

**NEW ISSUE  
(FULL BOOK-ENTRY)**

**RATINGS:  
See "RATINGS" herein.**

*In the opinion of Hawkins Delafield & Wood LLP, Bond Counsel to Metropolitan, under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described herein, (i) interest on the 2020A Bonds is excluded from gross income for federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"), and (ii) interest on the 2020A Bonds is not treated as a preference item in calculating the alternative minimum tax under the Code. In addition, in the opinion of Bond Counsel, under existing statutes, interest on the 2020A Bonds is exempt from personal income taxes imposed by the State of California. See "TAX MATTERS."*



**\$207,355,000**

**THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
Water Revenue Bonds, 2020 Series A**

**Dated: Date of Delivery**

**Due: October 1, as shown on the inside cover page**

The Metropolitan Water District of Southern California ("Metropolitan") is issuing its \$207,355,000 Water Revenue Bonds, 2020 Series A (the "2020A Bonds") to provide funds to pay (and to reimburse Metropolitan for) certain costs of acquisition, construction and improvements to the Water System, to refinance and retire certain outstanding notes issued for such purposes, and to pay certain costs of issuance of the 2020A Bonds. See "FINANCING PLAN" and "ESTIMATED APPLICATION OF PROCEEDS." *Capitalized terms used on this cover page not otherwise defined will have the meaning set forth herein.*

The 2020A Bonds will mature in the principal amounts on the dates and in the years, and will bear interest at the respective per annum rates of interest, as set forth on the inside cover page hereof. The 2020A Bonds are being issued as fully registered bonds, in book-entry only form, in denominations of \$5,000 principal amount or any integral multiple thereof. Interest on the 2020A Bonds is payable on April 1 and October 1 of each year, commencing October 1, 2020. See "DESCRIPTION OF THE 2020A BONDS."

The 2020A Bonds, when issued, will be registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). Principal of and interest on the 2020A Bonds will be payable directly to DTC. Upon receipt of payments of such principal and interest, DTC is obligated to remit such payments to its DTC participants for subsequent disbursements to the beneficial owners of the 2020A Bonds. See APPENDIX D- "BOOK-ENTRY ONLY SYSTEM."

The 2020A Bonds are subject to optional and mandatory sinking fund redemption prior to their maturity as described herein. See "DESCRIPTION OF THE 2020A BONDS – Redemption."

The 2020A Bonds are special limited obligations of Metropolitan payable as to principal and interest solely from and secured solely by a pledge of and a lien and charge upon the Net Operating Revenues on parity with Metropolitan's outstanding Parity Bonds and other Parity Obligations and any Parity Bonds and Parity Obligations Metropolitan may hereafter issue or incur as described herein. As of December 1, 2019, Metropolitan had outstanding \$2.54 billion aggregate principal amount of Parity Bonds, as well as certain other Parity Obligations, payable from Net Operating Revenues. Metropolitan has also issued or incurred, and may in the future issue or incur, bonds and other obligations payable from and secured by a lien upon Net Operating Revenues subordinate to the lien thereon of the 2020A Bonds and all Parity Bonds and Parity Obligations. As of December 1, 2019, \$1.26 billion aggregate principal amount of subordinate water revenue bonds were outstanding, as well as certain other subordinate obligations. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS."

The 2020A Bonds do not constitute general obligation indebtedness of Metropolitan. Neither the general credit nor the taxing power of Metropolitan is pledged for the payment of the 2020A Bonds or the interest thereon. The obligation to pay the principal of and interest on the 2020A Bonds does not constitute a pledge, charge, lien or encumbrance upon any of Metropolitan's property or its income, receipts or revenues except Net Operating Revenues as described in this Official Statement. Metropolitan will not fund a reserve fund for the 2020A Bonds.

The 2020A Bonds are offered when, as and if issued and received by the Underwriters, subject to the approval of validity by Hawkins Delafield & Wood LLP, Bond Counsel, and certain other conditions. Certain legal matters will be passed upon for Metropolitan by its General Counsel, and for the Underwriters by their counsel, Stradling Yocca Carlson & Rauth, a Professional Corporation. Norton Rose Fulbright US LLP is acting as Disclosure Counsel to Metropolitan in connection with the issuance of the 2020A Bonds. Public Resources Advisory Group is serving as Municipal Advisor to Metropolitan in connection with the issuance of the 2020A Bonds. Metropolitan anticipates that the 2020A Bonds will be available for delivery through the facilities of The Depository Trust Company by Fast Automated Securities Transfer (FAST) on or about February 11, 2020.

**Siebert Williams Shank & Co., LLC**

**J.P. Morgan**

**Blaylock Van, LLC**

Dated: January 27, 2020

## MATURITY SCHEDULE

**\$207,355,000**

**THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
Water Revenue Bonds, 2020 Series A**

\$88,480,000 Serial 2020A Bonds

Maturity (October 1)	Principal Amount	Interest Rate	Yield	Price <sup>C</sup>	CUSIP No. <sup>†</sup> (Base No. 59266T)
2030	\$ 6,185,000	5.000%	1.000%	136.667	RC7
2031	6,505,000	5.000	1.090	135.682	RD5
2032	6,835,000	5.000	1.170	134.813	RE3
2033	7,190,000	5.000	1.240	134.059	RF0
2034	7,555,000	5.000	1.300	133.416	RG8
2035	7,945,000	5.000	1.350	132.883	RH6
2036	8,350,000	5.000	1.410	132.247	RJ2
2037	8,780,000	5.000	1.450	131.825	RK9
2038	9,230,000	5.000	1.490	131.404	RL7
2039	9,705,000	5.000	1.530	130.985	RM5
2040	10,200,000	5.000	1.560	130.672	RN3

\$59,410,000 5.000% Term 2020A Bonds due October 1, 2045;  
Yield 1.720%, Price 129.017<sup>C</sup>, CUSIP No.<sup>†</sup> 59266T RP8

\$59,465,000 5.000% Term 2020A Bonds due October 1, 2049;  
Yield 1.760%, Price 128.607<sup>C</sup>, CUSIP No.<sup>†</sup> 59266T RQ6

<sup>C</sup> Priced to the first optional redemption date of October 1, 2029 at par.

<sup>†</sup> CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein are provided by CUSIP Global Services, managed on behalf of the American Bankers Association by S&P Global Market Intelligence. CUSIP numbers have been assigned by an independent company not affiliated with Metropolitan and are included solely for the convenience of the holders of the 2020A Bonds. Metropolitan is not responsible for the selection or use of these CUSIP numbers and no representation is made as to their correctness on the 2020A Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the issuance of the 2020A Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the 2020A Bonds.

**MAJOR WATER CONVEYANCE FACILITIES  
TO SOUTHERN CALIFORNIA**



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**Management**

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*General Manager*

**MARCIA SCULLY**  
*General Counsel*

**GERALD C. RISS**  
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**DEE ZINKE**  
*Assistant General Manager/Chief External Affairs Officer*

**ROSA A. CASTRO**  
*Board Executive Secretary*

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Los Angeles, California

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Norton Rose Fulbright US LLP  
Los Angeles, California

**Municipal Advisor**

Public Resources Advisory Group  
Los Angeles, California

**Fiscal Agent**

Katano Kasaine  
Metropolitan Treasurer

This Official Statement does not constitute an offer to sell the 2020A Bonds in any state to any person to whom it is unlawful to make such an offer in such state. This Official Statement is not to be construed as a contract with the purchasers of the 2020A Bonds. Metropolitan has not authorized any dealer, broker, salesperson or any other person to give any information or to make any representations other than those contained herein in connection with the offering of the 2020A Bonds, and if given or made, investors must not rely on such information or representations.

The information set forth herein has been obtained from Metropolitan and other sources that are believed to be reliable. Prospective investors should not interpret estimates and opinions in this Official Statement as statements of fact. Summaries of documents do not purport to be complete statements of their provisions. The information and expressions of opinion herein are subject to change without notice and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, imply that there has been no change in the affairs of Metropolitan since the date hereof.

The Underwriters have provided the following two paragraphs for inclusion in this Official Statement:

The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their respective responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

In connection with this offering, the Underwriters may overallocate or effect transactions which stabilize or maintain the market price of the 2020A Bonds at a level above that which might otherwise prevail on the open market. Such stabilizing, if commenced, may be discontinued at any time. The Underwriters may offer and sell 2020A Bonds to certain dealers and others at prices lower or yields higher than the offering prices or yields shown on the inside cover page hereof and such public offering prices or yields may be changed from time to time by the Underwriters.

CUSIP data herein are provided by CUSIP Global Services, managed by S&P Capital IQ on behalf of the American Bankers Association, and are set forth herein for convenience of reference only. These data are not intended to create a database and do not serve in any way as a substitute for CUSIP Global Services. None of Metropolitan, its Municipal Advisor or the Underwriters is responsible for the selection or correctness of the CUSIP numbers set forth herein.

Certain statements included or incorporated by reference in the following information constitute “forward-looking statements.” Such statements are generally identifiable by the terminology used such as “plan,” “project,” “expect,” “estimate,” “budget” or other similar words. The achievement of results or other expectations contained in 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 not meet Metropolitan’s forecasts. Metropolitan is not obligated to issue any updates or revisions to the forward-looking statements in any event.

This Official Statement, including any supplement or amendment hereto, is intended to be deposited with the Municipal Securities Rulemaking Board through the Electronic Municipal Market Access (EMMA) system.

Metropolitan maintains a website. However, the information presented therein is not part of this Official Statement and should not be relied upon in making investment decisions with respect to the 2020A Bonds.

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## SUMMARY STATEMENT

*This Summary Statement is subject in all respects to the more complete information contained in this Official Statement and should not be considered to be a complete statement of the facts material to making an investment decision. All terms used in this Summary Statement and not otherwise defined have the meanings given such terms elsewhere in this Official Statement, in APPENDIX C– “SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS” or in the Resolutions. Investors must read the entire Official Statement, including the Appendices, to obtain information essential to making an informed investment decision.*

### **The Metropolitan Water District of Southern California**

The Metropolitan Water District of Southern California (“Metropolitan”) is a metropolitan water district created in 1928 by a vote of the electorates of several southern California cities. Metropolitan’s primary purpose was and is to provide a supplemental supply of water for domestic and municipal uses and purposes at wholesale rates to its member public agencies. There are 26 member public agencies of Metropolitan, consisting of 14 cities, 11 municipal water districts, and one county water authority. Metropolitan is governed by a 38-member Board of Directors (the “Board”), with each member agency having at least one representative on the Board. Representation and voting rights are based upon the assessed valuation of real property within the jurisdictional boundary of each member agency. Metropolitan imports water from two principal sources, the State Water Project in Northern California, via the California Aqueduct, and the Colorado River, via the Colorado River Aqueduct.

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.

For general information regarding Metropolitan, including information regarding Metropolitan’s operations and finances, see APPENDIX A– “THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA” and APPENDIX B– “THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS’ REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2019 AND JUNE 30, 2018 AND BASIC FINANCIAL STATEMENTS FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2019 AND 2018 (UNAUDITED).” For selected demographic and economic information on Metropolitan’s service area, see APPENDIX E– “SELECTED DEMOGRAPHIC AND ECONOMIC INFORMATION FOR METROPOLITAN’S SERVICE AREA.”

### **Economy of Metropolitan’s Service Area**

Metropolitan’s service area comprises approximately 5,200 square miles and includes all or portions of the six counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura. For selected demographic and economic information on Metropolitan’s service area, see Appendix E.

### **Authorization for the 2020A Bonds**

Metropolitan is issuing its \$207,355,000 Water Revenue Bonds, 2020 Series A (the “2020A Bonds”) pursuant to the Metropolitan Water District Act, California Statutes 1969, Chapter 209, as amended and supplemented, including by applicable provisions of the Government Code of the State of California, including Chapter 6 (commencing with Section 54300) of Part 1 of Division 2 of Title 5 (the “Act”), and Resolution 8329 adopted by the Board on July 9, 1991, as amended and supplemented (the “Master Resolution”), including by Resolution 9262 adopted by the Board on December 10, 2019 (the “Twenty-Third Supplemental Resolution” and, together with the Master Resolution, the “Resolutions”).

The voters in Metropolitan’s service area approved Metropolitan’s issuance of revenue bonds at a special election held on June 4, 1974, as required by the Act. Revenue bonds issued by Metropolitan pursuant to the Resolutions are referred to in this Official Statement as the “Bonds.” As described herein, the 2020A Bonds when issued will be payable as to principal thereof and interest thereon on a parity with Metropolitan’s outstanding Bonds and any additional Bonds hereafter issued by Metropolitan payable on a parity therewith (“Parity Bonds”) and with other outstanding and future obligations of Metropolitan payable on a parity with the Bonds (“Parity Obligations”).

### **Purpose of the 2020A Bonds**

Metropolitan is issuing the 2020A Bonds for the purpose of providing funds to pay (and to reimburse Metropolitan for) certain costs of acquisition, construction and improvements to the properties, works and facilities of Metropolitan necessary for the supply, availability, development, storage, transportation, treatment or sale of water (the “Water System”), to refinance and retire certain outstanding notes issued for such purposes, and to pay the costs of issuing the 2020A Bonds. See “FINANCING PLAN” and “ESTIMATED APPLICATION OF PROCEEDS.”

### **General Terms of the 2020A Bonds**

The 2020A Bonds will be dated the date of their delivery. The 2020A Bonds will be issued in the aggregate principal amount, will mature in the principal amounts on the dates and in the years, and will bear interest at the respective per annum rates of interest, all as set forth on the inside cover page of this Official Statement. Metropolitan will issue the 2020A Bonds as fully registered bonds in denominations of \$5,000 or any integral multiple thereof. Metropolitan will pay interest on the 2020A Bonds on April 1 and October 1 of each year, commencing October 1, 2020. See “DESCRIPTION OF THE 2020A BONDS.”

The 2020A Bonds are subject to optional and mandatory sinking fund redemption prior to maturity as described herein. See “DESCRIPTION OF THE 2020A BONDS – Redemption.”

### **Book-Entry Only System**

Metropolitan will issue the 2020A Bonds as fully registered bonds and will register the 2020A Bonds in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”). DTC will act as securities depository for the 2020A Bonds. Purchasers will not receive certificates representing the 2020A Bonds purchased by them. Principal of and interest on the 2020A Bonds will be paid directly to DTC as the registered owner of the 2020A Bonds. Upon receipt of payments of principal or interest, DTC is obligated to remit those payments to DTC’s Direct Participants (as defined in APPENDIX D– “BOOK-ENTRY ONLY SYSTEM”) for subsequent disbursement to each actual purchaser of an ownership interest in the 2020A Bonds. See APPENDIX D– “BOOK-ENTRY ONLY SYSTEM.”

### **Security for the 2020A Bonds**

The 2020A Bonds are special limited obligations of Metropolitan and will be payable as to principal, redemption premium, if any, and interest thereon solely from and secured solely by a pledge of and a lien and charge upon the Net Operating Revenues. Net Operating Revenues are revenues received by Metropolitan from charges for the sale or availability of water after payment of Operation and Maintenance Expenditures as described in this Official Statement. The 2020A Bonds when issued will be payable on a parity with Metropolitan’s other Parity Bonds. As of December 1, 2019, Metropolitan had outstanding \$2.54 billion aggregate principal amount of Parity Bonds. Metropolitan will also pay the principal of and redemption premium, if any, and interest on the 2020A Bonds on a parity with its Parity

Obligations at any time outstanding. See “SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS.”

**The 2020A Bonds do not constitute general obligation indebtedness of Metropolitan. Neither the general credit nor the taxing power of Metropolitan is pledged for the payment of the 2020A Bonds or the redemption premium, if any, or the interest thereon. The obligation to pay the principal of and redemption premium, if any, and interest on the 2020A Bonds does not constitute a pledge, charge, lien or encumbrance upon any of Metropolitan’s property or its income, receipts or revenues except Net Operating Revenues.**

Metropolitan has established in the past and may in the future establish reserve funds for some of the Series of outstanding Bonds. Metropolitan will not fund a reserve fund for the 2020A Bonds. Amounts held or to be held in a reserve fund or account established for any other Series of Bonds or any Reserve Fund Credit Policy for any other Series of Bonds will not be used or drawn upon to pay principal of, redemption premium, if any, or interest on the 2020A Bonds.

### **Rate Covenant**

Metropolitan covenants under the Master Resolution that it will prescribe, revise and collect rates and charges for the services, facilities, availability and water of the Water System which, after making allowances for contingencies and error in the estimates, will provide Operating Revenues, together with any Additional Revenues, at least sufficient to pay, in the following order of priority: (1) Operation and Maintenance Expenditures; (2) the interest on and Bond Obligation (including Mandatory Sinking Account Payments) of the Outstanding Bonds and Parity Obligations as they become due and payable; (3) all other payments required for compliance with the Master Resolution or any Supplemental Resolution; and (4) all other payments required to meet any other obligations of Metropolitan which are charges, liens or encumbrances upon or payable from the Net Operating Revenues. See “SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Rate Covenant.”

### **Additional Indebtedness**

Metropolitan covenants in the Master Resolution that no additional bonds, notes or other evidences of indebtedness payable out of Operating Revenues will be issued having any priority in payment of principal, redemption premium, if any, or interest over the 2020A Bonds, the Parity Bonds or the Parity Obligations.

As provided in the Resolutions, Metropolitan may issue or incur additional Parity Bonds and Parity Obligations payable from Net Operating Revenues and secured on a parity with the 2020A Bonds, and existing Parity Bonds and Parity Obligations to finance, or in connection with the financing of, the costs or improvements to the Water System and other lawful purposes or to refund any bond or other indebtedness of Metropolitan, subject to the limitations, terms and conditions of the Master Resolution.

Metropolitan has also issued or incurred, and may in the future issue or incur, bonds and other obligations payable from and secured by a lien upon Net Operating Revenues subordinate to the lien thereon of the 2020A Bonds and all Parity Bonds and Parity Obligations. As of December 1, 2019, Metropolitan had outstanding \$1.26 billion aggregate principal amount of subordinate bonds, as well as certain other subordinate obligations. Depending on market conditions, on or about March 2, 2020, Metropolitan expects to issue additional subordinate bonds (its Subordinate Water Revenue Refunding Bonds, 2020 Series A) for the purpose of refunding all or portions of certain maturities of various Series of Metropolitan’s outstanding variable rate Bonds. See “INTRODUCTION – Potential Subordinate Water Revenue Refunding Bonds to be Issued by Metropolitan.” See also “SECURITY AND SOURCES OF

PAYMENT FOR THE 2020A BONDS – Additional Indebtedness” and “– Subordinate Bonds and Subordinate Obligations.”

Metropolitan has obligations under interest rate swap agreements, which obligations (other than with respect to termination payments under some of such swap agreements) are payable on parity with Metropolitan’s obligation to pay principal of and interest on the 2020A Bonds and the Parity Bonds. See Appendix A under the caption “METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations.”

See also “OPERATING REVENUES, DEBT SERVICE AND INVESTMENT PORTFOLIO – Anticipated Financings” for a discussion of potential additional Parity Bonds and/or Parity Obligations and subordinate bonds and/or other subordinate obligations that Metropolitan currently expects to issue or incur.

### **Continuing Disclosure**

Metropolitan has agreed, in connection with the issuance of the 2020A Bonds, to provide or to cause to be provided to the Municipal Securities Rulemaking Board, through the Electronic Municipal Market Access System, certain annual financial information and operating data relating to Metropolitan and, in a timely manner, notice of certain events with respect to the 2020A Bonds. These covenants have been made in order to assist the Underwriters in complying with Rule 15c2-12 (the “Rule”) adopted by the U.S. Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended. See “CONTINUING DISCLOSURE” and APPENDIX G– “FORM OF CONTINUING DISCLOSURE UNDERTAKING.”

Metropolitan has not failed in the previous five years to comply in all material respects with any previous undertaking to provide annual reports or notices of certain events in accordance with the Rule.

### **Miscellaneous**

The summaries of and references to the Act, the Resolutions and all resolutions, documents, statutes, reports and other information referred to herein do not purport to be complete, comprehensive or definitive and each such summary or reference is qualified in its entirety by reference to the Act and such resolutions, documents, statutes, reports and other information. Copies of such information may be obtained from the Assistant General Manager/Chief Financial Officer of The Metropolitan Water District of Southern California at 700 North Alameda Street, Los Angeles, California 90012; telephone (213) 217-7121.

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## OFFICIAL STATEMENT

**\$207,355,000**

### **THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA Water Revenue Bonds, 2020 Series A**

## INTRODUCTION

### **General; Purpose**

This Official Statement (which includes the cover page and inside cover page hereof, the Summary Statement and appendices hereto) provides information concerning The Metropolitan Water District of Southern California (“Metropolitan”) in connection with the sale by Metropolitan of its \$207,355,000 Water Revenue Bonds, 2020 Series A (the “2020A Bonds”).

Metropolitan is issuing its 2020A Bonds pursuant to the Metropolitan Water District Act, California Statutes 1969, Chapter 209, as amended and supplemented, including by applicable provisions of the Government Code of the State of California, including Chapter 6 (commencing with Section 54300) of Part 1 of Division 2 of Title 5 (the “Act”), and Resolution 8329 adopted by the Board of Directors of Metropolitan (the “Board”) on July 9, 1991, as amended and supplemented (the “Master Resolution”), including as amended and supplemented by Resolution 9262 adopted by the Board on December 10, 2019 (the “Twenty-Third Supplemental Resolution” and, together with the Master Resolution, the “Resolutions”). The voters in Metropolitan’s service area approved Metropolitan’s issuance of revenue bonds at a special election held on June 4, 1974, as required by the Act. Revenue bonds issued by Metropolitan pursuant to the Resolutions are referred to in this Official Statement as the “Bonds.”

Metropolitan is issuing the 2020A Bonds for the purpose of providing funds to pay (and to reimburse Metropolitan for) certain costs of acquisition, construction and improvements to the properties, works and facilities of Metropolitan necessary for the supply, availability, development, storage, transportation, treatment or sale of water (the “Water System”), to refinance and retire certain outstanding notes issued for such purposes, and to pay the costs of issuing the 2020A Bonds. See “FINANCING PLAN” and “ESTIMATED APPLICATION OF PROCEEDS.”

### **Security for the 2020A Bonds**

The 2020A Bonds are special limited obligations of Metropolitan and will be payable as to principal, redemption premium, if any, and interest thereon solely from and secured solely by a pledge of and a lien and charge upon the Net Operating Revenues. Net Operating Revenues are revenues received by Metropolitan from charges for the sale or availability of water after payment of Operation and Maintenance Expenditures as described in this Official Statement. The 2020A Bonds when issued will be payable on a parity with Metropolitan’s outstanding and future Bonds issued pursuant to the Resolutions (“Parity Bonds”). Metropolitan will also pay the principal of and redemption premium, if any, and interest on the 2020A Bonds on a parity with its other outstanding and future obligations payable on a parity with the Bonds (“Parity Obligations”). As of December 1, 2019, Metropolitan had outstanding \$2.54 billion aggregate principal amount of Parity Bonds, as well as certain other Parity Obligations. Metropolitan’s outstanding Parity Bonds and Parity Obligations as of December 1, 2019 are described in Appendix A under the caption “METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations.” See also “SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS.”

The 2020A Bonds do not constitute general obligation indebtedness of Metropolitan. Neither the general credit nor the taxing power of Metropolitan is pledged for the payment of the 2020A Bonds or the redemption premium, if any, or the interest thereon. The obligation to pay the principal of and redemption premium, if any, and interest on the 2020A Bonds does not constitute a pledge, charge, lien or encumbrance upon any of Metropolitan's property or its income, receipts or revenues except Net Operating Revenues.

Metropolitan has established in the past and may in the future establish reserve funds for some of the Series of outstanding Bonds. Metropolitan will not fund a reserve fund for the 2020A Bonds. Amounts held or to be held in a reserve fund or account established for any other Series of Bonds or any Reserve Fund Credit Policy for any other Series of Bonds will not be used or drawn upon to pay principal of, redemption premium, if any, or interest on the 2020A Bonds.

### **Additional Parity and Other Obligations**

As described herein, the 2020A Bonds when issued will be payable from Net Operating Revenues on a parity with Metropolitan's outstanding Parity Bonds and Parity Obligations. As provided in the Resolutions, Metropolitan may issue additional Parity Bonds and may incur other Parity Obligations payable and secured on a parity with the 2020A Bonds and the existing Parity Bonds and Parity Obligations to finance, or in connection with the financing of, the costs or improvements to the Water System and other lawful purposes or to refund any bond or other indebtedness of Metropolitan, subject to the limitations, terms and conditions of the Master Resolution. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Parity Bonds and Parity Obligations" and "– Additional Indebtedness."

Metropolitan has also issued and incurred, and may in the future issue or incur, bonds and other obligations payable from and secured by a lien upon Net Operating Revenues subordinate to the lien thereon of the 2020A Bonds and all Parity Bonds and Parity Obligations. As of December 1, 2019, Metropolitan had outstanding \$1.26 billion aggregate principal amount of subordinate bonds outstanding, as well as certain other subordinate obligations. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Subordinate Bonds and Subordinate Obligations" and "– Additional Indebtedness." Metropolitan's outstanding subordinate bonds and subordinate obligations as of December 1, 2019 are described in Appendix A under the caption "METROPOLITAN EXPENSES – Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations." Depending on market conditions, on or about March 2, 2020, Metropolitan expects to issue additional subordinate bonds (its Subordinate Water Revenue Refunding Bonds, 2020 Series A) for the purpose of refunding all or portions of certain maturities of various Series of Metropolitan's outstanding variable rate Bonds. See "– Potential Subordinate Water Revenue Refunding Bonds to be Issued by Metropolitan" below.

Metropolitan has obligations under interest rate swap agreements, which obligations (other than with respect to termination payments under some of such swap agreements) are payable on parity with Metropolitan's obligation to pay principal of and interest on the 2020A Bonds and the Parity Bonds. See Appendix A under the caption "METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations."

See also "OPERATING REVENUES, DEBT SERVICE AND INVESTMENT PORTFOLIO – Anticipated Financings" for a discussion of potential additional Parity Bonds and/or Parity Obligations and subordinate bonds and/or other subordinate obligations that Metropolitan currently expects to issue or incur.

Metropolitan covenants in the Master Resolution that no additional bonds, notes or other evidences of indebtedness payable out of Operating Revenues will be issued having any priority in



payment of principal, redemption premium, if any, or interest over the 2020A Bonds, the Parity Bonds or the Parity Obligations. See “SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Additional Indebtedness.”

### **Potential Subordinate Water Revenue Refunding Bonds to be Issued by Metropolitan**

Depending on market conditions, on or about March 2, 2020, Metropolitan expects to issue approximately \$151,465,000 (preliminary amount) of its Subordinate Water Revenue Refunding Bonds, 2020 Series A (the “2020A Subordinate Bonds”) to refund all or portions of certain maturities of one or more of the following outstanding Series of Metropolitan’s variable rate Bonds: (i) Water Revenue Bonds, 2000 Authorization, Series B-3; (ii) Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D; (iii) Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D; (iv) Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A-1 and 2015 Series A-2; (v) Special Variable Rate Water Revenue Refunding Bonds, 2016 Series B-1 and 2016 Series B-2; and (vi) Special Variable Rate Water Revenue Refunding Bonds, 2018 Series A-1 and 2018 Series A-2. See Appendix A under the caption “METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations.” See also “OPERATING REVENUES, DEBT SERVICE AND INVESTMENT PORTFOLIO – Anticipated Financings.”

### **Miscellaneous; Summaries Not Definitive**

This Introduction is not a summary of this Official Statement. This Introduction is only a brief description of and guide to, and is qualified by, more complete and detailed information contained in the entire Official Statement and the documents described herein. All statements contained in this Introduction are qualified in their entirety by reference to the entire Official Statement. References to, and summaries of, provisions of the Constitution and laws of the State of California, including the Act, and any resolutions and documents referred to in this Official Statement do not purport to be complete and such references are qualified in their entirety by reference to the complete provisions thereof. The source of information herein is Metropolitan unless otherwise stated. Capitalized terms used herein and not otherwise defined will have the meanings ascribed thereto in the Resolutions. A summary of certain provisions of the Resolutions and a list of selected defined terms are set forth in APPENDIX C– “SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS.”

## **FINANCING PLAN**

A portion of the proceeds of the 2020A Bonds is expected to be used to finance a portion of the costs of acquisition and construction of improvements to the Water System of Metropolitan through fiscal year 2019-20, and to reimburse Metropolitan for Water System capital expenditures that were previously incurred. Proceeds of the 2020A Bonds will also be applied to prepay, on the date of delivery of the 2020A Bonds, Metropolitan’s \$100,000,000 of outstanding notes (the “Outstanding Senior Short-Term Notes”) evidencing draws made under its RBC Short-Term Revolving Credit Facility (defined below). See “SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Parity Bonds and Parity Obligations.” Metropolitan’s repayment obligations for such Outstanding Senior Short-Term Notes constitute Parity Obligations under the Master Resolution. Such Outstanding Senior Short-Term Notes were issued for the purpose of providing interim financing for capital expenditures for the Water System. See also Appendix A under the caption “CAPITAL INVESTMENT PLAN – Capital Investment Plan Financing” for additional information regarding Metropolitan’s capital investment plan activities. A portion of the proceeds of the 2020A Bonds will also be used to pay the costs of issuing the 2020A Bonds.

## ESTIMATED APPLICATION OF PROCEEDS

The proceeds received from the sale of the 2020A Bonds, rounded to the nearest dollar, are expected to be applied as follows:

Deposit to Construction Fund <sup>(1)</sup> .....	\$170,000,000
Prepayment of Outstanding Senior Short-Term Notes <sup>(2)</sup> ...	100,000,000
Underwriters' Discount .....	374,335
Costs of Issuance <sup>(3)</sup> .....	306,316
Total.....	<u><u>\$270,680,651</u></u>

<sup>(1)</sup> Includes amounts for reimbursement of prior capital expenditures.

<sup>(2)</sup> Accrued interest on the Outstanding Senior Short-Term Notes on the date of their prepayment will be paid from funds provided by Metropolitan.

<sup>(3)</sup> Includes rating agency fees, Municipal Advisory fees, legal fees, printing costs and other costs of issuance.

## DESCRIPTION OF THE 2020A BONDS

### General

The 2020A Bonds will be dated the date of their delivery. The 2020A Bonds will be issued in the aggregate principal amount, will mature in the principal amounts on the dates and in the years, and will bear interest at the respective per annum rates of interest, as set forth on the inside cover page hereof. Interest on the 2020A Bonds will be calculated on the basis of a 360-day year consisting of twelve 30-day months. Metropolitan will issue the 2020A Bonds as fully registered bonds in denominations of \$5,000 or any integral multiple thereof, in book-entry only form, and will register the 2020A Bonds in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York ("DTC"). See "– Book-Entry Only System" below. See also APPENDIX D– "BOOK-ENTRY ONLY SYSTEM."

Metropolitan will pay interest on the 2020A Bonds on April 1 and October 1 of each year, commencing on October 1, 2020. Interest on the 2020A Bonds will be payable on each interest payment date to the registered owners thereof as of the close of business on the Record Date. "Record Date" means, with respect to the 2020A Bonds, the close of business on the fifteenth (15th) day of each month preceding an interest payment date.

Pursuant to the Resolutions, the Treasurer of Metropolitan has been appointed and serves as Fiscal Agent for the payment, registration and transfer of Metropolitan's Bonds, including the 2020A Bonds. Effective April 1, 2018, Metropolitan has entered into an Omnibus Paying Agent Agreement with Wells Fargo Bank, National Association, as paying agent ("Wells Fargo"), pursuant to which Metropolitan has appointed Wells Fargo to act as agent of the Fiscal Agent for the purpose of performing the duties and responsibilities of the Fiscal Agent under the Resolutions with respect to the Bonds (including the 2020A Bonds), including: the obligation of the Fiscal Agent to make payments in respect of the 2020A Bonds; the obligation of the Fiscal Agent to maintain a bond register for the registration and transfer of 2020A Bonds; and the obligation of the Fiscal Agent to transfer and exchange 2020A Bonds.

### Book-Entry Only System

Metropolitan will issue the 2020A Bonds as fully registered bonds, registered in the name of Cede & Co., as nominee of DTC. The 2020A Bonds will be available to Beneficial Owners (as further defined in APPENDIX D– "BOOK-ENTRY ONLY SYSTEM") only under the book-entry system maintained by DTC. Beneficial Owners of 2020A Bonds will not receive physical certificates

representing their interests in the 2020A Bonds. So long as the 2020A Bonds are registered in the name of Cede & Co., as nominee of DTC, references herein to the Owners will mean Cede & Co., and will not mean the ultimate purchasers of the 2020A Bonds. Payments made by Metropolitan of principal of and interest on the 2020A Bonds will be paid by Wells Fargo as agent of the Fiscal Agent directly to DTC or Cede & Co. so long as DTC or Cede & Co. is the registered owner of the 2020A Bonds. Disbursement of such payments to DTC’s Direct Participants is the responsibility of DTC and disbursement of such payments to Beneficial Owners is the responsibility of DTC’s Direct Participants and Indirect Participants (“Participants”). See APPENDIX D– “BOOK–ENTRY ONLY SYSTEM.”

Metropolitan and the Fiscal Agent (or the agent thereof) will have no responsibility or obligation with respect to: (i) the accuracy of the records of DTC, its nominee or any Participant with respect to any beneficial ownership interest in the 2020A Bonds; (ii) the delivery to any Participant, Beneficial Owner or other Person, other than DTC, of any notice with respect to the 2020A Bonds; (iii) the payment to any Participant, Beneficial Owner or other Person, other than DTC, of any amount with respect to the principal of or interest on, the 2020A Bonds; (iv) any consent given by DTC or its nominee as Owner; or (v) the selection by DTC or any Participant of any Beneficial Owners to receive payment if the 2020A Bonds are redeemed in part. See APPENDIX D– “BOOK–ENTRY ONLY SYSTEM.”

## Redemption

**Optional Redemption.** The 2020A Bonds are subject to call and redemption prior to their respective stated maturity dates, at the option of Metropolitan, as a whole or in part, in authorized denominations of \$5,000 or any integral multiple thereof, on any date on or after October 1, 2029, at the Redemption Price, which is equal to 100% of the principal amount of the 2020A Bonds being redeemed, plus interest accrued and unpaid, if any, to the date of redemption, without premium.

**Mandatory Sinking Fund Redemption.** The 2020A Bonds maturing on October 1, 2045 are subject to mandatory sinking fund redemption prior to maturity, commencing on October 1, 2041 and on each October 1 thereafter through and including October 1, 2045, at a redemption price equal to 100% of the principal being redeemed plus accrued interest, if any, to the redemption date, from Mandatory Sinking Account Payments which have been deposited in the Bond Service Fund, in the principal amounts set forth as follows:

### 2020A Term Bonds Maturing October 1, 2045

Redemption Date (October 1)	Principal Amount
2041	\$10,725,000
2042	11,275,000
2043	11,850,000
2044	12,460,000
2045 <sup>†</sup>	13,100,000

<sup>†</sup> Final Maturity

The 2020A Bonds maturing on October 1, 2049 are subject to mandatory sinking fund redemption prior to maturity, commencing on October 1, 2046 and on each October 1 thereafter through and including October 1, 2049, at a redemption price equal to 100% of the principal being redeemed plus accrued interest, if any, to the redemption date, from Mandatory Sinking Account Payments which have been deposited in the Bond Service Fund, in the principal amounts set forth as follows:

## 2020A Term Bonds Maturing October 1, 2049

<u>Redemption Date (October 1)</u>	<u>Principal Amount</u>
2046	\$13,770,000
2047	14,475,000
2048	15,220,000
2049 <sup>†</sup>	16,000,000

<sup>†</sup> Final Maturity

Mandatory Sinking Account Payments for the 2020A Term Bonds will be reduced to the extent Metropolitan has purchased such 2020A Term Bonds and surrendered such 2020A Term Bonds to the Fiscal Agent for cancellation. If 2020A Term Bonds have been so purchased and cancelled or if 2020A Bonds have been otherwise optionally redeemed, then the amount of the 2020A Term Bonds so purchased and cancelled or redeemed will be credited to such future Mandatory Sinking Account Payments for such 2020A Term Bonds as may be specified by Metropolitan. A reduction of Mandatory Sinking Account Payments for such 2020A Term Bonds in any twelve-month period ending October 1 will reduce the principal amount of 2020A Term Bonds subject to mandatory sinking fund redemption on that October 1.

**Notice of Redemption.** Notice of redemption of the 2020A Bonds will be mailed by first-class mail by the Fiscal Agent, not less than thirty (30) nor more than sixty (60) days prior to the redemption date, to each Owner whose 2020A Bonds are called for redemption, the Securities Depositories and one or more Information Services. Currently, the Information Service is the Electronic Municipal Market Access system (the “EMMA System”) of the Municipal Securities Rulemaking Board (the “MSRB”). Each notice of redemption will state the date of such notice, the distinguishing designation of the 2020A Bonds to which such notice relates, the date of issue of such 2020A Bonds, the redemption date, the Redemption Price, the place or places of redemption (including the name and appropriate address or addresses of the Fiscal Agent), the CUSIP number (if any) of the maturity or maturities, and, if less than all of any such maturity, the distinctive certificate numbers of the 2020A Bonds of such maturity to be redeemed and, in the case of 2020A Bonds to be redeemed in part only, the respective portions of the principal amount thereof to be redeemed. Each such notice will also state that on said date there will become due and payable on each of said 2020A Bonds the Redemption Price thereof or of said specified portion of the principal amount thereof in the case of a 2020A Bond to be redeemed in part only, together with interest accrued thereon to the date fixed for redemption, and that from and after such redemption date interest thereon will cease to accrue with respect to the 2020A Bonds, or portions thereof, to be redeemed, and will require that such 2020A Bonds be then surrendered at the address or addresses of the Fiscal Agent specified in the redemption notice.

In addition to the notice requirements for redemption included in the Master Resolution, any notice of redemption of the 2020A Bonds may also state that the proposed redemption is conditioned on there being on deposit in the applicable fund or account on the redemption date sufficient moneys to pay the full Redemption Price of the 2020A Bonds to be redeemed.

Failure by the Fiscal Agent to give notice to any one or more of the Information Services or Securities Depositories or failure of any Owner to receive notice or any defect in any such notice will not affect the sufficiency of the proceedings for redemption.

**Selection of 2020A Bonds for Redemption.** If less than all of the outstanding 2020A Bonds are to be redeemed prior to maturity, Metropolitan will select the maturities of the 2020A Bonds, or portions thereof equal to \$5,000 or any integral multiple thereof, to be redeemed. If less than all of the 2020A Bonds of like maturity and interest rate are to be redeemed, the Fiscal Agent will select the particular

2020A Bonds or portions of 2020A Bonds to be redeemed in such manner as the Fiscal Agent in its discretion may deem fair and appropriate.

**Effect of Redemption.** If notice of redemption has been given in the manner described under the subcaption “– *Notice of Redemption*” above, and if, on the designated redemption date, sufficient moneys to pay the full Redemption Price plus interest accrued and unpaid to the redemption date are on deposit in the applicable fund or account, then the 2020A Bonds or portions thereof so called for redemption will become due and payable on the redemption date so designated at the Redemption Price, plus interest accrued and unpaid to the redemption date, and upon presentation and surrender thereof at the office specified in such notice, such 2020A Bonds, or portions thereof, will be paid at the Redemption Price, plus interest accrued and unpaid to the redemption date. If there is drawn for redemption a portion of a 2020A Bond, Metropolitan will execute and the Fiscal Agent will authenticate and deliver, upon the surrender of such 2020A Bond, without charge to the Owner thereof, for the unredeemed balance of the principal amount of the 2020A Bond so surrendered, a 2020A Bond of like maturity in any authorized denomination. If, on the redemption date, moneys for the redemption of all the 2020A Bonds or portions thereof to be redeemed, together with interest to the redemption date, are available therefor on said date and if notice of redemption has been given as described above, then, from and after the redemption date, interest on the 2020A Bonds or portion thereof so called for redemption will cease to accrue and become payable. If said moneys are not so available on the redemption date, such 2020A Bonds or portions thereof will continue to bear interest until paid at the same rate as they would have borne had they not been called for redemption.

## **SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS**

### **Security for the 2020A Bonds**

The 2020A Bonds are special limited obligations of Metropolitan and will be payable as to principal, redemption premium, if any, and interest thereon solely from and secured solely by a pledge of and a lien and charge upon the Net Operating Revenues and the other funds, assets and security described under the Resolutions. See APPENDIX C– “SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS.”

As defined in the Master Resolution, “Net Operating Revenues” are Operating Revenues less Operation and Maintenance Expenditures paid from Operating Revenues. “Operating Revenues” are all revenues received by Metropolitan from charges for the sale and availability of water. “Operation and Maintenance Expenditures” are the necessary expenditures for operating and maintaining the properties, works and facilities of Metropolitan, including expenditures for such charges as may be payable by Metropolitan under the State Water Contract and the Devil Canyon-Castaic Contract, which charges constitute operation, maintenance, power and replacement charges; any necessary contributions to medical, health, retirement or other similar benefits of Metropolitan employees and annuitants; and such other expenditures of Metropolitan generally classified as operating and maintenance expenditures, excluding any charges for depreciation or amortization. The State Water Contract and the Devil Canyon-Castaic Contract are discussed in Appendix A under the caption “METROPOLITAN EXPENSES – State Water Contract Obligations.” Payment of capital costs and some other payments under the State Water Contract and the Devil Canyon-Castaic Contract are subordinate to the obligation of Metropolitan for payment of Operation and Maintenance Expenditures and debt service on the 2020A Bonds, the Parity Bonds and the Parity Obligations. Accordingly, the debt service coverage on the 2020A Bonds, the Parity Bonds and the Parity Obligations does not take into account such expenses. See Appendix A under the caption “HISTORICAL AND PROJECTED REVENUES AND EXPENSES.”

The 2020A Bonds do not constitute general obligation indebtedness of Metropolitan. Neither the general credit nor the taxing power of Metropolitan is pledged for the payment of the 2020A Bonds, the interest thereon or the redemption price thereof. The obligation to pay the principal of, redemption

premium, if any, and interest on the 2020A Bonds does not constitute a pledge, charge, lien or encumbrance upon any of Metropolitan's property or its income, receipts or revenues except Net Operating Revenues.

### **Rate Covenant**

Metropolitan covenants in the Master Resolution that it will prescribe, revise and collect such rates and charges for the services, facilities, availability and water of the Water System (defined in the Resolutions as the properties, works and facilities of Metropolitan necessary for the supply, availability, development, storage, transportation, treatment or sale of water) which, after making allowances for contingencies and error in estimates, will provide Operating Revenues, together with any Additional Revenues (*i.e.*, interest, profits and other income received from the investment of any moneys of Metropolitan and other revenues of Metropolitan (other than Operating Revenues) to the extent available to pay debt service on the 2020A Bonds, the Parity Bonds and the Parity Obligations), at least sufficient to pay the following amounts in the order set forth:

1. Operation and Maintenance Expenditures;
2. Interest on and any Bond Obligation (including Mandatory Sinking Account Payments) of the Outstanding Bonds and Parity Obligations as the same become due and payable;
3. All other payments required for compliance with the Master Resolution or any Supplemental Resolution; and
4. All other payments required to meet any other obligations of Metropolitan that are charges, liens or encumbrances upon or payable from Net Operating Revenues.

Metropolitan is required to take into account in setting its rates and charges the amount of any scheduled payments of principal of and interest on the 2020A Bonds.

Metropolitan previously issued three Series of Bonds which it designated as "Build America Bonds" under the provisions of the American Recovery and Reinvestment Act of 2009 (the "Build America Bonds"), one Series of which remains outstanding in the aggregate principal amount of \$250,000,000. In connection with its Build America Bonds, Metropolitan currently expects to receive cash subsidies from the United States Treasury (the "Interest Subsidy Payments") equal to 35% of the interest payable on all such outstanding Build America Bonds less any federal budget sequestration offsets as described in the following paragraph. See "OPERATING REVENUES, DEBT SERVICE AND INVESTMENT PORTFOLIO – Operating Revenues." The Interest Subsidy Payments in connection with the Build America Bonds do not constitute Operating Revenues under the Master Resolution. Such Interest Subsidy Payments will constitute Additional Revenues, which Metropolitan may take into consideration when establishing its rates and charges, and will be available to Metropolitan to pay principal and interest on the Bonds.

The Budget Control Act of 2011 (the "Budget Control Act") provided for increases in the federal debt limit and established procedures designed to reduce the federal budget deficit. The Budget Control Act provided that a failure to reduce the deficit would result in sequestration: automatic, generally across-the-board spending reductions. These reductions began on March 1, 2013 pursuant to an executive order that reduced budgetary authority for expenditures subject to sequestration, including subsidies for Build America Bonds. Pursuant to this executive order, the approximately \$6.64 million semi-annual Interest Subsidy Payment that Metropolitan was to receive on or about July 1, 2013 (in connection with three Series of Build America Bonds in the aggregate principal amount of \$578.4 million then outstanding) was reduced by 8.7%, or \$578,000, to \$6.06 million. Interest Subsidy Payments processed in the subsequent federal fiscal years ended September 30, 2014 through 2019 were also reduced by the applicable

sequestration rate for each such federal fiscal year (a federal fiscal year begins on October 1 and ends on the subsequent September 30), which sequestration rate ranged from 6.2% to 7.3% for such federal fiscal years. Interest Subsidy Payments processed on or after October 1, 2019 and on or before September 30, 2020 are to be reduced by the federal fiscal year 2020 sequestration rate of 5.9%. 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. Under current federal legislation, absent Congressional action, the sequester reductions will continue through and including fiscal year 2029. Metropolitan can offer no assurances as to future Interest Subsidy Payments and expects that once it has received less than any full 35% Interest Subsidy Payment, the United States Treasury will not thereafter reimburse Metropolitan for payments not made.

Water rates are established by a majority of the voting power of the Board. Metropolitan's water rates are not subject to regulation by the California Public Utilities Commission or by any other state, local or federal agency. Proposition 218, a State constitutional ballot initiative approved by the voters on November 5, 1996, imposes additional limitations on the manner in which local agencies may impose certain taxes, fees, charges and assessments. Some of Metropolitan's Operating Revenues are derived from standby and water availability charges. These revenues may be affected by the application of Proposition 218. 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 XIII C of the California Constitution to include levies, charges and exactions imposed by local governments. Metropolitan believes that its water rates and charges are not taxes under Proposition 26. Nevertheless, Metropolitan is assessing whether Proposition 26 may affect future water rates and charges. These revenues may be affected by the application of Proposition 26. See Appendix A under the caption "METROPOLITAN REVENUES – California Ballot Initiatives."

#### **No Reserve Fund**

The Twenty-Third Supplemental Resolution provides for the establishment of a Reserve Fund for Bonds issued thereunder to be funded in an amount equal to the Bond Reserve Requirement for such Bonds as set forth in the applicable bond purchase contract. Metropolitan has determined that the Bond Reserve Requirement for the 2020A Bonds will be established at \$0 pursuant to the Bond Purchase Contract (herein defined). **Amounts held or to be held in a reserve fund or account established for any other Series of Bonds or any Reserve Fund Credit Policy for any other Series of Bonds will not be available or drawn upon to pay principal of, redemption premium, if any, or interest on the 2020A Bonds.**

#### **Parity Bonds and Parity Obligations**

As of December 1, 2019, Metropolitan had \$2.54 billion aggregate principal amount of Parity Bonds outstanding. In addition to fixed rate Bonds, Metropolitan's outstanding Parity Bonds include variable rate Self-Liquidity Bonds and Liquidity Supported Bonds, Term Mode Bonds, and Build America Bonds, as more fully described in Appendix A under the caption "METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations," "– Term Mode Bonds" and "– Build America Bonds." See also "INTRODUCTION – Potential Subordinate Water Revenue Refunding Bonds to be Issued By Metropolitan" for information regarding subordinate bonds Metropolitan may issue to refund all or a portion of certain maturities of various Series of outstanding variable rate Bonds.

Metropolitan has entered into a short-term revolving credit facility (the "RBC Short-Term Revolving Credit Facility"), under which Metropolitan may borrow, pay down and re-borrow, through the issuance and sale from time to time of short-term notes, an aggregate amount outstanding at any time of up to \$200 million. Metropolitan's obligations to repay short-term notes evidencing borrowings under the RBC Short-Term Revolving Credit Facility constitute Parity Obligations, payable from Net Operating

Revenues on a parity with the Bonds, including the 2020A Bonds, and the other Parity Obligations. As of December 1, 2019, Metropolitan had \$100.0 million in Outstanding Senior Short-Term Notes under the RBC Short-Term Revolving Credit Facility (which Outstanding Senior Short-Term Notes are expected to be refinanced and retired in full with proceeds of the 2020A Bonds as described herein). See “FINANCING PLAN.” See also Appendix A under the caption “METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations – Senior Parity Obligations” for a description of the RBC Short-Term Revolving Credit Facility.

Metropolitan also has obligations under interest rate swap agreements, which obligations (other than with respect to termination payments under some of such swap agreements) are payable on a parity with Metropolitan’s obligation to pay principal of and interest on the 2020A Bonds, Parity Bonds and other Parity Obligations. The payments by Metropolitan are secured as described in, and the interest rate swap agreements entail risks to Metropolitan as described in, Appendix A under the caption “METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations – *Interest Rate Swap Transactions*.”

As provided in the Resolutions, Metropolitan may issue additional Parity Bonds and has, and may in the future, incur other Parity Obligations, in each case, payable and secured on a parity with the 2020A Bonds and the existing Parity Bonds and Parity Obligations, subject to the limitations, terms and conditions of the Master Resolution. See “– Additional Indebtedness” below and APPENDIX C– “SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS – THE MASTER RESOLUTION – Covenants – *Limits on Additional Debt*.”

### **Subordinate Bonds and Subordinate Obligations**

Under the Resolutions, Metropolitan may issue bonds and other obligations payable from Net Operating Revenues junior and subordinate to the Bonds, including the 2020A Bonds, and the Parity Obligations, subject to the provisions of the Act. Metropolitan adopted Resolution 9199 on March 8, 2016 (the “Master Subordinate Resolution”), which authorizes Metropolitan to issue bonds (“Subordinate Bonds”) and other obligations (“Subordinate Obligations”) secured with a pledge that is subordinate to the pledge securing the Bonds, including the 2020A Bonds, and the other Parity Obligations. As of December 1, 2019, Metropolitan had \$1.26 billion aggregate principal amount of Subordinate Bonds outstanding. Metropolitan’s Subordinate Water Revenue Bonds, 2016 Authorization Series A (the “2016A Subordinate Bonds”) were issued in a direct purchase arrangement with Bank of America, N.A. (“BANA”). In connection with the issuance of the 2016A Subordinate Bonds, Metropolitan entered into a Continuing Covenant Agreement (the “2016 BANA Agreement”) with BANA to provide for the purchase by BANA of the 2016A Subordinate Bonds. Metropolitan has secured its obligation to pay principal and interest under the 2016 BANA Agreement on parity with the Subordinate Bonds. Metropolitan’s outstanding Subordinate Bonds, including the 2016A Subordinate Bonds, and the 2016 BANA Agreement are more fully described in Appendix A under the caption “METROPOLITAN EXPENSES – Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations.”

Metropolitan has also entered into two note purchase and continuing covenant agreements with BANA (the “Subordinate Refunding Note Purchase Agreement” and the “2019 Subordinate Note Purchase Agreement,” respectively, and together, the “Subordinate Note Purchase Agreements”). The Subordinate Refunding Note Purchase Agreement provided for the purchase by BANA of Metropolitan’s \$46.8 million principal amount of Short-Term Revenue Refunding Certificates, Series 2019 A (the “2019A Subordinate Short-Term Refunding Notes”). As of December 1, 2019, Metropolitan had \$46.8 million in outstanding notes under the Subordinate Refunding Note Purchase Agreement. Under the 2019 Subordinate Note Purchase Agreement, Metropolitan may borrow, through the issuance and sale from time to time of short-term notes to be purchased by BANA, additional subordinate short-term notes in an aggregate principal amount not to exceed \$39.2 million. As of December 1, 2019, Metropolitan had \$0 in outstanding notes under the 2019 Subordinate Note Purchase Agreement. Metropolitan has secured its



obligations to repay notes evidencing borrowings under each of the Subordinate Note Purchase Agreements with BANA by a pledge of and lien on Net Operating Revenues on a basis junior and subordinate to the Bonds, including the 2020A Bonds, and all Parity Obligations under the Resolutions. See Appendix A under the caption “METROPOLITAN EXPENSES – Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations – *Subordinate Short-Term Certificates*” for a description of the BANA Subordinate Note Purchase Agreements.

Metropolitan has, and may in the future, enter into one or more self-liquidity revolving credit agreements (“Self-Liquidity Revolving Credit Agreements”) which may be drawn upon for the purpose of paying the purchase price of any Self-Liquidity Bonds. Under the terms of Metropolitan’s existing Self-Liquidity Revolving Credit Agreement with the Industrial and Commercial Bank of China Limited, New York Branch (the “ICBC Self-Liquidity Revolving Credit Agreement”), Metropolitan may borrow up to \$200 million for the purpose of paying the purchase price of tendered Self-Liquidity Bonds, including any Parity Bonds and/or Subordinate Bonds of Metropolitan that are part of Metropolitan’s self-liquidity program. As of December 1, 2019, all of Metropolitan’s Self-Liquidity Bonds are Parity Bonds. As of such date, Metropolitan had made no borrowings under the ICBC Self-Liquidity Revolving Credit Agreement. Metropolitan’s obligation to pay principal and interest under the ICBC Self-Liquidity Revolving Credit Agreement is secured by Net Operating Revenues on a basis junior and subordinate to the Bonds, including the 2020A Bonds, and all Parity Obligations under the Resolutions. In addition, in order to secure Metropolitan’s obligations under the ICBC Self-Liquidity Revolving Credit Agreement, Metropolitan has pledged to the repayment of such obligations any principal and interest it receives from Parity Bonds that are Self-Liquidity Bonds which it purchases from borrowings under the ICBC Self-Liquidity Revolving Credit Agreement. Metropolitan may in the future secure its obligation to pay principal and interest under any additional Self-Liquidity Revolving Credit Agreement it may enter into either on parity with or subordinate to the outstanding Bonds and Parity Obligations under the Master Resolution. See Appendix A under the caption “METROPOLITAN EXPENSES – Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations – *Self-Liquidity Revolving Credit Agreement*” for a description of the ICBC Self-Liquidity Revolving Credit Agreement.

Under some circumstances, the interest rate swap agreements referred to under “–Parity Bonds and Parity Obligations” above are subject to early termination, in which event Metropolitan may be obligated to make a substantial payment to the applicable counterparty. Such termination payments are secured in some cases on a basis on parity with, and in other cases on a basis subordinate in payment priority to, the Bonds, including the 2020A Bonds, and the Parity Obligations. See Appendix A under the captions METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations.”

### **Additional Indebtedness**

Metropolitan covenants in the Master Resolution that no additional indebtedness evidenced by bonds, notes or any other evidences of indebtedness payable out of its Operating Revenues will be issued having any priority in payment of principal, redemption premium, if any, or interest over the 2020A Bonds, Parity Bonds or Parity Obligations.

In addition, Metropolitan covenants in the Master Resolution that, except for Refunding Bonds or Parity Obligations to the extent incurred to pay or discharge Outstanding Bonds or Parity Obligations and which do not result in an increase in the average annual debt service on all Bonds or Parity Obligations to be Outstanding after the issuance of such Refunding Bonds or Parity Obligations, no additional Bonds or Parity Obligations will be created or incurred unless:

FIRST: Metropolitan is not in default under the terms of the Resolutions, including as supplemented, modified or amended by any Supplemental Resolution.

SECOND: Either (1) the Net Operating Revenues as shown by the books and records of Metropolitan for the latest Fiscal Year or for any 12 consecutive month period within the last completed 24-month period ended not more than one month before the issuance of or incurrence of such additional Bonds or Parity Obligations as set forth in a certificate of Metropolitan, or (2) the estimated Net Operating Revenues for the first complete Fiscal Year when improvements to the Water System financed with the proceeds of the additional Bonds or Parity Obligations will be in operation as estimated by and set forth in a certificate of Metropolitan plus, at the option of Metropolitan, any or all of certain other items permitted by the Resolutions, will have amounted to not less than 1.20 times the Maximum Annual Debt Service in any Fiscal Year thereafter on all Bonds and Parity Obligations to be Outstanding immediately subsequent to the incurring of such additional Bonds or Parity Obligations. In making this calculation, Metropolitan may take into consideration any increases in water rates or charges which have become effective prior to the creation of such additional Bonds or Parity Obligations, any increase in Net Operating Revenues which may arise from additions or improvements to the Water System to be made or acquired with the proceeds of such additional Bonds or Parity Obligations or using the proceeds of Bonds previously issued, or from additions recently placed in service, Additional Revenues and other funds specified in the Resolutions.

THIRD: On the date of delivery of and payment for such additional Bonds or Parity Obligations, the amount in any reserve fund or account for any Bonds or Parity Obligations previously established will not be less than an amount required to be maintained in such fund pursuant to the Supplemental Resolution or other document creating such fund.

The Interest Subsidy Payments that Metropolitan expects to receive from the United States Treasury in connection with its previously issued and designated Build America Bonds do not constitute Operating Revenues under the Master Resolution and are not pledged for the payment of debt service on the Build America Bonds or the Parity Bonds and Parity Obligations. Such subsidy will, however, constitute Additional Revenues, which Metropolitan will use when determining whether it has satisfied the requirements set forth in the Master Resolution for the creation or incurrence of additional Bonds or Parity Obligations. See APPENDIX C—“SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS – THE MASTER RESOLUTION – Covenants – *Limits on Additional Debt.*”

Under the Master Resolution, Metropolitan may issue or incur additional Subordinate Bonds, Subordinate Obligations and other obligations which are junior and subordinate to the payment of the principal, premium, interest and reserve fund requirements for the Bonds and all Parity Obligations and which subordinated obligations are payable as to principal, premium, interest and reserve fund requirements, if any, only out of Net Operating Revenues after the prior payment of all amounts then due required to be paid or set aside under the Resolutions from Net Operating Revenues for principal, premium, interest and reserve fund requirements for the Bonds and all Parity Obligations, as the same become due and payable and at the times and in the manner as required in the Resolutions or the instruments creating any Parity Obligations, subject to the provisions of the Act.

Under the Act, the amount of outstanding bonds and other evidences of indebtedness may not exceed 15% of the assessed value of all taxable property within Metropolitan, as shown by county assessment records. As of December 1, 2019, Metropolitan’s outstanding bonds and other evidences of indebtedness, in the aggregate amount of \$4.00 billion, constituted approximately 0.13% of the fiscal year 2019-20 taxable assessed valuation of \$3,092.4 billion within the geographical boundaries of Metropolitan. The Act also 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% of the aggregate amount of revenue bonds outstanding following the issuance of such bonds. The latter statutory limitation does not apply to forms of financing available to Metropolitan other than revenue bonds. The net assets of

Metropolitan at June 30, 2019 were \$6.84 billion. The aggregate amount of revenue bonds outstanding as of December 1, 2019 was \$3.81 billion.

See “INTRODUCTION – Potential Subordinate Water Revenue Refunding Bonds to be Issued by Metropolitan” and “OPERATING REVENUES, DEBT SERVICE AND INVESTMENT PORTFOLIO – Anticipated Financings.” See also Appendix A under the caption “CAPITAL INVESTMENT PLAN – Capital Investment Plan Financing” for a discussion of certain additional financings projected to be undertaken by Metropolitan as of the date of this Official Statement.

### **Flow of Funds**

Metropolitan will allocate all Operating Revenues to the Water Revenue Fund and will effect transfers from the Water Revenue Fund to the following funds or accounts as soon as practicable in each calendar month in the following order of priority, and such amounts will be withdrawn from said funds or accounts only for the following:

*First*, to the Operation and Maintenance Fund, an amount sufficient, together with any other revenues lawfully available therefor, to provide for the estimated Operation and Maintenance Expenditures during the current calendar month and the next succeeding calendar month.

*Second*, to the Bond Service Fund, an amount equal to (a)(1) with respect to the Outstanding Current Interest Bonds of each Series (except for Bonds constituting Variable Rate Indebtedness or Paired Obligations), such amount as will be sufficient on a monthly pro rata basis to pay the aggregate amount of interest becoming due and payable on the next interest payment date for all such Current Interest Bonds of such Series (excluding any interest for which there are moneys deposited in the Bond Service Fund from the proceeds of such Series of Bonds or other source and reserved as capitalized interest to pay such interest until the next interest payment date), until the requisite amount of interest becoming due on the next interest payment date on all such Outstanding Current Interest Bonds of such Series (except for Bonds constituting Variable Rate Indebtedness or Paired Obligations) is on deposit in such account, (2) 110% of the aggregate amount of interest, estimated by the Treasurer of Metropolitan in his or her reasonable judgment, to accrue during that month on the Outstanding Variable Rate Indebtedness (provided that such amount may be reduced and will be increased under certain circumstances, as set forth in the Resolutions), and (3) with respect to Outstanding Paired Obligations, such amount as will be sufficient on a monthly pro rata basis to pay the aggregate of the collective fixed interest obligation of Metropolitan for such Paired Obligations coming due and payable on the next interest payment date for such Paired Obligations, and (b)(1) one-sixth of the aggregate semi-annual amount of any Bond Obligation becoming due and payable on the Outstanding Bonds of all Series having semi-annual maturity dates or semi-annual Mandatory Sinking Account Payments due within the next six months, plus (2) one-twelfth of the aggregate yearly amount of any Bond Obligation becoming due and payable on the Outstanding Bonds of all Series having annual maturity dates or annual Mandatory Sinking Account Payments due within the next twelve months; provided that if the Board irrevocably determines by resolution that any principal payments on the Bonds of any Series will be refunded on or prior to their respective due dates or paid from amounts on deposit in a reserve account established and maintained for Bonds of that Series, no amounts need be set aside toward such principal to be so refunded or paid. Such amount is subject to adjustment as set forth in the Resolutions, in the event Term Bonds are purchased from the Bond Service Fund, redeemed by Metropolitan or deposited by Metropolitan with the Fiscal Agent. No deposit need be made into the Bond Service Fund if (i) the amount contained therein is at least equal to the interest to become due and payable on the estimated interest payment dates falling within the next six months upon all of the Bonds issued under the Master Resolution and then Outstanding but excluding any moneys on deposit in the Interest

Account from the proceeds of any Series of Bonds or other source and reserved as capitalized interest to pay interest on any future interest payment dates following such interest payment dates, and (ii) there will be in such fund moneys sufficient to pay the Bond Obligations of all Bonds issued under the Master Resolution and then Outstanding and maturing by their terms or subject to mandatory redemption within the next twelve months. If Metropolitan issues or incurs any Parity Obligations, the payments required to be placed in any debt service fund or sinking fund to pay the principal or Accreted Value of, or mandatory sinking fund payments or interest with respect to, such Parity Obligations will rank and be made on a parity with the payments required to be placed in the Bond Service Fund.

*Third*, to the extent of any deficiency in any reserve fund or account for Bonds or Parity Obligations, to such reserve fund or account for such other Bonds or Parity Obligations (a) one-sixth of the aggregate amount of each unreplenished prior withdrawal from such reserve fund or account and (b) the full amount of any deficiency due to any required valuations of the investments in such reserve fund or account until the balance in such reserve fund or account is at least equal to the amount required to restore such reserve fund or account to the amount required to be maintained therein. If there is a deficiency of Operating Revenues to make the deposits required by this Third paragraph, such Operating Revenues will be deposited into each reserve fund or account on a pro rata basis based on the amount of each such deficiency.

*Fourth*, to any such excess earnings or rebate fund or account for Bonds or Parity Obligations, the amount (if any) required in accordance with a Supplemental Resolution or Metropolitan's tax and nonarbitrage certificate delivered in connection with the issuance of the Bonds or Parity Obligations.

*Fifth*, for any required transfer or deposit for the payment of any obligation of Metropolitan with a lien on, or payable from, Net Operating Revenues junior to the lien thereon of the Bonds and any Parity Obligations, including obligations issued or incurred pursuant to the Master Subordinate Resolution.

*Sixth*, except as otherwise provided in a Supplemental Resolution, to the Revenue Remainder Fund, any amounts remaining in the Water Revenue Fund after the above transfers. Provided Metropolitan is in compliance with all covenants contained in the Resolutions, the Revenue Remainder Fund may be used for any lawful purpose of Metropolitan.

See APPENDIX C– “SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS – THE MASTER RESOLUTION – Water Revenue Fund.”

## **THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

Metropolitan is a metropolitan water district created in 1928 by a vote of the electorates of eleven southern California cities under authority of the Act to provide a supplemental supply of water for domestic and municipal uses at wholesale rates to its member agencies. The members of Metropolitan are not required to purchase water from Metropolitan. Metropolitan's service area comprises approximately 5,200 square miles and includes all or portions of the six counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura. For a listing of the members and general information on Metropolitan's service area, see APPENDIX A– “THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA.” For a discussion of selected demographic and economic information with respect to Metropolitan's service area, see APPENDIX E– “SELECTED DEMOGRAPHIC AND ECONOMIC INFORMATION FOR METROPOLITAN'S SERVICE AREA.” For information on the finances and operations of Metropolitan, see Appendix A and Appendix B.

## **OPERATING REVENUES, DEBT SERVICE AND INVESTMENT PORTFOLIO**

### **Operating Revenues**

Water transactions (which includes water sales, wheeling and exchanges) comprise Metropolitan's principal source of revenues. Water revenues include revenues from water sales, wheeling and exchanges received by Metropolitan from charges for water transactions. Other significant revenue sources include charges for the availability of water, including, without limitation, Metropolitan's readiness-to-serve charge, standby charge, and capacity charge. See Appendix A under the captions "METROPOLITAN REVENUES – Water Revenues," "– Rate Structure" and "– Other Charges." In meeting the requirements of the Resolutions related to rates and additional obligations, Metropolitan may include in its calculations, to the extent available, revenues which include, among other things, investment income and income from the sale of energy from Metropolitan's hydroelectric power recovery plants and Interest Subsidy Payments that may be received by Metropolitan in connection with any existing and future "Build America Bonds." No assurances are provided that Metropolitan will receive all or any portion of the Interest Subsidy Payments, which are subject to legislative changes by the United States Congress and conditioned upon Metropolitan's compliance with certain covenants with respect to the Build America Bonds, including the use and investment of proceeds thereof and the use of property financed thereby. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Rate Covenant." *Ad valorem* taxes do not constitute a part of Operating Revenues and are not available to make payments with respect to the revenue bonds issued by Metropolitan, including the 2020A Bonds. For a description of "Operating Revenues" and the effect of Operation and Maintenance Expenditures on the amount of revenues available for payment of the 2020A Bonds, see "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS." See also APPENDIX C– "SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS." For information on Metropolitan's revenues and expenses, including historical and projected revenues and expenses, see Appendix A under the captions "METROPOLITAN REVENUES," "METROPOLITAN EXPENSES," and "HISTORICAL AND PROJECTED REVENUES AND EXPENSES." See also Metropolitan's financial statements contained in Appendix B.

### **Existing Bonds and Obligations Payable from Net Operating Revenues**

Metropolitan covenants in the Master Resolution that no additional bonds, notes or other evidences of indebtedness payable out of Operating Revenues will be issued having any priority in payment of principal, redemption premium, if any, or interest over the 2020A Bonds, the Parity Bonds or the Parity Obligations. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Additional Indebtedness."

Metropolitan has issued and incurred Parity Bonds pursuant to the applicable Resolutions, which were outstanding as of December 1, 2019 in the amounts listed in Appendix A under the caption "METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations – Senior Revenue Bonds," and certain Parity Obligations which are described in Appendix A under the caption "METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations." Principal of and interest on the 2020A Bonds will be payable from Net Operating Revenues on parity with the Parity Bonds and the Parity Obligations.

Metropolitan has issued and incurred Subordinate Bonds pursuant to the Master Subordinate Resolution, which were outstanding as of December 1, 2019 in the amounts listed in Appendix A under the caption "METROPOLITAN EXPENSES – Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations," and certain other obligations payable from Net Operating Revenues on a basis junior and subordinate to the 2020A Bonds and other Parity Bonds and Parity Obligations, which are described

in Appendix A under the caption “METROPOLITAN EXPENSES – Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations.”

