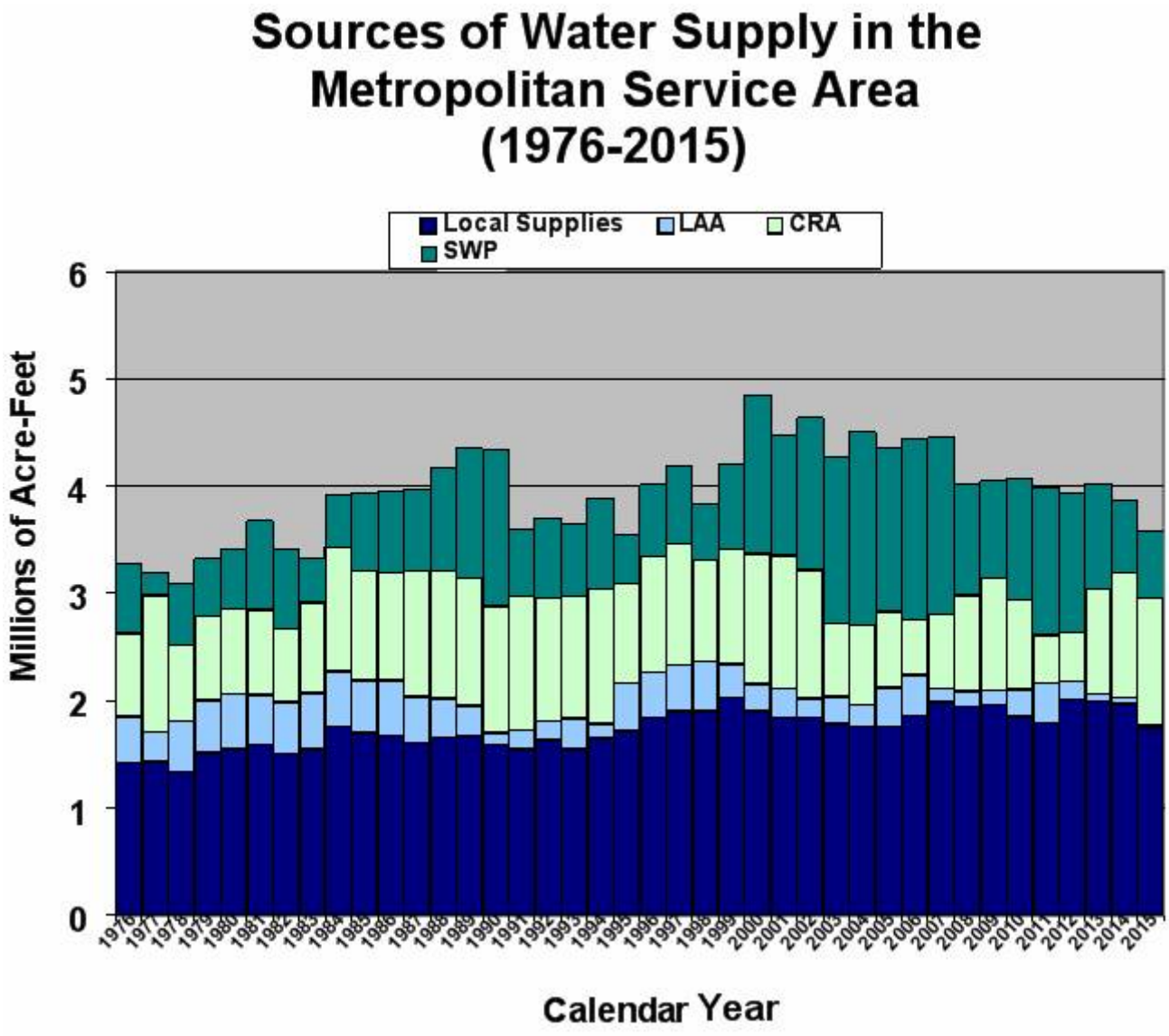
REGIONAL WATER RESOURCES

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 the CRA 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'sMetropolitan'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 ConservationCONSERVATION AND WATER SHORTAGE MEASURES" 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 dependentdepend on, 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 1976 to 2015. Local supplies available within Metropolitan's service area are augmented by water imported by the City through the Los Angeles Aqueduct and Metropolitan supplies provided through the CRA and State Water Project.



Source: Metropolitan.

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

Los Angeles Aqueduct

The City, through its Department of Water and Power ("LADWP"), operates its Los Angeles Aqueduct system to import water from the Owens Valley and the Mono Basin on the eastern slopes of the Sierra Nevada in eastern California. Prior to the 1990-1991 drought, the City had imported an average of 440,000 acre-feet of water annually from the combined Owens Valley/Mono Basin system, of which about 90,000 acre-feet came from the Mono Basin. Under the Mono Lake Basin Water Right Decision (Decision 1631) issued in September 1994, which revised LADWP~~'~~'s water rights licenses in the Mono Basin, the City is limited to export 4,500 acre-feet annually when Mono ~~Basin~~Lake elevation is between 6,377 to 6,380 feet above mean sea level, and 16,000 acre-feet annually when the elevation is between 6,380 to 6,391 feet above mean sea level. As of April ~~2015,~~1, 2016, the water level of Mono Lake ~~elevations dropped to 6,379~~was 6,378.1 feet above mean sea level~~ which will limits its exports~~. Therefore, Mono Basin water exports by the City will be limited to 4,500 acre-feet annually~~.~~ until the water level in Mono Lake reaches 6,380 feet above mean sea level. Once the elevation of Mono Lake reaches 6,391 feet above mean sea level, a moderate increase in water exports from the Mono Basin above the 16,000 acre-feet limit will be permitted pursuant to Decision 1631.

Pursuant to the City~~'~~'s turnout agreement with DWR, ~~Antelope Valley East Kern Water Agency ("AVEK")~~AVEK and Metropolitan, LADWP commenced construction in 2010 of the turnout facilities along the California Aqueduct within AVEK~~'~~'s service area. Upon completion, which is expected in ~~2017 or 2018,~~2017, 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 to the City in amounts not to exceed the supplies lost to the City as a result of its Eastern Sierra environmental obligations.

Historically, the Los Angeles Aqueduct and local groundwater supplies have been nearly sufficient to meet the City~~'~~'s water demands 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 ~~2014-15,~~2015-16, approximately 31 to 75 percent of the City~~'~~'s total water requirements were met by Metropolitan. For the five fiscal years ended June 30, ~~2015,~~2016, the City~~'~~'s water deliveries from Metropolitan averaged approximately ~~314,000~~348,680 acre-feet per year, which constituted approximately ~~57~~64 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 442,000 acre-feet per year. See "METROPOLITAN REVENUES~~—~~–Principal Customers" in this Appendix A. According to LADWP~~'~~'s ~~Year~~ 2015~~ draft~~ 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, 2015 of 14 percent to 47 percent of its normal year supplies by fiscal year 2039-40. Accordingly, the City~~'~~'s reliance on Metropolitan supplies is expected to decrease from the five year average ending June 30, ~~2015~~2016 of ~~57~~64 percent to 11 percent of its normal year supplies by fiscal year 2039-40. However, the City may still purchase up to ~~319,000~~311,000 acre-feet per year or ~~50~~44 percent of its dry year supplies from Metropolitan until 2040. This corresponds to an increase from normal to dry years of approximately ~~244,000~~237,000 acre-feet in potential demand for supplies from Metropolitan.

LADWP analyzed the additional impacts to the Los Angeles Aqueduct~~'~~'s water supply deliveries for various environmental projects aimed at improving air quality and fish and riparian habitat in the Owens

Valley. In November 2014, LADWP reached an agreement over implementation of dust control measures on Owens Lake which saved approximately 12,000 to 14,000 acre-feet of water in 2015 and is expected to expand water savings in the future. LADWP reports that in ~~2015, 132,000~~2016, 71,400 acre-feet of 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.

Local Water Supplies

Local water ~~resources include~~supplies are made up of 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. Metropolitan's primary incentive program for local supply development is the Local Resource~~, groundwater recovery, surface runoff, recycled water, and seawater desalination. Metropolitan supports local resources development through its Local Resources Program ("LRP"), which provides financial incentives up to $340 per acre-foot of water production from local water recycling, groundwater recovery and seawater desalination projects. Metropolitan utilizes conjunctive use of groundwater to encourage storage in groundwater basins. 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 IRP Update goals. See "MANAGEMENT~~'~~'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES~~—~~–Water Sales Projections" and "METROPOLITAN~~'~~'S WATER SUPPLY~~—The~~ –Integrated Water Resources Plan" in this Appendix A.

Groundwater. Demands for about 1.35 million acre-feet per year, about one-third of the annual water demands for approximately ~~18.7~~18.8 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*~~***Member Agency Storage Programs***. Metropolitan has ~~executed agreements with~~developed a number of local programs to work with its member 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~~increase storage in groundwater basins. Metropolitan has encouraged storage through its cyclic and conjunctive use storage programs. These programs allow Metropolitan to deliver water into a groundwater basin in advance of agency demands. Metropolitan has drawn on dry-year supply from cyclic storage accounts and nine contractual conjunctive use storage programs to address shortages from the State Water Project and the CRA.

Cyclic storage agreements allow pre-delivery of imported water for recharge into groundwater basins in excess of an agency's planned and budgeted deliveries making best use of available capacity in conveyance pipelines, use of storm channels for delivery to spreading basins, and spreading basins. This water is then purchased at a later time when the agency has a need for groundwater replenishment deliveries.

Conjunctive use agreements provide for storage of imported water that can be called for use by Metropolitan during dry, drought, or emergency conditions. During a dry period, Metropolitan has the option to call water stored in the groundwater basins pursuant to its contractual conjunctive use agreements. At the time of the call, the member agency pays Metropolitan the prevailing rate for that water. Nine conjunctive use projects provide about 210,000 acre-feet of groundwater storage and have a combined extraction capacity of about 70,000 acre-feet per year. As of June 2015,January 2017, the balance in the nine accounts was approximately 20,000 acre-feet. Metropolitan called the remaining acre-feet to be produced from these storage accounts during the 12-month period from July 2015 through June 2016.1,000 acre-feet. 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 2425 projects that recover contaminated groundwater with total contract yields of about 112,500118,000 acre-feet per year. During fiscal year 2014-15,2015-16, Metropolitan provided incentives for approximately 57,50049,000 acre-feet of recovered water under these agreements. Total groundwater recovery use under executed agreements is expected to grow to 82,00079,000 acre-feet in 2020.

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~~82 recycled water projects with total contract yields of about ~~306,400~~323,000 acre-feet per year. During fiscal year ~~2014-15,~~2015-16, Metropolitan provided incentives for approximately ~~184,700~~179,000 acre-feet of reclaimed water under these agreements. Total recycled water use under executed agreements is expected to be approximately ~~179,000~~193,000 acre-feet by 2020.

Seawater Desalination. Metropolitan~~'~~'s IRP includes seawater desalination as a part of the region~~'~~'s local supply that could help increase supply reliability in Metropolitan~~'~~'s service area~~ and~~. The IRP also supports foundational actions to lay the groundwork for accelerating seawater desalination development as needed in the future. To encourage local development, Metropolitan has signed Seawater Desalination Program ("SDP") incentive agreements with three of its member agencies: Long Beach, Municipal Water District of Orange County ("MWDOC") and West Basin Municipal Water District. The SDP agreements provide incentives to the member agencies of up to $250 per acre-foot when the desalinated supplies are produced. Agreement terms are for the earlier of 25 years or through 2040 and are designed to phase out if Metropolitan~~'~~'s rates surpass the unit cost of producing desalinated seawater. SDP agreements are subject to final approval by Metropolitan~~'~~'s Board after review of the complete project description and environmental documentation. These projects are currently in the development phase and collectively are anticipated to produce up to 46,000 acre-feet annually. ~~In addition, in~~ The agreements automatically terminate in 2020 if the projects are not operational by that time. In October 2014, seawater desalination projects became eligible for funding under Metropolitan~~'~~'s Local Resources Program.

In late 2015, Poseidon Resources LLC ("Poseidon") completed and began operating the 56,000 acre-foot capacity Carlsbad Desalination Project ("Carlsbad Project") and associated pipeline. The SDCWA has a purchase agreement with Poseidon for a minimum of 48,000 acre-feet per year with an option to purchase an additional 8,000 acre-feet per year. Other seawater desalination projects that could provide supplies to Metropolitan~~'~~'s service area are under development or consideration. In partnership with the Orange County Water District, Poseidon is also developing a 56,000 acre-feet per year plant in Huntington Beach which is currently in the permitting phase. SDCWA is also 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. Calleguas Municipal Water District is studying the potential for a 20,000 to 80,000 acre-feet per year project in Ventura County. Otay Water District, located in San Diego County along the Mexico border, is considering the feasibility of purchasing water from a seawater desalination project in Rosarito Beach, Mexico. The 56,000 to 112,000 acre-feet per year project is in the pre-construction phase, and could also supply Metropolitan~~'~~'s service area through exchange agreements. Approvals from a number of U.S. and Mexican federal agencies, along with State and local approvals, would be needed for the cross-border project to proceed.

METROPOLITAN~~'~~'S WATER DELIVERY SYSTEM

Primary Facilities and Method of Delivery

Metropolitan~~'~~'s water delivery system is made up of three basic components: the CRA, 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~~Improvements are 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 CRA 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 CRA 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 CRA, which include five ~~pump~~pumping 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. The State Water Project~~ facilities are owned and operated by DWR. Twenty-nine agencies~~, managed and operated by DWR, is one of the largest water supply projects undertaken in the history of water development. The State Water Project facilities dedicated to water delivery consist of a complex system of dams, reservoirs, power plants, pumping plants, canals and aqueducts to deliver water. Water from rainfall and snowmelt runoff is captured and stored in State Water Project conservation facilities and then delivered through State Water Project transportation facilities to water agencies and districts located throughout the Upper Feather River, Bay Area, Central Valley, Central Coast, and Southern California. Metropolitan receives water from the State Water Project through the main stem of the aqueduct system, the California Aqueduct, which is 444 miles long and includes 381 miles of canals and siphons, 49 miles of pipelines or tunnels and 13 miles of channels and reservoirs.

As described herein, Metropolitan is the largest (in terms of number of people it serves, share of State Water Project water it has contracted to receive, and percentage of total annual payments made to DWR therefor) of twenty-nine agencies and districts that have entered into contracts with DWR to receive a water entitlement from the State Water Project. ~~See "METROPOLITAN'S WATER SUPPLY—~~Contractors pay all costs of the facilities in exchange for participation rights in the system. Thus, Contractors also have the right to use the portion of the State Water Project conveyance system necessary to deliver water to them at no additional cost as long as capacity exists. 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, built, owned and operated by Metropolitan, is located southwest of the city of Hemet, California~~,~~. It 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. 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 CRA 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~~Metropolitan's Inland Feeder is a 44-mile-long conveyance system that connects the State Water Project to Diamond Valley Lake and the CRA. 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 cubic

feet per second, 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~~In recent years, the plants typically treat ~~an average of~~ between ~~0.9~~0.8 billion and ~~1.2~~1.0 billion gallons of water per day, and have a maximum capacity of approximately 2.6 billion gallons per day. Approximately 50 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 federal Safe Drinking Water Act ("SDWA") ~~was amended in 1986 and again in 1996. The SDWA~~ establishes drinking water quality standards, monitoring, and 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. ~~For the first time in more than 30 years, the USEPA recently revised the federal Water Quality Standards ("WQS") regulation that helps to implement the Clean Water Act ("CWA"). As a result of the WQS changes, states and authorized tribes may need to consider and implement new provisions, or revise existing provisions, in their WQS. Also, WQS may be used in determining~~The SWRCB Division of Drinking Water ("DDW"), formerly the Drinking Water Program under the California Department of Public Health ("CDPH"), has primary responsibility for the regulation of public water supply systems in the State. Drinking water delivered to customers must comply with statutory and regulatory water quality standards designed to protect public health and safety that are now administered by DDW. Metropolitan operates its five water treatment plants under a domestic water supply permit issued by DDW which is amended, as necessary, such as when significant facility modifications occur. Metropolitan operates and maintains water storage, treatment and conveyance facilities, implements watershed management and protection activities, performs inspections, monitors drinking water quality, and submits monthly and annual compliance reports. In addition, public water system discharges to state and federal waters are regulated under general National Pollutant Discharge Elimination System ~~permit limits or in implementing other CWA programs. The revised WQS regulation became effective on October 20, 2015. The SWRCB Division of Drinking Water ("DDW") has lead authority over California water agencies.~~ ("NPDES") permits. The SWRCB issued these NPDES permits to Metropolitan which contain numerical effluent limitations, monitoring, reporting, and notification requirements for water discharges from the facilities and pipelines of Metropolitan's water supply and distribution system.

Metropolitan continually monitors new water quality laws and regulations and frequently comments on new legislative proposals and regulatory rules. Metropolitan is currently operating in compliance with all state and federal drinking water regulations and permit requirements.

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 to withstand a maximum probable seismic event or to minimize the potential repair time in the event of damage. The five pumping plants on the CRA have been buttressed to better withstand seismic events.

Other components of the CRA 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 CRA 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 (assuming there has been no impairment of Metropolitan's internal distribution network).

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~~projects have been completed ~~over the last few years~~ to upgrade and expand these shops. A total of nearly $~~37~~40 million has been invested to enhance Metropolitan~~'~~'s capacity ~~to~~ not only to provide fabrication and coating services for planned rehabilitation work, maintenance activities, and capital projects, but ~~to~~ also to 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- California Aqueduct. 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, CRA 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 Federalfederal governments control the Bay-Delta levees, repair of any levee failures would be the responsibility of and controlled by the State and Federalfederal 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.

State Water Project-Perris Dam. Perris Dam forms Lake Perris, the southernmost terminal reservoir for the State Water Project in Riverside County, with maximum capacity of approximately 130,000 acre-feet of water. Metropolitan uses water from Lake Perris for delivery to customers in Riverside and San Diego counties. Deliveries from the lake are used as a redundant source for the Mills Water Treatment Plant, drought supply from a flexible storage account, and for consumptive use by Metropolitan's customers. 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 to be completed 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 AgencyDWA (3.0 percent) and Coachella Valley Water DistrictCVWD (21.9 percent). DWR recovers the cost of repairs through its annual statement of charges sent to each agency. See "METROPOLITAN EXPENDITURES–EXPENSES–State Water Contract Obligations" in this Appendix A.

Security Measures

Metropolitan conducts ground and air patrols of the CRA and monitoring and testing at all treatment plants and along the CRA. 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 2016-17 and 2017-18, including replacement and refurbishment expenditures, by project type for the fiscal years ending June 30, 2017 through 2021. This estimate is updated ~~bi-annually~~every two years 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.

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

Cost of Service	2017	2018	2019	2020	2021	Total
Conveyance & Aqueduct	$ 19,772	$ 32,934	$~~32, 433~~ 32,433	$ 30,396	$ 29,042	$ 144,578
Storage	1,455	--	- -	--	--	1,455
Distribution	50,818	80,197	95,411	107,446	126,015	459,887
Treatment	88,345	67,691	55,746	50,292	37,678	299,753
Administrative and General	36,649	18,846	16,325	11,398	7,229	90,448
Hydroelectric	2,960	332	84	468	36	3,880
Total(2)	$200,000(3)	$200,000	$200,000	$200,000	$200,000	$1,000,000

Source: Metropolitan.

(1) Fiscal years 2016-17 and 2017-18 based on the adopted biennial budget for fiscal years 2016-17 and 2017-18. Fiscal years 2018-19 through 2020-21 based on the ten-year financial forecast provided in the adopted biennial budget. Totals are rounded.

(2) Annual totals include replacement and refurbishment expenditures for fiscal years 2016-17 through 2020-21 of $115 million, $159 million, $176 million, $182 million, and $192 million, respectively, for a total of $823 million for fiscal years 2016-17 through 2020-21.

(3) Fiscal year 2016-17 capital expenditures are currently estimated to be approximately $213 million.

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 requires 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 60 percent of capital program expenditures required for replacements and refurbishments of Metropolitan facilities from current revenues. 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. However, as in prior years, pay-as-you-go funding may be reduced or increased by the Board during the fiscal year.

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, were expected to fund $513 million in CIPcapital expenditures for fiscal year 2014-15 and fiscal year 2015-16. On July 14, 2015, Metropolitan's Board approved $264 million to acquire various properties in Riverside and Imperial Counties, with $160 million funded from the Replacement and Refurbishment Fund and the remaining amount from unrestricted reserves. On October 13, 2015, Metropolitan's Board adopted an ordinance finding that made certain findings that are required prior to the issuancethe interests of the district require the use of new revenue bonds in an amount not to exceed $500 million. On December 17, 2015, Metropolitan issued its $208,255,000 Water Revenue Bonds, 2015 Authorization Series A, to reimburse certain pay-as-you-go capital expenditures for CIP expenditures forand to fund a portion of fiscal year 2014-15 and fiscal year 2015-16 and for future CIP2016-17 capital expenditures.

Metropolitan's budget assumptions for the adopted biennial budget for fiscal years 2016-17 and 2017-18 and projections for later years provide for the issuance of approximately $80 million of additional water revenue bonds to fund the CIPor to reimburse prior capital expenditures in each of fiscal years 2016-17 through 2020-21 . 21. These revenue bonds could be issued under either as Senior Revenue Bonds under the Senior Debt Resolutions or as Subordinate Revenue Bonds under the Master Subordinate Debt Resolutions (each as defined in under "METROPOLITAN EXPENDITURES—EXPENSES–Limitations on Additional IndebtednessRevenue Bonds" in this Appendix A). The cost of these projected bond issues are reflected in the financial projections under, "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. Metropolitan expects to issue its $80,000,000 Water Revenue Bonds, 2017 Authorization Series A in March 2017 for the purposes of financing a portion of its capital expenditures through fiscal year 2017-18.

On March 8, 2016, Metropolitan's Board authorized the General Manager to enter into an agreement to purchase certain property from Delta Wetlands Properties, LLC in Contra Costa, San Joaquin, and Solano Counties ("the Delta Wetlands Properties"). On June 7, 2016 the California Court of Appeal issued a temporary stay of Metropolitan's purchase of the Delta Wetlands Properties. The court briefly lifted the stay on June 30, 2016, but reinstated it until July 15, 2016 pending action by the California Supreme Court, which can either lift the stay before July 15, 2016, allow the stay to expire on July 15, 2016, or extend the stay. If the stay is liftedJuly 18, 2016, escrow closed and purchase of these properties iswas completed, Metropolitan expects to issue bonds under the Master Subordinate Resolution in an aggregate principal amount of $175 million. On December 21, 2016, Metropolitan issued its $175,000,000 Subordinate Water Revenue Bonds, 2016 Authorization Series A (Taxable) to reimburse itself for the

purchase. See "METROPOLITAN ~~EXPENDITURES—~~EXPENSES–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations" in this Appendix A.

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 five 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~~improvements have been completed at three treatment plants: the 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~~and the Robert B. Diemer Treatment Plant. Completion of the improvements at the F.E. Weymouth plant is expected in 2017. Total oxidation program costs at the F.E. Weymouth plant are estimated to be $270.0 million. Oxidation retrofit at the Robert A. Skinner plant was substantially completed in December 2009 and operational in 2010, with additional follow-up work planned for completion in June 2018. ~~Expenditures at the Skinner plant through March 2016 were $244.0 million. Total oxidation program costs at the Skinner plant are estimated to be $245.5 million. Construction of the~~The total estimated cost for all prior and projected oxidation retrofit facilities ~~at the Robert B. Diemer Treatment Plant was completed in June 2013. All testing and start-up work was completed in 2015 and the new facilities are in full operation. Program expenditures at the Diemer plant through March 2016 were $363.3 million and the total program cost is projected to be $370.2 million. Expenditures at the Weymouth plant through March 2016 were $218.4 million and completion is expected in fiscal year 2018-19. Total oxidation program costs at the F.E. Weymouth plant are estimated to be $270.0 million.~~ program improvements at the five treatment plants is approximately $1.12 billion, with $1.07 billion spent through September 2016. Budgeted aggregate capital expenditures for improvements remaining to be completed at the F.E. Weymouth and Robert A. Skinner plants for fiscal years 2016-17 and 2017-18 are $25 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~~1938, is Metropolitan~~'~~'s oldest water treatment facility. It has been subsequently expanded several times since its original construction. 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 filter buildings, 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 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 $~~406.9~~407.1 million, with $~~228~~243 million spent through ~~March~~September 2016. Budgeted aggregate capital expenditures for improvements at the Weymouth plant for fiscal years 2016-17 and 2017-18 are $31.5 million.

Robert B. Diemer Treatment Plant Improvements. The Robert B. Diemer Treatment Plant~~ was~~, built in in 1963 and subsequently expanded in ~~1968. It~~1968, 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 $381.1 million, with $~~220~~234.5 million spent through ~~March~~September 2016. Budgeted aggregate capital expenditures for improvements at the Diemer plant for fiscal years 2016-17 and 2017-18 are $42.3 million.

Colorado River Aqueduct Facilities. ~~Deliveries~~As previously noted, deliveries through the CRA began in 1941. Through annual inspections and maintenance activities, the performance and reliability of the various components of the CRA 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 under the CRA facilities program are designed to replace or refurbish facilities and components on the CRA system in order to reliably convey water from the Colorado River to Southern California. A variety of projects have been completed over the past 10 years~~ include~~, including, among other things, 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, new wastewater systems at the Hinds and Eagle Mountain Pumping Plants, and replacement of the outlet gates and appurtenant electrical, mechanical, and control systems at the Copper Basin Reservoir. Refurbishment or replacement of many of the electrical system components, including the transformers, circuit breakers and motor control centers, is currently under way. Additionally, many of the mechanical and electrical 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 $650.2 million. Costs through ~~March~~September 2016 were $~~188.5~~208.2 million. Budgeted aggregate capital expenditures for improvements on the CRA for fiscal years 2016-17 and 2017-18 are $87.9 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. (See "METROPOLITAN'S WATER DELIVERY SYSTEM" in this Appendix A.) 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 through ~~March~~September 2016 were $~~75.4~~90.3 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. Priority lining repairs have begun on portions of the Second Lower Feeder and Sepulveda Feeder. Completion of all repairs on Second Lower Feeder and Sepulveda Feeder is anticipated to take 12 to 15 years at a cost of approximately $1.36 billion. 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 and is expected to be undertaken over a period of approximately 20 years. Budgeted aggregate capital expenditures for PCCP rehabilitation for fiscal years 2016-17 and 2017-18 are $39.3 million.

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~~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, lining replacement on the Etiwanda Pipeline and portions of the Orange County Feeder, a new steel liner for the Bernasconi Tunnel, seismic upgrades to the Santa Ana River Bridge, refurbishment to pressure control and hydroelectric power facilities, system improvements to provide drought relief, and

various other upgrades totaling approximately $~~183.3~~228.2 million through ~~March~~September 2016. The currently projected cost estimate for the prior and planned refurbishment or replacement projects, other than the PCCP relining, is $~~750~~749.3 million. For fiscal years 2016-17 and 2017-18, budgeted aggregate capital expenditures for improvements on the distribution system, other than PCCP rehabilitation, are $~~68.8~~74.2 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 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 $38.8 million. The majority of the work to allow reverse-flow deliveries from Diamond Valley Lake was completed in April 2015. Costs through March 2016 were approximately $34.2 million.~~

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 ~~six~~seven percent of revenues in fiscal year ~~2014-15.~~2015-16. See "~~—~~ Revenue Allocation Policy and Tax Revenues~~" below~~. " 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 1992. *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.

The basic rate for untreated water service for domestic and municipal uses is ~~$594 per acre-foot for Tier 1 water, effective January 1, 2016. This rate will increase to~~ $666 per acre-foot at the Tier 1 level, which became effective January 1, ~~2017, and~~ 2017. This rate will increase to $695 ~~per acre-foot~~ effective January 1, 2018. 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 ~~2015-16.~~2016-17. The rates charged by Metropolitan represent the cost of Metropolitan wholesale water service 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~~Revenues by Source

The following table sets forth Metropolitan~~'~~'s sources of ~~receipts~~revenues for the five fiscal years ended June 30, ~~2015.~~2016. The table provides cash basis information~~, which~~ for fiscal year 2012, and modified accrual basis information for fiscal years 2013-2016. All information is unaudited. Audited financial statements for the fiscal years ended June 30, ~~2015~~2016 and June 30, ~~2014~~2015 and unaudited financial statements for the ~~nine~~six months ended ~~March~~December 31, 2016 and ~~March~~December 31, 2015 are provided in APPENDIX B~~—~~ "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR~~'~~'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, ~~2015~~2016 AND JUNE 30, ~~2014~~2015 AND BASIC FINANCIAL STATEMENTS FOR THE ~~NINE~~SIX MONTHS ENDED ~~MARCH~~DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

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

	2011	2012	2013	2014	2015	2016
Water Sales(2)	$995.6	$1,062.5 1,062	$1,250.9 1,283	$1,455.3 1,485	$1,448.7 1,383	$1,166
Net Tax Collections(3)	88.0	90.1 90	96.5 95	98.4 95	103.0 4	108
Additional Revenue Sources(4)	153.5	167.1 167	174.2 173	179.8 182	200.1 9	200
Interest on Investments	18.9	17.8 18	11.7 (2)	14.8 19	17.0	17
Hydroelectric Power Sales	22.1	31.0 31	26.3 25	15.2 15	8.3	7
Other Collections & Trust Funds Revenues (5)	61.0	53.6 54	19.9 23	20.6 19	85.0 163	246
Total Receipts	$1,339.1	$1,422.1 1,422	$1,579.5 1,597	$1,784.1 1,815	$1,862.1 1,873	$1,744

Source: Metropolitan.

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

(2) Gross receiptsrevenues in each year are for sales in the twelve months ended AprilJune 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. In fiscal year 2014-15, includes the transfer of $78.1 million from the Water Management Fund, which funded a like amount of water conservation and water purchase expenditures. See the table entitled "Summary of Expenditures" in "METROPOLITAN EXPENDITURES—General" in this Appendix A. Includes miscellaneous revenues and Build America Bonds (BABs) subsidy payment of $13.3 million, $12.7 million, $12.3 million, $12.3 million, and $12.3 million, in fiscal years 2011-12 through 2015-16, respectively. In fiscal years 2014-15 and 2015-16, includes $142 million and $222 million of water conservation and water purchase expenditures, funded from a like amount of funds transferred from the Water Management Fund.

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 the Act, 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 itsMetropolitan's fiscal integrity. For each fiscal year since 2013-14, the Board has exercised that authority and voted to suspend the tax limit clause in the Act, maintaining the fiscal year 2012-13 *ad valorem* tax rate for fiscal years 2013-14 through 2016-17. 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 Senior Debt Resolutions (defined herein under "METROPOLITAN EXPENDITURES—EXPENSES–Limitations on Additional Revenue Bonds").

Water Sales Revenues

General; 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 threecurrently provides two classes of water service: (1) full service; (2) replenishment (discontinued effective December 31, 2012); and (3) interim agricultural (discontinued effective December 31, 2012). See "– (1) full service treated and untreated, and (2) wheeling service. See "–Classes of Water Service" below."

No member agency of Metropolitan is obligated to purchase water from Metropolitan. However, 21 of Metropolitan's 26 member agencies have entered into 10-year voluntary water supply purchase orders ("Purchase Orders") effective through December 31, 2024. See "–Member Agency Purchase Orders" below." Consumer demand and locally supplied water vary from year to year, resulting in variability in water sales revenues. Metropolitan uses its financial reserves and budgetary tools to manage the financial impact of the variability in revenues due to fluctuations in annual water sales. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A.

Payment Procedure. Water is delivered to the member agencies on demand and is metered at the point of delivery. Member agencies are billed monthly and a late charge of one percent of the delinquent payment is assessed for a payment that is delinquent for no more than five business days. A late charge of two percent of the amount of the delinquent payment is charged for a payment that is delinquent for more than five business days for each month or portion of a month that the payment remains delinquent. Metropolitan has the authority to suspend service to any member agency delinquent for more than 30 days. Delinquencies have been rare; in such instances late charges have been collected. No service has been suspended because of delinquencies.

Water Sales. The following table sets forth the acre-feet of water sold and water sales (including sales from water wheeling and exchanges) for the five fiscal years ended June 30, 2015.2016. Water sales revenues of Metropolitan for the threefour fiscal years ended June 30, 2013 through June 30, 2015,2016, respectively, on an accrual basis, are shown in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR THE NINESIX MONTHS ENDED MARCHDECEMBER 31, 2016 AND 2015 (UNAUDITED)."

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

Year	Acre-Feet[1] Sold	Water Sales[42] (in millions)	Dollars Per Acre-Foot[53]	Average Dollars Per 1,000 Gallons
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
2015	1,905,502	1,383.0	726	2.23
2015	1,905,502	1,383.0	726	2.23
2016	1,623,052	1,166.0	718	2.20

Source: Metropolitan.

(1) Year ended April 30 for fiscal ~~years 2010-11 and~~year 2011-12, 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.~~

(2) ~~(4)~~ Water Sales in fiscal ~~years 2010-11 and~~year 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 ~~thru 2014-15~~through 2015-16 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.~~

(3) ~~(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.

Principal Customers

Total water sales accrued for the fiscal year ended June 30, 2016 were 1.62 million acre-feet, generating $1.17 billion in water sales revenues for such period. Metropolitan's ten largest water customers in the year ended June 30, 2016 are shown in the following table, on an accrual basis. The SDCWA has filed litigation challenging Metropolitan's rates. See "–Litigation Challenging Rate Structure."

TEN LARGEST WATER CUSTOMERS
Year Ended June 30, 2016
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	$ 270.9	23.2%	465,568	28.7%
City of Los Angeles	224.3	19.2	332,527	20.5
MWD of Orange County	140.3	12.0	171,666	10.6
West Basin MWD	100.0	8.6	107,319	6.6
Calleguas MWD	77.7	6.7	83,346	5.1
Eastern MWD	53.1	4.6	62,631	3.9
Western MWD	51.6	4.4	65,532	4.0
Three Valleys MWD	42.5	3.6	54,356	3.3
Central Basin MWD	35.5	3.0	46,745	2.9
City of Long Beach	24.3	2.1	27,684	1.7
Total	$1,020.2	87.5%	1,417,374	87.3%
Total Water Sales Revenues	$1,166.0	**Total Acre-Feet**	1,623,052	

Source: Metropolitan.

(1) Includes wheeling and exchange water sales, revenues and deliveries.

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~~rate structure recovers supply costs through a two-tiered price structure. The Tier ~~2 Supply Rate is designed to reflect Metropolitan's costs of acquiring new supplies~~1 Supply Rate supports a regional approach through the uniform, postage stamp rate. The Tier 1 Supply Rate is calculated as the amount of the total supply revenue requirement that is not covered by the Tier 2 Supply Rate divided by the estimated amount of Tier 1 water sales. The Tier 2 Supply Rate is a volumetric rate that reflects Metropolitan's cost of purchasing water transfers north of the Delta. 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~~(SAR) recovers the cost of the Conveyance and Distribution System that is used on an average annual basis through a uniform, volumetric rate. The SAR is charged for each acre-foot of water transported by Metropolitan, regardless of the ownership of the water being transported. 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.~~ wheelers) using the Metropolitan system to

transport water pay the same SAR for the use of the system conveyance and distribution capacity to meet average annual demands.

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(WSR) provides a dedicated source of funding for conservation and local resources development through a uniform, volumetric rate. The WSR is charged to each acre-foot of water delivered by Metropolitan because all users of Metropolitan's system, regardless of the water being transported. All users (member agencies and third-party wheelers) benefit from the system capacity made available by investments in demand management programsDemand Management Programs like Metropolitan's Conservation Credits Program and Local Resources Program. Therefore, all users pay the WSR.

System Power Rate. The System Power Rate is charged on a dollar per acre-foot basis to recover(SPR) recovers the cost of power necessaryenergy required to pump water fromto Southern California through 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 CRA or the Metropolitan distribution system, whichever is applicable.CRA. The cost of power is recovered through a uniform, volumetric rate. The SPR is applied to all deliveries of Metropolitan water to member agencies. Wheeling parties pay for actual cost (not system average) of power needed to move the water. Member agencies engaging in wheeling transaction of up to one year pay the wheeling rate (consisting of the actual cost of power, SAR, WSR, and an administrative fee). Other wheeling transactions are pursuant to individual contracts.

Treatment Surcharge. Metropolitan charges a treatment surcharge on a dollarThe Treatment Surcharge recovers all of the costs of providing treatment capacity and operations through a uniform, volumetric rate per acre-foot basis forof treated deliveries. The treatment surcharge is set to recover the cost of providing treated water service, including capital and operating cost.water sales. The Treatment Surcharge is charged to all treated water sales.

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 United States Fish and Wildlife Service biological opinion on Delta smelt and other actions to protect endangered fish species. The Delta Surcharge was intended to remain in effect until a long-term solution for the Bay-Delta is achieved. Metropolitan anticipated that the Delta Supply Surcharge would be reduced or suspended as interim Delta improvements ease pumping restrictions, resulting in lower costs for additional supplies. On April 10, 2012, the Board suspended the Delta Supply Surcharge, effective January 1, 2013.