### **Anticipated Financings**

In the near term, depending on market conditions, Metropolitan expects to issue additional Subordinate Bonds to refund all or a portion of certain maturities of various Series of outstanding Bonds. See “INTRODUCTION – Potential Subordinate Water Revenue Refunding Bonds to be Issued by Metropolitan.”

Metropolitan also anticipates that it will issue revenue bonds, notes or other evidences of indebtedness under the Master Resolution in addition to the 2020A Bonds and the outstanding Parity Bonds and Parity Obligations to finance improvements to its Water System and for other lawful purposes and to refund outstanding revenue bonds from time to time depending on market conditions and other factors. Metropolitan has and anticipates it will also issue or incur future Subordinate Bonds and other obligations junior and subordinate to the 2020A Bonds, Parity Bonds and Parity Obligations, subject to the limitations in the Act. Metropolitan’s current Capital Investment Plan is described in Appendix A under the caption “CAPITAL INVESTMENT PLAN.”

The Master Resolution permits subsequent authorizations of additional Bonds as described herein. The Resolutions establish limitations on the issuance of additional obligations payable from Net Operating Revenues on parity with the Outstanding Bonds. See “SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Additional Indebtedness.”

On June 13, 2017, Metropolitan’s Board adopted Ordinance 150 (the “2017 Revenue Bond Ordinance”) determining that the interests of Metropolitan required the use of up to an aggregate principal amount of \$400,000,000 of revenue bonds to fund a portion of its capital expenditures. As of December 1, 2019, Metropolitan had issued \$107,645,000 principal amount of revenue bonds utilizing a portion of the authorization under the 2017 Revenue Bond Ordinance. On December 10, 2019, the Board adopted the Twenty-Third Supplemental Resolution authorizing the issuance of the 2020A Bonds under the 2017 Revenue Bond Ordinance to fund a portion of Metropolitan’s capital expenditures through fiscal year 2019-20. The issuance of the balance of the \$400,000,000 aggregate principal amount of revenue bonds under the 2017 Revenue Bond Ordinance is subject to Board approval in future supplemental bond authorizations. The Board may from time to time in the future adopt other ordinances supporting the authorization of the issuance of additional revenue bonds, including Parity Bonds and/or Subordinate Bonds.

From time to time Metropolitan may enter into interest rate swaps, pursuant to which, for example, fixed rate obligations are synthetically converted to variable rate obligations or vice versa. See Appendix A under the caption “METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations.”

### **Debt Service Requirements**

The following table shows the estimated annual debt service requirements for Metropolitan’s outstanding Parity Bonds, the 2020A Bonds, and Subordinate Bonds. Such debt service is not net of the Interest Subsidy Payments Metropolitan expects to receive from the United States Treasury in connection with its outstanding Build America Bonds, subject to sequestration as described above under “SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Rate Covenant.”

**The Metropolitan Water District of Southern California**  
**Estimated Debt Service Requirements for Water Revenue Bonds**

Fiscal Year Ending June 30	Outstanding Parity Bonds Debt Service (1)(2)(3)(5)	2020A Bonds		Total Parity Bonds Debt Service (1)(2)(3)(5)	Outstanding Subordinate Bonds Debt Service (4)(5)	Total (5)(6)
		Principal	Interest			
2021	\$ 218,228,107	\$ --	\$ 11,807,715	\$ 230,035,822	\$ 61,378,053	\$ 291,413,875
2022	180,095,942	--	10,367,750	190,463,692	99,511,291	289,974,983
2023	168,909,629	--	10,367,750	179,277,379	110,697,703	289,975,082
2024	191,853,494	--	10,367,750	202,221,244	87,751,429	289,972,672
2025	173,300,026	--	10,367,750	183,667,776	106,305,244	289,973,020
2026	163,940,984	--	10,367,750	174,308,734	115,661,363	289,970,097
2027	178,758,122	--	10,367,750	189,125,872	100,846,050	289,971,922
2028	181,676,585	--	10,367,750	192,044,335	97,929,175	289,973,510
2029	211,954,894	--	10,367,750	222,322,644	53,068,302	275,390,946
2030	185,938,681	--	10,367,750	196,306,431	59,351,854	255,658,285
2031	195,121,835	6,185,000	10,213,125	211,519,960	50,169,801	261,689,761
2032	206,733,742	6,505,000	9,895,875	223,134,617	38,557,343	261,691,960
2033	172,522,792	6,835,000	9,562,375	188,920,167	72,767,531	261,687,698
2034	174,062,149	7,190,000	9,211,750	190,463,899	71,227,734	261,691,633
2035	195,386,498	7,555,000	8,843,125	211,784,623	49,906,481	261,691,104
2036	198,279,478	7,945,000	8,455,625	214,680,103	47,010,525	261,690,628
2037	155,925,126	8,350,000	8,048,250	172,323,376	89,363,559	261,686,935
2038	155,230,068	8,780,000	7,620,000	171,630,068	34,717,822	206,347,890
2039	126,834,868	9,230,000	7,169,750	143,234,618	9,097,722	152,332,340
2040	126,758,813	9,705,000	6,696,375	143,160,188	9,172,506	152,332,694
2041	126,687,145	10,200,000	6,198,750	143,085,895	9,244,253	152,330,148
2042	15,849,963	10,725,000	5,675,625	32,250,588	41,896,825	74,147,413
2043	15,805,803	11,275,000	5,125,625	32,206,428	42,061,138	74,267,566
2044	15,761,106	11,850,000	4,547,500	32,158,606	42,237,266	74,395,872
2045	15,715,469	12,460,000	3,939,750	32,115,219	42,414,628	74,529,847
2046	15,668,578	13,100,000	3,300,750	32,069,328	68,262,081	100,331,409
2047	15,602,409	13,770,000	2,629,000	32,001,409	31,373,659	63,375,068
2048	15,534,072	14,475,000	1,922,875	31,931,947	31,349,125	63,281,072
2049	--	15,220,000	1,180,500	16,400,500	4,268,878	20,669,378
2050	--	16,000,000	400,000	16,400,000	--	16,400,000
<b>Total (6)</b>	<b>\$3,798,136,379</b>	<b>\$207,355,000</b>	<b>\$225,754,090</b>	<b>\$4,231,245,469</b>	<b>\$1,677,599,340</b>	<b>\$5,908,844,809</b>

Source: Metropolitan

- (1) Does not include any debt service for the RBC Short-Term Revolving Credit Facility. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Parity Bonds and Parity Obligations."
- (2) Indicated amounts reflect the stated interest rate on Metropolitan's outstanding Build America Bonds, and have not been reduced to reflect the Interest Subsidy Payments Metropolitan expects to receive from the United States Treasury in connection with such Bonds.
- (3) Assumes each Series of Term Mode Bonds are remarketed to a variable rate after the initial call protection date for such Series. Interest after the initial call protection date is calculated at an assumed interest rate of 2.25% per annum.
- (4) Assumes that approximately \$10.1 million of the 2023 maturity of Metropolitan's Subordinate Water Revenue Refunding Bonds, 2019 Series A is refunded with variable rate bonds prior to its maturity date, with the refunding bonds amortizing in 2037 and interest thereon at an assumed 2.25% per annum. Assumes that the 2028 maturity of Metropolitan's Subordinate Water Revenue Bonds, 2018 Series B is largely refunded with variable rate bonds prior to its maturity date, with the refunding bonds amortizing in the years 2033-2049 and interest thereon at an assumed 2.25% per annum. Assumes Metropolitan's Subordinate Water Revenue Refunding Bonds, 2017 Series B are refunded with variable rate bonds at their respective July 1 optional redemption dates, with the refunding bonds amortizing on July 1 in the years 2028-2033 and interest thereon at an assumed 2.25% per annum. Actual amortization of refunding bonds and rates may differ from those set forth in this footnote. Interest on the Subordinate Bonds that are Index Tender Bonds is calculated at an assumed interest rate of 2.25% per annum. Does not include any debt service for short-term notes under the Subordinate Note Purchase Agreements or any debt service for any obligations under the ICBC Self-Liquidity Revolving Credit Agreement. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Subordinate Bonds and Subordinate Obligations."

(Footnotes to table continue on next page)

*(Footnotes to table continued from prior page)*

- (5) Of Metropolitan's \$1.2 billion principal amount of outstanding variable rate bonds reflected in this table (\$797.2 million of Parity Bonds and \$446.3 million of Subordinate Bonds), interest on \$493.6 million aggregate amount of such variable rate bonds is hedged by interest rate swap agreements. Parity Bonds debt service is calculated taking into account the assumed fixed payor rates of interest to be paid under the respective interest rate swap agreements. For the remaining variable rate bonds, interest is calculated at an assumed interest rate of 2.25% per annum.
- (6) Totals are rounded. Actual debt service may differ from assumptions utilized in preparing this table.

## **Summary of Net Operating Revenues**

For a description of actual and projected Net Operating Revenues available for debt service on the outstanding Parity Bonds and Parity Obligations of Metropolitan, including the 2020A Bonds and additional Bonds that Metropolitan projects it will issue, see the table included under the caption "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in Appendix A. See also Appendix A under the caption "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES – Water Revenues."

## **Debt Service Coverage**

For a summary of actual and projected debt service coverage on the outstanding Parity Bonds and Subordinate Bonds, see the table included under the caption "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in Appendix A.

## **Financial Reserve Policy**

For a summary of Metropolitan's financial reserve policy and its unrestricted reserves and other related matters, see Appendix A under the caption "METROPOLITAN REVENUES – Financial Reserve Policy."

## **Metropolitan's Investment Portfolio**

Metropolitan's investment portfolio consists of the total cash and investments from all of its funds, which are derived from various sources, including Net Operating Revenues, property tax collections, hydroelectric power sales, investment earnings and invested construction funds. See Appendix A under the caption "METROPOLITAN REVENUES – Summary of Revenues by Source." Metropolitan's investment portfolio also includes amounts held as collateral, from time to time, by Metropolitan's swap counterparties. See Appendix A under the caption "METROPOLITAN EXPENSES – Outstanding Senior Revenue Bonds and Senior Parity Obligations – Variable Rate and Swap Obligations."

See also Appendix A under the captions "METROPOLITAN REVENUES – Investment of Moneys in Funds and Accounts" and "– Financial Reserve Policy" and Appendix B.

## **ACCOUNTING AND BUDGET MATTERS**

### **Accounting Policies**

Metropolitan operates as a utility enterprise and is accounted for as an enterprise fund. A summary of Metropolitan's significant accounting policies is contained in Note 1 to Metropolitan's full accrual basis financial statements for the Fiscal Years ended June 30, 2019 and June 30, 2018. See Appendix B.



## **Budgetary Accounting Method**

Metropolitan's budgeting and budgetary financial reporting is presented using a modified accrual basis. The modified accrual basis of accounting that Metropolitan uses varies from the full accrual basis of accounting utilized in Metropolitan's audited annual financial statements in the following respects: depreciation and amortization are not recorded and payments for debt service and pay-as-you-go construction are recorded when paid. Under this 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 revenues are recognized in the month the water transaction occurs and expenses are recognized when goods have been received and services have been rendered. See Appendix A under the captions "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" and "MANAGEMENT'S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES."

## **Financial Statements**

The Basic Financial Statements of Metropolitan for the Fiscal Years ended June 30, 2019 and June 30, 2018 and Basic Financial Statements for the Three Months Ended September 30, 2019 and 2018 (Unaudited) are included in Appendix B. Metropolitan routinely prepares unaudited quarterly financial statements, and although Metropolitan is not obligated to do so, such unaudited quarterly financial statements are generally filed by Metropolitan voluntarily with the MSRB's EMMA System, when available (typically approximately two months after the end of the relevant fiscal quarterly period). Such filing of Metropolitan's unaudited quarterly financial statements is not required pursuant to any continuing disclosure undertaking by Metropolitan relating to its outstanding Bonds, and Metropolitan, does not have and has not incurred any obligation to continue to provide any such ongoing filing of its quarterly unaudited financial statements.

The Financial Statements for the Fiscal Years ended June 30, 2019 and June 30, 2018 have been audited by KPMG LLP, Metropolitan's independent auditor (the "Independent Auditor"), as stated in its Independent Auditors' Report, dated October 14, 2019, which is included in Appendix B. Metropolitan has not requested the consent of the Independent Auditor, nor has the Independent Auditor consented, to the inclusion of the Financial Statements or the Independent Auditors' Report in Appendix B. KPMG LLP, Metropolitan's Independent Auditor, has not been engaged to perform and has not performed, since the date of its Independent Auditors' Report included herein, any procedures on the financial statements addressed in that report. KPMG LLP also has not performed any procedures relating to this Official Statement.

The financial and statistical information contained elsewhere in this Official Statement is included herein for informational purposes only and a complete review of the audited Financial Statements and the Notes to such Financial Statements set forth in Appendix B is integral to an understanding of such information. No independent auditor has audited the financial tables or other financial information or data included in this Official Statement, other than the audited Financial Statements for the Fiscal Years ended June 30, 2019 and June 30, 2018 included in Appendix B.

## **Budget System**

Metropolitan's budget system incorporates features of program budgeting, management by objectives, and performance reporting which provides for funding, analysis, review and control. Operating budgets are prepared by each department and division annually. Each program and its required resources are reviewed by management and, upon acceptance, are incorporated into the overall budget for approval by the Board. Costs are maintained by project and activity, and expenditures are controlled by Board-approved appropriations. Each month, variances between budget estimates and actual receipts and expenditures are identified and evaluated. This review is performed as one of several control measures to assure progress in meeting Metropolitan's goals and program objectives.

## **RISK FACTORS**

*The ability of Metropolitan to pay principal of and interest on the 2020A Bonds depends primarily upon Metropolitan's receipt of Net Operating Revenues. Some of the events which could prevent Metropolitan from receiving a sufficient amount of Net Operating Revenues to enable it to pay the principal of and interest on the 2020A Bonds are summarized below. The following description of risks is not an exhaustive list of the risks associated with the purchase of the 2020A Bonds and the order of the risks does not necessarily reflect the relative importance of the various risks. Investors must read the entire Official Statement, including the appendices hereto, to obtain information essential to making an informed investment decision.*

### **Limited Obligations**

The 2020A Bonds are special limited obligations of Metropolitan payable as to principal, redemption premium, if any, and interest solely from and secured solely by a pledge of and a lien and charge upon the Net Operating Revenues. The 2020A Bonds do not constitute general obligation indebtedness of Metropolitan. Neither the general credit nor the taxing power of Metropolitan is pledged for the payment of the 2020A Bonds, redemption premium, if any, or the interest thereon. The obligation to pay the principal of, redemption premium, if any, and interest on the 2020A Bonds does not constitute a pledge, charge, lien or encumbrance upon any of Metropolitan's property or its income, receipts or revenues, except Net Operating Revenues.

Net Operating Revenues may not be realized by Metropolitan in amounts sufficient to pay principal of, redemption premium, if any, and interest on the 2020A Bonds and all other Outstanding Bonds. Among other matters, water supply and demand, general and southern California economic conditions and changes in law and government regulations could adversely affect the amount of Net Operating Revenues that Metropolitan receives. Further, the amount of future Net Operating Revenues that Metropolitan receives is subject to, among other things, its ability to provide water to its member agencies and to establish, maintain and collect rates and charges sufficient to pay for Operation and Maintenance Expenditures and debt service.

### **A Portion of Parity Obligations and Subordinate Obligations May Be Subject to Acceleration**

Metropolitan has entered into revolving credit facilities, short-term credit facilities and standby bond purchase facilities which provide, upon the occurrence of events of default, that the providers thereof may declare any outstanding Parity Obligations thereunder to be immediately due and payable. In addition, the terms of the Master Subordinate Resolution permit any Bank Obligation (as defined therein) to be subject to acceleration. Interest rate swaps to which Metropolitan is a party are, under some circumstances, subject to early termination, upon which a substantial termination payment may become immediately due to the applicable counterparty. If any Parity Obligations or Bank Obligations are accelerated or substantial swap termination payments become due, it may significantly reduce the amount of Net Operating Revenues available to pay debt service on the 2020A Bonds, Other Parity Bonds and Parity Obligations.

### **Risks Relating to Water Transactions**

Metropolitan's primary purpose is to provide a supplemental supply of imported water to its member public agencies. Metropolitan's water supply is described in more detail in Appendix A under the caption "METROPOLITAN'S WATER SUPPLY." The demand for supplemental supplies is dependent on water use at the retail consumer level and the amount of locally supplied and conserved water. Consumer demand and locally supplied water vary from year to year, resulting in variability in the volume of Metropolitan's water transactions. Future reliance on Metropolitan supplies will depend in part

on the level of development of local supply projects by Metropolitan's member public agencies. See Appendix A under the caption "REGIONAL WATER RESOURCES – Local Water Supplies." Over the last several years supplies and demands have been affected by weather conditions (including, most recently, wet weather conditions), drought, water use restrictions, economic conditions, and environmental laws, regulations and judicial decisions, as described below. Future water transactions will be subject to variability due to these and other factors.

***Weather Conditions.*** Metropolitan provides a supplemental supply of water to its member agencies, most of whom have other sources of water. Regional water supplies are described in Appendix A under the caption "REGIONAL WATER RESOURCES." Climatic conditions in Metropolitan's service area (including, most recently, wet weather, as well as, over the prior several years, drought and the effects of actions taken in response thereto), and availability of local supplies affect demands for imported water purchased from Metropolitan. Historically, in years in which above-normal precipitation occurs in the region, retail level water use declines while available regional water supplies increase, resulting in lower demand for imported water purchased from Metropolitan. Metropolitan uses its financial reserves and budgetary tools to manage reductions in revenues due to reduced sales. 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 transactions. See Appendix A under the caption "METROPOLITAN REVENUES – Financial Reserve Policy."

***Water Supply Shortages.*** Metropolitan's principal sources of water are the State Water Project and the Colorado River, both of which have been subject to drought conditions during periods over the last several years that have contributed to lower overall water deliveries to Metropolitan. While Metropolitan plans and manages its supplies to account for normal occurrences of drought conditions, drought conditions that have occurred in recent years and court-ordered restrictions in connection with the State Water Project, including but not limited to restrictions under the Federal and California Endangered Species Acts (the "ESAs"), have placed additional limitations on Metropolitan's ability to obtain and deliver water supplies to its member agencies. See Appendix A under the caption "METROPOLITAN'S WATER SUPPLY – Endangered Species Act and Other Environmental Considerations." Multi-party drought contingency plans have been developed for the Colorado River which impose additional restrictions on Metropolitan's access to its Colorado River supplies. See Appendix A under the caption "METROPOLITAN'S WATER SUPPLY – Colorado River Aqueduct – Colorado River Operations: Surplus and Shortage Guidelines." For additional information regarding the impact of drought conditions on Metropolitan's water supply, see Appendix A under the caption "METROPOLITAN'S WATER SUPPLY." Metropolitan may obtain supplies to meet demands during water supply shortages by, among other things, drawing on its stored water supplies and pursuing additional water transfers. See Appendix A under the captions "METROPOLITAN'S WATER SUPPLY – Water Transfer, Storage and Exchange Programs" and "– Storage Capacity and Water in Storage." If Metropolitan anticipates that supplies will be insufficient to meet demands, Metropolitan may allocate available supplies among its member agencies pursuant to its Water Supply Allocation Plan. See Appendix A under the caption "CONSERVATION AND WATER SHORTAGE MEASURES – Water Supply Allocation Plan."

***Economic Conditions.*** Retail level water use is affected by economic conditions. Economic recession and its associated impacts, such as job losses, income losses, and housing foreclosures or vacancies, affect aggregate levels of water use and Metropolitan's water transactions. See Appendix E.

***Environmental Considerations.*** Current and proposed environmental laws, regulations and judicial decisions, including court ordered restrictions and Federal and State administrative determinations relating to species on the "endangered" or "threatened" lists under the Federal or California ESAs, have materially affected the operations of the State Water Project and the water deliveries therefrom. Metropolitan cannot predict when and how additional laws, regulations, judicial

decisions and other determinations (including listings of additional species under the Federal or California ESAs) will affect State Water Project and Colorado River operations, the water deliveries therefrom and Metropolitan's operations in the future by requiring, among other things, additional export reductions, releases of additional water from storage or other operational changes impacting water supply operations. Any of these laws, regulations and judicial decisions and other official determinations relating to Metropolitan's water supply could have a materially adverse impact on the operation of the State Water Project and Colorado River operations and Metropolitan's water reserves. See Appendix A under the caption "METROPOLITAN'S WATER SUPPLY – Endangered Species Act and Other Environmental Considerations."

***Actions to Manage Risks Relating to Water Transactions.*** Drought, weather conditions, regional economy and environmental considerations referred to above in recent years have contributed to lower water deliveries at a higher cost to Metropolitan. To address supply shortages due to periods of prolonged drought conditions and/or environmental restrictions, Metropolitan may pursue additional water transfers and investments in capital projects. However, these actions and expenditures may not result in reliable alternate supplies of water at costs that, together with other available supplies and storage, will generate sufficient Net Operating Revenues, which may require Metropolitan to increase its rates and charges. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Rate Covenant." See also Appendix A under the captions "METROPOLITAN'S WATER SUPPLY" and "CAPITAL INVESTMENT PLAN." Wet weather and economic conditions in the region can also impact retail water use and reduce demand for imported water purchased from Metropolitan. A reduction in water deliveries to Metropolitan's member agencies might adversely affect its Net Operating Revenues and Metropolitan may be required to further increase its rates and charges. See "SECURITY AND SOURCES OF PAYMENT FOR THE 2020A BONDS – Rate Covenant."

### **Earthquakes, Floods, Wildfires and Other Natural Disasters**

Southern California is subject to geotechnical and extreme weather conditions which represent potential safety hazards, including expansive soils, wildfires, floods, high winds and areas of potential liquefaction and landslide. Earthquakes, wildfires, floods, high winds or other natural disasters could cause failure of Water System infrastructure or otherwise interrupt operation of the Water System and thereby impair the ability of Metropolitan to generate sufficient Net Operating Revenues and may require Metropolitan to increase its rates and charges. The severity and/or frequency of these occurrences may be exacerbated by the impacts of climate change. See also Appendix A under the captions "GOVERNANCE AND MANAGEMENT – Risk Management" and "METROPOLITAN'S WATER DELIVERY SYSTEM – Seismic Considerations and Emergency Response Measures."

### **Cybersecurity; Other Safety and Security Risks**

Metropolitan, like many other large public and private entities, relies on a large and complex technology environment to conduct its operations, and faces multiple cybersecurity threats including, but not limited to, hacking, viruses, malware and other attacks on its computing and other digital networks and systems (collectively, "Systems Technology"). Cybersecurity incidents could result from unintentional events, or from deliberate attacks by unauthorized entities or individuals attempting to gain access to Metropolitan's Systems Technology for the purposes of misappropriating assets or information or causing operational disruption and damage. Cybersecurity breaches could damage Metropolitan's information and security systems and cause material disruption to its operations. The occurrence of military conflicts and terrorist activities, including cyber terrorism, could also adversely impact the operations of the Water System or the finances of Metropolitan. Metropolitan has a variety of security measures and safeguards in place. See Appendix A under the captions "GOVERNANCE AND MANAGEMENT – Cybersecurity" and "METROPOLITAN'S WATER DELIVERY SYSTEM – Security Measures." However, there can be no assurance that any existing or additional safety and

security measures will prove adequate in the event that military conflicts or terrorist activities, including cyber terrorism, are directed against the assets of the Water System. The costs of security measures or of remedying damage from security breaches could be greater than presently anticipated.

### **Limitations on Remedies**

Upon the occurrence and continuance of an Event of Default under the Resolutions, the Owners of the Bonds (including the 2020A Bonds) have limited remedies and, except for limited circumstances, the Owners of the Bonds do not have the right to accelerate the payment of principal or interest on the Bonds (including the 2020A Bonds). See APPENDIX C– “SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS – THE MASTER RESOLUTION – Defaults and Remedies under the Master Resolution.”

In addition, the rights of the Owners of the 2020A Bonds are subject to the limitations on legal remedies against public entities in the State of California, including a limitation on enforcement obligations against funds needed to serve the public welfare and interest.

### **Tax Law Proposals**

Existing law may change so as to reduce or eliminate the benefit to Beneficial Owners of the 2020A Bonds of the exclusion of interest thereon from gross income for federal income tax purposes. See “TAX MATTERS.”

## **LITIGATION**

No litigation is pending, or, to the best knowledge of Metropolitan, threatened, questioning (a) the existence of Metropolitan, or the title of the officers of Metropolitan to their respective offices, (b) the validity of the 2020A Bonds or the power and authority of Metropolitan to issue the 2020A Bonds, or (c) the authority of Metropolitan to fix, charge and collect rates for the sale of water by Metropolitan as provided in the Resolutions.

For a discussion of litigation challenging the allocation of costs to certain water rates, see APPENDIX A– “THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA,” including information under the caption “METROPOLITAN REVENUES – Litigation Challenging Rate Structure.” For a discussion of litigation affecting the water supply of Metropolitan that could adversely affect Operating Revenues, see APPENDIX A– “THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA,” including information under the captions “METROPOLITAN’S WATER SUPPLY – State Water Project,” and “– Colorado River Aqueduct” and “METROPOLITAN EXPENSES – Power Sources and Costs; Related Long-Term Commitments.”

Metropolitan is a party to various other legal proceedings affecting the Water System and is regularly involved in litigation regarding the condemnation of property in accordance with its authorization under the Act to exercise the powers of eminent domain. Metropolitan does not believe that an adverse ruling in any of these other proceedings could have a material adverse effect upon Operating Revenues of Metropolitan.

## **TAX MATTERS**

### **Opinion of Bond Counsel**

In the opinion of Hawkins Delafield & Wood LLP, Bond Counsel to Metropolitan, under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described

herein, (i) interest on the 2020A Bonds is excluded from gross income for federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the “Code”), and (ii) interest on the 2020A Bonds is not treated as a preference item in calculating the alternative minimum tax under the Code. In rendering its opinion, Bond Counsel has relied on certain representations, certifications of fact, and statements of reasonable expectations made by Metropolitan in connection with the 2020A Bonds, and Bond Counsel has assumed compliance by Metropolitan with certain ongoing covenants to comply with applicable requirements of the Code to assure the exclusion of interest on the 2020A Bonds from gross income under Section 103 of the Code.

In addition, in the opinion of Bond Counsel to Metropolitan, under existing statutes, interest on the 2020A Bonds is exempt from personal income taxes imposed by the State of California.

Bond Counsel expresses no opinion as to any other federal, state or local tax consequences arising with respect to the 2020A Bonds, or the ownership or disposition thereof, except as stated above. Bond Counsel renders its opinion under existing statutes and court decisions as of the issue date, and assumes no obligation to update, revise or supplement its opinion to reflect any action thereafter taken or not taken, any fact or circumstance that may thereafter come to its attention, any change in law or interpretation thereof that may thereafter occur, or for any other reason. Bond Counsel expresses no opinion as to the consequence of any of the events described in the preceding sentence or the likelihood of their occurrence. In addition, Bond Counsel expresses no opinion on the effect of any action taken or not taken in reliance upon an opinion of other counsel regarding federal, state or local tax matters, including, without limitation, exclusion from gross income for federal income tax purposes of interest on the 2020A Bonds.

### **Certain Ongoing Federal Tax Requirements and Covenants**

The Code establishes certain ongoing requirements that must be met subsequent to the issuance and delivery of the 2020A Bonds in order that interest on the 2020A Bonds be and remain excluded from gross income under Section 103 of the Code. These requirements include, but are not limited to, requirements relating to use and expenditure of gross proceeds of the 2020A Bonds, yield and other restrictions on investments of gross proceeds, and the arbitrage rebate requirement that certain excess earnings on gross proceeds be rebated to the federal government. Noncompliance with such requirements may cause interest on the 2020A Bonds to become included in gross income for federal income tax purposes retroactive to their issue date, irrespective of the date on which such noncompliance occurs or is discovered. Metropolitan has covenanted to comply with certain applicable requirements of the Code to assure the exclusion of interest on the 2020A Bonds from gross income under Section 103 of the Code.

### **Certain Collateral Federal Tax Consequences**

The following is a brief discussion of certain collateral federal income tax matters with respect to the 2020A Bonds. It does not purport to address all aspects of federal taxation that may be relevant to a particular owner of a 2020A Bond. Prospective investors, particularly those who may be subject to special rules, are advised to consult their own tax advisors regarding the federal tax consequences of owning and disposing of the 2020A Bonds.

Prospective owners of the 2020A Bonds should be aware that the ownership of such obligations may result in collateral federal income tax consequences to various categories of persons, such as corporations (including S corporations and foreign corporations), financial institutions, property and casualty and life insurance companies, individual recipients of Social Security and railroad retirement benefits, individuals otherwise eligible for the earned income tax credit, and taxpayers deemed to have incurred or continued indebtedness to purchase or carry obligations the interest on which is excluded from gross income for federal income tax purposes. Interest on the 2020A Bonds may be taken into account in

determining the tax liability of foreign corporations subject to the branch profits tax imposed by Section 884 of the Code.

### **Bond Premium**

In general, if an owner acquires a bond for a purchase price (excluding accrued interest) or otherwise at a tax basis that reflects a premium over the sum of all amounts payable on the bond after the acquisition date (excluding certain “qualified stated interest” that is unconditionally payable at least annually at prescribed rates), that premium constitutes “bond premium” on that bond (a “Premium Bond”). In general, under Section 171 of the Code, an owner of a Premium Bond must amortize the bond premium over the remaining term of the Premium Bond, based on the owner’s yield over the remaining term of the Premium Bond determined based on constant yield principles (in certain cases involving a Premium Bond callable prior to its stated maturity date, the amortization period and yield may be required to be determined on the basis of an earlier call date that results in the lowest yield on such bond). An owner of a Premium Bond must amortize the bond premium by offsetting the qualified stated interest allocable to each interest accrual period under the owner’s regular method of accounting against the bond premium allocable to that period. In the case of a tax-exempt Premium Bond, if the bond premium allocable to an accrual period exceeds the qualified stated interest allocable to that accrual period, the excess is a nondeductible loss. Under certain circumstances, the owner of a Premium Bond may realize a taxable gain upon disposition of the Premium Bond even though it is sold or redeemed for an amount less than or equal to the owner’s original acquisition cost. Owners of any Premium Bonds should consult their own tax advisors regarding the treatment of bond premium for federal income tax purposes, including various special rules relating thereto, and state and local tax consequences, in connection with the acquisition, ownership, amortization of bond premium on, sale, exchange, or other disposition of Premium Bonds.

### **Information Reporting and Backup Withholding**

Information reporting requirements apply to interest paid on tax-exempt obligations, including the 2020A Bonds. In general, such requirements are satisfied if the interest recipient completes, and provides the payor with, a Form W-9, “Request for Taxpayer Identification Number and Certification,” or if the recipient is one of a limited class of exempt recipients. A recipient not otherwise exempt from information reporting who fails to satisfy the information reporting requirements will be subject to “backup withholding,” which means that the payor is required to deduct and withhold a tax from the interest payment, calculated in the manner set forth in the Code. For the foregoing purpose, a “payor” generally refers to the person or entity from whom a recipient receives its payments of interest or who collects such payments on behalf of the recipient.

If an owner purchasing a 2020A Bond through a brokerage account has executed a Form W-9 in connection with the establishment of such account, as generally can be expected, no backup withholding should occur. In any event, backup withholding does not affect the excludability of the interest on the 2020A Bonds from gross income for federal income tax purposes. Any amounts withheld pursuant to backup withholding would be allowed as a refund or a credit against the owner’s federal income tax once the required information is furnished to the Internal Revenue Service.

### **Miscellaneous**

Tax legislation, administrative actions taken by tax authorities, or court decisions, whether at the federal or state level, may adversely affect the tax-exempt status of interest on the 2020A Bonds under federal or state law or otherwise prevent beneficial owners of the 2020A Bonds from realizing the full current benefit of the tax status of such interest. In addition, such legislation or actions (whether currently

proposed, proposed in the future, or enacted) and such decisions could affect the market price or marketability of the 2020A Bonds.

Prospective purchasers of the 2020A Bonds should consult their own tax advisors regarding the foregoing matters.

## **UNDERWRITING**

The 2020A Bonds are being purchased by Siebert Williams Shank & Co., LLC, as representative of itself and the other underwriters for the 2020A Bonds listed on the cover page hereof (the “Underwriters”), pursuant to and subject to the conditions set forth in the Bond Purchase Contract between Metropolitan and the Underwriters (the “Bond Purchase Contract”). Subject to the terms of the Bond Purchase Contract, the Underwriters will purchase the 2020A Bonds at a purchase price of \$270,306,316.44, which represents the \$207,355,000.00 principal amount of the 2020A Bonds, plus original issue premium of \$63,325,651.05, less an Underwriters’ discount of \$374,334.61. The Underwriters are obligated to purchase all of the 2020A Bonds if they purchase any 2020A Bonds.

The Underwriters may over-allot or effect transactions which stabilize or maintain the market price of the 2020A Bonds at levels above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time. The public offering prices or yields may be changed from time to time by the Underwriters. The Underwriters may offer and sell 2020A Bonds to certain dealers and others at prices lower or yields higher than the respective offering prices or yields shown on the inside cover page hereof.

The following information has been provided by the Underwriters for inclusion in this Official Statement:

J.P. Morgan, one of the Underwriters of the 2020A Bonds, has entered into negotiated dealer agreements (each, a “Dealer Agreement”) with each of Charles Schwab & Co., Inc. (“CS&Co.”) and LPL Financial LLC (“LPL”) for the retail distribution of certain securities offerings at the original issue prices. Pursuant to each Dealer Agreement, each of CS&Co. and LPL may purchase 2020A Bonds from J.P. Morgan at the original issue price less a negotiated portion of the selling concession applicable to any 2020A Bonds that such firm sells.

## **CERTAIN RELATIONSHIPS**

The Underwriters have provided the following paragraphs for inclusion in this Official Statement:

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various investment banking services for Metropolitan, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve securities and instruments of Metropolitan.



## **MUNICIPAL ADVISOR**

Metropolitan has retained Public Resources Advisory Group, Los Angeles, California, as municipal advisor (the “Municipal Advisor”) in connection with the issuance of the 2020A Bonds. The Municipal Advisor has not been engaged, nor has it undertaken, to audit, authenticate or otherwise verify the information set forth in this Official Statement, or any other related information available to Metropolitan, with respect to accuracy and completeness of disclosure of such information. The Municipal Advisor has reviewed this Official Statement but makes no guaranty, warranty or other representation respecting accuracy and completeness of the information contained in this Official Statement. Certain fees of the Municipal Advisor are contingent upon the issuance and delivery of the 2020A Bonds.

## **LEGAL MATTERS**

Hawkins Delafield & Wood LLP, Bond Counsel to Metropolitan, will render its opinion with respect to the 2020A Bonds, substantially in the form set forth in APPENDIX F– “FORM OF OPINION OF BOND COUNSEL.” Bond Counsel undertakes no responsibility for the accuracy, completeness or fairness of this Official Statement. Certain legal matters will be passed upon for Metropolitan by its General Counsel, and for the Underwriters by their counsel, Stradling Yocca Carlson & Rauth, a Professional Corporation. Norton Rose Fulbright US LLP, Los Angeles, California, is acting as Disclosure Counsel to Metropolitan in connection with the issuance of the 2020A Bonds. Bond Counsel and Disclosure Counsel will receive compensation that is contingent upon the issuance and delivery of the 2020A Bonds.

## **RATINGS**

S&P Global Ratings and Fitch Ratings have assigned the 2020A Bonds their long-term ratings of “AAA” and “AA+,” respectively. Such credit ratings reflect only the views of the applicable organizations and any desired explanation of the significance of any such credit rating should be obtained from the rating agency furnishing the same, at the following addresses: S&P Global Ratings, 55 Water Street, New York, New York 10041; and Fitch Ratings, 33 Whitehall Street, New York, New York 10004. Generally, a rating agency bases its credit rating on the information and materials furnished to it and on investigations, studies and assumptions of its own. Any such credit rating may not continue for any given period and may be revised downward or withdrawn entirely by the rating agency furnishing the same, if in the judgment of such rating agency, circumstances so warrant. Any downward revision or withdrawal of any such credit rating could have an adverse effect on the market price of the 2020A Bonds.

## **CONTINUING DISCLOSURE**

Metropolitan has agreed to execute a continuing disclosure undertaking (the “Continuing Disclosure Undertaking”), which provides for disclosure obligations on the part of Metropolitan for so long as the 2020A Bonds remain Outstanding. Under the Continuing Disclosure Undertaking, Metropolitan will covenant for the benefit of Owners and Beneficial Owners of the 2020A Bonds to provide certain financial information and operating data relating to Metropolitan by not later than 180 days after the end of the prior fiscal year (the “Annual Reports”), and to provide notices of the occurrence of certain enumerated events (the “Notice Events”) in a timely manner not in excess of ten (10) business days after the occurrence of such Notice Event. The Annual Reports and the notices of Notice Events will be filed with the EMMA System. These covenants will be made to assist the Underwriters in complying with the Rule. See APPENDIX G– “FORM OF CONTINUING DISCLOSURE UNDERTAKING.”

Metropolitan has not failed in the previous five years to comply in any material respect with any previous undertaking to provide annual reports or notices of certain events in accordance with the Rule.

### MISCELLANEOUS

The terms of the 2020A Bonds are set forth in the Resolutions and the Bond Purchase Contract. Copies of such documents may be obtained from the office of the Assistant General Manager/Chief Financial Officer of Metropolitan, 700 North Alameda Street, Los Angeles, California 90012, telephone (213) 217-7121. Metropolitan reserves the right to charge the requesting party for the cost of copying such documents. Questions pertaining to this Official Statement may be directed to the Assistant General Manager/Chief Financial Officer.

The attached appendices are integral parts of this Official Statement and should be read in their entirety. Potential purchasers must read the entire Official Statement to obtain information essential to making an informed investment decision.

The Board of Directors of Metropolitan has duly authorized the delivery of this Official Statement.

THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

By: /s/ Jeffrey Kightlinger  
General Manager

# APPENDIX A

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## 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. Certain 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 transactions 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 representing the highest level of water transactions and revenues of Metropolitan during the fiscal year ended June 30, 2019. 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.

<b>Municipal Water Districts</b>		<b>Cities</b>		<b>County Water Authority</b>
Calleguas	Las Virgenes	Anaheim	Los Angeles	San Diego <sup>(1)</sup>
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	

<sup>(1)</sup> The San Diego County Water Authority, currently Metropolitan’s largest customer based on water transactions, is a plaintiff in litigation challenging the allocation of costs to certain rates adopted by the 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 all or portions of the six counties of Los Angeles, Orange, Riverside, San Bernardino, San Diego and Ventura. When Metropolitan began delivering water in 1941, its service area consisted of approximately 625 square miles. Its service area has increased by 4,575 square miles since that time. The expansion was primarily the result of annexation of the service areas of additional member agencies.

Metropolitan estimates that approximately 19 million people lived in Metropolitan’s service area in 2019, 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 and used as base data for Metropolitan’s 2015 Integrated Water Resources Plan update and subsequent water transactions forecasts, show expected population growth of about 18 percent in Metropolitan’s service area between 2010 and 2035, with an estimated population in the service area in 2020 then projected at approximately 19.35 million. The economy of Metropolitan’s service area is exceptionally diverse. In 2018, the economy of the six counties which contain Metropolitan’s service area had a gross domestic product larger than all but twelve 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. Since 2000, annual rainfall has ranged from approximately 4 to 27 inches along the coastal area, 6 to 38 inches in foothill areas, and 5 to 20 inches in inland areas.



## 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. In 2019, California Assembly Bill 1220 (Garcia) amended the Act to provide that "A member public agency shall not have fewer than the number of representatives the member public agency had as of January 1, 2019." Accordingly, the Board may, from time to time, have more than 38 directors.

The Board includes business, professional and civic leaders. Directors are appointed by member agencies in accordance with those agencies' processes and the Act. 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 to 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 her law degree from Loyola Law School.

*Gerald C. Riss, General Auditor* – Mr. Riss was appointed as Metropolitan's General Auditor in July 2002. As General Auditor, he 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 a master's degree in business administration from Wayne State University.

*Abel Salinas, Ethics Officer* – Mr. Salinas was appointed as Metropolitan's Ethics Officer in July 2019. He is responsible for making recommendations regarding rules and policies related to lobbying, conflicts of interest, contracts, campaign contributions and internal disclosures, while providing education and advice about these rules. Prior to joining Metropolitan, Mr. Salinas worked as the Special Agent in Charge in the U.S. Department of Labor's Office of Inspector General. Before joining that agency, he served for three years in the U.S. Office of Personnel Management. Mr. Salinas holds a bachelor's degree in criminal justice from University of Texas – Pan American and a master's degree in policy management from Georgetown University.

*Katano Kasaine, Assistant General Manager/Chief Financial Officer* – Ms. Kasaine has been serving as the Assistant General Manager/Chief Financial Officer since August 2019. She is responsible for directing Metropolitan's financial activities, including accounting and financial reporting, debt issuance and management, financial planning and strategy, managing Metropolitan's investment portfolio, budget administration, financial analysis, financial systems, and developing rates and charges. In addition, she is responsible for risk management and business continuity activities. Prior to joining Metropolitan, Ms. Kasaine worked for the City of Oakland for nearly 25 years in various roles, including Finance Director/Treasurer. She holds a bachelor's degree in business administration from Dominican University in San Rafael, California and a master's degree in public health from Loma Linda University.

*Deven Upadhyay, Assistant General Manager/Chief Operating Officer* – Mr. Upadhyay was appointed to his current position in November 2017. In this capacity, he oversees the management of Metropolitan's Water System Operations, Engineering Services and Water Resource Management. Mr. Upadhyay has over 20 years of experience in the water industry. He joined Metropolitan in 1996, beginning as a Resource Specialist and then left Metropolitan in 2005 to work at the Municipal Water District of Orange County. In 2008, he returned to Metropolitan as a Budget and Financial Planning Section Manager and became a Water Resource Management Group Manager in 2010. Mr. Upadhyay has a Bachelor of Arts degree in economics from the California State University, Fullerton and a master's degree in public administration from the University of La Verne.

*Roger Patterson, Assistant General Manager/Strategic Water Initiatives* – Mr. Patterson was appointed to his current position 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. Mr. Patterson earned bachelor's and master's degrees in engineering from the University of Nebraska.

*Shane Chapman, Assistant General Manager/Chief Administrative Officer* – Mr. Chapman was appointed to his current position in January 2018 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, environmental planning, and administrative services. Mr. Chapman joined Metropolitan as a Resource Specialist in 1991, progressing to the level of Program Manager in 2001. He became the Revenue, Rates and Budget Manager in 2003 and Assistant Group Manager in Water System

Operations in 2006. Mr. Chapman served as General Manager of the Upper San Gabriel Valley Municipal Water District for seven years. Mr. Chapman has a Bachelor of Arts degree in economics from Claremont McKenna College and a master's degree in public administration from the University of Southern California.

*Dee Zinke, Assistant General Manager/Chief External Affairs Officer* – Ms. Zinke was appointed to her current position 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. Prior to her public service, she worked in the private sector as the Executive Officer and Senior Legislative Advocate for the 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 budgeted regular full-time Metropolitan employees on November 1, 2019 was 1,905 with 1,795 positions filled, and the remaining positions under recruitment or vacant. Of the filled positions, 1,242 were represented by AFSCME Local 1902, 91 by the Supervisors Association, 299 by the Management and Professional Employees Association and 131 by the Association of Confidential Employees. The remaining 32 employees are unrepresented. The four bargaining units represent 98 percent of Metropolitan's employees. The Memorandum of Understanding ("MOU") with each of AFSCME Local 1902, the Supervisors Association, the Management and Professional Employees Association and the Association of Confidential Employees were updated through negotiations and cover the period January 1, 2017 through December 31, 2021.

### **Risk Management**

Metropolitan is exposed to various risks of loss related to, among other things, 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 property losses, liability, 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 the Board at its sole discretion.

### **Cybersecurity**

Metropolitan has adopted and maintains an active Cybersecurity Program ("CSP") that includes policies reviewed annually by its internal Cybersecurity Team, Audit department and independent third-party auditors and consultants. Metropolitan has appointed an Information Security Officer who is responsible for overseeing the annual review of the CSP and its alignment with Metropolitan's Strategic Plan. Metropolitan's policies and procedures on information governance, risk management, and compliance are consistent with the

U.S. Commerce Department’s National Institute of Standards and Technology Cybersecurity Framework and are consistent with the requirements prescribed by the America’s Water Infrastructure Act (AWIA) for risk assessment and emergency response. Metropolitan’s Cybersecurity Team is responsible for identifying cybersecurity risks to Metropolitan, preventing, investigating, and responding to any cybersecurity incidents, and providing guidance and education on the implementation of new technologies at Metropolitan. All persons or entities authorized to use Metropolitan’s computer resources are required to participate in Metropolitan’s Cybersecurity Awareness Training.

## **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” in this Appendix A.

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**

As of December 30, 2019, the northern Sierra precipitation was 70 percent of the 50-year average for the time of year, and northern Sierra snowpack measured at 29 percent of the April 1<sup>st</sup> peak average. On January 24, 2020, the California Department of Water Resources (“DWR”) notified State Water Contractors (defined below) that its calendar year 2020 allocation estimate of State Water Project water was increased to 15 percent of contracted amounts, or 286,725 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 325,851 gallons, which represents the needs of three average families in and around the home for one year within Metropolitan’s service area.) Changes to the 2020 allocation may occur and are dependent on the developing hydrologic conditions. See “–State Water Project.”

As of December 30, 2019, the Upper Colorado River Basin snowpack accumulation measured 119 percent of the 30-year average as of this date and the total system storage in the Colorado River Basin was 52 percent of capacity, an increase of seven percent or 4 million acre-feet at the same time the prior year. Because of the storage increase, no shortage will be declared in Colorado River water supply availability conditions for calendar year 2020, resulting in projected available supply of Colorado River water in calendar year 2020 of 983,000 acre-feet for Metropolitan. See “–Colorado River Aqueduct.”

See also “–Storage Capacity and Water in Storage.”

## **Integrated Water Resources Plan**

**Overview.** The Integrated Water Resources Plan (hereafter, “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. Metropolitan is preparing to undertake its next IRP update in 2020.

The most recent IRP update (the “2015 IRP Update”) was adopted by Metropolitan’s Board on January 12, 2016, 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 developed by Metropolitan in connection with the implementation of the 2015 IRP Update are subject to 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. In furtherance of this goal, Metropolitan continues to participate and seek successful outcomes for a potential Bay-Delta conveyance project 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 an outcome for a potential Bay-Delta conveyance project and California EcoRestore efforts aimed towards achieving 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 Agreements and Programs.” 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” in this Appendix A. 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. The conservation program is regularly reviewed and revised in order to meet the IRP goal. During the 2018 review, a disadvantaged communities initiative was identified as a way to increase conservation and a pilot program has been implemented.

Local Water Supplies. Local supplies are a significant and growing component of 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, stormwater, 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 227,000 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 supplies by 2040. Additionally, in 2018, an interim Local Resources Program target was adopted to spur development of additional local supplies to meet the IRP goal. 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 27 million of California’s estimated 39.9 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. See “METROPOLITAN’S WATER DELIVERY SYSTEM–Primary Facilities and Method of Delivery –State Water Project” in this Appendix A.

### **State Water Contract**

***Terms of the 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 19 million), the share of State Water Project water that it has contracted to receive (approximately 46 percent), and the percentage of total annual payments made to DWR by agencies with State water supply contracts (approximately 49 percent for fiscal year 2018-19). Metropolitan received its first delivery of State Water Project water in 1972.

Pursuant to the terms of the State water supply 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 as components of their annual payment obligations to DWR. 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 supply contracts. Late each year, DWR announces an initial allocation estimate for the upcoming year, but periodically provides subsequent estimates throughout the year if warranted by developing precipitation and water supply conditions. Based upon the updated rainfall and

snowpack values, DWR’s total water supply availability projections are refined during each calendar year 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” 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, including water quality and environmental flow obligations and other operational considerations. 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 supply 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.

DWR operates the State Water Project in coordination with the federal Central Valley Project, which is operated by the Bureau of Reclamation. Since 1986, the coordinated operations have been undertaken pursuant to a Coordinated Operations Agreement for the Central Valley Project and State Water Project (the “COA”). The COA defines how the State and federal water projects share water quality and environmental flow obligations imposed by regulatory agencies. The agreement calls for periodic review to determine whether updates are needed in light of changed conditions. After completing a joint review process, DWR and the Bureau of Reclamation agreed to amend the COA to reflect water quality regulations, biological opinions and hydrology updated since the 1986 agreement was signed. On December 13, 2018, DWR and the Bureau of Reclamation executed an Addendum to the COA (the “COA Addendum”). Through the COA Addendum, DWR will adjust current State Water Project operations to modify pumping operations, as well as project storage withdrawals to meet in-basin uses pursuant to revised calculations based on water year types. The COA Addendum will shift responsibilities for meeting obligations between the Central Valley Project and the State Water Project, resulting in a shift of approximately 120,000 acre-feet in long-term average annual exports from the State Water Project to the Central Valley Project. In executing the COA Addendum, DWR found the agreement to be exempt from environmental review under the California Environmental Quality Act (“CEQA”) as an ongoing project and that the adjustments in operations are within the original scope of the project. On January 16, 2019, commercial fishing groups and a tribe (“petitioners”) filed a lawsuit against DWR alleging that entering into the COA Addendum violated CEQA, the Delta Reform Act, and the public



trust doctrine. On April 11, 2019, Westlands Water District (“Westlands”) filed a motion to intervene, which was not opposed by any parties. The court granted Westlands’ motion on June 7, 2019. On October 7, 2019, the North Delta Water Agency filed a motion to intervene, which is opposed by DWR and Westlands. The court has not yet ruled on this motion. The petitioners are still in the process of preparing the administrative record and no date for a hearing on the merits has been set. The effect of this lawsuit on the COA Addendum and State Water Project operations cannot be determined at this time.

From calendar years 2004 through 2018, 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” below), 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 2018, DWR’s allocation to State Water Contractors was 35 percent of contracted amounts, or 669,025 acre-feet, for Metropolitan. In calendar year 2019, DWR’s allocation to State Water Contractors was 75 percent of contracted amounts, or 1,433,625 acre-feet, for Metropolitan.

On December 2, 2019, DWR announced an initial calendar year 2020 allocation of 10 percent. On January 24, 2020, DWR increased the allocation estimate to 15 percent. Changes to the 2020 allocation may occur and are dependent on the developing hydrologic conditions.

The term of Metropolitan’s State Water Contract currently extends to December 31, 2035 or until all DWR bonds issued to finance construction of project facilities are repaid, whichever is longer. 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 supply 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 supply 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 supply contract for each Contractor that signs an amendment would be extended until December 31, 2085. The Agreement in Principle served as the “proposed project” for purposes of environmental review under CEQA. DWR issued a Notice of Availability of the Draft Environmental Impact Report (“EIR”) for the proposed project on August 17, 2016. The public review period ended October 17, 2016. State law requires DWR to make a presentation to the State Legislature at an informational hearing at least 60 days prior to final approval of a State water supply contract extension. That hearing occurred on September 11, 2018. DWR released the final EIR on November 16, 2018 and certified the final EIR and issued a Notice of Determination on December 11, 2018. Concurrently, Metropolitan considered the certified final EIR and approved the water supply contract extension amendment at its December 11, 2018 Board meeting. That same day, DWR filed a lawsuit seeking to validate the contract extension. In January 2019, North Coast Rivers Alliance and others separately filed petitions for writ of mandate and a complaint for declaratory and injunctive relief challenging DWR’s final EIR and approval of the State water supply contract extension amendment. Mandatory settlement conferences were held on February 22, 2019. On June 18, 2019, the cases were deemed related, and on August 20, 2019, they were assigned to a single judge. The parties are still in the process of preparing the administrative records for these cases, and no date for a hearing on the merits has been set and no briefing has occurred in either action. Any adverse impact of this litigation and rulings on Metropolitan’s State Water Project supplies cannot be determined at this time.

Metropolitan and other State Water Contractors undertook negotiations with DWR to amend their State water supply contracts to clarify how costs for California WaterFix would be allocated as well as to clarify the criteria applicable to certain water management tools including single and multi-year water transfers and exchanges. On April 29, 2019, Governor Newsom issued an executive order directing State agencies to develop a comprehensive statewide strategy to build a climate-resilient water system that included consideration of a single-tunnel Bay-Delta conveyance facility instead of the approved WaterFix project. In light of this order, DWR and the State Water Contractors deleted the WaterFix cost provisions from the current

amendment process leaving only the water management provisions and embarked on a new public process to further negotiate proposed amendments related to cost allocation for a potential new Bay-Delta conveyance. Any modifications to the State water supply contract will have to be approved by all State Water Contractors. See “– Bay-Delta Proceedings Affecting State Water Project” below.

***Related Litigation–Monterey Amendment.*** On May 4, 2010, DWR completed an EIR and concluded a remedial CEQA review for the Monterey Amendment (described under “ – Terms of the Contract” above), which reflects the settlement of certain disputes regarding the allocation of State Water Project water. 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.

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. On October 2, 2017, the court denied Center for Food Safety’s petition. Plaintiffs appealed. Briefing in this appeal has been completed. No date for oral argument has been set. Any adverse impact of any of the litigation and rulings relating to the Monterey Amendment on Metropolitan’s State Water Project supplies cannot be determined at this time.

### **2017 Oroville Dam Spillway Incident**

Oroville Dam, the earthfill embankment dam on the Feather River which impounds Lake Oroville, is operated by DWR as a facility of the State Water Project. On February 7, 2017, the main flood control spillway at Oroville Dam, a gated and concrete lined facility, experienced significant damage as DWR released water to manage higher inflows driven by continued precipitation in the Feather River basin. The damaged main spillway impaired DWR’s ability to manage lake levels causing water to flow over the emergency spillway structure, an ungated, 1,730-foot-long concrete barrier located adjacent to and north of the main flood control spillway structure. Use of the emergency spillway structure resulted in erosion that threatened the stability of the emergency spillway structure. This concern prompted the Butte County Sheriff, on February 12, 2017, to issue an evacuation order for approximately 200,000 people living in Oroville and the surrounding communities.

On November 1, 2018, DWR completed reconstruction of the main spillway to its original design capacity of approximately 270,000 cubic feet per second (“cfs”), a capacity almost twice its highest historical outflow. Work on the emergency spillway was substantially completed in April 2019. Mitigation measures such as slope revegetation are expected to be completed in 2021. Although the full extent of the costs of the response and recovery efforts are unknown at this time, DWR has indicated that the total costs of the recovery and restoration project prior to any federal or other reimbursement are estimated to be approximately \$1.1 billion. Cost estimates are based on actual and projected work and may be adjusted further as work continues through completion of the project in 2021. Funding from the Federal Emergency Management Agency (“FEMA”) is generally available under FEMA’s Public Assistance Program to recover 75 percent of eligible costs to restore facilities damaged as a result of natural disasters to their pre-disaster condition. As of March 7, 2019, of the costs incurred and submitted to FEMA, FEMA had approved reimbursement to DWR

of \$128 million for emergency response work and \$205 million for spillway reconstruction, with total approved reimbursement of \$333 million. In its March 12, 2019 public assistance determination memorandum, FEMA denied \$306 million of costs for the upper spillway reconstruction and emergency spillway repair. DWR will continue to submit invoices or estimates of work for construction to FEMA until the full project is completed. DWR is appealing FEMA's decision with respect to the \$306 million of costs for the upper spillway reconstruction and emergency spillway repair and will seek reimbursement of 75 percent of all costs. Any unrecovered costs to be paid for by the State Water Contractors under the State water contracts are expected to be financed long-term with DWR bonds. Metropolitan is unable to assess at this time what costs it will ultimately incur as a State Water Contractor associated with the spillway repairs.

### **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 the source of water for local agricultural, municipal and industrial needs, and also 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 for 2014 and 2015, enabling water to be conserved in reservoirs in case of continued drought.

The SWRCB's current review and update of the WQCP is being undertaken in phased proceedings. In December 2018, the SWRCB completed Phase 1 of the WQCP proceedings, adopting the plan amendments and environmental documents to support new flow standards for San Joaquin River tributaries and revised southern Delta salinity objectives. Various stakeholders filed suit against the SWRCB challenging these amendments. As part of Phase 2 proceedings, a framework document for the second plan amendment process, focused on the Sacramento River and its tributaries, Delta eastside tributaries, Delta outflows, and interior

Delta flows, was released in July 2018. The framework describes changes that will likely be proposed by the SWRCB through formal proposed amendments and supporting environmental documents. The proposed changes include certain unimpaired flow requirements for the Sacramento River and its salmon-bearing tributaries. The SWRCB has also encouraged all stakeholders to work together to reach one or more voluntary agreements for consideration by the SWRCB that could implement the proposed amendments to the WQCP through a variety of tools, while seeking to protect water supply reliability. Metropolitan is participating in the Phase 2 proceedings and voluntary agreement negotiations.

***Bay-Delta Planning Activities; Delta Conveyance.*** 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. The existing State Water Project Delta water conveyance system needs to be improved and modernized to address operational constraints on pumping in the south Delta as well as risks to water supplies and water quality from climate change, earthquakes, and flooding. Operational constraints are largely due to biological opinions and incidental take permits to which the State Water Project is subject that substantially limit the way DWR operates the State Water Project.

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 with the required habitat restoration limited to that directly related to construction mitigation. The associated costs of such mitigation would be underwritten by the public water agencies participating in the conveyance 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 conveyance project or permits. As part of California EcoRestore, which was initiated in 2015, the State is pursuing more than 30,000 acres of Delta habitat restoration. Work on a number of EcoRestore projects is ongoing. Among other things, EcoRestore is expected to implement restoration projects required by the biological opinions issued in 2008 and 2009 to which the State Water Project is subject. EcoRestore is estimated to cost \$300 million in the first four years, and includes amounts being paid by the State Water Contractors, including Metropolitan, for the costs of habitat restoration required to mitigate State and federal water project impacts pursuant to the biological opinions. See also “–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations – State Water Project.”

In July 2017, DWR certified a final EIR and approved the California WaterFix as an improvement to the State Water Project. As originally approved by DWR, California WaterFix, if completed, would have provided new conveyance facilities for the transportation of State Water Project and Central Valley Project water from the north Delta, principally from three new intakes, with a total maximum capacity of 9,000 cfs, through two 30-mile long tunnels running under the Delta, to the existing aqueduct systems in the south Delta. Under the California WaterFix as approved, DWR would have extended the delivery system from new north

Delta water intakes on the Sacramento River to a new forebay in the south Delta to provide additional flexibility in operating the State Water Project.

On July 10, 2018, Metropolitan's Board approved Metropolitan's funding in the aggregate of up to 64.6 percent of the estimated \$17 billion (in 2017 dollars) overall capital cost of the California WaterFix, including its share as a State Water Contractor and through various forms of additional financial support Metropolitan would contribute to the project.

On February 12, 2019, then recently elected Governor Gavin Newsom presented at the State of the State address a conceptual proposal supporting a single-tunnel configuration for new Bay-Delta conveyance instead of the two-tunnel California WaterFix. Subsequently, on April 29, 2019, Governor Newsom issued an executive order directing identified State agencies to develop a comprehensive statewide strategy to build a climate-resilient water system. Among other things, the Governor's executive order directed the State agencies to inventory and assess the current planning for modernizing conveyance through the Bay-Delta with a new single tunnel project. Following the Governor's executive order, in May 2019, DWR withdrew approval of the California WaterFix project and decertified the EIR. In August 2019, DWR terminated the last permit associated with the project.

DWR is pursuing a new environmental review and planning process for a single tunnel project to modernize the State Water Project's Bay-Delta conveyance. The formal environmental review process commenced with the issuance by DWR of a Notice of Preparation under CEQA on January 15, 2020. Planning, environmental review and conceptual design work by DWR for a proposed single tunnel project is expected to take approximately 18 to 36 months.

As authorized by Metropolitan's Board in July 2018, Metropolitan previously committed to provide up to \$86 million in advance funding for California WaterFix. As of May 1, 2019, Metropolitan had provided \$41.5 million in advance funding for pre-construction costs for California WaterFix pursuant to an advance funding agreement with DWR. On June 27, 2019, Metropolitan requested that DWR return all contributions that had not been spent as of May 2, 2019. In December 2019, Metropolitan received \$34.4 million from DWR in returned contributions (including interest earned).

Metropolitan held a Board workshop on March 26, 2019, during which it reviewed the various single tunnel alternatives that the State and Metropolitan analyzed during and after the environmental review process for the California WaterFix project, including a 3,000 cfs diversion capacity one tunnel option, and a 6,000 cfs diversion capacity option that could be implemented with a single main tunnel as a first stage of a potential two-stage implementation of California WaterFix. The expected benefits and estimated costs of each of these alternatives were presented. Based upon the single tunnel alternatives previously analyzed and preliminary estimates, the total capital costs of a 6,000 cfs capacity alternative is estimated to be \$11.1 billion in 2017 dollars (\$11.8 billion as adjusted to 2019 dollars) and the total capital costs of a 3,000 cfs capacity alternative is estimated to be \$9.2 billion in 2017 dollars (\$9.7 billion as adjusted to 2019 dollars). A single tunnel project to be proposed under the new planning effort and environmental review process to be undertaken by DWR may be designed and configured differently than these previously analyzed single tunnel alternatives and therefore the capacity and cost estimates of the single tunnel project that is ultimately proposed by DWR may vary significantly from the estimates above.

Between mid-2017 and mid-2019, California WaterFix was subject to several lawsuits primarily related to DWR's powers to finance and construct the project and various environmental approvals and related matters. The lawsuits, administrative proceedings, and other matters were dismissed as a result of the cancellation of the California WaterFix project. However, new lawsuits could be filed in the future with respect to any new Bay-Delta conveyance project and may impact the anticipated timing and costs of a proposed new single tunnel project.

Metropolitan’s Board has previously authorized Metropolitan’s participation in two joint powers agencies relating to the Bay-Delta conveyance project: the Delta Conveyance Design and Construction Authority (the “Construction JPA”), formed by the participating water agencies to actively participate with DWR in the design and construction of the conveyance project in coordination with DWR and under the control and supervision of DWR; and the Delta Conveyance Finance Authority, formed by the participating water agencies to facilitate financing for the conveyance project. The Construction JPA is providing engineering and design activities to support the DWR’s planning and environmental analysis for a potential new single tunnel Bay-Delta conveyance project.

## **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 right to delivery of 1.5 million acre-feet of Colorado River water annually except as provided under shortage conditions described in Treaty Minute 323. The United States and Mexico agreed to conditions for reduced deliveries of Colorado River water to Mexico in Treaty Minute 323, adopted in 2017. That Minute established the rules under which Mexico agreed to take shortages and create reservoir storage in Lake Mead. Those conditions are in parity with the requirements placed on the Lower Basin States (defined below) in the Lower Basin Drought Contingency Plan (described under “–Colorado River Operations: Surplus and Storage Guidelines” in this Appendix A). 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. Since 2003, Metropolitan’s net diversions of Colorado River water have ranged from a low of nearly 535,000 acre-feet in 2019 to a high of approximately 1,179,000 acre-feet in 2015. Average annual net diversions for 2010 through 2019 were nearly 900,067 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.” See also “–Water Transfer, Storage and Exchange Programs – Colorado River Aqueduct Agreements and Programs.” In 2019, total available Colorado River supply was just over one million acre-feet. A portion of the available supply that was not diverted was stored in Lake Mead for future usage. See also “– Storage Capacity and Water in Storage.”

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

**PRIORITIES UNDER THE 1931 CALIFORNIA SEVEN-PARTY AGREEMENT<sup>(1)</sup>**

<b>Priority</b>	<b>Description</b>	<b>Acre-Feet Annually</b>
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 <sup>(2)</sup> 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
	<b>SUBTOTAL</b>	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 <sup>(3)</sup>	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	
	<b>TOTAL</b>	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 over 98,000 acre-feet annually. Metropolitan receives this water and delivers over 77,000 acre-feet of exchange water annually to the San Diego County Water Authority (“SDCWA”), plus any of the 4,850 acre-feet of mitigation water that is not used in that year, and provides 16,000 acre-feet of water annually by exchange to the United States for use by 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. Water became available for exchange with the United States following a May 17, 2017 notice from the Federal Energy Regulatory Commission (“FERC”) satisfying the last requirement of Section 104 of the San Luis Rey Indian Water Rights Settlement Act (Title I of Public Law 100-675, as amended). The QSA and related agreements also authorized the transfer of conserved water annually by IID to SDCWA (up to a maximum expected amount in 2021 of 205,000 acre-feet, then stabilizing to 200,000 acre-feet per year). Metropolitan also receives this water and delivers exchange water annually to SDCWA. See description under the caption “– Metropolitan and San Diego County Water Authority Exchange Agreement” below; see also “METROPOLITAN REVENUES–Principal Customers” in this Appendix A. 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. See description under the caption “– CVWD Delivery and Exchange Agreement” below. 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 Agreements and Programs” below), which provides up to approximately 133,000 acre-feet of water per year. (Amounts of Colorado River water received by Metropolitan in 2009 through 2018 are discussed under “–Colorado River Water Apportionment and Seven-Party Agreement” above.)

### **Metropolitan and San Diego County Water Authority Exchange Agreement**

No facilities exist to deliver conserved 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.” Accordingly, in 2003, Metropolitan and SDCWA entered into an exchange agreement (the “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. Metropolitan delivers an equal volume of water from its own sources of supply through its delivery system to SDCWA. In consideration for the conserved water made available to Metropolitan by SDCWA, a lower price 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. The term of the Exchange Agreement extends through 2112, subject to the right of SDCWA, upon a minimum of five years’ advance written notice to Metropolitan, to permanently reduce the aggregate quantity of conserved water made available to Metropolitan under the Exchange Agreement to the extent SDCWA decides continually and regularly to transport such conserved water to SDCWA through alternative facilities



(which do not presently exist). In 2018, approximately 207,700 acre-feet were delivered to Metropolitan by SDCWA for exchange, consisting of 130,000 acre-feet of IID conservation plus 77,700 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 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, and Metropolitan has not received any surplus water since 2002.

**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 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 low inflow 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. ICS can be created through 2026 and delivered through 2036. See the table entitled “Metropolitan’s Water Storage Capacity and Water in Storage” under “–Storage Capacity and Water in Storage” below. Under the guidelines and the Colorado River Drought Contingency Plan Authorization Act, California is able to create and deliver up to 400,000 acre-feet of extraordinary conservation ICS (“EC ICS”) annually and accumulate up to 1.7 million acre-feet of EC ICS in Lake Mead. In December 2007, California contractors for Colorado River water executed the California Agreement for the Creation and Delivery of Extraordinary Conservation Intentionally Created Surplus (the “California ICS Agreement”), which established terms and conditions for the creation, accumulation, and delivery of EC ICS by California contractors receiving Colorado River water. The California ICS Agreement apportioned the State’s EC ICS creation, accumulation, and delivery limits provided to California under the 2007 Interim Surplus Guidelines between IID and Metropolitan. No other California contractors were permitted to create or accumulate ICS.

Under the terms of the agreement, IID is allowed to store up to 25,000 acre-feet per year of EC ICS in Lake Mead with a cumulative limit of 50,000 acre-feet. Metropolitan is permitted to use the remaining available EC ICS creation, delivery, and accumulation limits provided to California.

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, 2019, Metropolitan had an estimated 625,000 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 international agreements that converted water conserved by Mexico to the United States.

Since the 2007 Lower Basin shortage guidelines were issued for the coordinated operations of Lake Powell and Lake Mead, the Colorado River has continued to experience drought conditions. The seven Colorado River Basin States, the U.S. Department of Interior through the Bureau of Reclamation, and water users in the Colorado River basin, including Metropolitan, began developing Drought Contingency Plans (“DCPs”) to reduce the risk of Lake Powell and Lake Mead declining below critical elevations through 2026.