The amount of each of these rates since January 1, 2012, 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 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 rates and not to transportation rates. 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 was adopted in 2001 and has been in place since 2003. Nevertheless, to the extent that a final reviewing court invalidates Metropolitan's adopted rates, Metropolitan will be obligated to reconsider and modify rates to comply with any final 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 the "rate structure integrity" provision in conservation and local resources incentive agreements between Metropolitan and SDCWA. Such "rate structure integrity" provision permits 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" provision 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. Subsequently, IID dismissed all claims with prejudice in this second case too, and the City of Glendale withdrew from both cases.~~

~~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. On December 4, 2013, the court granted Metropolitan's motion for summary adjudication of the cause of action alleging illegality of the "rate structure integrity" provision in conservation and local resources incentive agreements, dismissing this claim in the first lawsuit.~~

~~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. This phase concerned the challenges to Metropolitan's rates. On April 24, 2014, the trial 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. The trial court found that there was not sufficient evidence to support Metropolitan's inclusion in its transportation rates, and hence in its wheeling rate, of 100 percent of (1) payments it makes to the California Department of Water Resources for the State Water Project, or (2) 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 trial court's decision was based on its conclusion that these rates are unfair to wheelers. The trial 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 were tried in a second phase of the case which concluded April 30, 2015. On August 28, 2015, the trial court issued a final statement of decision for the second phase. The decision found in favor of SDCWA on both claims and that SDCWA is entitled to damages in the amount of $188,295,602 plus interest. On October 9, 2015, the trial court granted SDCWA's motion for prejudgment interest at the statutory rate of 10 percent on these damages. On November 18, 2015, the court issued the Final Judgment and a Peremptory Writ of Mandate in the 2010 and 2012 SDCWA v Metropolitan cases. The prejudgment interest award through entry of judgment is $46,637,180. After entry of judgment, post-judgment interest began accruing at the rate of 7%. The trial court's rulings, including the decision that specific rates violate certain laws, are subject to appeal to the California court of appeals. On November 19, 2015, Metropolitan filed a Notice of Appeal of the Judgment and Writ in each case. On January 21, 2016, the trial court awarded $320,084 in costs to SDCWA. On March 24, 2016, the trial court awarded $8,910,354 in attorneys' fees to SDCWA. On April 11, 2016, Metropolitan filed a Notice of Appeal of the attorneys' fees order and on April 19, 2016, SDCWA filed a Notice of Cross-Appeal of the order. On May 5, 2016, Metropolitan and the nine member agency parties filed their Appellants' Opening Brief. Metropolitan is unable to assess at this time the likelihood of success of this litigation, including the appeal, or any future claims.~~

~~Due to SDCWA's litigation challenging Metropolitan's rates, and pursuant to the exchange agreement between Metropolitan and SDCWA, as of May 31, 2016, Metropolitan held $250.2 million in a designated fund, the Exchange Agreement Set-Aside Fund. See "– Financial Reserve Policy" below. This amount includes both SDCWA's disputed payments and interest earned thereon, which is based on the rate earned by Metropolitan's investment portfolio. 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 payments disputed by SDCWA, until the litigation, including all appeals, is concluded. The~~

~~amounts held do not include the statutory prejudgment interest, post-judgment interest, attorneys' fees, or costs awards, none of which the exchange agreement requires to be held.~~

~~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. On February 9, 2015, pursuant to stipulation by the parties, the court ordered that the case be stayed. The stay may be lifted upon motion by any party. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.~~

~~On April 13, 2016, SDCWA filed a new lawsuit that alleges all rates and charges for 2017 and 2018 adopted by Metropolitan's Board on April 12, 2016 violate the California Constitution, statutes, and common law. The Petition for Writ of Mandate and Complaint asserts misallocation of costs as alleged in the previous cases listed above and additional claims of over-collection and misallocation of costs and procedural violations, and states SDCWA intends to amend to allege further claims including breach of contract. In a claim letter dated May 2, 2016, SDCWA asserted three breaches of the exchange agreement: the same breach alleged in the previous cases listed above, breach of the set-aside provision noted above, and breach of a provision concerning characterizing exchange water for certain purposes in the same manner as local water of other member agencies. On May 9, 2016, Metropolitan filed a motion to transfer venue from Los Angeles County. 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

~~Member Agency purchase orders~~

The current rate structure allows member agencies to choose to purchase water from Metropolitan by means of a Purchase Order. Purchase Orders are voluntary agreements that determine the amount of water that a member agency can purchase at the Tier 1 Supply Rate. ~~On November 18,~~They allow member agencies to purchase a greater amount of water at the lower Tier 1 Supply Rate than would otherwise be authorized by the Administrative Code. In exchange for the higher Tier 1 Maximum, the member agency commits to purchase a specific amount of water (based on past purchase levels) over the term of the agreement. Such agreements allow member agencies to manage costs and provide Metropolitan with a measure of secure revenue.

In November 2014, the Metropolitan Board approved ~~the terms for purchase orders with a 10-year term to be~~new Purchase Orders effective ~~from~~ January 1, 2015 through December 31, ~~2024. Twenty-one purchase orders were executed. In consideration of executing a purchase order, each member agency whose purchase order is in effect is allowed to purchase up to 90 percent of its base amount at the Tier 1 Supply Rate in any fiscal year during the term of the purchase order. Member agencies chose a base amount of either (1) the member agency's~~2024 (the "Purchase Order Term"). Twenty-one of the twenty-six member agencies have Purchase Orders, which commit the member agencies to purchase a minimum amount of supply from Metropolitan (the "Purchase Order Commitment").

The key terms of the Purchase Orders include:

- A ten-year term, effective January 1, 2015 through December 31, 2024;
- A higher Tier 1 limit based on the Base Period Demand, determined by the member agency's choice between (1) the Revised Base Firm Demand, which is the highest fiscal year purchases during the 13-year period of fiscal year ~~1990~~1989-90 through ~~fiscal year 2002,~~fiscal year 2001-02, 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 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~~2002-03 through 2013-14. The demand base is unique for each member agency, reflecting its use of Metropolitan's system water over time;

- An overall purchase commitment by the member agency based on the Demand Base period chosen, times ten to reflect the ten-year Purchase Order term. Those agencies choosing the more recent 12-year period may have a higher Tier 1 Maximum and commitment. The commitment is also unique for each member agency;

- The opportunity to reset the Base Period Demand using a five-year rolling average;

- 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.~~ Purchase Order commitment obligation; and

- An appeals process for agencies with unmet purchase commitments that will allow each acre-foot of unmet commitment to be reduced by the amount of production from a local resource project that commences operation on or after January 1, 2014.

Member agencies that do not have ~~purchase orders~~Purchase Orders in effect are subject to Tier 2 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 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.~~

~~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, 2012. 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, 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~~

January 1, 2017*	$201	$295	$289	$52	$124	$313
January 1, 2018*	$209	$295	$299	$55	$132	$320

	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, 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	**	**	**	**
January 1, 2017*	$979	$1,073	$666	$760	**	**	**	**
January 1, 2018*	$1,015	$1,101	$695	$781	**	**	**	**

Source: Metropolitan.

* Rates effective January 1, 2017 and January 1, 2018 were adopted by Metropolitan's Board on April 12, 2016.
** 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

Other Charges

The following paragraphs describe the additional charges for the availability of Metropolitan''s water:

Readiness-to-Serve Charge. This charge is designed to recoverThe Readiness-to-Serve Charge ("RTS") recovers the cost of the portion of capital expenditures for infrastructure projects neededthe system that is available to provide standby service and peak conveyance needs. The Readiness-to-Serve Charge ("RTS") is allocated to eachemergency service and available capacity during outages and hydrologic variability. The RTS is a fixed charge that is allocated among the member agency in proportion to the rolling ten-year share of firm deliveries through Metropolitan's system. The RTS generated $144.0 million in fiscal year 2012-13,agencies based on a ten-fiscal year rolling average of firm demands. Water transfers and exchanges are included for purposes of calculating the ten-fiscal-year rolling average. The Standby Charge, described below, will continue to be collected at the request of member agency and applied as a direct offset to the member agency's RTS obligation. The RTS generated $154.0 million in fiscal year 2013-14, and $162.0 million in 2014-15.15, and $155.5 million in 2015-16. Based on the adopted rates and charges, the RTS is projected to generate $156.1 million in fiscal year 2015-16, $144 million in fiscal year 2016-17 and $137.5 million in fiscal year 2017-18.

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 rangingStandby Charge is authorized by the State Legislature and has been levied by Metropolitan since fiscal year 1992-93. Metropolitan will continue to levy the Standby Charge only within the service areas of the member agencies that request that the Standby Charge be utilized to help fund a member agency's RTS obligation. See "–Readiness-to-Serve Charge" above. The Standby Charge for each acre or parcel of less than an acre will vary from member agency to member agency, reflecting current rates, which have remained the same since fiscal year 1993-94, and range 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 continued 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, but Metropolitan''s current standby charges are exempt from Proposition 218''s procedural requirements. 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 2012-13, 2013-14, and 2014-15, and 2015-16, RTS charges collected by means of such standby charges were $41.641.7 million, $41.7 million, and $41.742.8 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. recovers costs incurred to provide peaking capacity within Metropolitan's distribution system. The Capacity Charge provides a price signal to encourage agencies to reduce peak demands on the distribution system and to shift demands that occur during the May 1 through September 30 period into the October 1 through April 30 period. This results in more efficient utilization of Metropolitan's existing infrastructure and deferring capacity expansion costs. Each member agency will pay the Capacity Charge per cubic feet per second based on a three-year trailing maximum peak day demand. Effective January 1, 2014, the Capacity Charge was $8,600 per cubic feet per second. The Capacity Charge was $11,100 per cubic feet per second on January 1, 2015, and $10,900 per cubic feet per second on January 1, 2016, and will be $8,000 per cubic feet per second on January 1, 2017, and $8,700 per cubic feet per second on January 1, 2018. The Capacity Charge is projected to generate $39.7 million in fiscal year 2016-17 and $35.2 million in fiscal year 2017-18.

Classes of Water Service

Metropolitan offers two classes of water service:

(1) *Full Service Water* - Full service water service, formerly known as non-interruptible water service, includes water sold to member agencies for domestic and municipal uses; and

(2) Wheeling Service - Wheeling Service refers to the use of Metropolitan's facilities, including its rights to use State Water Project facilities, to transport water not owned or controlled by Metropolitan to its member public agencies, in transactions entered into by Metropolitan for a period of up to one year.

The applicable rate components and fixed charges for each class of water service are shown in the chart below.

Current Services and Rate Components

	Rates & Charges That Apply					
Service	**System Access**	**Water Stewardship**	**System Power**	**Tier 1/ Tier 2**	**Readiness to Serve**	**Capacity Charge**
Full Service (Treated or Untreated)	Yes	Yes	Yes	Yes	Yes	Yes
Wheeling Service	Yes	Yes	No	No	Yes	Yes

Metropolitan offers two programs that encourage the member agencies to increase groundwater and emergency storage and for which certain Metropolitan charges are inapplicable.

(1) Conjunctive Use Program. The Conjunctive Use Program is operated through individual agreements with member and retail agencies for groundwater storage within Metropolitan's service area. Wet-year imported supplies are stored to enhance reliability during dry, drought, and emergency conditions. Metropolitan has the option to call water stored in the groundwater basins for the participating member agency pursuant to its contractual conjunctive use agreement. At the time of the call, the member agency pays the prevailing rate for that water, but the deliveries are excluded from the calculation of the Capacity Charge because Conjunctive Use Program deliveries are made at Metropolitan's Discretion. See "REGIONAL WATER RESOURCES–Local Water Supplies."

(2) Emergency Storage Program. The Emergency Storage Program is used for delivering water for emergency storage in surface water reservoirs and storage tanks. Emergency Storage Program purposes include initially filling a newly constructed reservoir or storage tank and replacing water used during an emergency.

The applicable rate components and fixed charges applicable for each such program are shown in the following chart.

Current Programs and Rate Components

	Rates & Charges That Apply					
Full Service Program	**System Access**	**Water Stewardship**	**System Power**	**Tier 1/ Tier 2**	**Readiness to Serve**	**Capacity Charge**
Conjunctive Use Program	Yes	Yes	Yes	Yes	Yes	No
Emergency Storage Program	Yes	Yes	Yes	No*	No	No

*Emergency Storage Program pays the Tier 1 Supply Rate; purchases under Emergency Storage program do not count towards a member agency's Tier 1 Maximum.

Water Rates

The following table sets forth Metropolitan's water rates by category beginning January 1, 2012. 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 also "–Litigation Challenging Rate Structure" for a description of litigation challenging Metropolitan's water rates.

SUMMARY OF WATER RATES
(Dollars per Acre-Foot)

	SUPPLY RATE		SYSTEM ACCESS RATE	WATER STEWARDSHIP RATE	SYSTEM POWER RATE	TREATMENT SURCHARGE
	Tier 1	Tier 2				
January 1, 2012	$164(1)	$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
January 1, 2017*	$201	$295	$289	$52	$124	$313
January 1, 2018*	$209	$295	$299	$55	$132	$320

	FULL SERVICE TREATED(2)		FULL SERVICE UNTREATED(3)		INTERIM AGRICULTURAL PROGRAM		REPLENISHMENT RATE	
	Tier 1	Tier 2	Tier 1	Tier 2	Treated	Untreated	Treated	Untreated
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	**	**	**	**
January 1, 2017*	$979	$1,073	$666	$760	**	**	**	**
January 1, 2018*	$1,015	$1,101	$695	$781	**	**	**	**

Source: Metropolitan.

* Rates effective January 1, 2017 and January 1, 2018 were adopted by Metropolitan's Board on April 12, 2016.

** The Interim Agricultural Water Program and Replenishment Service Program were discontinued after 2012. The Interim Agricultural Water 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. 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.

(1) Includes $58 per acre-foot Delta Supply Surcharge for January 1, 2012.

(2) 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.

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

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'~~If 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 times~~less than 1.2 times, funds above the target reserve level may be utilized for funding of capital expenditures or for the redemption, defeasance or purchase of outstanding bonds or commercial paper, as determined by the Board. If Metropolitan's fixed charge coverage ratio, is at or above 1.2 times, funds above the target may be used for any lawful purpose of Metropolitan, as determined by the Board. See "CAPITAL INVESTMENT PLAN~~—~~–Capital Investment Plan Financing" in this Appendix A.

At June 30, ~~2015,~~2016, unrestricted reserves, which consist of the Water Rate Stabilization Fund and the Revenue Remainder Fund, totaled $~~476~~475 million on a modified accrual basis. As of June 30, ~~2015,~~2016, the minimum reserve requirement was $205 million and the target reserve level was $~~482~~490 million.

From time to time, Metropolitan's Board approves the use of unrestricted reserves. On May 26, 2015, Metropolitan's Board approved the use of $160 million of unrestricted reserves, above the target reserve level, for conservation incentives. In addition, $50 million from the Water Stewardship Fund and $140 million from the Water Management Fund funded conservation incentives. On July 14, 2015, Metropolitan's Board approved $264 million to acquire various properties in Riverside and Imperial Counties, with $160 million funded from the Replacement and Refurbishment Fund and the remaining amount from unrestricted reserves. On September 22, 2015, Metropolitan's Board approved $44.4 million to pay SNWA to store 150,000 acre-feet of water with Metropolitan. Metropolitan took delivery of this water in 2015. When SNWA requests the return of any of the stored water, SNWA will reimburse Metropolitan for an equivalent proportion of the $44.4 million, based on the amount of water returned plus inflation. See "METROPOLITAN'S WATER SUPPLY~~—~~–Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines – Interim Surplus Guidelines" in this Appendix A.

Due to SDCWA's litigation challenging Metropolitan's rates and pursuant to the exchange agreement between Metropolitan and SDCWA, Metropolitan is required to set aside funds based on the quantities of exchange water that Metropolitan provides to SDCWA and the amount of charges disputed by SDCWA. ~~As of March 31, 2016, Metropolitan had set aside $242.0 million in its unrestricted financial reserves pursuant to the exchange agreement.~~ This amount included disputed payments and interest earned thereon, which is based on the rate earned by Metropolitan's investment portfolio. In April 2016, Metropolitan transferred these funds from unrestricted financial reserves to a new designated fund, the Exchange Agreement Set-Aside Fund. As of ~~May~~December 31, 2016, Metropolitan had set aside $~~250.2~~278.7 million in the Exchange Agreement Set-Aside Fund. This amount includes disputed payments and interest earned thereon based on the rate earned by Metropolitan's investment portfolio. The amounts held do not include the statutory prejudgment interest, post-judgment interest, attorneys' fees, or costs awards, none of which the exchange agreement requires to be held. 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 payments disputed by SDCWA, until the litigation, including all appeals, is concluded.

See "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct— – Sale of Water by the Imperial Irrigation District to San Diego County Water Authority" and "METROPOLITAN REVENUES—Litigation Challenging Rate Structure" in this Appendix A.

As described below, Metropolitan has executed two $200 million Short-Term Revolving Credit Facilities (as defined below), under which Metropolitan may borrow from time-to-time. Funds drawn under the Short-Term Revolving Credit Facilities may be used for any lawful purpose. In April 2016, Metropolitan drew $125 million from each Short-Term Revolving Credit Facility (as defined below), for a total of $250 million, and deposited these amounts in Metropolitan's unrestricted financial reserves. See "METROPOLITAN EXPENDITURES— An additional draw of approximately $50 million is expected by the end of June 2017, with such amount to be deposited in Metropolitan's unrestricted financial reserves. See "METROPOLITAN EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations – Senior Parity Obligations – Short-Term Revolving Credit Facilities" in this Appendix A.

Metropolitan projects that its unrestricted reserves as of June 30, 2016 2017 will be approximately $408 455 million. This amount does not include funds held in the Exchange Agreement Set-Aside Fund. This projection is based on the assumptions set forth in the table entitled "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" under "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. In addition, this projection is based on the assumption that Metropolitan's Board will not authorize the use of any additional amounts in the unrestricted reserves. Metropolitan is currently finalizing the process to purchase the Delta Wetlands Properties, which has been delayed by stays from the California Court of Appeal pending action by the California Supreme Court. If Metropolitan purchases the Delta Wetland Properties, it may use unrestricted reserves to effect the purchase, and then issue subordinate water revenue bonds in an aggregate principal amount of $175 million to reimburse itself for the purchase. See "CAPITAL INVESTMENT PLAN— Capital Investment Plan Financing" and "METROPOLITAN EXPENDITURES— Subordinate Revenue Obligations" in this Appendix A.

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 $74.6 million during fiscal year 2012-13, $81.3 million in fiscal year 2013-14, and $78.8 million during fiscal year 2014-15. See "— Litigation Challenging Rate Structure" above for a description of litigation by the SDCWA 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 $8.5 million and nearly $29.6 million. Energy generation sales revenues were $14.6 million in fiscal year 2013-14 and $8.5 million in fiscal year 2014-15.

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, 2015 were 1.91 million acre-feet, generating $1.38 billion in water sales revenues for such period. Metropolitan's ten largest water customers in the year ended

June 30, 2015 are shown in the following table, on an accrual basis. The SDCWA has filed litigation challenging Metropolitan's rates. See "— Litigation Challenging Rate Structure" above.