In April 2019, the President signed legislation directing the Secretary of the Interior to sign and implement four DCP agreements related to the Upper and Lower Basin DCPs without delay. The agreements were executed and the Upper and Lower Basin DCPs became effective on May 20, 2019. The Lower Basin Drought Contingency Plan Agreement requires California, Arizona and Nevada to store defined volumes of water in Lake Mead at specified lake levels. California would begin making contributions if Lake Mead’s elevation is projected to be at 1,045 feet above sea level or below on January 1. Lake Mead elevation in January 2019 was 1,085 feet. Depending on the lake’s elevation, California’s contributions would range from 200,000 to 350,000 acre-feet a year (“DCP Contributions”). Pursuant to intrastate implementation agreements, Metropolitan will be responsible for 93 percent of California’s DCP Contributions under the Lower Basin DCP. CVWD will be responsible for 7 percent of California’s required DCP Contributions.

Implementation of the Lower Basin DCP enhances Metropolitan’s ability to store water in Lake Mead and to ensure that water in storage can be delivered at a later date. The Lower Basin DCP increases the total volume of water that California may store in Lake Mead by 200,000 acre-feet, which Metropolitan will have the right to use. Water stored as ICS will be available for delivery as long as Lake Mead’s elevation remains above 1,025 feet. Previously, that water would likely have become inaccessible below a Lake Mead elevation of 1,075 feet. DCP Contributions may be made through conversion of existing ICS. These types of DCP Contributions become DCP ICS. DCP Contributions may also be made by leaving water in Lake Mead that there was a legal right to have delivered. This type of DCP Contribution becomes system water and may not be recovered. Rules are set for delivery of DCP ICS through 2026 and between 2027-2057.

The Lower Basin DCP will be effective through 2026. Beginning by the end of 2020, the U.S. Department of Interior through the Bureau of Reclamation, the seven Colorado River Basin States, and water users in the Colorado River basin, including Metropolitan, are expected to begin work on the development of new shortage guidelines for the management and operation of the Colorado River after the term of the 2007 Lower Basin shortage guidelines ends in 2026.

On April 22, 2019, Metropolitan was served notice of a CEQA lawsuit filed by IID against Metropolitan. In this lawsuit, IID is seeking to vacate Metropolitan’s Board actions taken on December 11, 2018 and March 12, 2019 under CEQA and to block Metropolitan from implementing the Lower Basin DCP and any related agreements. The deadline for certifying the administrative record is February 15, 2020, and a trial setting conference is scheduled for March 9, 2020. IID is not seeking immediate injunctive relief; however, Metropolitan is unable to assess at this time the likelihood of success of this litigation or any future claims, or their potential effect on future implementation of the Lower Basin DCP.

***Related Litigation–Navajo Nation Suit.*** 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 – Interim Surplus 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 – Lower Basin Shortage Guidelines and Coordinated Management Strategies for Lake Powell and Lake Mead” above). Metropolitan has used these new guidelines to store over 1,000,000 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. On December 4, 2017, the Ninth Circuit Court of Appeals held that the Navajo Nation lacked standing for its National Environmental Policy Act claims, but that the breach of trust claim was not barred against the federal defendants.

The matter was remanded to the district court in January 2018 to consider the Navajo Nation’s breach of trust claim on its merits. The Navajo Nation sought leave to file an amended complaint on its breach of trust claim twice. On August 23, 2019, the district court issued its order denying the motion to amend, entered judgment against the Navajo Nation, and dismissed the action. In reaching this decision, the court reasoned that the Navajo Nation could not identify a specific statute or regulation that created any trust duty because, in part, it could not identify any specific duty breached by the United States. The court specifically rejected the Navajo Nation’s argument that a trust duty arose out of the implied water rights that attach to federal reservations. The court reasoned that reserved water rights can only apply to water appurtenant to the reservation and to the extent the Navajo Nation based its claim on allegedly appurtenant rights in the mainstream of the Colorado River, the court has no jurisdiction to hear these claims since the U.S. Supreme Court retained continuing, exclusive jurisdiction in *Arizona v. California*. On October 18, 2019, the Navajo Nation filed its notice of appeal in the Ninth Circuit. Briefs are scheduled to be filed by February 26, 2020. Metropolitan is unable to assess at this time the likelihood of success of this litigation 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 Endangered Species Act (“ESA”) or California ESA. Currently, three species (the winter-run and spring-run Chinook salmon and the Delta smelt) are listed under both ESAs. The Central Valley steelhead, the North American green sturgeon and the killer whale are listed

under the federal ESA, and 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 State and federal permits. 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.

The California ESA generally requires an incidental take permit or consistency determination for any action that may cause take of a State-listed species of fish or wildlife. To issue an incidental take permit or consistency determination, the California Department of Fish and Wildlife (“CDFW”) must determine that the impacts of the authorized take will be fully mitigated and not cause jeopardy.

***Delta Smelt and Salmon Federal ESA Biological Opinions and California ESA Consistency Determinations and Incidental Take Permit.*** The U.S. Fish and Wildlife Service (“USFWS”) released a biological opinion on December 15, 2008 on the impacts of the coordinated operations 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. CDFW issued consistency determinations for the State and federally listed species based on the federal biological opinions and issued an incidental take permit for the State-listed Longfin smelt. The water supply restrictions imposed by the 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 2018 are estimated to be 2.26 million acre-feet.

On October 22, 2019, USFWS and NMFS released new biological opinions. Currently, the Bureau of Reclamation anticipates completing its environmental review of the proposed action covered by the new biological opinions in early 2020, at which time it would accept the federal biological opinions and these opinions would become the new federal permits for the State Water Project and the federal Central Valley Project. Concurrently, DWR is also seeking an incidental take permit from CDFW under the California ESA. DWR anticipates completing its environmental review in early 2020, at which time the State incidental take permit would become the new State permit for the State Water Project. Under the new federal biological

opinions and California ESA incidental take permit, State Water Project deliveries may be about the same as current conditions. Litigation has been filed challenging the new biological opinions and there is a potential for litigation challenging the new incidental take permit, which could delay implementation or result in subsequent modifications to coordinated Central Valley Project-State Water Project operations. The impacts of the new biological opinions and incidental take permit, as well as potential litigation challenging them, on Metropolitan's State Water Project supplies is unknown.

### **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 reduce flows by clogging intakes and raw water conveyance systems, alter or destroy fish habitats, and affect lakes and beaches. Mussel management activities may require changes in water delivery protocols to reduce risks of spreading mussel populations and increase operation and maintenance costs.

In January 2007, quagga mussels were discovered in Lake Mead. All pipelines and facilities that transport raw Colorado River water are considered to be infested with quagga mussels. Metropolitan has a quagga mussel control plan, approved by the CDFW to address the presence of mussels in the CRA system and limit further spread of mussels. Year-round routine monitoring for mussel larvae has been conducted at Lake Havasu, selected locations in the CRA system, and non-infested areas of Metropolitan's system and some southern locations in the State Water Project. Recent shutdown inspections have demonstrated that control activities effectively limit mussel infestation in the CRA and prevent the further spread of mussels to other bodies of water and water systems. Metropolitan's costs for controlling quagga mussels in the CRA system over the past 12 years has been approximately \$5 million per year.

Established mussel populations are located within ten miles of the State Water Project. A limited number of mussels have also been detected in State Water Project supplies but there is currently no evidence of established mussel populations, nor have they impacted Metropolitan's State Water Project deliveries. To prevent the introduction and further spread of mussels into the State Water Project, the Bay-Delta, and other uninfested bodies of water and water systems, DWR has also developed quagga mussel control plans and has partnered with other State and federal agencies on a number of related activities. Metropolitan coordinates mussel monitoring and control activities with these agencies.

## **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 CRA capacity. 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, as well as the table entitled "Metropolitan's Water Storage Capacity and Water in Storage" under "–Storage Capacity and Water in Storage" below.

### **State Water Project Agreements and Programs**

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.

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. 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 with agricultural users can make a portion of this agricultural water supply available to support the State's urban areas. The portfolio of supplemental supplies that Metropolitan has developed to be conveyed through the California Aqueduct extend from north of the Bay-Delta to Southern California. Certain of these arrangements are also described below.

***Castaic Lake and Lake Perris.*** Metropolitan has contractual rights to withdraw 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 subsequent years. Metropolitan can store between 100,000 and 200,000 acre-feet, depending on the final water supply allocation percentage.

***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. See “METROPOLITAN’S WATER DELIVERY SYSTEM–Water Quality and Treatment” in this Appendix A for information regarding recent water quality regulations and developments that impact or may impact certain of Metropolitan’s groundwater storage programs.

As described below, 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 storage account balance under the Arvin-Edison/Metropolitan Water Management Program as of January 1, 2019 is shown in the table entitled “Metropolitan’s Water Storage Capacity and Water in Storage” under “–Storage Capacity and Water in Storage” below. As a result of detecting 1,2,3-trichloropropane (“TCP”) in Arvin-Edison wells, Metropolitan has temporarily suspended operation of the program until the water quality concerns can be further evaluated and managed.

***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 storage account balance under the Semitropic program as of January 1, 2019 is shown in the table entitled “Metropolitan’s Water Storage Capacity and Water in Storage” under “–Storage Capacity and Water in Storage” below.

***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. Metropolitan’s storage account balance under this program as of January 1, 2019 is shown in the table entitled “Metropolitan’s Water Storage Capacity and Water in Storage” under “–Storage Capacity and Water in Storage” below.

***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. The agreement allows Metropolitan to annually withdraw Mojave State Water Project contractual amounts, after accounting for local needs. Under a 100 percent allocation, the State Water Contract provides Mojave 82,800 acre-feet of water. Metropolitan’s storage account balance under this program as of January 1, 2019 is shown in the table entitled “Metropolitan’s Water Storage Capacity and Water in Storage” under “–Storage Capacity and Water in Storage” below.

***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

Contractor, to both exchange supplies and store water in the Antelope Valley groundwater basin. Under this agreement, AVEK would provide Metropolitan up to 30,000 acre-feet of storage and the ability to exchange supplies. 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 five percent State Water Project allocation to \$38/acre-foot under an 86 percent State Water Project allocation. DWR has approved the storage program element but has yet to approve the exchange element of the program.

***Antelope Valley-East Kern High Desert Water Bank Program.*** In April 2019, Metropolitan’s Board authorized the General Manager to enter into an agreement with AVEK for a groundwater banking program referred to as the High Desert Water Bank Program. Under this agreement, Metropolitan would pay AVEK for the capital costs of construction of groundwater recharge and recovery facilities to be located in AVEK’s service area near the split of the West and East Branches of the California Aqueduct. Metropolitan currently expects that construction will commence in fiscal year 2019-20. The estimated costs of construction of the facilities is \$131 million. Following completion of construction, which is expected to take approximately five years, Metropolitan would have the right to store up to 70,000 acre-feet per year of its unused Table A State Water Project water or other supplies in the Antelope Valley groundwater basin for later return. The maximum storage capacity for Metropolitan supplies would be 280,000 acre-feet. At Metropolitan’s direction, up to 70,000 acre-feet of stored water annually would be available for return by direct pump back into the East Branch of the California Aqueduct. Metropolitan would pay for the actual operation, maintenance and power costs for the water bank facilities when used for Metropolitan’s benefit. In addition, Metropolitan would pay a set recovery usage fee on all recovered water. In total, the estimated cost to Metropolitan would be \$320/per acre-foot. Upon completion, this program would provide additional flexibility to store and recover water for emergency or water supply needs through 2057.

***San Gabriel Valley Municipal Water District and Other Exchange Programs.*** 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 water in the groundwater basin. Metropolitan’s member agencies can then use the groundwater supplies to meet their needs. Metropolitan can exchange and purchase at least 5,000 acre-feet per year. 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 considerations discussed above under the heading “–Endangered Species Act and Other Environmental Considerations – Endangered Species Act Considerations - State Water Project.”

### **Colorado River Aqueduct Agreements and Programs**

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 2018, 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 each of 2017 and 2018, CVWD’s requests were for 0 acre-feet, leaving 105,000 acre-feet in 2017 and 2018 for Metropolitan. See “–Colorado River Aqueduct –Quantification Settlement Agreement.”

***Palo Verde Land Management, Crop Rotation and Water Supply Program.*** In August 2004, Metropolitan and 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. 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**

<b>Calendar Year</b>	<b>Volume (acre-feet)</b>
2006	105,000
2007	72,300
2008	94,300
2009 <sup>(1)</sup>	144,300
2010 <sup>(1)</sup>	148,600
2011	122,200
2012	73,700
2013	32,800
2014	43,000
2015	94,500
2016	125,400
2017	111,800
2018	95,800
2019 <sup>(2)</sup>	50,500

*Source: Metropolitan.*

<sup>(1)</sup> Includes water from a supplemental fallowing program entered into with PVID in March 2009 that provided for fallowing of additional acreage in 2009 and 2010 and resulted in an additional 24,100 acre-feet and 32,300 acre-feet of water in 2009 and 2010, respectively, made available under the program.

<sup>(2)</sup> Estimate.

***Bard Water District Seasonal Fallowing Program.*** In December 2019, Metropolitan and Bard Water District signed a seven-year agreement for a seasonal fallowing program. Under this program, each year farmers in Bard Water District have the opportunity to be compensated for reducing water use by not irrigating a portion of their land between April 15 and August 15 each year. During this period, farmers typically plant low-value, high water use crops, and this program incentivizes them to fallow the land instead. This program provides up to 6,000 acre-feet of water per year to be available to Metropolitan. The term of the program is through 2026, and during that time the water can either be delivered to Metropolitan or stored in Lake Mead as described below. In 2020, Metropolitan will pay \$452 per acre in fallowing payments for a maximum of 3,000 acres fallowed per year. The payments increase annually with inflation.

***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, tributary, imported, or binational 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 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 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 in weather conditions, and high tributary runoff into the Colorado River. As of January 1, 2019, Metropolitan had taken delivery of 35,000 acre-feet of this water and had 65,000 acre-feet remaining in storage.

***Mexico Pilot Project.*** In November 2012, Metropolitan executed agreements in support of a program to augment Metropolitan’s Colorado River supply between 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. As such, 23,750 acre-feet of Intentionally Created Mexican Allocation was converted to Binational ICS and credited to Metropolitan’s binational ICS water account in 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.” As of January 1, 2019, that water was stored in Lake Mead for Metropolitan’s future use.

***Storage and Interstate Release Agreement with Nevada.*** In May 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 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 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. In subsequent years, SNWA may request recovery of the stored water. 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 plus inflation based on the amount of water returned. However, it is expected that SNWA will not request return of any of the water stored with Metropolitan before 2022.

***California ICS Agreement Intrastate Storage Provisions.*** In addition to establishing terms and conditions for the creation, accumulation, and delivery of ICS by California contractors, the California ICS Agreement allows IID to store up to 25,000 acre-feet per year of conserved water within Metropolitan’s system with a cumulative limit of 50,000 acre-feet. Under a 2015 amendment, IID was permitted to store up to 100,000

acre-feet per year of conserved water within Metropolitan’s system with a cumulative limit of 200,000 acre-feet, for a three-year term (2015-2018). When requested by IID, Metropolitan has agreed to return to IID the lesser of either 50,000 acre-feet per year, or in a year in which Metropolitan’s member agencies are under a shortage allocation, 50 percent of the cumulative amount of water IID has stored with Metropolitan under the 2015 amendment. IID currently has 162,000 acre-feet of water stored with Metropolitan pursuant to the terms of the California ICS Agreement.

### **State Water Project and Colorado River Aqueduct Arrangements**

***Metropolitan/CVWD/Desert Water Agency Exchange and Advance Delivery Agreement.*** Metropolitan has agreements with CVWD and the Desert Water Agency (“DWA”) in which Metropolitan exchanges its Colorado River water for those agencies’ State Water Project contractual water and other State Water Project water acquisitions 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 may deliver Colorado River water in advance of receiving State Water Project supplies 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 may meet the exchange delivery obligation through drawdowns of the advance delivery account, rather than deliver Colorado River water in that year. Metropolitan’s storage account under the CVWD/DWA program as of January 1, 2019 is shown in the table entitled “Metropolitan’s Water Storage Capacity and Water in Storage” under “–Storage Capacity and Water in Storage” below. In addition to the storage benefits of the program, Metropolitan receives water quality benefits with increased deliveries of lower salinity water from the State Water Project in lieu of delivering higher saline Colorado River water. In December 2019, the exchange agreements were amended to provide more flexibility and operational certainty for the parties involved. Additionally, under the amended agreements, CVWD and DWA in wet years pay a portion of Metropolitan’s water storage management costs, up to a combined total of \$4 million per year.

### **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 6.1 million acre-feet. In 2019, approximately 626,000 acre-feet of total stored water in Metropolitan’s reservoirs and other storage resources 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 and Emergency Response Measures” 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 and California ESA Consistency Determinations and Incidental Take Permit.” 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. 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” in this Appendix A. As a result of increased State Water Project supplies and reduced demands from 2016 to 2019, Metropolitan’s storage as of January 1, 2019 is estimated to be 2.98 million acre-feet. Due to the relatively higher State Water Project allocation in 2019 and improving conditions on the Colorado River, Metropolitan

expects January 1, 2020 storage to be approximately 3.8 million acre-feet. As a result of a collaborative process between Metropolitan and its member agencies to evaluate Metropolitan’s Emergency Storage Objective, by January 1, 2020 the total emergency storage in Metropolitan’s reservoirs and other storage resources will be increased from 626,000 acre-feet to 750,000 acre-feet and the emergency storage in Metropolitan’s reservoirs will be increased from 298,000 acre-feet to 369,000 acre-feet. 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<sup>(1)</sup>**  
(in Acre-Feet)

<u>Water Storage Resource</u>	<u>Storage Capacity</u>	<u>Water in Storage January 1, 2019</u>	<u>Water in Storage January 1, 2018</u>	<u>Water in Storage January 1, 2017</u>
<b><u>Colorado River Aqueduct</u></b>				
DWA / CVWD Advance Delivery Account	800,000	235,000	228,000	38,000
Lake Mead ICS	<u>1,563,000</u>	<u>625,000</u>	<u>479,000</u>	<u>157,000</u>
<b>Subtotal</b>	<b>2,363,000</b>	<b>860,000</b>	<b>707,000</b>	<b>195,000</b>
<b><u>State Water Project</u></b>				
Arvin-Edison Storage Program <sup>(2)</sup>	350,000	154,000	149,000	108,000
Semitropic Storage Program	350,000	187,000	187,000	125,000
Kern Delta Storage Program	250,000	138,000	138,000	99,000
Mojave Storage Program	330,000 <sup>(5)</sup>	19,000 <sup>(5)</sup>	27,000	27,000
AVEK Storage Program	30,000	9,000	9,000	--
Castaic Lake and Lake Perris <sup>(3)</sup>	219,000	219,000	219,000	154,000
State Water Project Carryover <sup>(4)</sup>	350,000 <sup>(6)</sup>	93,000	325,000	210,000
Emergency Storage	<u>328,000</u>	<u>328,000</u>	<u>328,000</u>	<u>328,000</u>
<b>Subtotal</b>	<b>2,207,000</b>	<b>1,147,000</b>	<b>1,382,000</b>	<b>1,051,000</b>
<b><u>Within Metropolitan’s Service Area</u></b>				
Diamond Valley Lake	810,000	702,000	747,000	566,000
Lake Mathews	182,000	141,000	139,000	135,000
Lake Skinner	<u>44,000</u>	<u>37,000</u>	<u>38,000</u>	<u>7,000</u>
<b>Subtotal<sup>(7)</sup></b>	<b>1,036,000</b>	<b>880,000</b>	<b>924,000</b>	<b>708,000</b>
<b><u>Member Agency Storage Programs</u></b>				
Cyclic Storage and Conjunctive Use	<u>500,000</u>	<u>97,000</u>	<u>88,000</u>	<u>1,000</u>
<b>Total</b>	<b><u>6,106,000</u></b>	<b><u>2,984,000</u></b>	<b><u>3,101,000</u></b>	<b><u>1,955,000</u></b>

Source: Metropolitan

- (1) Water storage capacity and water in storage are measured based on engineering estimates and are subject to change.
- (2) Metropolitan has temporarily suspended operation of the Arvin-Edison storage program. See “METROPOLITAN’S WATER SUPPLY–Water Transfer, Storage and Exchange Programs – Arvin-Edison/Metropolitan Water Management Program” and “METROPOLITAN’S WATER DELIVERY SYSTEM–Water Quality and Treatment” in this Appendix A.
- (3) Flexible storage allocated to Metropolitan under its State Water Contract. Withdrawals must be returned within 5 years.
- (4) Includes Article 56 Carryover of Metropolitan, Coachella Valley Water District, and Desert Water Agency, prior-year carryover, non-project carryover, and carryover of curtailed deliveries pursuant to Article 14(b) of Metropolitan’s State Water Contract.
- (5) The Mojave Storage agreement was amended in 2011 to allow for cumulative storage of up to 390,000 acre-feet. Since January 1, 2011, Metropolitan has stored 60,000 acre-feet, resulting in a remaining balance of storage capacity of 330,000 acre-feet. 41,000 acre-feet of the 60,000 acre-feet stored has been returned, leaving a remaining balance in storage of 19,000 acre-feet.
- (6) A capacity of 350,000 acre-feet is estimated to be the practical operational limit for carryover storage considering Metropolitan’s capacity to take delivery of carryover supplies before San Luis Reservoir fills.
- (7) Includes 298,000 acre-feet of emergency storage in Metropolitan’s reservoirs in 2017, 2018, and 2019.

## 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 State Water Project” and “–Endangered Species Act and Other Environmental Considerations –Endangered Species Act Considerations-State Water Project – Delta Smelt and Salmon Federal ESAs Biological Opinions and California ESA Consistency Determinations and Incidental Take Permit” in this Appendix A. 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 conservation goals of the 2015 IRP Update. See “METROPOLITAN’S WATER SUPPLY–Integrated Water Resources Plan” in this Appendix A. All users of Metropolitan’s system benefit from the reduced infrastructure costs and system capacity made available by investments in demand management programs like the Conservation Credits Program. Under the terms of 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. Direct spending by Metropolitan on active conservation incentives, including rebates for water-saving plumbing fixtures, appliances and equipment totaled about \$16.4 million in fiscal year 2018-19. The 2015 IRP Update estimates that Metropolitan’s conservation efforts will result in 1,197,000 acre-feet of water being conserved annually in Southern California by 2025. See also “METROPOLITAN’S WATER SUPPLY–Integrated Water Resources Plan” in this Appendix A and “–Increased Drought Resiliency” below.

Historically, revenues collected by Metropolitan’s Water Stewardship Rate and available grant funds have funded conservation incentives, local resource development incentives, and other water demand management programs. The Water Stewardship Rate is charged on every acre-foot of water conveyed by Metropolitan, except on water delivered to SDCWA pursuant to the Exchange Agreement (see “METROPOLITAN REVENUES–Water Rates” and “–Litigation Challenging Rate Structure” in this Appendix A) in calendar years 2018, 2019, and 2020. The Water Stewardship Rate will be collected for water deliveries through December 31, 2020, except for water delivered pursuant to the Exchange Agreement. See “METROPOLITAN REVENUES–Rate Structure –Water Stewardship Rate” in this Appendix A.

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 transactions 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 potable water use of 20 percent reductions (from a baseline per capita use determined utilizing one of four State-approved methodologies) 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 transactions 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 Metropolitan's IRP goals that include the reduction of overall regional per capita water use by 20 percent by 2020 from a baseline of average per capita water use from 1996-2005 in Metropolitan's service area. As of calendar year 2018, per capita water use in Metropolitan's service area was below the 20 percent by 2020 target.

### **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 and if needed is typically approved in the month of April with implementation beginning in the month of July. 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" in this Appendix A), 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 "—Increased Drought Resiliency." Based upon current hydrologic conditions and current DWR State Water Project allocation estimates, implementation of the Water Supply Allocation Plan for fiscal year 2019-20 is not expected.

### **Increased Drought Resiliency**

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. In May 2017, the Alliance for Water Efficiency presented a peer review report of Metropolitan's conservation programs. Program modifications were adopted in April 2018 to reflect the peer review recommendations as well as feedback from member agencies. See "CONSERVATION AND WATER SHORTAGE MEASURES—General." Metropolitan has also taken other actions to improve drought

resiliency that include increasing water recycling by providing incentives for on-site recycled water hook-ups, improving return capability of storage programs, and modifying Metropolitan’s distribution system to enhance Colorado River water delivery to mitigate limitations in State Water Project supply.

## **REGIONAL WATER RESOURCES**

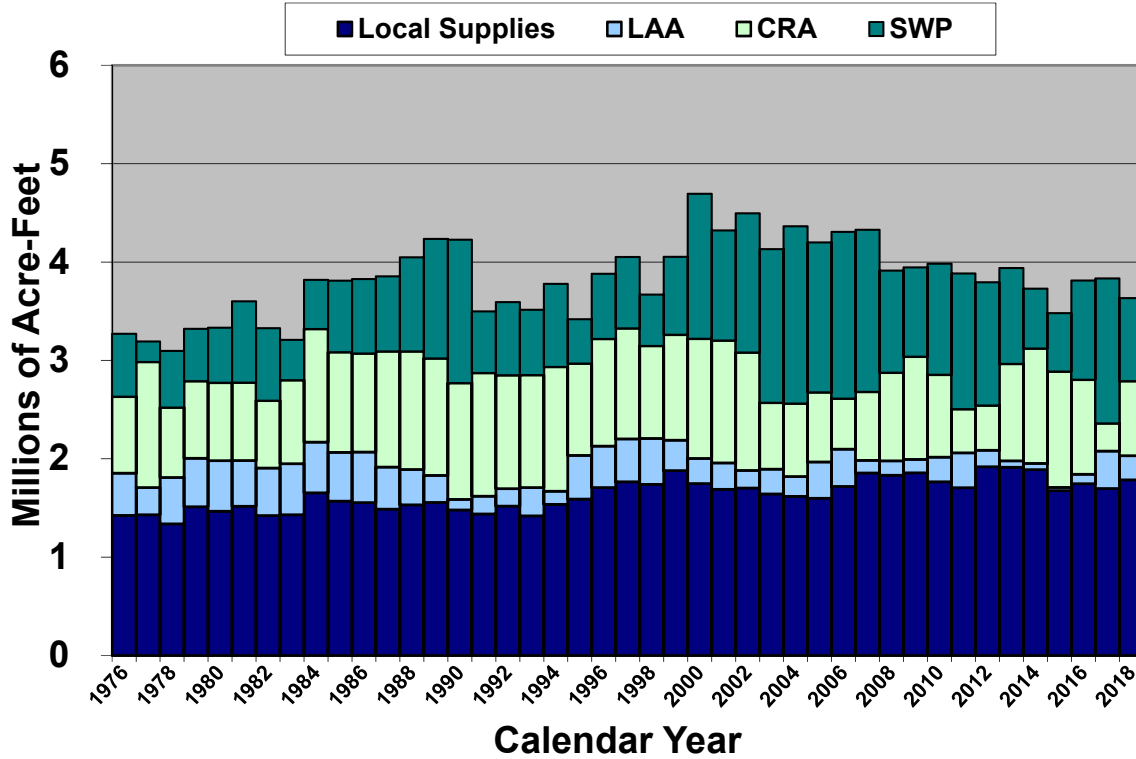
The water supply for Metropolitan’s service area is provided in part by Metropolitan and in part by non-Metropolitan sources available to members. Approximately 60 percent of the water supply for Metropolitan’s service area is imported water received by Metropolitan from the CRA and the State Water Project 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 the volume of Metropolitan’s water transactions. 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 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 2018.

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## Sources of Water Supply in the Metropolitan Service Area (1976-2018)



Source: Metropolitan.

The major sources of water available to some or all of Metropolitan’s member agencies in addition to supplies provided by Metropolitan are described below.

### Los Angeles Aqueduct

The City of Los Angeles, 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 prohibited from exporting water when Mono Lake elevation is below 6,377 feet above mean sea level, and 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, on April 1 of the runoff year. If Mono Lake is above elevation 6,391 feet, the City may export all available water from the Basin that is not dedicated to instream fishery protection flows. Due to the near record snowpack in the Eastern Sierra during the winter of 2016-17, the April 1, 2018 Mono Lake water level reached 6,382 feet, surpassing the 6,380 feet threshold which permits the increase of exports to all available water from the Basin not dedicated to instream fishery protection flows pursuant to Decision 1631. As of April 1, 2019, Mono Lake water levels reached 6,382.1 feet.



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. The turnout was completed in December 2018 and enables 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, available capacity in the California Aqueduct and compliance with State Water Project water quality requirements.

Prior to 1991, the Los Angeles Aqueduct and local groundwater supplies had been nearly sufficient to meet the City's water demands during normal water supply years. As a result, only about 13 percent of the City's water needs (approximately 82,000 acre-feet) was supplied by Metropolitan. From fiscal year 2000-01 to fiscal year 2018-19, approximately 28 to 75 percent of the City's total water requirements were met by Metropolitan. For the five fiscal years ended June 30, 2019, the City's water deliveries from Metropolitan averaged approximately 247,900 acre-feet per year, which constituted approximately 49 percent of the City's total water supply. Deliveries from Metropolitan to the City during this period varied between approximately 137,800 acre-feet per year and approximately 362,700 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 expects to decrease reliance on Metropolitan from the five-year average ending June 30, 2015 of 57 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 236,000 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 8,700 acre-feet of water from the water use baseline established in 2013 and is expected to expand water savings in the future. LADWP reports that in calendar year 2018, 93,500 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, 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. See also "METROPOLITAN'S WATER DELIVERY SYSTEM–Water Quality and Treatment" in this Appendix A for information regarding recent water quality regulations and developments that impact or may impact certain local groundwater supplies.

Metropolitan's water transaction 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 transaction projection is made. Additional reductions in Metropolitan's water transaction 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 Transactions Projections" and "METROPOLITAN'S WATER SUPPLY–Integrated Water Resources Plan" in this Appendix A.

**Groundwater.** Demands for about 1.1 million acre-feet per year, about one-third of the annual water demands for approximately 19 million residents of Metropolitan’s service area, are met from groundwater production. Local groundwater supplies are supported by recycled water, which is blended with imported water and recharged into groundwater basins, and also used for creating seawater barriers that protect coastal aquifers from seawater intrusion.

**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 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 use of 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. See the table entitled “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 26 projects that recover contaminated groundwater with total contract yields of about 120,000 acre-feet per year. During fiscal year 2018-19, Metropolitan provided incentives for approximately 50,000 acre-feet of recovered water under these agreements. Total groundwater recovery use under executed agreements is expected to grow to 67,000 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 110,000 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 37,000 acre-feet in calendar year 2016.

**Recycled Water-Local Agency Projects.** 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 83 recycled water projects with total expected contract yields of about 312,000 acre-feet per year. During fiscal year 2018-19, Metropolitan provided incentives for approximately 138,000 acre-feet of recycled water under these agreements. Total recycled water use under executed agreements currently in place is expected to be approximately 185,000 acre-feet annually by 2020. On December 10, 2019, Metropolitan’s Board authorized the General Manager to enter into a Local Resources Program agreement with SDCWA and the City of San Diego to provide financial incentives in connection with the first phase of a proposed recycling project (the San Diego Pure Water North City Project Phase 1) being developed by the City of San Diego. Phase 1 of the project, if completed, would provide up to 33,600 acre-feet annually of recycled

water for surface water augmentation, and Local Resource Program financial incentives of up to \$285.6 million could be provided by Metropolitan for the project over a 25-year period. As noted above, Local Resources Program agreements provide incentives of up to \$340 per acre-foot of water production (based on actual project unit costs that exceed Metropolitan's water rates) from local water supply projects developed by local and member agencies. Agreement terms are for 25 years and terminate automatically if construction does not commence within two years of agreement execution or if recycled water deliveries are not realized within four years of agreement execution.

***Recycled Water-Metropolitan Regional Program Demonstration Project.*** Since 2010, Metropolitan has been evaluating the potential and feasibility of implementing a regional recycled water program. Chronic drought conditions have resulted in significant reductions in local surface supplies and groundwater production and have increased the need for recharge supplies to groundwater and surface water reservoirs to improve their sustainable yields and operating integrity. In 2015, Metropolitan executed an agreement with the Sanitation Districts of Los Angeles County ("LACSD") to implement a demonstration project and to establish a framework of terms and conditions of a regional recycled water program (the "RRWP"). The objectives of the RRWP are to enable the potential reuse of up to 150 million gallons per day ("mgd") of treated effluent from LACSD's Joint Water Pollution Control Plant ("JWPCP"). Purified water from a new advanced treatment facility could be delivered through pipelines to the region's groundwater basins, industrial facilities, and two of Metropolitan's treatment plants. Construction of a 0.5-mgd advanced water treatment demonstration plant was approved in 2017 and was completed in September 2019. Testing and operation of the plant began in October 2019 to confirm treatment costs and provide the basis for regulatory approval of the proposed treatment process. The initial phase of testing is scheduled for completion in 2020 with future testing phases planned that will form the basis for the design, operation, and optimization of a full-scale advanced water treatment facility. Finally, the RRWP will have the flexibility to be expanded in the future to implement Direct Potable Reuse ("DPR") through raw water augmentation at two of Metropolitan's treatment plants. The SWRCB Division of Drinking Water ("DDW") is in the process of developing regulations for DPR in California, with the current anticipated date for promulgation by the end of 2023.

***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: City of Long Beach, Municipal Water District of Orange County ("MWDOC") and West Basin Municipal Water District ("West Basin MWD"). 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 water 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. While the City of Long Beach is no longer pursuing a seawater desalination project, MWDOC's project (the Doheny desalination project) is now in the permitting phase and West Basin MWD's project is in the environmental review phase. If completed, the two would produce up to 25,000 acre-feet initially and potentially up to 75,000 acre-feet if expanded in the future. The SDP agreements are currently active but will automatically terminate in July 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") 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 from the Carlsbad Project 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 pursuing a 56,000 acre-feet per year plant in Huntington Beach. The project is currently in the permitting phase.

Another project with the potential to augment regional supplies is a seawater desalination project in Rosarito Beach, Mexico. A consortium of private companies led by Consolidated Water Co., Ltd. and its Mexican subsidiary, N.S.C. Agua S.A. de C.V., is developing the project. The 56,000 to 112,000 acre-feet per year project is in the pre-construction phase and could supply Metropolitan's service area through exchange agreements. Additional 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 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. 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, four reservoirs, 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 water 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.

***Distribution System.*** Metropolitan’s distribution system is a complex network of facilities which routes water from the CRA and State Water Project to Metropolitan’s member agencies. The water distribution system includes components that were built beginning in the 1930s and through the present. Metropolitan owns all of these components, including 9 reservoirs (excluding the finished water reservoirs at the treatment plants), 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 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 emergency (assuming that there has been no impairment of Metropolitan’s internal distribution network). See the table entitled “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 cfs, allowing the East Branch to operate up to its full capacity. Construction of the Inland Feeder was completed in September 2009 at a total cost of \$1.14 billion.

***Operations Control Center.*** Metropolitan’s water conveyance and distribution system operations are coordinated from the Operations Control Center (“OCC”) centrally located in Los Angeles County. 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 Quality and 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 2.4 billion gallons per day. Approximately 50 percent of Metropolitan’s water deliveries are treated water.

Federal and state regulatory agencies continually identify potential contaminants 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 U.S. Environmental Protection Agency (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 DDW, formerly the Drinking Water Program under the California Department of Public Health, has primary responsibility for the regulation of public water 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. 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. These NPDES permits, which the SWRCB issued to Metropolitan, 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.

As described herein, Metropolitan has established five groundwater storage programs with other water agencies that allow Metropolitan to store available supplies in the Central Valley for return later. These programs help manage supplies by putting into storage surplus water in years when it is available and converting that to dry year supplies to be returned when needed. These programs can also provide emergency supplies. See “METROPOLITAN’S WATER SUPPLY–Water Transfer, Storage and Exchange Programs – State Water Project Agreements and Programs” and “–Storage Capacity and Water in Storage” in this Appendix A. Generally, water returned to Metropolitan under these groundwater storage programs (“return water”) may be made available in one of two ways: by direct pump back from a groundwater well to the California Aqueduct or, when available, by an exchange with a supply already in the aqueduct. Water quality issues can arise in water returned by direct pumping as a result of the presence of a water quality contaminant in the groundwater storage basin and due to the imposition of stricter water quality standards by federal or State regulation.

In 2017, the SWRCB adopted a regulation setting a Maximum Contaminant Level (“MCL”) for TCP of five parts per trillion or 5 ppt based upon a running annual average. TCP is a manufactured chemical used as a cleaning and degreasing solvent and has been found at industrial and hazardous waste sites. It is also associated with pesticide products used in agricultural practices. In January 2018, the new regulation went into effect. Under the new regulation, drinking water agencies are required to perform quarterly monitoring of TCP. There have been no detections of this chemical in Metropolitan’s system. However, TCP has been detected above the new MCL in groundwater wells of three of Metropolitan’s groundwater storage program partners through monitoring performed by these agencies. Levels detected in groundwater wells of the Arvin-Edison Water Storage District are the highest and will impact the ability of Metropolitan to take return water under that program. As noted under “METROPOLITAN’S WATER SUPPLY–Water Transfer, Storage and Exchange Programs” in this Appendix A, Metropolitan has temporarily suspended operation of this program until the water quality concerns can be further evaluated and managed. The levels of TCP detected at Metropolitan’s other groundwater storage programs are much lower and impact fewer groundwater wells. Metropolitan is evaluating the effects of TCP on the return capability of those programs.

Possible remediation measures include, for example, return water with other surface water supplies, removal of wells from service, return water by exchange, or treatment. Additional capital and/or operation and maintenance costs could be incurred by Metropolitan in connection with remediation options, but the magnitude of such costs is not known at this time. To the extent return water under one or more groundwater storage programs could not be utilized due to groundwater quality, the available supply of stored water during extended drought or emergency periods would be reduced.

Metropolitan continually monitors new water quality laws and regulations and frequently comments on new legislative proposals and regulatory rules. For example, on June 26, 2019, the USEPA proposed setting the MCL for perchlorate at 56 micrograms per liter ( $\mu\text{g/L}$ ). Perchlorate is both a naturally occurring and man-made chemical used in the production of rocket fuel, missiles, fireworks, flares and explosives. It is also sometimes present in bleach and in some fertilizers. Groundwater in the Henderson, Nevada area has been contaminated with perchlorate as a result of two former chemical manufacturing facilities, and there are ongoing remediation programs to mitigate its release into the Las Vegas Wash and the downstream Colorado River. In addition to its proposed setting of a perchlorate MCL of 56  $\mu\text{g/L}$ , the USEPA sought comment on three alternative regulatory options: (1) setting an MCL for perchlorate at 18  $\mu\text{g/L}$ ; (2) setting an MCL for

perchlorate at 90 µg/L; or (3) withdrawing EPA’s 2011 determination to regulate perchlorate in drinking water. On August 23, 2019, Metropolitan submitted a comment letter on the USEPA’s proposed regulation, recommending that the USEPA consider the health effects data used by several states for setting MCLs and Advisory Levels for perchlorate, as well as the monitoring and compliance guidance provided by California and Massachusetts in developing their perchlorate MCLs. Also, Metropolitan expressed its concern that the USEPA does not have an up-to-date accounting of perchlorate contamination and that the USEPA excluded perchlorate data from California and Massachusetts. As it has in the past, Metropolitan continued to urge the USEPA to establish a drinking water regulation for perchlorate that is protective of human health and prevents any adverse impact to the Colorado River and the millions of users that rely upon it as a source of drinking water supply. Lastly, Metropolitan asked the USEPA not to withdraw its 2011 determination to regulate perchlorate in drinking water; otherwise, drinking water utilities in Nevada and Arizona which rely on Colorado River water could then have higher levels of perchlorate in their source water, and California drinking water utilities, including some of Metropolitan’s member agencies, would be challenged to comply with California’s MCL for perchlorate of 6 µg/L if remediation efforts in the Henderson area were slowed down in the absence of a federal regulation. California is also reviewing its MCL for perchlorate in light of a revised Public Health Goal of 1 µg/L adopted in February 2015. Metropolitan will continue to participate in federal and state rulemaking proceedings.

Metropolitan is monitoring and commenting on the development of legislation, laws, and regulations regarding per- and poly-fluoroalkyl substances (“PFAS”). PFAS are substances widely used in consumer and industrial products such as fabrics, carpets, firefighting foams, food packaging and nonstick cookware and are known for their nonstick, waterproof, and heat and stain resistant properties. California’s current response level for the combined values of perfluorooctane sulfonate (“PFOS”) and perfluorooctanoic acid (“PFOA”) (the two most common synthetic organic chemicals in the group of compounds referred to as PFAS) is 70 ppt, but DDW is expected to lower the response level in 2020. Response levels are thresholds at which DDW recommends water systems remove a water source from use. If an agency does not remove the source, DDW recommends the agency notify its local governing body, notify customers directly and tell them the reason for continued use of the source, issue a press release, and conduct regular sampling. In August 2019, DDW lowered the notification levels for PFOS from 13 ppt to 6.5 ppt and for PFOA from 14 ppt to 5.1 ppt. Notification levels are non-regulatory, precautionary health-based measures for concentrations of chemicals in drinking water that warrant notification and further monitoring and assessment. On July 31, 2019, Governor Newsom signed Assembly Bill 756 (Garcia) into law which will result in increased PFAS notification and reporting requirements beginning in 2020. Metropolitan is supporting its member agencies as they assess whether PFOA and PFOS are present in their supplies and, if so, to what extent. Metropolitan has also requested DWR to seek testing at Metropolitan’s groundwater storage sources in the Central Valley, from which water is conveyed through the State Water Project to Southern California. No PFOA or PFOS have been detected in Metropolitan’s imported water supplies, and Metropolitan may experience increased demands for its imported water to help offset the potential loss of any affected local supplies.

Metropolitan is currently operating in compliance with all state and federal drinking water regulations and permit requirements.

### **Seismic Considerations and Emergency Response Measures**

**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 20 dams and reservoirs permitted by DWR's Division of Safety of Dams. 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, in conjunction with DWR and LADWP, has formed the Seismic Resilience Water Supply Task Force for the purpose of collaborating on studies and mitigation measures aimed at improving the reliability of imported water supplies to Southern California. Specific task force goals included revisiting historical assumptions regarding potential aqueduct outages after a seismic event; establishing a common understanding about individual agency aqueduct vulnerability assessments, projected damage scenarios, and planning assumptions; and discussing ideas for improving the resiliency of Southern California's imported water supplies through multi-agency cooperation. The task force has established multi-year goals and will continue to meet on these issues and develop firm plans for mitigating seismic vulnerabilities.

Metropolitan's resiliency efforts include manufacturing, pipe fabrication and coating capabilities in La Verne, California. Over \$47 million has been invested to enhance and expand Metropolitan's capacity to provide fabrication, manufacturing, and coating services for rehabilitation work, maintenance activities, and capital projects. Upon request, Metropolitan is also able to provide manufacturing, coating and fabrication services through reimbursable agreements to member agencies, and DWR. These agreements have enhanced timely and cost-effective emergency response capabilities. Materials to fabricate pipe and other appurtenant fittings are kept on site. In the event of earthquake damage, Metropolitan has taken measures to provide the design and fabrication capacity to fabricate pipe and manufacture 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 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.

Metropolitan, in cooperation with the other 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 experience 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. Repair work was completed in April 2018. DWR's current estimate for repair costs, inclusive of environmental and right-of-way work is \$125.6 million. DWR has begun to refill Lake Perris to allow the dam to be tested and certified to again store 130,000 acre-feet of water. 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 are being 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.

The dam remediation is one of three major projects to improve seismic stability and enhance public safety in the Perris Dam Remediation Program. The other two projects include the Outlet Tower Improvements project and the Emergency Release Facility ("ERF") project. Construction on the Outlet Tower Improvements project began October 2, 2019. Work on the outlet tower bridge, with modifications to bridge support, bridge seat, end diaphragm, and installation of stiffener plates, is planned for completion in the fall of 2020. The ERF is in design and the project EIR was published in February 2018. The ERF project includes improvements downstream of the reservoir that would direct the flow of water in an emergency requiring the dewatering of the reservoir. Flows would be directed through a series of berms and lined and unlined channels that would ultimately terminate at the Riverside County Flood Control and Water Conservation District's Perris Valley

Channel. The Outlet Tower Improvements and ERF projects enhance the safety of the dam for other risks in addition to that posed by earthquakes. It is anticipated that costs will be shared in the same manner as for the Lake Perris dam remediation project. DWR’s current estimate for repair costs (including the share of costs to be assumed by the State) is \$49.8 million for the Outlet Tower Improvements project and \$62.3 million for the ERF project (of which Metropolitan’s anticipated share would be 42.9 percent).

### **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 reasonably designed 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 infrastructure and system reliability projects, either as upgrades to existing capital assets or replacements and refurbishments of existing facilities, to ensure reliability as well as enhance operational efficiency and flexibility, and comply with water quality regulations. Metropolitan’s CIP is regularly reviewed and updated. Metropolitan’s biennial budget process includes a review of the projected long-term capital needs and the development of a capital expenditure forecast for the ten-year financial forecast, as well as the identification of the capital priorities of Metropolitan over the biennial budget term. While the award of major contracts and professional services agreements are subject to approval by Metropolitan’s Board, in October 2018 the Board amended the Administrative Code to update the process for appropriating funds and authorizing work to proceed for capital projects. Under the revised process, following the adoption of the biennial budget, a Board action is presented to (1) appropriate the total amount of approved biennial CIP expenditures and (2) authorize the General Manager to initiate and proceed with all work on projects that have been included in the CIP for such biennial period. The new appropriation process has resulted in faster implementation of capital projects. The amount and timing of borrowings to fund capital expenditures 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. In addition, from time to time, when circumstances warrant, Metropolitan’s Board may approve capital expenditures other than or in addition to those contemplated by the CIP at the time of the then current biennial budget.

### **Projection of Capital Investment Plan Expenditures**

The table below sets forth the projected CIP expenditures by project type for the fiscal years ending June 30, 2020 through 2024, as projected for fiscal year 2020 and as reflected in the preliminary biennial budget for fiscal years 2020-21 and 2021-22. This estimate is updated every two years as a result of the periodic review and adoption of the capital budget by Metropolitan’s Board. See “HISTORICAL AND PROJECTED REVENUES AND EXPENSES” in this Appendix A.

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

	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>Total<sup>(2)</sup></b>
Infrastructure R&R	\$ 142,674	\$120,547	\$108,044	\$180,576	\$191,095	\$742,937
Infrastructure Upgrade	126,689	87,683	92,134	118,896	108,885	534,287
Regulatory Compliance	4,990	5,054	4,277	419	20	14,759
Stewardship	3,873	1,218	754	--	--	5,845
Supply Reliability	3,992	3,528	1,265	--	--	8,785
System Flexibility	--	2,163	18,428	109	--	20,700
Water Quality	7,782	4,808	98	--	--	12,687
<b>Total<sup>(2)</sup></b>	<b>\$290,000</b>	<b>\$225,000</b>	<b>\$225,000</b>	<b>\$300,000</b>	<b>\$300,000</b>	<b>\$1,340,000</b>

Source: Metropolitan.

<sup>(1)</sup> Fiscal year 2019-20 is based on current projections and reflects Metropolitan’s updating of its process of appropriating CIP projects and the resulting faster implementation of capital projects. Fiscal years 2020-21 through 2023-24 are based on the ten-year financial forecast provided in the preliminary biennial budget for fiscal years 2020-21 and 2021-22.

<sup>(2)</sup> Totals may not foot due to rounding.

In developing the CIP, projects are reviewed, scored and prioritized towards the objectives of ensuring the sustainable delivery of reliable, high quality water, while meeting all regulatory requirements and maintaining affordability. 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 additional facilities’ needs. See “METROPOLITAN’S WATER DELIVERY SYSTEM–Water Quality and Treatment” in this Appendix A.

Construction projects included in the CIP are subject to ordinary construction risks and delays, including but not limited to: inclement weather or natural hazards affecting work and timeliness of completion; contractor claims or nonperformance; work stoppages or slowdowns; unanticipated project site conditions encountered during construction; errors or omissions in contract documents requiring change orders; and/or higher than anticipated construction bids or costs, any of which could affect the costs and availability of, or delivery schedule for, equipment, components, materials, labor or subcontractors, and result in increased CIP costs.

### 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. In connection with the biennial budget process and the development of the ten-year financial forecast provided therein, an internal funding objective is established for the funding of capital program expenditures from current revenues. An internal funding objective to fund 60 percent of capital program expenditures from current revenues was established in connection with the adoption of the biennial budget for fiscal years 2018-19 and 2019-20. This objective is updated every two years as a result of the periodic review and adoption of the capital budget by Metropolitan’s Board. The remainder of capital program expenditures are expected to 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.

The issuance of approximately \$270 million of additional water revenue bonds to fund or reimburse prior capital expenditures, and to refinance \$100 million of outstanding short-term senior lien notes issued for such purposes, is planned for fiscal year 2019-20. Current projections for each of the fiscal years 2020-21 through 2023-24 assume the issuance of approximately \$100 million of additional water revenue bonds. These revenue bonds may 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 is reflected in the financial projections under “HISTORICAL AND PROJECTED REVENUES AND EXPENSES” in this Appendix A.

### **Major Projects of Metropolitan’s Capital Investment Plan**

**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, replacement of the sand trap facilities upstream of the Hinds, Eagle Mountain, and Iron Mountain pumping plants, and replacement of the outlet gates and appurtenant electrical, mechanical, and control systems at the Copper Basin Reservoir. Projects currently underway to refurbish or replace electrical and mechanical system components at each of the five pumping plants includes power cables, uninterruptible power supply systems, and sump systems. Additionally, many of the mechanical and electrical components, including the nine main pumps and motors at each of the five pumping plants will be evaluated and replaced or refurbished over the next several years. The current projected cost estimate for all prior and planned refurbishment or replacement projects under the CRA facilities program is \$854.4 million. Costs through August 2019 were \$283.9 million. Budgeted aggregate capital expenditures for improvements on the CRA for fiscal years 2018-19 and 2019-20 are \$110.0 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 improvements to several sections of PCCP. The costs for these improvements through August 2019 were \$97.7 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 by relining with a welded steel liner. The first major contract to reline approximately 4.5 miles of PCCP on the Second Lower Feeder was completed in August 2018. The second major contract to reline approximately 1.9 miles of PCCP on the Second Lower Feeder was completed in October 2019. The third major contract to reline approximately 4.5 miles of PCCP on the Second Lower Feeder was awarded in May 2019 and is underway. Subsequent contracts are planned to be awarded annually depending on shutdown scheduling. In order to meet the critical timing of the relining projects, the steel pipe lining sections for the next contract are being purchased in advance. Costs through August 2019 for all PCCP work (including the \$97.7 million of repairs costs noted above) were \$187.7 million. The estimated cost to reline all 100 miles of PCCP is approximately \$2.2 billion and is expected to be undertaken over a period of approximately 20 years. Budgeted aggregate capital expenditures for PCCP rehabilitation for fiscal years 2018-19 and 2019-20 are \$92.4 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. Major projects completed to date include the \$70 million replacement of the outlet facilities at Lake Mathews, the first two phases of the Orange County Feeder and Etiwanda Pipeline relining projects for a total of \$34 million, and various other facility refurbishment and replacement projects ranging in cost from approximately \$500,000 to over \$10 million. 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 of remaining portions of the Etiwanda Pipeline and Orange County Feeder, refurbishment to pressure control and hydroelectric power facilities, system improvements to provide drought relief, and various other upgrades totaling approximately \$389.7 million through August 2019. The current projected cost estimate for the prior and planned refurbishment or replacement projects, other than the PCCP relining, is \$1.1 billion. For fiscal years 2018-19 and 2019-20, budgeted aggregate capital expenditures for improvements on the distribution system, other than PCCP rehabilitation, are \$108.9 million.

***System Reliability.*** System Reliability projects are implemented at facilities throughout Metropolitan’s system to utilize new processes or technologies, to improve safety, or to increase overall reliability. Significant projects in this category include seismic strengthening of Metropolitan’s headquarters building, construction of operations support facilities such as the La Verne machine and fabrication shops, security system enhancements, and information technology infrastructure projects. The total estimated cost for all prior and projected system reliability improvements under this program is approximately \$482.4 million, with \$188.8 million spent through August 2019. Budgeted aggregate capital expenditures for improvements on system reliability projects for fiscal years 2018-19 and 2019-20 are \$90.7 million.

***F.E. Weymouth Treatment Plant Improvements.*** The 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, 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, upgrades to the plants filters, and a new chlorine handling and containment facility. Significant projects over the next several years include refurbishment of four of the plant’s 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 \$452.4 million, with \$282.7 million spent through August 2019. Budgeted aggregate capital expenditures for improvements at the Weymouth plant for fiscal years 2018-19 and 2019-20 are \$26.7 million.

***Robert B. Diemer Treatment Plant Improvements.*** The Diemer Treatment Plant, built 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, a new secondary access road, and upgrades to half of the plant’s settling basins and filter valves. Significant projects over the next several years include the completion of refurbishment of the plant’s settling basins and replacement of the valves used to control filter operation, and seismic retrofits to the filter buildings. The current cost estimate for all prior and projected improvements at the Diemer plant, not including the ozone facilities, is approximately \$399.2 million, with \$289.2 million spent through August 2019. Budgeted aggregate capital expenditures for improvements at the Diemer plant for fiscal years 2018-19 and 2019-20 are \$17.6 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 revenues, which includes revenues from water sales, wheeling and exchanges, have provided approximately 80 percent of total revenues annually. In that time period, *ad valorem* property taxes have accounted for about 10 percent of total revenues, and in fiscal year 2018-19, *ad valorem* property taxes accounted for approximately 13 percent of total revenues.

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 \$731 per acre-foot at the Tier 1 level, which became effective January 1, 2019. The basic rate for untreated water service for domestic and municipal uses will be \$755 per acre-foot at the Tier 1 level effective as of January 1, 2020. 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 2019-20. The rates charged by Metropolitan represent the cost of Metropolitan’s 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, 2019, on a modified accrual basis. All information is unaudited. Audited financial statements for the fiscal years ended June 30, 2019 and June 30, 2018 are included in APPENDIX B–“THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS’ REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2019 AND JUNE 30, 2018 AND BASIC FINANCIAL STATEMENTS FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2019 AND 2018 (UNAUDITED).”

#### SUMMARY OF REVENUES BY SOURCE<sup>(1)</sup> Fiscal Years Ended June 30 (Dollars in Millions)

	2015	2016	2017	2018	2019
Water Revenues <sup>(2)</sup>	\$1,383	\$1,166	\$1,151	\$1,285	\$1,149
Net Tax Collections <sup>(3)</sup>	104	108	116	131	145
Additional Revenue Sources <sup>(4)</sup>	199	200	184	172	170
Interest on Investments	16	17	4	8	34
Hydroelectric Power Sales	8	7	21	24	18
Other Revenues <sup>(5)</sup>	<u>163</u>	<u>246</u>	<u>51</u>	<u>28</u>	<u>22</u>
Total Revenues	<u>\$1,873</u>	<u>\$1,744</u>	<u>\$1,527</u>	<u>\$1,648</u>	<u>\$1,538</u>

Source: Metropolitan.

- (1) Does not include any proceeds from the sale of bonded indebtedness.
- (2) Water revenues include revenues from water sales, exchanges, and wheeling.
- (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 revenues derived from water standby charges, readiness-to-serve, and capacity charges.
- (5) Includes miscellaneous revenues and Build America Bonds (BABs) subsidy payment of \$12.3 million, \$12.3 million, \$9.8 million, \$15.0 million, and \$12.5 million, in fiscal years 2014-15 through 2018-19, respectively. Fiscal years 2014-15, 2015-16, 2016-17, and 2017-18, include \$142 million, \$222 million, \$33 million, and \$1 million, respectively, 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. Beginning with fiscal year 1990-91, the Act limits Metropolitan’s tax levy to 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 if, following a public hearing, the Board finds that such revenue is essential to 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 to pay for a greater portion of Metropolitan’s State Water Contract obligations. Any deficiency between tax levy receipts and Metropolitan’s State Water Contract obligations is expected to be paid from Operating Revenues, as defined in the Senior Debt Resolutions (defined in this Appendix A under “METROPOLITAN EXPENSES—Limitations on Additional Revenue Bonds”).

### **Water Revenues**

**General; Authority.** Water rates are established by the Board and are not subject to regulation or approval by the California Public Utilities Commission 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, a wholesaler, provides two types of services: full service water service (treated or untreated) and 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 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 transactions. 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 Revenues.** The following table sets forth water transactions (which includes water sales, exchanges, and wheeling) in acre-feet and water revenues (which includes revenues from water sales, exchanges, and wheeling) for the five fiscal years ended June 30, 2019, on a modified accrual basis. As reflected in the table below, water revenues for the fiscal year ended June 30, 2019 aggregated \$1,148.7 million, of which \$1,046.5 million was generated from water sales and \$102.2 million was generated from exchanges and wheeling. Water revenues of Metropolitan for the fiscal years ended June 30, 2019 and June 30, 2018, on an accrual basis, are shown in Metropolitan’s audited financial statements included in Appendix B.

**SUMMARY OF WATER TRANSACTIONS AND REVENUES**  
**Fiscal Years Ended June 30**

Year	Water Transactions in Acre-Feet <sup>(1)</sup>	Water Revenues <sup>(2)</sup> (in millions)	Dollars Per Acre-Foot	Average Dollars Per 1,000 Gallons
2015	1,905,502	\$ 1,383.1	\$ 726	\$ 2.23
2016	1,623,052	1,166.0	718	2.20
2017	1,540,915	1,150.5	747	2.29
2018	1,610,969	1,285.2	798	2.45
2019	1,418,324	1,148.7	810	2.49

Source: Metropolitan.

(1) Water Transactions include water sales, exchanges, and wheeling.

(2) Water Revenues include revenues from water sales, exchanges, and wheeling. Water Revenues from wheeling and exchange transactions were \$78.8 million, \$84.3 million, \$87.4 million, \$96.1 million, and \$102.2 million in the fiscal years ended June 30, 2015 through 2019, respectively.

**Principal Customers**

Total water transactions accrued for the fiscal year ended June 30, 2019, were 1.42 million acre-feet, generating \$1.15 billion in water revenues for such period. Metropolitan’s ten largest water customers for the year ended June 30, 2019 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, 2019**  
**Accrual Basis**

Agency	Water Revenues <sup>(1)</sup> (in Millions)	Percent of Total	Water Transactions in Acre-Feet <sup>(2)</sup>	Percent of Total
San Diego CWA	\$ 206.7	18.0%	346,400	24.4%
MWD of Orange County	159.0	13.8	183,264	12.9
City of Los Angeles	122.2	10.6	141,866	10.0
West Basin MWD	120.7	10.5	117,039	8.2
Calleguas MWD	89.3	7.8	86,741	6.1
Eastern MWD	77.1	6.7	86,636	6.1
Western MWD	59.9	5.2	66,134	4.7
Three Valleys MWD	53.6	4.7	64,349	4.5
Inland Empire Utilities Agency	45.6	4.0	60,693	4.3
Upper San Gabriel Valley MWD	34.1	3.0	46,195	3.3
<b>Total</b>	<b>\$ 968.2</b>	<b>84.3%</b>	<b>1,199,317</b>	<b>84.5%</b>
<b>Total Water Revenues<sup>(1)</sup></b>	<b>\$1,148.7</b>	<b>Total Acre-Feet</b>	<b>1,418,324</b>	

Source: Metropolitan.

(1) Water Revenues include revenues from water sales, exchanges, and wheeling.

(2) Water Transactions include water sales, exchanges, and wheeling.

**Rate Structure**

The following rates and charges are elements of Metropolitan’s unbundled rate structure:

**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. The Tier 2 Supply Rate encourages the member agencies and their customers to maintain existing local supplies and develop cost-effective local supply resources and conservation. 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 recovers the cost of the Conveyance and Distribution System that is used on an average annual basis through a uniform, volumetric rate. The System Access Rate 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 System Access Rate for the use of the system conveyance and distribution capacity to meet average annual demands.

**Water Stewardship Rate.** The Water Stewardship Rate is designed to provide a dedicated source of funding for conservation and local resources development through a uniform, volumetric rate. For water deliveries through December 31, 2020, the Water Stewardship Rate is charged on each acre-foot of water delivered by Metropolitan, except SDCWA Exchange Agreement deliveries as explained below, and is allocated to Metropolitan's transportation rates. All users (including member agencies and third-party wheelers) benefit from avoided system infrastructure costs through conservation and local resources development, and 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 Water Stewardship Rate, except on water delivered to SDCWA pursuant to the Exchange Agreement (see "METROPOLITAN REVENUES–Water Rates" and "–Litigation Challenging Rate Structure" in this Appendix A) in calendar years 2018, 2019, and 2020. See also "CONSERVATION AND WATER SHORTAGE MEASURES–General."

In *San Diego County Water Authority v. Metropolitan Water District of Southern California, et al.* (see "–Litigation Challenging Rate Structure" below), the Court of Appeal held that the administrative record before it for the rates in calendar years 2011 through 2014 did not support Metropolitan's Water Stewardship Rate allocation to transportation rates, but the court did not address the allocation in subsequent years based on a different record. On April 10, 2018, the Board suspended the billing and collection of the Water Stewardship Rate on Exchange Agreement deliveries to SDCWA in calendar years 2018, 2019, and 2020, pending Metropolitan's completion of a cost allocation study of its demand management costs recovered through the Water Stewardship Rate. For calendar year 2018, the suspension was retroactive to January 1, 2018. The total effect of the suspension, taking into consideration the lower revenues over the three calendar years, is estimated to be up to approximately \$46 million.

Having completed a demand management cost allocation process, on December 10, 2019, Metropolitan's Board directed staff to incorporate the use of the 2019-20 fiscal year-end balance of the Water Stewardship Fund to fund demand management costs in the proposed biennial budget for fiscal years 2020-21 and 2021-22 and to not incorporate the Water Stewardship Rate (or any other rates or charges to recover demand management costs), with the proposed rates and charges for calendar years 2021 and 2022, to allow the Board to consider demand management funding in relation to the 2020 Integrated Resources Plan update and to undergo a rate structure refinement process. The balance of the Water Stewardship Fund as of June 30, 2020 is currently projected to be approximately \$126 million, which based on the preliminary biennial budget for fiscal years 2020-21 and 2021-22, is expected to be sufficient to fund the demand management costs during the biennial budget period. The Water Stewardship Rate will be collected for water deliveries through December 31, 2020, except for water delivered pursuant to the Exchange Agreement. These collections through the end of 2020 will be used to fund demand management costs during such period.

**System Power Rate.** The System Power Rate 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 System Power Rate 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 transactions of up to one year pay the wheeling rate (consisting of the actual cost of power, the System Access Rate, the Water Stewardship Rate, and an administrative fee). Other wheeling transactions are pursuant to individual contracts. For example, a party wheeling water through the California Aqueduct would pay the variable power cost associated with using the State Water Project transportation facilities.

**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 transactions. The Treatment Surcharge is charged to all treated water transactions.

The amount of each of these rates since January 1, 2014, is shown in the table entitled “SUMMARY OF WATER RATES” under “–Water Rates” below.

### **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. Under the Purchase Orders, member agencies have the option to purchase a greater amount of water (based on past purchase levels) over the term of the Purchase Order. 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 Metropolitan’s 26-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 the 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 use of Metropolitan's distribution system:

***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, except SDCWA Exchange Agreement transactions, 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 a member agency and applied as a direct offset to the member agency's RTS obligation. The RTS generated \$144 million in fiscal year 2016-17, \$137.5 million in fiscal year 2017-18, and \$136.5 million in fiscal year 2018-19. Based on the adopted rates and charges, the RTS is projected to generate \$134.5 million in fiscal year 2019-20.

***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 of Metropolitan's member agencies collect their RTS charges through standby charges. RTS charges collected by means of such standby charges were \$41.7 million in fiscal year 2016-17, \$41.6 million in fiscal year 2017-18, and \$41.7 million in fiscal year 2018-19.

***Capacity Charge.*** The Capacity Charge recovers costs incurred to provide peak 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 cfs based on a three-year trailing peak (maximum) day demand, measured in cfs. Each member agency's peak day is likely to occur on different days; therefore, this measure approximates peak week demands on Metropolitan. The Capacity Charge was \$8,700 per cfs effective as of January 1, 2018 and was \$8,600 per cfs effective as of January 1, 2019. The Capacity Charge will be \$8,800 per cfs effective as of January 1, 2020. The Capacity Charge generated \$39.7 million in fiscal year 2016-17, \$34.6 million in fiscal year 2017-18 and \$33.0 million in fiscal year 2018-19. Based on the adopted rates and charges, the Capacity Charge is projected to generate \$31.3 million in fiscal year 2019-20.

**Classes of Water Service**

Metropolitan, a wholesaler, provides two types of services: full service water service (treated or untreated) and wheeling service. Metropolitan has one class of customers: its member agencies. The level of rate unbundling in Metropolitan’s rate structure provides transparency to show that rates and charges recover only those functions involved in the applicable service, and that no cross-subsidy of costs exists. Metropolitan’s cost of service process and resulting unbundled rate structure ensures that its wholesale customers pay for only those services they elect to receive.

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

**Current Services and Rate Components**

Service	Rates & Charges That Apply						
	System Access	Water Stewardship <sup>(1)</sup>	System Power	Tier 1/ Tier 2	Readiness to Serve	Capacity Charge	Treatment Surcharge
Full Service Untreated	Yes	Yes	Yes	Yes	Yes	Yes	No
Full Service Treated	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wheeling Service <sup>(2)</sup>	Yes	Yes	No <sup>(3)</sup>	No	Yes	Yes	Yes <sup>(4)</sup>

<sup>(1)</sup> As described under “–Rate Structure –Water Stewardship Rate,” the Water Stewardship Rate will not be incorporated into Metropolitan’s rates and charges to be proposed for calendar years 2021 and 2022 and therefore will not be collected on water transactions after December 31, 2020.

<sup>(2)</sup> Metropolitan’s rate for wheeling service applies to wheeling to member agencies in transactions of up to one year.

<sup>(3)</sup> Under Metropolitan’s rate for wheeling service, wheeling parties must pay for their own cost for power (if such power can be scheduled by Metropolitan) or pay Metropolitan for the actual cost (not system average) of power service utilized for delivery of the wheeled water. In addition, wheeling parties shall be assessed an administration fee of not less than \$5,000 per transaction.

<sup>(4)</sup> If applicable.

Metropolitan offers three 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. Conjunctive use programs may also contain cost-sharing terms related to operational costs. See “REGIONAL WATER RESOURCES–Local Water Supplies” in this Appendix A.

*(2) Cyclic Storage Program.* The Cyclic Storage Program refers collectively to the existing Cyclic Storage Program agreements and the Pre-Deliveries Program approved in 2019. The Program is operated through individual agreements with member agencies for groundwater or surface water storage or pre-deliveries within Metropolitan’s service area. Wet-year imported supplies are stored to enhance reliability during dry, drought, and emergency conditions. Deliveries to the cyclic storage accounts are at Metropolitan’s discretion while member agencies have discretion on whether they want to accept the water. At the time the water is delivered from the cyclic storage account, the prevailing full-service rate applies, but deliveries are excluded from the calculation of the Capacity Charge because Cyclic Storage Program deliveries are made at Metropolitan’s discretion. See “REGIONAL WATER RESOURCES–Local Water Supplies” in this Appendix A.

(3) *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. Because Metropolitan could interrupt delivery of this water, Emergency Storage Program Deliveries are excluded from the calculation of the RTS Charge, the Capacity Charge, and the Tier 1 maximum.

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

**Current Programs and Rate Components**

<b>Program</b>	<b>Rates &amp; Charges That Apply</b>						
	<b>Supply</b>	<b>System Access</b>	<b>Water Stewardship<sup>(1)</sup></b>	<b>System Power</b>	<b>Readiness to Serve</b>	<b>Capacity Charge</b>	<b>Tier 1 Maximum</b>
Full Service	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Conjunctive Use	Yes	Yes	Yes	Yes	Yes	No	Yes
Cyclic	Yes	Yes	Yes	Yes	Yes	No	Yes
Emergency Storage	Yes	Yes	Yes	Yes	No	No	No*

<sup>(1)</sup> As described under “–Rate Structure –Water Stewardship Rate,” the Water Stewardship Rate will not be incorporated into Metropolitan’s rates and charges to be proposed for calendar years 2021 and 2022 and therefore will not be collected on water transactions after December 31, 2020.