TEN LARGEST WATER CUSTOMERS
Year Ended June 30, 2015
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	$ 323.54	23.4%	540,140	28.3%
City of Los Angeles	236.88	17.1	355,368	18.7
MWD of Orange County	182.94	13.2	228,482	12.0
West Basin MWD	102.22	7.4	112,893	5.9
Calleguas MWD	87.86	6.4	97,103	5.1
Eastern MWD	71.87	5.2	89,737	4.7
Western MWD	55.63	4.0	68,386	3.6
Three Valleys MWD	46.65	3.4	58,053	3.0
City of Long Beach	41.69	3.0	46,045	2.4
Central Basin MWD	36.23	2.6	45,360	2.4
Total	$1,185.53	85.7%	1,641,567	86.2%
Total Water Sales Revenues	$ 1,382.90	**Total Acre-Feet**	1,905,425	

Source: Metropolitan.

(1) Includes wheeling and exchange water sales, revenues and deliveries. See "— Wheeling and Exchange Charges" above.

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. On August 28, 2015, the trial court ruled that SDCWA "is entitled to a judicial declaration (a) that Metropolitan's current methodology for calculating San Diego's preferential rights violates Section 135 of the Metropolitan Water District Act; and (b) directing Metropolitan to include San Diego's payments for the transportation of water under the Exchange Agreement in Metropolitan's calculation of San Diego's preferential rights." This ruling is subject to appeal. 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 retail 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," unless they were in existence on the effective date of Article ~~XIII D~~XIIID. Metropolitan has imposed its water standby charges since 1992 and therefore its current standby charges are exempt from the Article ~~XIII D~~XIIID procedures. Changes 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~~ Other Charges – 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 makes all taxes general or special taxes and imposes voting requirements for each kind of tax. It also 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 and are allocated in a fair or reasonable manner; 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. Special taxes imposed by a special district such as Metropolitan are subject to approval by two-thirds of the electorate 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. 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. On April 24, 2014, a trial court decision stated such rates, effective in 2013 and 2014, violate Proposition 26. The trial court's rulings, including the decision that specific rates violate certain laws, are on appeal. (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.

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. On August 28, 2015, the trial court ruled that SDCWA "is entitled to a judicial declaration (a) that Metropolitan's current methodology for calculating San Diego's preferential rights violates Section 135 of the Metropolitan Water District Act; and (b) directing Metropolitan to include San Diego's payments for the transportation of water under the Exchange Agreement in Metropolitan's calculation of San Diego's preferential rights." This ruling is subject to appeal. See "–Litigation Challenging Rate Structure."

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 certain 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, MWDOC 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 adopted April 13, 2010, and that Metropolitan be mandated to allocate costs associated with the State Water Contract and the Water Stewardship Rate to water supply rates and not to transportation rates. 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 was adopted in 2001 and has been in place since 2003. Nevertheless, to the extent that a final court ruling invalidates Metropolitan's adopted rates, Metropolitan will be obligated to reconsider and modify rates to comply with any final court rulings related to Metropolitan's rates. While components of the rate structure and costs may change as a result of any final ruling, 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 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"); and illegality of the "rate structure integrity" provision in conservation and local resources incentive agreements between Metropolitan and SDCWA. The "rate structure integrity" provision permits 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" provision 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" 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" 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. Subsequently, IID dismissed all claims with prejudice in this second case too, and the City of Glendale withdrew from both cases.

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. On December 4, 2013, the court granted Metropolitan's motion for summary adjudication of the cause of action alleging illegality of the "rate structure integrity" provision in conservation and local resources incentive agreements, dismissing this claim in the first lawsuit.

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. This phase concerned the challenges to Metropolitan's rates. On April 24, 2014, the trial 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. The trial court found that there was not sufficient evidence in the administrative record to support Metropolitan's inclusion in its transportation rates, and hence in its wheeling rate, of 100 percent of (1) payments it makes to the California Department of Water Resources for the State Water Project, or (2) 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 trial court's decision was based on its conclusion that these rates are unfair to wheelers. The trial 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 were tried in a second phase of the case which concluded April 30, 2015. On August 28, 2015, the trial court issued a final statement of decision for the second phase. The decision found in favor of SDCWA on both claims and that SDCWA is entitled to contract damages in the amount of $188,295,602 plus interest. On October 9 and 30, 2015, the trial court granted SDCWA's motion for prejudgment interest at the statutory rate of 10 percent on these damages. The prejudgment interest award through entry of judgment is $46,637,180. After entry of judgment, post-judgment interest began accruing at the statutory rate of 7 percent. On November 18, 2015, the court issued the Final Judgment and a Peremptory Writ of Mandate in

the 2010 and 2012 SDCWA v. Metropolitan cases. On January 21, 2016, the trial court awarded $320,084 in costs to SDCWA, after deducting amounts based on Metropolitan's motion. On March 24, 2016, the trial court awarded $8,910,354 in attorneys' fees to SDCWA, rejecting its demand for over $17.0 million. Metropolitan filed a Notice of Appeal of the Judgment and Writ in each case, and SDCWA filed a Notice of Cross-Appeal of the court's ruling on the rate structure integrity provision claim and the attorneys' fees order. Appellate briefing by the parties was completed on October 28, 2016. No date for oral argument has been set. Metropolitan is unable to assess at this time the likelihood of success of this litigation, including the appeal, or any future claims.

Due to SDCWA's litigation challenging Metropolitan's rates, and pursuant to the exchange agreement between Metropolitan and SDCWA, as of December 31, 2016, Metropolitan held $278.7 million in a designated fund, the Exchange Agreement Set-Aside Fund. See "–Financial Reserve Policy." This amount includes both SDCWA's disputed payments and interest earned thereon, which is based on the rate earned by Metropolitan's investment portfolio. 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 payments disputed by SDCWA, until the litigation, including all appeals, is concluded. The amounts held do not include the statutory prejudgment interest, post-judgment interest, attorneys' fees, or costs awards, none of which the exchange agreement requires to be held.

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. On February 9, 2015, pursuant to stipulation by the parties, the San Francisco Superior Court ordered that the case be stayed. The stay may be lifted upon motion by any party. On November 20, 2015, SDCWA filed a motion to partially lift the stay. On December 21, 2015, the trial court decided that motion and the case remains stayed. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On April 13, 2016, SDCWA filed a new lawsuit that alleges all rates and charges for 2017 and 2018 adopted by Metropolitan's Board on April 12, 2016 violate the California Constitution, statutes, and common law. The Petition for Writ of Mandate and Complaint asserts misallocation of costs as alleged in the previous cases listed above and additional claims of over-collection and misallocation of costs and procedural violations, and states SDCWA intends to amend to allege further claims including breach of contract. In a claim letter dated May 2, 2016, SDCWA asserted three breaches of the exchange agreement: the same breach alleged in the previous cases listed above, breach of the set-aside provision noted above, and breach of a provision concerning characterizing exchange water for certain purposes in the same manner as local water of other member agencies. On June 30, 2016, the nine member agencies that are interested parties to the 2010, 2012, and 2014 cases filed answers to also join the 2016 case as interested parties in support of Metropolitan. On October 27, 2016, SDCWA filed a Motion for Leave to File Amended Complaint alleging the same exchange agreement breach alleged in the previous cases listed above and breach of the set-aside provision noted above relating to the manner in which Metropolitan has set aside the amounts. The proposed amended petition/complaint also requests a judicial declaration that, if a judgment is owed to SDCWA under the exchange agreement, SDCWA will not be required to pay any portion of that judgment, and requests a refund to SDCWA of any amount Metropolitan has collected in excess of the reasonable costs of services provided or, alternatively, a reduction in SDCWA's future fees. On September 27, 2016, the case was transferred to San Francisco Superior Court. On November 10, 2016, pursuant to stipulation by the parties, the court ordered that the case be stayed pending final resolution of the appeals of the 2010 and 2012 SDCWA v. Metropolitan cases. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

Other Revenue Sources

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 the 16 facilities is approximately $176.1 million. Since 2000, annual energy generation sales revenues have ranged between $7.5 million and nearly $29.6 million. Energy generation sales revenues were $8.5 million in fiscal year 2014-15 and $7.5 million in fiscal year 2015-16. Low State Water Project supplies and reduced demands due to mandatory conservation resulted in diminished flows thorough Metropolitan's pipelines and hydroelectric power plants and decreased revenues.

Investment Income. In fiscal years 2013-14, 2014-15, and 2015-16, Metropolitan's earnings on investments, including adjustments for gains and losses and premiums and discounts, including construction account and trust fund earnings, excluding gains and losses on swap terminations, on an accrual basis (audited) were $21.2 million, $22.3 million, and $19.4 million, respectively.

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 securities, 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 – EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations" in this Appendix A. Metropolitan's current investments comply with the Statement of Investment Policy.

As of MayDecember 31, 2016, the total market value (cash-basis) of all Metropolitan funds was $1.451.37 billion, including bond reserves of $76.653.9 million. The market value of Metropolitan's investment portfolio is subject to market fluctuation and volatility and general economic conditions. In fiscal year 2014-15, 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 $21.4 million. In fiscal year 2013-14, Metropolitan's earnings on investments, 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. Over the three years ended MayDecember 31, 2016, the market value of the month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) averaged approximately $1.23 billion. The minimum month-end balance of Metropolitan's investment portfolio (excluding bond reserve funds) during such period was approximately $941.2936.3 million on JulyAugust 31, 2013.2016. See Footnote 3 to Metropolitan's audited financial statements in Appendix B for additional information on the investment portfolio.

Metropolitan's regulations requires administrative code requires 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 2016-17 on June 14, 2016.

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

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

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

The Statement of Investment Policy also limits the amount of securities that can be purchased by category, as well as by issuer, and prohibits investments that can result in zero interest income. Metropolitan~~'~~'s securities are settled on a delivery versus payment basis and are held by an independent third-party custodian. See APPENDIX B~~—~~ "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR~~'~~'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, ~~2015~~2016 AND JUNE 30, ~~2014~~2015 AND BASIC FINANCIAL STATEMENTS FOR THE ~~NINE~~SIX MONTHS ENDED ~~MARCH~~DECEMBER 31, 2016 AND 2015 (UNAUDITED)~~.~~" for a description of Metropolitan~~'~~'s investments at ~~March~~September 30, 2016.

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 ~~May~~December 31, 2016, such managers were managing approximately $~~343.3~~342.3 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.

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METROPOLITAN ~~EXPENDITURES~~EXPENSES

General

The following table sets forth a summary of Metropolitan~~'s expenditures~~'s expenses, by major function, for the five years ended June 30, ~~2015~~2016. The table provides cash basis information~~, which~~ for fiscal year 2012, and modified accrual basis information for fiscal years 2013-2016. All information is unaudited. Expenses of Metropolitan for the fiscal years ended June 30, ~~2014~~2016 and June 30, 2015, on an accrual basis, are shown in APPENDIX B~~—~~ "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR~~'~~'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, ~~2015~~2016 AND JUNE 30, ~~2014~~2015 AND BASIC FINANCIAL STATEMENTS FOR THE ~~NINE~~SIX MONTHS ENDED ~~MARCH~~DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

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

	~~2011~~	2012	2013	2014	2015	2016
Operation and Maintenance Costs(1)	~~$ 430.8~~	$ ~~425.3~~476	~~413.6~~456	$	$ ~~561.3~~512 ~~640.6~~97	$ 799
Total State Water Project ~~and Water Transfers~~(2)	~~593.4~~	~~535.4~~480	~~531.1~~480	~~472.5~~465	~~519.7~~36	512
Total Debt Service~~(3)~~	~~306.7~~	~~323.0~~336	~~326.9~~39	~~372.0~~384	~~291.6~~03	332
Construction Disbursements from Revenues(~~4~~3)	~~45.0~~	~~44.2~~45	~~54.7~~55	~~89.3~~117	~~210.2~~10	273
Other(~~5~~4)	~~2.4~~	~~2.8~~ 3	~~6.2~~ 5	~~6.3~~ 6	~~5.7~~ –	6
Total Disbursements (net of reimbursements)~~(6)~~	~~$1,378.3~~	~~$1,330.7~~	~~$1,402.5~~	~~$1,501.4~~	~~$1,867.2~~	$1,762
			1,335		1,653	

Source: Metropolitan.

(1) Includes ~~inventories, undistributed payroll~~ operation and maintenance, debt administration, conservation and local resource programs, ~~conservation programs and~~ CRA power, and water supply expenses. ~~See the table headed "Summary of Receipts by Source" under "METROPOLITAN REVENUES" in this Appendix A. For fiscal year 2015,~~ For fiscal years 2014-15 and 2015-16, includes $~~48.9~~142 million, and $222 million, respectively, of conservation projects funded from transfers from the Water Management Fund. ~~See "METROPOLITAN'S REVENUES — Summary of Receipts by Source", 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. For fiscal year 2015, includes $29.3 million of water purchases funded from transfers from the Water Management Fund. See "METROPOLITAN'S REVENUES — Summary of Receipts by Source", in this Appendix A.~~

(3~~)~~ ~~Net of Build America Bond reimbursement of $10.4 million, $13.3 million, $12.7 million, $12.3 million, and $12.3 million, in fiscal years 2011 thru 2015, respectively. See "METROPOLITAN EXPENDITURES — "Build America Bonds".(4~~) 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. Includes $160 million for acquiring properties in Riverside and Imperial Counties, funded by $160 million from the Replacement and Refurbishment Fund Reserves. Does not include expenditures of bond proceeds.

(~~5~~4) Includes operating equipment ~~and arbitrage rebate~~.

~~(6) Disbursements exceeded revenues in the fiscal year ended June 30, 2011. See "METROPOLITAN REVENUES — Financial Reserve Policy" in this Appendix A.~~

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~~Revenue Bond Indebtedness~~Revenue Bond Indebtedness and Other Obligations

~~*Senior Debt Resolutions*~~

~~The water revenue bonds~~

As of February 1, 2017, Metropolitan had total outstanding indebtedness, secured by a lien on Net Operating Revenues, of $4.49 billion. This indebtedness is comprised of $4.06 billion water revenue bonds, issued under the Senior Debt Resolutions (~~as defined under "—Limitations on Additional Revenue Bonds" below) outstanding as of July 1, 2016, are set forth below:~~

~~Name of Issue~~	~~Principal Outstanding~~
~~Water Revenue Refunding Bonds, 1993 Series A~~	~~$86,540,000~~
~~Water Revenue Bonds, 2000 Authorization, Series B-3(1)~~	~~88,800,000~~
~~Water Revenue Bonds, 2006 Authorization, Series A*~~	~~302,245,000~~
~~Water Revenue Refunding Bonds, 2008 Series A-2(1)~~	~~62,465,000~~
~~Water Revenue Refunding Bonds, 2008 Series B~~	~~119,830,000~~
~~Water Revenue Refunding Bonds, 2008 Series C~~	~~27,255,000~~
~~Water Revenue Bonds, 2008 Authorization, Series A~~	~~179,115,000~~
~~Water Revenue Refunding Bonds, 2009 Series A-2(1)*~~	~~104,180,000~~
~~Water Revenue Refunding Bonds, 2009 Series B~~	~~106,690,000~~
~~Water Revenue Refunding Bonds, 2009 Series C~~	~~91,165,000~~
~~Water Revenue Bonds, 2008 Authorization, Series B~~	~~10,360,000~~
~~Water Revenue Bonds, 2008 Authorization, Series C(2)~~	~~78,385,000~~
~~Water Revenue Bonds, 2008 Authorization, Series D(2)~~	~~250,000,000~~
~~Water Revenue Refunding Bonds, 2009 Series D~~	~~50,005,000~~
~~Water Revenue Refunding Bonds, 2009 Series E~~	~~12,715,000~~
~~Water Revenue Bonds, 2010 Authorization, Series A(2)~~	~~250,000,000~~
~~Water Revenue Refunding Bonds, 2010 Series B~~	~~74,325,000~~
~~Water Revenue Refunding Bonds, 2011 Series A1(1)*~~	~~64,305,000~~
~~Water Revenue Refunding Bonds, 2011 Series A2(1)~~	~~49,920,000~~
~~Water Revenue Refunding Bonds, 2011 Series A3(1)*~~	~~64,300,000~~
~~Water Revenue Refunding Bonds, 2011 Series A4(1)~~	~~49,920,000~~
~~Water Revenue Refunding Bonds, 2011 Series B~~	~~5,080,000~~
~~Water Revenue Refunding Bonds, 2011 Series C~~	~~147,935,000~~
~~Water Revenue Refunding Bonds, 2012 Series A~~	~~181,180,000~~
~~Water Revenue Refunding Bonds, 2012 Series B-1 and B-2(1)~~	~~98,585,000~~
~~Water Revenue Refunding Bonds, 2012 Series C~~	~~175,635,000~~
~~Water Revenue Refunding Bonds, 2012 Series F~~	~~59,335,000~~
~~Water Revenue Refunding Bonds, 2012 Series G~~	~~111,890,000~~
~~Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D(1)~~	~~87,445,000~~
~~Special Variable Rate Water Revenue Refunding Bonds, 2013 Series E(1)*~~	~~104,820,000~~
~~Water Revenue Refunding Bonds, 2014 Series A~~	~~95,935,000~~
~~Water Revenue Refunding Bonds, 2014 Series B~~	~~10,575,000~~
~~Water Revenue Refunding Bonds, 2014 Series C1-C3~~	~~30,335,000~~
~~Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D(1)~~	~~38,365,000~~
~~Water Revenue Refunding Bonds, 2014 Series E~~	~~86,060,000~~
~~Water Revenue Refunding Bonds, 2014 Series G2-G5~~	~~43,275,000~~
~~Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A-1and A-2(1)~~	~~188,900,000~~
~~Water Revenue Bonds, 2015 Authorization, Series A~~	~~208,255,000~~
~~Water Revenue Refunding Bonds, 2016 Series A~~	~~239,455,000~~
~~Total~~	~~$4,035,680,000~~

~~*Source: Metropolitan.*~~

~~(1) Outstanding variable rate obligation.~~
~~(2) Designated as "Build America Bonds" pursuant to the American Recovery and Reinvestment Act of 2009.~~
~~*Anticipated to be refunded with proceeds of the Subordinate Water Revenue Refunding Bonds, 2016 Series A and B~~

~~*Master Subordinate Resolutions*~~

~~As of the date hereof, there are no water revenue bonds outstanding under the Master Subordinate Resolutions~~ defined below), which includes $3.01 billion fixed rate revenue bonds, and $1.04 billion variable rate revenue bonds; $250.0 million Short-Term Revolving Credit Facilities, which pay a variable rate, and are on parity with the senior lien water revenue bonds; $175.0 million subordinate water revenue bonds issued under the Subordinate Debt Resolutions (defined below), which pay a variable rate; and $8.6 million State of California Revolving Fund Loan, on parity with the subordinate water revenue bonds. In addition, Metropolitan has $493.6 million of fixed-payor interest rate swaps which provides a fixed interest rate hedge to an equivalent amount of variable rate debt. Metropolitan's revenue bonds and other revenue obligations are more fully described in this section below.

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 "Senior Debt Resolutions"), provides for the issuance of Metropolitan~~'s~~'s senior lien water revenue bonds. The Senior Debt Resolutions establish limitations on the issuance of additional obligations payable from Net Operating Revenues. Under the Senior Debt 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 Senior Debt Resolutions ("Senior ~~Parity~~Revenue Bonds") or other obligations of Metropolitan having a lien and charge upon, or being payable from, the Net Operating Revenues on parity with such Senior ~~Parity~~Revenue Bonds ("Senior Parity Obligations"). No additional Senior ~~Parity~~Revenue Bonds or Senior Parity Obligations may be issued or incurred unless the conditions of the Senior Debt Resolutions have been satisfied.

Resolution 9199, adopted by Metropolitan~~'~~'s Board on March 8, 2016, as amended and supplemented (collectively with all such supplemental resolutions, the "~~Master~~ Subordinate Debt Resolutions," and together with the Senior Debt Resolutions, the "Revenue Bond Resolutions"), provides for the issuance of Metropolitan~~'~~'s subordinate water revenue bonds and other obligations secured ~~with~~by a pledge of Net Operating Revenues that is subordinate to the pledge securing Senior ~~Parity~~Revenue Bonds and Senior Parity Obligations. The ~~Master~~ Subordinate Debt Resolutions establish limitations on the issuance of additional obligations payable from Net Operating Revenues. Under the ~~Master~~ Subordinate Debt Resolutions, with the exception of Senior ~~Parity~~Revenue Bonds and Senior Parity Obligations, 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 subordinate water revenue bonds authorized by the ~~Master~~ Subordinate Debt Resolutions ("Subordinate ~~Parity~~Revenue Bonds" and, together with Senior ~~Parity~~Revenue Bonds, "Revenue Bonds") or other obligations of Metropolitan having a lien and charge upon, or being payable from, the Net Operating Revenues on parity with the Subordinate ~~Parity~~Revenue Bonds ("Subordinate Parity Obligations"). No additional Subordinate ~~Parity~~Revenue Bonds or Subordinate Parity Obligations may be issued or incurred unless the conditions of the Subordinate ~~Bond~~Debt 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 ~~July~~February 1, ~~2016,~~2017, outstanding general obligation bonds, water revenue bonds and other evidences of indebtedness in the amount of $~~4.43~~4.58 billion represented approximately 0.18 percent of the fiscal year ~~2015-16~~2016-17 taxable assessed valuation of $~~2,451~~2,583 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, ~~2015~~2016 were $6.88 billion. The aggregate amount of revenue bonds outstanding as of ~~July~~February 1, ~~2016~~2017 was $~~4.04~~4.23 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, ~~2015~~2016 and June 30, ~~2014,~~2015, respectively, are shown in APPENDIX B~~—~~ "THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR~~'~~'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2015 AND JUNE 30, 2014 AND BASIC FINANCIAL STATEMENTS FOR THE ~~NINE~~SIX MONTHS ENDED ~~MARCH~~DECEMBER 31, 2016 AND 2015 (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 senior and subordinate revenue bonds~~the Senior Revenue Bonds and Subordinate Revenue Bonds of Metropolitan will remain in effect so long as any ~~senior and subordinate water revenue bonds~~Senior Revenue Bonds and Subordinate 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~~Exposure Policy

As of February 1, 2017, Metropolitan had outstanding $1.30 billion of variable rate obligations issued under the Senior Debt Resolutions, including variable rate Senior Revenue Bonds (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations– Variable Rate and Swap Obligations") and Senior Parity Obligations incurred pursuant to Short-Term Revolving Credit Facilities (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations–Senior Parity Obligations–Short-Term Revolving Credit Facilities" below). In addition, as of February 1, 2017, all of Metropolitan's $175 million of outstanding Subordinate Revenue Bonds issued under the Subordinate Debt Resolutions were variable rate obligations (described under "–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations–Subordinate Revenue Bonds" below.

As of February 1, 2017, of Metropolitan's $1.47 billion of variable rate obligations, $493.6 million of such variable rate demand obligations are treated by Metropolitan as fixed rate debt, by virtue of interest rate swap agreements (described under "–Outstanding Senior Revenue Bonds and Senior Parity Obligations– Variable Rate and Swap Obligations–Interest Rate Swap Transactions"), for the purpose of calculating debt service requirements. The remaining $974.7 million of variable rate obligations represent approximately 21.7 percent of total outstanding water revenue secured indebtedness (including Senior Revenue Bonds and Senior Parity Debt and Subordinate Revenue Bonds and Subordinate Debt), as of February 1, 2017.

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.

Outstanding Senior Revenue Bonds and Senior Parity Obligations

Senior Revenue Bonds

The water revenue bonds issued under the Senior Debt Resolutions outstanding as of February 1, 2017, are set forth below:

Name of Issue	Principal Outstanding
Water Revenue Refunding Bonds, 1993 Series A	$ 70,340,000
Water Revenue Bonds, 2000 Authorization, Series B-3[1]	88,800,000
Water Revenue Bonds, 2006 Authorization, Series A	302,245,000
Water Revenue Refunding Bonds, 2008 Series B	119,830,000
Water Revenue Refunding Bonds, 2008 Series C	27,255,000
Water Revenue Bonds, 2008 Authorization, Series A	174,530,000
Water Revenue Refunding Bonds, 2009 Series A-2[1]	104,180,000
Water Revenue Refunding Bonds, 2009 Series B	106,690,000
Water Revenue Refunding Bonds, 2009 Series C	91,165,000
Water Revenue Bonds, 2008 Authorization, Series B	10,360,000
Water Revenue Bonds, 2008 Authorization, Series C[2]	78,385,000
Water Revenue Bonds, 2008 Authorization, Series D[2]	250,000,000
Water Revenue Refunding Bonds, 2009 Series D	50,005,000
Water Revenue Refunding Bonds, 2009 Series E	12,715,000
Water Revenue Bonds, 2010 Authorization, Series A[2]	250,000,000
Water Revenue Refunding Bonds, 2010 Series B	74,325,000
Water Revenue Refunding Bonds, 2011 Series A-1[1]	64,305,000
Water Revenue Refunding Bonds, 2011 Series A-2[1]	49,920,000
Water Revenue Refunding Bonds, 2011 Series A-3[1]	64,300,000
Water Revenue Refunding Bonds, 2011 Series A-4[1]	49,920,000
Water Revenue Refunding Bonds, 2011 Series B	5,080,000
Water Revenue Refunding Bonds, 2011 Series C	147,435,000
Water Revenue Refunding Bonds, 2012 Series A	181,180,000
Water Revenue Refunding Bonds, 2012 Series B-1 and B-2[1]	98,585,000
Water Revenue Refunding Bonds, 2012 Series C	175,635,000
Water Revenue Refunding Bonds, 2012 Series F	59,335,000
Water Revenue Refunding Bonds, 2012 Series G	111,890,000
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D[1]	87,445,000
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series E[1]	104,820,000
Water Revenue Refunding Bonds, 2014 Series A	95,935,000
Water Revenue Refunding Bonds, 2014 Series B	10,575,000
Water Revenue Refunding Bonds, 2014 Series C-1–C-3	30,335,000
Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D[1]	38,465,000
Water Revenue Refunding Bonds, 2014 Series E	86,060,000
Water Revenue Refunding Bonds, 2014 Series G-2–G-5	43,275,000
Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A-1 and A-2[1]	188,900,000
Water Revenue Bonds, 2015 Authorization, Series A	208,255,000
Water Revenue Refunding Bonds, 2016 Series A	239,455,000
Special Variable Rate Water Revenue Refunding Bonds, 2016 Series B-1 and B-2(1)	103,670,000
Total	**$4,055,600,000**

Source: Metropolitan.

(1) Outstanding variable rate obligation.

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

Variable Rate and Swap Obligations

As of February 1, 2017, Metropolitan had outstanding $1.30 billion of variable rate obligations issued under the Senior Debt Resolutions, including variable rate Senior Revenue Bonds (described under this caption "–Variable Rate and Swap Obligations") and Senior Parity Obligations incurred pursuant to Short-Term Revolving Credit Facilities (described under "–Short-Term Revolving Credit Facilities" below).

~~As of July 1, 2016, Metropolitan had~~The outstanding ~~$1.30 billion of~~ variable rate ~~obligations issued under the Senior Debt Resolutions , including~~Senior Revenue Bonds include 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"), and Short-Term Revolving Credit Facilities.~~ .

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 plus a spread. The Index Tender Bonds outstanding as of JulyFebruary 1, 2016,2017, are summarized in the following table:

Index Tender Bonds

Series	Date of Issuance	Original Principal Amount Issued	Next Scheduled Mandatory Tender Date	Maturity Date
2009 A-2	May 20, 2009	$104,180,000	August 30, 2016(1)July 10, 2017	July 1, 2030
2011 A-1	June 2, 2011	64,305,000	August 16, 2016(1)July 10, 2017	July 1, 2036
2011 A-2	June 2, 2011	49,920,000	March 27, 2018	July 1, 2036
2011 A-3	June 2, 2011	64,300,000	August 16, 2016(1)July 10, 2017	July 1, 2036
2011 A-4	June 2, 2011	49,920,000	March 27, 2018	July 1, 2036
2012 B-1	April 27, 2012	49,295,000	March 27, 2018	July 1, 2027
2012 B-2	April 27, 2012	49,290,000	March 27, 2018	July 1, 2027
2013 E (21)	July 2, 2013	104,820,000	September 30, 2016(1)June 5, 2017	July 1, 2030
Total		**$536,030,000**		

Source: Metropolitan.

(1) It is anticipated that in July 2016, the bonds will be refunded from the proceeds of the Subordinate Water Revenue Refunding Bonds, 2016 Series A and B.(2) 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, including on certain scheduled mandatory tender dates (unless earlier remarketed or otherwise retired). 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 any tendered Index Tender Bonds is an unsecured, special limited obligation of Metropolitan payable from Net Operating Revenues. Purchase price payments of Index Tender Bonds are subordinate to both the Senior ParityRevenue Bonds and Senior Parity Obligations and to the Subordinate ParityRevenue Bonds and Subordinate Parity Obligations. 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 Senior Debt Resolutions. 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 an obligation payable on parity with the Senior ~~Parity~~Revenue Bonds and Senior Parity Obligations and senior to the Subordinate ~~Parity~~Revenue Bonds and Subordinate Parity Obligations.

Self-Liquidity Bonds. As of ~~July~~February 1, ~~2016,~~2017, Metropolitan had $314.8 million of outstanding ~~self-liquidity bonds, comprised of $87.4 million Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D, $34.5 million Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D, and $188.9 million Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A1 and A2.~~Self-Liquidity Bonds issued under the Senior Debt Resolutions. 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. Purchase price payments of Self-Liquidity Bonds are subordinate to both the Senior ~~Parity~~Revenue Bonds and Senior Parity Obligations and to the Subordinate ~~Parity~~Revenue Bonds and Subordinate Parity Obligations. In addition, Metropolitan~~'~~'s investment policy permits it to purchase tendered Self-Liquidity Bonds as an investment for its investment portfolio (other than from 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 "~~—~~Senior Parity Obligations – Wells Fargo Revolving Credit ~~Agreements" below.~~ Agreement." 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 Senior Debt Resolutions~~ or the Master Subordinate Resolutions~~.

The following table lists the outstanding Self-Liquidity Bonds as of February 1, 2017.

Self-Liquidity Bonds

Name of Issue	Principal Outstanding
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D	$ 87,445,000
Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D	38,465,000
Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A-1 and A-2	188,900,000
Total	$314,810,000

Source: Metropolitan.

Liquidity Supported Bonds. The interest rates for Metropolitan~~'~~'s other variable rate demand obligations issued under the Senior Debt Resolutions, totaling $~~151.3~~192.5 million as of ~~July~~February 1, ~~2016,~~2017, are reset on a daily ~~or weekly~~ basis. Such variable rate demand obligations are supported by Standby Bond Purchase Agreements between Metropolitan and 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. Metropolitan has secured its obligation to ~~pay~~repay principal and interest advanced

under the Standby Bond Purchase Agreements as Senior Parity Obligations. 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 under the terms of the current liquidity facilities over a period of up to three years, depending on the applicable liquidity facility.

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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 ~~July~~February 1, ~~2016.~~ 2017.

Liquidity Facilities and Expiration Dates

Liquidity Provider	Bond Issue	Principal Outstanding	Facility Expiration
Wells Fargo Bank, N.A.	2000 Authorization Series B-3	$ 88,800,000	February April 2017(1)
Barclays Bank PLC Landesbank Hessen-Thuringen Girozentrale (Helaba)	2008 2016 Series A B-1 and Series B-2	$62,465,000 103,670,000	September 2016 2019
Total		$151,265,000 192,47	

Source: Metropolitan.

Variable Rate Exposure Policy. As of July 1, 2016, of Metropolitan's $1.30 billion of variable rate obligations (all of which have been issued under the Senior Debt Resolution), $493.6 million of variable rate demand obligations which are treated by Metropolitan as fixed rate debt, by virtue of interest rate swap agreements, for the purpose of calculating debt service requirements. The remaining $804 million of variable rate obligations represent approximately 18.6 percent of total outstanding Senior Parity Bonds and Senior Parity Obligations, as of July 1, 2016.

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.

(1) Metropolitan expects to replace such liquidity facility prior to its expiration date.

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.

NetMetropolitan's obligations to make regularly scheduled net payments under the terms of the interest rate swap agreements are payable on a parity with the Senior Parity Obligations. Termination payments under the 2002A and 2002B interest rate swap agreements would be payable on a parity with the

Senior Parity Obligations. ~~All other termination~~Termination payments ~~related to~~under all other interest rate swap agreements would be on parity with the Subordinate Parity Obligations.

The following swap transactions were outstanding as of ~~July~~February 1, ~~2016~~2017:

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	Wells Fargo Bank	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 Deutsche Bank AG, New York Branch, to Wells Fargo Bank, pursuant to novation transactions dated July 1, 2015.

These interest rate swap agreements entail risk to Metropolitan. The counterparty may fail or be unable to perform, interest rates may vary from assumptions, Metropolitan may be required to post collateral in favor of its counterparties and Metropolitan may be required to make significant payments in the event of an early termination of an interest rate swap. Metropolitan believes that if such an event were to occur, it would not have a material adverse impact on its financial position. Metropolitan seeks to manage counterparty risk by diversifying its swap counterparties, limiting exposure to any one counterparty, requiring collateralization or other credit enhancement to secure swap payment obligations, and by requiring minimum credit rating levels. Initially swap counterparties must be rated at least "Aa3" or "AA-", or equivalent by any two of the nationally recognized credit rating agencies; or use a "AAA" subsidiary as rated by at least one nationally recognized credit rating agency. Should the credit rating of an existing swap counterparty drop below the required levels, Metropolitan may enter into additional swaps if those swaps are "offsetting" and risk-reducing swaps. Each counterparty is initially required to have minimum capitalization of at least $150 million. See Note 5(f) in APPENDIX B—"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2015 2016 AND JUNE 30, 2014 2015 AND BASIC FINANCIAL STATEMENTS FOR THE NINE SIX MONTHS ENDED MARCH DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

Early termination of an interest rate swap agreement could occur due to a default by either party or the occurrence of a termination event. As of March December 31, 2016, Metropolitan would have been required to pay to its counterparties termination payments if some of its swaps were terminated on that date. Metropolitan's net exposure to its counterparties for all such termination payments on that date was

approximately $~~99.6~~75.3 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 ~~March~~December 31, 2016, 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" in this Appendix A.

~~Build America~~Term Mode 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 Senior Debt Resolutions or the Master Subordinate Resolutions. 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, which are 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 was to receive on or about July 1, 2013 was reduced by 8.7 percent, or $578,000, to $6.06 million. Interest Subsidy Payments processed on or after October 1, 2014 and on or before September 30, 2015 were reduced by the federal fiscal year 2014-2015 sequestration rate of 7.3 percent, and Interest Subsidy Payments processed on or after October 1, 2015 and on or before September 30, 2016 are anticipated to be reduced by the federal fiscal year 2015-16 sequestration rate of 6.8 percent. 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 ~~July~~February 1, ~~2016,~~2017, Metropolitan had outstanding $73.6 million of Senior Revenue Bonds bearing interest in a term mode, comprised of $30.3 million of 2014 Series C Bonds in three series, and $43.3 million of 2014 Series G in four series~~, bearing interest in a term mode~~ (collectively, 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 date for the 2012 Series E-3 Bonds is October 1, 2016. For the three series of 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 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~~Term Mode Bonds outstanding as of February 1, 2017, are summarized in the following table:

Term Mode Bonds

Series	Original Principal Amount Issued	Next Scheduled Mandatory Tender Date
2014 C-1	$ 13,505,000	October 1, 2019
2014 C-2	14,020,000	October 1, 2020
2014 C-3	2,810,000	October 1, 2021
2014 G-2	14,300,000	October 1, 2017
2011 G-3	11,165,000	October 1, 2018
2012 G-4	11,605,000	October 1, 2019
2012 G-5	6,205,000	October 1, 2020
Total	**$ 73,610,000**	

Source: Metropolitan.

Metropolitan will pay the principal of, and interest on, the Term Mode Bonds on parity with its other Senior ~~Parity~~Revenue 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 any tendered Term Mode Bonds is an unsecured, special limited obligation of Metropolitan payable from Net Operating Revenues. Purchase price payments of Term Mode Bonds are subordinate to both the Senior ~~Parity~~Revenue Bonds and Senior Parity Obligations and to the Subordinate ~~Parity~~Revenue Bonds and Subordinate Parity Obligations. 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. Failure to pay the purchase price of a series of Term Mode 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 Term Mode 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 Term Mode Bonds on a scheduled mandatory tender date is not a default under the Senior Debt Resolutions. 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 an obligation payable on parity with the Senior ~~Parity~~Revenue Bonds and Senior Parity Obligations.