\* 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, 2014. See also “MANAGEMENT’S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES–Water 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” for descriptions of current rates. See also “–Litigation Challenging Rate Structure” for a description of litigation challenging Metropolitan’s water rates.

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**SUMMARY OF WATER RATES  
(Dollars Per Acre-Foot)  
(Rates Effective January 1st)**

	<u>SUPPLY RATE</u>		<u>SYSTEM ACCESS RATE</u>	<u>WATER STEWARDSHIP RATE<sup>(1)</sup></u>	<u>SYSTEM POWER RATE</u>	<u>TREATMENT SURCHARGE</u>
	<u>Tier 1</u>	<u>Tier 2</u>				
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
January 1, 2019*	\$209	\$295	\$326	\$69	\$127	\$319
January 1, 2020*	\$208	\$295	\$346	\$65	\$136	\$323

	<u>FULL SERVICE TREATED<sup>(2)</sup></u>		<u>FULL SERVICE UNTREATED<sup>(3)</sup></u>	
	<u>Tier 1</u>	<u>Tier 2</u>	<u>Tier 1</u>	<u>Tier 2</u>
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
January 1, 2019*	\$1,050	\$1,136	\$731	\$817
January 1, 2020*	\$1,078	\$1,165	\$755	\$842

*Source: Metropolitan.*

\* Rates effective January 1, 2019 and January 1, 2020 were adopted by Metropolitan's Board on April 10, 2018.

(1) As described under "Rate Structure –Water Stewardship Rate," the Water Stewardship Rate will not be incorporated into Metropolitan's rates and charges to be proposed for calendar years 2021 and 2022 and therefore will not be collected on water transactions after December 31, 2020.

(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 provides for a minimum reserve requirement and target amount of unrestricted reserves at June 30 of each year. The minimum reserve requirement at June 30 of each year is equal to the portion of fixed costs estimated to be recovered by water revenues for the 18 months beginning with the immediately succeeding July. Funds representing the minimum reserve requirement are held in the Revenue Remainder Fund. Any funds in excess of the minimum reserve requirement are held in the Water Rate Stabilization Fund. The target amount of unrestricted reserves is equal to the portion of the fixed costs estimated to be recovered by water revenues during the two years immediately following the 18-month period used to calculate the minimum reserve requirement. Funds in excess of the target amount are to be utilized for capital expenditures in lieu of the issuance of additional debt, or for the redemption, defeasance or purchase of outstanding bonds or commercial paper as determined by the Board. Provided that the fixed charge coverage ratio is at or above 1.2, amounts in the Water Rate Stabilization Fund may be expended 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, 2019, unrestricted reserves, which consist of the Water Rate Stabilization Fund and the Revenue Remainder Fund, totaled \$460 million on a modified accrual basis. As of June 30, 2019, the minimum reserve requirement was \$256.9 million, and the target reserve level was \$626.4 million.

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. In April 2016, Metropolitan transferred these funds from unrestricted financial reserves to a new designated fund, the Exchange Agreement Set-Aside Fund. As of November 30, 2019, Metropolitan held \$56.87 million in the Exchange Agreement Set-Aside Fund. This amount contains the disputed Water Stewardship Rate 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 –Metropolitan and San Diego County Water Authority Exchange Agreement” in this Appendix A. See also “–Litigation Challenging Rate Structure” below.

Metropolitan projects that its unrestricted reserves as of June 30, 2020 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 XIIC and XIID to the California Constitution. Article XIID 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 XIID. Fees for retail water service by Metropolitan’s member agencies or their agencies are subject to the requirements of Article XIID.

Article XIID also imposes certain procedures with respect to assessments. Under Article XIID, “standby charges” are considered “assessments” and must follow the procedures required for “assessments,” unless they were in existence on the effective date of Article XIID. Metropolitan has imposed its water standby charges since 1992 and therefore its current standby charges are exempt from the Article XIID 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 of Metropolitan’s 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 XIID 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 XIIC makes all taxes either 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 XIIC 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 XIIC 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 XIID of the California Constitution. Special taxes imposed by local governments including special districts are subject to approval by two-thirds of the electorate. 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 June 21, 2017, the California Court of Appeal ruled that whether or not Proposition 26 applies to Metropolitan's rates, the System Access Rate and System Power Rate challenged by SDCWA in such lawsuit comply with Proposition 26. 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. Other initiative measures have been proposed from time to time, including presently, or could be proposed in the future, which if qualified for the ballot, 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 right to purchase for domestic and municipal uses within the agency 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. In 2004, the California Court of Appeal 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 rate structure also challenged Metropolitan's exclusion of payments for Exchange Agreement deliveries from the calculation of SDCWA's preferential right. On June 21, 2017, the California Court of Appeal held that SDCWA's payments under the Exchange Agreement must be included in the preferential rights calculation. 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 affect charges for transportation of water, resulting 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.

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.

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 were for breach of the water Exchange Agreement between Metropolitan and SDCWA (described herein under "METROPOLITAN'S WATER SUPPLY–Colorado River Aqueduct – Metropolitan and San Diego County Water Authority Exchange Agreement") due to a price based on allegedly illegal rates; improper exclusion of SDCWA's payments under such Exchange Agreement from calculation of SDCWA's preferential rights to purchase Metropolitan supplies (see "–Preferential Rights" above); and illegality of the rate structure integrity provision in conservation and local resources incentive agreements between Metropolitan and SDCWA. The rate structure integrity provision permitted 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 contained 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. The complaint contained 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.

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. 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 did not affect SDCWA's separate challenge to Metropolitan's rates adopted in April 2012, which also includes Proposition 26 allegations.

Following trial of both lawsuits in two phases, concluding on January 23, 2014 and April 30, 2015, respectively, the Superior Court of the State of California, County of San Francisco (the "Superior Court"), issued its Final Judgment and a Peremptory Writ of Mandate in the 2010 and 2012 SDCWA v. Metropolitan cases. Metropolitan appealed the trial court's decision in each case, and SDCWA filed a cross-appeal of the court's ruling on the rate structure integrity claim and an attorneys' fees order.

On June 21, 2017, the California Court of Appeal released its decision in the appeals and cross-appeal filed by Metropolitan and SDCWA, respectively. The Court of Appeal ruled that Metropolitan may lawfully include its State Water Project transportation costs in the System Access Rate and System Power Rate that are part of the Exchange Agreement's price term, and that Metropolitan may also lawfully include the System Access Rate in its wheeling rate, reversing the trial court decision on this issue. The Court held Metropolitan's allocation of the State Water Project transportation costs as its own transportation costs is proper and does not violate the wheeling statutes (Water Code, § 1810, *et seq.*), Proposition 26 (Cal. Const., Article XIII C, §1, subd.(e)), California Government Code section 54999.7, the common law, or the terms of the parties' Exchange Agreement.

The Court of Appeal also ruled that the administrative record before it for the rates in calendar years 2011 through 2014 did not support Metropolitan's inclusion of its Water Stewardship Rate as a transportation cost in the Exchange Agreement price or the wheeling rate, under the common law and wheeling statutes. Having made that determination, the Court of Appeal stated it need not evaluate the issue under any other law. The court did not address the allocation of the Water Stewardship Rate in subsequent years based on a different record. The court noted, and in a subsequent modification confirmed, that its holding does not preclude Metropolitan from including the Water Stewardship Rate in Metropolitan's full-service rate.

The Court of Appeal held that because the Water Stewardship Rate was included in the Exchange Agreement price, there was a breach by Metropolitan of the Exchange Agreement in 2011 through 2014. The court remanded the case to the trial court for a redetermination of damages in light of its ruling concerning the Water Stewardship Rate. The Court of Appeal agreed with the trial court that statutory prejudgment interest applies with respect to any damages award, not a lesser contractual interest. The Court of Appeal reversed the trial court by finding that the Exchange Agreement may entitle SDCWA to attorneys' fees for the second phase of the case concerning breach of contract; but directed the trial court on remand to make a new determination of the prevailing party, if any. The cases were therefore remanded to the trial court for a review of both damages and attorneys' fees.

With respect to other issues considered on appeal, the Court of Appeal upheld the trial court's ruling that Metropolitan improperly excludes SDCWA's payments under the Exchange Agreement in Metropolitan's calculation of SDCWA's preferential rights. The court also ruled that SDCWA had the constitutional right to challenge the rate structure integrity provision in Metropolitan's conservation and local resources incentive agreements and found that the rate structure integrity provision was invalid and unenforceable as an unconstitutional condition on the provision of a public benefit.

On September 27, 2017, the California Supreme Court denied SDCWA's petition for review, declining to consider the Court of Appeal's decision. The Court of Appeal's decision is therefore final.

On July 25, 2018, the Superior Court issued an order regarding the scope of the matters to be reconsidered by the Superior Court on remand pursuant to the Court of Appeal decision. With respect to the Superior Court's re-determination of damages in light of the Court of Appeal's ruling that the administrative record for calendar years 2011 through 2014 did not support Metropolitan's inclusion of its demand management costs in the Exchange Agreement price, the Superior Court ruled that it will award SDCWA \$28,678,190.90 in contract damages for breach of the Exchange Agreement, plus prejudgment interest at 10 percent per annum. The Superior Court determined that Metropolitan is not entitled in the remand proceedings to show what it could have lawfully charged SDCWA for demand management costs and to deduct that from SDCWA's damages.

The Superior Court further ruled that SDCWA is not entitled in the remand proceedings to litigate the issue of "offsetting benefits" under the wheeling statutes for the parties' Exchange Agreement. The Superior Court found that such claim is both outside the scope of remand and waived.

The Superior Court also ruled that SDCWA is entitled to judgment on its declaratory relief cause of action declaring the rate structure integrity provision in Metropolitan's conservation and local resources incentive agreements invalid and unenforceable, SDCWA is entitled to further proceedings to litigate the issue of an entitlement to monetary restitution for 2011 through 2014, and the parties shall also litigate in further proceedings the issue of what prospective relief SDCWA may be entitled to in connection with this cause of action.

Finally, the Superior Court confirmed, as the parties agreed, that it will conduct further proceedings for a redetermination of the prevailing party and attorneys' fees in this matter.

The court has scheduled an evidentiary hearing for June 16 to June 18, 2020 on SDCWA's requested relief based on its rate structure integrity clause claim. The court will thereafter schedule proceedings concerning the redetermination of the prevailing party and attorney's fees.

On September 14, 2018, Metropolitan filed a Petition for Writ of Mandate with the California Court of Appeal, requesting the court to require the Superior Court to recalculate contract damages for breach of the Exchange Agreement from years 2011 through 2014, to include a set-off for the additional sums SDCWA would have paid had Metropolitan collected the Water Stewardship Rate through its full service sales as SDCWA argued was correct. On November 1, 2018, the Court of Appeal determined that it would not review the issue at this stage of the cases. Metropolitan may raise this issue again on any later appeal from the cases' final judgment.

Due to SDCWA's litigation challenging Metropolitan's rates, and pursuant to the Exchange Agreement between Metropolitan and SDCWA, as of November 30, 2019, Metropolitan held \$56.87 million in a designated fund, the Exchange Agreement Set-Aside Fund. See "Financial Reserve Policy." This amount includes the disputed Water Stewardship Rate payments for calendar years 2011 through the present, and interest earned by Metropolitan thereon. The amount held does not include statutory prejudgment interest or any post-judgment interest, attorneys' fees, or costs the Court may award. The Set-Aside Fund also does not include any amounts applicable to the rate structure integrity provision declaratory relief cause of action, because that claim does not involve disputed payments under the Exchange Agreement.

On February 14, 2019, Metropolitan tendered to SDCWA payment of \$44.4 million for the San Francisco Superior Court's contract damages award for Water Stewardship Rate payments from 2011 through 2014, plus statutory interest through February 15, 2019, with a reservation of appeal rights, in the *San Diego County Water Authority v. Metropolitan Water District of Southern California, et al.*, 2010 and 2012 actions. This tender was made under compulsion to cease accrual of statutory interest in excess of market rates, but did not affect Metropolitan's rights to appeal, including its right to challenge the amount of the damages award. The tendered payment included \$31.6 million of amounts withdrawn from the Exchange Agreement Set-Aside Fund, and \$12.8 million withdrawn from reserves (representing statutory interest). On March 7, 2019, SDCWA rejected the tendered payment and returned the uncashed check for the tendered payment. The returned funds were credited back to the Exchange Agreement Set-Aside Fund and Metropolitan reserves in the amounts drawn. The balance in the Exchange Agreement Set-Aside Fund set forth above includes the returned funds.

On August 29, 2019, as a result of changes in reorganization of assignments at the San Francisco Superior Court, the 2010, 2012, 2016, and 2017 SDCWA v. Metropolitan cases were reassigned to a different department of the Court. SDCWA filed a motion for peremptory disqualification of the new judge and on September 6, 2019, the motion was sustained. On September 27, 2019, the 2010, 2012, 2016, and 2017 cases were assigned to Department 304, a different complex division in which the 2014 case is already pending.

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. 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. Following a stipulated order issued by the court on November 10, 2016, SDCWA filed a First Amended Petition for Writ of Mandate and Complaint and the court ordered the case stayed pending final resolution of the 2010 and 2012 SDCWA v. Metropolitan cases' appeals. The amended petition/complaint adds allegations of the same Exchange Agreement breach as in the previous cases listed above and breach of a provision that requires Metropolitan to set aside disputed amounts, relating to the manner in which Metropolitan has set aside the amounts; 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 the services provided or, alternatively, a reduction in SDCWA's future fees. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On June 9, 2017, SDCWA filed a new Petition for Writ of Mandate and Complaint challenging the Readiness-to-Serve Charge and Capacity Charge for 2018 adopted by Metropolitan's Board on April 11, 2017. These two charges are set annually, and SDCWA's 2016 lawsuit included a challenge to these two charges for 2017. The new lawsuit similarly alleges the 2018 Readiness-to-Serve Charge and Capacity Charge violate the California Constitution, statutes, and common law. The petition/complaint asserts misallocation of costs. Metropolitan was served with the petition/complaint on June 20, 2017. On July 18, 2017, SDCWA filed a first amended petition/complaint to add Metropolitan's Board action of July 11, 2017 to make minor corrections to the Readiness-to-Serve Charge. On July 31, 2018, pursuant to stipulation by the parties, the San Francisco Superior Court ordered that the case be stayed. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On June 8, 2018, SDCWA filed a new lawsuit that alleges all rates and charges for 2019 and 2020 adopted by Metropolitan's Board on April 10, 2018 violate the California Constitution, statutes, and common law. The Petition for Writ of Mandate and Complaint asserts the Water Stewardship Rate is unlawful per se and its collection in transportation charges is also unlawful; failure to provide wheelers a reasonable credit for "offsetting benefits" pursuant to Water Code Section 1810, *et seq.*, which SDCWA contends (and Metropolitan disputes) applies to the parties' Exchange Agreement; over-collection and misallocation of costs, including misallocation of Metropolitan's California WaterFix costs as its transportation costs; and specified procedural violations. SDCWA states in the Petition and Complaint that it intends to amend its complaint to allege additional claims against Metropolitan, including but not limited to a claim for breach of contract. Following a stipulated order issued by the San Francisco Superior Court on January 10, 2019, SDCWA filed a First Amended Petition for Writ of Mandate and Complaint and the court ordered the case stayed pending final resolution of the 2010 and 2012 SDCWA v. Metropolitan cases. The amended petition/complaint adds a cause of action for breach of the Exchange Agreement alleging Metropolitan charged an unlawful price that includes the Water Stewardship Rate (despite suspension of this charge), failing to provide credit for offsetting benefits, charging transportation rates that are not based on costs of service, including California WaterFix costs, and not following procedural requirements; and requests a refund to SDCWA of any amount Metropolitan has collected in excess of the reasonable costs of the services provided or, alternatively, a reduction in SDCWA's future fees. This 2018 lawsuit has not yet been assigned to a department in the San Francisco Superior Court. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On November 15, 2019, Metropolitan provided a statutory Offer to Compromise to SDCWA to resolve all pending litigation filed by SDCWA. The offer, which was not confidential, was made under California

Code of Civil Procedure Section 998, and was deemed withdrawn if not accepted by December 30, 2019. By letter dated December 19, 2019, SDCWA notified Metropolitan that it had determined not to act upon Metropolitan's Section 998 Offer to Compromise. Metropolitan's statutory Offer to Compromise is now deemed withdrawn. SDCWA made its own settlement offer, which is public but non-statutory. SDCWA's settlement offer was made subject to acceptance by Metropolitan no later than the close of business on January 31, 2020. The Metropolitan Board reviewed SDCWA's proposal at its January 14, 2020 Board meeting and took no action.

## **Other Revenue Sources**

***Hydroelectric Power Recovery Revenues.*** Metropolitan has constructed 16 small hydroelectric plants on its distribution system. 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 \$7.3 million and nearly \$29.6 million. Including the sale of excess energy generation from Hoover and Parker dams, the total energy sales revenues were \$23.7 million in fiscal year 2017-18 and \$18.3 million in fiscal year 2018-19.

Metropolitan has a power sales contract with Pacific Gas and Electric Company ("PG&E") for the sale to PG&E of the output of Metropolitan's 24 megawatt Etiwanda hydroelectric plant through 2034. On January 29, 2019, PG&E and its parent company, PG&E Corporation, filed for bankruptcy protection under Chapter 11 of the Bankruptcy Code. As a result of the PG&E bankruptcy filing, a \$10,136 payment due in January 2019 under the power sales contract was not received. PG&E has taken no action to reject the power sales contract in the bankruptcy proceedings and has made all subsequent payments. Metropolitan continues to perform under the contract. Metropolitan will hold a claim against the bankruptcy estate for any unpaid amounts from PG&E during the pendency of the bankruptcy proceedings.

***Investment Income.*** In fiscal years 2016-17 2017-18, and 2018-19 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 \$6.2 million, \$10.6 million, and \$36.0 million, respectively.

## **Investment of Moneys in Funds and Accounts**

The Board has delegated to the Treasurer the authority to invest funds. All moneys in any of the funds and accounts established pursuant to Metropolitan's water revenue or general obligation bond resolutions are managed 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, government-sponsored enterprise, supranationals, money market funds, California Asset Management Program ("CAMP"), and the California Local Agency Investment Fund ("LAIF"). CAMP is a program created through a joint powers agency as a pooled short-term portfolio and cash management vehicle for California public agencies. CAMP is a permitted investment for all local agencies under California Government Code Section 53601(p). 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, managed by 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 government-sponsored enterprise, 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 – Self-Liquidity Bonds” in this Appendix A. Metropolitan’s current investments comply with the Statement of Investment Policy.

As of October 31, 2019, the total market value (cash-basis) of all Metropolitan invested funds was \$943.6 million, including bond reserves of \$1.8 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 October 31, 2019 the market value of the month-end balance of Metropolitan’s investment portfolio (excluding bond reserve funds) averaged approximately \$1.1 billion. The minimum month-end balance of Metropolitan’s investment portfolio (excluding bond reserve funds) during such period was approximately \$831.9 million on July 31, 2019. 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 2019-20 on June 11, 2019.

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 “A-1/P-1/F1” for short-term securities and “A” for longer-term securities, without regard to modifiers, at the time of purchase. If a security is downgraded below the minimum rating criteria specified in the Statement of Investment Policy, the Treasurer shall determine a course of action to be taken on a case-by-case basis considering such factors as the reason for the downgrade, prognosis for recovery or further rating downgrades, and the market price of the security. The Treasurer is required to note in the Treasurer’s monthly report any securities which have been downgraded below Policy requirements and the recommended course of action.

The Statement of Investment Policy also limits the amount of securities that can be purchased by category, as well as by issuer, and prohibits investments that can result in zero interest income. Metropolitan’s securities are settled on a delivery versus payment basis and are held by an independent third-party custodian. See Metropolitan’s audited financial statements included in APPENDIX B—“THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS’ REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2019 AND JUNE 30, 2018 AND

BASIC FINANCIAL STATEMENTS FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2019 AND 2018 (UNAUDITED)” for a description of Metropolitan’s investments at June 30, 2019.

Since July 2019, Metropolitan has retained one outside investment firm to manage the portion of Metropolitan’s portfolio not needed to provide liquidity for expenditures over the next six months. As of October 31, 2019, this manager was managing approximately \$187.6 million in investments on behalf of Metropolitan. Since December 2018, Metropolitan has retained an outside investment firm to manage the liquidity portfolio. As of October 31, 2019, this firm managed approximately \$750.4 million. The outside managers are required to adhere to Metropolitan’s Statement of Investment Policy.

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, 2019, on a modified accrual basis. All information is unaudited. Expenses of Metropolitan for the fiscal years ended June 30, 2019 and June 30, 2018, on an accrual basis, are shown in Metropolitan’s audited financial statements included in Appendix B.

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

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
Operation and Maintenance Costs <sup>(1)</sup>	\$ 697	\$ 799	\$ 559	\$ 568	\$ 569
Total State Water Project <sup>(2)</sup>	436	512	506	527	482
Total Debt Service	303	332	330	360	347
Construction Expenses from Revenues <sup>(3)</sup>	210	273	132	98	128
Other <sup>(4)</sup>	<u>7</u>	<u>6</u>	<u>4</u>	<u>5</u>	<u>6</u>
Total Expenses (net of reimbursements)	<u>\$1,653</u>	<u>\$1,922</u>	<u>\$1,531</u>	<u>\$1,558</u>	<u>\$1,532</u>

Source: Metropolitan.

(1) Includes operation and maintenance, debt administration, conservation and local resource programs, CRA power, and water supply expenses. Fiscal years 2014-15, 2015-16, 2016-17, and 2017-18 include \$142 million, \$222 million, \$33 million, and \$1 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 December 1, 2019, Metropolitan had total outstanding indebtedness secured by a lien on Net Operating Revenues of \$3.95 billion. This indebtedness was comprised of \$2.54 billion of water revenue bonds issued under the Senior Debt Resolutions (defined below), which includes \$1.75 billion of fixed rate senior lien revenue bonds, and \$797.2 million of variable rate senior lien revenue bonds; \$100 million of senior lien short-term notes; \$1.26 billion of subordinate water revenue bonds issued under the Subordinate Debt Resolutions (defined below), which includes \$816.79 million of fixed rate subordinate revenue bonds, and \$446.3 million of variable rate subordinate revenue bonds; and \$46.8 million of subordinate lien short-term certificates, which bear a variable rate, and are 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 below.

### REVENUE BOND INDEBTEDNESS AND OTHER OBLIGATIONS

	Variable Rate	Fixed Rate	Total
Senior Lien Revenue Bonds	\$ 797,150,000	\$1,746,280,000	\$2,543,430,000
Senior Lien Short-Term Notes <sup>(1)</sup>	100,000,000	--	100,000,000
Subordinate Lien Revenue Bonds	446,255,000	816,785,000	1,263,040,000
Subordinate Lien Short-Term Certificates	46,800,000	--	46,800,000
<b>Total</b>	<b>\$1,390,205,000</b>	<b>\$2,563,065,000</b>	<b>\$3,953,270,000</b>
Fixed-Payor Interest Rate Swaps	(493,630,000)	493,630,000	--
<b>Net Amount (after giving effect to Swaps)</b>	<b>\$ 896,575,000</b>	<b>\$3,056,695,000</b>	<b>\$3,953,270,000</b>

Source: Metropolitan.

<sup>(1)</sup> Expected to be refinanced and retired with proceeds of Metropolitan’s Water Revenue Bonds, 2020 Authorization Series A.

### Limitations on Additional Revenue Bonds

Resolution 8329, adopted by Metropolitan’s Board on July 9, 1991, as amended and supplemented (the “Master Senior Resolution,” and 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 (the “Master Subordinate Resolution,” and 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 of 15 percent of the assessed value of all taxable property within Metropolitan’s service area. As of December 1, 2019, outstanding general obligation bonds, water revenue bonds and other evidences of indebtedness in the amount of \$4.00 billion represented approximately 0.13 percent of the fiscal year 2019-20 taxable assessed valuation of \$3,092.4 billion. The second limitation under the Act specifies that no revenue bonds may be issued, except for the purpose of refunding, unless the amount of net assets of Metropolitan as shown on its balance sheet as of the end of the last fiscal year prior to the issuance of such bonds, equals at least 100 percent of the aggregate amount of revenue bonds outstanding following the issuance of such bonds. The net assets of Metropolitan at June 30, 2019 were \$6.84 billion. The aggregate amount of revenue bonds outstanding as of December 1, 2019 was \$3.81 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, 2019 and June 30, 2018 are shown in Metropolitan’s audited financial statements included in APPENDIX B–“THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS’ REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2019 AND JUNE 30, 2018 AND BASIC FINANCIAL STATEMENTS FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2019 AND 2018 (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 applicable 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 December 1, 2019, Metropolitan had outstanding \$897.2 million 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” below) and senior lien short-term notes (described under “–Outstanding Senior Revenue Bonds and Senior Parity Obligations –Senior Parity Obligations” below). In addition, as of December 1, 2019, \$493.1 million of Metropolitan’s \$1.26 billion of outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations issued under the Subordinate Debt Resolutions were variable rate obligations (described under “–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations” below).

As of December 1, 2019, of Metropolitan’s \$1.39 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” below), for the purpose of calculating debt service requirements. The remaining \$896.6 million of variable rate obligations represent approximately 22.7 percent of total outstanding water revenue secured indebtedness (including Senior Revenue Bonds and Senior Parity Obligations and Subordinate Revenue Bonds and Subordinate Parity Obligations), as of December 1, 2019.

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.

The periodic payments due to Metropolitan from counterparties under its outstanding interest rate swap agreements and the interest payments to be payable by Metropolitan under certain of its outstanding variable rate obligations are calculated by reference to the London interbank offering rate (“LIBOR”). On July 27, 2017, the Financial Conduct Authority (the “FCA”), the U.K. regulatory body currently responsible for the regulation and supervision of LIBOR, announced that it will no longer persuade or compel banks to submit rates for the calculation of the LIBOR rates after 2021 (the “FCA Announcement”). It is not possible to predict the effects of the FCA Announcement or how any prospective phasing out of LIBOR as a reference rate and transition to an alternate benchmark rate will be implemented, but increased volatility in the reported LIBOR rates may occur and the level of such LIBOR-based swap and interest payments may be affected.

## Outstanding Senior Revenue Bonds and Senior Parity Obligations

### Senior Revenue Bonds

The water revenue bonds issued under the Senior Debt Resolutions outstanding as of December 1, 2019, are set forth below:

Name of Issue	Principal Outstanding
Water Revenue Refunding Bonds, 1993 Series A	\$ 12,225,000
Water Revenue Bonds, 2000 Authorization, Series B-3 <sup>(1)(3)</sup>	88,800,000
Water Revenue Bonds, 2010 Authorization, Series A <sup>(2)</sup>	250,000,000
Water Revenue Refunding Bonds, 2010 Series B	56,005,000
Water Revenue Refunding Bonds, 2011 Series B	1,345,000
Water Revenue Refunding Bonds, 2011 Series C	118,800,000
Water Revenue Refunding Bonds, 2012 Series A	181,180,000
Water Revenue Refunding Bonds, 2012 Series C	19,835,000
Water Revenue Refunding Bonds, 2012 Series F	48,885,000
Water Revenue Refunding Bonds, 2012 Series G	111,890,000
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D <sup>(1)(3)</sup>	87,445,000
Water Revenue Refunding Bonds, 2014 Series A	37,870,000
Water Revenue Refunding Bonds, 2014 Series C-2	14,020,000
Water Revenue Refunding Bonds, 2014 Series C-3	2,810,000
Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D <sup>(1)(3)</sup>	38,465,000
Water Revenue Refunding Bonds, 2014 Series E	86,060,000
Water Revenue Refunding Bonds, 2014 Series G-5	6,205,000
Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A-1 and A-2 <sup>(1)(3)</sup>	188,900,000
Water Revenue Bonds, 2015 Authorization, Series A	204,120,000
Water Revenue Refunding Bonds, 2016 Series A	239,455,000
Special Variable Rate Water Revenue Refunding Bonds, 2016 Series B-1 and B-2 <sup>(1)(3)</sup>	103,670,000
Water Revenue Bonds, 2017, Authorization, Series A <sup>(1)</sup>	80,000,000
Special Variable Water Revenue Refunding Bonds, 2018 Series A-1 and A-2 <sup>(1)(3)</sup>	209,870,000
Water Revenue Refunding Bonds, 2018 Series B	137,485,000
Water Revenue Refunding Bonds, 2019 Series A	218,090,000
<b>Total</b>	<b>\$2,543,430,000</b>

Source: Metropolitan.

<sup>(1)</sup> Outstanding variable rate obligation.

<sup>(2)</sup> Designated as “Build America Bonds” pursuant to the American Recovery and Reinvestment Act of 2009.

<sup>(3)</sup> Depending on market conditions, all or a portion of the outstanding Senior Revenue Bonds of this Series may be refunded by Metropolitan’s Subordinate Water Revenue Refunding Bonds, 2020 Series A.

### **Variable Rate and Swap Obligations**

As of December 1, 2019, Metropolitan had outstanding \$897.2 million of senior lien variable rate obligations, including variable rate Senior Revenue Bonds issued under the Senior Debt Resolutions (described under this caption “–Variable Rate and Swap Obligations”) and Senior Parity Obligations incurred pursuant to a Short-Term Revolving Credit Facility (described under “–Senior Parity Obligations – Short-Term Revolving Credit Facility” below).

The outstanding variable rate Senior Revenue Bonds include 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 (the “Liquidity Supported Bonds”).

**Self-Liquidity Bonds.** As of December 1, 2019, Metropolitan had \$314.8 million of outstanding Self-Liquidity Bonds issued under the Senior Debt Resolutions. Each Series of the outstanding Self-Liquidity Bonds may bear interest in any one of several interest rate modes at the election of Metropolitan. The interest rates for each Series of the outstanding Self-Liquidity Bonds are currently reset on a weekly basis. 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 “–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations –Self-Liquidity Revolving Credit Agreement” below. Failure to pay the purchase price of Self-Liquidity Bonds upon optional or mandatory tender is not a default under the related paying agent agreement or a default under the Senior Debt Resolutions.

The following table lists the outstanding Self-Liquidity Bonds as of December 1, 2019.

#### **Self-Liquidity Bonds**

<b>Name of Issue</b>	<b>Principal Outstanding</b>
Special Variable Rate Water Revenue Refunding Bonds, 2013 Series D <sup>(1)</sup>	\$ 87,445,000
Special Variable Rate Water Revenue Refunding Bonds, 2014 Series D <sup>(1)</sup>	38,465,000
Special Variable Rate Water Revenue Refunding Bonds, 2015 Series A-1 and A-2 <sup>(1)</sup>	<u>188,900,000</u>
<b>Total</b>	<b>\$314,810,000</b>

*Source: Metropolitan.*

<sup>(1)</sup> Depending on market conditions, all or a portion of the outstanding Self-Liquidity Bonds may be refunded by Metropolitan’s Subordinate Water Revenue Refunding Bonds, 2020 Series A.

**Liquidity Supported Bonds.** The interest rates for Metropolitan’s other variable rate demand obligations issued under the Senior Debt Resolutions, totaling \$482.3 million as of December 1, 2019, are currently reset on a daily basis. While bearing interest at a daily rate, such variable rate demand obligations are subject to optional tender on any business day with same day notice by the owners thereof and mandatory tender upon specified events. 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 (“bank bonds”) would initially bear interest at a per annum interest rate equal to, depending on the liquidity facility, either: (a) one month LIBOR plus 7.50 percent; or (b) the highest of the (i) the Prime Rate plus one percent, (ii) Federal Funds Rate plus two percent, and (iii) seven percent (with the spread or rate increasing in the case of each of (i), (ii) and (iii) of this clause (b) after 90 days). To the extent such bank bonds have not been remarketed or otherwise retired as of the earlier of the 90<sup>th</sup> day following the date such bonds were purchased by the liquidity provider or the stated expiration date of the related liquidity facility, 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 payable under the terms of the current liquidity facilities in semi-annual installments over a period of approximately one, three, or five years, depending on the applicable liquidity facility. In addition, upon an event of default under any such liquidity facility, including a failure by Metropolitan to perform or observe its covenants under the applicable standby bond purchase agreement, a default in other specified indebtedness of Metropolitan, or other specified events of default (including a reduction in the credit rating assigned to Senior Revenue Bonds issued under the Senior Debt Resolutions by any of Fitch, S&P or Moody’s below “A–” or “A3”), the liquidity provider could require all bank bonds to be subject to immediate mandatory redemption by Metropolitan.

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 December 1, 2019.

**Liquidity Facilities and Expiration Dates**

<b>Liquidity Provider</b>	<b>Bond Issue</b>	<b>Principal Outstanding</b>	<b>Facility Expiration</b>
Citibank, N.A.	2000 Authorization Series B-3 <sup>(1)</sup>	\$ 88,800,000	March 2020
Citibank, N.A.	2017 Authorization Series A	\$ 80,000,000	March 2020
The Toronto-Dominion Bank, New York Branch	2018 Series A-1 and Series A-2 <sup>(1)</sup>	\$209,870,000	June 2021
Bank of America, N.A.	2016 Series B-1 and Series B-2 <sup>(1)</sup>	<u>\$103,670,000</u>	July 2021
<b>Total</b>		<b>\$482,340,000</b>	

Source: Metropolitan.

<sup>(1)</sup> Depending on market conditions, all or a portion of the outstanding liquidity-supported variable rate Bonds of these Series may be refunded by Metropolitan’s Subordinate Water Revenue Refunding Bonds, 2020 Series A.

**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 December 1, 2019:

**FIXED PAYOR SWAPS:**

<b>Designation</b>	<b>Notional Amount Outstanding</b>	<b>Swap Counterparty</b>	<b>Fixed Payor Rate</b>	<b>MWD Receives</b>	<b>Maturity Date</b>
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	<u>29,057,500</u>	Citigroup Financial Products, Inc.	3.360	70% of 3-month LIBOR	7/1/2030
<b>Total</b>	<b>\$493,630,000</b>				

*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 Metropolitan’s audited financial statements in Appendix B.

Early termination of an interest rate swap agreement could occur due to a default by either party or the occurrence of a termination event (including defaults under other specified swaps and indebtedness, certain acts of insolvency, if a party may not legally perform its swap obligations, or, with respect to Metropolitan, if its credit rating is reduced below “BBB–” by Moody’s or “Baa3” by S&P (under most of the interest rate swap agreements) or below “BBB” by Moody’s or “Baa2” by S&P (under one of the interest rate swap agreements)). As of September 30, 2019, Metropolitan would have been required to pay to some of its counterparties termination payments if its swaps were terminated on that date. Metropolitan’s net exposure to its counterparties for all such termination payments on that date was approximately \$62.6 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, Metropolitan has previously exercised, and may in the future exercise, from time to time, optional early termination provisions to terminate all or a portion of certain interest rate swap agreements.

Metropolitan is required to post collateral in favor of a counterparty to the extent that Metropolitan’s total exposure for termination payments to that counterparty exceeds the threshold specified in the applicable swap agreement. Conversely, the counterparties are required to release collateral to Metropolitan or post collateral for the benefit of Metropolitan as market conditions become favorable to Metropolitan. As of September 30, 2019, 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 at that time. 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 December 1, 2019, Metropolitan had outstanding \$23.0 million of Senior Revenue Bonds bearing interest in a term mode, comprised of \$16.8 million of 2014 Series C Bonds in two outstanding series, and \$6.2 million of 2014 Series G Bonds in one outstanding 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 December 1, 2019, are summarized in the following table:

### Term Mode Bonds

<u>Series</u>	<u>Original Principal Amount Issued</u>	<u>Next Scheduled Mandatory Tender Date</u>
2014 C-2	14,020,000	October 1, 2020
2014 C-3	2,810,000	October 1, 2021
2014 G-5	6,205,000	October 1, 2020
<b>Total</b>	<b>\$23,035,000</b>	

*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 three Series of Bonds which it designated as "Build America Bonds" under the provisions of the American Recovery and Reinvestment Act of 2009 (the "Build America Bonds"), one Series of which remains outstanding in the aggregate principal amount of \$250.0 million. 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 sequestrations, 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 semi-annual Interest

Subsidy Payment that Metropolitan was to receive on or about July 1, 2013 (in connection with three series of Build America Bonds in the aggregate principal amount of \$578.4 million then outstanding, of which, as noted above, one series in the aggregate principal amount of \$250.0 million remains outstanding) was reduced by 8.7 percent, or \$578,000, to \$6.06 million. The percentage reduction is re-determined for each federal fiscal year. Interest Subsidy Payments processed in the subsequent federal fiscal years ended September 30, 2014 through 2019 were also reduced by the applicable sequestration rate for each such federal fiscal year, which sequestration rate ranged from 6.2 percent to 7.3 percent for such federal fiscal years. Interest Subsidy Payments processed on or after October 1, 2019 and on or before September 30, 2020 are to be reduced by the federal fiscal year 2020 sequestration rate of 5.9 percent. At present, pursuant to federal legislation, sequestration will continue to September 30, 2029. 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 Facility.*** In April 2016, Metropolitan entered into a noteholder’s agreement (such agreement as subsequently amended, the “RBC Short-Term Revolving Credit Facility”) with RBC Municipal Products, LLC (“RBC”) and a related note purchase agreement with RBC Capital Products, LLC, as the underwriter, for the issuance and sale by Metropolitan and the purchase by RBC of Metropolitan’s short-term Index Notes. Pursuant to the RBC Short-Term Revolving Credit Facility, Metropolitan may borrow, pay down and re-borrow amounts, through the issuance and sale from time to time of up to \$200 million of notes (including, subject to certain terms and conditions, notes to refund maturing notes) to be purchased by RBC during the term of RBC’s commitment thereunder (which commitment currently extends to April 5, 2022). As of December 1, 2019, Metropolitan had outstanding \$100,000,000 of short-term notes under the RBC Short-Term Revolving Credit Facility (which are expected to be refinanced and retired in full with proceeds of Metropolitan’s Water Revenue Bonds, 2020 Authorization Series A). Any unpaid principal remaining outstanding at the April 5, 2022 commitment end date of the RBC Short-Term Revolving Credit Facility is required to be paid by Metropolitan in quarterly installments over a period of approximately one year.

Notes under the RBC Short-Term Revolving Credit Facility bear interest at a variable rate of interest: for taxable borrowings, at a spread of 0.54 percent (so long as the current credit rating on Metropolitan’s Senior Revenue Bonds issued under the Senior Debt Resolutions is maintained) to the one-month LIBOR; and for tax-exempt borrowings, at a spread of 0.38 percent (so long as the current credit rating on Metropolitan’s Senior Revenue Bonds issued under the Senior Debt Resolutions is maintained) to the SIFMA Municipal Swap Index. Under the RBC Short-Term Revolving Credit Facility, upon a failure by Metropolitan to pay principal or interest of any note thereunder, a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, certain acts of insolvency, or other specified events of default (including a reduction in the credit rating assigned to Senior Revenue Bonds issued under the Senior Debt Resolutions by Fitch, S&P or Moody’s below “A-” or “A3”), the bank has the right to terminate its commitments and may accelerate (depending on the event, seven days after the occurrence, or for certain events, only after 180 days’ notice) Metropolitan’s obligation to repay its borrowings. Metropolitan has secured its obligation to pay principal and interest on notes evidencing borrowings under the RBC Short-Term Credit Facility as Senior Parity Obligations.

In connection with the execution of the RBC Short-Term Revolving Credit Facility, Metropolitan designated the principal and interest payable on the notes thereunder 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 RBC Short-Term Revolving Credit Facility on a schedule of Assumed Debt Service. This schedule of Assumed Debt Service assumes that Metropolitan will pay the principal under the RBC Short-Term Revolving Credit Facility over a period of 30 years at a fixed interest rate of approximately 3.3 percent.



Metropolitan has previously, and may in the future, enter into one or more other or alternative short-term revolving credit facilities, the repayment obligations of Metropolitan under which may be secured as either Senior Parity Obligations or Subordinate Parity Obligations.

### Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations

**Subordinate Revenue Bonds.** The water revenue bonds issued under the Subordinate Debt Resolutions outstanding as of December 1, 2019, are set forth below:

Name of Issue	Principal Outstanding
Subordinate Water Revenue Bonds, 2016 Authorization Series A <sup>(1)</sup>	\$175,000,000
Subordinate Water Revenue Refunding Bonds, 2017 Series A	238,015,000
Subordinate Water Revenue Refunding Bonds, 2017 Series B	178,220,000
Subordinate Water Revenue Bonds, 2017 Series C <sup>(1)</sup>	80,000,000
Subordinate Water Revenue Refunding Bonds, 2017 Series D <sup>(1)</sup>	95,630,000
Subordinate Water Revenue Refunding Bonds, 2017 Series E <sup>(1)</sup>	95,625,000
Subordinate Water Revenue Refunding Bonds, 2018 Series A	94,675,000
Subordinate Water Revenue Bonds, 2018 Series B	64,345,000
Subordinate Water Revenue Refunding Bonds, 2019 Series A	241,530,000
<b>Total</b>	<b>\$1,263,040,000</b>

Source: Metropolitan.

<sup>(1)</sup> Outstanding variable rate obligation.

As of December 1, 2019, of the \$1.26 billion outstanding Subordinate Revenue Bonds, \$446.3 million were variable rate obligations. The outstanding variable rate Subordinate Revenue Bonds are all bonds bearing interest in a LIBOR Index Mode or a SIFMA Index Mode.

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 \$175 million Subordinate Water Revenue Bonds, 2016 Authorization Series A (the “Subordinate 2016 Series A Bonds”), which was the first series of bonds issued under the Subordinate Debt Resolutions. Proceeds were used to reimburse Metropolitan for the purchase of the Delta Islands in the San Francisco Bay\Sacramento-San Joaquin River Delta that was funded from Metropolitan’s reserves in July 2016.

The Subordinate 2016 Series A Bonds bear interest at a variable rate of interest, at a spread of 0.32 percent (so long as the current credit rating on Metropolitan’s Senior Revenue Bonds issued under the Senior Debt Resolutions is maintained) to one-month LIBOR. Under the 2016 BANA Agreement, upon a failure by Metropolitan to pay principal or interest of any Subordinate 2016 Series A Bonds, a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, certain acts of insolvency, or other specified events of default (including if S&P shall have assigned a credit rating below “BBB–,” or if any of Fitch, S&P or Moody’s shall have assigned a credit rating below “BBB” or “Baa2,” to Senior Revenue Bonds issued under the Senior Debt Resolutions), BANA has the right to accelerate (depending on the event, seven days after the occurrence, or for certain events, only after 180 days’ notice) Metropolitan’s obligation to repay the Subordinate 2016 Series A Bonds. 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, 2020, 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 Subordinate 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.

Metropolitan’s Subordinate Water Revenue Bonds, 2017 Series C, Subordinate Water Revenue Refunding Bonds, 2017 Series D and Subordinate Water Revenue Refunding Bonds, 2017 Series E (collectively, the “Subordinate 2017 Series C, D and E Bonds”) bear interest at a rate that fluctuates weekly based on the SIFMA Municipal Swap Index plus a spread. The Subordinate 2017 Series C, D and E Bonds are Index Tender Bonds and 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 Subordinate 2017 Series C, D and E 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 such tendered Subordinate 2017 Series C, D and E Bonds is a special limited obligation of Metropolitan payable solely from Net Operating Revenues subordinate to the Senior Revenue Bonds and Senior Parity Obligations and on parity with the other outstanding 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 Subordinate 2017 Series C, D and E Bonds in connection with a scheduled mandatory tender. Failure to pay the purchase price of any Subordinate 2017 Series C, D and E Bonds on a scheduled mandatory tender date for such Index Tender Bonds for a period of five business days following written notice by any Owner of such Subordinate 2017 Series C, D and E Bonds will constitute an event of default under the Subordinate Debt Resolutions, upon the occurrence and continuance of which the owners of 25 percent in aggregate principal amount of the Subordinate Revenue Bonds then outstanding may elect a bondholders’ committee to exercise rights and powers of such owners under the Subordinate Debt Resolutions, including the right to declare the entire unpaid principal of the Subordinate Revenue Bonds then outstanding to be immediately due and payable.

The mandatory tender dates and related tender periods for the Index Tender Bonds outstanding as of December 1, 2019, are summarized in the following table:

**Index Tender Bonds**

Series	Date of Issuance	Original Principal Amount Issued	Next Scheduled Mandatory Tender Date	Maturity Date
Subordinate 2016 Authorization Series A	December 21, 2016	\$175,000,000	December 21, 2020	July 1, 2045
Subordinate 2017 Series C	July 3, 2017	80,000,000	July 31, 2020	July 1, 2047
Subordinate 2017 Refunding Series D	July 3, 2017	95,630,000	July 31, 2020	July 1, 2037
Subordinate 2017 Refunding Series E	July 3, 2017	<u>95,625,000</u>	July 31, 2020	July 1, 2037
<b>Total</b>		<b>\$446,255,000</b>		

Source: Metropolitan.

**Subordinate Short-Term Certificates.** In August 2019, Metropolitan entered into an amended and restated note purchase and continuing covenant agreement with BANA (the “Subordinate Refunding Note Purchase Agreement”) for the purchase by BANA and sale by Metropolitan of Metropolitan’s \$46.8 million principal amount of Short-Term Revenue Refunding Certificates, Series 2019 A (the “2019A Subordinate

Short-Term Refunding Notes”). The \$46.8 principal amount of 2019A Subordinate Short-Term Refunding Notes issued by Metropolitan and purchased by BANA on August 1, 2019 refunded all of the outstanding notes previously issued by Metropolitan under a prior note purchase and continuing covenant agreement entered into in 2018 between Metropolitan and BANA. Such refunded notes were issued for the purpose of providing advance funding to support the California WaterFix as authorized by the Board on July 10, 2018. On May 2, 2019, DWR withdrew its approval of California WaterFix and announced plans to pursue a new planning and environmental review process for a single tunnel Bay-Delta conveyance project. See “METROPOLITAN’S WATER SUPPLY–State Water Project –Bay-Delta Proceedings Affecting State Water Project – Bay-Delta Planning Activities; Delta Conveyance” in this Appendix A.

The 2019A Subordinate Short-Term Refunding Notes bear interest at a fluctuating per annum interest rate, equal to one-month LIBOR plus a spread of 0.32 percent (which spread is subject to increase on a scale based upon the then applicable credit ratings on Metropolitan’s Senior Revenue Bonds), not to exceed 18 percent per annum. The scheduled maturity date of the 2019A Subordinate Short-Term Refunding Notes is August 1, 2021.

Concurrently with the execution of the Subordinate Refunding Note Purchase Agreement, in August 2019, Metropolitan entered into an additional note purchase and continuing covenant agreement (the “2019 Subordinate Note Purchase Agreement”) with BANA for the purchase by BANA and sale by Metropolitan, from time to time, of Metropolitan’s Short-Term Revenue Certificates, Series 2019. Pursuant to the terms of the 2019 Subordinate Note Purchase Agreement, Metropolitan may borrow, through the issuance and sale from time to time of short-term notes (with maturity dates not exceeding one year from their delivery date), an aggregate principal amount not to exceed \$39.2 million (including, subject to certain terms and conditions, notes to refund maturing notes) to be purchased by BANA during the term of BANA’s commitment thereunder (the stated expiration date of which is July 30, 2021).

Notes under the 2019 Subordinate Note Purchase Agreement bear interest at a fluctuating per annum interest rate: (i) for taxable borrowings, equal to one-month LIBOR plus a spread of 0.32 percent; and (ii) for tax-exempt borrowings, equal to 80 percent of one month LIBOR plus a spread of 0.20 percent; in each case, which spread is subject to increase on a scale based upon the then applicable credit ratings on Metropolitan’s Senior Revenue Bonds. The per annum interest rate on notes under 2019 Subordinate Note Purchase Agreement shall not exceed 12 percent on notes issued for new money purposes and shall not exceed 18 percent on notes issued to refund maturing notes.

Metropolitan has secured its obligations to pay principal and interest under the Subordinate Refunding Note Purchase Agreement and the 2019 Subordinate Note Purchase Agreement as Subordinate Parity Obligations, payable from Net Operating Revenues on a basis junior and subordinate to Metropolitan’s Senior Revenue Bonds and Senior Parity Obligations and on parity with Metropolitan’s Subordinate Revenue Bonds.

Under each of Subordinate Refunding Note Purchase Agreement and the 2019 Subordinate Note Purchase Agreement, upon a failure by Metropolitan to pay principal or interest of any note thereunder, upon a failure by Metropolitan to perform or observe its covenants, a default in other specified indebtedness of Metropolitan, certain acts of bankruptcy or insolvency, or other specified events of default (including if S&P shall have assigned a credit rating below “BBB–,” or if any of Fitch, S&P or Moody’s shall have assigned a credit rating below “BBB” or “Baa2,” to Metropolitan’s Senior Revenue Bonds), BANA has the right to terminate its commitments thereunder and may accelerate (depending on the event, seven days after the occurrence, or for certain events, only after 180 days’ notice) Metropolitan’s obligation to repay its borrowings. Upon the occurrence and during the continuation of an event of default under the Subordinate Refunding Note Purchase Agreement or the 2019 Subordinate Note Purchase Agreement, outstanding notes thereunder would bear interest at a default rate of 12 percent per annum.

***Self-Liquidity Revolving Credit Agreement.*** In June 2018, Metropolitan entered into a revolving credit agreement (the “ICBC Self-Liquidity Revolving Credit Agreement”) with the Industrial and Commercial Bank of China Limited, New York Branch (“ICBC”), under the terms of which Metropolitan may borrow up to \$200

million for the purpose of paying the purchase price of tendered Self-Liquidity Bonds, including any Senior Revenue Bonds and/or Subordinate Revenue Bonds of Metropolitan that are part of Metropolitan's self-liquidity program. The stated expiration date of the ICBC Self-Liquidity Revolving Credit Agreement is June 23, 2023.

Borrowings made by Metropolitan under the ICBC Revolving Credit Agreement initially bear interest at a fluctuating per annum interest rate equal to, at Metropolitan's discretion, either: (a) one month LIBOR plus 1.50 percent; or (b) the higher of (i) the Federal Funds Rate plus 0.50 percent, and (ii) the Prime Rate, (increasing in any case periodically, beginning after 90 days). Metropolitan is required to pay principal remaining unpaid as of the earlier of the 180<sup>th</sup> day following the date of the related borrowing or the stated expiration date of the ICBC Self-Liquidity Revolving Credit Agreement in semi-annual installments over a period of approximately five years. Under the ICBC Self-Liquidity Revolving Credit 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 (including a reduction in the credit rating assigned to Subordinate Revenue Bonds issued under the Subordinate Debt Resolutions or any Subordinate Parity Obligation by any of Fitch, S&P or Moody's below "BBB" or "Baa2"), ICBC has the right to terminate its commitments and may accelerate Metropolitan's obligation to repay its borrowings. Metropolitan has secured its obligations to pay principal and interest under the ICBC Self-Liquidity Revolving Credit Agreement as Subordinate Parity Obligations, payable from Net Operating Revenues on a basis junior and subordinate to the Senior Revenue Bonds and Senior Parity Obligations. In addition, Metropolitan has secured its obligations under the ICBC Self-Liquidity Revolving Credit Agreement with a pledge of any principal and interest it receives from Self-Liquidity Bonds it purchases from borrowings under the ICBC Self-Liquidity Revolving Credit Agreement.

Metropolitan has previously, and may in the future, enter into one or more other or alternative self-liquidity revolving credit agreements (a "Self-Liquidity Revolving Credit Agreement"). Metropolitan may secure its obligation to pay principal and interest under any new Self-Liquidity Revolving Credit Agreement as either Senior Parity Obligations or Subordinate Parity Obligations. Metropolitan has no obligation to make borrowings under, maintain, or renew any Self-Liquidity Revolving Credit Agreement, including the ICBC Self-Liquidity Revolving Credit Agreement. See also "–Limitations on Additional Revenue Bonds."

Pursuant to the Master Subordinate Resolution, for purposes of calculating the amount of Debt Service thereunder, Metropolitan has included the amount of principal and interest due and payable under the ICBC Self-Liquidity Revolving Credit Agreement on a schedule of Revolving Credit Agreement Debt Service (as defined in the Master Subordinate Resolution). This schedule of Revolving Credit Agreement Debt Service initially assumes that Metropolitan will pay the principal under the ICBC Self-Liquidity Revolving Credit Agreement over a period of 30 years at a fixed interest rate of 2.97 percent. Pursuant to the terms of the Revenue Bond Resolutions, while a Self-Liquidity 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 Self-Liquidity Revolving Credit Agreement to purchase Self-Liquidity Bonds.

### **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 December 1, 2019, \$48,050,000 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.

<b>General Obligation Bonds</b>	<b>Amount Issued<sup>(1)</sup></b>	<b>Principal Outstanding</b>
Waterworks General Obligation Refunding Bonds, 2010 Series A	\$ 39,485,000	\$18,735,000
Waterworks General Obligation Refunding Bonds, 2014 Series A	49,645,000	12,560,000
Waterworks General Obligation Refunding Bonds, 2019 Series A	<u>16,755,000</u>	<u>16,755,000</u>
<b>Total</b>	<b><u>\$105,885,000</u></b>	<b><u>\$48,050,000</u></b>

Source: Metropolitan.

<sup>(1)</sup> 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 supply 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 Contractors, including Metropolitan, have reached an Agreement in Principle to extend their State water supply 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, 2019 was \$482.2 million, which amount reflects prior year’s credits of \$32.2 million. For the fiscal year ended June 30, 2019, Metropolitan’s payment obligations under the State Water Contract were approximately 32 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–Revenue Allocation Policy and Tax Revenues” in this Appendix A. Any deficiency between tax levy receipts and Metropolitan’s State Water Contract obligations is expected to be paid from Operating Revenues, as defined in the Senior Debt Resolutions. 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. See also “–Power Sources and Costs; Related Long-Term Commitments” 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.

Metropolitan capitalizes its share of the State Water Project capital costs as participation rights in State Water Project facilities as such costs are billed by DWR. Unamortized participation rights essentially represent

a prepayment for future water deliveries through the State Water Project system. Metropolitan's share of system operating and maintenance costs are annually expensed.

DWR and various subsets of the State Water Contractors have entered into amendments to the State water supply contracts 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 produce 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 2018, 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 ("CAISO"). 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.

***East Branch Enlargement Amendment.*** In 1986, Metropolitan's State Water Contract and the water supply contracts of certain other State Water 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 under the State water supply contracts 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 Appendix B to Bulletin 132-17 (an annual report produced by DWR setting forth data and computations used by the State in determining State Water Contractors' Statements of Charges), Metropolitan's share of the forecasted costs associated with the planning of a single tunnel Bay-Delta conveyance project (see "METROPOLITAN'S WATER SUPPLY-State Water Project -Bay-Delta Proceedings Affecting State Water Project - Bay-Delta Planning Activities; Delta Conveyance"), and power costs forecasted by Metropolitan. The projections reflect Metropolitan's preliminary biennial budget for fiscal years 2020-21 and 2021-22, which includes a ten-year financial forecast. See also "HISTORICAL AND PROJECTED REVENUES AND EXPENSES" in this Appendix A. The projections reflect certain assumptions concerning future events and circumstances which may not occur or materialize. Actual costs may vary from these projections if such events and circumstances do not occur as expected or materialize, and such variances may be material.

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**PROJECTED COSTS OF METROPOLITAN  
FOR STATE WATER CONTRACT AND DELTA CONVEYANCE  
(Dollars in Millions)**

Year Ending June 30	Capital Costs <sup>(1)</sup>	Minimum OMP&R <sup>(1)</sup>	Power Costs <sup>(2)</sup>	Refunds & Credits <sup>(1)</sup>	Delta Conveyance <sup>(3)</sup>	Total <sup>(4)</sup>
2020	\$180.4	\$233.7	\$221.1	\$(32.1)	\$13.0	\$616.1
2021	198.2	272.2	207.2	(61.8)	25.0	640.8
2022	211.9	275.2	212.4	(70.1)	25.0	654.4
2023	189.4	283.9	212.2	(63.5)	50.0	672.0
2024	209.9	294.9	212.5	(64.0)	--	653.3

Source: Metropolitan.

- (1) Capital Costs, Minimum Operations, Maintenance, Power and Replacement (“OMP&R”) and Refunds and Credits projections are based on Appendix B to Bulletin 132-17.
- (2) Power costs are forecasted by Metropolitan based on a 50 percent State Water Project allocation. Availability of State Water Project supplies vary and deliveries may include transfers and storage. All deliveries 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.
- (3) Based on Metropolitan’s share of the forecasted planning costs for a single tunnel project.
- (4) Totals may not add due to rounding.

**Power Sources and Costs; Related Long-Term Commitments**

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. Metropolitan’s power costs include various ongoing fixed annual obligations under its contracts with the U.S. Department of Energy Western Area Power Administration and the Bureau of Reclamation for power from the Hoover and Parker Power Plants respectively. Expenses for electric power for the CRA for the fiscal years 2017-18 and 2018-19 were approximately \$29.1 million and \$39.2 million, respectively. Expenses for electric power and transmission service for the State Water Project for fiscal years 2017-18 and 2018-19 were approximately \$156.5 million and \$131.1 million, respectively. Electricity markets are subject to volatility and Metropolitan is unable to give any assurance with respect to the magnitude of future power costs.

**Colorado River Aqueduct.** Approximately 50 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 for energy generated from federal facilities located on the Colorado River (Hoover Power Plant and Parker Power Plant). Payments made under the Hoover Power Plant and Parker Power Plant contracts are operation and maintenance expenses. These contracts provide Metropolitan with reliable and economical power resources to pump Colorado River water to Metropolitan’s service area.

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, succeeding Metropolitan’s prior Hoover contract that expired on September 30, 2017.

Depending on pumping conditions, Metropolitan can require additional energy in excess of the base resources available to Metropolitan from the Hoover and Parker Power Plants. The remaining up to approximately 50 percent of annual pumping power requirements for full capacity pumping on the CRA is obtained through energy purchases from municipal and investor-owned utilities, third party suppliers, or the CAISO markets. 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.



Gross diversions of water from Lake Havasu for fiscal years 2017-18 and 2018-19 were approximately 786,000 acre-feet and 798,000 acre-feet, respectively, including Metropolitan's basic apportionment of Colorado River water and supplies from water transfer and storage programs. In fiscal years 2017-18 and 2018-19, Metropolitan purchased approximately 94,000 and 395,000 megawatt-hours, respectively, of additional energy.

Prior to its expiration on September 30, 2017, Metropolitan was party to a 30-year Service and Interchange Agreement with Southern California Edison ("Edison"), which included provisions for the sharing between Metropolitan and Edison of the benefits realized by the integrated operation of Edison's and Metropolitan's electric systems. Under this agreement Edison also provided Metropolitan with varying amounts of additional energy (benefit energy) for CRA pumping. Metropolitan anticipates market power purchases will replace benefit energy and has reflected the additional costs in the CRA power cost projections for fiscal year 2019-20 and the ten-year financial forecast.

To replace the services previously provided by Edison under the Service and Interchange Agreement, Metropolitan has negotiated new agreements with several parties. In particular, Metropolitan has agreements with the Arizona Electric Power Cooperative ("AEPSCO") to provide transmission and energy purchasing services to support CRA power operations. The term of these agreements extends to December 31, 2035.

**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 a long-term contract with Metropolitan (hydropower), and short-term contracts with Metropolitan (hydropower), Kern River Conservation District (hydropower), Northern California Power Agency (natural gas generation), Wells Fargo Company (Solar), Dominion Solar Holdings (Solar), and S-Power Corporation (Solar). The remainder of the State Water Project power needs is met by purchases from the California Independent System Operator.

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, including Metropolitan, 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. Oral argument was held on September 24, 2018. Regulatory permits and authorizations are also required before the new license can take effect. In December 2016, NMFS 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 requirement prior to FERC issuing a new license. Following the 2017 Oroville Dam spillway incident, Butte County, the City of Oroville, and others requested that FERC not issue a new license until an Independent Forensic Team ("IFT") delivered their final report to FERC and FERC has had adequate time to review the report. The Final IFT report was delivered on January 5, 2018. DWR submitted a plan to address the findings of the report to FERC on March 12, 2018. See "METROPOLITAN'S WATER SUPPLY—State Water Project—2017 Oroville Dam Spillway Incident." Metropolitan anticipates that FERC will issue the new license; however, the timeframe for FERC approval is not currently known. 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 CAISO. 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 also be subject to increases in the cost of transmission service as new electric grid facilities are constructed.

On September 10, 2018, Governor Brown signed SB 100 into law, which took effect on January 1, 2019. SB 100 establishes a goal of providing 100 percent carbon-free electricity by 2045 and increases the 2030 Renewables Portfolio Standard (“RPS”) requirement for retail electric utilities from 50 percent to 60 percent. Simultaneously, the Governor announced Executive Order B-55-18 directing state agencies to develop a framework to achieve and maintain carbon neutrality by 2045. Metropolitan and DWR are not subject to the RPS requirements. However, as a state agency, DWR is subject to the Executive Order. DWR has an existing climate action plan in order to achieve carbon neutrality by 2045.

### **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 (“PERS Board”). Employees hired prior to January 1, 2013 are required to contribute 7.00 percent of their earnings (excluding overtime pay) to PERS. Pursuant to the current memoranda of understanding, Metropolitan contributes the requisite 7.00 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 but before January 1, 2013, pay the full 7.00 percent contribution to PERS for the first five years of employment. After the employee completes five years of employment, Metropolitan contributes the requisite 7.00 percent contribution. Metropolitan also contributes the entire 7.00 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 6.00 percent in fiscal years 2018-19 through 2019-20 and 7.25 percent in fiscal year 2020-21. 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 2018-19 contribution was based on the June 30, 2016 valuation report, the fiscal year 2019-20 contribution is based on the June 30, 2017 valuation report, and the fiscal year 2020-21 contribution is based on the June 30, 2018 valuation report. For fiscal year 2018-19, the PERS’ projected investment return (the discount rate) was 7.375 percent. The discount rates for fiscal years 2019-20 and 2020-21, will be 7.25 percent and 7.00 percent, respectively.

For fiscal year 2018-19, Metropolitan was required to contribute 25.97 percent of annual projected payroll. Metropolitan’s actual contribution for fiscal year 2018-19 was \$68.3 million or 32.14 percent of annual covered payroll, of which \$11.8 million or 5.56 percent was for Metropolitan’s pick-up of the employees’ 7.00 percent share. For fiscal years 2019-20 and 2020-21, Metropolitan is required to contribute 29.97 percent and 32.43 percent, respectively, of annual projected payroll, 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 has adjusted and may in the future further adjust certain assumptions used in the PERS actuarial valuations, which 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.

As part of the June 30, 2014 actuarial valuation, the PERS Board adopted changes in demographic assumptions. The most significant of these was the improvement in post-retirement mortality acknowledging greater life expectancies and expected continued improvements. On December 21, 2016, the PERS Board approved lowering the discount rate to 7.00 percent over a three-year period. PERS has estimated that with a reduction in the rate of return to 7.00 percent, most employers could expect a rate increase of 1.00 percent to 3.00 percent of normal cost as a percent of payroll for miscellaneous plans and an increase in payments toward unfunded accrued liabilities of between 30 to 40 percent. As a result, required contributions of employers, including Metropolitan, are expected to increase.

Beginning with fiscal year 2017-18 PERS began collecting employer contributions towards the plan's unfunded liability as dollar amounts instead of the prior method of contribution rate. This change addresses potential funding issues that could arise from a declining payroll or reduction in the number of active members in the plan.

On December 19, 2017, the PERS Board adopted new actuarial assumptions based on the recommendations in the December 2017 CalPERS Experience Study and Review of Actuarial Assumptions. This study reviewed the retirement rates, termination rates, mortality rates, rates of salary increases and inflation assumption for public agencies. These new assumptions were incorporated in the June 30, 2017 actuarial valuation and will impact the required contribution for fiscal year 2019-20. In addition, the Board adopted a new asset portfolio as part of its Asset Liability Management. The new asset mix supports a 7.00 percent discount rate. The reduction of the inflation assumption will be implemented in two steps in conjunction with the decreases in the discount rate. For the June 30, 2017 valuation an inflation rate of 2.625 percent was used and for the June 30, 2018 and subsequent valuations, an inflation rate of 2.50 percent was/will be used.

The PERS Board has adopted a new amortization policy effective with the June 30, 2019 actuarial valuation. The new policy shortens the period over which actuarial gains and losses are amortized from 30 years to 20 years with the payments computed using a level dollar amount. In addition, the new policy removes the five-year ramp-up and ramp-down on unfunded accrued liability bases attributable to assumption changes and non-investment gains/losses. The new policy removes the five-year ramp-down on investment gains/losses. These changes will apply only to new unfunded accrued liability bases established on or after June 30, 2019.

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

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<b>Valuation Date</b>	<b>Accrued Liability</b>	<b>Market Value of Assets</b>	<b>Unfunded Accrued Liability</b>	<b>Funded Ratio</b>
6/30/18	\$2.433	\$1.744	\$(0.689)	71.7%
6/30/17	\$2.269	\$1.651	\$(0.618)	72.7%
6/30/16	\$2.166	\$1.524	\$(0.642)	70.3%
6/30/15	\$2.060	\$1.556	\$(0.504)	75.5%
6/30/14	\$1.983	\$1.560	\$(0.423)	78.7%
6/30/13	\$1.805	\$1.356	\$(0.449)	75.1%

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, 2019 financial statements, the Net Pension Liability reported for the Miscellaneous Plan was \$634.0 million (a decrease of \$26.9 million over the prior year), representing a Total Pension Liability as of such date of \$2,376.7 million (an increase of \$61.5 million over the prior year) less the Plan Fiduciary Net Position as of such date of \$1,742.7 million (an increase of \$88.4 million over the prior year). For fiscal year 2018-19, the Miscellaneous Plan Net Pension Liability as a percentage of covered-employee payroll was 309.84 percent and the Plan Net Position as a percentage of the Total Pension Liability was 73.32 percent. The Net Pension Liability for Metropolitan's Miscellaneous Plan for the fiscal year ended June 30, 2019 was measured as of June 30, 2018, and the Total Pension Liability used to calculate the Net Pension Liability was determined by an annual actuarial valuation as of June 30, 2017.

For Metropolitan's fiscal year ended June 30, 2018 financial statements, the Net Pension Liability reported for the Miscellaneous Plan was \$660.9 million (an increase of \$73.3 million over the prior year), representing a Total Pension Liability as of such date of \$2,315.2 million (an increase of \$200.2 million over the prior year) less the Plan Fiduciary Net Position as of such date of \$1,654.3 million (an increase of \$126.9 million over the prior year). For fiscal year 2017-18, the Miscellaneous Plan Net Pension Liability as a percentage of covered-employee payroll was 331.81 percent and the Plan Net Position as a percentage of the Total Pension Liability was 71.45 percent. The Net Pension Liability for Metropolitan's Miscellaneous Plan for the fiscal year ended June 30, 2018 was measured as of June 30, 2017, and the Total Pension Liability used to calculate the Net Pension Liability was determined by an annual actuarial valuation as of June 30, 2016.

For more information on the plan, see APPENDIX B—"THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA INDEPENDENT AUDITORS' REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2019 AND JUNE 30, 2018 AND BASIC FINANCIAL STATEMENTS FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2019 AND 2018 (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 \$30.1 million in fiscal year 2017-18 and \$27.3 million in fiscal year 2018-19. Under Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, Metropolitan is required to account for and report the outstanding obligations and commitments related to such benefits, commonly referred to as other post-employment benefits (“OPEB”), on an accrual basis.