~~Wells Fargo Revolving Credit Agreement~~

~~On July 1, 2015, Metropolitan executed a revolving credit agreement with Wells Fargo Bank, N.A., (the "Wells Fargo Revolving Credit Agreement"). Under the terms and conditions of the Wells Fargo Revolving Credit Agreement, Metropolitan will be able to borrow up to $180 million for purposes of paying the purchase price of any Self-Liquidity Bonds. The scheduled expiration date of the Wells Fargo Revolving Credit Agreement is July 1, 2018. On November 4, 2015, Wells Fargo Bank assigned $100 million of its share of the Wells Fargo Revolving Credit Agreement to the Industrial and Commercial Bank of China ("ICBC"). Wells Fargo will retain the remaining $80 million commitment. ICBC assumed all of Wells Fargo's obligations with respect to its $100 million share under the Wells Fargo Revolving Credit Agreement.~~

~~Under the Wells Fargo Revolving Credit Agreement, a failure by Metropolitan to perform or observe certain covenants could result in a termination of Wells Fargo Bank and ICBC's commitments and entitle them to declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the Wells Fargo Revolving Credit Agreement as Senior Parity Obligations. Metropolitan has no obligation to make borrowings under, maintain, or renew the Wells Fargo Revolving Credit Agreement. See "– Limitations on Additional Revenue Bonds" above.~~

~~In the Wells Fargo Revolving Credit Agreement, Metropolitan designated the principal and interest payable as Excluded Principal Payments under the Senior Debt Resolutions and thus, for purposes of calculating Maximum Annual Debt Service, included the amount of principal and interest due and payable under the Revolving Credit Agreements on a schedule of Assumed Debt Service. This schedule of Assumed Debt Service assumes that Metropolitan will pay the principal under the Revolving Credit Agreements over a period of 30 years at a fixed interest rate of 3.75 percent. Pursuant to the terms of the Senior Debt Resolutions, while the Wells Fargo 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 Wells Fargo Revolving Credit Agreement to purchase Self-Liquidity Bonds.~~

Build America Bonds

Metropolitan previously issued and designated three series of Senior Revenue 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"). Metropolitan currently expects to receive cash subsidies from the United States Treasury (the "Interest Subsidy Payments") equal to 35 percent of the interest payable on all such outstanding Build America Bonds less any federal budget sequestration offsets as described in the following paragraph. The Interest Subsidy Payments in connection with the Build America Bonds do not constitute Operating Revenues under the Senior Debt Resolutions or the Subordinate Debt Resolutions. 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, which are 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 was to receive on or about July 1, 2013 was reduced by 8.7 percent, or $578,000, to $6.06 million. Interest Subsidy Payments processed in the federal fiscal year ended September 30, 2014 were reduced by the federal fiscal year 2014 sequestration rate of 7.2 percent and Interest Subsidy Payments processed in the federal fiscal year ended September 30, 2015 were reduced by the federal fiscal year 2015 sequestration rate of 7.3 percent. Interest Subsidy Payments processed in the federal fiscal year ended September 30, 2016 were reduced by the federal fiscal year 2016 sequestration rate of 6.8 percent, and Interest Subsidy Payments processed on or after October 1, 2016 and on or before September 30, 2017 are anticipated to be reduced by the federal fiscal year 2017 sequestration rate of 6.9 percent. 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.

Senior Parity Obligations

Short-Term Revolving Credit Facilities. In April 2016, Metropolitan entered into a noteholder''s agreement with RBC Municipal Products, LLC ("RBC") for the purchase by RBC and sale by Metropolitan of Metropolitan''s Index Notes, Series 2016 ("RBC Facility"). Also in April 2016, Metropolitan entered into a note purchase and continuing covenant agreement with U.S. Bank National Association ("US Bank"), for the purchase by US Bank and sale by Metropolitan of Metropolitan''s Flexible Rate Revolving Notes, Series 2016 ("US Bank Facility," and together with the RBC Facility, the "Short-Term Revolving Credit Facilities"). Metropolitan is permitted to sell up to $200 million of notes under each of the Short-Term Revolving Credit Facilities during the term of the respective bank's commitment to purchase notes thereunder, which currently extends to April 5, 2019, for an aggregate amount of available borrowings of $400 million. Metropolitan may borrow, pay down and re-borrow amounts under each of the Short-Term Revolving Credit Facilities. Currently, Metropolitan has sold approximately $296250 million of notes under the Short-Term Revolving Credit Facilities ($125 million under the RBC Facility and approximately $171125 million under the US Bank Facility). Of that amount, Metropolitan has deposited $250 million in its unrestricted financial reserves. See "METROPOLITAN REVENUES—Financial Reserve Policy" in this Appendix A. An additional draw of approximately $50 million is expected by the end of June 2017.

Each of the Short-Term Revolving Credit Facilities bears interest at a variable rate of interest. The US Bank Facility bears interest at a spread to one-month London interbank offering rate ("LIBOR") for taxable borrowings or to 70% percent of one-month LIBOR for tax-exempt borrowings, while the RBC Facility bears interest at a spread to one-month LIBOR for taxable borrowings or to the SIFMA Municipal Swap Index for tax-exempt borrowings. Under the Short-Term Revolving Credit Facilities, upon a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, or other specified events of default, each bank could terminate its commitments and declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the Short-Term Credit Facilities as Senior Parity Obligations.

In the Short-Term Revolving Credit Facilities agreements, Metropolitan designated the principal and interest payable as Excluded Principal Payments under the Senior Debt Resolutions and thus, for purposes of calculating Maximum Annual Debt Service, included the amount of principal and interest due and payable under the Short-Term Revolving Credit Facilities on a schedule of Assumed Debt Service. This schedule of Assumed Debt Service assumes that Metropolitan will pay the principal under the Short-Term Revolving Credit Facilities over a period of 30 years at a fixed interest rate of approximately 3.3 percent. Pursuant to the terms of the Senior Debt Resolutions, while the Short-Term Revolving Credit Facilities are

Wells Fargo Revolving Credit Agreement. On July 1, 2015, Metropolitan executed a revolving credit agreement with Wells Fargo Bank, N.A. (the "Wells Fargo Revolving Credit Agreement"). Under the terms and conditions of the Wells Fargo Revolving Credit Agreement, Metropolitan will be able to borrow up to $180 million for purposes of paying the purchase price of any Self-Liquidity Bonds. The scheduled expiration date of the Wells Fargo Revolving Credit Agreement is July 1, 2018. On November 4, 2015, Wells Fargo Bank assigned $100 million of its share of the Wells Fargo Revolving Credit Agreement to the Industrial and Commercial Bank of China ("ICBC"). Wells Fargo will retain the remaining $80 million commitment. ICBC assumed all of Wells Fargo's obligations with respect to its $100 million share under the Wells Fargo Revolving Credit Agreement.

Under the Wells Fargo Revolving Credit Agreement, a failure by Metropolitan to perform or observe certain covenants could result in a termination of Wells Fargo Bank and ICBC's commitments and entitle them to declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the Wells Fargo Revolving Credit Agreement as Senior Parity Obligations. Metropolitan has no obligation to make borrowings under, maintain, or renew the Wells Fargo Revolving Credit Agreement. See "–Limitations on Additional Revenue Bonds" above.

In the Wells Fargo Revolving Credit Agreement, Metropolitan designated the principal and interest payable as Excluded Principal Payments under the Senior Debt Resolutions and thus, for purposes of calculating Maximum Annual Debt Service, included the amount of principal and interest due and payable under the Revolving Credit Agreements on a schedule of Assumed Debt Service. This schedule of Assumed Debt Service assumes that Metropolitan will pay the principal under the Revolving Credit Agreements over a period of 30 years at a fixed interest rate of 3.75 percent. Pursuant to the terms of the Senior Debt Resolutions, while the Wells Fargo 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 ~~sell the remaining notes under the Short-Term~~use the proceeds of the Wells Fargo Revolving Credit ~~Facilities~~Agreement to purchase Self-Liquidity Bonds.

Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations

Subordinate Revenue Bonds

~~The Metropolitan~~In December 2016, Metropolitan entered into a Continuing Covenant Agreement with Bank of America, N.A. ("BANA", and the "2016 BANA Agreement"), for the purchase by BANA and sale by Metropolitan of Metropolitan's $175 million Subordinate Water Revenue ~~Refunding~~ Bonds, 2016 Authorization Series A ~~and B will be~~(the "Subordinate 2016 Series A Bonds"), which is the first series of bonds issued under the ~~Master Subordinate Resolutions. Metropolitan may also issue a series of bonds under the Master Subordinate Resolutions as early as August 2016 in an aggregate principal amount of $175 million to reimburse itself~~Subordinate Debt Resolutions. Proceeds were used to reimburse Metropolitan for the purchase of the Delta Wetlands Properties in the San Francisco Bay-\Sacramento-San Joaquin River Delta~~. Currently, that purchase is the subject of a stay by the California Court of Appeal.~~ that was funded from Metropolitan's reserves in July 2016. See "CAPITAL INVESTMENT PLAN—Capital Investment Plan Financing" and "METROPOLITAN REVENUES—Financial Reserve Policy" in this Appendix A.

The Subordinate 2016 Series A Bonds bears interest at a variable rate of interest, at a spread to one-month LIBOR. Under the 2016 BANA Agreement, upon a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, or other specified events of default, BANA could terminate its commitments and declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest under the 2016 BANA Agreement as a Subordinate Parity Obligation. The Subordinate 2016 Series A Bonds are Index Tender Bonds and are subject to mandatory tender for purchase on the scheduled mandatory tender date of December 21, 2018, or, if directed by BANA upon the occurrence and continuance of an event of default under the 2016 BANA Agreement, five business days after receipt of such direction. On or before the scheduled mandatory tender date, Metropolitan may request an extension of the 2016 BANA Agreement for another tender period or may request BANA to purchase the Subordinate 2016 Series A Bonds in another interest rate mode, or Metropolitan may seek to remarket the 2016 Series A Bonds to another bank or in the public debt markets. In the event the 2016 BANA Agreement is not extended, Metropolitan is obligated under the 2016 BANA Agreement to cause unremarketed Subordinate 2016 Series A Bonds to be redeemed five business days after the scheduled mandatory tender date in the event the purchase price of the Subordinate 2016 Series A Bonds is not paid from the proceeds of a remarketing or other funds on the scheduled mandatory tender date. A failure to pay the purchase price of the Subordinate 2016 Series A Bonds upon a mandatory tender would constitute a default under the Subordinate Debt Resolutions if not remedied within five business days.

The water revenue bonds issued under the Subordinate Debt Resolutions outstanding as of February 1, 2017, are set forth below:

Name of Issue	Principal Outstanding
Subordinate Water Revenue Bonds, 2016 Authorization Series A[1]	$175,000,000

Source: Metropolitan.

(1) Outstanding variable rate obligation.

Subordinate Parity 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 Senior Parity Bonds and the Senior 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,~~In 2003, 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~~Senior Revenue Bonds and ~~Parity~~Senior Obligations and on parity with the Subordinate Revenue Bonds. As of ~~July~~February 1, ~~2016,~~2017, the principal balance outstanding was $~~9.2~~8.6 million. ~~Metropolitan expects to refund this loan in July 2016.~~

Other Junior Obligations

Metropolitan currently is authorized to issue up to $400,000,000 of Commercial Paper Notes payable from Net Operating Revenues on a basis subordinate to both the Senior Revenue Bonds and Senior Parity Obligations and to the Subordinate Revenue Bonds and Subordinate 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.

General Obligation Bonds

As of ~~July~~February 1, ~~2016,~~2017, $92,865,000 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, 2009 Series A	$45,515,000	$30,745,000
Waterworks General Obligation Refunding Bonds, 2010 Series A	39,485,000	23,065,000
Waterworks General Obligation Refunding Bonds, 2014 Series A	49,645,000	39,055,000
Total	$134,645,000	$92,865,000

Source: Metropolitan.

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

State Water Contract Obligations

General. ~~On November 4,~~As described herein, in 1960, Metropolitan entered into its State Water Contract with DWR~~, under which Metropolitan receives an entitlement~~ to receive 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~~All expenditures for capital and operations, maintenance, power and replacement costs associated with the 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 July 1, 2016, the latest maturity of outstanding DWR bonds issued for such purpose was December 1, 2035.Under the State Water Contract, Metropolitan is~~facilities used for water delivery are paid for by the 29 Contractors that have executed State Water Contracts with DWR, including Metropolitan. Contractors are 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'~~In exchange, Contractors have the right to participate in the system, with an entitlement to water service from the State Water Project and the right to use the portion of the State Water Project conveyance system necessary to deliver water to them at no additional cost as long as capacity exists. Metropolitan's State Water Contract accounts for nearly one-half of the total entitlement for State Water Project water contracted for by all Contractors.

DWR and other State Water Project Contractors, including Metropolitan, have reached an Agreement in Principle to extend their State Water Contracts 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.

Metropolitan's payment obligation for the State Water Project for the fiscal year ended June 30, ~~2015~~2016 was $~~437~~511 million, which amount reflects prior year~~'~~'s credits of $~~74.2~~61.6 million. For the fiscal year ended June 30, ~~2015,~~2016, Metropolitan~~'~~'s payment obligations under the State Water Contract were approximately ~~31~~27 percent of Metropolitan~~'~~'s total annual ~~expenditures~~expenses. 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~~–Power Sources and Costs" below 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~~the State Water Project capital costs as participation rights in State Water Project facilities as such costs are ~~billed by DWR~~costs paid in exchange for participation in the system, regardless of whether there is water available to be delivered. Unamortized participation rights essentially represent a prepayment for future ~~water deliveries through the State Water Project~~costs as Metropolitan will likely continue to participate in the system~~.~~ at least through 2035. Metropolitan~~'~~'s share of system operating and maintenance costs are annually expensed.

~~Metropolitan has~~DWR and various subsets of the State Water Contractors have entered into amendments to the State Water Contract ~~that represents~~related to the financing of certain State Water Project facilities. The amendments establish procedures to provide for the payment of construction costs financed by DWR bonds by establishing separate subcategories of charges to produces the revenues required to pay all of the annual financing costs (including coverage on the allocable bonds) relating to the financed

project. If any affected Contractor defaults on payment under certain of such amendments, the shortfall may be collected from the non-defaulting affected Contractors, subject to certain limitations.

These amendments represent additional long-term obligations of Metropolitan, 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 2015,2016, this represented a payment of $7.77.8 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 Independent System Operator. 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 ~~2016~~2017 and, for fiscal year ~~2015-16, actual~~2016-17, preliminary financial results through ~~March 31, 2016 and revised projections for the balance of fiscal year 2015-16.~~ December 30, 2016. For all other years the projections are based on Metropolitan~~'~~'s adopted biennial budget for fiscal years 2016-17 and 2017-18 and the ten-year financial forecast included in the adopted budget. See "METROPOLITAN~~'~~'S WATER SUPPLY~~—~~ State Water Project~~—~~ – Bay-Delta Proceedings Affecting State Water Project – Bay-Delta 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)
~~2016~~	~~$168.9~~	~~$278.8~~	~~$140.6~~	~~$(60.9)~~	~~$527.4~~
2017	~~181.7~~$173.4	~~282.1~~$225.0	~~157.1~~$150.0	$(~~38.6~~46.4)	~~582.3~~$502.0
2018	184.2	294.7	158.4	(37.9)	599.4
2019	195.3	315.9	170.4	(36.1)	645.5
2020	212.1	340.5	191.1	(35.0)	708.7
2021	236.3	264.8	212.1	(34.7)	778.6

Source: Metropolitan.

(1) Projections are based upon DWR~~'~~'s Annual Billing to Metropolitan for ~~2016~~2017 and attachments (dated July 1, 2015) and, for fiscal year ~~2015-16, actual~~2016-17, preliminary financial results through ~~March 31, 2016 and revised projections for the balance of the fiscal year.~~December 31, 2016. For other years, the projections are based on Metropolitan~~'~~'s adopted biennial budget for fiscal years 2016-17 and 2017-18, and the ten-year financial forecast included in the adopted budget. 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 year ended June 30, ~~2015~~2016 and June 30, ~~2014,~~2015, in Appendix

B, due to the inclusion of allowances for inflation and anticipated construction of additional State Water Project facilities. See "~~POWER SOURCES AND COSTS –~~ METROPOLITAN EXPENSES–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 DWA/CVWD transfers and exchanges) into Metropolitan~~'~~'s service area and to storage programs are as follows: ~~0.63 million acre-feet for fiscal year 2015-16, 0.74~~0.75 million acre-feet for fiscal year 2016-17, 0.77 million acre-feet for fiscal year 2017-18, ~~0.79~~0.82 million acre-feet for fiscal year 2018-19, ~~and 0.87~~0.88 million acre-feet for fiscal year 2019-~~20.~~20, and 0.93 million acre-feet for fiscal year 2020-21. 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~~—~~" and "–Endangered Species Act and Other Environmental Considerations" in this Appendix A.

(4) Annual totals include California WaterFix related costs for the fiscal years ended June 30, ~~2016~~2017 through June 30, ~~2020~~2021 of $-0- in fiscal year ~~2015-16 through~~ 2016-17 and fiscal year 2017-18, $20 million in fiscal year 2018-19, ~~and~~ $38 million in fiscal year 2019-~~20.~~20, and $63 million in fiscal year 2020-21. Projected California WaterFix costs are reflected in the ten-year financial forecast provided in the biennial budget for fiscal years 2016-17 and 2017-18 that was approved by Metropolitan~~'~~'s Board on April 12, 2016.

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 CRA. In fiscal year ~~2014~~2015-~~15~~16 Metropolitan paid approximately $~~39.6~~15.7 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.~~

Power Sources and Costs

Current and future costs for electric power required for operating the pumping systems of the CRA and the State Water Project are a substantial part of Metropolitan's overall expenses. Expenses for electric power for the CRA (not including credits from power sales and related revenues) for the fiscal years 2014-15 and 2015-16 were approximately $39.2 million, and $35.5 million, respectively. Expenses for electric power and transmission service for the State Water Project for fiscal years 2014-15 and 2015-16 were approximately $140.8 million and $125.4 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 CRA 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 Southern California Edison ("Edison"). These contracts provide Metropolitan with reliable and economical power resources to pump Colorado River water to Metropolitan's service area.

The Hoover Power Allocation Act of 2011 (H.R. 470) requires the Western Area Power Administration (Western) 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. Metropolitan and Western have completed negotiations and have executed the new contract.

As provided for under the Hoover Power Allocation Act of 2011 (H.R. 470), Metropolitan has executed a 50-year agreement with the Western Area Power Administration for the continued purchase of

electric energy generated at the Hoover Power Plant through September 2067. Under the successor agreement (which will replace Metropolitan's existing Hoover contract expiring in 2017), Metropolitan will retain 95 percent of its existing power rights.

The remaining approximately 30 to 45 percent of annual pumping power requirements for full capacity pumping on the CRA 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, 2015 and June 30, 2016 were approximately 1.2 million acre-feet and 1.1 million acre-feet, respectively, including Metropolitan's basic apportionment of Colorado River water and supplies from water transfer and 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.

Depending on pumping conditions, Metropolitan can require additional energy 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 also purchases California market-priced power through its agreement with Edison. In fiscal years 2014-15 and 2015-16, Metropolitan purchased approximately 710,000 and 690,000 megawatt-hours, respectively, of additional energy.

The Metropolitan-Edison 1987 Service and Interchange Agreement will expire on September 30, 2017. Metropolitan is negotiating with several parties on successor agreements. In particular, Metropolitan will no longer receive benefit energy from Edison. Metropolitan anticipates market power purchases will replace benefit energy and has reflected the additional costs in the CRA power cost projections for fiscal year 2017-18 and the ten-year financial forecast.

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 Metropolitan (hydropower), Kern River Conservation District (hydropower), Northern California Power Agency (natural gas generation), Alameda Municipal Power (geothermal and landfill gas), Sun Power Corporation (solar) and Dominion Solar Holdings (solar). 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 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. On May 16, 2012, the trial 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. Supplemental briefing was completed in the fall of 2016. No date has been set for oral argument. Regulatory permits and authorizations are also required before the new license can take

effect. In December 2016, the National Marine Fisheries Service issued a biological opinion setting forth the terms and conditions under which the relicensing project must operate in order to avoid adverse impacts to threatened and endangered species. This was the last major regulatory hurdle prior to FERC issuing a new license. Metropolitan anticipates that FERC will issue the new license in 2017. However, 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 the California Independent System Operator ("CAISO"), a nonprofit public benefit corporation formed in 1996 pursuant to legislation that restructured and deregulated the electric utility industry in California. The transmission service providers participating in the CAISO 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.