The actuarial valuation dated June 30, 2017, was released in March of 2018. The next OPEB actuarial report will be as of June 30, 2019 and is expected to be completed in the spring of 2020. The 2017 valuation indicated that the Actuarially Determined Contribution (“ADC” formerly referred to as the Annual Required Contribution) in fiscal year 2018-19 was \$27.3 million and that the ADC will be \$28.1 million and \$29.0 million in fiscal years 2019-20 and 2020-21, respectively. The ADC was based on the entry-age normal actuarial cost method with contributions determined as a level percent of pay. The actuarial assumptions included the following:

	<b>June 30, 2017 Valuation</b>
Investment Rate of Return	6.75%
Inflation	2.75%
Salary Increases	3.00%
Health Care Cost Trends	Medicare – starting at 6.5%, grading down to 4.0% over fifty-seven years. Non-Medicare – starting at 7.5%, grading down to 4.0% over fifty-seven years.
Mortality, Termination, Disability	CalPERS 1997-2011 Experience Study Mortality projected fully generational with Scale MP-2017
Affordable Care Act (ACA) Excise Tax	2% load on retiree medical premium subsidy

As of June 30, 2017, the date of the most recent OPEB actuarial report, the unfunded actuarial accrued liability was estimated to be \$235.5 million and projected to be \$226.1 million at June 30, 2018. The amortization period for the unfunded actuarial accrued liability is 23 years closed with 19 years remaining as of fiscal year end 2018 and the amortization period of actuarial gains and losses is 15 years closed. Adjustments to the ADC include amortization of the unfunded actuarial accrued liability and actuarial gains and losses.

In September 2013, Metropolitan’s Board established an irrevocable OPEB trust fund with the California Employers’ Retiree Benefit Trust Fund. The market value of assets in the trust as of June 30, 2019 was \$266.9 million. As part of its biennial budget process, the Board approved the full funding of the ADC for fiscal years 2018-19 and 2019-20.

As of the fiscal year ended June 30, 2018, Metropolitan implemented Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting of Postemployment Benefits Other than Pensions*, which resulted in the inclusion of Net OPEB liabilities and OPEB related deferred outflows and inflows on Metropolitan’s Statements of Net Position. In addition, \$128.9 million of beginning net position for 2018 was restated to record beginning deferred OPEB contributions and Net OPEB liability.

For Metropolitan’s fiscal year ended June 30, 2019 financial statements, the Net OPEB Liability reported was \$228.3 million (a decrease of \$12.2 million over the prior year), representing a Total OPEB Liability as of such date of \$468.2 million (an increase of \$20.1 million over the prior year) less the Plan Fiduciary Net Position as of such date of \$239.9 million (an increase of \$32.3 million over the prior year). For fiscal year 2018-19, the Net OPEB Liability as a percentage of covered-employee payroll was 11.58 percent and the Plan Net Position as a percentage of the Total OPEB Liability was 51.23 percent. The Net OPEB Liability for the year ended June 30, 2019 was measured as of June 30, 2018, and the Total OPEB Liability used to calculate the Net OPEB Liability was determined by an annual actuarial valuation as of June 30, 2017.

For Metropolitan’s fiscal year ended June 30, 2018 financial statements, the Net OPEB Liability reported for the Miscellaneous Plan was \$240.6 million (a decrease of \$15.4 million over the prior year), representing a Total OPEB Liability as of such date of \$448.1 million (an increase of \$19.4 million over the prior year) less the Plan Fiduciary Net Position as of such date of \$207.5 million (an increase of \$34.8 million over the prior year). For fiscal year 2018, the Net OPEB Liability as a percentage of covered-employee payroll was 120.78 percent and the Plan Net Position as a percentage of the Total OPEB Liability was 46.31 percent. The Net OPEB Liability for Metropolitan’s Miscellaneous Plan for the year ended June 30, 2018 was measured as of June 30, 2017, and the Total OPEB Liability used to calculate the Net OPEB Liability was determined by an annual actuarial valuation as of June 30, 2017.

### **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 preliminary biennial budget for fiscal years 2020-21 and 2021-22, which includes a ten-year financial forecast. 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 are not recorded and payments for debt service and pay-as-you-go construction are recorded when paid. 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 revenues are recognized in the month the water transaction occurs 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 Revenue Bond 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 the 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 transactions and the 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.

As noted below, the financial projection for fiscal year 2019-20 reflects revised projections based on results through October 2019, and the financial projections for fiscal years 2020-21 through 2023-24 reflect the preliminary biennial budget for fiscal years 2020-21 and 2021-22 and ten-year financial forecast provided therein. The financial projections include Metropolitan’s share of the forecasted costs associated with the planning of a single tunnel Bay-Delta conveyance project. See “METROPOLITAN’S WATER SUPPLY–State Water Project –Bay-Delta Proceedings Affecting State Water Project – Bay-Delta Planning Activities; Delta Conveyance” in this Appendix A.

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 transactions projections in the following table. Due to the variability of supplemental wholesale water transactions and unpredictability of future hydrologic conditions, projections of the volume of annual water transactions 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 herein.

Metropolitan’s projections of the level of water transactions 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 outlined in the 2015 IRP Update. 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 transactions projections for fiscal year 2019-20 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 2019. For additional description of Metropolitan’s water transactions projections, see “MANAGEMENT’S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES” in this Appendix A.

The water transactions projections used to determine water rates and charges assume an average year hydrology. Actual water transactions are likely to vary from projections. As shown in the chart entitled “Historical Water Transactions” below, transactions can vary significantly from average and demonstrates the degree to which Metropolitan’s commitments to meet supplemental demands can impact transactions. In years when actual transactions exceed projections, the revenues from water transactions during the fiscal year will exceed budget, potentially resulting in an increase in financial reserves. In years when actual transactions 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 transactions, revenues and expenses, and financial reserve balances in setting rates for future fiscal years.

Projections in the following table reflect revised projections for fiscal year 2019-20 based on results through October 2019. Financial projections for fiscal years 2020-21 through 2023-24 reflect the preliminary biennial budget for fiscal year 2020-21 and 2021-22 and ten-year financial forecast provided therein. This includes the issuance of \$390 million of bonds for fiscal years 2020-21 through 2023-24 to finance the CIP. See “MANAGEMENT’S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES” and “CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing” in this Appendix A. The proposed biennial budget for fiscal years 2020-21 and 2021-22 and ten-year financial forecast is scheduled to be presented to the Board in February 2020, and is expected to be considered for adoption by the Board in April 2020. No assurance can be given that the preliminary biennial budget for fiscal years 2021-21 and 2021-22 and ten-year financial forecast will be adopted in its current form.

Water transactions were 1.42 million acre-feet in fiscal year 2018-19. Water transactions are projected to be 1.55 million acre-feet for fiscal year 2019-20, 1.60 million acre-feet for fiscal years 2020-21 through 2022-23, and 1.64 million acre-feet for fiscal year 2023-24. Rates and charges increased by 3.0 percent on January 1, 2019 and January 1, 2020. Rates and charges are projected to increase an average of 5.0 percent for calendar years 2021 through 2023, and 3.0 percent annually thereafter. Actual rates and charges to be effective in 2021 and thereafter are subject to adoption by Metropolitan's Board.

The projections were prepared by Metropolitan and have not been reviewed by independent certified public accountants or any entity other than Metropolitan. Dollar amounts are rounded.

**HISTORICAL AND PROJECTED REVENUES AND EXPENSES<sup>(a)</sup>**  
**Fiscal Years Ended June 30**  
**(Dollars in Millions)**

	Actual				Projected				
	2016	2017	2018	2019	2020	2021	2022	2023	2024
Water Revenues <sup>(b)</sup>	\$1,166	\$1,151	\$1,285	\$1,149	\$1,314	\$1,424	\$1,491	\$1,569	\$1,678
Additional Revenue Sources <sup>(c)</sup>	200	184	172	170	166	172	182	188	195
Total Operating Revenues	1,366	1,335	1,457	1,319	1,480	1,596	1,673	1,757	1,873
O&M, CRA Power and Water Transfer Costs <sup>(d)</sup>	(799)	(559)	(568)	(569)	(653)	(724)	(748)	(794)	(845)
Total SWC OMP&R and Power Costs <sup>(e)</sup>	(402)	(368)	(395)	(347)	(482)	(504)	(513)	(546)	(507)
Total Operation and Maintenance	(1,201)	(927)	(963)	(916)	(1,135)	(1,228)	(1,261)	(1,340)	(1,352)
Net Operating Revenues	\$ 165	\$ 408	\$ 494	\$ 403	\$ 345	\$ 368	\$ 412	\$ 417	\$ 521
Miscellaneous Revenue <sup>(f)</sup>	24	18	27	22	17	25	26	27	27
Transfer from Reserve Funds <sup>(g)</sup>	222	33	1	--	--	--	--	--	--
Sales of Hydroelectric Power <sup>(h)</sup>	7	21	24	18	23	21	22	23	14
Interest on Investments <sup>(i)</sup>	17	4	8	34	18	18	18	18	18
Adjusted Net Operating Revenues <sup>(j)</sup>	435	484	554	477	403	432	478	485	580
Senior and Subordinate Obligations <sup>(k)</sup>	(310)	(308)	(340)	(333)	(278)	(291)	(298)	(306)	(323)
Funds Available from Operations	\$ 125	\$ 176	\$ 214	\$ 144	\$ 125	\$ 141	\$ 180	\$ 179	\$ 257
Debt Service Coverage on all Senior and Subordinate Bonds <sup>(l)</sup>	1.40	1.57	1.63	1.43	1.45	1.48	1.60	1.58	1.80
Funds Available from Operations	\$ 125	\$ 176	\$ 214	\$ 144	\$ 125	\$ 141	\$ 180	\$ 179	\$ 257
Other Revenues (Expenses)	(6)	(4)	(5)	(6)	(7)	(8)	(7)	(7)	(8)
Pay-As-You Go Construction <sup>(m)</sup>	(273)	(132)	(98)	(128)	(30)	(135)	(135)	(180)	(210)
Pay-As-You Go Funded from Replacement & Refurbishment Fund Reserves <sup>(m)</sup>	160	1	1	--	--	--	--	--	--
Total SWC Capital Costs Paid from Current Year Operations <sup>(n)</sup>	(24)	(45)	(21)	(4)	(17)	(4)	(10)	12	(8)
Remaining Funds Available from Operations	(18)	(4)	91	6	71	(6)	28	4	31
Fixed Charge Coverage <sup>(o)</sup>	1.30	1.37	1.53	1.42	1.37	1.46	1.55	1.65	1.75
Property Taxes	108	116	131	145	130	140	140	140	140
General Obligation Bonds Debt Service	(22)	(22)	(20)	(14)	(13)	(7)	(8)	(2)	(2)
SWC Capital Costs Paid from Taxes	(86)	(94)	(111)	(131)	(117)	(133)	(132)	(138)	(138)
Net Funds Available from Current Year <sup>(m)</sup>	\$ (18)	\$ (4)	\$ 91	\$ 6	\$ 71	\$ (6)	\$ 28	\$ 4	\$ 31

Source: Metropolitan.

(Footnotes on next page)



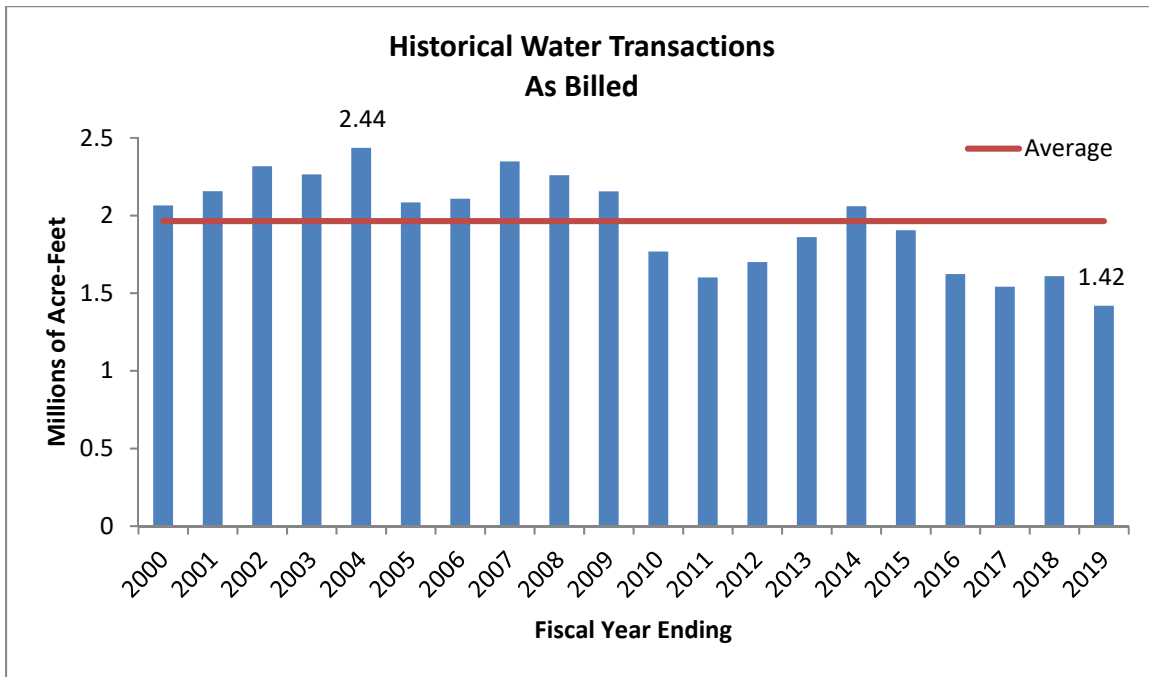
(Footnotes to table on prior page)

- (a) Unaudited. Prepared on a modified accrual basis. Projected revenues and expenses in fiscal year 2019-20 are based on results through October 2019 and revised from the projections provided in the adopted biennial budget for fiscal years 2018-19 and 2019-20. Projections for fiscal year 2020-21 through fiscal year 2023-24 are based on assumptions and estimates used in the preliminary biennial budget for fiscal years 2020-21 and 2021-22 and ten-year financial forecast provided therein, and reflect the projected issuance of additional bonds. See “MANAGEMENT’S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES” in this Appendix A.
- (b) Water Revenues include revenues from water sales, exchanges, and wheeling. During the fiscal years ended June 30, 2016 through June 30, 2019, annual water transactions (in acre-feet) were 1.62 million, 1.54 million, 1.61 million, and 1.42 million, respectively. See the table entitled “Summary of Water Transactions and Revenues” under “METROPOLITAN REVENUES–Water Revenues” in this Appendix A. The water transactions projections (in acre-feet) are 1.55 million acre-feet for fiscal year 2019-20, 1.60 million acre-feet for fiscal years 2020-21 through 2022-23, and 1.64 million acre-feet for fiscal year 2023-24. Projections reflect adopted rate and charge increases of 3.0 percent, effective on January 1, 2019 and January 1, 2020. Rates and charges are projected to increase an average of 5.0 percent per calendar year for 2021 through 2023, and 3.0 percent per calendar year thereafter, subject to adoption by Metropolitan’s Board. See “MANAGEMENT’S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES” in this Appendix A.
- (c) Includes revenues 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 and Regional Recycled Water Program planning 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 and Bay-Delta conveyance planning costs. 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 \$222 million in fiscal year 2015-16, \$33 million in fiscal year 2016-17, and \$1 million in fiscal year 2017-18 to fund a like amount of costs for conservation and supply programs. See “MANAGEMENT’S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES” in this Appendix A.
- (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.
- (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 and Subordinate Revenue Bonds and Subordinate Parity Obligations.
- (k) Includes debt service on outstanding Senior Revenue Bonds, Senior Parity Obligations, Subordinate Revenue Bonds, Subordinate Parity Obligations, and additional Revenue Bonds (projected). Includes refinancing of \$100 million Senior Lien Note and assumes issuance of \$170 million in additional revenue bonds for fiscal year 2019-20, and assumes issuances of approximately \$100 million annually as projected for fiscal years 2020-21 through 2023-24 as provided in budget assumptions for the preliminary biennial budget for fiscal years 2020-21 and 2021-22 and ten-year financial forecast provided therein. 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. Fiscal year 2017-18 debt service increased by \$15.3 million for debt service prepaid through bond refunding transactions in June 2018, rather than on July 1, 2018 and fiscal year 2018-19 debt service is therefore reduced by \$15.3 million. Fiscal year 2018-19 debt service increased by \$28.5 million for debt service prepaid in June 2019, rather than on July 1, 2019 and fiscal year 2019-20 debt service is therefore reduced by \$28.5 million. See “CAPITAL INVESTMENT PLAN–Capital Investment Plan Financing” in this Appendix A.
- (l) 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 (prior to its discharge in 2017) and projected Revenue Bonds. See “METROPOLITAN EXPENSES–Outstanding Senior Revenue Bonds and Senior Parity Obligations” and “–Outstanding Subordinate Revenue Bonds and Subordinate Parity Obligations” in this Appendix A.
- (m) 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.
- (n) As discussed herein, on May 2, 2019, DWR withdrew its approval of the two tunnel California WaterFix project and announced plans to pursue a new planning and environmental review process for a single tunnel Bay-Delta conveyance project. See “METROPOLITAN EXPENSES–State Water Contract Obligations.” See also “METROPOLITAN’S WATER SUPPLY–State Water Project –Bay-Delta Proceedings Affecting State Water Project – Bay-Delta Planning Activities; Delta Conveyance” 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 Senior Revenue Bonds, Senior Parity Obligations, Subordinate Revenue Bonds and Subordinate Parity Obligations, including the subordinate lien California Safe Drinking Water Revolving Fund Loan (prior to its discharge in 2017) and additional Revenue Bonds (projected).

**MANAGEMENT’S DISCUSSION OF HISTORICAL AND  
PROJECTED REVENUES AND EXPENSES**

**Water Transactions Projections**

The water transactions in the table above for fiscal year 2018-19 were 1.42 million acre-feet. The water transactions forecast is 1.55 million acre-feet for fiscal years 2019-20, 1.60 million acre-feet for fiscal years 2020-21 through 2022-23, and 1.64 million acre-feet for fiscal year 2023-24, consistent with the preliminary biennial budget and ten-year financial forecast. For purposes of comparison, Metropolitan’s highest level of water transactions during the past 20 fiscal years was approximately 2.44 million acre-feet in fiscal year 2003-04 and the lowest was 1.42 million acre-feet in fiscal year 2018-19. The chart below shows the volume of water transactions over the last 20 fiscal years.



**Water Revenues**

Metropolitan relies on revenues from water transactions for about 75 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 transactions to determine the rates necessary to produce the required revenues to be derived from water transactions 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, 2018, the Board adopted average increases in rate and charges of 3.0 percent, effective on January 1, 2019 and to become effective on January 1, 2020. Rates and charges are projected to increase an average of 5.0 percent per fiscal year for calendar years 2021 through 2023, and 3.0 percent for calendar year 2024. Actual rates and charges to be effective in 2021 and thereafter are subject to adoption by Metropolitan’s Board.

## **Projected Fiscal Year 2019-20 Results**

Projections for fiscal year 2019-20, in the table above, are revised from the projections adopted in the fiscal year 2018-19 and 2019-20 biennial budget and based on results through October 2019. Financial projections for fiscal years 2020-21 through 2023-24 are reflected in the fiscal year 2020-21 and 2021-22 preliminary biennial budget and ten-year financial forecast provided therein. The fiscal year 2018-19 and 2019-20 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 3.0 percent annually in both fiscal years 2018-19 and 2019-20. The fiscal year 2020-21 and 2021-22 preliminary biennial budget and ten-year financial forecast includes rate increases of 5.0 percent annually for calendar years 2021 through 2023 and 3.0 percent per year thereafter. Actual rates and charges to be effective in 2021 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 be updated as well. Increases in rates and charges reflect the impact of reduced water transactions projections, increasing operations and maintenance costs, and increasing State Water Project costs, when compared to prior fiscal years.

Operation and maintenance expenses in fiscal year 2019-20 are projected to be \$1,135 million, which represents approximately 71.3 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 expenses are projected to be \$17 million under budget in fiscal year 2019-20. Comparatively, operations and maintenance expenses in fiscal year 2018-19 were \$916 million, which represents approximately 60.3 percent of total costs. Overall, projected expenses for the twelve months ending June 30, 2020 are \$1.6 billion. This is \$151 million, or 8.7 percent, less than budgeted expenses.

Fiscal year 2019-20 revenue bond debt service coverage is projected to be 1.45x and fixed charge coverage to be 1.37x. Fiscal year 2019-20 capital expenditures, currently estimated at \$290 million, will be primarily funded by the proceeds of a bond issuance for such purpose and the remainder from pay-as-you-go funding. Metropolitan’s unrestricted reserves are projected to be approximately \$455 million at June 30, 2020. 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 AUDITORS’ REPORT AND BASIC FINANCIAL STATEMENTS FOR FISCAL YEARS ENDED JUNE 30, 2019 AND JUNE 30, 2018 AND BASIC FINANCIAL STATEMENTS FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2019 AND 2018 (UNAUDITED).”

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## APPENDIX B

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**THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
INDEPENDENT AUDITORS' REPORT AND BASIC FINANCIAL STATEMENTS  
FOR FISCAL YEARS ENDED JUNE 30, 2019 AND JUNE 30, 2018 AND  
BASIC FINANCIAL STATEMENTS FOR THE THREE MONTHS ENDED  
SEPTEMBER 30, 2019 AND 2018 (UNAUDITED)**

The Basic Financial Statements for the three months ended September 30, 2019 and 2018 (Unaudited) included in this Appendix B remain subject to amendment and revision. The source for the information herein is Metropolitan unless otherwise stated.

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**METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

Annual Financial Report

For the Fiscal Years Ended June 30, 2019 and 2018

(With Independent Auditors' Report Thereon)

**METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA**

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KPMG LLP  
Suite 1500  
550 South Hope Street  
Los Angeles, CA 90071-2629

## Independent Auditors' Report

The Board of Directors  
Metropolitan Water District of Southern California:

We have audited the accompanying basic financial statements of the Metropolitan Water District of Southern California (Metropolitan), which comprise the statements of net position as of June 30, 2019 and 2018, and the related statements of revenues, expenses, and changes in net position, and cash flows for the years then ended, and the related notes to the basic financial statements.

### *Management's Responsibility for the Financial Statements*

Management is responsible for the preparation and fair presentation of these basic financial statements in accordance with U.S. generally accepted accounting principles; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of basic financial statements that are free from material misstatement, whether due to fraud or error.

### *Auditors' Responsibility*

Our responsibility is to express an opinion on these basic financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the basic financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the basic financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

### *Opinion*

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the financial position of Metropolitan as of June 30, 2019 and 2018, and the changes in its financial position and its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

### *Required Supplementary Information*

U.S. generally accepted accounting principles require that management's discussion and analysis on pages 3-16 and the pension and other postemployment benefits supplementary information on pages 92-95 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an



essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

KPMG LLP

October 14, 2019

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**  
June 30, 2019 and 2018

The following discussion and analysis of The Metropolitan Water District of Southern California's (Metropolitan) financial performance provides an overview of the financial activities for the fiscal years ended June 30, 2019 and 2018. This discussion and analysis should be read in conjunction with the basic financial statements and accompanying notes, which follow this section.

**DESCRIPTION OF BASIC FINANCIAL STATEMENTS**

Metropolitan operates as a utility enterprise and maintains its accounting records in accordance with generally accepted accounting principles for proprietary funds as prescribed by the Governmental Accounting Standards Board (GASB). The basic financial statements include statements of net position, statements of revenues, expenses and changes in net position, and statements of cash flows. The statements of net position include all of Metropolitan's assets, deferred outflows of resources, liabilities, and deferred inflows of resources, with the difference reported as net position, some of which is restricted in accordance with bond covenants or other commitments. The statements of revenues, expenses and changes in net position report all of Metropolitan's revenues and expenses during the periods indicated. The statements of cash flows show the amount of cash received and paid out for operating activities, as well as cash received from taxes and investment income, and cash used for construction projects, State Water Project costs and principal and interest payments on borrowed money. Certain amounts reported in fiscal year 2018 have been reclassified to conform to the fiscal year 2019 presentation. Such reclassification had no effect on the previously reported change in net position.

During the fiscal year ended June 30, 2018, Metropolitan implemented GASB Statement No.75 (GASB 75), *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which addresses the accounting and financial reporting for postemployment benefits other than pensions (OPEB). Metropolitan did not restate the financial statements for the fiscal year ended June 30, 2017 because the necessary actuarial information was not provided to Metropolitan by the California Public Employees' Retirement System (CalPERS). As of July 1, 2017, Metropolitan restated the beginning net position in the amount of \$138.9 million to record the beginning deferred OPEB contributions and net OPEB liability.

## MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED

(CONTINUED)

June 30, 2019 and 2018

**CONDENSED FINANCIAL INFORMATION***Condensed Schedule of Net Position*

	June 30,		
	2019	2018	2017
<i>(Dollars in millions)</i>			
<b>Assets and deferred outflows of resources</b>			
Capital assets, net	\$ 10,393.5	\$ 10,410.0	\$ 10,534.1
Other assets	1,845.0	1,818.2	1,901.8
<b>Total assets</b>	<b>12,238.5</b>	12,228.2	12,435.9
Deferred outflows of resources	182.1	239.6	224.5
<b>Total assets and deferred outflows of resources</b>	<b>12,420.6</b>	12,467.8	12,660.4
<b>Liabilities and deferred inflows of resources</b>			
Long-term liabilities, net of current portion	4,865.4	5,235.0	5,063.2
Other liabilities	686.9	502.9	817.6
<b>Total liabilities</b>	<b>5,552.3</b>	5,737.9	5,880.8
Deferred inflows of resources	32.1	43.4	21.9
<b>Total liabilities and deferred inflows of resources</b>	<b>5,584.4</b>	5,781.3	5,902.7
<b>Net position</b>			
Net investment in capital assets, including State Water Project costs	6,131.6	5,968.8	6,067.0
Restricted	418.6	407.6	407.0
Unrestricted	286.0	310.1	283.7
<b>Total net position</b>	<b>\$ 6,836.2</b>	\$ 6,686.5	\$ 6,757.7

**Capital Assets, Net**

Net capital assets include plant, participation rights, and construction work in progress, net of accumulated depreciation and amortization.

**Fiscal Year 2019 Compared to 2018.** At June 30, 2019, net capital assets totaled \$10.4 billion, or 83.7 percent of total assets and deferred outflows of resources, and were \$16.5 million lower than the prior year. The decrease included depreciation and amortization of \$352.1 million and \$32.3 million retirements of capital assets and write-off of construction in progress upon determination that no operating assets would result from the cost incurred, offset by Metropolitan's continued expenditures on the capital investment plan of \$227.7 million (including \$4.7 million of capitalized interest) and a net increase of \$140.2 million in participation rights in State Water Project (SWP) and other facilities. See the capital assets section on pages 14-15 for additional information.

**Fiscal Year 2018 Compared to 2017.** At June 30, 2018, net capital assets totaled \$10.4 billion, or 83.5 percent of total assets and deferred outflows of resources, and were \$124.1 million lower than the prior year. This decrease included depreciation and amortization of \$329.7 million and \$128.5 million retirements of capital assets and write-off of construction in progress upon determination that no operating assets would result from the cost incurred, offset by Metropolitan's continued expenditures on the capital investment plan of \$207.9 million (including \$15.6 million of capitalized interest) and net capital payments for participation rights in SWP of \$126.2 million. See the capital assets section on pages 14-15 for additional information.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**  
(CONTINUED)  
June 30, 2019 and 2018

**Other Assets**

Other assets include accounts receivable, inventories, prepaid costs, and cash and investments.

***Fiscal Year 2019 Compared to 2018.*** At June 30, 2019, other assets totaled \$1.8 billion and were \$26.8 million higher than the prior year. Deposits, prepaid costs, and other was \$62.6 million higher primarily due to \$41.5 million of prepaid costs related to the California WaterFix advance funding agreement with the California Department of Water Resources and a \$11.2 million increase in Palos Verde Irrigation District (PVID) land fallowing cost. Inventory was \$25.3 million higher due to an increase in water storage of 89.9 thousand acre feet (TAF). These increases were primarily offset by \$55.7 million lower receivables of which, \$51.2 million related to lower water revenues receivables as fiscal year 2019 May and June water transactions were 353.1 TAF less than the prior year's comparable months.

***Fiscal Year 2018 Compared to 2017.*** At June 30, 2018, other assets totaled \$1.8 billion and were \$83.6 million lower than the prior year. Cash and investments were \$184.0 million lower primarily due to the \$250.0 million repayment of short-term revolving notes, offset by \$64.3 million proceed from the issuance of the Subordinate Water Revenue Bond 2018, Series B in June 2018. This decrease was partially offset by \$74.6 million higher deposits, prepaid costs, and other primarily due to \$73.0 million more of prepaid water costs, which included \$42.4 million or 315.7 TAF of higher supply storage and \$25.3 million more of PVID land fallowing costs. In addition, water revenues receivable were \$23.4 million higher as May and June 2018 water transactions were 57.6 TAF more than prior year's comparable months.

**Deferred Outflows of Resources**

Deferred outflows of resources include deferred outflows related to loss on bond refundings and swap terminations, deferred outflows related to the net pension liability and net OPEB liability, and deferred outflows for effective interest rate swaps.

***Fiscal Year 2019 Compared to 2018.*** At June 30, 2019, deferred outflows totaled \$182.1 million and were \$57.5 million lower than the prior year. The decrease was primarily due to \$31.5 million lower deferred outflows related to pension, which included \$39.3 million lower deferred outflows due to changes of actuarial assumption and \$16.4 million lower deferred outflows related to the net difference between projected and actual earnings on pension plan investments, offset by \$25.1 million higher deferred outflows related to pension contributions subsequent to the measurement date. In addition, deferred loss on bond refundings was \$14.4 million lower due to \$8.7 million of refunding transactions and \$5.7 million of scheduled amortization and deferred outflows related to loss on swap terminations was \$8.9 million lower due to \$6.1 million of refunding transactions and \$2.8 million of scheduled amortization.

***Fiscal Year 2018 Compared to 2017.*** At June 30, 2018, deferred outflows totaled \$239.6 million and were \$15.1 million higher than the prior year. The increase was primarily due to \$34.7 million deferred OPEB contributions due to the implementation of GASB 75. This increase was offset by \$20.9 million lower deferred loss on bond refundings due to \$14.4 million of refunding transactions and \$6.5 million of scheduled amortization.

**Long-term Liabilities, Net of Current Portion**

Long-term liabilities, net of current portion include long-term debt, revolving notes, customer deposits and trust funds, net pension liability, net OPEB liability, accrued compensated absences, workers' compensation and third party claims, fair value of interest rate swaps, and other long-term obligations.

**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**

(CONTINUED)

June 30, 2019 and 2018

***Fiscal Year 2019 Compared to 2018.*** At June 30, 2019, long-term liabilities, net of current portion totaled \$4.9 billion and were \$369.6 million lower than the prior year. The decrease in long-term debt, net of current portion of \$389.0 million included \$171.2 million of bond refundings, as the new debt issued was less than the amount of debt refunded, \$142.0 million principal payments and \$170.6 million more current portion of long-term debt as compared to prior year. See other liabilities section below for additional information. In addition, net pension liability was \$26.9 million lower primarily due \$139.0 million of pension plan investment earnings and employer contributions to the pension plan of \$48.8 million offset by \$161.0 million interest on the total pension liability. Net OPEB liability was also \$12.2 million lower primarily due to \$34.7 million of employer contributions to the OPEB plan and \$18.5 million of OPEB plan investment earnings, offset by \$30.3 million of interest on the total OPEB liability and \$10.3 million of service costs. These decreases in long-term liabilities were offset by the \$46.8 million Bank of America, N.A. notes issued for the California WaterFix advance funding and \$11.9 million higher fair value of interest rate swaps due to lower interest rates as compared to prior year. See the long-term debt section on page 16 for additional information.

***Fiscal Year 2018 Compared to 2017.*** At June 30, 2018, long-term liabilities, net of current portion, totaled \$5.2 billion and were \$171.8 million higher than the prior year. The implementation of GASB 75 resulted in net OPEB liability that was \$157.2 million more than the obligation for OPEB recorded in fiscal year 2017. The increase also included \$73.3 million higher net pension liability due to \$156.7 million of interest on total pension liability plus \$125.7 million related to changes of assumptions from a 7.65 percent discount rate to 7.15 percent, offset by \$171.6 million of pension plan investment earnings and \$42.8 million of employer contributions. These increases were offset by \$26.5 million of lower long-term debt, net of current portion primarily due to \$164.1 million principal payments, a \$62.6 million decrease related to bond refundings, as the new debt issued was less than the amount of debt refunded, offset by \$144.3 million of new bonds issued, \$9.7 million amortization of bond premium and discounts and \$46.2 million less current portion of long-term debt as compared to prior year. See the other liabilities section below for additional information. Additionally, there was a \$22.4 million decrease in the fair value of interest rate swaps due to higher interest rates as compared to prior year. See the long-term debt section on page 16 for additional information.

**Other Liabilities**

Other liabilities represent current liabilities that are due within one year. Current liabilities include accounts payable, accrued liabilities, and the current portion of long-term liabilities.

***Fiscal Year 2019 Compared to 2018.*** At June 30, 2019, other liabilities totaled \$686.9 million and were \$184.0 million higher than the prior year primarily due to \$170.6 million more current portion of long-term debt as the outstanding Water Revenue Bonds 2000 Series B-3 and 2017 Series A in the amount of \$88.8 million and \$80.0 million, respectively, are supported by a Standby Bond Purchase Agreement that expires in March 2020.

***Fiscal Year 2018 Compared to 2017.*** At June 30, 2018, other liabilities totaled \$502.9 million, and were \$314.7 million lower than the prior year primarily due to \$250.0 million repayment of short-term revolving notes and \$46.2 million lower current portion of long-term debt as the required principal payments for some bond issues were lower than the prior year. In addition, the \$180.0 million revolving credit agreement (RCA) that expired in June 2018 was replaced by a \$200.0 million RCA increasing the self-liquidity bonds coverage by \$20.0 million.

**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**

(CONTINUED)

June 30, 2019 and 2018

**Deferred Inflows of Resources**

Deferred inflows of resources represent deferred inflows related to the net pension liability, net OPEB liability and deferred inflows for effective interest rate swaps.

*Fiscal Year 2019 Compared to 2018.* At June 30, 2019, deferred inflows of resources totaled \$32.1 million and were \$11.3 million lower than the prior year primarily due to an \$18.0 million decrease in effective swaps due to lower interest rates, offset by \$6.4 million higher deferred inflows related to pension which included \$8.4 million higher changes of assumptions and \$2.0 million lower difference between expected and actual experience.

*Fiscal Year 2018 Compared to 2017.* At June 30, 2018, deferred inflows of resources totaled \$43.4 million and were \$21.5 million higher than the prior year primarily due to an \$18.6 million increase in effective swaps due to higher interest rates.

**Net Investment in Capital Assets, including State Water Project Costs**

Net investment in capital assets, including State Water Project costs, include amounts expended for capital improvements and State Water Project, offset by accumulated depreciation and outstanding debt issued for these purposes.

*Fiscal Year 2019 Compared to 2018.* At June 30, 2019, net investment in capital assets, including State Water Project costs totaled \$6.1 billion and was \$162.8 million higher than the prior year. This increase included \$179.3 million decrease in outstanding debt and related deferred outflows of resources offset by \$16.5 million net decrease in capital assets. See discussions of these items in the capital assets and long-term debt sections.

*Fiscal Year 2018 Compared to 2017.* At June 30, 2018, net investment in capital assets, including State Water Project costs totaled \$6.0 billion and was \$98.2 million lower than the prior year. This decrease included \$124.1 million decrease in capital assets offset by \$25.9 million decrease in outstanding debt and related deferred outflows of resources. See discussions of these items in the capital assets and long-term debt sections.

**Restricted Net Position**

Restricted net position includes amounts restricted for debt service payments and operating expenses, both of which are required by bond covenants.

*Fiscal Year 2019 Compared to 2018.* At June 30, 2019, restricted net position totaled \$418.6 million which was \$11.0 million higher than fiscal year 2018 primarily due to \$32.2 million increase in restricted for operating expenses as the SWP operations, maintenance, power and replacement (OMP&R) costs are estimated to be higher in fiscal year 2020 offset by \$20.6 million of lower restricted for debt service.

*Fiscal Year 2018 Compared to 2017.* At June 30, 2018, restricted net position totaled \$407.6 million which was \$0.6 million higher than fiscal year 2017.

**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**

(CONTINUED)

June 30, 2019 and 2018

**Unrestricted Net Position**

Unrestricted net position consists of net position items that do not meet the definition of “restricted” or “net investment in capital assets, including State Water Project costs.” Certain unrestricted net position items have been designated for purposes authorized by the Board.

*Fiscal Year 2019 Compared to 2018.* Unrestricted net position of \$286.0 million decreased \$24.1 million from the prior year, which included \$162.8 million higher net investment in capital assets and \$11.0 million higher restricted for debt service and operating expenses partially offset by the fiscal year 2019 changes in net position of \$149.7 million.

*Fiscal Year 2018 Compared to 2017.* Unrestricted net position of \$310.1 million increased \$26.4 million from the prior year. The increase included \$98.2 million of lower net investment in capital assets, including State Water Project costs and \$67.7 million fiscal year 2018 changes in net position. These increases were offset by the recording of beginning deferred OPEB contribution and net OPEB liability of \$138.9 million as a result of GASB 75 implementation in 2018.



**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**

(CONTINUED)

June 30, 2019 and 2018

**CHANGES IN NET POSITION***Condensed Schedule of Revenues, Expenses, and Changes in Net Position*

	Fiscal Year Ended June 30,		
	2019	2018	2017
(Dollars in millions)			
Water revenues	\$ 1,148.7	\$ 1,285.2	\$ 1,150.5
Readiness-to-serve charges	136.5	137.5	144.0
Capacity charge	33.0	34.6	39.7
Power sales	18.3	23.7	20.9
<b>Operating revenues</b>	<b>1,336.5</b>	<b>1,481.0</b>	<b>1,355.1</b>
Taxes, net	142.7	127.3	115.4
Investment income, net	36.0	10.6	6.2
Other	10.4	12.9	7.3
<b>Nonoperating revenues</b>	<b>189.1</b>	<b>150.8</b>	<b>128.9</b>
<b>Total revenues</b>	<b>1,525.6</b>	<b>1,631.8</b>	<b>1,484.0</b>
Power and water costs	(375.8)	(446.5)	(455.4)
Operations and maintenance	(493.9)	(507.4)	(487.5)
Depreciation and amortization	(361.1)	(330.3)	(301.7)
<b>Operating expenses</b>	<b>(1,230.8)</b>	<b>(1,284.2)</b>	<b>(1,244.6)</b>
Bond interest, net of amount capitalized	(126.9)	(124.5)	(134.6)
Loss on disposal of plant assets	(13.7)	(88.7)	(20.9)
Other	(5.3)	(68.2)	(10.0)
<b>Nonoperating expenses</b>	<b>(145.9)</b>	<b>(281.4)</b>	<b>(165.5)</b>
<b>Total expenses</b>	<b>(1,376.7)</b>	<b>(1,565.6)</b>	<b>(1,410.1)</b>
<b>Changes in net position before contributions</b>	<b>148.9</b>	<b>66.2</b>	<b>73.9</b>
Capital contributions	0.8	1.5	—
<b>Changes in net position</b>	<b>149.7</b>	<b>67.7</b>	<b>73.9</b>
<b>Net Position</b>			
Beginning of year, as previously reported	6,686.5	6,757.7	6,683.8
Cumulative effect of change in accounting principle	—	(138.9)	—
Beginning of year, as restated	6,686.5	6,618.8	6,683.8
<b>Net position, end of year</b>	<b>\$ 6,836.2</b>	<b>\$ 6,686.5</b>	<b>\$ 6,757.7</b>

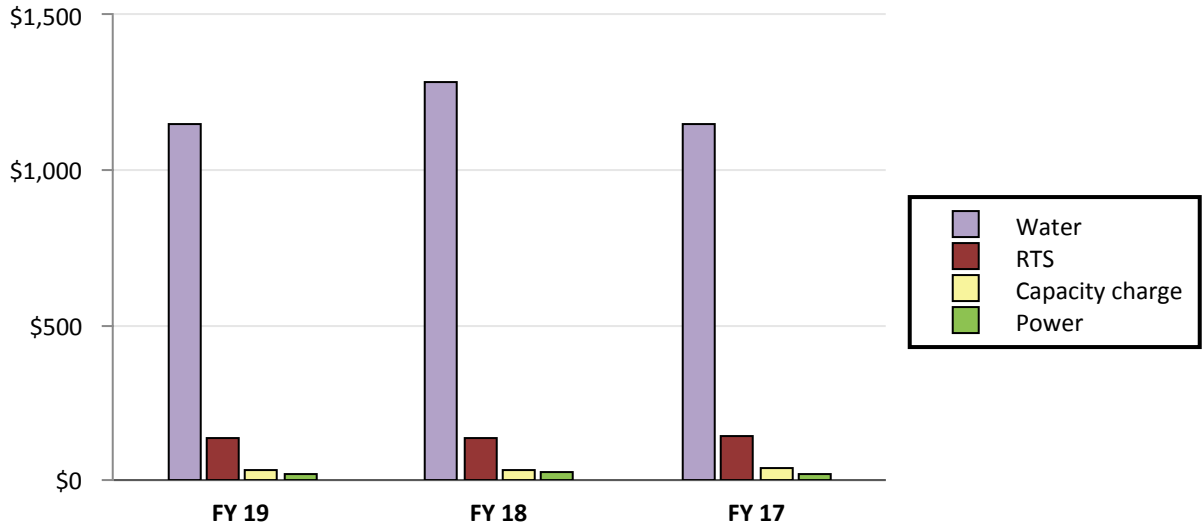
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**MANAGEMENT’S DISCUSSION AND ANALYSIS—UNAUDITED**  
 (CONTINUED)  
 June 30, 2019 and 2018

**Operating Revenues**

Metropolitan’s principal source of revenue is derived from the sale and availability of water, including water rates and other exchange and wheeling transactions, which typically account for approximately 85 percent of operating revenues. Metropolitan’s primary sources of water supply are the Colorado River and the State Water Project.

**OPERATING REVENUES**

(Dollars in millions)



**Analytical Review of Operating Revenues**

**Fiscal Year 2019 Compared to 2018.** Fiscal year 2019 operating revenues were \$1.3 billion or \$144.5 million less than the prior year. The decrease was primarily due to \$136.5 million of lower water revenues, which included \$153.5 million or 192.7 TAF of lower volumes sold offset by \$17.0 million of higher price.

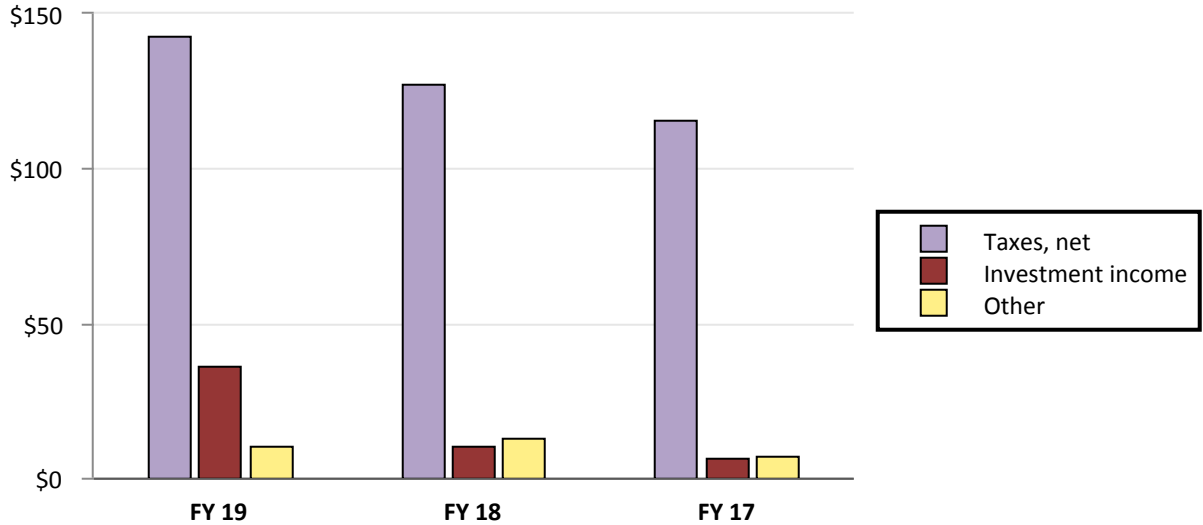
**Fiscal Year 2018 Compared to 2017.** Fiscal year 2018 operating revenues were \$1.5 billion or \$125.9 million more than the prior year. The increase was primarily due to \$134.7 million of higher water sales, of which \$82.4 million related to higher water rates and \$52.3 million or 70.1 TAF of higher volumes sold. This increase was offset by \$6.5 million lower readiness-to-serve charges as the Board approved amount was lower in fiscal year 2018 as compared to prior year.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**  
 (CONTINUED)  
 June 30, 2019 and 2018

**Nonoperating Revenues**

The primary source of nonoperating revenues is property taxes.

**NONOPERATING REVENUES**  
 (Dollars in millions)



**Analytical Review of Nonoperating Revenues**

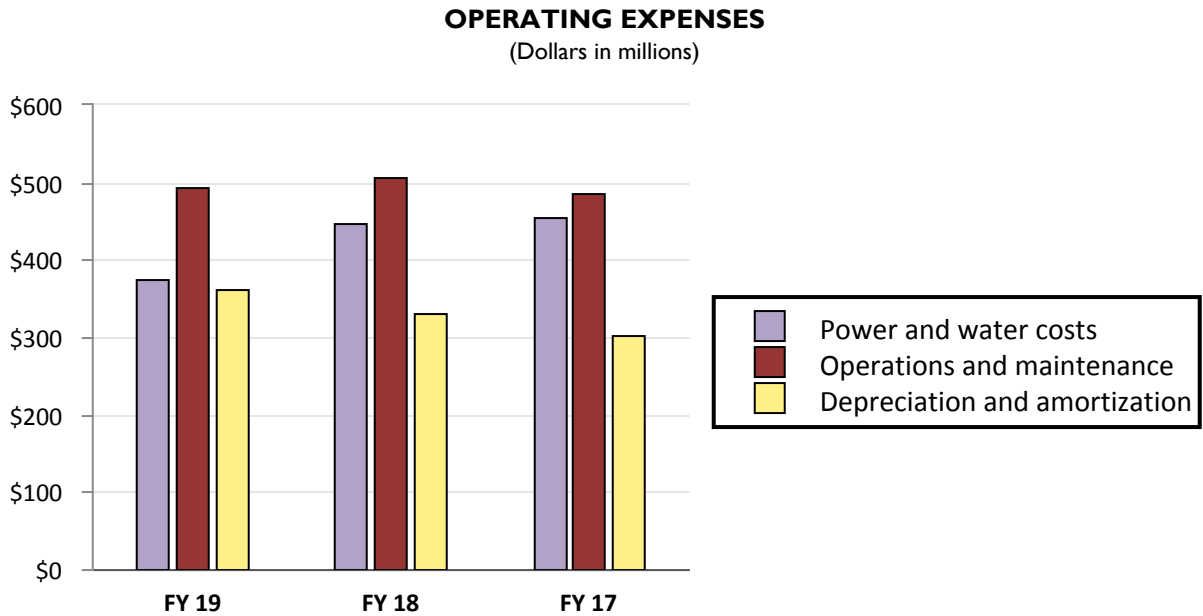
**Fiscal Year 2019 Compared to 2018.** Nonoperating revenues for fiscal year 2019 totaled \$189.1 million and were \$38.3 million higher than the prior year. The increase was primarily due to \$25.4 million more of investment income, which included a \$14.8 million favorable change in fair value of investments and \$7.3 million higher rate of return. In addition, property tax revenue increased \$15.4 million due to lower delinquencies and higher assessments resulting from increased property values.

**Fiscal Year 2018 Compared to 2017.** Nonoperating revenues for fiscal year 2018 totaled \$150.8 million and were \$21.9 million higher than the prior year. The increase was primarily due to \$11.9 million of higher property tax revenue due to lower delinquencies and higher assessments resulting from increased property values, as well as a \$4.4 million increase in investment income due to \$3.9 million higher interest on investments.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**  
 (CONTINUED)  
 June 30, 2019 and 2018

**Operating Expenses**

Operating expenses fall into three primary cost areas: power and water, operations and maintenance, and depreciation and amortization.



**Analytical Review of Operating Expenses**

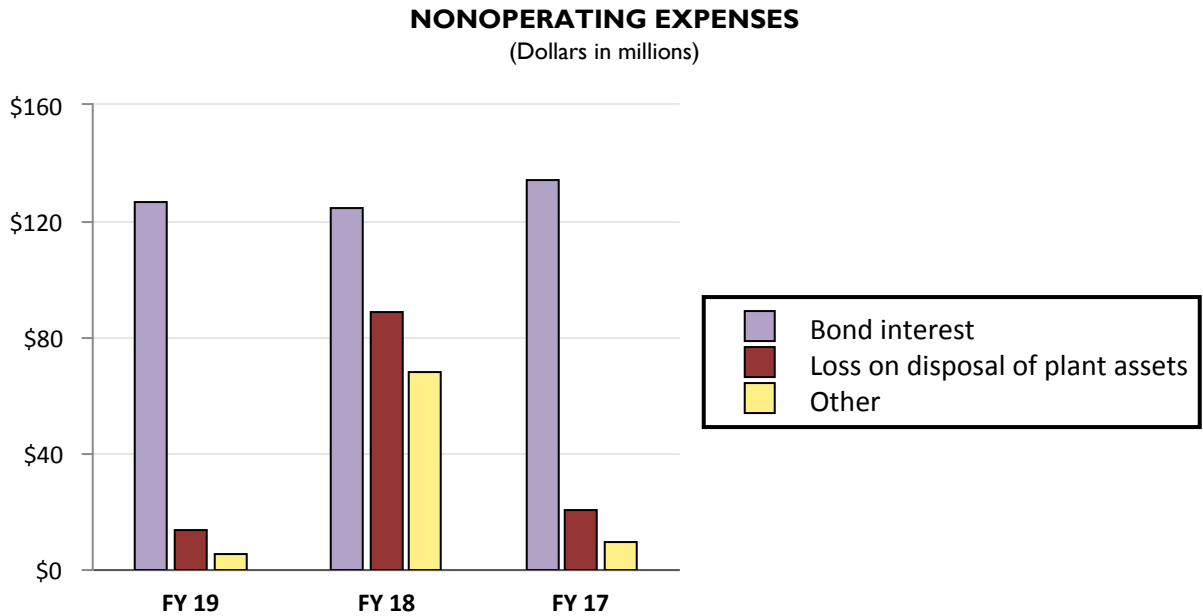
**Fiscal Year 2019 Compared to 2018.** Fiscal year 2019 operating expenses of \$1.2 billion were \$53.4 million lower than the prior year. The decrease was primarily due to \$70.7 million lower power and water costs, which included \$48.5 million cost reduction due to 192.7 TAF less water sold and \$35.2 million lower SWP minimum OMP&R costs related to an over collection of prior year's charges. The decrease was offset by \$30.8 million of higher depreciation and amortization due to a net increase in depreciable capital assets of \$320.5 million.

**Fiscal Year 2018 Compared to 2017.** Fiscal year 2018 operating expenses of \$1.3 billion were \$39.6 million higher than the prior year. The increase included \$28.6 million of depreciation and amortization due to a net increase in depreciable capital assets of \$343.0 million and \$19.9 million of higher operations and maintenance costs primarily related to higher labor costs resulting from the negotiations with bargaining units which concluded in fiscal year 2018. These increases were offset by \$8.9 million lower power and water costs due to lower SWP minimum OMP&R costs related to an over collection of prior year's charges.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**  
 (CONTINUED)  
 June 30, 2019 and 2018

**Nonoperating Expenses**

The primary sources of nonoperating expenses are interest expense on bonds, loss on disposal of plant assets and other, net.



**Analytical Review of Nonoperating Expenses**

**Fiscal Year 2019 Compared to 2018.** Fiscal year 2019 nonoperating expenses of \$145.9 million were \$135.5 million lower than the prior year. The decrease was primarily due to \$75.0 million less of loss on disposal of plant assets related to the write-off of Skinner Modules 4, 5 and 6 in the prior year. In addition, other expenses decreased \$62.9 million due to \$39.1 million less write-off of construction in progress programs and \$24.0 million less recalculation of previously capitalized interest on construction in the prior year.

**Fiscal Year 2018 Compared to 2017.** Fiscal year 2018 nonoperating expenses of \$281.4 million were \$115.9 million higher than the prior year. The increase was primarily due to \$67.8 million more of loss on disposal of plant assets related to the write-off of Skinner Modules 4, 5 and 6. In addition, other expenses increased \$58.2 million, of which \$18.8 million related to an increase in write-off of construction in progress programs upon determination that no operational asset would result from the costs incurred and \$40.0 million related to a recalculation of previously capitalized interest on construction. These increases were offset by a \$10.1 million reduction in bond interest, net of amount capitalized due to bond refunding transactions to take advantage of lower interest rates.

**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**

(CONTINUED)

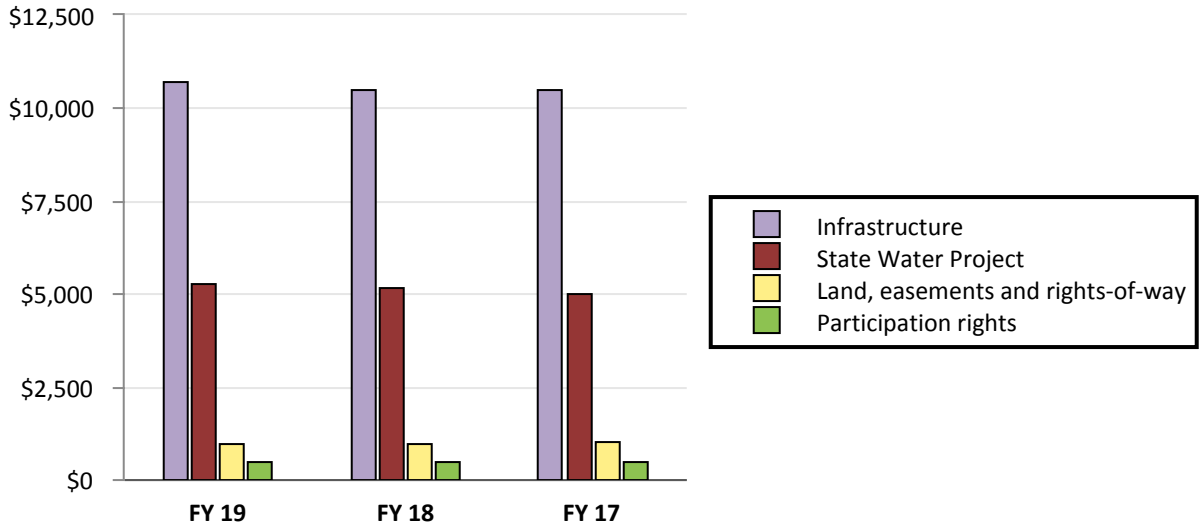
June 30, 2019 and 2018

**CAPITAL ASSETS**

Capital assets include Metropolitan's water infrastructure, land and buildings, as well as participation rights in State Water Project and various other water programs. More detailed information on capital assets and commitments for construction contracts are presented in Note 2 and Note 9(g) to the basic financial statements, respectively.

**GROSS CAPITAL ASSETS**

(Dollars in millions)



*Schedule of Capital Assets*

(Dollars in millions)	June 30,		
	2019	2018	2017
Land, easements and rights of way	\$ 984.8	\$ 994.8	\$ 1,009.9
Construction in progress	545.8	691.8	1,018.8
Parker power plant and dam	13.0	13.0	13.0
Power recovery plants	210.6	216.2	196.9
Other dams and reservoirs	1,568.3	1,560.7	1,549.8
Water transportation facilities	3,892.6	3,820.7	3,744.1
Pumping plants and facilities	303.0	302.4	294.3
Treatment plants and facilities	3,185.8	2,969.8	2,796.5
Buildings	187.4	162.5	138.9
Other plant assets	750.2	745.1	713.8
Pre-operating expenses of original aqueduct	44.6	44.6	44.6
Participation rights in State Water Project	5,301.4	5,160.7	5,034.4
Participation rights in other facilities	459.0	459.5	459.7
Gross capital assets	<b>17,446.5</b>	17,141.8	17,014.7
Less accumulated depreciation and amortization	<b>(7,053.0)</b>	(6,731.8)	(6,480.6)
Total capital assets, net	<b>\$ 10,393.5</b>	\$ 10,410.0	\$ 10,534.1
Net increase (decrease) from prior year	<b>\$ (16.5)</b>	\$ (124.1)	\$ 194.7
Percent change	<b>(0.2%)</b>	(1.2%)	1.9%

**MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED**

(CONTINUED)

June 30, 2019 and 2018

***Fiscal Year 2019 Compared to 2018.*** Net capital assets totaled approximately \$10.4 billion and decreased \$16.5 million over the prior year. The decrease included depreciation and amortization of \$352.1 million and \$32.3 million retirements of capital assets and write-off of construction in progress upon determination that no operating assets would result from the cost incurred, offset by \$227.7 million of construction spending and a net increase of \$140.2 million in participation rights in SWP and other facilities.

The major capital asset additions for the current year, excluding capitalized interest, included:

- \$46.4 million for the distribution system's rehabilitation program; this program will replace or refurbish existing facilities within Metropolitan's distribution system including reservoirs, pressure control structures, hydroelectric power plants, and pipelines in order to reliably meet water demands.
- \$37.9 million for the improvements in infrastructure reliability at the treatment plants; this program will replace or refurbish facilities and components at Metropolitan's five water treatment plants in order to continue to reliably meet water demands.
- \$34.5 million for the pre-stressed concrete cylinder pipe reliability (PCCP) program; this program identifies pipelines whose age, location and condition warrant refurbishment/replacement to ensure long-term reliability of Metropolitan's PCCP lines water delivery.
- \$26.3 million for the supply reliability and system expansion program; this program is designed to improve the reliability and flexibility of delivering Colorado River water during drought or other State Water Project delivery constraints.
- \$13.0 million for the system reliability program, which is designed to ensure the reliability and efficiency of the information technology infrastructure in support of Metropolitan's operational and business applications.

Metropolitan's fiscal year 2020 capital investment plan includes \$259.8 million principally for the distribution system and rehabilitation projects, the Colorado River Aqueduct reliability programs, the PCCP feeders upgrade, systems and information technology improvements, and water treatment plants upgrades program.

***Fiscal Year 2018 Compared to 2017.*** Net capital assets totaled approximately \$10.4 billion and decreased \$124.1 million over the prior year. This decrease included depreciation and amortization of \$329.7 million and \$128.5 million retirements of capital assets and write-off of construction in progress upon determination that no operating assets would result from the cost incurred, offset by \$207.9 million of construction spending and a net increase of \$126.2 million in participation rights in SWP and other facilities.

The major capital asset additions for fiscal year 2018, excluding capitalized interest, included:

- \$44.6 million for the distribution system's rehabilitation program.
- \$40.8 million for the PCCP program.
- \$30.0 million for the improvements in infrastructure reliability at the treatment plants.
- \$24.3 million for the supply reliability and system expansion program.
- \$16.9 million for the system reliability program.
- \$14.5 million for the oxidation retrofit program at the filtration plants; this program is designed to reduce the level of disinfection byproducts in the treated water supplied by these plants in order to meet state and federal standards.

## MANAGEMENT'S DISCUSSION AND ANALYSIS—UNAUDITED

(CONTINUED)

June 30, 2019 and 2018

**DEBT ADMINISTRATION – LONG-TERM DEBT***Schedule of Long-term Debt, Including Current Portion*

(Dollars in millions)	June 30,		
	2019	2018	2017
General obligation bonds (a)	\$ 48.1	\$ 60.6	\$ 74.9
Revenue bonds (a)	3,933.2	4,233.9	4,302.0
Revolving notes	46.8	—	—
Other, net (b)	307.3	212.5	202.8
	<b>\$ 4,335.4</b>	<b>\$ 4,507.0</b>	<b>\$ 4,579.7</b>
Increase (decrease) from prior year	\$ (171.6)	\$ (72.7)	\$ 56.3
Percent change	(3.8%)	(1.6%)	1.2%

(a) Includes refunding bonds.

(b) Consists of unamortized bond discounts and premiums.

**Fiscal Year 2019 Compared to 2018.** At June 30, 2019, outstanding bonds and other long-term obligations totaled \$4.3 billion, a net decrease of \$171.6 million or 3.8 percent from the prior year. The decrease was due to \$171.2 million of bond refundings, as the new debt issued was less than the amount of debt refunded and \$142.0 million of scheduled principal payments. These decreases were offset by \$94.8 million increase in premiums and discounts, which included \$129.3 million increase related to bond refundings, as the premiums on new debt issued was more than the premiums outstanding on the debt refunded, offset by \$34.5 million related to scheduled amortization. In addition, revolving notes increased \$46.8 million related to the Bank of America, N.A. notes issued for the California WaterFix advance funding.

**Fiscal Year 2018 Compared to 2017.** At June 30, 2018, outstanding bonds and other long-term obligations totaled \$4.5 billion, a net decrease of \$72.7 million or 1.6 percent from the prior year. The decrease was due to \$164.1 million of scheduled principal payments and \$62.6 million related to bond refundings, as the new debt issued was less than the amount of debt refunded. These decreases were offset by the issuance \$144.3 million in revenue bonds and \$9.7 million of scheduled amortization of bond premiums and discounts.

Additional information on Metropolitan's long-term debt can be found in Notes 5 and 6 to the basic financial statements.

**CREDIT RATINGS**

Metropolitan's credit ratings at June 30, 2019 are shown below.

	Moody's Investors Service	Standard & Poor's Global	Fitch Ratings
General obligation bonds	Aaa	AAA	AA+
Water revenue bonds-fixed rate	Aa1	AAA	AA+
Water revenue bonds-variable rate	VMIG 1	A-1+	F1+
Subordinate water revenue bonds-fixed rate	N/A	AA+	AA+
Subordinate water revenue bonds-variable rate	N/A	A-1+	F1+



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## STATEMENTS OF NET POSITION

(Dollars in thousands)	June 30,	
	2019	2018
<b>ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>		
<b>Current Assets:</b>		
Cash and investments, at fair value (Notes 1b and 3):		
Unrestricted (cost: \$153,444 and \$282,354 for 2019 and 2018, respectively)	\$ 153,867	\$ 281,000
Restricted (cost: \$425,332 and \$492,097 for 2019 and 2018, respectively)	426,503	489,737
Total cash and investments	<u>580,370</u>	<u>770,737</u>
Receivables:		
Water revenues	170,130	221,301
Interest on investments	4,725	4,402
Other, net (Note 1e)	29,737	34,629
Total receivables	<u>204,592</u>	<u>260,332</u>
Inventories (Note 1f)	123,003	97,727
Deposits, prepaid costs, and other (Note 11)	2,040	1,611
Total current assets	<u>910,005</u>	<u>1,130,407</u>
<b>Noncurrent Assets:</b>		
Cash and investments, at fair value (Notes 1b and 3):		
Unrestricted (cost: \$556,450 and \$354,448 for 2019 and 2018, respectively)	563,577	352,748
Restricted (cost: \$47,436 and \$66,214 for 2019 and 2018, respectively)	42,158	67,985
Total cash and investments	<u>605,735</u>	<u>420,733</u>
Capital assets (Note 2):		
Plant and equipment - non depreciable (Notes 1g and 9g)	1,530,628	1,686,602
Plant and equipment - depreciable (Notes 1g and 9g)	10,155,417	9,834,905
Participation rights in State Water Project (Notes 1h and 10)	5,301,433	5,160,746
Participation rights in other facilities (Notes 1h and 4)	459,049	459,489
Total capital assets	<u>17,446,527</u>	<u>17,141,742</u>
Less accumulated depreciation and amortization	<u>(7,053,048)</u>	<u>(6,731,791)</u>
Total capital assets, net	<u>10,393,479</u>	<u>10,409,951</u>
Other assets, net of current portion:		
Deposits, prepaid costs, and other (Note 11)	329,244	267,103
Total other assets	<u>329,244</u>	<u>267,103</u>
Total noncurrent assets	<u>11,328,458</u>	<u>11,097,787</u>
Total assets	<u>12,238,463</u>	<u>12,228,194</u>
<b>Deferred Outflows of Resources:</b>		
Loss on bond refundings (Note 1q)	24,629	39,050
Loss on swap terminations (Note 1q)	18,500	27,446
Pension related (Notes 1k, 1q, and 7)	106,935	138,405
OPEB related (Notes 1l, 1q, and 8)	32,067	34,674
Total deferred outflows of resources	<u>182,131</u>	<u>239,575</u>
<b>Total Assets and Deferred Outflows of Resources</b>	<u>\$ 12,420,594</u>	<u>\$ 12,467,769</u>

See accompanying notes to basic financial statements

## STATEMENTS OF NET POSITION

(Dollars in thousands)	June 30,	
	2019	2018
<b>LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION</b>		
<b>Current Liabilities:</b>		
Accounts payable and accrued expenses (Note 1i)	\$ 131,952	\$ 103,192
Current portion of long-term debt (Notes 5 and 6)	468,037	297,422
Current portion of accrued compensated absences (Notes 1j and 6)	22,000	19,700
Current portion of customer deposits and trust funds (Note 6)	8,335	6,312
Current portion of workers' compensation and third party claims (Notes 6 and 14)	3,284	4,083
Current portion of other long-term liabilities (Note 6)	5	2,871
Accrued bond interest	51,558	67,577
Matured bonds and coupons not presented for payment	1,754	1,760
Total current liabilities	686,925	502,917
<b>Noncurrent Liabilities:</b>		
Long-term debt, net of current portion (Notes 5 and 6)	3,820,568	4,209,537
Revolving notes (Notes 5a and 6)	46,800	—
Accrued compensated absences, net of current portion (Notes 1j and 6)	26,397	27,945
Customer deposits and trust funds, net of current portion (Note 6)	41,062	39,860
Net pension liability (Note 7)	634,037	660,917
Net OPEB liability (Note 8)	228,334	240,569
Workers' compensation and third party claims, net of current portion (Notes 6 and 14)	9,674	9,496
Fair value of interest rate swaps (Notes 5e and 6)	56,274	44,411
Other long-term liabilities, net of current portion (Note 6)	2,204	2,219
Total noncurrent liabilities	4,865,350	5,234,954
Total liabilities	5,552,275	5,737,871
<b>Commitments and Contingencies</b> (Note 9)	—	—
<b>Deferred Inflows of Resources:</b>		
Effective swaps (Note 1q)	626	18,649
Pension related (Notes 1k, 1q and 7)	24,206	17,836
OPEB related (Notes 1l, 1q, and 8)	7,288	6,928
Total deferred inflows of resources	32,120	43,413
<b>Total Liabilities and Deferred Inflows of Resources</b>	<b>5,584,395</b>	<b>5,781,284</b>
<b>Net Position</b> (Note 13):		
Net investment in capital assets, including State Water Project costs	6,131,572	5,968,786
Restricted for:		
Debt service	180,724	201,361
Other	237,893	206,237
Unrestricted	286,010	310,101
Total net position	6,836,199	6,686,485
<b>Total Liabilities, Deferred Inflows of Resources, and Net Position</b>	<b>\$ 12,420,594</b>	<b>\$ 12,467,769</b>

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**STATEMENTS OF REVENUES, EXPENSES  
AND CHANGES IN NET POSITION**

(Dollars in thousands)	Fiscal Year Ended June 30,	
	2019	2018
<b>Operating Revenues</b> (Note 1c):		
Water revenues	\$ 1,148,674	\$ 1,285,164
Readiness-to-serve charges	136,500	137,500
Capacity charge	33,024	34,653
Power sales	18,257	23,694
Total operating revenues	1,336,455	1,481,011
<b>Operating Expenses:</b>		
Power and water costs	375,780	446,486
Operations and maintenance	493,962	507,450
Total operating expenses	869,742	953,936
Operating income before depreciation and amortization	466,713	527,075
Less depreciation and amortization (Note 2)	(361,091)	(330,262)
Operating income	105,622	196,813
<b>Nonoperating Revenues (Expenses)</b> (Note 1n):		
Taxes, net (Note 1d)	142,683	127,367
Bond interest, net of \$4,700 and \$15,600 of interest capitalized in fiscal years 2019 and 2018, respectively (Note 1g)	(126,925)	(124,523)
Investment income, net	36,003	10,577
Loss on disposal of plant assets	(13,678)	(88,690)
Other, net	5,169	(55,357)
Total nonoperating revenues (expenses), net	43,252	(130,626)
<b>Changes in Net Position Before Contributions</b>	148,874	66,187
Capital contributions (Note 1m)	840	1,496
Changes in net position	149,714	67,683
<b>Net Position</b>		
Beginning of year, as previously reported	6,686,485	6,757,685
Less: Cumulative effect of change in accounting principle (Note 1s)	—	(138,883)
Beginning of year, as restated	6,686,485	6,618,802
<b>Net position, End of Year</b>	\$ 6,836,199	\$ 6,686,485

See accompanying notes to basic financial statements.