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. Employees hired on or after January 1, 2013 and who are "new" PERS members as defined by Public Employees' Pension Reform Act of 2013 pay a member contribution of 6.75 and 6.00 percent in fiscal years 2016-17 and 2017-18, respectively. 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 2014-15 contribution requirement is based on the June 30, 2012 valuation report, the fiscal year 2015-16 contribution is based on the June 30, 2013 valuation report, and the fiscal year 2016-17 contribution is based on the June 30, 2014 valuation report. The PERS', and the fiscal year 2017-18 contribution is based on the June 30, 2015 valuation report. The PERS' projected investment return (the discount rate) for each of these fiscal years is 7.5 percent.

For fiscal year 2014-15,2015-16, Metropolitan contributed 17.65 19.74 percent of annual covered payroll. The fiscal year 2014-152015-16 annual pension cost was $47.0 50.8 million, of which $12.7 12.4 million was for Metropolitan''s pick-up of the employees'' seven percent share. For fiscal years 2015-16 and 2016-17,17 and 2017-18, Metropolitan is required to contribute 19.74 and 20.75 and 22.89 percent of annual covered payroll, respectively, in addition to member contributions paid by Metropolitan.

Metropolitan's required contributions to PERS fluctuate each year and include a normal cost component and a component equal to an amortized amount of the unfunded liability. Many assumptions are used to estimate the ultimate liability of pensions and the contributions that will be required to meet those obligations. The PERS Board of Administration has adjusted and may in the future further adjust certain assumptions used in the PERS actuarial valuations, which adjustments may increase Metropolitan's required contributions to PERS in future years. Accordingly, Metropolitan cannot provide any assurances that its required contributions to PERS in future years will not significantly increase (or otherwise vary) from any past or current projected levels of contributions.

On April 17, 2013, the PERS Board of Administration approved changes to the amortization and rate 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 beginning with the June 30, 2013 valuations. In addition, PERS will no longer useuses an actuarial valuation of assets and instead uses the market value of assets to determine contribution rates per PERS direct smoothing policy. These changes will result in higher employer contribution rates in the near term but lower rates in the long term. The new policies are effective for fiscal year 2015-16. determining contribution requirements beginning fiscal year 2015-16. On December 21, 2016 the PERS Board of Administration approved lowering the discount rate to 7.00 percent over a three year period. As a result, the discount rate for fiscal year 2018-19 will be 7.375 percent, for fiscal year 2019-20 it will be 7.25 percent, and for fiscal year 2020-21 it will be 7.00 percent. PERS has estimated that with a reduction in the rate of return to 7.00 percent, most employers could expect a 1 to 3 percent increase in the normal cost for miscellaneous plans. As a result, required contributions of employers, including Metropolitan, toward unfunded accrued liabilities, and as a percentage of payroll for normal costs, are expected to increase. The following table shows the funding progress of Metropolitan's pension plan.

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The following table shows the funding progress of Metropolitan's pension plan.

Metropolitan Pension Plan Assets
(dollars in billions)

				Funded (Unfunded)		Funded Ratios	
Valuation Date	**Accrued Liability**	**Actuarial Value of Assets**	**Market Value of Assets**	**Actuarial Value**	**Market Value**	**Actuarial Value**	**Market Value**
6/30/15	$2.060	N/A	$1.556	N/A	$(0.504)	N/A	75.5%
6/30/14	$1.983	N/A	$1.560	N/A	$(0.423)	N/A	78.7%
6/30/13	$1.805	N/A	$1.356	N/A	($0.449)	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%

Source: California Public Employees' Retirement System.

Effective July 1, 2014, Metropolitan implemented Governmental Accounting Standards Board Statement No. 68, *Accounting and Financial Reporting for Pensions – an amendment of GASB Statement No. 27* (GASB 68), affecting the reporting of pension liabilities for accounting purposes. Under GASB 68, Metropolitan is required to report the Net Pension Liability (*i.e.*, the difference between the Total Pension Liability and the Pension Plan's Net Position or market value of assets) in its financial statements.

For Metropolitan's fiscal year ended June 30, 2016 financial statements, the Net Pension Liability reported for the Miscellaneous Plan was $479.6 million (an increase of $72.8 million over the prior year), representing a Total Pension Liability as of such date of $2,038.6 million (an increase of $69.2 million over the prior year) less the Plan Fiduciary Net Position as of such date of $1,559.0 million (a decrease of $3.5 million over the prior year). For fiscal year 2016, the Miscellaneous Plan Net Pension Liability as a percentage of covered-employee payroll was 231.10 percent and the Plan Net Position as a percentage of the Total Pension Liability was 76.48 percent. The Net Pension Liability for Metropolitan's Miscellaneous Plan for the year ended June 30, 2016 was measured as of June 30, 2015, and the Total Pension Liability used to calculate the Net Pension Liability was determined by an annual actuarial valuation as of that date.

For the fiscal year ended June 30, 2015 financial statements, Metropolitan reported a Net Pension Liability of $406.8 million (a decrease of $118.1 million over the prior year), representing a Total Pension Liability as of such date of $1,969.3 million (an increase of $86.3 million over the prior year) less the Plan Fiduciary Net Position as of such date of $1,562.5 million (an increase of $204.4 million over the prior year). For fiscal year 2015, the Miscellaneous Plan Net Pension Liability as a percentage of covered-employee payroll was 200.53 percent and the Plan Net Position as a percentage of the Total Pension Liability was 79.34 percent. The Net Pension Liability for Metropolitan's Miscellaneous Plan for the year ended June 30, 2015 was measured as of June 30, 2014, and the Total Pension Liability used to calculate the Net Pension Liability was determined by an annual actuarial valuation as of that date.

For more information on the plan, see APPENDIX B—"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2015 2016 AND JUNE 30, 2014 2015 AND BASIC FINANCIAL STATEMENTS FOR THE NINE SIX MONTHS ENDED MARCH DECEMBER 31, 2016 AND 2015 (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 $13.0 23.1 million in fiscal year 2014-15. 2015-16. 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.

The actuarial valuation dated June 30, 2015, was released in May June of 2016. This valuation indicates that the Annual Required Contribution ("ARC") in fiscal years 2016-17 and 2017-18 will be $29.3 million and $30.1 million, respectively. The ARC was based on 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 8.0 7.0 percent for non-Medicare plans for 2015, 2017, grading down to 5.0 percent for 2021 and thereafter. As of June 30, 2015, the date of the OPEB actuarial report, the unfunded actuarial accrued liability was estimated to be $258.8 million. The unfunded actuarial accrued liability is amortized over a fixed 30-year period starting with fiscal year 2007-08 and ending in 2037. Changes to assumptions are amortized over a fixed 20-year period. Actuarial, actuarial gains and losses, and plan changes are amortized over a fixed 15-year period.

In September 2013, Metropolitan's Board established an irrevocable OPEB trust fund with an initial deposit of $40.0 million. During fiscal year 2013-14, the Board approved funding of an additional $100.0 million which was deposited into the irrevocable OPEB trust fund. As part of its biennial budget process, the Board approved the full funding of the ARC for fiscal years 2016-17 and 2017-18.

Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, was issued in June 2015, relating to accounting and financial reporting by state and local governments for OPEB. This statement establishes standards for measuring and recognizing liabilities, deferred outflows and deferred inflows of resources, and expenses. For defined benefit OPEB, this statement identifies the methods and assumptions that should be used to project benefit payments, discount projected benefit payments to their actuarial present value, and attribute that present value to periods of employee service. Note disclosure and required supplementary information requirements about OPEB also are addressed. This statement is effective for Metropolitan for 2018. Major changes would be: (i) the inclusion of net OPEB liabilities on Metropolitan's Statement of Net Position (they are currently included as notes to Metropolitan's financial statements); and (ii) more variable OPEB expense as it will now be based on the net OPEB liability change between reporting dates, with some sources of change recognized immediately and other spread over years, instead of being based on actual contributions.

HISTORICAL AND PROJECTED REVENUES AND EXPENSES

The "Historical and Projected Revenues and Expenses" table below for fiscal year 2011-12 provides a summary of revenues and expenditures of Metropolitan prepared on a cash basis, which conforms to the Senior Debt Resolutions and Master Subordinate Resolutions provisions regarding rates and additional Senior and Subordinate Bonds and Senior and Subordinate Parity Obligations. 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 2015-16 through 2019-20 areexpenses of Metropolitan prepared on a modified accrual basis. This is consistent with the adopted biennial budget for fiscal years 2016-17 and 2017-18, which was prepared on a modified accrual basis instead of a cash basis.18. 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.

~~For fiscal year 2014-15, Miscellaneous Revenues reflect the use of $142 million from reserves to fund a like amount of costs for conservation and supply programs. Fiscal year 2015-16 reflects actual financial results through March 31, 2016 and projections for the balance of the fiscal year. Projections for fiscal year 2015-16 reflect the use of $275 million from reserves to fund a like amount of costs for conservation and supply programs. Projections for fiscal year 2015-16 in the following table reflect actual financial results through March 31, 2016 and revised projections for the balance of the fiscal year. The financial projections for fiscal years 2016-17 and 2017-18 reflect the adopted biennial budget for these fiscal years that was approved by the Board on April 12, 2016. Financial projections for fiscal years 2018-19 and 2019-20 are reflected in the ten-year financial forecast provided in the adopted biennial budget. This includes the projected issuance of $320 million of bonds in fiscal years 2017-18 through 2019-20 to finance the CIP. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES – Water Sales Revenues" and "CAPITAL INVESTMENT PLAN – Capital Investment Plan Financing" in this Appendix A.~~

~~Water sales were 1.91 million acre-feet in fiscal year 2014-15. Water sales are projected to be 1.60 million acre-feet in fiscal year 2015-16 and 1.70 million acre-feet for fiscal years 2016-17 and 2017-18, and 1.75 million acre-feet for fiscal years 2018-19 and 2019-20. Rates and charges increased by 1.5 percent on January 1, 2015 and by 1.5 percent on January 1, 2016. On April 12, 2016 the Board adopted average increases in rate and charges of 4.0 percent, which will become effective on January 1, 2017, and an additional 4.0 percent, effective on January 1, 2018. Rates and charges are projected to increase an average of 4.5 percent annually thereafter. Actual rates and charges to be effective in 2019 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. Due to the variability of supplemental wholesale water sales and unpredictability of future hydrologic conditions, sales projections are based on long-term average forecasts consistent with Metropolitan~~'~~'s latest Board adopted Integrated Resources Plan, the 2015 IRP Update.

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.

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 "CONSERVATION AND WATER SHORTAGE MEASURES" 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, recycled

water, and seawater desalination (see "REGIONAL WATER RESOURCES" in this Appendix A). For example, water sales projections for fiscal year 2016-17 assumed that local projects such as groundwater recovery and desalination projects (see "REGIONAL WATER RESOURCES–Local Water Supplies" in this Appendix A) would become operational and produce local supplies in 2017. 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. As shown in the *Historical Water Sales* chart below, sales can vary significantly from average and demonstrates the degree to which Metropolitan's commitments to meet supplemental demands can impact sales. 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.

Projections for fiscal year 2016-17 in the following table reflect actual financial results through December 31, 2016 and revised projections for the balance of the fiscal year. The financial projection for fiscal years 2017-18 reflects the adopted biennial budget that was approved by the Board on April 12, 2016. Financial projections for fiscal years 2018-19 through 2020-21 are reflected in the ten-year financial forecast provided in the adopted biennial budget. This includes the projected issuance of $320 million of bonds in fiscal years 2017-18 through 2019-21 to finance the CIP. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES–Water Sales Revenues" and "CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing" in this Appendix A.

Water sales were 1.62 million acre-feet in fiscal year 2015-16. Water sales are projected to be 1.67 million acre-feet in fiscal year 2016-17 and 1.70 million acre-feet for fiscal year 2017-18, and 1.75 million acre-feet for fiscal years 2018-19 through 2020-21. Rates and charges increased by 1.5 percent on January 1, 2015 and by 4.0 percent on January 1, 2017. On April 12, 2016 the Board adopted average increases in rate and charges of 4.0 percent, which will become effective on January 1, 2018. Rates and charges are projected to increase an average of 4.5 percent annually thereafter. Actual rates and charges to be effective in 2019 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.

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

	Actual					Projected				
	~~2012~~2013	~~2013~~2014	~~2014~~	2015	2016	2017	2018	2019	2020	2021
Water Sales[b]	$~~1,062~~1,283	$~~1,283~~1,166	~~$1,485~~	$1,383	$~~1,156~~1,200	$~~1,305~~1,277	$1,375	$1,473	$1,533	$1,597
Additional Revenue Sources[c]	~~168~~173	~~173~~182	~~182~~	199	200	~~182~~191	173	179	184	192
Total Operating Revenues	~~1,230~~1,456	~~1,456~~1,6	~~1,667~~	1,582	~~1,356~~1,366	~~1,487~~1,467	1,548	1,652	1,717	1,789
O&M, CRA Power and Water Transfer Costs[d]	(~~476~~456)	(~~456~~51	~~(512)~~	(697)	(~~847~~799)	(~~618~~646)	(631)	(661)	(~~680~~681)	(695)
Total SWC OMP&R and Power Costs[e]	(~~316~~337)	(~~337~~34	~~(342)~~	(308)	(~~415~~402)	(~~439~~365)	(453)	(486)	(532)	(577)
Total Operation and Maintenance	(~~792~~793)	(~~793~~85	~~(854)~~	(1,005)	(~~1,262~~1,201)	(~~1,057~~1,011)	(1,084)	(1,147)	(1,212)	(1,272)
Net Operating Revenues	$ ~~438~~663	$ ~~663~~8	~~$ 813~~	$ 577	$~~94~~ 165	$~~431~~ 456	$ 464	$ 505	$ 505	$ 517
Miscellaneous Revenue[f]	~~56~~23	~~23~~19	~~19~~	21	24	~~23~~21	24	24	24	25
Transfer from Reserve Funds[g]	-	-	~~-~~	142	~~275~~222	~~-~~46	-	-	-	-
Sales of Hydroelectric Power[h]	~~31~~25	~~25~~15	~~15~~	8	~~6~~7	~~15~~13	22	22	23	22
Interest on Investments[i]	~~11~~(2)	~~(2)~~19	~~19~~	~~13~~16	~~14~~17	~~13~~3	12	19	19	20
Adjusted Net Operating Revenues[j]	~~536~~709	~~709~~866	~~866~~	761	~~413~~435	~~482~~539	521	~~570~~569	571	584
Senior Bond Service[k]	(~~297~~298)	(~~298~~34	~~(343)~~	(280)	(~~302~~309)	(~~310~~307)	(330)	(328)	(322)	(314)
Subordinate Obligations[l]	(1)	(1)	~~(1)~~	(1)	~~[~~(1)~~]~~	~~[(14)]~~ -	~~[(14)]~~	~~[(16)]~~ -	~~[(16)]~~ -	(6)
Funds Available from Operations	$ ~~238~~410	$ ~~410~~522	~~$ 522~~	$ 480	$~~110~~ 125	$ ~~171~~228	$ ~~190~~187	$ ~~241~~236	$ ~~248~~243	$ 265
~~Senior Bond Debt~~										
Senior Bond Debt Service Coverage[m]	~~1.81~~2.38	~~2.38~~2.52	~~2.52~~	2.72	~~1.37~~1.41	~~1.55~~1.75	1.58	1.74	1.77	1.86
Subordinate Lien Debt Service Coverage	-	-		-	-	59.56	45.36	43.57	44.83	48.72
Debt Service Coverage on all Senior and Subordinate Bonds[n]	~~1.80~~2.37	~~2.37~~2.51	~~2.51~~	2.71	~~1.36~~1.40	~~1.55~~1.73	~~1.73~~1.56	~~1.77~~1.71	~~1.77~~1.74	1.83
Funds Available from Operations	$ ~~238~~410	$ ~~410~~ 52	~~$ 522~~	$ 480	$ ~~110~~ 125	$ ~~171~~228	$ ~~190~~187	$ ~~241~~236	$ ~~248~~243	$ 265
Other Revenues (Expenses)	(~~3~~5)	(~~5~~6)	~~(6)~~	(7)	(~~8~~6)	(6)	(6)	(7)	(7)	(7)
Pay-As-You Go Construction[p]	(~~45~~55)	(~~55~~117)	~~(117)~~	(210)	(~~284~~273)	(~~120~~133)	(120)	(120)	(120)	(120)
Pay-As-You Go Funded from Replacement & Refurbishment Fund Reserves[p]					160					

Total SWC Capital Costs Paid from Current	(~~112~~)88)	(~~88~~)68)	~~(68)~~	(46)	(~~32~~)24)	(~~68~~)54)	(65)	(71)	(86)	(103)
Remaining Funds Available from Operations	~~77~~262	~~262~~331	~~331~~	217	(~~54~~18)	(~~22~~) 35	(~~1~~4)	~~43~~39	~~34~~30	35
Fixed Charge Coverage[o]	~~1.31~~1.83~~1.~~0	1.83	~~2.10~~	2.33	~~1.23~~1.30	~~1.27~~1.48	~~1.32~~1.31	~~1.43~~1.41	~~1.4~~1.48	1.38
Property Taxes	~~90~~95	95	~~95~~	104	~~104~~108	~~98~~106	101	103	105	107
General Obligation Bonds Debt Service	(~~39~~40)	(40)	~~(40)~~	(22)	(22)	(~~23~~(22)	(~~19~~23)	(~~14~~19)	(14)	(14)
SWC Capital Costs Paid from Taxes	(~~51~~55)	(55)	~~(55)~~	(82)	(~~82~~86)	(~~75~~83)	(~~82~~75)	(~~88~~82)	(~~91~~88)	(91)
Net Funds Available from Current Year[p]	$~~77~~262	$~~262~~331	~~$331~~	$217	$(~~54~~18)	$(~~22~~35)	$(~~1~~4)	$~~43~~39	$~~34~~30	35

Source: Metropolitan.

(Footnotes on next page)

(a) Unaudited. Prepared on a ~~cash basis for fiscal year ending June 30, 2012, and on a~~ modified accrual basis ~~for fiscal years ending June 30, 2013 through June 30, 2020.~~. Projected revenues and ~~expenditures~~expenses in fiscal year ~~2015-16~~2016-17 are based on ~~actual~~preliminary financial results through ~~March~~December 31, ~~2016~~2016, and revised projections for the balance of ~~the fiscal year.~~FY 2016-17. Projections for fiscal years ~~2016-17 thru 2019-20~~2017-18 through 2020-21 are based on assumptions and estimates used in the adopted fiscal years 2016-17 and 2017-18 biennial budget and reflect the projected issuance of additional bonds.

(b) During the fiscal years ended June 30, ~~2012~~2013 through June 30, ~~2015~~,2016, annual water sales (in acre-feet) were ~~1.68 million, (including 225,000 acre-feet of replenishment sales),~~ 1.86 million, 2.04 million ~~and~~, 1.905 million and 1.62 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 ~~1.60~~1.67 million acre-feet for fiscal year ~~2015-16,~~2016-17, and 1.70 million acre-feet for fiscal years ~~2016-17 and~~ 2017-18, and 1.75 million acre-feet for fiscal ~~year~~years 2018-~~19 and~~19, 2019-~~20~~20 and 2020-21. Projections reflect Board adopted rate and charge increases of 4.0 percent, ~~which will become~~ effective on January 1, 2017 and ~~4.0 percent, which will become effective on~~ January 1, 2018. Rates and charges are projected to increase an average of 4.5 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~~–Other Charges" 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—~~EXPENSES–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. ~~Also includes in fiscal year 2011-12, $27.5 million from CVWD for delivery of 105,000 acre-feet under an exchange agreement between Metropolitan and CVWD. See "METROPOLITAN'S WATER SUPPLY—Colorado River Aqueduct—*Quantification Settlement Agreement*" in this Appendix A.~~

(g) Reflects transfers from the Water Management Fund, the Water Stewardship Fund, and the Water Rate Stabilization Fund, of $142 million in fiscal year 2014-15, ~~and projected transfers of $275~~$222 million in fiscal year 2015-~~16.~~16, and projected transfers of $46 million in fiscal year 2016-17 to fund a like amount of costs for conservation and supply programs. See "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES."

(h) Includes CRA power sales.

(i) 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

(j) 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 Senior ~~Parity~~Revenue Bonds and Senior Parity Obligations.

(k) Includes debt service on outstanding Senior ~~Parity~~Revenue Bonds, and additional Senior ~~Parity~~Revenue Bonds (projected). ~~Includes issuance of $208 million of Senior Parity Bonds in December 2015.~~ Assumes issuance of $80 million~~,~~ annually in additional Senior ~~Parity~~Revenue Bonds as provided in budget assumptions for the adopted biennial budget for fiscal years 2016-17 and 2017-18 and as projected for fiscal years 2018-~~19 and~~19, 2019-~~20.~~ 20, and 2020-21. 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 $33.7 million to an escrow account on May 29, 2014. Fiscal year 2015-16 debt service increased $7.0 million for debt service paid on June 30, 2016, rather than July 1, 2017 and fiscal year 2016-17 debt service was therefore reduced by $7.0 million. See "CAPITAL INVESTMENT PLAN~~—~~ Capital Investment Plan Financing" in this Appendix A.

(l) ~~Includes debt service on additional Subordinate Parity Bonds (projected). Assumes issuance of $XXX million of subordinate revenue refunding bonds in July 2016. Assumes issuance of $175 million in additional Subordinate Parity Bonds to be issued to reimburse Metropolitan for the purchase of the Delta Wetlands Properties as early as August 2016. See "CAPITAL INVESTMENT PLAN—Capital Investment Plan Financing" in this Appendix A~~Consisting of subordinate lien California Safe Drinking Water Revolving Fund Loan, and additional Bonds.

(m) Adjusted Net Operating Revenues divided by the sum of debt service on outstanding Senior ~~Parity~~Revenue Bonds and additional Senior ~~Parity~~Revenue Bonds (projected) .

(n) Adjusted Net Operating Revenues, divided by the sum of debt service on outstanding Senior ~~Parity~~Revenue Bonds, Senior Parity Obligations, Subordinate ~~Parity~~Revenue Bonds and Subordinate Parity Obligations, including the subordinate lien California Safe Drinking Water Revolving Fund Loan and projected Revenue Bonds. See "METROPOLITAN ~~EXPENDITURES—~~EXPENSES–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations" in this Appendix A.

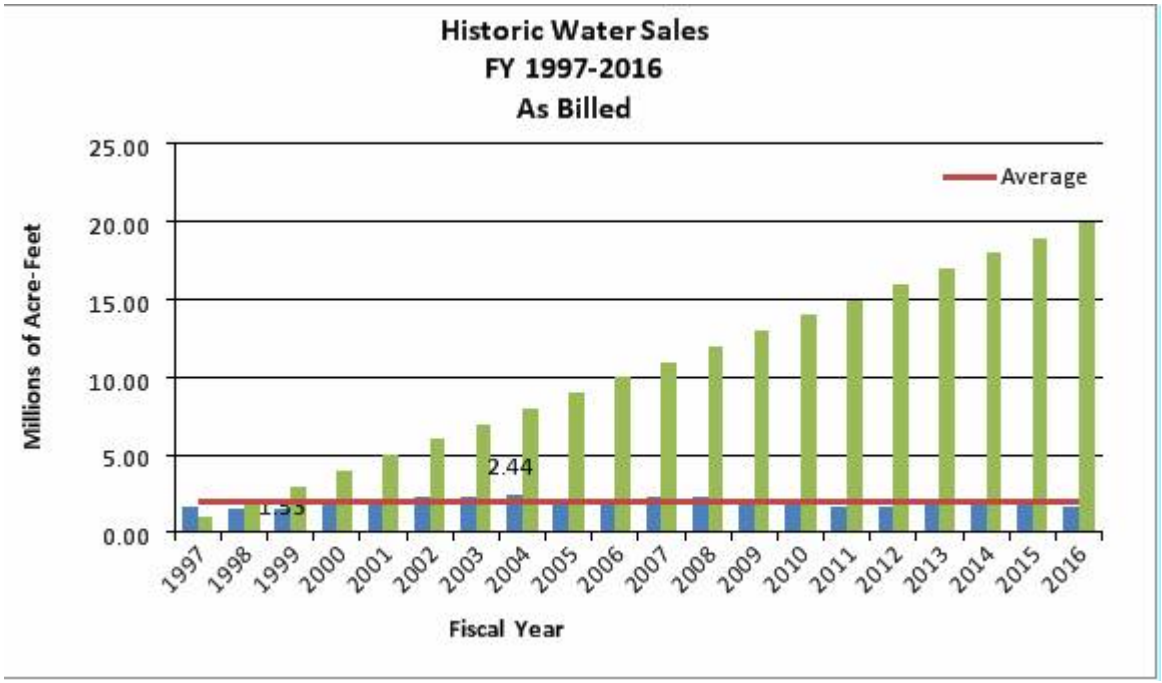
(o) Adjusted Net Operating Revenues, divided by the sum of State Water Contract capital costs paid from current year operations and debt service on outstanding Revenue Bonds, the subordinate lien California Safe Drinking Water Revolving Fund Loan and additional Revenue Bonds (projected).

(p) 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 pay-as-you-go 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 pay-as-you-go Construction, $232 million to the Water Management Fund, for water purchases to replenish storage and funding drought response programs. For Fiscal Year 2014-15, includes amounts transferred prior to June 30, 2015: $160 million to the Water Management Fund, for water conservation programs. For fiscal year 2015-16, Metropolitan ~~plans to use~~used $264 million for acquiring properties in Riverside and Imperial Counties, funded by $160 million from the Replacement and Refurbishment Fund Reserves and the balance from unrestricted reserves. This land purchase ~~will be~~is reflected as a ~~Pay-As-You-Go~~pay-as-you-go expenditure for fiscal year 2015-16.

MANAGEMENT~~'~~'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES

Water Sales Projections

Water sales forecast in the table above for fiscal year 2016-17 is 1.67 million acre-feet, 25 thousand acre-feet under budget. The water sales forecasts are 1.70 million acre-feet for fiscal year 2017-18, and 1.75 million acre-feet for fiscal years 2018-19 and 2019-21, consistent with the biennial budget and ten-year financial forecast. For purposes of comparison, Metropolitan's highest water sales during the past 20 fiscal years was approximately 2.44 million acre-feet in fiscal year 2003-04 and the lowest was 1.53 million acre-feet in fiscal year 1998-1999. The chart below shows the last 20 fiscal years of water sales.



Water Sales Revenues

Metropolitan relies on revenues from water sales for about ~~80 to~~ 85 to 90 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 the required 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 12, 2016, Metropolitan'~~ April 10, 2012, Metropolitan's Board adopted annual water rate increases of 5.0 percent, which became effective January 1, 2013 and January 1, 2014. On April 8, 2014, Metropolitan's Board adopted 1.5 percent average water rate increases effective January 1, 2015, and January 1, 2016, and on April 12, 2016, Metropolitan's Board adopted an average 4.0 percent water rate increase, ~~to become~~ effective January 1, 2017, and an additional average 4.0 percent water rate increase ~~to become~~ effective January 1, 2018. ~~Previously, on April 8, 2014, Metropolitan's Board adopted a 1.5 percent water rate increase, which became effective January 1, 2015, and an additional 1.5 percent water rate increase which became effective January 1, 2016; and on April 10, 2012, Metropolitan's Board adopted annual water rate increases of 5.0 percent, which became effective January 1, 2013 and January 1, 2014.~~

Projected Fiscal Year 2016-17 Results

Projections for fiscal year ~~2015-16,~~2016-17, in the table above, ~~reflect actual~~are based on preliminary financial results through ~~March~~December 31, ~~2016~~2016, and revised projections for the balance of ~~the~~ fiscal year~~-~~ 2016-17. The financial ~~projections~~projection for fiscal ~~years 2016-17 and~~year 2017-18 ~~reflect~~reflects the adopted biennial budget for ~~these~~this fiscal ~~years that was~~year as approved by the Board on April 12, 2016. Financial projections for fiscal years 2018-19 ~~and 2019-20~~through 2020-21 are reflected in the ten-year financial forecast provided in the adopted biennial budget. The fiscal year 2016-17 and 2017-18 biennial budget and rates set the stage for predictable and reasonable rate increases over the

ten-year planning period, with Board adopted rate increases of ~~4~~4.0 percent annually in both fiscal years 2016-17 and 2017-18, and projected average increases of 4.5 percent per year thereafter. Actual rates and charges to be effective in fiscal year 2018-19 and thereafter are subject to adoption by Metropolitan~~'~~'s Board as part of the biennial budget process, at which point the ten-year forecast will also be updated as well. Increases in rates and charges reflect the impact of reduced water sales projections, increasing operations and maintenance costs, and increasing State Water Project costs, when compared to prior fiscal years.

Metropolitan~~'~~'s revenues exceeded expenses during fiscal year 2014-15, resulting in a significant increase in unrestricted reserves. On May 29, 2015, Metropolitan~~'~~'s Board approved the use of $160 million of unrestricted reserves over the target reserve level, $50 million from the Water Stewardship Fund, and $140 million from the Water Management Fund to fund conservation incentives. As of June 30, 2015, Metropolitan~~'~~'s unrestricted reserves were $476 million, on a modified accrual basis. On July 14, 2015, Metropolitan~~'~~'s Board approved $264 million to acquire various properties in Riverside and Imperial Counties, with $160 million funded from the Replacement and Refurbishment Fund and the remaining amount from unrestricted reserves. Unrestricted reserves, as of April 30, 2016, include $250 million drawn from Short-Term Revolving Credit Facilities with RBC Municipal Products, LLC, and U.S. Bank N.A, and deposited in Metropolitan~~'~~'s financial reserves. See "METROPOLITAN REVENUES~~—~~–Financial Reserve Policy" and "METROPOLITAN ~~EXPENDITURES—~~EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations – Senior Parity Obligations – Short-Term Revolving Credit Facilities" in this Appendix A.

In fiscal years 2014-15 and 2015-16, Miscellaneous Revenues reflect the use of $142 million and $222 million respectively, from reserves to fund a like amount of costs for conservation and supply programs.

Financial projections for fiscal year ~~2015~~2016-~~16~~17 reflect lower water sales revenues that are estimated to be $~~153~~28.6 million, or 2 percent, below budget, based on the revised water sales projection of ~~1.60~~1.67 million acre-feet, compared to the budgeted ~~1.75~~1.70 million acre-feet~~. Total State Water Project expenditures are projected to be $12.3 million above budget; with $56 million in lower State Water Project power costs, based on a lower than budgeted water deliveries, which was offset by $94 million in higher than budgeted State Water Project operating expenditures. In addition, in October 2015, Metropolitan's Board approved $44.4 million to pay SNWA to store 150,000 acre-feet of water with Metropolitan. See "– METROPOLITAN'S WATER SUPPLY – Colorado River Aqueduct – *Interim Surplus Guidelines"* in this Appendix A. The combination of lower than budgeted water sales revenue and higher than budgeted expenditures has resulted in projected fiscal year 2015-16 revenue bond debt service coverage to be 1.37x and fixed charge coverage to be 1.23x. Higher conservation spending for fiscal year 2015-16 is being funded from estimated transfers of $275 million from the Water Management Fund, as reflected in the table above. The fiscal year 2015-16 CIP, currently estimated at $235 million, will be primarily funded from bond proceeds rather than from budgeted current year pay-as-you-go expenditures and General and Replacement and Refurbishment Fund balances. Metropolitan projects that its unrestricted reserves as of June 30, 2016 will be approximately $408 million. See "METROPOLITAN REVENUES – "Financial Reserve Policy" in this Appendix A. This amount does not include funds held in the Exchange Agreement Set-Aside Fund. If Metropolitan purchases the Delta Wetland Properties, it may use unrestricted reserves to effect the purchase, and then issue subordinate water revenue bonds in an aggregate principal amount of $175 million to reimburse itself for the purchase. See "CAPITAL INVESTMENT PLAN – Capital Investment Plan Financing" and "METROPOLITAN EXPENDITURES – Subordinate Revenue Obligations" in this Appendix A.~~, a reduction of 1.5 percent.

~~Water Sales Projections~~

~~Water sales forecasts in the table above are: 1.60 million acre-feet for fiscal year 2015-16, 1.70 million acre-feet for fiscal years 2016-17 and 2017-18, and 1.75 million acre-feet for fiscal years 2018-19~~

~~and 2019-20. For purposes of comparison, Metropolitan's highest water sales during the past eight fiscal years was approximately 2.30 million acre-feet in fiscal year 2007-08 and the 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" in this Appendix A). For example, water sales projections for fiscal year 2015-16 assumed that local projects such as groundwater recovery and desalination projects (see "REGIONAL WATER RESOURCES – Local Water Supplies" in this Appendix A) would 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 eleven-year period from fiscal year 2004-05 through fiscal year 2014-15, actual water sales exceeded budgeted sales in six 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 ~~2015~~2016-~~16~~17 are projected to be $~~1.26~~1.01 billion, which represents approximately 67 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. ~~Direct~~Metropolitan's operation and maintenance expenditures are ~~projected to be $29 million lower than budgeted in fiscal year 2015-16. Metropolitan'~~project to be on budget in fiscal year 2016-17. Metropolitan's ~~share of~~ State Water Project costs are projected to be $~~12.3 million higher than budgeted. State Water Project operating expenditures, in fiscal year 2015-16, are projected to be $94 million higher than budgeted, due to higher costs for environmental related projects in the Delta, and higher than projected labor costs. This projected negative variance will offset a projected $56 million favorable variance for lower State Water Project power costs, due to a lower-than-budgeted water allocation. In addition, in October 2015, Metropolitan's Board approved $44.4 million to pay SNWA to store 150,000 acre-feet of water with Metropolitan.~~80.3 million lower than budgeted. Overall, projected expenditures for the twelve months ending June 30, 2017 are $1.6 billion. This is $89 million, or 5 percent, less than budgeted expenditures.

~~POWER SOURCES AND COSTS~~

General

Current and future costs for electric power required for operating the pumping systems of the CRA and the State Water Project are a substantial part of Metropolitan's overall expenses. Expenses for electric power for the CRA (not including credits from power sales and related revenues) for the fiscal years 2012-13, 2013-14 and 2014-15 were approximately $18.4 million, $29.6 million, and $39.6 million, respectively. Expenses for electric power and transmission service for the State Water Project for fiscal years 2012-13, 2013-14 and 2014-15 were approximately $218.1 million, $157.4 million and $140.8 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 CRA 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 Southern California Edison ("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 CRA 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, 2014 and June 30, 2015 were approximately 1.12 million acre-feet and 1.19 million acre-feet, respectively, including Metropolitan's basic apportionment of Colorado River water and supplies from water transfer and 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 also purchases California market-priced power through its agreement with Edison. 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. In calendar years 2014 and 2015, Metropolitan purchased approximately 527,000 and 710,000 megawatt-hours, respectively, of additional energy.

~~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 Metropolitan (hydropower), Kern River Conservation District (hydropower), Northern California Power Agency (natural gas generation), Alameda Municipal Power (geothermal and landfill gas), Sun Power Corporation (solar) and Dominion Solar Holdings (solar). 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. On April 11, 2016, the California Court of Appeal requested supplemental briefing from the parties on what it considers to be a threshold jurisdictional issue – whether the relicensing process, which is governed by the Federal Power Act, is subject to CEQA. Supplemental briefing is expected to be completed in the fall of 2016. No date has been set for oral argument. Regulatory permits and authorizations are also 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'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 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, small hydroelectric generation and wind power. Metropolitan has completed construction of a one-megawatt ("MW") solar generation facility at the Robert A. Skinner Treatment Plant and a three MW solar facility at its F. E. Weymouth Treatment Plant. Metropolitan also plans to install a one MW solar facility at the Joseph Jensen Treatment Plant. Finally, Metropolitan continues integrating fuel-efficient hybrid vehicles into its fleet and is assessing the use of alternative fuels for its off-road vehicles and construction equipment.~~

~~Metropolitan reports its greenhouse gas emissions 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 of 2006. On October 20, 2011, CARB approved a regulation for a California cap on greenhouse gas emissions under AB 32, with compliance deferred to 2013. Under the regulation, Metropolitan is regulated as an importer of energy and is required to acquire cap and trade compliance instruments, such as allowances and offsets, 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 did incur an obligation in 2014 and 2015. For the three-year period from January 1, 2013 through December 31, 2015, Metropolitan's expenditures on cap and trade compliance instruments were approximately $3.3 million.~~

The combination of lower than budgeted water sales revenue and expenditures has resulted in projected fiscal year 2016-17 revenue bond debt service coverage to be 1.73x and fixed charge coverage to be 1.48x. Fiscal year 2016-17 capital expenditures, currently estimated at $213 million, will be primarily funded by pay-as-you-go funding and the remainder from bond proceeds. Metropolitan's unrestricted reserves are projected to be approximately $455 million at June 30, 2017. See "METROPOLITAN REVENUES–Financial Reserve Policy" in this Appendix A. This amount does not include funds held in the Exchange Agreement Set-Aside Fund.

See also the "Management's Discussion and Analysis" contained in APPENDIX B–"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITOR'S REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2016 AND JUNE 30, 2015 AND BASIC FINANCIAL STATEMENTS FOR THE SIX MONTHS ENDED DECEMBER 31, 2016 AND 2015 (UNAUDITED)."

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Insertion	
~~Deletion~~	
~~Moved from~~	
Moved to	
Style change	
Format change	
~~Moved deletion~~	
Inserted cell	
Deleted cell	
Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	2474
Deletions	2213
Moved from	447
Moved to	447
Style change	0
Format changed	0
Total changes	5581