## STATEMENTS OF CASH FLOWS

(Dollars in thousands)	Fiscal Year Ended June 30,	
	2019	2018
<b>Cash Flows from Operating Activities:</b>		
Cash received from water sales	\$ 1,101,721	\$ 1,164,017
Cash received from readiness-to-serve charges	137,158	137,580
Cash received from capacity charge	33,293	34,560
Cash received from power sales	17,536	27,325
Cash received from other exchange transactions	97,855	88,274
Cash paid for operations and maintenance expenses	(268,692)	(248,014)
Cash paid to employees for services	(226,645)	(220,220)
Cash paid for power and water costs	(378,180)	(481,271)
Other cash flows for operating activities	1,618	2,037
Net cash provided by operating activities	515,664	504,288
<b>Cash Flows from Noncapital Financing Activities:</b>		
Proceeds from other collections	10,047	7,675
Net cash provided by noncapital financing activities	10,047	7,675
<b>Cash Flows from Capital and Related Financing Activities:</b>		
Acquisition and construction of capital assets	(231,747)	(222,119)
Payments for State Water Project costs	(182,188)	(126,371)
Proceeds from short and long-term debt	46,833	159,833
Payments for bond issuance costs	(3,418)	(2,113)
Principal paid on debt	(175,973)	(414,125)
Interest paid on debt	(184,487)	(181,006)
Payments for other long-term obligations	—	(10,832)
Proceeds from tax levy	145,154	129,666
Transfer from (to) escrow trust accounts	10,571	(37,027)
Payments of rebatable arbitrage	(10)	—
Proceeds from sale of capital assets	9,730	—
Net cash used by capital and related financing activities	(565,535)	(704,094)
<b>Cash Flows from Investing Activities:</b>		
Purchase of investment securities	(6,377,345)	(7,571,221)
Proceeds from sales and maturities of investment securities	6,223,438	7,909,354
Investment income	31,374	15,475
Net cash (used) provided by investing activities	(122,533)	353,608
Net change in cash	(162,357)	161,477
Cash at July 1, 2018 and 2017	162,379	902
<b>Cash at June 30, 2019 and 2018 (Note 1b)</b>	<b>\$ 22</b>	<b>\$ 162,379</b>

See accompanying notes to basic financial statements.

## STATEMENTS OF CASH FLOWS

(Dollars in thousands)	Fiscal Year Ended June 30,	
	2019	2018
<b>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES</b>		
Operating Income	\$ 105,622	\$ 196,813
<b>Adjustments to Reconcile Operating Income to Net Cash Provided by Operating Activities:</b>		
Depreciation and amortization expense	361,091	330,262
Decrease (increase) in accounts receivable	51,464	(35,589)
(Increase) decrease in inventories	(25,276)	12,807
Increase in deposits, prepaid costs, and other	(21,007)	(66,832)
Increase in accounts payable, and accrued expenses	30,175	7,012
(Decrease) increase in pension liabilities	(22,943)	62,267
(Decrease) increase in OPEB liabilities	(10,522)	15,546
Decrease (increase) in deferred outflows related to pension	27,064	(6,851)
Increase (decrease) in deferred inflows related to pension	5,478	(3,451)
Decrease (increase) in deferred outflows related to OPEB	2,242	(29,473)
Increase in deferred inflows related to OPEB	310	5,889
Increase in other items	11,966	15,888
Total Adjustments	410,042	307,475
<b>Net cash provided by operating activities</b>	<b>\$ 515,664</b>	<b>\$ 504,288</b>
<b>Significant Noncash Investing, Capital and Financing Activities</b>		
Refunding bonds proceeds received in escrow trust fund	\$ 808,053	\$ 956,810
Debt defeased through escrow trust fund with refunding debt	\$ (785,030)	\$ (741,240)
Deferred gain on refunding debt	\$ 8,694	\$ 14,392
<b>RECONCILIATION OF CASH AND INVESTMENTS TO CASH</b>		
Unrestricted cash and investments (at June 30, 2019 and 2018 includes \$22 and \$162,379 of cash, respectively)	\$ 717,444	\$ 633,748
Restricted cash and investments	468,661	557,722
Total cash and investments, at fair value	1,186,105	1,191,470
Less: carrying value of investments	(1,186,083)	(1,029,091)
<b>Total Cash (Note 1b)</b>	<b>\$ 22</b>	<b>\$ 162,379</b>

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**NOTES TO BASIC FINANCIAL STATEMENTS**

June 30, 2019 and 2018

**I. REPORTING ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES****(a) Reporting Entity**

The Metropolitan Water District of Southern California (Metropolitan), a special district of the State of California, was organized in 1928 by vote of the electorates of several Southern California cities following adoption of the Metropolitan Water District Act (Act) by the California Legislature. Metropolitan's primary purposes under the Act are to develop, store, and distribute water, at wholesale, to its member public agencies for domestic and municipal purposes. Surplus water is sold for other beneficial uses, including agricultural use. 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. There are 26 independent member agencies of Metropolitan, consisting of 14 cities, 11 municipal water districts, and one county water authority. Metropolitan has no financial accountability for its member agencies. Metropolitan is governed by a 38-member Board of Directors (Board) comprised of representatives of the member agencies. Representation and voting rights are based on assessed valuations of property pursuant to Section 55 of the Act. Each member agency is entitled to have at least one representative on the Board plus an additional representative for each full five percent of the assessed valuation of real property within the jurisdictional boundary of each member 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. No single member agency has a voting majority.

The Metropolitan Water District Asset Financing Corporation (MWDAFC) was incorporated on June 19, 1996. The MWDAFC is a California nonprofit public benefit corporation formed to assist Metropolitan by acquiring, constructing, operating and maintaining facilities, equipment, or other property needed by Metropolitan and leasing or selling such property to Metropolitan. The MWDAFC is governed by a board of five directors, each of whom must be a member of Metropolitan's Board. MWDAFC had no financial operations during fiscal years 2019 or 2018. MWDAFC is a component unit of Metropolitan and its activities will be blended with those of Metropolitan for financial reporting purposes should it commence operations.

**(b) Principles of Presentation**

Metropolitan operates as a utility enterprise and the accompanying basic financial statements reflect the flow of economic resources measurement focus and the full accrual basis of accounting. Under full accrual accounting, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred regardless of the timing of related cash flows.

Metropolitan is accounted for as an enterprise fund and applies all applicable Governmental Accounting Standards Board (GASB) pronouncements in its accounting and reporting.

For purposes of the statements of cash flows, Metropolitan defines cash as demand account balances and cash on hand.

**(c) Revenue Policies**

Water revenues, which include funds received from charges for the sale and availability of water, including water rates and other exchange and wheeling transactions, is the principal source of Metropolitan's revenues. Other sources of operating revenue include readiness-to-serve charges, capacity charge, and hydroelectric power sales. Other revenues include ad valorem property taxes and investment income.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

Water rates are established by the Board on a biennial basis. Water rates are supported by cost of service studies. Water rates are not subject to regulation by the California Public Utilities Commission or by any other local, state, or federal agency. Water is delivered to the member agencies on demand and revenue is recognized at the time of sale.

Metropolitan's rate structure consists of unbundled rate elements (supply, treatment, conveyance and distribution, power, and demand management) designed to provide transparency regarding the cost of specific functions to member agencies. It is designed to improve regional water resources management and accommodate a water transfer market. The rate structure also includes tiered pricing for supply, a capacity charge, and a readiness-to-serve charge.

**(d) Taxing Authority**

Metropolitan is expressly empowered under the Act to levy and collect taxes on all taxable property within its boundaries for the purpose of carrying on its operations and paying its obligations, subject to certain limitations in the Act, the California Revenue and Taxation Code, and the California Constitution. Property taxes are levied annually by the Board effective as of July 1, using a lien date of January 1, and are payable by property owners in two equal installments that are due on November 1 and February 1, and become delinquent after December 10 and April 10, respectively. Property taxes levied by Metropolitan are billed and collected by the counties in its service area and are remitted to Metropolitan periodically throughout the year.

Property tax revenue is used to pay Metropolitan's general obligation bond debt service and a portion of its obligations under its contract with the state for a water supply and participation in the State Water Project (the State Water Contract). In setting the annual levy, Metropolitan takes into account potential delinquencies, tax allocations to the successor agencies of former redevelopment agencies, and supplemental tax collections. Metropolitan recognizes property taxes receivable on July 1 of each fiscal year and recognizes revenue over the following 12-month period beginning July 1 through June 30 (the period for which the tax is levied).

As a result of legislation enacted in 1984, commencing with the fiscal year ended June 30, 1991, tax levies, other than annexation taxes, are limited to the amount needed to pay debt service on Metropolitan's general obligation bonds and Metropolitan's proportionate share of general obligation bond debt service of the state under the State Water Contract. However, under the terms of the 1984 legislation, the Board may suspend this particular restriction upon a finding that doing so is essential to Metropolitan's fiscal integrity. The Board made such a finding for fiscal years ended June 30, 2014 through 2020, and maintained the tax rate for those fiscal years at the rate levied during fiscal year ended June 30, 2013 to pay a portion of State Water Contract costs other than general obligation debt service.

**(e) Other Receivables**

Other receivables include amounts for taxes, hydroelectric power sales, readiness-to-serve charges, and other billings.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

**(f) Inventories**

Metropolitan's inventories are valued based on a moving-average cost. Expenses are recorded when inventories are used. Components of inventories at June 30, 2019 and 2018 were as follows:

(Dollars in thousands)	June 30,	
	2019	2018
Water in storage	\$ 109,612	\$ 84,813
Operating supplies	13,391	12,914
Total inventories	<b>\$ 123,003</b>	<b>\$ 97,727</b>

**(g) Capital Assets**

Metropolitan's capital assets include plant and equipment, which are recorded at cost. Construction costs are capitalized if they exceed \$50,000 and the asset has a useful life of at least five years. The cost of constructed assets may include labor, materials, certain general and administrative expenses, and interest incurred during construction periods. Depreciation is calculated using the straight-line method based on the estimated average useful lives of the assets, which are 10 to 80 years for buildings, storage, and distribution facilities, 10 to 50 years for treatment plants and hydroelectric power recovery facilities, and 10 to 80 years for miscellaneous assets. Improvements or refurbishments with aggregated costs that meet capitalization thresholds and that extend the useful life of an existing asset by at least five years are capitalized.

Major computer systems software, whether purchased or internally developed, is capitalized if the cost exceeds \$250,000 and the useful life is at least three years. Vehicles and operating equipment are capitalized if the cost equals or exceeds \$5,000 and the useful life is at least four years. Depreciation is calculated using the straight-line method based on the estimated useful lives and ranges from 3 to 10 years for major computer systems software and 4 to 10 years for vehicles and operating equipment.

**(h) Participation Rights**

Metropolitan participates in various storage and water management programs entitling it to certain water rights. Projects include the SWP and various storage and water management programs. Metropolitan's participation in these projects is through cash payments. The value of participation rights is equal to the amounts spent for the construction of capital assets, such as pipelines, pumping facilities, and storage facilities, and amortized over the life of the agreements. These assets are not owned by Metropolitan. Certain projects also require payments for ongoing maintenance; those payments are charged to expense as incurred. (See Notes 2, 4, and 10.)

**NOTES TO BASIC FINANCIAL STATEMENTS***(CONTINUED)*

June 30, 2019 and 2018

**(i) Disaggregation of Payable Balances**

Accounts payable and accrued expenses at June 30, 2019 and 2018 were as follows:

(Dollars in thousands)	June 30,	
	2019	2018
Department of Water Resources (SWP):		
Capital, operating, maintenance, power, replacement, and variable power	\$ 72,910	\$ 46,407
Vendors	42,989	36,128
Accrued power costs	1,578	4,542
Accrued salaries	8,699	8,569
Readiness-to-serve overcollection	1,368	1,381
Conservation credits	4,408	6,165
Total accounts payable and accrued expenses	\$ 131,952	\$ 103,192

**(j) Compensated Absences**

Metropolitan's employees earn vacation, sick, and compensatory leave in varying amounts depending primarily on length of service. Upon termination from Metropolitan service, employees are entitled to full payment for accrued vacation and compensatory leave at their final pay rates, and are entitled to payment for approximately one-half of their accrued sick leave at such rates. Metropolitan records its obligations for vacation, sick, and compensatory leave earned by eligible employees based on current pay rates. The allocations to the current and long-term portions of these vested obligations were based on experience and projections of turnover.

**(k) Pension Accounting**

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Plan and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by the California Public Employees' Retirement System (CalPERS) Financial Office. For this purpose, benefit payments (including refunds of employee contributions) are recognized when currently due and payable in accordance with the benefit terms. Investments are reported at fair value.

GASB requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

Valuation Date (VD): June 30, 2017

Measurement Date (MD): June 30, 2018

Measurement Period: July 1, 2017 to June 30, 2018

**(l) OPEB Accounting**

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of Metropolitan's plan (OPEB Plan), the assets of which are held by the California Employer's Retiree Benefit Trust (CERBT), and additions to/deductions from the OPEB Plan's fiduciary net position have been determined on the same basis. For this purpose, benefit payments are recognized when currently due and payable in accordance with the benefit terms. Investments are reported at fair value.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

GASB requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

Valuation Date (VD): June 30, 2017

Measurement Date (MD): June 30, 2018

Measurement Period: July 1, 2017 to June 30, 2018

**(m) Capital Contributions**

Capital contributions are comprised of federal, state, and private grants. These grants are typically of a reimbursable nature: Metropolitan first pays for the project and then the granting agency reimburses Metropolitan for its eligible expenses. The portion of the grants restricted for capital purposes are reflected as capital contributions in the statements of revenues, expenses and changes in net position when they are earned, irrespective of the timing of the receipts. Examples of capital projects where grants are received include water treatment plant improvements, such as fluoridation and water storage programs.

**(n) Operating and Nonoperating Revenues and Expenses**

Metropolitan's primary purpose is to provide a supplemental supply of water for domestic and municipal uses. Accordingly, Metropolitan defines operating revenues as revenues derived from the sale and availability of water, including water rates and other exchange and wheeling transactions. It also includes readiness-to-serve charges, capacity charge, and hydroelectric power sales. Operating expenses include the cost of sales and services, administrative expenses, and depreciation and amortization of capital assets.

Revenues from property taxes and investment income, as well as interest expense on outstanding debt, are related to capital and financing activities and are defined as nonoperating revenues and expenses.

**(o) Restricted and Unrestricted Resources**

When both restricted and unrestricted resources are available for use, it is Metropolitan's practice to use restricted resources first, then unrestricted resources as they are needed.

**(p) Use of Estimates**

The preparation of basic financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the basic financial statements and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**(q) Deferred Outflows/Inflows of Resources**

The net investment in capital assets, including State Water Project costs of \$6.1 billion and \$6.0 billion at June 30, 2019 and 2018, respectively, includes the effect of deferring the recognition of losses from bond refundings. The deferred outflows from losses on bond refundings at June 30, 2019 and 2018 were \$24.6 million and \$39.1 million, respectively. This is amortized and recognized as a component of interest expense in a systematic and rational manner over the remaining life of the old or the new debt, whichever is shorter.

The unrestricted net position amount of \$286.0 million and \$310.1 million at June 30, 2019 and 2018, respectively, includes the effect of deferring the recognition of losses from swap terminations resulting in defeasance of debt, the

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

increase or decrease in fair value of Metropolitan's effective interest rate swaps, and deferred amounts related to pension and OPEB.

The deferred outflows from losses on swap terminations resulting in debt defeasance at June 30, 2019 and 2018, respectively, were \$18.5 million and \$27.4 million. These deferred outflows of resources are amortized and recognized as a component of interest expense in a systematic and rational manner over the remaining life of the old debt or the life of the new debt, whichever is shorter.

The deferred outflows related to pension at June 30, 2019 and 2018 were \$106.9 million and \$138.4 million, respectively. The deferred inflows related to pension at June 30, 2019 and 2018 were \$24.2 million and \$17.8 million, respectively. See note 7(d) for additional information.

The deferred outflows related to OPEB at June 30, 2019 and 2018 were \$32.1 million and \$34.7 million, respectively. The deferred inflows related to OPEB at June 30, 2019 and 2018 were \$7.3 million and \$6.9 million, respectively. See notes 8(j) and (k) for additional information.

The deferred inflow from the increase in fair value of interest rate swaps of \$0.6 million and \$18.6 million at June 30, 2019 and June 30, 2018, respectively, would be recognized as an investment gain upon the early termination of the swaps. Metropolitan will only terminate its interest rate swap agreements in advance of the contractual termination dates if market conditions permit. The deferred inflow also would be recognized as an investment gain if the swaps were determined no longer to be effective hedges. Finally, if the bond associated with a swap is refunded, the deferred inflow would be reduced and the deferred gain on refunding would be increased by the same amount. The deferred gain would be amortized as a component of interest expense over the life of the old debt or the new debt, whichever is shorter.

**(r) Fair Value Measurements**

GASB Statement No. 72, *Fair Value Measurement and Application* (GASB 72) requires a government to use valuation techniques that are appropriate under the circumstances and for which sufficient data are available to measure fair value. The techniques should be consistent with one or more of the following approaches: the market approach, the cost approach, or the income approach. Metropolitan reports its investments and liabilities at fair value using market approach and cost approach.

Additionally, GASB 72 establishes a hierarchy of inputs to valuation techniques used to measure fair value. This hierarchy has three levels which are: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that a government can access at the measurement date; Level 2 inputs are inputs—other than quoted prices—that are observable for identical assets or liabilities, either directly or indirectly; and Level 3 inputs are unobservable inputs, such as management's assumption of the default rate among underlying mortgages of a mortgage-backed security. The fair value hierarchy to Metropolitan's assets and liabilities are presented in Notes 3 and 5.

**(s) Cumulative Effect of Change in Accounting Principle**

Metropolitan implemented GASB Statement No. 75, *Accounting and Financial Reporting for Post-Employment Benefits Other than Pension* (GASB 75), in the fiscal year ended June 30, 2018. The implementation of GASB 75 required

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

Metropolitan to record beginning total OPEB liability and the effects on net position of benefit payments and administrative expenses paid by Metropolitan during the measurement period (fiscal year ended June 30, 2017). As a result, net position decreased \$138.9 million as of June 30, 2017.

**(t) New Accounting Pronouncements**

Metropolitan implemented the following GASB Statements in fiscal year 2019:

In November 2016, the GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. This Statement addresses accounting and financial reporting for certain asset retirement obligations (AROs) which are legally enforceable liabilities associated with the retirement of a tangible capital asset and should be recognized as a liability based on the guidelines in this Statement. In addition, this Statement requires disclosure of information about the nature of AROs, the methods and assumptions used for the estimates of the the liabilities, and the estimated remaining useful life of the associate tangible capital assets. The requirements of this statement are effective for fiscal year 2019 but Metropolitan does not currently have any AROs based on the guidelines in this Statement. Therefore, there were no impacts on previously reported balances in the Statements of Net Position or the Statements of Revenues, Expenses and Changes in Net Position and there was no impact on note disclosures for the current year.

In June 2017, the GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*. The primary objective of this Statement is to improve the information that is disclosed in notes to the financial statements related to debt, including direct borrowings and direct placements. This Statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses. The requirements of this statement are effective for fiscal year 2019. Metropolitan's disclosures of debt in accordance with this Statement are presented in Notes 5 and 6.

Metropolitan is currently evaluating its accounting practices to determine the potential impact on the financial statements for the following GASB Statements that will be implemented in a future fiscal year:

- GASB Statement No. 87, *Leases*.
- GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*.
- GASB Statement No. 90, *Majority Equity Interests - an amendment of GASB Statements No. 14 and No. 61*.
- GASB Statement No. 91, *Conduit Debt Obligations*.

The following pronouncements were issued by GASB but were determined to not be applicable to Metropolitan's financial statements:

- GASB Statement No. 84, *Fiduciary Activities*.

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

**2. CAPITAL ASSETS**

Capital asset activity for the fiscal years ended June 30, 2019 and 2018 was as follows:

(Dollars in thousands)	June 30, 2017	Additions
Capital assets not being depreciated:		
Land, easements and rights of way	\$ 1,009,933	\$ 2,109
Construction in progress	1,018,788	200,845
Total capital assets not being depreciated	<u>2,028,721</u>	<u>202,954</u>
Other capital assets:		
Parker power plant and dam	13,009	—
Power recovery plants	196,881	19,656
Other dams and reservoirs	1,549,833	10,887
Water transportation facilities	3,744,078	80,433
Pumping plants and facilities	294,262	8,084
Treatment plants and facilities	2,796,493	334,011
Power lines and communication facilities	32,678	—
Computer systems software	115,056	—
Buildings	138,937	23,966
Miscellaneous	466,290	28,805
Major equipment	99,753	4,943
Pre-operating expenses of original aqueduct	44,595	—
Participation rights in State Water Project (Note 10)	5,034,375	172,289
Participation rights in other facilities (Note 4)	459,709	—
Total other capital assets at historical cost	<u>14,985,949</u>	<u>683,074</u>
Accumulated depreciation and amortization:		
Parker Power Plant and Dam	(12,137)	(163)
Power recovery plants	(98,238)	(4,406)
Other dams and reservoirs	(379,301)	(22,844)
Water transportation facilities	(962,005)	(56,317)
Pumping plants and facilities	(96,964)	(7,219)
Treatment plants and facilities	(750,486)	(69,533)
Power lines and communication facilities	(10,695)	(400)
Computer systems software	(106,311)	(3,087)
Buildings	(30,682)	(4,098)
Miscellaneous	(131,921)	(10,295)
Major equipment	(83,010)	(5,389)
Pre-operating interest and other expenses of original aqueduct	(40,454)	(1,035)
Participation rights in State Water Project (Note 10)	(3,588,104)	(131,121)
Participation rights in other facilities (Note 4)	(190,263)	(13,814)
Total accumulated depreciation and amortization	<u>(6,480,571)</u>	<u>(329,721)</u>
Other capital assets, net	<u>8,505,378</u>	<u>353,353</u>
Total capital assets, net	<u>\$ 10,534,099</u>	<u>\$ 556,307</u>

Depreciation and amortization was charged as follows:

Depreciation of water related assets

Amortization of State Water Project entitlements (Note 10)

Amortization of participation rights (Note 4)

Depreciation and amortization expense related to capital assets

Plus: Net retirements adjusted to expense

Total depreciation and amortization expense



THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

Reductions		June 30, 2018	Additions		Reductions	June 30, 2019
\$	(17,205)	\$ 994,837	\$	2,965	\$ (12,977)	\$ 984,825
	(527,868)	691,765		218,423	(364,385)	545,803
	(545,073)	1,686,602		221,388	(377,362)	1,530,628
	—	13,009		—	—	13,009
	(383)	216,154		468	(6,045)	210,577
	(17)	1,560,703		7,862	(235)	1,568,330
	(3,830)	3,820,681		89,490	(17,603)	3,892,568
	—	302,346		1,115	(429)	303,032
	(160,726)	2,969,778		223,818	(7,815)	3,185,781
	—	32,678		—	—	32,678
	—	115,056		—	(246)	114,810
	(357)	162,546		24,859	—	187,405
	(51)	495,044		8,559	(5,790)	497,813
	(2,381)	102,315		6,352	(3,848)	104,819
	—	44,595		—	—	44,595
	(45,918)	5,160,746		177,022	(36,335)	5,301,433
	(220)	459,489		—	(440)	459,049
	(213,883)	15,455,140		539,545	(78,786)	15,915,899
	—	(12,300)		(163)	—	(12,463)
	377	(102,267)		(4,540)	4,289	(102,518)
	17	(402,128)		(20,803)	235	(422,696)
	3,548	(1,014,774)		(56,015)	10,280	(1,060,509)
	—	(104,183)		(5,441)	429	(109,195)
	72,036	(747,983)		(85,698)	7,249	(826,432)
	—	(11,095)		(400)	—	(11,495)
	—	(109,398)		(2,200)	246	(111,352)
	71	(34,709)		(3,222)	—	(37,931)
	82	(142,134)		(11,755)	4,298	(149,591)
	2,370	(86,029)		(5,351)	3,836	(87,544)
	—	(41,489)		(1,035)	—	(42,524)
	—	(3,719,225)		(141,700)	—	(3,860,925)
	—	(204,077)		(13,796)	—	(217,873)
	78,501	(6,731,791)		(352,119)	30,862	(7,053,048)
	(135,382)	8,723,349		187,426	(47,924)	8,862,851
\$	(680,455)	\$ 10,409,951	\$	408,814	\$ (425,286)	\$ 10,393,479
		\$ 184,786				\$ 196,623
		131,121				141,700
		13,814				13,796
		329,721				352,119
		541				8,972
		\$ 330,262				\$ 361,091

**NOTES TO BASIC FINANCIAL STATEMENTS***(CONTINUED)*

June 30, 2019 and 2018

**3. CASH AND INVESTMENTS**

As a public agency, Metropolitan's investment practices are prescribed by various provisions of the California Government Code and the Act, as well as by administrative policies. Metropolitan's statement of investment policy is approved annually by the Board and describes the Treasurer's investment authority, practices, and limitations. The basic investment policy objectives, in order of importance, are safety of principal, liquidity, and return on investment.

Cash and investments may or may not be restricted as to use, depending on the specific purposes for which such assets are held (see Notes 3d and 13).

A summary of Metropolitan's deposit and investment policies, information on interest and credit risks, and restricted cash and investments is provided below.

**(a) Deposits**

The California Government Code requires California banks and savings and loan associations to secure a local government agency's deposits by pledging government securities as collateral.

As of June 30, 2019 and 2018, Metropolitan's cash balances with financial institutions were \$17,000 and \$162,374,000 respectively, and cash on hand was \$5,000 at each year-end.

**(b) Investments**

Metropolitan is permitted by State law and Board policy to invest in a variety of instruments including U.S. Treasury securities, federal agencies, repurchase agreements, negotiable certificates of deposit, bankers' acceptances, prime commercial paper, asset and mortgage-backed securities, California local agency securities, including securities issued by Metropolitan, medium-term corporate notes, time deposits, investment contracts, shares of beneficial interest, and Local Agency Investment Fund (LAIF). As of June 30, 2019 and 2018, Metropolitan had the following investments at fair value:

(Dollars in thousands)	June 30,	
	2019	2018
U.S. Treasury securities	\$ 88,340	\$ 253,645
U.S. Guarantees – GNMA's	—	3
Federal agency securities	82,406	82,090
Prime commercial paper	134,176	173,600
Medium-term corporate notes	277,392	102,553
Negotiable certificates of deposit	230,648	281,978
Money Market Funds	241,988	355
Government-sponsored enterprise (GSE)	64,022	61,470
Municipal bonds	2,111	10,324
Local Agency Investment Fund	65,000	63,073
Total investments	\$ 1,186,083	\$ 1,029,091

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

Metropolitan categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 are quoted prices in an active market for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

The following is the summary of the fair value hierarchy of the fair value of investments of Metropolitan as of June 30, 2019 and 2018:

(Dollars in thousands)	Fair Value Measurement Using					
	6/30/2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	6/30/2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Investments by fair value level:						
U.S. Treasury securities	\$ 88,340	\$ 88,340	\$ —	\$ 253,645	\$ 253,645	\$ —
U.S. Guarantees – GNMMAs	—	—	—	3	3	—
Federal agency securities	82,406	82,406	—	82,090	82,090	—
Prime commercial paper	134,176	—	134,176	173,600	36,078	137,522
Medium-term corporate notes	277,392	277,392	—	102,553	102,553	—
Negotiable certificates of deposit	230,648	170,596	60,052	281,978	251,978	30,000
Government-sponsored enterprise (GSE)	64,022	64,022	—	61,470	61,470	—
Municipal bonds	2,111	2,111	—	10,324	10,324	—
<b>Total investments by fair value level</b>	<b>\$ 879,095</b>	<b>\$ 684,867</b>	<b>\$ 194,228</b>	<b>\$ 965,663</b>	<b>\$ 798,141</b>	<b>\$ 167,522</b>
Investments not subject to fair value level:						
Money Market Funds <sup>(1)</sup>	241,988			355		
Local Agency Investment Fund	65,000			63,073		
<b>Total investments</b>	<b>\$ 1,186,083</b>			<b>\$ 1,029,091</b>		

<sup>(1)</sup> As of June 30, 2019, the balance was invested in Dreyfus Gov't Cash Management and Dreyfus AMT-Free Tax Exempt (DGCXX & DEIXX) and BlackRock Treasury Trust (TTXX). As of June 30, 2018, the balance was invested in BlackRock Treasury Trust (TTXX).

Investments classified in Level 1 of the fair value hierarchy, valued at \$684.9 million and \$798.1 million as of June 30, 2019 and 2018, respectively, are valued using quoted prices in active markets.

Prime commercial paper totaling \$134.2 million and \$137.5 million and negotiable certificates of deposit totaling \$60.1 million and \$30.0 million, as of June 30, 2019 and 2018, respectively, classified in Level 2 of the fair value hierarchy were valued using matrix pricing.

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

**Interest rate risk.** In accordance with Metropolitan's investment policy, interest rate risk was managed by limiting the duration of the various portfolio segments. Each segment has limitations on the amount of duration exposure (see the following for specific durations).

**Internally Managed Segment**

This segment of the portfolio was managed against the Intercontinental Exchange Bank of America Merrill Lynch (ICE BoAML) 3-Month Treasury Bill Index, approved by the Finance and Insurance Committee. For fiscal years 2019 and 2018, the benchmark duration was 0.23 and 0.24, respectively, and the portfolio duration was permitted to vary from the duration by plus or minus 0.24. As of June 30, 2019 and 2018, Metropolitan's investments and portfolio durations for this segment were as follows:

(Dollars in thousands)	June 30,			
	2019		2018	
	Fair value	Duration	Fair value	Duration
U.S. Treasury securities	\$ 33,900	1.26	\$ 28,397	1.66
Federal agency securities	82,157	0.57	75,662	0.12
Prime commercial paper	134,176	0.22	173,236	0.09
Medium-term corporate notes	207,391	0.77	30,588	0.06
Negotiable certificates of deposit	230,648	0.33	281,978	0.06
Municipal bonds	768	5.05	722	6.02
Money Market Funds	241,039	—	—	—
Local Agency Investment Fund	65,000	—	63,073	—
Total portfolio segment	\$ 995,079		\$ 653,656	
Portfolio duration		0.36		0.15

**Externally Managed Segment**

This segment of the portfolio was managed against the ICE BoAML, U.S. Corporate and Government, one to five years, A-Rated and above index approved by the Finance and Insurance Committee. For fiscal years 2019 and 2018, the benchmark durations were 2.61 and 2.63, respectively, and the portfolio duration was permitted to vary from the duration by plus or minus 1.50. As of June 30, 2019 and 2018, Metropolitan's investments and portfolio durations for this segment were as follows:

(Dollars in thousands)	June 30,			
	2019		2018	
	Fair value	Duration	Fair value	Duration
U.S. Treasury securities	\$ 50,873	2.08	\$ 208,251	2.56
U.S. Guarantees – GNMA's	—	—	3	3.79
Federal agency securities	—	—	5,620	9.4
Medium-term corporate notes	70,001	2.36	69,667	2.73
Money Market Funds	194	—	355	—
Government-sponsored enterprise (GSE)	64,022	2.20	61,470	2.19
Total portfolio segment	\$ 185,090		\$ 345,366	
Portfolio duration		2.22		2.64

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

**Bond Reserves and Lake Mathews Segment**

Investments in the bond reserves were managed based on the requirements of each of the bond issues. The Lake Mathews trust funds were managed in a manner that preserved the principal and provided the necessary liquidity to pay its operating expenses. Per Board authorization, the Treasurer was authorized to invest these monies in excess of five years.

As of June 30, 2019 and 2018, Metropolitan's investments and portfolio durations for this segment were as follows:

(Dollars in thousands)	June 30,			
	2019		2018	
	Fair value	Duration	Fair value	Duration
U.S. Treasury securities	\$ 3,567	1.24	\$ 16,997	3.33
Federal agency securities	249	0.77	808	0.11
Prime commercial paper	—	—	364	0.06
Medium-term corporate notes	—	—	2,298	0.08
Money Market Funds	755	—	—	—
Municipal bonds	1,343	4.13	9,602	7.61
Total portfolio segment	\$ 5,914		\$ 30,069	
Weighted average duration		1.71		4.32

**Credit risk.** Credit risk was managed by purchasing investments with the nationally recognized credit ratings specified in Metropolitan's investment policy. Additionally, the policy required monitoring the credit ratings of securities held in the portfolio, and if the securities' credit ratings were downgraded, evaluating for potential sale. For certain securities, additional requirements included consideration of net worth, length of time in business, and specified market values.

**NOTES TO BASIC FINANCIAL STATEMENTS**

*(CONTINUED)*

June 30, 2019 and 2018

Presented in the following table is the minimum rating required, if applicable, by investment type pursuant to Metropolitan’s investment policy and State law:

<b>Investment Type</b>	<b>Minimum Rating</b>
U.S. Government and agencies	Not applicable.
Bankers' acceptances Prime commercial paper Negotiable certificates of deposit Time deposits	Prime quality of the highest ranking or highest letter and numerical rating ('A1', 'P1', 'F1' or higher) as provided by Moody's Investors Service, Inc., Standard & Poor's Global Ratings Services, and Fitch Ratings. Credit requirement may be waived for the maximum deposit that is insured by the Federal Deposit Insurance Corporation.
Repurchase agreements	Only with primary dealers in government securities or financial institutions with a Moody's Investors Service, Inc. or equivalent rating of 'A' or better.
Investment contracts	Not applicable. Limited to guaranteed investment contracts, or agreements collateralized with U.S. Treasury or agency securities.
Medium-term corporate notes	Rating category of at least 'A' or better, or the equivalent, by a nationally recognized rating agency.
Government-sponsored enterprise (e.g., FannieMae, FreddieMac)	Issuer's debt must be rated 'A' or higher as provided by a nationally recognized rating agency and the security must be rated in a category of 'AAA' by a nationally recognized rating agency.
Local Agency Investment Fund	Not applicable.
Shares of beneficial interest/ Money Market Funds	Highest ranking of the highest letter and numerical rating provided by not less than two nationally recognized rating agencies.
California local agency securities Municipal bonds	Securities with a maturity in excess of five years must have a credit rating of at least 'AA' (may be insured) and an underlying credit rating of 'A' or better by a nationally recognized rating agency.

Metropolitan’s minimum rating for government-sponsored enterprises (GSE) of ‘AAA’ is more restrictive than the California Government Code requirement of ‘AA’.

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

At June 30, 2019 and 2018, Metropolitan's portfolio was invested in the following securities by rating:

(Dollars in thousands)	Rating	June 30,	
		2019	2018
		Fair value	Fair value
U.S. Treasury securities	N/A <sup>1</sup>	\$ 88,340	\$ 253,645
U.S. Guarantees – GNMA's	N/A <sup>1</sup>	—	3
Federal agency securities	AAA <sup>2</sup>	82,406	82,090
Prime commercial paper	A1/P1 <sup>3</sup>	134,176	173,600
Medium-term corporate notes	A <sup>3</sup>	277,392	102,553
Negotiable certificates of deposit	F1 <sup>3</sup>	230,648	281,978
Money Market Funds	AAA	241,988	355
Government-sponsored enterprise (GSE)	AAA	64,022	61,470
Municipal bonds	A <sup>3</sup>	2,111	10,324
Local Agency Investment Fund	N/A <sup>4</sup>	65,000	63,073
<b>Total portfolio</b>		<b>\$ 1,186,083</b>	<b>\$ 1,029,091</b>

<sup>1</sup> Credit ratings are not applicable to obligations of the U.S. Government or obligations explicitly guaranteed by the U.S. Government.

<sup>2</sup> Federal Agencies are rated "AAA" by two nationally recognized rating agencies and "AA" by one nationally recognized rating agency.

<sup>3</sup> A or better e.g. F1+, A1+, AA, or AAA.

<sup>4</sup> Local Agency Investment Fund is not rated.

**Concentration of credit risk.** In accordance with Metropolitan's investment policy, the minimum requirements for limiting concentration of credit risk defined the maximum percent allowable for investment in each security type as well as the percent allowable for investment by issuer per type. Generally, the maximum allowable for investment by security type varied from 20 percent, for GSE, to 100 percent for U.S. Treasury and agency securities. The percentages of investments that can be purchased by a single issuer, within each security type, ranged from 5 percent, for asset-backed securities, to 10 percent for bankers' acceptances.

The following table identifies Metropolitan's limits and the percent invested by security type based on fair value, as of June 30, 2019 and 2018.

	Investment Policy Limits	Percent of Portfolio	
		2019	2018
U.S. Treasury securities	100%	8 %	25 %
Federal agency securities	100%	7 %	8 %
Prime commercial paper	25%	11 %	17 %
Medium-term corporate notes	30%	23 %	10 %
Negotiable certificates of deposit	30%	20 %	27 %
Money Market Funds	20%	20 %	— %
Government-sponsored enterprise (GSE)	20%	5 %	6 %
Municipal bonds	30%	— %	1 %
Local Agency Investment Fund	N/A	6 %	6 %
<b>Total portfolio</b>		<b>100 %</b>	<b>100 %</b>

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

At June 30, 2019 and 2018, Metropolitan had the following investments (obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government not listed) representing five percent or more of its investments:

(Dollars in thousands)	2019	
Local Agency Investment Fund	\$ 65,000	5.48 %
Federal National Mortgage Association <sup>1</sup>	\$ 60,064	5.06 %

<sup>1</sup> Invested in Federal agency securities

(Dollars in thousands)	2018	
Local Agency Investment Fund	\$ 63,073	6.13 %
Mizuho Bank <sup>1</sup>	\$ 55,847	5.43 %

<sup>1</sup> Invested in prime commercial paper and certificates of deposit

**Custodial credit risk.** At June 30, 2019 and 2018, Metropolitan's investments were insured, registered or held, in Metropolitan's name, in safekeeping at Metropolitan's bank, which was not a counterparty to the investment transactions. The exceptions were \$65.0 million and \$63.1 million in deposits in the California State managed LAIF as of June 30, 2019 and 2018, respectively.

The LAIF, created by California statute, is part of a pooled money investment account (PMIA). The LAIF has oversight by the Local Investment Advisory Board, which consists of five members designated by statute. The Chairwoman is the State Treasurer, or her designated representative.

The total amount invested by all public agencies in LAIF as of June 30, 2019 and 2018 was \$24.6 billion and \$22.5 billion, respectively. At June 30, 2019 and 2018, the PMIA had a balance of \$105.7 billion and \$88.8 billion, respectively, of which, 1.77 percent and 2.67 percent were invested in medium-term and short-term notes and asset-backed securities, respectively. The average maturity of LAIF investments as of June 30, 2019 and 2018 was 173 days and 193 days, respectively.

**(c) Reverse Repurchase Agreements**

Metropolitan is permitted, subject to conditions imposed by State law, to sell securities owned under written agreements and to buy back the securities on or before a specified date for a specified amount. No such reverse repurchase agreements were entered into during the fiscal years ended June 30, 2019 and 2018.

**(d) Restricted Cash and Investments**

Metropolitan has established a number of separate accounts, also referred to as funds, to provide for specific activities in accordance with special regulations, bond covenants, and trust arrangements. The accounts are classified as "restricted." Most restricted accounts have the minimum cash and investment balance requirements and all are nondiscretionary in terms of the use of assets. Among other things, the restricted amounts provide for payments of debt service on Metropolitan's bonds; reserves for principal and interest on outstanding bonds; payments for arbitrage tax rebate; construction of capital assets; payment of Metropolitan's operations and maintenance expenses; and payment of the costs related to the closure and postclosure maintenance of Metropolitan's solid waste landfill facility.



**NOTES TO BASIC FINANCIAL STATEMENTS**

*(CONTINUED)*

June 30, 2019 and 2018

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**NOTES TO BASIC FINANCIAL STATEMENTS***(CONTINUED)*

June 30, 2019 and 2018

**4. PARTICIPATION RIGHTS**

Participation rights activity, excluding participation rights in State Water Project, for the fiscal years ended June 30, 2019 and 2018 was as follows:

(Dollars in thousands)	June 30, 2017	Additions
Participation rights:		
Imperial Irrigation District	\$ 112,313	\$ —
Palo Verde Irrigation District	82,804	—
Kern Water District	39,007	—
South County Pipeline	72,371	—
Semitropic Water Storage District	34,919	—
Arvin-Edison Water Storage District	47,187	—
Chino Basin	27,500	—
Orange County	23,000	—
Conjunctive Use Programs	20,608	—
Total	459,709	—
Accumulated amortization:		
Imperial Irrigation District	(56,692)	(2,270)
Palo Verde Irrigation District	(28,731)	(2,343)
Kern Water District	(15,115)	(2,172)
South County Pipeline	(22,195)	(912)
Semitropic Water Storage District	(16,935)	(976)
Arvin-Edison Water Storage District	(20,287)	(1,467)
Chino Basin	(11,994)	(1,454)
Orange County	(9,858)	(1,195)
Conjunctive Use Programs	(8,456)	(1,025)
Total	(190,263)	(13,814)
Participations rights, net	\$ 269,446	\$ (13,814)

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**NOTES TO BASIC FINANCIAL STATEMENTS**

*(CONTINUED)*

June 30, 2019 and 2018

Reductions		June 30, 2018	Additions	Reductions		June 30, 2019
\$	—	\$ 112,313	\$ —	\$	—	\$ 112,313
	—	82,804	—		—	82,804
	—	39,007	—		—	39,007
	—	72,371	—		—	72,371
	(220)	34,699	—		(440)	34,259
	—	47,187	—		—	47,187
	—	27,500	—		—	27,500
	—	23,000	—		—	23,000
	—	20,608	—		—	20,608
	(220)	459,489	—		(440)	459,049
	—	(58,962)	(2,270)		—	(61,232)
	—	(31,074)	(2,343)		—	(33,417)
	—	(17,287)	(2,172)		—	(19,459)
	—	(23,107)	(912)		—	(24,019)
	—	(17,911)	(958)		—	(18,869)
	—	(21,754)	(1,467)		—	(23,221)
	—	(13,448)	(1,454)		—	(14,902)
	—	(11,053)	(1,195)		—	(12,248)
	—	(9,481)	(1,025)		—	(10,506)
	—	(204,077)	(13,796)		—	(217,873)
\$	(220)	\$ 255,412	\$ (13,796)	\$	(440)	\$ 241,176

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

**(a) Imperial Irrigation District**

In December 1988, Metropolitan and the Imperial Irrigation District (IID) entered into a water conservation agreement that became effective in December 1989. Under the terms of the conservation agreement, Metropolitan paid for capital costs and continues to pay annual costs for specific conservation projects within IID. From 1998 to 2003, Metropolitan diverted from the Colorado River a quantity of water equal to the amount of water conserved by the conservation projects, which totaled between 104,940 and 109,460 acre-feet annually. Under the October 2003 amendment to an agreement and at the request of the Coachella Valley Water District (CVWD), up to 20,000 acre-feet of the total conserved volume was made available to CVWD. Under the May 2007 amendment to the agreement and a December 2014 letter agreement, at least 85,000 and 105,000 acre-feet will be/was available in calendar years 2019 and 2018, respectively (see Note 9c). The water must be used in the calendar year the water is conserved, unless stored in a Colorado River reservoir pursuant to a separate agreement.

As capital projects were completed, the costs contributed by Metropolitan were capitalized as participation rights in Metropolitan's accounting records. The construction phase of this program was completed as of September 30, 1998, and the operation and maintenance phase commenced on October 1, 1998. The October 2003 amendment to the agreement extended the term through December 31, 2041 or 270 days beyond the termination of the Quantification Settlement Agreement plus any extension applicable over the agreement (see Note 9e).

Participation rights for this project totaled \$112.3 million as of June 30, 2019 and 2018, and are amortized using the straight-line method over the remaining life of the agreement. Amortization expense totaled \$2.3 million in fiscal years 2019 and 2018.

**(b) Palo Verde Irrigation District**

In August 2004, Metropolitan entered into an agreement with PVID to implement a 35-year land management and crop rotation program. This following program commenced in January 2005 and will extend through July 2040 and will make available up to 130,000 acre-feet of water in certain years for transfer to Metropolitan from PVID.

Under the terms of the agreement, Metropolitan paid for all program start-up costs that have been capitalized as participation rights. These costs included sign-up payments to individual landowners, funding for a community improvement program and program setup costs.

Participation rights for this program totaled \$82.8 million as of June 30, 2019 and 2018, and are being amortized using the straight-line method over 35 years. Amortization expense totaled \$2.3 million in fiscal years 2019 and 2018.

**(c) Kern Delta Water District**

Metropolitan entered into an agreement with the Kern Delta Water District for the development of a water management program. The agreement includes a Regulation Program and a Transportation Program. Under the terms of the Regulation Program, Kern Delta will regulate the storage and delivery for Metropolitan of up to 250,000 acre-feet of water and currently has 154,421 acre-feet in the program. The program is intended to provide a minimum recharge and return capability of 50,000 acre-feet annually. Construction of infrastructure is required in order to meet the program's dry year minimum return. The transportation program provides Metropolitan with priority rights to convey water acquired by Metropolitan from third parties through the Kern-Delta facilities to the

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

California Aqueduct for ultimate delivery to Metropolitan. This program terminates on December 31, 2029. The facilities became operational in June 2010.

Participation rights for the Kern Delta totaled \$39.0 million as of June 30, 2019 and 2018, and are being amortized using the straight-line method over the remaining life of the agreement. Amortization expense totaled \$2.2 million in fiscal years 2019 and 2018.

**(d) South County Pipeline**

In 1989, Metropolitan entered into an agreement with two member agencies and one of their subagencies to participate in the construction of an upsized version of a 26-mile long pipeline serving the south Orange County portion of its service area. Participation in this project provides Metropolitan capacity to transport its water in the central part of its service area.

Participation rights for this project totaled \$72.4 million as of June 30, 2019 and 2018. These participation rights are amortized using the straight-line method over 80 years, which is the life of the agreement. Amortization expense totaled \$0.9 million in fiscal years 2019 and 2018.

**(e) Semitropic Water Storage District**

In December 1994, Metropolitan entered into a water banking and exchange program with Semitropic Water Storage District and its improvement districts that entitles it to storage, withdrawal, and exchange rights for its State Water Project supplies. The agreement terminates in November 2035.

In 1999, Metropolitan became fully vested for 35 percent of the one million acre-foot banking project. Metropolitan has a storage allocation of 350,000 acre-feet and currently has 220,515 acre-feet in the program. Metropolitan is entitled to a minimum of 31,500 acre-feet per year of pump back capacity. In addition, assuming a 100 percent State Water Project allocation, Metropolitan is entitled to a minimum of 46,550 acre-feet per year of entitlement exchange rights. Finally, Metropolitan has the ability to use other banking partners' rights when they are not being used. As a result, the potential maximum return capability for Metropolitan is estimated at 223,000 acre-feet per year assuming a 100 percent State Water Project allocation and usage of the other banking partners' rights. In fiscal year 2015, Metropolitan spent \$5.8 million to increase the return capacity by 13,200 acre-feet per year. Since then, the additional return capacity has been reduced to 6,700 acre-feet per year after Metropolitan received reimbursement of \$2.9 million.

Participation rights for this program totaled \$34.3 million and \$34.7 million as of June 30, 2019 and 2018, respectively. These participation rights are amortized using the straight-line method over the remaining life of the agreement. Amortization expense totaled \$1.0 million in fiscal years 2019 and 2018.

**(f) Arvin-Edison Water Storage District**

In December 1997, Metropolitan entered into an agreement for a water management program with Arvin-Edison Water Storage District (Arvin-Edison). The agreement includes a regulation program, a transportation program, and a water quality exchange program. Under the terms of the regulation program, Arvin-Edison will regulate the storage and delivery for Metropolitan of up to 350,000 acre-feet of water and currently has 143,338 acre-feet in the

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

program. The minimum estimated return capability for the Arvin-Edison program varies from 40,000 acre-feet per year to 75,000 acre-feet per year depending on hydrologic/groundwater conditions. Return water will be delivered to Metropolitan upon request through a new intertie pipeline to the California Aqueduct and by exchange of existing Arvin-Edison supplies in the California Aqueduct. In 2008, Metropolitan amended the agreement to construct the south canal improvement project that will improve the operational flexibility of the program as well as increase the ability to return high quality water to the California Aqueduct. The project was completed in early 2009. The agreement terminates on November 4, 2035 with provisions for automatic extension if all stored water has not been returned.

The agreement also provides a transportation program whereby Metropolitan is provided priority rights to convey water acquired by Metropolitan from third parties through the Arvin-Edison facilities to the California Aqueduct for ultimate delivery to Metropolitan.

Participation rights for the Arvin-Edison program totaled \$47.2 million as of June 30, 2019 and 2018. These participation rights are amortized using the straight-line method over the remaining life of the agreement. Amortization expense totaled \$1.5 million in fiscal years 2019 and 2018.

**(g) Chino Basin**

In June 2003, Metropolitan entered into a groundwater storage agreement with Inland Empire Utilities Agency, Three Valleys Municipal Water District, and the Chino Basin Watermaster. Under the terms of the agreement, Metropolitan may store up to 25,000 acre-feet per year to a maximum of 100,000 acre-feet and may withdraw up to 33,000 acre-feet per year for overlying demand during dry, drought, or emergency conditions. The facilities became operational during fiscal year 2009. As of June 2018, Metropolitan had 46,320 acre-feet water in storage. The agreement terminates on March 1, 2028, unless the parties agree to extend for an additional maximum period of 25 years.

Participation rights in the Chino basin groundwater storage program totaled \$27.5 million as of June 30, 2019 and 2018. These participation rights are amortized using the straight-line method over the remaining life of the agreement. Amortization expense totaled \$1.5 million in fiscal years 2019 and 2018.

**(h) Orange County**

In 2003, Metropolitan entered into a groundwater storage agreement with the Orange County Water District and the Municipal Water District of Orange County to allow Metropolitan to store 66,000 acre-feet in the Orange County Basin. Metropolitan may store up to 16,500 acre-feet per year and withdraw up to 22,000 acre-feet for overlying demand during dry, drought, or emergency conditions. The facilities became operational during fiscal year 2009. As of June 2019, Metropolitan had no acre-feet in storage. The program included the construction of wells and barrier improvements for protection of groundwater supplies from seawater intrusion. The agreement terminates in June 2028, unless the parties agree to extend for an additional maximum period of 25 years.

Participation rights in the Orange County groundwater storage program totaled \$23.0 million as of June 30, 2019 and 2018. These participation rights are amortized using the straight-line method over the remaining life of the agreement. Amortization expense totaled \$1.2 million in fiscal years 2019 and 2018.

**NOTES TO BASIC FINANCIAL STATEMENTS***(CONTINUED)*

June 30, 2019 and 2018

**(i) Conjunctive Use Programs**

Conjunctive use is the operation of a groundwater basin in coordination with a surface water system to increase total water supply availability, thus improving the overall reliability of supplies. Metropolitan has entered into seven agreements with its member agencies for conjunctive use programs whereby Metropolitan provides funding for construction of water storage and related facilities in exchange for water storage and withdrawal rights. The conjunctive use programs were funded with State Proposition 13 grant dollars. The seven projects are with Long Beach, Long Beach-Lakewood, Compton, Three Valleys, Three Valleys MWD-La Verne, Foothill MWD, and Western MWD-Elsinore Valley MWD. Collectively, these seven projects allow Metropolitan to store up to 45,889 acre-feet with storage of 11,472 acre-feet per year and withdrawal of 15,296 acre-feet per year for overlying demand during dry, drought, or emergency conditions. As of June 2019, Metropolitan had a total of 5,836 acre-feet in storage in these seven accounts. The term of each agreement is 25 years, unless the parties agree to extend for an additional maximum period of 25 years. Termination dates range from July 2027 to December 2031. The programs became operational during fiscal year 2009.

Participation rights in these projects totaled \$20.6 million at June 30, 2019 and 2018. These participation rights are amortized using the straight-line method over the remaining lives of the agreements. Amortization expense totaled \$1.0 million in fiscal years 2019 and 2018.

**5. SHORT-TERM AND LONG-TERM DEBT**

Metropolitan's enabling Act specifies that its indebtedness shall be limited to 15 percent of the assessed value of all taxable property within Metropolitan's service area. Existing outstanding debt of \$4.335 billion and \$4.507 billion at June 30, 2019 and 2018, respectively, represents less than one percent of the June 30, 2019 and 2018 total taxable assessed valuation of \$2,917 billion and \$2,741 billion, respectively.

Metropolitan's long-term debt consists of general obligation and revenue bond issues as well as other obligations. The general obligation bonds are secured by Metropolitan's authority to levy ad valorem property taxes. The revenue bond obligations are special limited obligations of Metropolitan and are secured by a pledge of Metropolitan's net operating revenues. Such obligations contain certain restrictive covenants, with which Metropolitan has complied. Substantially all of the bond issues contain call provisions. Substantially all of the debt proceeds have been, and are expected to continue to be, utilized to fund new facilities, improvements and betterments, and to refund outstanding bonds.

**(a) Commercial Paper and Revolving Notes**

Metropolitan may issue up to \$200.0 million in commercial paper to fund a portion of its capital investment plan, as approved by Metropolitan's Board. There was no commercial paper issued in fiscal years 2019 and 2018 and no commercial paper was outstanding at June 30, 2019 and 2018. Metropolitan may also issue other forms of short-term debt such as variable rate water revenue bonds and revolving notes (see Notes 5c and 5g).

There were no short-term notes issued or refunded during the fiscal year ended June 30, 2019. No short-term notes were issued during the fiscal year ended June 30, 2018.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

Short-term note refunded during the fiscal year ended June 30, 2018 was as follows:

- On November 1, 2017, Metropolitan prepaid the \$250.0 million Short-Term Revolving Credit Facilities notes issued in April 2017.

Long-term note issued during the fiscal year ended June 30, 2019 was as follows:

- On August 1, 2018, Metropolitan entered into a Note Purchase and Continuing Covenant Agreement with Bank of America N.A. (BANA, and the 2018 BANA Agreement), for the purchase by BANA and sale by Metropolitan of up to \$86.0 million of Metropolitan's Short-Term Revenue Certificates, 2018 Series A (the Series 2018 Notes). Proceeds were used to provide advances or contributions of money to pay for costs related to the California WaterFix. The Series 2018 Notes will bear interest at a variable rate of interest, at a spread of 32 basis points to one-month LIBOR. Under the 2018 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 2018 BANA Agreement as a Subordinate Lien Parity Obligation. As of June 30, 2019, \$46.8 million of Series 2018 Notes were outstanding.

Long-term note issued during the fiscal year ended June 30, 2018 was as follows:

- In December 2017, Metropolitan sold \$198.3 million of notes under the US Bank facility, which was paid down on June 27, 2018, when Metropolitan terminated the US Bank Short-Term Revolving Credit Facility.

**(b) General Obligation Bonds**

In 1966, voters authorized Metropolitan to incur up to \$850.0 million of general obligation bond indebtedness to finance a portion of Metropolitan's capital investment plan. The original amounts, issued as Series A through H under the 1966 authorization, totaled \$850.0. Metropolitan has refunded a portion of these general obligation bond issues through the issuance of refunding bonds. A total of \$48.1 million and \$60.6 million in general obligation refunding bonds were outstanding at June 30, 2019 and 2018, respectively.

The general obligation refunding bond issues include both serial and term bonds that mature in varying amounts through March 2037 at interest rates ranging from 1.5 percent to 5.0 percent. The term bonds are subject to mandatory redemption prior to maturity. All general obligation bonds maturing on or after the earliest applicable call date are subject to optional redemption prior to maturity, callable on interest payment dates, and subject to early redemption.

No general obligation bonds were issued during the fiscal years ended June 30, 2019 and 2018.

**(c) Revenue Bonds**

Pursuant to a 1974 voter authorization, additional funds, primarily for funding the capital investment plan, are obtained through the sale of water revenue bonds. Revenue bonds may be issued subject to certain conditions, including a requirement that the total of revenue bonds outstanding does not exceed the equity (net position) of



**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

Metropolitan as of the fiscal year end prior to such issuance. Metropolitan has refunded some of these revenue bonds through the issuance of refunding bonds. A total of \$3.933 billion and \$4.234 billion of revenue bonds and revenue refunding bonds were outstanding at June 30, 2019 and 2018, respectively.

Each fixed rate revenue and revenue refunding bond issue consists of either serial or term bonds or both that mature in varying amounts through July 2045 at interest rates ranging from 1.49 percent to 6.95 percent. The term bonds are subject to mandatory redemption prior to maturity. Substantially all revenue bonds maturing on or after the earliest applicable call date are subject to optional redemption prior to maturity, callable on any interest payment dates, and subject to early redemption.

There were no revenue bonds issued during the fiscal year ended June 30, 2019.

Revenue bond issued during the fiscal year ended June 30, 2018 were as follows:

- On July 3, 2017, Metropolitan issued \$80.0 million of Subordinate Water Revenue Bonds, 2017 Series C (Securities Industry and Financial Markets Association [SIFMA] Index Mode), to finance a portion of Metropolitan's capital expenditures. The maturities extend to July 1, 2047 and are subject to an unscheduled mandatory redemption at Metropolitan's option.
- On June 28, 2018, Metropolitan issued \$64.3 million of Subordinate Water Revenue Bonds, 2018 Series B, to finance a portion of Metropolitan's capital expenditures. The maturities extend to September 1, 2028 and are not subject to optional and mandatory redemption provisions.

**(d) Bond Refundings and Defeasances**

Metropolitan has issued Waterworks General Obligation Refunding Bonds, Water Revenue Refunding Bonds, Special Variable Rate Water Revenue Refunding Bonds, and short-term notes to refund various issues of Waterworks General Obligation Bonds, Waterworks General Obligation Refunding Bonds, Water Revenue Bonds, Water Revenue Refunding Bonds, Special Variable Rate Water Revenue Refunding Bonds, and revolving notes previously issued. The net proceeds from these sales were used to redeem the refunded bonds and fund certain swap termination payments or to purchase U.S. Treasury securities that were deposited in irrevocable escrow trust accounts with a bank acting as an independent fiscal agent to provide for all future debt service on the bonds being refunded. As a result, those bonds are considered defeased and the related liabilities have been excluded from Metropolitan's basic financial statements.

Refunding and defeasance transactions during fiscal year 2019 were as follows:

- On January 28, 2019, Metropolitan sold \$16.8 million of Waterworks General Obligation Refunding Bonds, 2019 Series A, to refund \$20.9 million, Waterworks General Obligation Refunding Bonds, 2009 Series A. The maturities extends to March 1, 2028 and are not subject to redemption provisions prior to maturity.
- On December 20, 2018, Metropolitan issued \$137.5 million of Water Revenue Refunding Bonds, 2018 Series B, to refund \$169.8 million of Water Revenue Bonds, 2008 Authorization, Series A. The maturity extends to January 1, 2039 and is subject to optional redemption provisions.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

- On June 6, 2019, Metropolitan sold \$218.1 million of Water Revenue Refunding Bonds, 2019 Series A to refund \$5.4 million of Water Revenue Bonds, 2008 Authorization, Series B, \$18.7 million of Water Revenue Bonds, 2008 Authorization, Series C, \$29.6 million of Water Revenue Bonds, 2008 Authorization, Series D, \$106.7 million of Water Revenue Refunding Bonds, 2009 Series B, \$91.2 of Water Revenue Refunding Bonds, 2009 Series C, \$31.0 million of Water Revenue Refunding Bonds, 2009 Series D, \$6.6 million of Water Revenue Refunding Bonds, 2009 Series E, and \$13.0 million of Water Revenue Refunding Bonds, 2014 Series C-1. The maturities extends to July 1, 2039 and are subject to optional redemption provisions.
- On June 27, 2019, Metropolitan issued \$241.5 million of Subordinate Water Revenue Refunding Bonds, 2019 Series A to refund \$59.7 million of Water Revenue Bonds, 2008 Authorization, Series C, \$220.4 million of Water Revenue Bonds, 2008 Authorization, Series D, and \$11.6 million of Water Revenue Refunding Bonds, 2014 Series G-4. The maturities extend to July 1, 2029, and are not subject to redemption provisions prior to maturity.

Refunding and defeasance transactions during fiscal year 2018 were as follows:

- On July 3, 2017 Metropolitan issued \$178.2 million of Subordinate Water Revenue Refunding Bonds, 2017 Series B, to refund \$137.4 million of Water Revenue Bonds, 2006 Authorization, Series A, \$12.2 million of Water Revenue Refunding Bonds, 2009 Series A2, \$52.4 million of Water Revenue Refunding Bonds, 2011 Series A1 and A3, and \$12.3 million of Tax-Exempt Flexible Rate Revolving Notes, Series 2017 B-1. The maturity extends to August 1, 2024 and is subject to optional redemption provisions.
- On July 3, 2017 Metropolitan also issued \$95.6 million of Subordinate Water Revenue Refunding Bonds, 2017 Series D (SIFMA Index Mode), and \$95.6 million of Subordinate Water Revenue Refunding Bonds, 2017 Series E (SIFMA Index Mode), to refund \$119.9 million of Water Revenue Bonds, 2006 Authorization Series A, \$63.9 million of Water Revenue Refunding Bonds, 2011 Series A1 and A3, and \$14.3 million of Water Revenue Refunding Bonds, 2014 Series G-2. The maturities extend to July 1, 2037 and are subject to an unscheduled mandatory redemption at Metropolitan's option.
- On December 18, 2017, Metropolitan sold \$198.3 million of tax-exempt variable rate parity obligations under the Short-Term Revolving Credit Facility with US Bank to refund \$49.8 million of Water Revenue Refunding Bonds, 2011 Series A-2, \$49.8 million of Water Revenue Refunding Bonds, 2011 Series A-4, \$49.3 million of Water Revenue Refunding Bonds, 2012 Series B-1, and \$49.3 million of Water Revenue Refunding Bonds, 2012 Series B-2.
- On June 27, 2018, Metropolitan issued \$210.0 million of Special Variable Rate Water Revenue Refunding Bonds, 2018 Series A-1 and A-2, to prepay \$198.3 million of Tax-Exempt Flexible Rate Revolving Notes, 2016 Series B-2, and refund \$11.2 million of Water Revenue Refunding Bonds, 2014 Series G-3. The maturities extend to July 1, 2037, and the bonds are subject to optional and mandatory redemption provisions.
- On June 28, 2018, Metropolitan issued \$99.1 million, Subordinate Water Revenue Refunding Bonds, 2018 Series A, to refund \$112.3 million, Water Revenue Refunding Bonds, 2008 Series B, and \$19.5 million, Water Revenue Refunding Bonds, 2008 Series C. The maturities extend to July, 1, 2023, and the bonds are not subject to optional or mandatory redemption provisions.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

These refundings and defeasances were accomplished to take advantage of lower interest rates, to realize economic savings or to eliminate or mitigate certain risks associated with managing its variable rate debt. The transactions resulted in cash flow savings of \$182.0 million and \$198.9 million and economic gains (difference between the present values of the debt service payments on the old debt and new debt) of \$165.2 million and \$131.6 million for fiscal years 2019 and 2018, respectively. The net carrying amount of the old debt exceeded the reacquisition price by \$8.7 million and \$14.4 million in fiscal years 2019 and 2018, respectively, which is deferred and amortized over the original remaining life of the old debt or the life of the new debt, whichever is less. Deferred outflows of loss on bond refundings at June 30, 2019 and 2018 were \$24.6 million and \$39.1 million, respectively, and the deferred outflows on swap terminations for the same periods were \$18.5 million and \$27.4 million, respectively.

**(e) Interest Rate Swaps**

Metropolitan has eight outstanding interest rate swap agreements as of June 30, 2019. These agreements require that Metropolitan pay fixed interest rates and receive interest at variable interest rates which are Metropolitan's hedging derivative instruments.

Metropolitan's interest rate swap portfolio as of June 30, 2019, 2018, and 2017 are summarized on the following table.

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

(Dollars in thousands)

Associated Bond Issue <sup>1</sup>	Notional Amount	Effective Date	Fixed Rate Paid	Variable Rate Received	Counterparty Credit Rating <sup>2</sup>
2002 A Payor	\$ 75,838	09/12/02	3.300 %	57.74% of 1MoLIBOR <sup>4</sup>	A3/BBB+/A
2002 B Payor	28,372	09/12/02	3.300 %	57.74% of 1MoLIBOR	Aa2/A+/AA
2003 Payor C-1 C-3	158,597	12/18/03	3.257 %	61.20% of 1MoLIBOR	Aa2/A+/AA-
2003 Payor C-1 C-3	158,597	12/18/03	3.257 %	61.20% of 1MoLIBOR	Aa2/A+/AA
2004 C Payor	7,760	11/16/04	2.980 %	61.55% of 1MoLIBOR	A3/BBB+/A
2004 C Payor	6,350	11/16/04	2.980 %	61.55% of 1MoLIBOR	A3/BBB+/A
2005 Payor	29,058	07/06/05	3.360 %	70.00% of 1MoLIBOR	Aa2/A+/AA
2005 Payor	29,058	07/06/05	3.360 %	70.00% of 1MoLIBOR	A3/BBB+/A
Total swaps	\$ 493,630				

<sup>1</sup> These swaps lock in a fixed rate for an equivalent amount of variable rate debt.<sup>2</sup> Credit Ratings - Moody's Investors Service, Standard & Poor's, Fitch Ratings, respectively.<sup>3</sup> Excludes accrued interest.<sup>4</sup> London Interbank Offered Rate.

## NOTES TO BASIC FINANCIAL STATEMENTS

*(CONTINUED)*

June 30, 2019 and 2018

Swap Termination	Fair Value as of 6/30 <sup>3</sup>			Change in Fair Value in FY	
	2019	2018	2017	2019	2018
07/01/25	\$ (5,317)	\$ (4,977)	\$ (7,991)	\$ (340)	\$ 3,014
07/01/25	(1,989)	(1,863)	(2,989)	(126)	1,126
07/01/30	(19,448)	(15,259)	(22,570)	(4,189)	7,311
07/01/30	(19,449)	(15,260)	(22,570)	(4,189)	7,310
10/01/29	(897)	(658)	(996)	(239)	338
10/01/29	(734)	(538)	(816)	(196)	278
07/01/30	(4,220)	(2,928)	(4,458)	(1,292)	1,530
07/01/30	(4,220)	(2,928)	(4,458)	(1,292)	1,530
	\$ (56,274)	\$ (44,411)	\$ (66,848)	\$ (11,863)	\$ 22,437

As with its investments, Metropolitan categorizes its liabilities using fair value measurements within the fair value hierarchy established by generally accepted accounting principles and are discussed in Note 3.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**NOTES TO BASIC FINANCIAL STATEMENTS**  
**(CONTINUED)**  
June 30, 2019 and 2018

Metropolitan has the following recurring fair value measurements as of June 30, 2019 and 2018:

(Dollars in thousands)

Associated Bond Issue	Fair Value Measurements Using			
	6/30/2019	Significant Other Observable Inputs (Level 2)	6/30/2018	Significant Other Observable Inputs (Level 2)
2002 A Payor	\$ (5,317)	\$ (5,317)	\$ (4,977)	\$ (4,977)
2002 B Payor	(1,989)	(1,989)	(1,863)	(1,863)
2003 Payor C-1 C-3	(19,448)	(19,448)	(15,259)	(15,259)
2003 Payor C-1 C-3	(19,449)	(19,449)	(15,260)	(15,260)
2004 C Payor	(897)	(897)	(658)	(658)
2004 C Payor	(734)	(734)	(538)	(538)
2005 Payor	(4,220)	(4,220)	(2,928)	(2,928)
2005 Payor	(4,220)	(4,220)	(2,928)	(2,928)
Total swaps	\$ (56,274)	\$ (56,274)	\$ (44,411)	\$ (44,411)

Derivative instruments classified in Level 2 of the fair value hierarchy are valued using an income approach that considers benchmark interest rates, yield curves, and credit spreads.

**Pay-Fixed, Receive-Variable**

**Objective of the Swaps:** In order to take advantage of low interest rates in the marketplace, Metropolitan entered into eight separate pay-fixed, receive-variable interest rate swaps at costs that were less than what Metropolitan otherwise would have paid to issue fixed rate debt in the tax-exempt municipal bond market.

**Terms:** The notional amounts of the swaps match the principal amounts of the associated debt in total. Metropolitan's swap agreements contain scheduled reductions to outstanding notional amounts that are expected to approximately follow scheduled or anticipated reductions in the associated long-term debt.

**Fair Values:** At June 30, 2019, all pay-fixed, receive-variable swaps had a negative fair value. Because the coupons on Metropolitan's variable rate bonds adjust to changing interest rates, the bonds do not have corresponding fair value changes. The fair values of the swaps were estimated using the zero-coupon method and exclude accrued interest. This method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swaps.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

**Credit Risks:** As of June 30, 2019, Metropolitan was not exposed to credit risk on the outstanding pay-fixed, receive-variable swaps that had negative fair values. However, should interest rates change and the fair values of the swaps become positive, Metropolitan would be exposed to credit risk to each swap counterparty in the amount of the derivatives' fair value. Should the counterparties to the transactions fail to perform according to the terms of the swap contract, Metropolitan would face a maximum possible loss equal to the fair value of these swaps.

All swap agreements contain specific collateral requirements that are in effect for Metropolitan and the counterparties. The swaps require different collateral levels based on credit ratings and the fair value of the swap. Generally, the fair value threshold levels are also reduced as the credit ratings are reduced. Collateral on all swaps is to be in the form of U.S. government securities that may be held by the party posting the collateral. Metropolitan had no posted collateral as of June 30, 2019.

Each swap contains cross-default provisions that allow the nondefaulting party to accelerate and terminate all outstanding transactions and to net the transactions' fair values into a single sum to be owed by, or owed to, the nondefaulting party.

As of June 30, 2019, Metropolitan has pay-fixed, receive-variable swap transactions with one counterparty in the amount of \$216.0 million or 43.8 percent of the notional amount of Metropolitan's outstanding pay-fixed, receive-variable swap transactions. This counterparty is rated Aa2/A+/AA by Moody's, Standard & Poor's, and Fitch Ratings, respectively.

**Basis Risk:** The interest rates on Metropolitan's variable rate bonds are expected to be equivalent, but not necessarily equal to the variable rate payments received from counterparties on pay-fixed, receive-variable interest rate swaps. To the extent these variable payments differ, Metropolitan is exposed to basis risk. When the rates received from the counterparties are less than the rates on variable rate bonds associated with the respective swap transactions there is a basis loss. When the rates received from the counterparties are greater than the rates on variable rate bonds associated with the respective swap transactions there is a basis gain. As of June 30, 2019, the interest rates of the variable rate debt associated with these swap transactions range from 1.45 percent to 2.72 percent. Metropolitan's variable rate payments received from the counterparties of these swaps ranged from 1.38 percent to 1.62 percent.

**Termination Risk:** Metropolitan may terminate any of the swaps if the other party fails to perform under the terms of the swap agreements. If any of the swaps are terminated, the associated variable rate bonds would no longer carry a synthetic fixed interest rate. Also, if at the time of termination the swap has a negative fair value, Metropolitan would be liable to the counterparty for a payment equal to the swap's fair value.

**Tax Risk:** As with other forms of variable rate exposure and the relationship between the taxable and tax-exempt markets, Metropolitan is exposed to tax risk should tax-exempt interest rates on variable rate debt issued in conjunction with the swaps rise faster than taxable interest rates received by the swap counterparties, due particularly to reduced federal or state income tax rates, over the term of the swap agreement.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

**(f) Swap Payments and Associated Debt**

Using rates as of June 30, 2019, debt service requirements on Metropolitan's swap-related variable rate debt and net swap payments are as follows. As rates vary, variable rate bond interest payments and net swap payments will vary.

(Dollars in thousands)	Variable Rate Bonds		Interest Rate Swaps, Net		Total
	Principal	Interest			
Year ending June 30:					
2020	\$ —	\$ 8,683	\$ 8,893	\$	17,576
2021	54,965	7,797	8,250		71,012
2022	32,715	7,189	7,394		47,298
2023	33,260	6,605	6,842		46,707
2024	34,630	5,998	6,211		46,839
2025-2029	283,640	13,305	13,612		310,557
2030-2031	54,420	622	651		55,693
Total	\$ 493,630	\$ 50,199	\$ 51,853	\$	595,682

**(g) Variable Rate Bonds**

The variable rate bonds bear interest at daily and weekly rates ranging from 1.45 percent to 2.72 percent as of June 30, 2019 and 0.55 percent to 2.48 percent as of June 30, 2018. Metropolitan can elect to change the interest rate period of the bonds with certain limitations.

Metropolitan has entered into standby bond purchase agreements (SBPA) with commercial banks to provide liquidity for six separate variable rate bond issues listed in the table below. Bondholders have the right to tender such variable rate bonds to the paying agent on any business day with same day notice. In the event that tendered bonds are not remarketed, the paying agent will draw on the SBPA to pay such bondholders. The draw on the SBPA creates a new debt obligation between Metropolitan and the Bank, called a Bank Bond.

The Bank Bonds that would be issued under the SBPA would initially bear interest at a per annum interest rate equal to, depending on the applicable SBPA, either: (a) one month LIBOR plus 7.50 percent; or (b) the highest of the (i) the Prime Rate plus one percent, (ii) Federal Funds Rate plus two percent, and (iii) seven percent (with the spread or rate increasing in the case of each of (i), (ii) and (iii) of this clause (b) after 90 days). To the extent such bank bonds have not been remarketed or otherwise retired as of the earlier of the 90th day following the draw on the SBPA or the stated expiration date of the related SBPA, Metropolitan's obligation to repay the principal of the Bank Bonds would be payable in semi-annual installments over a period of approximately one, three, or five years, depending on the applicable SBPA. Metropolitan has secured its obligation to repay principal and interest under the SBPAs as a senior lien obligation.

In addition, such bonds are subject to mandatory tender for purchase under certain circumstances, including upon the expiration of the SBPA. Metropolitan intends to either renew the facility or exercise its right to remarket the debt as a long-term financing. The portion that would be due in the next fiscal year in the event that the outstanding variable rate bonds were tendered and purchased by the commercial banks under the standby agreements was \$45.4 million and \$129.8 million at June 30, 2019 and 2018, respectively.



## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

Metropolitan has the following six variable rate bonds that are supported by a SBPA as of June 30, 2019 and 2018:

(Dollars in thousands)

Bond Issue	Amount	Expiration Date	Interest Rate	Current Amount	
				2019	2018
<b>Water Revenue Bonds</b>					
2000 Series B-3	\$ 88,800	3/27/20	Reset Daily	\$ 88,800	\$ —
2017 Series A	80,000	3/27/20	Reset Daily	80,000	—
<b>Water Revenue Refunding Bonds</b>					
2018 Series A-1, A-2	210,040	6/25/21	Reset Daily	—	—
2016 Series B-1, B-2	103,670	7/19/21	Reset Daily	—	—
Total	\$ 482,510			\$ 168,800	\$ —

Metropolitan has the following eight variable rate bonds that are not supported by a SBPA as of June 30, 2019 and 2018:

(Dollars in thousands)

Bond Issue	Amount	Interest Rate
<b>Water Revenue Refunding Bonds</b>		
2013 Series D	\$ 87,445	Reset Weekly
2014 Series D	38,465	Reset Weekly
2015 Series A-1, A-2	188,900	Reset Weekly
<b>Subordinate Water Revenue Bonds</b>		
2016 Series A	175,000	1M LIBOR plus % spread
2017 Series C	80,000	SIFMA Index plus % spread
<b>Subordinate Water Revenue Refunding Bonds</b>		
2017 Series D	95,630	SIFMA Index plus % spread
2017 Series E	95,625	SIFMA Index plus % spread
Total	\$ 761,065	

The Subordinate Water Revenue Bonds, 2016 Series A were issued by Metropolitan through a Continuing Covenant Agreement with BANA (2016 BANA Agreement). The Subordinate 2016 Series A bonds will bear interest at a variable rate at a spread of 32 basis points to one-month LIBOR. The Subordinate 2016 Series A bonds are subject to mandatory tender for purchase on the scheduled mandatory tender date of December 21, 2020, 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. A failure by Metropolitan to pay the purchase price of such bonds on the mandatory tender date would constitute an event of default under Metropolitan's Subordinate Debt Resolutions if not remedied within five business days. Metropolitan intends to either extend the 2016 BANA Agreement or remarket the bonds in the public debt market prior to the scheduled mandatory tender date. Metropolitan has

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

secured its obligation to pay principal and interest under the 2016 BANA Agreement as a Subordinate Lien Parity Obligation.

The current terms of the Subordinate Water Revenue Refunding Bonds, 2017 Series D and Series E (SIFMA Index Mode), and the Subordinate Water Revenue Bonds, 2017 Series C (SIFMA Index Mode), require bondholders to tender their bonds for purchase on the scheduled mandatory tender date of July 10, 2020. A failure by Metropolitan to pay the purchase price from the proceeds of remarketing or other funds, for a period of five business days following written notice by any owner of such bonds, will constitute an event of default under Metropolitan's Subordinate Debt Resolutions. Upon the occurrence and continuance of such events of default, the owners of 25 percent in aggregate principal amount of the Subordinate Revenue Bonds then outstanding may elect a bondholders' committee to exercise rights and powers of such owners under the Subordinate Debt Resolutions, including the right to declare the entire unpaid principal of the Subordinate Revenue Bonds then outstanding to be immediately due and payable.

Four series of the variable rate bonds that are not supported by a SBPA are self-liquidity bonds. These variable rate bonds outstanding at June 30, 2019 and 2018 had no long-term take out provisions therefore, the entire principal amount of \$314.8 million, may be tendered for purchase upon one week's notice from bondholders. However, on June 25, 2018, Metropolitan entered into a Revolving Credit Agreement (RCA), under which Metropolitan may borrow up to \$200.0 million, to pay the purchase price (principal and accrued interest) of any self-liquidity bonds tendered for purchase. Borrowings made by Metropolitan under the RCA initially bear interest at a fluctuating per annum interest rate equal to, at Metropolitan's discretion, either: (a) one month LIBOR plus 1.50 percent; or (b) the higher of (i) the Federal Funds Rate plus 0.50 percent, and (ii) the Prime Rate (increasing in any case periodically, beginning after 90 days). The RCA permits repayment of any borrowed principal funds over ten semi-annual installments beginning 180 days after the funds are borrowed. The RCA has a stated expiration date of June 23, 2023. As a result of the RCA, \$114.8 million was reported as current liabilities as of June 30, 2019 and as of June 30, 2018.

As of June 30, 2019 and 2018, the four series of variable rate self-liquidity bonds not supported by a SBPA but are covered by the RCA are as follows:

(Dollars in thousands)

<b>Bond Issue</b>	<b>Amount</b>	<b>Expiration Date</b>	<b>Interest Rate</b>	<b>Borrowing Amount</b>	<b>Current Amount</b>
<b>Water Revenue Refunding Bonds</b>					
2013 Series D	\$ 87,445	6/23/23	Reset Weekly	\$ 87,445	\$ —
2014 Series D	38,465	6/23/23	Reset Weekly	38,465	—
2015 Series A-1, A-2	188,900	6/23/23	Reset Weekly	74,090	114,810
<b>Total</b>	<b>\$ 314,810</b>			<b>\$ 200,000</b>	<b>\$ 114,810</b>

**(h) Long-term Debt Obligation Summary**

Interest rates at June 30, 2019 on all outstanding fixed-rate obligations range from 1.49 percent to 6.95 percent. Interest on the variable rate debt is reset either daily or weekly based upon market conditions. Future principal and interest payments in accordance with the debt agreements as of June 30, 2019 are as follows:

**NOTES TO BASIC FINANCIAL STATEMENTS**

*(CONTINUED)*

June 30, 2019 and 2018

(Dollars in thousands)	Principal	Interest	Total
Year ending June 30:			
2020	\$ 141,500	\$ 148,948	\$ 290,448
2021	169,650	141,746	311,396
2022	178,735	133,387	312,122
2023	180,625	124,973	305,598
2024	198,720	116,534	315,254
2025-2029	937,435	473,531	1,410,966
2030-2034	730,475	305,571	1,036,046
2035-2039	855,200	183,715	1,038,915
2040-2044	376,200	50,499	426,699
2045-2048	212,755	6,099	218,854
	<u>\$ 3,981,295</u>	<u>\$ 1,685,003</u>	<u>\$ 5,666,298</u>
Unamortized bond discount and premium, net	<u>307,310</u>		
Total debt	4,288,605		
Less current portion	<u>(468,037)</u>		
Long-term portion of debt	<u>\$ 3,820,568</u>		

**6. LONG-TERM LIABILITIES**

Long-term liability activity for the fiscal years ended June 30, 2019 and 2018 is shown on the following table. Payments on the bonds are made from the restricted debt service funds; other long-term debt and the compensated absences liability will be liquidated primarily with water revenues.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

(Dollars in thousands)	Maturity Dates	Range of Interest Rates	June 30, 2017	Additions
<b>Waterworks general obligation refunding bonds (Note 5b):</b>				
2009 Series A	3/1/17-3/1/28	4.00%-5.00%	\$ 27,000	\$ —
2010 Series A	3/1/17-3/1/37	1.50%-5.00%	18,735	—
2014 Series A	3/1/17-3/1/21	2.00%-5.00%	29,170	—
2019 Series A	3/1/20-3/1/28	5.00 %	—	—
Total general obligation and general obligation refunding bonds			74,905	—
<b>Water revenue bonds (Note 5c):</b>				
2000 Series B-3	7/1/29-7/1/35	Variable	88,800	—
2006 Series A	7/1/17-7/1/37	5.00 %	264,475	—
2008 Series A	1/1/18-1/1/39	3.00%-5.00%	174,530	—
2008 Series B	7/1/16-7/1/20	2.75%-4.00%	10,360	—
2008 Series C	7/1/26-7/1/39	5.752%-6.250%	78,385	—
2008 Series D	7/1/21-7/1/39	5.906%-6.538%	250,000	—
2010 Series A	7/1/38-7/1/40	6.95 %	250,000	—
2015 Series A	7/1/18-7/1/45	5.00 %	208,255	—
2016 Subordinate Series A	7/1/41-7/1/45	Variable	175,000	—
2017 Series A	7/1/41-7/1/47	Variable	80,000	—
2017 Subordinate Series C	7/1/45-7/1/47	Variable	—	80,000
2018 Subordinate Series B	9/1/23-9/1/28	5.00 %	—	64,345
<b>Water revenue refunding bonds (Note 5d):</b>				
1993 Series A	8/14/15-7/1/21	5.75 %	70,340	—
2008 Series B	7/1/16-7/1/22	4.00%-5.00%	119,830	—
2008 Series C	7/1/16-7/1/23	3.40%-5.00%	27,255	—
2009 Series A-1, A-2	7/1/20-7/1/30	Variable	12,170	—
2009 Series B	7/1/20-7/1/30	4.00%-5.25%	106,690	—
2009 Series C	7/1/29-7/1/35	5.00 %	91,165	—
2009 Series D	7/1/16-7/1/21	3.00%-5.00%	50,005	—
2009 Series E	7/1/16-7/1/20	4.00%-5.00%	12,715	—
2010 Series B	7/1/16-7/1/28	2.60%-5.00%	74,325	—
2011 Series A-1-A-4	7/1/16-7/1/36	Variable	216,415	—
2011 Series B	7/1/16-7/1/20	3.00%-5.00%	5,080	—
2011 Series C	10/1/17-10/1/36	2.25%-4.00%	147,435	—
2012 Series A	10/1/23-10/1/36	3.25%-5.00%	181,180	—
2012 Series B-1, B-2	7/1/23-7/1/27	Variable	98,585	—
2012 Series C	7/1/16-7/1/21	3.00%-5.00%	175,635	—
2012 Series F	7/1/16-7/1/28	3.00%-5.00%	59,335	—
2012 Series G	7/1/20-7/1/31	3.00%-5.00%	111,890	—
2013 Series D	7/1/29-7/1/35	Variable	87,445	—
2014 Series A	7/1/18-7/1/21	4.00%-5.00%	95,935	—
2014 Series B	7/1/18	1.49 %	10,575	—
2014 Series C-1-C-3	7/1/22-7/1/27	3.00 %	30,335	—
2014 Series D	7/1/16-7/1/32	Variable	38,465	—
2014 Series E	7/1/21-7/1/24	3.50%-5.00%	86,060	—
2014 Series G-2-G-5	7/1/37	2.00%-3.00%	43,275	—
2015 Series A-1, A-2	7/1/35	Variable	188,900	—
2016 Series A	7/1/28-7/1/37	2.00%-5.00%	239,455	—
2016 Series B-1, B-2	7/1/25-7/1/37	Variable	103,670	—
2017 Subordinate Series A	7/1/20-7/1/27	2.00%-2.50%	238,015	—
2017 Subordinate Series B	8/1/20-8/1/24	3.00%-5.00%	—	178,220
2017 Subordinate Series D	7/1/33-7/1/37	Variable	—	95,630
2017 Subordinate Series E	7/1/33-7/1/37	Variable	—	95,625
2018 Series A1, A-2	7/1/19-7/1/37	Variable	—	210,040
2018 Subordinate Series A	7/1/19-7/1/23	5.00 %	—	99,075
2018 Series B	7/1/20-1/1/39	5.00 %	—	—
2019 Series A	7/1/30-7/1/39	5.00 %	—	—
2019 Subordinate Series A	7/1/20-7/1/29	5.00 %	—	—
Total water revenue and water revenue refunding bonds			4,301,985	822,935
<b>Other long-term debt (Note 5e):</b>				
Revolving notes			—	—
Unamortized bond discount and premiums, net			202,848	50,891
Total long-term debt			4,579,738	873,826
<b>Other long-term liabilities</b> (see table next page)			190,570	50,706
<b>Total long-term liabilities</b>			\$ 4,770,308	\$ 924,532

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

	Reductions	June 30, 2018	Additions	Reductions	June 30, 2019	Amounts Due Within One Year
\$	(6,135)	\$ 20,865	\$ —	\$ (20,865)	\$ —	\$ —
	—	18,735	—	—	18,735	—
	(8,170)	21,000	—	(8,440)	12,560	(8,020)
	—	—	16,755	—	16,755	(2,730)
	(14,305)	60,600	16,755	(29,305)	48,050	(10,750)
	—	88,800	—	—	88,800	(88,800)
	(264,475)	—	—	—	—	—
	(4,735)	169,795	—	(169,795)	—	—
	(2,455)	7,905	—	(7,905)	—	—
	—	78,385	—	(78,385)	—	—
	—	250,000	—	(250,000)	—	—
	—	250,000	—	—	250,000	—
	—	208,255	—	(1,990)	206,265	(2,145)
	—	175,000	—	—	175,000	—
	—	80,000	—	—	80,000	(80,000)
	—	80,000	—	—	80,000	—
	—	64,345	—	—	64,345	—
	(21,200)	49,140	—	(27,300)	21,840	(9,615)
	(119,830)	—	—	—	—	—
	(27,255)	—	—	—	—	—
	(12,170)	—	—	—	—	—
	—	106,690	—	(106,690)	—	—
	—	91,165	—	(91,165)	—	—
	(9,265)	40,740	—	(40,740)	—	—
	(2,985)	9,730	—	(9,730)	—	—
	(5,170)	69,155	—	(5,355)	63,800	(7,795)
	(216,415)	—	—	—	—	—
	(1,195)	3,885	—	(1,245)	2,640	(1,295)
	(9,155)	138,280	—	(9,530)	128,750	(9,950)
	—	181,180	—	—	181,180	—
	(98,585)	—	—	—	—	—
	(70,705)	104,930	—	(50,135)	54,795	(34,960)
	—	59,335	—	—	59,335	(10,450)
	—	111,890	—	—	111,890	—
	—	87,445	—	—	87,445	—
	—	95,935	—	(12,070)	83,865	(45,995)
	—	10,575	—	(10,575)	—	—
	—	30,335	—	(13,505)	16,830	—
	—	38,465	—	—	38,465	—
	—	86,060	—	—	86,060	—
	(25,465)	17,810	—	(11,605)	6,205	—
	—	188,900	—	—	188,900	(114,810)
	—	239,455	—	—	239,455	—
	—	103,670	—	—	103,670	—
	—	238,015	—	—	238,015	—
	—	178,220	—	—	178,220	—
	—	95,630	—	—	95,630	—
	—	95,625	—	—	95,625	—
	—	210,040	—	—	210,040	(170)
	—	99,075	—	—	99,075	(4,400)
	—	—	137,485	—	137,485	(3,975)
	—	—	218,090	—	218,090	—
	—	—	241,530	—	241,530	—
	(891,060)	4,233,860	597,105	(897,720)	3,933,245	(414,360)
	—	—	46,800	—	46,800	—
	(41,240)	212,499	146,302	(51,491)	307,310	(42,927)
	(946,605)	4,506,959	806,962	(978,516)	4,335,405	(468,037)
	(84,379)	156,897	52,120	(39,782)	169,235	(33,624)
\$	(1,030,984)	\$ 4,663,856	\$ 859,082	\$ (1,018,298)	\$ 4,504,640	\$ (501,661)

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

(Dollars in thousands)	June 30, 2017	Additions	Reductions	June 30, 2018	Additions	Reductions	June 30, 2019	Amounts Due Within One Year
Off-aqueduct power facilities (Note 9f)	\$ 10,832	\$ —	\$ (10,832)	\$ —	\$ —	\$ —	\$ —	\$ —
Accrued compensated absences	46,323	20,616	(19,294)	47,645	24,929	(24,177)	48,397	(22,000)
Customer deposits and trust funds	45,757	23,950	(23,535)	46,172	9,493	(6,268)	49,397	(8,335)
Workers' Compensation and third party claims (Note 14)	15,677	6,140	(8,238)	13,579	5,835	(6,456)	12,958	(3,284)
Fair value of interest rate swaps (Note 5e)	66,848	—	(22,437)	44,411	11,863	—	56,274	—
Other long-term liabilities	5,133	—	(43)	5,090	—	(2,881)	2,209	(5)
<b>Total other long-term liabilities</b>	<b>\$ 190,570</b>	<b>\$ 50,706</b>	<b>\$ (84,379)</b>	<b>\$ 156,897</b>	<b>\$ 52,120</b>	<b>\$ (39,782)</b>	<b>\$ 169,235</b>	<b>\$ (33,624)</b>

**7. PENSION PLAN**

**(a) General Information about the Pension Plan**

**Plan Description**

All full-time Metropolitan employees are required to participate in Metropolitan's Miscellaneous Plan with CalPERS, an agent multiple-employer public employee defined benefit pension plan. CalPERS acts as a common investment and administrative agent for participating public entities within the State of California. A menu of benefit provisions as well as other requirements is established by State statutes within the Public Employee's Retirement Law. Metropolitan selects optional benefit provisions from the benefit menu by contract with CalPERS and adopts those benefits through Board approval. CalPERS issues a separate comprehensive annual report. Copies of CalPERS' annual financial report may be obtained from its Executive Office, 400 Q Street, Sacramento, CA 95811.

**Benefits Provided**

CalPERS provides retirement and disability benefits, annual cost-of-living adjustments, and death benefits to plan members and beneficiaries. Benefits are based on years of credited service, equal to one year of full-time employment. Employees hired prior to January 1, 2013 (Classic members) with five years of total service are eligible to retire at age 50 with statutorily reduced benefits; employees hired after January 1, 2013 (PEPRA members) with at least five years of credited service are eligible to retire at age 52 with statutorily reduced benefits. All members are eligible for improved non-industrial disability benefits after five years of service. The death benefit is one of the following: the Basic Death Benefit, the 1959 Survivor Benefit, or the Optional Settlement 2W Death Benefit.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

**Contribution Description**

Section 20814(c) of the California Public Employees' Retirement Law requires that the employer contribution rates for all public employers be determined on an annual basis by the actuary and shall be effective on the July 1 following notice of a change in the rate. The total plan contributions are determined through CalPERS' annual actuarial valuation process. The actuarially determined rate is the estimated amount necessary to finance the costs of benefits earned by employees during the year, with an additional amount to finance any unfunded accrued liability. Metropolitan is required to contribute the difference between the actuarially determined rate and the contribution rate of employees. Metropolitan's total employer contributions were \$56.5 million and \$31.4 million for the fiscal years ended June 30, 2019 and 2018, respectively. The employee contribution rate was 6.0 percent of annual pay for PEPRA members for the fiscal years ended June 30, 2019 and 2018, respectively, and 7.0 percent of annual pay for Classic members in both years. Metropolitan contributes the full 7.0 percent for Classic members while PEPRA members contribute the full 6.0 percent. At June 30, 2019 and 2018, Metropolitan's pickup of the employee's 7.0 percent share were \$11.8 million and \$12.5 million, respectively. Payments made by Metropolitan to satisfy contribution requirements that are identified by the pension plan terms as plan member contribution requirements are classified as plan member contributions.

The Plans' provisions and benefits in effect at June 30, 2019 and 2018 are summarized as follows:

Hire date	<b>Miscellaneous</b>	
	Prior to January 1, 2013	On or after January 1, 2013
Benefit formula	2.0% @ 55	2.0% @ 62
Benefit vesting schedule	5 years	5 years
Benefit payments	Monthly for life	Monthly for life
Final average compensation period	12 months	36 months
Sick leave credit	Yes	Yes
Retirement age	50-67	52-67
Monthly benefits as a % of eligible compensation	1.426% to 2.418%	1.0% to 2.5%
Cost of living adjustment	2.0 %	2.0 %
Required employee contribution rates		
2019	7.0 %	6.00 %
2018	7.0 %	6.00 %
Required employer contribution rates		
2019	25.971 %	25.971 %
2018	22.888 %	22.888 %

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

At June 30, 2017 and 2016, the valuation dates for fiscal years 2019 and 2018, respectively, the following current and former employees were covered by the benefit terms:

	2019	2018
Valuation date	6/30/2017	6/30/2016
Inactive employees (or their beneficiaries) currently receiving benefits	2,136	2,040
Inactive employees entitled to but not yet receiving benefits	932	949
Active members	1,746	1,782
<b>Total</b>	<b>4,814</b>	<b>4,771</b>

**(b) Actuarial Methods and Assumptions Used to Determine Total Pension Liability**

Metropolitan’s net pension liability is measured as the total pension liability, less the pension plan’s fiduciary net position. The net pension liability at June 30, 2019 and 2018 was measured as of June 30, 2018 and 2017, respectively, using an annual actuarial valuation as of June 30, 2017 and 2016, respectively. The actuarial valuations as of June 30, 2017 and 2016 were rolled forward to June 30, 2018 and 2017, respectively, using standard update procedures.

The total pension liabilities for the measurement dates of June 30, 2018 and 2017 were based on the following actuarial methods and assumptions:

Actuarial cost method	Entry Age Normal in accordance with the requirements of GASB 68
Actuarial assumptions	
Discount rate	7.15% in 2018 and 2017
Inflation	2.50% in 2018 and 2.75% in 2017
Salary increases	Varies by entry age and service
Mortality rate table <sup>1</sup>	Derived using CalPERS' Membership Data for all Funds
Post-retirement benefit increase	Contract COLA up to 2.00% and 2.75% in 2018 and 2017, respectively, until Purchasing Power Protection Allowance Floor on Purchasing Power applies, 2.50% and 2.75% thereafter in 2018 and 2017, respectively.

<sup>1</sup> The mortality table used was developed based on CalPERS’ specific data. The table includes 15 years of mortality improvements using Society of Actuaries Scale 90% of scale MP 2016.

All other actuarial assumptions used in the June 30, 2017 and 2016 valuations were based on the results of an actuarial experience study for the period from 1997 to 2015, including updates to salary increase, mortality and retirement rates. The Experience Study report can be obtained at CalPERS’ website under Forms and Publications.

**Long-term Expected Rate of Return**

The long-term expected rate of return on pension plan investments of 7.15 percent was determined using a building-block method in which expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class.



**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

In determining the long-term expected rate of return, CalPERS took into account both short-term and long-term market return expectations as well as the expected pension fund cash flows. Taking into account historical returns of all the funds' asset classes, expected compound (geometric) returns were calculated over the short-term (first 10 years) and the long-term (11+ years) using a building-block approach. Using the expected nominal returns for both short-term and long-term, the present value of benefits was calculated for each fund. The expected rate of return was set by calculating the rounded single equivalent expected return that arrived at the same present value of benefits for cash flows as the one calculated using both short-term and long-term returns. The expected rate of return was then set equal to the single equivalent rate calculated above and adjusted to account for assumed administrative expenses.

The table below reflects long-term expected real rates of return by asset class.

Asset Class <sup>1</sup>	Current Target Allocation		Real Return Years 1-10 <sup>2</sup>		Real Return Years 11+ <sup>3</sup>	
	2018	2017	2018	2017	2018	2017
Global Equity	50.00 %	47.00 %	4.80 %	4.90 %	5.98 %	5.38 %
Fixed Income	28.00	19.00	1.00	0.80	2.62	2.27
Inflation Assets	—	6.00	0.77	0.60	1.81	1.39
Private Equity	8.00	12.00	6.30	6.60	7.23	6.63
Real Estate	13.00	11.00	3.75	2.80	4.93	5.21
Infrastructure and Forestland	—	3.00	—	3.90	—	5.36
Liquidity	1.00	2.00	—	(0.40)	(0.92)	(0.90)
Total	100.00 %	100.00 %				

<sup>1</sup> In the CalPERS Comprehensive Annual Financial Report, Fixed Income is included in Global Debt Securities; Liquidity is included in Short-term Investments; Inflation Assets are included in both Global Equity Securities and Global Debt Securities.

<sup>2</sup> An expected inflation of 2.0 percent used for this period

<sup>3</sup> An expected inflation of 2.92 percent used for this period

**Discount Rate**

The discount rate used to measure the total pension liability at June 30, 2018 and 2017 measurement dates was 7.15 percent. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current member contribution rates and that contributions from employers will be made at the current member contribution rates and that contributions from employers will be made at a statutorily required rates, actuarially determined. Based on those assumptions, the Plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

**(c) Changes in the Net Pension Liability**

The following tables show the changes in net pension liability recognized over the measurement periods of June 30, 2018 and 2017:

(Dollars in thousands)	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (c) = (a) - (b)
<b>Balance at June 30, 2017 (VD)<sup>1</sup></b>	<b>\$ 2,315,248</b>	<b>\$ 1,654,331</b>	<b>\$ 660,917</b>
<b>Changes recognized for the measurement period:</b>			
Service cost	33,583	—	33,583
Interest on the total pension liability	161,023	—	161,023
Differences between expected and actual experience	(10,039)	—	(10,039)
Changes of assumptions	(15,391)	—	(15,391)
Net plan to plan resources movement		(4)	4
Contributions from the employer	—	48,780	(48,780)
Contributions from employees	—	15,749	(15,749)
Net investment income	—	139,003	(139,003)
Benefit payments, including refunds of employee contributions	(107,646)	(107,646)	—
Administrative expenses	—	(2,577)	2,577
Other miscellaneous income/expense <sup>2</sup>	—	(4,895)	4,895
<b>Net Changes</b>	<b>\$ 61,530</b>	<b>\$ 88,410</b>	<b>\$ (26,880)</b>
<b>Balance at June 30, 2018 (MD)<sup>1</sup></b>	<b>\$ 2,376,778</b>	<b>\$ 1,742,741</b>	<b>\$ 634,037</b>

<sup>1</sup> The fiduciary net position includes receivables for employee service buybacks, deficiency reserves, and fiduciary self-insurance.

<sup>2</sup> During Fiscal Year 2017-18, as a result GASB 75, CalPERS reported its proportionate share of activity related to post-employment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75. Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB 68.

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

(Dollars in thousands)	Increase (Decrease)		
	Total Pension Liability (a)	Plan Fiduciary Net Position (b)	Net Pension Liability (c) = (a) - (b)
<b>Balance at June 30, 2016 (VD)<sup>1</sup></b>	<b>\$ 2,115,064</b>	<b>\$ 1,527,402</b>	<b>\$ 587,662</b>
<b>Changes recognized for the measurement period:</b>			
Service cost	33,685	—	33,685
Interest on the total pension liability	156,661	—	156,661
Differences between expected and actual experience	(15,804)	—	(15,804)
Changes of assumptions	125,734	—	125,734
Contributions from the employer	—	42,819	(42,819)
Contributions from employees	—	14,895	(14,895)
Net investment income	—	171,562	(171,562)
Benefit payments, including refunds of employee contributions	(100,092)	(100,092)	—
Administrative expenses	—	(2,255)	2,255
<b>Net Changes</b>	<b>\$ 200,184</b>	<b>\$ 126,929</b>	<b>\$ 73,255</b>
<b>Balance at June 30, 2017 (MD)<sup>1</sup></b>	<b>\$ 2,315,248</b>	<b>\$ 1,654,331</b>	<b>\$ 660,917</b>

<sup>1</sup> The fiduciary net position includes receivables for employee service buybacks, deficiency reserves, and fiduciary self-insurance.

### Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the Plan as of the June 30, 2018 and 2017 measurement dates, calculated using the discount rate of 7.15 percent for both years. The table also shows what the net pension liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

(Dollars in thousands)	2019	2018
Discount Rate -1%	6.15 %	6.15 %
Net Pension Liability	\$ 931,668	\$ 960,984
Current Discount Rate	7.15 %	7.15 %
Net Pension Liability	\$ 634,037	\$ 660,917
Discount Rate +1%	8.15 %	8.15 %
Net Pension Liability	\$ 384,526	\$ 409,894

### Pension Plan Fiduciary Net Position

Detailed information about the pension plan's fiduciary net position is available in the separately issued CalPERS GASB 68 Accounting Report for Metropolitan.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

**Subsequent Events**

There were no subsequent events that would materially affect the results presented in this disclosure.

**Amortization of Deferred Outflows and Deferred Inflows of Resources**

Under GASB 68, gains and losses related to changes in total pension liability and fiduciary net position are recognized in pension expense systematically over time.

The first amortized amounts are recognized in pension expense for the year the gain or loss occurs. The remaining amounts are categorized as deferred outflows and deferred inflows of resources related to pensions and are to be recognized in future pension expense.

The amortization period differs depending on the source of the gain or loss:

Net difference between projected and actual earnings on pension plan investments	5 year straight-line amortization
All other amounts	Straight-line amortization over the expected average remaining service lifetime (EARSL) of all members that are provided with benefits (active, inactive, and retired) as of the beginning of the measurement period

The EARSL for the Plan for the period ending June 30, 2018 measurement date is 3.2 years, which was obtained by dividing the total service years of 15,612 (the sum of remaining service lifetimes of the active employees) by 4,814 (the total number of participants: active, inactive, and retired). The EARSL for the Plan for the June 30, 2017 measurement date is 3.2 years, which was calculated by dividing the total service years of 15,347 by the total number of participants of 4,771. Inactive employees and retirees have remaining service lifetimes equal to zero and total future service is based on the members' probability of decrementing due to an event other than receiving a cash refund.

**(d) Pension Expense, Deferred Outflows and Deferred Inflows of Resources Related to Pensions**

For the years ended June 30, 2019 and 2018, Metropolitan recognized pension expense of \$84.8 million and \$92.5 million, respectively. At June 30, 2019 and 2018, Metropolitan has deferred outflows and inflows of resources related to pensions as follows:

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

(Dollars in thousands)	Deferred Outflows of Resources Outflows		Deferred Inflows of Resources Inflows	
	2019	2018	2019	2018
Pension contributions subsequent to measurement date	\$ 56,497	\$ 31,404	\$ —	\$ —
Differences between expected and actual experience	—	917	(13,625)	(15,648)
Changes of assumptions	47,150	86,442	(10,581)	(2,188)
Net difference between projected and actual earnings on pension plan investments	3,288	19,642	—	—
<b>Total</b>	<b>\$ 106,935</b>	<b>\$ 138,405</b>	<b>\$ (24,206)</b>	<b>\$ (17,836)</b>

The amounts above are net of outflows and inflows recognized in the pension expense for the fiscal years ended June 30, 2019 and 2018. At June 30, 2019 and 2018, the deferred outflows of resources related to contributions subsequent to the measurement date of \$56.5 million and \$31.4 million, respectively, will be/was recognized as a reduction of the net pension liability in the fiscal years ended June 30, 2020 and 2019, respectively.

The net differences between projected and actual earnings on pension plan investments, difference between expected and actual experience, and changes of assumptions will be recognized in future pension expense as follows:

(Dollars in thousands)	Deferred Outflows / (Inflows) of Resources
Fiscal year ending June 30,	
2020	\$ 46,472
2021	3,321
2022	(19,002)
2023	(4,559)
2024	—
Thereafter	—

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

**8. POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)****(a) Plan Description and Benefits Provided**

Through CalPERS, Metropolitan offers medical insurance to active and retired employees, as well as their qualified dependents under the Public Employees' Medical and Hospital Care Act (PEMHCA). Under PEMHCA, health coverage for the employee continues into retirement. Current plans offered are PERS Care PPO, PERS Choice PPO, PERS Select PPO, Blue Shield HMO, and Kaiser HMO. Metropolitan participates in the CERBT Fund, which is an agent multiple-employer plan available to employers to pre-fund OPEB benefits. Benefit provisions are established through negotiations between Metropolitan and its various bargaining units, which also apply to retirees. For employees hired on or after January 1, 2012, retirees must have a minimum of 10 years of PERS service and no less than five years of Metropolitan service in order to receive post-employment health benefits in accordance with PERS as per Government Code Section 22893. For employees hired prior to January 1, 2012, retirees are not required to meet the eligibility criteria. This benefit was provided to 1,772 and 1,706 retired Metropolitan employees at June 30, 2019 and 2018, respectively. CalPERS issues a separate comprehensive annual report that includes financial statements for its CERBT Fund. Copies of CalPERS' annual financial report may be obtained from its Executive Office, 400 Q Street, Sacramento, CA 95811.

**(b) Funding Policy and Contributions**

Contribution requirements are established by Memorandum of Understandings negotiated between Metropolitan and its various bargaining units. During fiscal years 2019 and 2018, Metropolitan contributed up to 100 percent of Blue Shield Access + HMO Bay area regional basic plan rate for represented retirees and up to 90 percent of the PERS Care PPO Los Angeles regional basic plan rate for unrepresented retirees. During fiscal years 2019 and 2018, Metropolitan contributed the full actuarially determined contribution rate of 13.8 percent or \$27.3 million and 15.2 percent or \$30.1 million, respectively. Employees are not required to contribute to the plan.

**(c) Employees Covered**

At June 30, 2018 and 2017, the measurement date for fiscal year 2019 and 2018, respectively, the following current and former employees were covered by the benefit terms:

	<b>2019</b>	2018
Measurement Date	<b>6/30/2018</b>	6/30/2017
Inactives employees (or their beneficiaries) currently receiving benefits	<b>1,569</b>	1,658
Inactive employees entitled to but not yet receiving benefits	<b>137</b>	137
Active members	<b>1,698</b>	1,747
Total	<b>3,404</b>	3,542

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

**(d) Actuarial Assumptions Used to Determine Total OPEB Liability**

The total OPEB liability used to calculate the net OPEB liability as of June 30, 2019 and 2018 was determined by an actuarial valuation dated June 30, 2017. For the year end June 30, 2019, the actuarial valuation dated June 30, 2017 was rolled forward to the measurement date of June 30, 2018. The June 30, 2017 actuarial valuation was based on the following actuarial methods and assumptions:

Actuarial cost method	Entry age normal cost
Actuarial assumptions	
Funding policy	Metropolitan pre-funds full ADC
Discount rate	6.75%
Long-term expected rate of return on assets	6.75%
General inflation	2.75% per annum
Crossover test assumptions	Employer contributes full ADC Administrative expenses = .05% of assets
Salary increases	3.0% per annum
Mortality, disability, termination, retirement <sup>1</sup>	Derived using CalPERS Membership Data
Mortality improvement	Mortality projected fully generational with Society of Actuaries mortality improvement Scale MP-17
Healthcare cost trend rate	Pre-Medicare: 7.5% for 2019 decreasing to 4.0% for 2076 and later Medicare: 6.5% for 2019, decreasing to 4.0% for 2076 and later
Healthcare participation for future retirees	Currently covered: 100%; Currently waived: 90%

<sup>1</sup> Pre-retirement mortality information was derived from data collected during 1997 to 2011 CalPERS Experience Study dated January 2014 and post-retirement mortality information was derived from the 2007 to 2011 CalPERS Experience Study. The pre-retirement turnover information was developed based on CalPERS' specific data collected during the 2007 to 2011 Experience Study Report.

The long-term expected rate of return on OPEB plan investments was determined using a building block method in which expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target allocation and best estimates of arithmetic real rates of return for each major asset class as of June 30, 2019 and 2018 are summarized in the following table:

Asset class	Target Allocation	Long-term expected real rate of return
Global equity	57.0 %	4.8 %
Fixed income	27.0	1.5
TIPS	5.0	1.3
Commodities	3.0	0.8
REITs	8.0	3.8
Total	100.0 %	

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

**(e) Discount Rate**

The discount rate used to measure the total OPEB liability at June 30, 2018 and 2017 measurement dates was 6.75 percent. The projection of cash flows used to determine the discount rate assumed that Metropolitan contributions will be made at rates equal to the actuarially determined contribution rates. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected OPEB payments for current active and inactive employees and beneficiaries. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

**(f) Changes in the OPEB Liability**

The following tables shows the changes in the net OPEB liability recognized over the measurement periods of June 30, 2018 and 2017:

(Dollars in thousands)	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (c) = (a) - (b)
<b>Balance at June 30, 2017 (MD)</b>	<b>\$ 448,095</b>	<b>\$ 207,526</b>	<b>\$ 240,569</b>
<b>Changes recognized for the measurement period:</b>			
Service cost	10,325	—	10,325
Interest	30,252	—	30,252
Contributions - employer	—	34,674	(34,674)
Net investment income	—	18,538	(18,538)
Benefit payments	(20,487)	(20,487)	—
Administrative expense	—	(400)	400
<b>Net changes</b>	<b>\$ 20,090</b>	<b>\$ 32,325</b>	<b>\$ (12,235)</b>
<b>Balance at June 30, 2018 (MD)</b>	<b>\$ 468,185</b>	<b>\$ 239,851</b>	<b>\$ 228,334</b>

(Dollars in thousands)	Increase (Decrease)		
	Total OPEB Liability (a)	Plan Fiduciary Net Position (b)	Net OPEB Liability (c) = (a) - (b)
<b>Balance at June 30, 2016 (MD)</b>	<b>\$ 428,645</b>	<b>\$ 172,720</b>	<b>\$ 255,925</b>
<b>Changes recognized for the measurement period:</b>			
Service cost	10,024	—	10,024
Interest	28,951	—	28,951
Contributions - employer	—	33,646	(33,646)
Net investment income	—	20,792	(20,792)
Benefit payments	(19,525)	(19,525)	—
Administrative expense	—	(107)	107
<b>Net changes</b>	<b>\$ 19,450</b>	<b>\$ 34,806</b>	<b>\$ (15,356)</b>
<b>Balance at June 30, 2017 (MD)</b>	<b>\$ 448,095</b>	<b>\$ 207,526</b>	<b>\$ 240,569</b>



**NOTES TO BASIC FINANCIAL STATEMENTS**

*(CONTINUED)*

June 30, 2019 and 2018

**(g) Sensitivity of the Net OPEB Liability to Changes in the Discount Rate**

The following presents the net OPEB liability of the OPEB Plan as of the June 30, 2018 and June 30, 2017 measurement dates, calculated using the discount rate of 6.75 percent. This table also shows what the net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower or one percentage point higher than the current rate:

(Dollars in thousands)	<b>2019</b>		2018	
Discount Rate -1%	<b>5.75 %</b>		5.75 %	
Net OPEB Liability	<b>\$ 288,683</b>	\$	299,261	
Current Discount Rate	<b>6.75 %</b>		6.75 %	
Net OPEB Liability	<b>\$ 228,334</b>	\$	240,569	
Discount Rate +1%	<b>7.75 %</b>		7.75 %	
Net OPEB Liability	<b>\$ 178,349</b>	\$	192,021	

**(h) Sensitivity of the Net OPEB Liability to Changes in the Health Care Cost Trend Rates**

The following presents the net OPEB liability of the OPEB Plan if it were calculated using a healthcare trend rate that is one percentage point lower or one percentage point higher than the current rate, for measurement periods ended June 30, 2018 and 2017:

(Dollars in thousands)	<b>2019</b>		2018	
Healthcare Trend Rate -1%	<b>6.5%/5.5 % decreasing to 3.0 %</b>		6.5%/5.5 % decreasing to 3.0 %	
Net OPEB Liability	<b>\$ 170,535</b>	\$	188,057	
Current Healthcare Trend Rate	<b>7.5%/6.5 % decreasing to 4.0 %</b>		7.5%/6.5 % decreasing to 4.0 %	
Net OPEB Liability	<b>\$ 228,334</b>	\$	240,569	
Healthcare Trend Rate +1%	<b>8.5%/7.5 % decreasing to 5.0 %</b>		8.5%/7.5 % decreasing to 5.0 %	
Net OPEB Liability	<b>\$ 298,893</b>	\$	304,532	

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

June 30, 2019 and 2018

**(i) OPEB Plan Fiduciary Net Position**

Detailed information about the OPEB plan's fiduciary net position is available in the separately issued California Employer's Retiree Benefit Trust (CERBT) Fund financial reports.

**(j) Recognition of Deferred Outflows and Deferred Inflows of Resources**

Gains and losses related to changes in total OPEB liability and fiduciary net position are recognized in OPEB expense systematically over time.

Amounts are first recognized in OPEB expense for the year the gain or loss occurs. The remaining amounts are categorized as deferred outflows and deferred inflows of resources related to OPEB and are to be recognized in future OPEB expense.

The recognition period differs depending on the source of the gain or loss:

Net difference between projected and actual earnings on OPEB plan investments	5 year straight-line amortization
All other amounts	Straight-line amortization over the expected average remaining service lives of all members that are provided with benefits (active, inactive, and retired) as of the beginning of the measurement period

**(k) OPEB Expense and Deferred Outflows/Inflows of Resources Related to OPEB**

For the years ended June 30, 2019 and 2018, Metropolitan recognized OPEB expense of \$22.8 million and \$25.2 million. At June 30, 2019 and 2018, Metropolitan has deferred outflows and inflows of resources related to OPEB as follows:

(Dollars in thousands)	Deferred Outflows of Resources		Deferred Inflows of Resources	
	2019	2018	2019	2018
OPEB contributions subsequent to measurement date	\$ 32,067	\$ 34,674	\$ —	\$ —
Net difference between projected and actual earnings on OPEB plan investments	—	—	(7,288)	(6,928)
<b>Total</b>	<b>\$ 32,067</b>	<b>\$ 34,674</b>	<b>\$ (7,288)</b>	<b>\$ (6,928)</b>

The \$32.1 million and \$34.7 million reported as deferred outflows of resources related to contributions subsequent to the June 30, 2018 and 2017 measurement dates, respectively, will be/was recognized as a reduction of the net OPEB liability during the fiscal years ending June 30, 2020 and 2019, respectively. The \$7.3 million and \$6.9 million reported as deferred inflows of resources related to OPEB at June 30, 2019 and 2018 will be recognized as expense as follows:

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

(Dollars in thousands)	<b>Deferred Inflows of Resources</b>
<hr/>	
Fiscal year ending June 30,	
2020	\$ (2,255)
2021	(2,255)
2022	(2,255)
2023	(523)
2024	—
Thereafter	—

**9. COMMITMENTS AND CONTINGENCIES**

**(a) State Water Contract (see Note 10)**

Estimates of Metropolitan’s share of the projected fixed costs of the SWP are provided annually by the State. The estimates are subject to future increases or decreases resulting from changes in planned facilities, refinements in cost estimates, and inflation. During the next five years, payments under the State Water Contract, exclusive of variable power costs, are currently estimated by the State to be as follows:

(Dollars in thousands)	State Water Contract Payments
<hr/>	
Year ending June 30:	
2020	\$ 436,659
2021	481,395
2022	475,254
2023	471,481
2024	468,548

According to the State’s latest estimates, Metropolitan’s long-term commitments under the contract, for capital and minimum operations and maintenance costs, including interest to the year 2035, are as follows:

(Dollars in thousands)	State Water Long Term Commitments
<hr/>	
Transportation facilities	\$ 3,814,200
Conservation facilities	2,495,737
Off-aqueduct power facilities (see Note 9f) <sup>(1)</sup>	13,036
East Branch enlargement	359,445
Revenue bond surcharge	595,635
Total long-term SWP contract commitments	<hr/> \$ 7,278,053

*(1) These commitments represent operations and maintenance costs. Metropolitan was relieved of its obligation for capital costs in 2018.*

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

Metropolitan intends to exercise its option to extend its agreement with the State through 2085, which will result in annual minimum operations and maintenance costs through 2085. In addition, the amounts shown above do not contain any escalation for inflation, are subject to significant variation over time because the amounts are based on a number of assumptions, and are contingent on future events. None of the estimated long-term commitments are recorded as liabilities in the accompanying basic financial statements.

**(b) Bay/Delta Regulatory and Planning Activities**

The State Water Resources Control Board (State Board) is the agency responsible for setting water quality standards and administering water rights throughout California. Decisions of the State Board can affect the availability of water to Metropolitan and other water users throughout California. The State Board exercises its regulatory authority over Bay/Delta watershed supplies by means of public proceedings leading to regulations and decisions.

In September 2006, then Governor Schwarzenegger established a Delta Vision Process to identify a strategy for managing the Delta as a sustainable resource. The process was tied to legislation that created a Blue Ribbon Task Force (BRTF) and cabinet-level committee tasked with developing a durable vision for sustainable management of the Delta over the long-term which addressed a full array of issues, including land use, infrastructure, flood protection, and natural resources including water supply. The BRTF released its final Delta Vision Strategic Plan in October 2008 and a final implementation report was submitted to the Governor in January 2009. Subsequently, the Delta Reform Act of 2009 was enacted, which created the Delta Stewardship Council (DSC), a seven member appointed body charged with developing a Delta Plan to support carrying out the Delta Vision, which the DSC completed on September 1, 2013. The Delta Plan anticipated the need for periodic reviews and updates in response to changing circumstances and conditions in the Delta. The DSC amended the Delta Plan in February 2016 to include an initial set of performance measures in September 2016 to exempt single-year water transfers from consideration as covered actions. DSC adopted three amendments to the Delta Plan in April 2018, with another proposed update on Ecosystem due for completion.

To avoid endangering listed species or adversely modifying their critical habitat, agencies consult with the California Department of Fish and Wildlife Service (CDFW) or similar agencies under section 7 of the California Endangered Species Act (ESA). If a project may adversely affect a listed species, a formal consultation is held with the fish agencies. The consulting service then issues a biological opinion about whether a project is likely to jeopardize a listed species or destroy or adversely modify its critical habitat. The U.S. Bureau of Reclamation (USBR) and the California Department of Water Resources (DWR) have been working with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) on the reconsultation for the Coordinated Long-Term Operation of the Central Valley Project and State Water Project. Earlier this year, USBR released a biological assessment to support consultation under the Endangered Species Act. In June 2019, the USFWS and NMFS completed the effects analyses and submitted them for peer review. A revised draft biological opinion was released on July 31, 2019, for another round of independent peer review and for review by the public water agencies. The final biological opinions are expected to be released before the end of the calendar year. Similarly, the State Department of Water Resources will be consulting with the CDFW regarding permits for operation of the State Water Project under the ESA.

The Bay Delta Conservation Plan (BDCP), which began in 2007, is a voluntary collaboration of state, federal, and local water agencies, state and federal fish agencies, environmental organizations, and other interested parties to

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

provide a comprehensive habitat conservation and restoration program for the Delta. In addition, the BDCP would provide the basis for permits under federal and state endangered species laws for activities covered by the plan based on the best available science, identified sources of funding, and an adaptive management and monitoring program. On April 30, 2015, the state announced its intent to include new alternatives separating the conveyance facilities and habitat restoration measures into two separate permitting efforts namely: California WaterFix and California EcoRestore. Under the California WaterFix, the new water conveyance facilities with proposed design changes would be constructed and operated. On February 12, 2019, Governor Newsom announced the shift to a single tunnel project now referred to as the Delta Conveyance Project. As a result, DWR withdrew the approval of California WaterFix, decertified the Environmental Impact Report, and rescinded various permitting applications including those submitted to the State Water Resources Control Board (SWRCB), U.S. Army Corps of Engineers, and State and federal Endangered Species Acts permits on May 2 and rescinded the California WaterFix Bond Resolution on May 7. The Delta Conveyance Design and Construction Authority (DCA) executive director has been authorized to execute an amendment to the Joint Exercise of Powers Agreement for Planning and Environmental Services in support of the environmental analysis for a potential Delta Conveyance Project. This amendment outlines the agency's relationship with DWR and its scope of activities in support of environmental planning for a new single tunnel Delta conveyance proposal.

On April 29, 2019, Governor Newsom issued an executive order calling for the development of a water resilience portfolio meeting the needs of California's communities, economy, and environment through the 21st century. This includes the governor's vision for a modern water supply infrastructure, a more climate resilient water supply for people and the environment, and the State Water Project in particular must be updated to respond to climate change.

**(c) Imperial Irrigation District**

As of June 30, 2019, Metropolitan had advanced to the Imperial Irrigation District (IID) a total of \$337.0 million for construction costs, operations and maintenance costs, and indirect costs of the conservation projects. Metropolitan remains obligated to pay IID for actual operation and maintenance costs for the remainder of this agreement through at least 2041. In return, Metropolitan will receive 85,000-105,000 acre-feet in 2019 and annually thereafter depending upon the amount used by the CVWD. A total of at least 85,000 and 105,000 acre-feet will be/was available in calendar years 2019 and 2018, respectively, for diversion by Metropolitan (see Note 4a).

**(d) Sale of Water by the Imperial Irrigation District to San Diego County Water Authority**

In April 1998, the San Diego County Water Authority (SDCWA) and IID executed an agreement (Transfer Agreement) for SDCWA's purchase from IID of Colorado River water that is conserved within IID. SDCWA is a Metropolitan member agency and one of the largest water purchasers from Metropolitan. In October 2003 the Transfer Agreement was revised as part of the Quantification Settlement Agreement (see Note 9e). The amended Transfer Agreement sets the maximum transfer amount at 205,000 acre-feet in 2021, with the transfer gradually ramping up to that amount over an approximately twenty-year period, stabilizing at 200,000 acre-feet per year beginning in 2023.

No facilities exist to provide for delivery of water from IID to SDCWA. In 1998, Metropolitan and SDCWA entered into an agreement for the exchange of the IID water to be acquired by SDCWA under the Transfer Agreement, with water to be delivered by Metropolitan. In 2003, the boards of directors of Metropolitan and SDCWA agreed to an

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

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increase in the price that SDCWA would pay to Metropolitan for this exchange of water, in return for Metropolitan's assignment to SDCWA of Metropolitan's rights to water conserved as a result of the lining of the All-American and Coachella Canals and \$235 million, as set forth in an amended exchange agreement (Exchange Agreement) and an Allocation Agreement. Under the Exchange Agreement, 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 the conserved canal lining water allocated to SDCWA. In exchange, Metropolitan delivers an equal volume of water from its own sources of supply through its delivery system to SDCWA. The deliveries to both Metropolitan and SDCWA are deemed to be made in equal monthly increments. SDCWA pays Metropolitan a volumetric price for each delivery 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 Note 1c). SDCWA has challenged the validity of Metropolitan's charges for conveyance of water that became effective January 1, 2011 and January 1, 2012, in *San Diego County Water Authority v. Metropolitan Water District of Southern California; et al.* On June 8, 2012, SDCWA filed a separate lawsuit challenging the rates adopted by Metropolitan's Board on April 10, 2012 and effective on January 1, 2013 and January 1, 2014. On May 30, 2014, SDCWA filed a separate lawsuit challenging the rates adopted by Metropolitan's Board on April 8, 2014 and effective on January 1, 2015 and January 1, 2016. On April 13, 2016, SDCWA filed a separate lawsuit challenging the rates and charges adopted by Metropolitan's Board on April 12, 2016 and effective on January 1, 2017 and January 1, 2018. On June 8, 2018, SDCWA filed a separate lawsuit challenging the rates and charges adopted by Metropolitan's Board on April 10, 2018 and effective on January 1, 2019 and January 1, 2020. The Exchange Agreement requires Metropolitan to pay the disputed portion of the amount paid by SDCWA under the Exchange Agreement and interest thereon to SDCWA, if SDCWA prevails in a dispute over the price payable by SDCWA under the Exchange Agreement. See Claims and Litigation, Note 9h.

**(e) Quantification Settlement Agreement**

The Quantification Settlement Agreement (QSA) is part of the California Plan, which is a plan to reduce California's use of Colorado River water to its basic apportionment of 4.4 million acre-feet per year when necessary through water conservation, transfers from higher priority agricultural users to Metropolitan's service area, and storage programs. The QSA was executed in October 2003 and establishes Colorado River water use limits for IID and the CVWD. It also provides for specific acquisitions of conserved water and water supply arrangements for up to 75 years and restores the opportunity for Metropolitan to receive any special surplus water.

**(f) Abandoned Off-Aqueduct Power Facilities**

DWR financed the construction of certain off-aqueduct power facilities in order to provide power for water transportation purposes for the State Water Project system. Two geothermal facilities were abandoned by DWR due to insufficient steam supply to operate the plants at their planned capacities. As a result of these actions by DWR, Metropolitan recorded losses of \$204.1 million in prior fiscal years. Metropolitan's estimated remaining long-term contractual obligations as of June 30, 2017, was \$9.6 million which was based on the State's latest estimates, including average interest of 5.2 percent through the year 2027. However, the State relieved Metropolitan of its obligation during the year ended June 30, 2018.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

**(g) Construction Programs and Contracts**

The estimated cost, excluding contingencies, of Metropolitan's capital program for fiscal years 2020 through 2024 totals approximately \$1.46 billion. However, due to various uncertainties such as lower than anticipated construction bids, permitting delays, and facility shutdowns constraints, capital spending is budgeted at \$250 million per year for the fiscal years 2020 through 2024.

Over the next three years, Capital Investment Plan spending totals approximately \$845 million with over \$650 million targeted for major efforts such as mechanical and electrical refurbishments to major components of the Colorado River Aqueduct and Metropolitan's water treatment plants, refurbishment/replacement of pressure control facilities throughout the distribution system, replacement of reservoir floating covers and liners and seismic upgrades to appurtenant components, rehabilitation through relining of the Prestressed Concrete Cylinder Pipe portions of the Allen McColloch and Rialto Pipelines, and Calabasas, Second Lower, and Sepulveda feeders, replacement/upgrade to the Supervisory Control and Data Acquisition (SCADA) system, and the Los Angeles headquarters building seismic and security upgrades.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

Metropolitan had commitments under construction contracts in force as follows:

(Dollars in thousands)	June 30,	
	2019	2018
Second Lower Feeder PCCP rehabilitation - reach 2	\$ 52,273	\$ —
MWD headquarters building improvements	36,470	—
Diemer west basin and filter building rehabilitation	27,607	—
Colorado River Aqueduct pumping plants sump rehabilitation	26,497	—
Greg Avenue pressure control structure - pump modifications and new control building	18,360	—
Colorado River Aqueduct pumping plants 69kV power cables replacement	16,289	—
Jensen water treatment plant - modules 2 and 3 flocculator rehabilitation	8,888	—
Weymouth chlorination system upgrades	7,614	—
Orange County region service center	4,872	8,726
Orange County feeder and extension relining - reach 2	3,512	—
Refurbish filter valve actuators for Diemer water treatment plant	3,222	—
Second Lower Feeder PCCP rehabilitation - reach 4	2,673	—
Weymouth domestic water systems improvement	2,666	3,740
Electrical upgrades at 15 structures in the Orange County region	2,456	—
Furnishing one double column vertical machining center for La Verne shops	1,964	—
Intake pumping plant 2.4kV power line relocation	1,574	5,554
Furnishing lubricated plug valves for Second Lower Feeder	1,499	2,247
Furnishing horizontal axially split centrifugal pumps for the Greg Avenue pump station	1,314	1,419
Palos Verdes reservoir cover and liner replacement	1,200	4,021
Mills electrical upgrades - stage 1A	782	2,308
Furnishing butterfly valves for Weymouth water treatment plant	772	—
Colorado River Aqueduct uninterruptible power supply replacement	708	920
Garvey reservoir drainage and erosion improvements - areas 2, 3, and 4	649	—
Jensen inlet water quality instrumentation enclosure	437	949
Eagle Mountain pumping plant reservoir spillway radial gate replacement	182	986
Advanced water treatment demonstration facility	86	6,774
Colorado River Aqueduct surge chambers discharge line bypass covers	71	2,471
Furnishing steel pipe for Second Lower Feeder PCCP rehabilitation - reaches 2 and 4	—	12,069
Furnishing valve actuators for Diemer water treatment plant	—	5,413
Furnishing butterfly valves for Weymouth water treatment plant	—	4,866
Diemer filter outlet conduit seismic upgrade	—	3,998
Weymouth west washwater tank seismic upgrades	—	2,428
Colorado River Aqueduct pumping plants seismic retrofit 6.9 kV switch houses	—	853
Second Lower Feeder PCCP Rehabilitation - reach 1	—	497
Jensen solar power facility	—	145
Diemer administration building seismic upgrades	—	118
Weymouth chemical upgrades	—	88
Other	1,234	4,352
<b>Total</b>	<b>\$ 225,871</b>	<b>\$ 74,942</b>

*These commitments are being financed with operating revenues and debt financing.*



**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

**(h) Claims and Litigation**

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 affect charges for transportation of water, resulting 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.

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.

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 were for breach of the water Exchange Agreement between Metropolitan and SDCWA (see note 9d) due to a price 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; and illegality of the rate structure integrity provision in conservation and local resources incentive agreements between Metropolitan and SDCWA. The rate structure integrity provision permitted 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 contained 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. The complaint contained 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.

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. 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 did not affect SDCWA's separate challenge to Metropolitan's rates adopted in April 2012, which also includes Proposition 26 allegations.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

Following trial of both lawsuits in two phases, concluding on January 23, 2014 and April 30, 2015, respectively, the Superior Court of the State of California, County of San Francisco (the “Superior Court”), issued its Final Judgment and a Peremptory Writ of Mandate in the 2010 and 2012 SDCWA v. Metropolitan cases. Metropolitan appealed the trial court’s decision in each case, and SDCWA filed a cross-appeal of the court’s ruling on the rate structure integrity claim and an attorneys’ fees order.

On June 21, 2017, the California Court of Appeal released its decision in the appeals and cross-appeal filed by Metropolitan and SDCWA, respectively. The Court of Appeal ruled that Metropolitan may lawfully include its State Water Project transportation costs in the System Access Rate and System Power Rate that are part of the Exchange Agreement’s price term, and that Metropolitan may also lawfully include the System Access Rate in its wheeling rate, reversing the trial court decision on this issue. The Court held Metropolitan’s allocation of the State Water Project transportation costs as its own transportation costs is proper and does not violate the wheeling statutes (Water Code, § 1810, et seq.), Proposition 26 (Cal. Const., Article XIII C, §1, subd.(e)), California Government Code section 54999.7, the common law, or the terms of the parties’ Exchange Agreement.

The Court of Appeal also ruled that the administrative record before it for the rates in calendar years 2011 through 2014 did not support Metropolitan’s inclusion of its Water Stewardship Rate as a transportation cost in the Exchange Agreement price or the wheeling rate, under the common law and wheeling statutes. Having made that determination, the Court of Appeal stated it need not evaluate the issue under any other law. The court did not address the allocation of the Water Stewardship Rate in subsequent years based on a different record. The court noted, and in a subsequent modification confirmed, that its holding does not preclude Metropolitan from including the Water Stewardship Rate in Metropolitan’s full service rate.

The Court of Appeal held that because the Water Stewardship Rate was included in the Exchange Agreement price, there was a breach by Metropolitan of the Exchange Agreement in 2011 through 2014. The court remanded the case to the trial court for a redetermination of damages in light of its ruling concerning the Water Stewardship Rate. The Court of Appeal agreed with the trial court that statutory prejudgment interest applies with respect to any damages award, not a lesser contractual interest. The Court of Appeal reversed the trial court by finding that the Exchange Agreement may entitle SDCWA to attorneys’ fees for the second phase of the case concerning breach of contract; but directed the trial court on remand to make a new determination of the prevailing party, if any. The cases were therefore remanded to the trial court for a review of both damages and attorneys’ fees.

With respect to other issues considered on appeal, the Court of Appeal upheld the trial court’s ruling that Metropolitan improperly excludes SDCWA’s payments under the Exchange Agreement in Metropolitan’s calculation of SDCWA’s preferential rights. The court also ruled that SDCWA had the constitutional right to challenge the rate structure integrity provision in Metropolitan’s conservation and local resources incentive agreements, and found that the rate structure integrity provision was invalid and unenforceable as an unconstitutional condition on the provision of a public benefit.

On September 27, 2017, the California Supreme Court denied SDCWA’s petition for review, declining to consider the Court of Appeal’s decision. The Court of Appeal’s decision is therefore final.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

On July 25, 2018, the Superior Court issued an order regarding the scope of the matters to be reconsidered by the Superior Court on remand pursuant to the Court of Appeal decision. With respect to the Superior Court's re-determination of damages in light of the Court of Appeal's ruling that the administrative record for calendar years 2011 through 2014 did not support Metropolitan's inclusion of its demand management costs in the Exchange Agreement price, the Superior Court ruled that it will award SDCWA \$28,678,190.90 in contract damages for breach of the Exchange Agreement, plus prejudgment interest at 10 percent per annum. The Superior Court determined that Metropolitan is not entitled in the remand proceedings to show what it could have lawfully charged SDCWA for demand management costs and to deduct that from SDCWA's damages.

The Superior Court further ruled that SDCWA is not entitled in the remand proceedings to litigate the issue of "offsetting benefits" under the wheeling statutes for the parties' Exchange Agreement. The Superior Court found that such claim is both outside the scope of remand and waived.

The Superior Court also ruled that SDCWA is entitled to judgment on its declaratory relief cause of action declaring the rate structure integrity provision in Metropolitan's conservation and local resources incentive agreements invalid and unenforceable, SDCWA is entitled to further proceedings to litigate the issue of an entitlement to monetary restitution for 2011 through 2014, and the parties shall also litigate in further proceedings the issue of what prospective relief SDCWA may be entitled to in connection with this cause of action. Finally, the Superior Court confirmed, as the parties agreed, that it will conduct further proceedings for a redetermination of the prevailing party and attorneys' fees in this matter.

On September 14, 2018, Metropolitan filed a Petition for Writ of Mandate with the California Court of Appeal, requesting the court to require the Superior Court to recalculate contract damages for breach of the Exchange Agreement from years 2011 through 2014, to include a set-off for the additional sums SDCWA would have paid had Metropolitan collected the Water Stewardship Rate through its full service sales as SDCWA argued was correct. On November 1, 2018, the Court of Appeal determined that it would not review the issue at this stage of the cases. Metropolitan may raise this issue again on any later appeal from the cases' final judgment.

Due to SDCWA's litigation challenging Metropolitan's rates, and pursuant to the Exchange Agreement between Metropolitan and SDCWA, as of June 30, 2019, Metropolitan held \$56.5 million in a designated fund, the Exchange Agreement Set-Aside Fund. This amount includes the disputed Water Stewardship Rate payments for calendar years 2011 through the present, and interest earned by Metropolitan thereon. The amount held does not include statutory prejudgment interest or any post-judgment interest, attorneys' fees, or costs the Court may award. The Exchange Agreement Set-Aside Fund also does not include any amounts applicable to the rate structure integrity provision declaratory relief cause of action, because that claim does not involve disputed payments under the Exchange Agreement.

On February 14, 2019, Metropolitan tendered to SDCWA payment of \$44.4 million for the San Francisco Superior Court's contract damages award for Water Stewardship Rate payments from 2011 through 2014, plus statutory interest through February 15, 2019, with a reservation of appeal rights, in the San Diego County Water Authority v. Metropolitan Water District of Southern California, et al., 2010 and 2012 actions. This tender was made under compulsion to cease accrual of statutory interest in excess of market rates, but did not affect Metropolitan's rights to

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

appeal, including its right to challenge the amount of the damages award. The tendered payment included \$31.6 million of amounts withdrawn from the Exchange Agreement Set-Aside Fund and \$12.8 million withdrawn from reserves (representing statutory interest). On March 7, 2019, SDCWA rejected the tendered payment and returned the uncashed check for the tendered payment. The returned funds were credited back to the Exchange Agreement Set-Aside Fund and Metropolitan reserves in the amounts drawn. The balance in the Exchange Agreement Set-Aside Fund set forth above includes the returned funds.

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. 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. Following a stipulated order issued by the court on November 10, 2016, SDCWA filed a First Amended Petition for Writ of Mandate and Complaint and the court ordered the case stayed pending final resolution of the 2010 and 2012 SDCWA v. Metropolitan cases' appeals. The amended petition/complaint adds allegations of the same Exchange Agreement breach as in the previous cases listed above and breach of a provision that requires Metropolitan to set aside disputed amounts, relating to the manner in which Metropolitan has set aside the amounts; 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 the services provided or, alternatively, a reduction in SDCWA's future fees. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On June 9, 2017, SDCWA filed a new Petition for Writ of Mandate and Complaint challenging the Readiness-to-Serve Charge and Capacity Charge for 2018 adopted by Metropolitan's Board on April 11, 2017. These two charges are set annually, and SDCWA's 2016 lawsuit included a challenge to these two charges for 2017. The new lawsuit similarly alleges the 2018 Readiness-to-Serve Charge and Capacity Charge violate the California Constitution, statutes, and common law. The petition/complaint asserts misallocation of costs. Metropolitan was served with the petition/complaint on June 20, 2017. On July 18, 2017, SDCWA filed a first amended petition/complaint to add Metropolitan's Board action of July 11, 2017 to make minor corrections to the Readiness-to-Serve Charge. On July 31, 2018, pursuant to stipulation by the parties, the San Francisco Superior Court ordered that the case be stayed. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On June 8, 2018, SDCWA filed a new lawsuit that alleges all rates and charges for 2019 and 2020 adopted by Metropolitan's Board on April 10, 2018 violate the California Constitution, statutes, and common law. The Petition for Writ of Mandate and Complaint asserts the Water Stewardship Rate is unlawful per se and its collection in transportation charges is also unlawful; failure to provide wheelers a reasonable credit for "offsetting benefits"

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

pursuant to Water Code Section 1810, et seq., which SDCWA contends (and Metropolitan disputes) applies to the parties' Exchange Agreement; over-collection and misallocation of costs, including misallocation of Metropolitan's California WaterFix costs as its transportation costs; and specified procedural violations. SDCWA states in the Petition and Complaint that it intends to amend its complaint to allege additional claims against Metropolitan, including but not limited to a claim for breach of contract. Following a stipulated order issued by the San Francisco Superior Court on January 10, 2019, SDCWA filed a First Amended Petition for Writ of Mandate and Complaint and the court ordered the case stayed pending final resolution of the 2010 and 2012 SDCWA v. Metropolitan cases. The amended petition/complaint adds a cause of action for breach of the Exchange Agreement alleging Metropolitan charged an unlawful price that includes the Water Stewardship Rate (despite suspension of this charge), failing to provide credit for offsetting benefits, charging transportation rates that are not based on costs of service, including California WaterFix costs, and not following procedural requirements; and requests a refund to SDCWA of any amount Metropolitan has collected in excess of the reasonable costs of the services provided or, alternatively, a reduction in SDCWA's future fees. This 2018 lawsuit has not yet been assigned to a department in the San Francisco Superior Court. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

**(i) Drinking Water Quality Standards**

Under the Safe Drinking Water Act Amendments of 1996, Congress required the United States Environmental Protection Agency to set new drinking water quality standards. New standards to control microbial pathogens and disinfection byproducts (DBPs) became effective in 2002. These rules are known as the Interim Enhanced Surface Water Treatment Rule and the Stage 1 Disinfectants/Disinfection By-Product Rule. These standards became more stringent in a second set of regulations effective 2006. The second set of regulations (the Stage 2 Disinfectants/Disinfection Byproducts Rule and the Long-Term 2 Enhanced Surface Water Treatment Rule) did not require additional capital investment by Metropolitan.

Metropolitan identified ozone disinfection as the most cost-effective option to minimize the production of DBPs and achieve other water quality objectives. Ozone is now used as the primary disinfectant at the Diemer, Jensen, Mills, and Skinner plants. Construction of ozonation facilities at the Weymouth plant was completed in October 2017. The estimated cost of implementing ozone treatment at all five plants is approximately \$1.1 billion.

**(j) Reid Gardner Generating Station**

Reid Gardner Generating Station (Plant) is a 557 megawatt coal-fired plant located near Moapa, Nevada. The Plant is owned and operated by Nevada Energy (NE). In 1983, DWR entered in to a Participation Agreement to import power from the Plant to serve the State Water Project energy needs. DWR's interest in the Plant terminated on July 25, 2013. DWR and NE negotiated the terms of the divestiture including DWR's obligations to mitigate any environmental impacts associated with the electricity generated for DWR over the past thirty years. Metropolitan paid approximately 75.0 percent of DWR's costs associated with the generation of electricity at the Plant and will pay this proportion of DWR's assigned mitigation costs.

**(k) Landfill Obligation**

Federal and State laws and regulations require that Metropolitan perform certain maintenance and monitoring functions at its sole landfill site for 30 years after closure. They further require that a separate funding mechanism be

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

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established to ensure that sufficient funds are available for closure and postclosure costs. In October 1995, the landfill was closed and management's estimate of closure and postclosure costs for this site totaled approximately \$2.0 million. The required thirty-year postclosure maintenance and monitoring of the landfill officially started in January 1998; after the installation of the landfill's final cover was completed. Approximately \$5,000 and \$6,000 were expended during fiscal year 2019 and 2018, respectively, for post closure maintenance and monitoring activities.

The actual cost of postclosure care may be higher due to inflation, changes in technology, or changes in landfill laws or regulations. Funding of these costs has been derived from a separate trust account that has been established for closure and postclosure costs. The balance of the trust account is sufficient to cover the landfill liability. At June 30, 2019 and 2018, approximately \$800,000 net of interest receipts and disbursements was available in this account.

**10. PARTICIPATION RIGHTS IN STATE WATER PROJECT**

Metropolitan is one of 29 water suppliers contracting with the State of California for a system to provide water throughout much of California. Under the terms of the State Water Contract, as amended, Metropolitan is obligated to pay allocable portions of the cost of construction of the system and ongoing operations and maintenance costs through at least the year 2035, regardless of the quantities of water available from the project (see Note 9a). Metropolitan and the other contractors may also be responsible to the State for certain obligations of any contractor who defaults on its payments to the State.

Approximately 32 percent and 34 percent of Metropolitan's total expenditures during fiscal years ended June 30, 2019 and 2018, respectively, pertained to its net payment obligations for the State Water Project. These payments were primarily based on the contractual water delivery request, the annually requested and actual deliveries received, and the cost of power required for such deliveries, offset by credits received from the project.

The State Water Contract provides Metropolitan rights to water through 2052 but Management's present intention is to exercise Metropolitan's option to extend the contractual period to at least 2085, under similar terms, based on the Agreement in Principle reached in 2014. This corresponds to an estimated 125-year service life for the original facilities. The State is obligated to provide specified quantities of water throughout the life of the contract, subject to certain conditions.

The State has power generation facilities associated with its reservoirs and aqueducts. The power generated is utilized by the system for water transportation purposes. Power generated in excess of system needs is marketed to various utilities and California's power market. The revenues resulting from sales of excess power reduce the costs of pumping. Metropolitan and the other water contractors are responsible for repaying the capital and operating costs of the power facilities regardless of the amount of power generated (see Note 9f).

Metropolitan capitalizes its share of system construction costs as participation rights when such costs are billed by the State (see Notes 1h, 2, and 9a). Metropolitan's share of system operations and maintenance costs is charged to expense.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

Metropolitan amortizes a portion of capitalized participation rights each month using a formula that considers the total estimated cost of the project, the estimated useful life, and estimated production capacity of the assets based upon information provided by the State of California. In fiscal year 2006, the formula was modified to use maximum annual contracted deliveries as the production capacity estimate as previous estimates of total production were less reliable than expected. Amortization expense totaled \$141.7 million and \$131.1 million in fiscal years 2019 and 2018, respectively.

**II. DEPOSITS, PREPAID COSTS, AND OTHER**

Balances at June 30, 2019 and 2018 were as follows:

(Dollars in thousands)	June 30,	
	2019	2018
Prepaid water costs	\$ 196,488	\$ 173,736
Prepaid costs-Delta Habitat conservation and conveyance	58,627	58,627
Prepaid costs-California WaterFix	41,500	—
Prepaid expenses	10,365	9,486
Preliminary design/reimbursable projects	13,116	13,413
Other	11,188	13,452
Total deposits, prepaid costs, and other	331,284	268,714
Less current portion	(2,040)	(1,611)
Noncurrent portion	\$ 329,244	\$ 267,103

**(a) Prepaid Water Costs**

Metropolitan has entered into several water exchange and storage agreements with other agencies. These agreements provide Metropolitan with additional reliable water supplies to supplement deliveries of Colorado River and State Water Project water. Metropolitan is also actively pursuing other agreements, both within and outside its service area, to provide additional water supplies. The exchange and storage agreements generally provide for advance delivery of water during periods when water is available. At a later time when water is needed, these programs can then return water to improve Metropolitan's reliability. Expenditures associated with these agreements have been recorded as prepaid costs and are charged to cost of water as the water is withdrawn. At June 30, 2019 and 2018, prepaid water costs totaled approximately \$196.5 million and \$173.7 million, respectively, based on volumes of 963,000 acre-feet and 856,000 acre-feet, as of such dates.

**(b) Prepaid Costs—Delta Habitat Conservation and Conveyance**

In March 2009, Metropolitan, other State Water Project contractors, federal Central Valley Project contractors, and the U.S. Department of Interior's Bureau of Reclamation entered into funding agreements with DWR. The agreements are known collectively as the Delta Habitat Conservation and Conveyance Program (DHCCP) Funding Agreement and the Bay Delta Conservation Plan and Delta Habitat Conservation and Conveyance Plan (BDCP - DHCCP) Supplemental Funding Agreement. Metropolitan's three-year DHCCP agreement provides funding of approximately \$35.0 million for Metropolitan's share (24 percent). Metropolitan's two-year BDCP-DHCCP agreement provides funding of approximately \$25.0 million (25 percent). The funding provided by both agreements supports development of the BDCP which was later on adapted as California WaterFix (see Note 9b) through

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

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environmental analysis, planning and design of Delta conservation measures including Delta water conveyance options. Total prepaid costs at June 30, 2019 and 2018 were \$58.6 million.

**(c) Prepaid Costs—California WaterFix**

As of June 30, 2019, Metropolitan disbursed a total of \$41.5 million to DWR for preconstruction planning costs of the California WaterFix in accordance with the advance funding agreement entered into in August 2018. The \$41.5 million was Metropolitan's share (31 percent) of the funding and DWR intends to refund Metropolitan for funds advanced through this agreement through bond financing actions. However, as a result of the shift to a single tunnel project and DWR's withdrawal of approval of the California WaterFix Project as well as the rescission of other permitting applications (see Note 9b), Metropolitan has requested, on June 27, 2019, that DWR return its contributions that have not been spent as of May 2, 2019. DWR responded that all unspent funds will be remitted after a full accounting has been completed.

**(d) Preliminary Design/Reimbursable Projects**

Metropolitan engages in preliminary design activities prior to obtaining Board approval of capital projects. The costs of these designs are recorded as prepaid costs. Once Board approval is obtained, these costs are added to the cost of the relevant construction project.

Reimbursable projects include work Metropolitan is contracted to perform for outside, non-related parties, and is subsequently billed for reimbursement.

**12. DEFERRED COMPENSATION AND SAVINGS PLANS**

For the benefit of its employees, Metropolitan has adopted a deferred compensation plan in accordance with Section 457 of the Internal Revenue Code. Generally, eligible employees may defer receipt of a portion of their salary until termination, retirement, death, or unforeseeable emergency. Until the funds are paid or otherwise made available to the employee, the employee is not obligated to report the deferred salary for income tax purposes.

Investment of the funds is managed by a third-party administrator, accordingly, at June 30, 2019 and 2018, neither the plan assets nor the related liability were included in the accompanying basic financial statements.

The third-party administrator coordinates the investment of the deferred amounts in available investment vehicles per the instructions of each participant. Metropolitan's Treasurer serves as Trustee for the deferred compensation plan. Metropolitan is not liable to its employees for any losses that may be incurred in connection with their participation in this plan.

Metropolitan has established another compensation deferral arrangement in accordance with Section 401(k) of the Internal Revenue Code. The 401(k) Consolidated Savings Plan is available to substantially all employees. At June 30, 2019 and 2018, 1,584 and 1,626 employees, respectively, participated in the consolidated 401(k) plan. Amounts deferred by participants, Metropolitan matching contributions, and accumulated earnings thereon are fully vested. Deferred amounts and matching contributions are transferred by Metropolitan each pay period to a third-party administrator who coordinates the investment of such proceeds in a variety of investment vehicles in



**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

June 30, 2019 and 2018

accordance with the instructions of each participant. The Treasurer serves as Trustee for the savings plan. Metropolitan is not liable to its employees for any losses that may be incurred in connection with their participation in this plan.

Metropolitan has established a matching contribution program on behalf of each participating employee in the savings plan. Metropolitan's contribution is subject to a maximum of 4.5 percent of the employee's total cash compensation.

Contributions to the savings plan were as follows:

(Dollars in thousands)	June 30,	
	2019	2018
Employees	\$ 21,180	\$ 20,543
Metropolitan	9,135	8,803
	<u>\$ 30,315</u>	<u>\$ 29,346</u>
Eligible payroll	\$ 234,018	\$ 222,089
Employee contributions as percent of eligible payroll	9.1 %	9.2 %

**13. NET POSITION**

Net position is classified as either restricted, unrestricted, or net investment in capital assets, including State Water Project Costs.

Net investment in capital assets, including State Water Project costs consist of capital assets, net of accumulated depreciation and amortization, and reduced by the outstanding balances of any bonds, notes, or other borrowings attributable to the acquisition or construction of those assets and deferred outflows and inflows of resources related to debt. Metropolitan's capital assets, including State Water Project costs include plant and equipment (Notes 1g and 2), participation rights in State Water Project (Notes 1h, 2, and 10), and participation rights in other facilities (Notes 2 and 4). Net investment in capital assets, including State Water Project costs were approximately \$6.1 billion and \$6.0 billion at June 30, 2019 and 2018, respectively.

The restricted component of net position are those items that have external constraints placed on them by creditors, grantors, contributors, or laws or regulations of other governments, or imposed by law through constitutional provisions of enabling legislation. Restricted net position totaled \$418.6 million and \$407.6 million at June 30, 2019 and 2018, respectively, of which \$180.7 million and \$201.4 million, respectively, represents principal and interest set aside for the next bond payment. The remaining \$237.9 million and \$206.2 million, respectively, relates to estimated operating and maintenance expense for July and August of the subsequent fiscal year. Each of these requirements is related to bond covenants.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

The unrestricted component of net position are those items that do not meet the definition of “restricted” or “net investment in capital assets, including State Water Project costs.” Unlike the restricted net position, the Board has discretion in determining the use and establishing minimum/maximum balance requirements for the unrestricted cash and investment portion of net position. The Board may at any time change or eliminate amounts established for these purposes. Unrestricted net position totaled \$286.0 million and \$310.1 million at June 30, 2019 and 2018, respectively.

**14. RISK MANAGEMENT**

Metropolitan is exposed to various risks of loss related to the design, construction, treatment, and delivery of water resources. Metropolitan self-insures most of its property losses, the first \$25.0 million for general liability, fiduciary liability and directors’ and officers’ liability, and \$5.0 million for workers’ compensation. Metropolitan supplements its self-insurance program with \$75.0 million excess general liability coverage, \$60.0 million excess fiduciary liability coverage, \$65.0 million excess for directors’ and officers’ liability coverage, and statutory limits excess workers’ compensation coverage. Special insurance policies carried include aircraft hull and liability, a limited property damage policy, crime insurance, specialty crime coverage, and travel accident coverage. Coverage types and limits for fiscal year 2019 were unchanged from fiscal year 2018. Settlement amounts did not exceed the self-insurance or insurance coverage limits in any of the past three years.

Liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated. Liabilities include an estimated amount for claims that have been incurred but not reported (IBNR). Claims liabilities are calculated considering the effects of inflation, recent claim settlement trends including frequency and amount of payouts, and other economic and social factors. The present value of liabilities for unpaid claims is based on a 1.5 percent annual interest rate over the life of the claims. Changes in the balances of claims liabilities during the past three fiscal years were included in accounts payable as follows:

(Dollars in Thousands)	June 30,		
	2019	2018	2017
Unpaid claims, beginning of fiscal year	\$ 13,579	\$ 15,677	\$ 20,047
Incurred claims (including IBNR)	5,835	6,140	4,514
Claim payments and adjustments	(6,456)	(8,238)	(8,884)
Unpaid claims, end of fiscal year	12,958	13,579	15,677
Less current portion	(3,284)	(4,083)	(5,109)
Noncurrent portion	\$ 9,674	\$ 9,496	\$ 10,568

**15. SUBSEQUENT EVENT**

On August 1, 2019, Metropolitan entered into an Amended and Restated Note Purchase and Continuing Covenant Agreement with BANA (2019 BANA Amended and Restated Agreement), for the purchase by BANA and sale by Metropolitan of \$46.8 million of Metropolitan’s Short-Term Revenue Refunding Certificates, 2019 Series A-1 (the Series 2019 A-1 Notes). This Agreement amends and restates that certain Note Purchase and Continuing Covenant Agreement dated as of August 1, 2018 (the “Original Agreement”), between the Bank and Metropolitan. The Series 2019 A-1 Notes are being issued by Metropolitan and purchased by the Bank hereunder in order to refund the Series 2018 Notes issued pursuant to the Original Agreement. The Series 2019 A-1 Notes will bear interest at a

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

June 30, 2019 and 2018

variable rate of interest, at a spread of 32 basis points to one-month LIBOR. Under the 2019 BANA Amended and Restated 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 2019 BANA Amended and Restated Agreement as a Subordinate Lien Parity Obligation. The Series 2019 A-1 Notes have a Note Maturity date of August 1, 2021. As of August 1, 2019, \$46.8 million of Series 2019 A-1 Notes were outstanding.

On August 8, 2019 Metropolitan entered into a Note Purchase and Continuing Covenant Agreement dated as of August 1, 2019, with BANA (2019 BANA Agreement) for the purchase by the Bank and sale by Metropolitan of the Series 2019 Notes and the refunding and exchange of maturing Series 2019 Notes with the Refunding Notes, up to an amount not to exceed \$39.2 million. The Series 2019 Notes will bear interest at a variable rate of interest, at a spread to one-month LIBOR. Under the 2019 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 2019 BANA Agreement as a Subordinate Lien Parity Obligation. The 2019 BANA Agreement has a Commitment Expiration Date of July 30, 2021, unless extended as provided therein.

On August 29, 2019, as a result of changes in reorganization of assignments at the San Francisco Superior Court, the 2010, 2012, 2016, and 2017 *SDCWA v. Metropolitan* cases were reassigned to a different department of the Court. SDCWA filed a motion for peremptory disqualification of the new judge and on September 6, 2019, the motion was sustained. On September 27, 2019, the 2010, 2012, 2016, and 2017 cases were assigned to Department 304, a different complex division in which the 2014 case is already pending.

On October 1, 2019, Metropolitan issued \$100.0 million of The Metropolitan Water District of Southern California Index Notes (Tax-Exempt and New Money), Subseries A-1 (the "Subseries A-1 Notes"), at a rate equal to the SIFMA Municipal Swap Index plus 33 basis points. The Subseries A-1 Notes were issued under Metropolitan's existing noteholder's agreement, executed on April 1, 2016, with RBC Municipal Products, LLC ("RBC"), as amended, under which Metropolitan may borrow, pay down and re-borrow up to \$200 million, through the issuance and sale from time to time of notes issued by Metropolitan and purchased by RBC. Proceeds of the Subseries A-1 Notes will be used to fund capital expenditures and reimburse prior capital expenditures. 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, RBC could terminate its commitment and declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest on the Subseries A-1 Notes as senior parity obligations. Any principal remaining outstanding at the April 5, 2022 commitment end date is required to be paid by Metropolitan in quarterly installments over a period of approximately one year.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**REQUIRED SUPPLEMENTARY INFORMATION—UNAUDITED**  
June 30, 2019 and 2018

(Dollars in thousands)	2019	2018	2017	2016	2015
<b>TOTAL PENSION LIABILITY</b>					
Service cost	\$ 33,583	\$ 33,685	\$ 29,142	\$ 28,890	\$ 28,505
Interest on total pension liability	161,023	156,661	152,500	146,852	139,190
Changes of assumptions	(15,391)	125,734	—	(35,008)	—
Difference between expected and actual experience	(10,039)	(15,804)	(12,754)	14,665	—
Benefit payments, including refunds of employee contributions	(107,646)	(100,092)	(92,401)	(86,154)	(81,391)
Net change in total pension liability	61,530	200,184	76,487	69,245	86,304
Total pension liability - beginning	2,315,248	2,115,064	2,038,577	1,969,332	1,883,028
<b>Total pension liability - ending (a)</b>	<b>\$ 2,376,778</b>	<b>\$ 2,315,248</b>	<b>\$ 2,115,064</b>	<b>\$ 2,038,577</b>	<b>\$ 1,969,332</b>
<b>PLAN FIDUCIARY NET POSITION</b>					
Contribution - Employer	\$ 48,780	\$ 42,819	\$ 38,393	\$ 34,306	\$ 33,853
Contribution - Employee	15,749	14,895	15,034	14,787	15,185
Net investment income <sup>1</sup>	139,003	171,562	8,304	35,301	236,746
Benefit payments, including refunds of employee contributions	(107,646)	(100,092)	(92,401)	(86,154)	(81,391)
Net plan to plan resource management	(4)	—	—	—	—
Administrative expense	(2,577)	(2,255)	(950)	(1,756)	—
Other miscellaneous expense <sup>3</sup>	(4,895)	—	—	—	—
Net change in fiduciary net position	88,410	126,929	(31,620)	(3,516)	204,393
Plan fiduciary net position - beginning <sup>4</sup>	1,654,331	1,527,402	1,559,022	1,562,538	1,358,145
<b>Plan fiduciary net position - ending (b)</b>	<b>\$ 1,742,741</b>	<b>\$ 1,654,331</b>	<b>\$ 1,527,402</b>	<b>\$ 1,559,022</b>	<b>\$ 1,562,538</b>
<b>Plan net pension liability - ending (a) - (b)</b>	<b>\$ 634,037</b>	<b>\$ 660,917</b>	<b>\$ 587,662</b>	<b>\$ 479,555</b>	<b>\$ 406,794</b>
Plan fiduciary net position as a percentage of the total pension liability	73.32 %	71.45 %	72.22 %	76.48 %	79.34 %
Covered payroll	\$ 204,635	\$ 199,186	\$ 195,878	\$ 190,423	\$ 186,850
Plan net pension liability as a percentage of covered payroll	309.84 %	331.81 %	300.01 %	251.84 %	217.71 %

<sup>1</sup> 2015 amount was net of administrative expenses of \$1,972.

<sup>2</sup> GASB 68 requires ten years of information be presented but only four years are available at this time. Additional years' information will be displayed as it becomes available.

<sup>3</sup> During Fiscal Year 2017-18, as a result GASB 75, CalPERS reported its proportionate share of activity related to post-employment benefits for participation in the State of California's agent OPEB plan. Accordingly, CalPERS recorded a one-time expense as a result of the adoption of GASB 75. Additionally, CalPERS employees participate in various State of California agent pension plans and during Fiscal Year 2017-18, CalPERS recorded a correction to previously reported financial statements to properly reflect its proportionate share of activity related to pensions in accordance with GASB 68.

<sup>4</sup> Includes any beginning of year adjustment.

See accompanying independent auditor's report

**Notes to Schedule:**

Benefit Changes: The figures above do not include any liability impact that may have resulted from plan changes which occurred after June 30, 2017 valuation date. This applies for voluntary benefit changes as well as any offers of Two Years Additional Service Credit.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

**REQUIRED SUPPLEMENTARY INFORMATION—UNAUDITED**

**(CONTINUED)**

June 30, 2019 and 2018

Changes of Assumptions: In 2018, demographic assumptions and inflation rate were changed in accordance with CalPERS experience Study and Review of Actuarial Assumptions December 2017. There were no changes in the discount rate. In 2017, the discount rate was reduced from 7.65 percent to 7.15 percent. In 2016, there were no changes. In 2015, amounts reported reflect an adjustment of the discount rate from 7.5 percent (net of administrative expense) to 7.65 percent (without a reduction for pension plan administrative expense). In 2014, amounts reported were based on the 7.5 percent discount rate.

(Dollars in thousands)	2019	2018	2017	2016	2015
Actuarially determined contribution	\$ 38,172	\$ 31,404	\$ 42,820	\$ 38,393	\$ 34,305
Contributions in relation to the actuarially determined contribution	(38,172)	(31,404)	(42,820)	(38,393)	(34,305)
Contribution deficiency (excess)	\$ —	\$ —	\$ —	\$ —	\$ —
Covered payroll	\$ 212,558	\$ 204,635	\$ 199,186	\$ 195,878	\$ 190,423
<b>Contributions as a percentage of covered payroll</b>	<b>17.96 %</b>	<b>15.35 %</b>	<b>21.5 %</b>	<b>19.6 %</b>	<b>18.02 %</b>

<sup>1</sup> GASB 68 requires ten years of information be presented but only four years are available at this time. Additional years' information will be displayed as it becomes available.

See accompanying independent auditor's report

**Notes to Schedule:**

Methods and assumptions used to set the actuarially determined contribution rates for fiscal year 2019:

Valuation date: June 30, 2016

Actuarial Cost Method	Entry age, level percentage of payroll
Amortization Method/Period	Level percentage of payroll over 20 year period
Asset Valuation Method	Investment gains/losses spread over 5 year rolling period with 20% market value corridor
Discount rate	7.375%
Inflation	2.75%
Mortality, disability, termination, retirement	CalPERS 1997-2011 Experience Study
Mortality improvement	Mortality projected fully generational with Scale BB

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**REQUIRED SUPPLEMENTARY INFORMATION—UNAUDITED**  
**(CONTINUED)**  
June 30, 2019 and 2018

(Dollars in thousands)	2019	2018
<b>TOTAL OPEB LIABILITY</b>		
Service cost	\$ 10,325	\$ 10,024
Interest on total OPEB liability	30,252	28,951
Benefit payments	<u>(20,487)</u>	<u>(19,525)</u>
Net change in total OPEB liability	20,090	19,450
Total OPEB liability - beginning	<u>448,095</u>	<u>428,645</u>
<b>Total OPEB liability - ending (a)</b>	<b><u>\$ 468,185</u></b>	<b><u>\$ 448,095</u></b>
<b>PLAN FIDUCIARY NET POSITION</b>		
Contribution - Employer	\$ 34,674	\$ 33,646
Net investment income	18,538	20,792
Benefit payment	<u>(20,487)</u>	<u>(19,525)</u>
Administrative expense	<u>(400)</u>	<u>(107)</u>
Net change in fiduciary net position	32,325	34,806
Plan fiduciary net position - beginning	<u>207,526</u>	<u>172,720</u>
<b>Plan fiduciary net position - ending (b)</b>	<b><u>\$ 239,851</u></b>	<b><u>\$ 207,526</u></b>
<b>Plan net OPEB liability - ending (a) - (b)</b>	<b><u>\$ 228,334</u></b>	<b><u>\$ 240,569</u></b>
Plan fiduciary net position as a percentage of the total OPEB liability	51.23 %	46.31 %
Covered payroll	\$ 204,635	\$ 199,186
Plan net OPEB liability as a percentage of covered payroll	<u>111.58 %</u>	<u>120.78 %</u>

<sup>1</sup> Historical information is required only for measurement periods for which GASB 75 is applicable. Future years' information will be displayed up to 10 years as information becomes available.

See accompanying independent auditor's report

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**REQUIRED SUPPLEMENTARY INFORMATION—UNAUDITED**  
**(CONTINUED)**  
June 30, 2019 and 2018

**Schedule of Plan Contributions**

(Dollars in thousands)	2019	2018
Actuarially determined contribution	\$ 27,328	\$ 30,086
Contributions in relation to the actuarially determined contribution	(32,067)	(34,674)
Contribution deficiency (excess)	<u>\$ (4,739)</u>	<u>\$ (4,588)</u>
Covered payroll	\$ 212,558	\$ 204,635
<b>Contributions as a percentage of covered payroll</b>	<b>15.09 %</b>	<b>16.94 %</b>

<sup>1</sup> Historical information is required only for measurement periods for which GASB 75 is applicable. Future years' information will be displayed up to 10 years as information becomes available.

See accompanying independent auditor's report

**Notes to Schedule:**

Methods and assumptions used to set the actuarially determined contribution rates for fiscal year 2019 were from the June 30, 2017 actuarial valuation:

Actuarial Cost Method	Entry age, level percentage of payroll
Amortization Method/Period	Level percentage of payroll over 23 year closed period (19 years remaining on 6/30/18).
Asset Valuation Method	Investment gains/losses spread over 5 year rolling period with corridor of 80% and 120% of market value
Discount rate	6.75%
Inflation	2.75%
Mortality, disability, termination, retirement	CalPERS 1997-2011 Experience Study
Medical trend	Pre-Medicare - 7.5% for 2019, decreasing to 4.0% for 2076 and later Medicare - 6.5% for 2019, decreasing to 4.0% for 2076 and later
Mortality improvement	Mortality projected fully generational with Scale MP-2017.

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**THE METROPOLITAN WATER DISTRICT OF  
SOUTHERN CALIFORNIA**

Basic Financial Statements

Three Months Ended September 30, 2019 and 2018

(Unaudited)

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UNAUDITED  
September 30, 2019 and 2018

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**MANAGEMENT'S DISCUSSION AND ANALYSIS**

September 30, 2019 and 2018

(Unaudited)

The following discussion and analysis of The Metropolitan Water District of Southern California's (Metropolitan) financial performance provides an overview of the financial activities for the three months ended September 30, 2019 and 2018. This discussion and analysis should be read in conjunction with the basic financial statements and accompanying notes, which follow this section.

**DESCRIPTION OF BASIC FINANCIAL STATEMENTS**

Metropolitan maintains its accounting records in accordance with generally accepted accounting principles for proprietary funds as prescribed by the Governmental Accounting Standards Board (GASB). The basic financial statements include statements of net position, statements of revenues, expenses and changes in net position, and statements of cash flows. The statements of net position include all of Metropolitan's assets, deferred outflows of resources, liabilities, and deferred inflows of resources, with the difference reported as net position, some of which is restricted in accordance with bond covenants or other commitments. The statements of revenues, expenses and changes in net position report all of Metropolitan's revenues and expenses during the periods indicated. The statements of cash flows show the amount of cash received and paid out for operating activities, as well as cash received from taxes and investment income, and cash used for construction projects, State Water Project costs and principal and interest payments on borrowed money. Certain amounts reported in fiscal year 2019 have been reclassified to conform to the fiscal year 2020 presentation. Such reclassification had no effect on the previously reported change in net position.

During the fiscal year ended June 30, 2018, Metropolitan implemented GASB Statement No.75 (GASB 75), *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, which addresses the accounting and financial reporting for postemployment benefits other than pensions (OPEB). As a result, Metropolitan restated net position as of July 1, 2017 in the amount of \$138.9 million to record the beginning deferred OPEB contributions and net OPEB liability.

**MANAGEMENT'S DISCUSSION AND ANALYSIS***(CONTINUED)*

September 30, 2019 and 2018

(Unaudited)

**CONDENSED FINANCIAL INFORMATION***Condensed Schedule of Net Position*

	September 30,		
	2019	2018	2017
<i>(Dollars in millions)</i>			
<b>Assets and deferred outflows of resources</b>			
Capital assets, net	\$ 10,470.9	\$ 10,463.5	\$ 10,593.8
Other assets	1,941.1	1,991.9	2,056.3
<b>Total assets</b>	<b>12,412.0</b>	12,455.4	12,650.1
Deferred outflows of resources	184.6	237.4	210.9
<b>Total assets and deferred outflows of resources</b>	<b>12,596.6</b>	12,692.8	12,861.0
<b>Liabilities and deferred inflows of resources</b>			
Long-term liabilities, net of current portion	4,688.2	5,099.9	4,975.8
Other liabilities	945.7	723.4	1,007.4
<b>Total liabilities</b>	<b>5,633.9</b>	5,823.3	5,983.2
Deferred inflows of resources	31.5	46.6	21.9
<b>Total liabilities and deferred inflows of resources</b>	<b>5,665.4</b>	5,869.9	6,005.1
<b>Net position</b>			
Net investment in capital assets, including State Water Project costs	6,335.0	6,137.2	6,175.3
Restricted	457.3	404.2	381.5
Unrestricted	138.9	281.5	299.1
<b>Total net position</b>	<b>\$ 6,931.2</b>	\$ 6,822.9	\$ 6,855.9

**Capital Assets, Net**

Net capital assets include plant, participation rights, and construction work in progress, net of accumulated depreciation and amortization.

*First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.* At September 30, 2019, net capital assets totaled \$10.5 billion, or 83.1 percent of total assets and deferred outflows of resources, and were \$7.4 million higher than the prior year. The increase included Metropolitan's continued expenditures on the capital investment plan of \$240.2 million (including \$2.0 million of capitalized interest) and a net increase of \$145.8 million in participation rights in State Water Project (SWP) and other facilities, offset by depreciation and amortization of \$308.7 million and \$69.9 million retirements of capital assets and write-off of construction in progress upon determination that no operating assets would result from the cost incurred. See the capital assets section on pages 14-15 for additional information.

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

(CONTINUED)

September 30, 2019 and 2018

(Unaudited)

***First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.*** At September 30, 2018, net capital assets totaled \$10.5 billion, or 82.4 percent of total assets and deferred outflows of resources, and were \$130.3 million lower than the prior year. This decrease included depreciation and amortization of \$257.7 million and \$135.0 million retirement of capital assets and write-off of construction in progress upon determination that no operating assets would result from the cost incurred. These decreases were offset by Metropolitan's continued expenditures on the capital investment plan of \$136.9 million (including \$4.2 million of capitalized interest) and net capital payments for participation rights in SWP and other facilities of \$125.5 million. See the capital assets section on pages 14-15 for additional information.

**Other Assets**

Other assets include accounts receivable, inventories, prepaid costs, and cash and investments.

***First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.*** At September 30, 2019, other assets totaled \$1.9 billion and were \$50.8 million lower than the prior year. Cash and investments were \$134.7 million lower primarily due to \$134.8 million principal payments on long term debt. This decrease was offset by \$65.8 million higher deposits, prepaid costs, and other primarily due to \$41.5 million of prepaid costs related to the California WaterFix advance funding agreement with the California Department of Water Resources and an \$11.4 million increase in Palos Verde Irrigation District (PVID) land fallowing cost. In addition, inventory was \$29.0 million higher due to an increase in water storage of 107.1 thousand acre feet (TAF).

***First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.*** At September 30, 2018, other assets totaled \$2.0 billion and were \$64.4 million lower than the prior year. Cash and investments were \$153.8 million lower primarily due to the \$250.0 million repayment of short-term revolving notes, offset by \$64.3 million proceed from the issuance of the Subordinate Water Revenue Bond 2018, Series B in June 2018. This decrease was partially offset by \$84.5 million higher deposits, prepaid costs, and other primarily due to \$37.8 million more of prepaid water costs, which included \$23.2 million or 175.4 TAF of higher supply storage and \$17.8 million more of PVID land fallowing costs. In addition, \$23.4 million of prepaid costs related to the California WaterFix advance funding agreement with DWR was recorded in September 2018. Another offset was \$16.1 million higher water revenues receivable, of which \$14.8 million related to higher prices and \$1.3 million or 1.6 TAF related to higher volumes sold.

**Deferred Outflows of Resources**

Deferred outflows of resources include deferred outflows related to loss on bond refundings and swap terminations, deferred outflows related to the net pension liability and net OPEB liability, and deferred outflows for effective interest rate swaps.

***First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.*** At September 30, 2019, deferred outflows totaled \$184.6 million and were \$52.8 million lower than the prior year. The decrease was primarily due to \$31.5 million lower deferred outflows related to pension, which included \$39.3 million lower deferred outflows due to changes of actuarial assumption and \$16.4 million lower deferred outflows related to the net difference between projected and actual earnings on pension plan investments, offset by \$25.1 million higher deferred outflows related to pension contributions subsequent to the measurement date. In addition, deferred loss on bond refundings was \$14.3 million lower due to \$8.7 million of refunding transactions and \$5.6 million of scheduled amortization and deferred outflows

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

(CONTINUED)

September 30, 2019 and 2018

(Unaudited)

related to loss on swap terminations was \$8.9 million lower due to \$6.2 million of refunding transactions and \$2.7 million of scheduled amortization.

***First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.*** At September 30, 2018, deferred outflows totaled \$237.4 million and were \$26.5 million higher than the prior year. The increase was primarily due to \$34.7 million deferred OPEB contributions due to the implementation of GASB 75. This increase was offset by \$9.3 million lower deferred loss on bond refundings due to \$6.3 million of scheduled amortization and \$3.0 million of refunding transactions.

**Long-term Liabilities, Net of Current Portion**

Long-term liabilities, net of current portion include long-term debt, revolving notes, customer deposits and trust funds, net pension liability, net OPEB liability, accrued compensated absences, workers' compensation and third party claims, fair value of interest rate swaps, and other long-term obligations.

***First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.*** At September 30, 2019, long-term liabilities, net of current portion totaled \$4.7 billion and were \$411.7 million lower than the prior year. The decrease in long-term debt, net of current portion of \$423.9 million included \$171.2 million of bond refundings, as the new debt issued was less than the amount of debt refunded, \$134.8 million principal payments and \$210.5 million more current portion of long-term debt as compared to prior year offset by \$92.5 million higher premiums and discounts. See other liabilities section below and long-term debt section of page 16 for additional information. In addition, net pension liability was \$26.9 million lower primarily due \$139.0 million of pension plan investment earnings and employer contributions to the pension plan of \$48.8 million offset by \$161.0 million interest on the total pension liability. Net OPEB liability was also \$13.0 million lower primarily due to \$34.7 million of employer contributions to the OPEB plan and \$18.5 million of OPEB plan investment earnings, offset by \$30.3 million of interest on the total OPEB liability and \$10.3 million of service costs. These decreases in long-term liabilities were offset by the \$46.8 million Bank of America, N.A. notes issued for the California WaterFix advance funding and \$20.2 million higher fair value of interest rate swaps due to lower interest rates as compared to prior year.

***First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.*** At September 30, 2018, long-term liabilities, net of current portion, totaled \$5.1 billion and were \$124.1 million higher than the prior year. The implementation of GASB 75 resulted in net OPEB liability that was \$158.7 million more than the obligation for OPEB recorded in fiscal year 2017. The increase also included \$73.3 million higher net pension liability due to \$156.7 million of interest on total pension liability plus \$125.7 million related to changes of assumptions from a 7.65 percent discount rate to 7.15 percent, offset by \$171.6 million of pension plan investment earnings and \$42.8 million of employer contributions. These increases were offset by \$89.9 million of lower long-term debt, net of current portion primarily due to \$152.2 million principal payments, a \$32.1 million decrease related to bond refundings, as the new debt issued was less than the amount of debt refunded, and \$8.6 million scheduled amortization of bond premiums and discounts, offset by \$64.3 million of new bonds issued and \$38.7 million less current portion of long-term debt as compared to prior year. See the other liabilities and long-term debt sections on pages 7 and 16, respectively.

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

(CONTINUED)

September 30, 2019 and 2018

(Unaudited)

**Other Liabilities**

Other liabilities represent current liabilities that are due within one year. Current liabilities include accounts payable, accrued liabilities, and the current portion of long-term liabilities.

*First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.* At September 30, 2019, other liabilities totaled \$945.7 million and were \$222.3 million higher than the prior year primarily due to \$210.5 million more current portion of long-term debt as the outstanding Water Revenue Bonds 2000 Series B-3 and 2017 Series A in the amount of \$88.8 million and \$80.0 million, respectively, are supported by a Standby Bond Purchase Agreement that expires in March 2020.

*First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.* At September 30, 2018, other liabilities totaled \$723.4 million, and were \$284.0 million lower than the prior year primarily due to \$250.0 million repayment of short-term revolving notes and \$38.7 million lower current portion of long-term debt as the required principal payments for some bond issues were lower than the prior year. In addition, the \$180.0 million revolving credit agreement (RCA) that expired in June 2018 was replaced by a \$200.0 million RCA increasing the self-liquidity bonds coverage by \$20.0 million.

**Deferred Inflows of Resources**

Deferred inflows of resources represent deferred inflows related to the net pension liability, net OPEB liability and deferred inflows for effective interest rate swaps.

*First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.* At September 30, 2019, deferred inflows of resources totaled \$31.5 million and were \$15.1 million lower than the prior year primarily due to a \$21.9 million decrease in effective swaps due to lower interest rates, offset by \$6.4 million higher deferred inflows related to pension which included \$8.4 million higher changes of assumptions and \$2.0 million lower difference between expected and actual experience.

*First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.* At September 30, 2018, deferred inflows of resources totaled \$46.6 million and were \$24.7 million higher than the prior year primarily due to a \$21.9 million increase in effective swaps due to higher interest rates.

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

(CONTINUED)

September 30, 2019 and 2018

(Unaudited)

**Net Position**

The difference between Metropolitan's assets plus deferred outflows of resources and liabilities plus deferred inflows of resources is reported as net position. Over time, changes in net position may serve as a useful indicator of Metropolitan's financial position.

The largest component of Metropolitan's net position is net investment in capital assets, including State Water Project costs which include amounts expended for capital improvements and State Water Project, offset by debt issued for these purposes. Restricted net position includes amounts restricted for debt service payments and operating expenses, both of which are required by bond covenants. Resources that don't meet the definition of "restricted" or "net investment in capital assets, including State Water Project costs" are reported as unrestricted. Certain unrestricted net position items have been designated for purposes authorized by the Board.

*First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.* At September 30, 2019, net position totaled \$6.9 billion and was \$108.3 million higher than the prior year. The increase included \$197.8 million higher net investment in capital assets, including State Water Project costs primarily due to \$190.4 million decrease in outstanding debt and related deferred outflows of resources. In addition, restricted net position increased \$53.1 million due to higher restricted for operating expenses as the SWP operations, maintenance, power and replacement (OMP&R) costs are estimated to be higher in fiscal year 2020. These increases were partially offset by \$142.6 million lower unrestricted net position. Total unrestricted net position at September 30, 2019 was \$138.9 million.

*First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.* At September 30, 2018, net position totaled \$6.8 billion and was \$32.9 million lower than the prior year. The decrease included \$38.1 million lower net investment in capital assets, including State Water Project costs due to \$130.3 million net decrease in capital assets offset by \$92.2 million lower outstanding debt and related deferred outflows of resources. In addition, unrestricted net position was \$17.6 million lower than the prior year. These decreases were offset by \$22.7 million higher restricted net position primarily due to \$21.8 million increase in restricted for operating expenses as the SWP OMP&R costs were higher in fiscal year 2019 than the prior year.



**MANAGEMENT'S DISCUSSION AND ANALYSIS***(CONTINUED)*

September 30, 2019 and 2018

(Unaudited)

**CHANGES IN NET POSITION***Condensed Schedule of Revenues, Expenses, and Changes in Net Position*

	Three Months Ended September 30,		
	2019	2018	2017
(Dollars in millions)			
Water revenues	\$ 343.9	\$ 389.8	\$ 365.7
Readiness-to-serve charges	33.3	35.0	33.8
Capacity charge	7.6	8.9	8.4
Power sales	4.3	4.1	10.3
<b>Operating revenues</b>	<b>389.1</b>	<b>437.8</b>	<b>418.2</b>
Taxes, net	35.8	32.6	30.4
Investment income, net	6.0	3.7	4.5
Other	5.3	2.5	1.5
<b>Nonoperating revenues</b>	<b>47.1</b>	<b>38.8</b>	<b>36.4</b>
<b>Total revenues</b>	<b>436.2</b>	<b>476.6</b>	<b>454.6</b>
Power and water costs	(107.5)	(110.7)	(124.1)
Operations and maintenance	(131.7)	(118.8)	(123.7)
Depreciation and amortization	(74.8)	(81.2)	(75.5)
<b>Operating expenses</b>	<b>(314.0)</b>	<b>(310.7)</b>	<b>(323.3)</b>
Bond interest, net of amount capitalized	(26.2)	(28.7)	(31.7)
Other	(1.0)	(0.8)	(1.6)
<b>Nonoperating expenses</b>	<b>(27.2)</b>	<b>(29.5)</b>	<b>(33.3)</b>
<b>Total expenses</b>	<b>(341.2)</b>	<b>(340.2)</b>	<b>(356.6)</b>
<b>Changes in net position before contributions</b>	<b>95.0</b>	<b>136.4</b>	<b>98.0</b>
Capital contributions	—	—	0.2
<b>Changes in net position</b>	<b>95.0</b>	<b>136.4</b>	<b>98.2</b>
Net position at June 30, 2019, 2018, and 2017	6,836.2	6,686.5	6,757.7
<b>Net position at September 30, 2019, 2018, and 2017</b>	<b>\$ 6,931.2</b>	<b>\$ 6,822.9</b>	<b>\$ 6,855.9</b>

**MANAGEMENT’S DISCUSSION AND ANALYSIS**

(CONTINUED)

September 30, 2019 and 2018

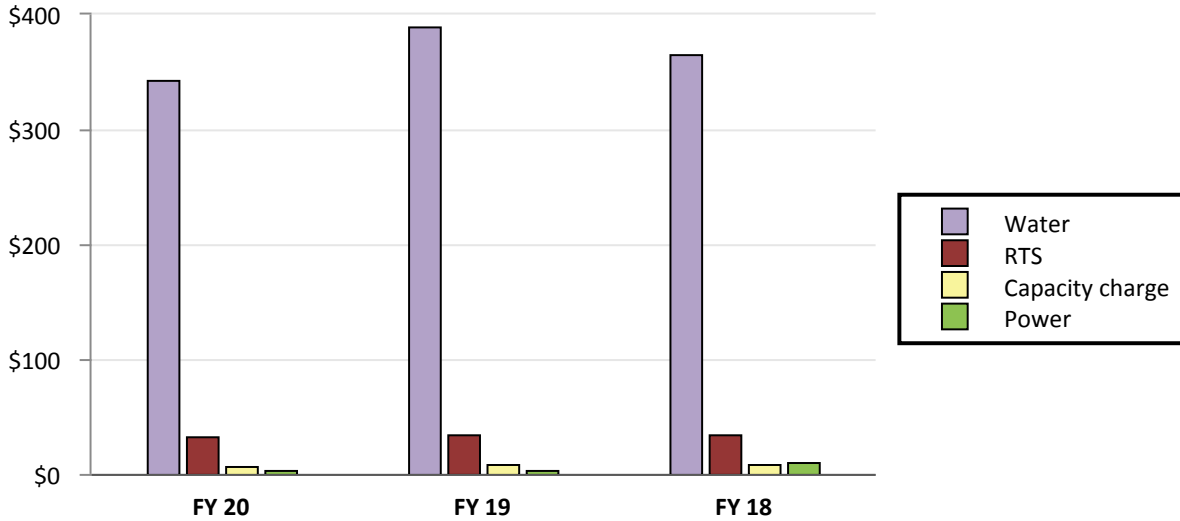
(Unaudited)

**Operating Revenues**

Metropolitan’s principal source of revenue is derived from the sale and availability of water, including water rates and other exchange and wheeling transactions, which typically account for approximately 85 percent of operating revenues. Metropolitan’s primary sources of water supply are the Colorado River and the State Water Project.

**OPERATING REVENUES**

(Dollars in millions)



**Analytical Review of Operating Revenues**

**First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.** For the three months ended September 30, 2019, operating revenues were \$389.1 million or \$48.7 million less than the prior year. The decrease was primarily due to \$45.9 million of lower water revenues, which included \$56.2 million or 67.6 TAF of lower volumes sold offset by \$10.3 million of higher price.

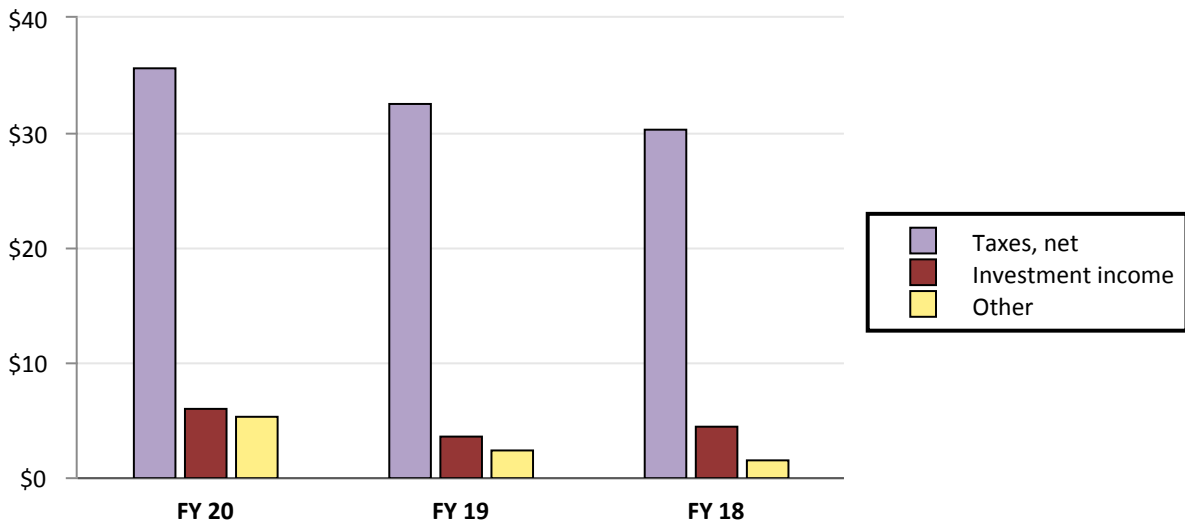
**First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.** For the three months ended September 30, 2018, operating revenues were \$437.8 million or \$19.6 million more than the prior year. The increase was primarily due to \$24.1 million of higher water revenues, of which \$15.1 million related to higher water rates and \$9.0 million or 11.2 TAF of higher volumes sold. This increase was offset by \$6.2 million of lower power recoveries revenue due to lower SWP allocation, as compared to prior year, resulting in decreased power generation.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
 (CONTINUED)  
 September 30, 2019 and 2018  
 (Unaudited)

**Nonoperating Revenues**

The primary source of nonoperating revenues is property taxes.

**NONOPERATING REVENUES**  
 (Dollars in millions)



**Analytical Review of Nonoperating Revenues**

*First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.* Nonoperating revenues for three months ended September 30, 2019, totaled \$47.1 million and were \$8.3 million higher than the prior year. The increase included \$3.2 million higher property tax revenue due to higher assessments resulting from increased property values. In addition, investment income increased \$2.3 million, which included a \$1.8 million favorable change in fair value of investments and \$0.5 million higher rate of return.

*First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.* Nonoperating revenues for the three months ended September 30, 2018, totaled \$38.8 million and were \$2.4 million higher than the prior year primarily due to \$2.2 million of higher property tax revenue due to timing.

**MANAGEMENT’S DISCUSSION AND ANALYSIS**

(CONTINUED)

September 30, 2019 and 2018

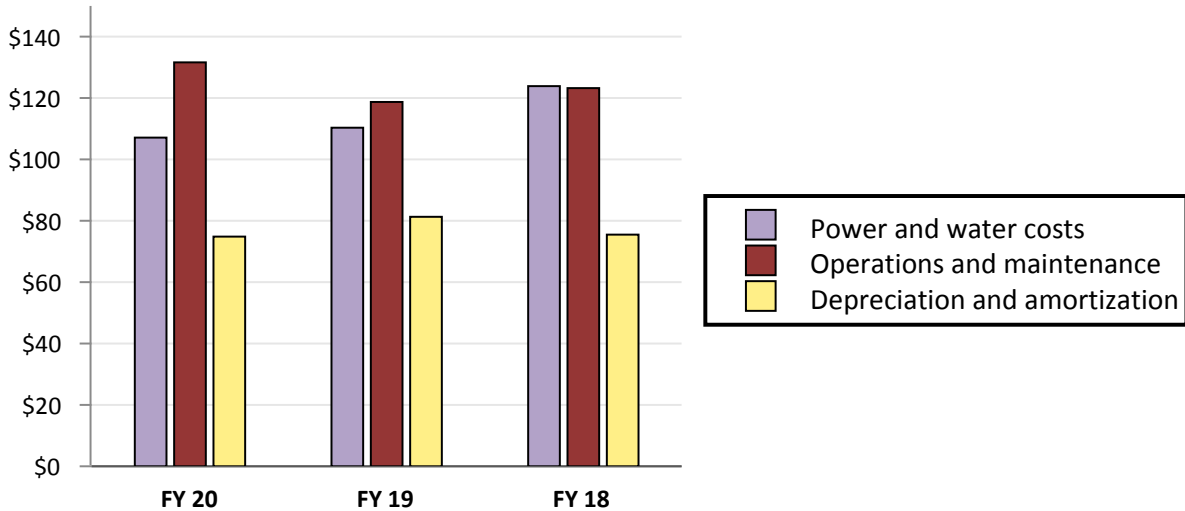
(Unaudited)

**Operating Expenses**

Operating expenses fall into three primary cost areas: power and water, operations and maintenance (O&M), and depreciation and amortization.

**OPERATING EXPENSES**

(Dollars in millions)



**Analytical Review of Operating Expenses**

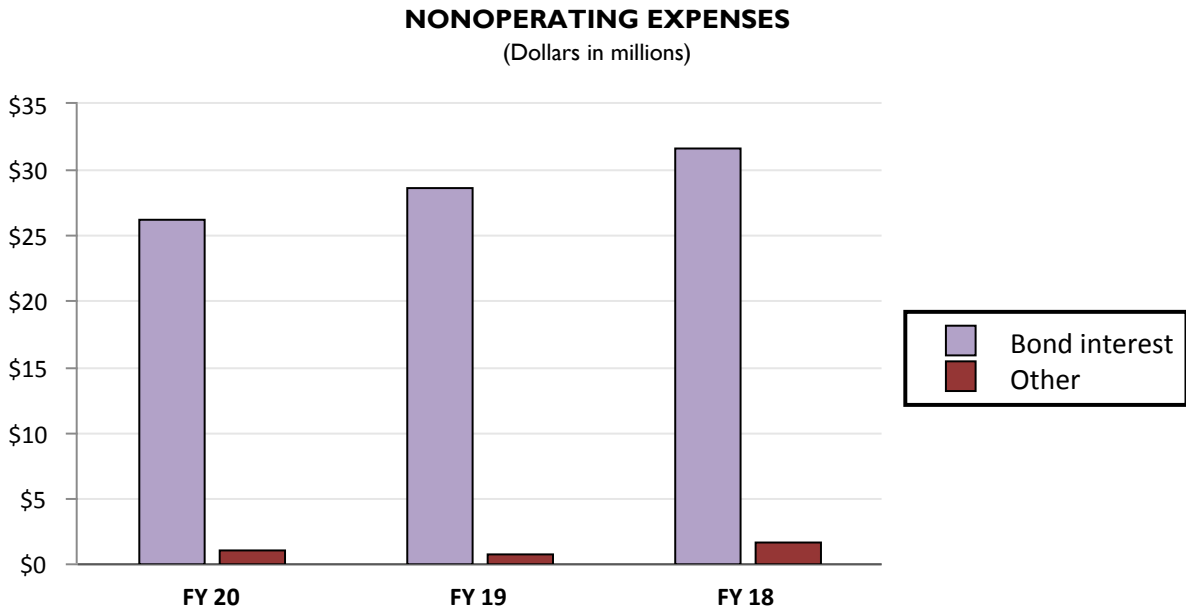
*First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.* For the three months ended September 30, 2019, operating expenses of \$314.0 million were \$3.3 million higher than the prior year. O&M costs increased \$12.9 million due to higher labor costs resulting from negotiations with bargaining units. This increase was offset by \$6.4 million of lower depreciation and amortization and \$3.2 million lower power and water expenses due to lower minimum SWP OMP&R costs related to an over collection of prior year’s charges.

*First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.* For the three months ended September 30, 2018, operating expenses of \$310.7 million were \$12.6 million lower than prior year. The decrease was partially due to \$13.4 million lower power and water costs due to lower minimum SWP OMP&R costs related to an over collection of prior year’s charges.

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
**MANAGEMENT'S DISCUSSION AND ANALYSIS**  
 (CONTINUED)  
 September 30, 2019 and 2018  
 (Unaudited)

**Nonoperating Expenses**

The primary sources of nonoperating expenses are interest expense on bonds, loss on disposal of plant assets and other, net.



**Analytical Review of Nonoperating Expenses**

*First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.* For the three months ended September 30, 2019, nonoperating expenses of \$27.2 million were \$2.3 million lower than the prior year. The decrease was primarily due to \$2.5 million reduction of bond interest, net of amount capitalized due to bond refunding transactions to take advantage of lower interest rates.

*First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.* For the three months ended September 30, 2018, nonoperating expenses of \$29.5 million were \$3.8 million lower than the prior year as bond interest, net of amount capitalized decreased \$3.0 million due to bond refunding transactions to take advantage of lower interest rates.

**MANAGEMENT’S DISCUSSION AND ANALYSIS**

(CONTINUED)

September 30, 2019 and 2018

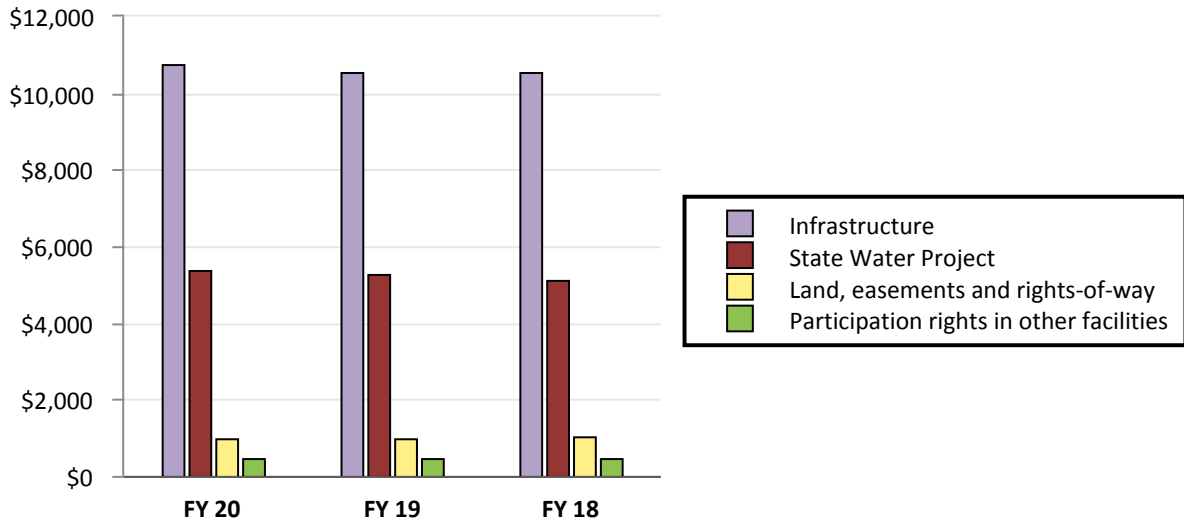
(Unaudited)

**CAPITAL ASSETS**

Capital assets include Metropolitan’s water infrastructure, land and buildings, as well as participation rights in State Water Project and various other water programs. More detailed information on commitments for construction contracts are presented in Note 6(f) to the basic financial statements.

**GROSS CAPITAL ASSETS**

(Dollars in millions)



*Schedule of Capital Assets*

(Dollars in millions)	September 30,		
	2019	2018	2017
Land, easements and rights of way	\$ 985.1	\$ 995.2	\$ 1,010.4
Construction in progress	591.8	731.9	1,058.1
Parker power plant and dam	13.0	13.0	13.0
Power recovery plants	210.6	216.2	196.9
Other dams and reservoirs	1,568.3	1,560.7	1,549.8
Water transportation facilities	3,892.6	3,820.7	3,744.1
Pumping plants and facilities	303.0	302.4	294.3
Treatment plants and facilities	3,185.8	2,969.8	2,796.5
Buildings	187.4	162.5	138.9
Other plant assets	750.2	745.1	713.8
Pre-operating expenses of original aqueduct	44.6	44.6	44.6
Participation rights in State Water Project	5,400.8	5,254.6	5,128.7
Participation rights in other facilities	459.0	459.5	459.7
Gross capital assets	17,592.2	17,276.2	17,148.8
Less accumulated depreciation and amortization	(7,121.3)	(6,812.7)	(6,555.0)
Total capital assets, net	\$ 10,470.9	\$ 10,463.5	\$ 10,593.8
Net increase (decrease) from prior year	\$ 7.4	\$ (130.3)	\$ 6.0
Percent change	0.1%	(1.2%)	0.1%

**MANAGEMENT'S DISCUSSION AND ANALYSIS**

(CONTINUED)

September 30, 2019 and 2018

(Unaudited)

*First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.* Net capital assets totaled approximately \$10.5 billion and increased \$7.4 million over the prior year. The increase included \$240.2 million of construction spending and a net increase of \$145.8 million in participation rights in SWP and other facilities, offset by depreciation and amortization of \$308.7 million and \$69.9 million retirements of capital assets and write-off of construction in progress upon determination that no operating assets would result from the cost incurred.

The major capital asset additions for the twelve months ended September 30, 2019, excluding capitalized interest, included:

- \$46.6 million for the distribution system's rehabilitation program; this program will replace or refurbish existing facilities within Metropolitan's distribution system including reservoirs, pressure control structures, hydroelectric power plants, and pipelines in order to reliably meet water demands.
- \$40.6 million for the improvements in infrastructure reliability at the treatment plants; this program will replace or refurbish facilities and components at Metropolitan's five water treatment plants in order to continue to reliably meet water demands.
- \$40.6 million for the pre-stressed concrete cylinder pipe reliability (PCCP) program; this program identifies pipelines whose age, location and condition warrant refurbishment/replacement to ensure long-term reliability of Metropolitan's PCCP lines water delivery.
- \$35.2 million for the system reliability program, which is designed to ensure the reliability and efficiency of the information technology infrastructure in support of Metropolitan's operational and business applications and improve facility safety and overall reliability.
- \$30.9 million for the supply reliability and system expansion program; this program is designed to improve the reliability and flexibility of delivering Colorado River water during drought or other State Water Project delivery constraints.

Metropolitan's adopted biennial budget for fiscal years 2018-19 and 2019-20 includes \$259.8 million capital investment plan (CIP) for fiscal year 2020. The CIP planned spending is principally for the distribution system and rehabilitation projects, the Colorado River Aqueduct reliability programs, the PCCP feeders upgrade, systems and information technology improvements, and water treatment plants upgrades program.

*First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.* Net capital assets totaled approximately \$10.5 billion and decreased \$130.3 million over the prior year. This decrease included depreciation and amortization of \$257.7 million and \$135.0 million retirements of capital assets and write-off of construction in progress upon determination that no operating assets would result from the cost incurred, offset by \$136.9 million of construction spending and a net increase of \$125.5 million in participation rights in SWP and other facilities.

The major capital asset additions for the twelve months ended September 30, 2018, excluding capitalized interest, included:

- \$43.5 million for the distribution system's rehabilitation program.
- \$43.5 million for the PCCP program.
- \$30.2 million for the improvements in infrastructure reliability at the treatment plants program.

**MANAGEMENT'S DISCUSSION AND ANALYSIS***(CONTINUED)*

September 30, 2019 and 2018

(Unaudited)

**DEBT ADMINISTRATION – LONG-TERM DEBT***Schedule of Long-term Debt, Including Current Portion*

(Dollars in millions)	September 30,		
	2019	2018	2017
General obligation bonds (a)	\$ 48.0	\$ 60.6	\$ 74.9
Revenue bonds (a)	3,816.4	4,109.8	4,215.5
Revolving notes	46.8	15.6	—
Other, net (b)	296.6	204.1	212.7
	<b>\$ 4,207.8</b>	<b>\$ 4,390.1</b>	<b>\$ 4,503.1</b>
Increase (decrease) from prior year	\$ (182.3)	\$ (113.0)	\$ 117.8
Percent change	(4.2%)	(2.5%)	2.7%

*(a) Includes refunding bonds.**(b) Consists of unamortized bond discounts and premiums.*

**First Quarter Fiscal 2020 Compared to First Quarter Fiscal 2019.** At September 30, 2019, outstanding bonds and other long-term obligations totaled \$4.2 billion, a net decrease of \$182.3 million or 4.2 percent from the prior year. The decrease was due to \$171.2 million of bond refundings, as the new debt issued was less than the amount of debt refunded and \$134.8 million of scheduled principal payments. These decreases were offset by \$92.5 million increase in premiums and discounts, which included \$129.3 million increase related to bond refundings, as the premiums on new debt issued was more than the premiums outstanding on the debt refunded, offset by \$36.5 million related to scheduled amortization. In addition, revolving notes increased \$31.2 million related to the Bank of America, N.A. notes issued for the California WaterFix advance funding.

**First Quarter Fiscal 2019 Compared to First Quarter Fiscal 2018.** At September 30, 2018, outstanding bonds and other long-term obligations totaled \$4.4 billion, a net decrease of \$113.0 million or 2.5 percent from the prior year. The decrease was due to \$152.2 million of scheduled principal payments, \$32.1 million related to bond refundings, as the new debt issued was less than the amount of debt refunded, and \$8.6 million of scheduled amortization of bond premiums and discounts. These decreases were offset by the issuance \$64.3 million in revenue bonds and \$15.6 million in revolving notes.

Additional information on Metropolitan's long-term debt can be found in Note 3 to the basic financial statements.

**CREDIT RATINGS**

Metropolitan's credit ratings at September 30, 2019 are shown below.

	Moody's Investors Service	Standard & Poor's Global	Fitch Ratings
General obligation bonds	Aaa	AAA	AA+
Water revenue bonds-fixed rate	Aa1	AAA	AA+
Water revenue bonds-variable rate	VMIG 1	A-1+	F1+
Subordinate water revenue bonds-fixed rate	N/A	AA+	AA+
Subordinate water revenue bonds-variable rate	N/A	A-1+	F1+



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## STATEMENTS OF NET POSITION

(Dollars in thousands)	September 30,	
	2019	2018
<b>ASSETS AND DEFERRED OUTFLOWS OF RESOURCES</b>	(Unaudited)	
<b>Current Assets:</b>		
Cash and investments, at fair value (Notes 1b and 2):		
Unrestricted (cost: \$82,355 and \$354,066 for 2019 and 2018, respectively)	\$ 82,742	\$ 351,829
Restricted (cost: \$320,109 and \$344,915 for 2019 and 2018, respectively)	321,613	342,735
Total cash and investments	<u>404,355</u>	<u>694,564</u>
Receivables:		
Water revenues	235,853	260,447
Interest on investments	3,246	4,061
Other, net (Note 1f)	193,511	179,034
Total receivables	<u>432,610</u>	<u>443,542</u>
Inventories (Note 1g)	129,105	100,078
Deposits, prepaid costs, and other (Note 8)	129,093	131,575
Total current assets	<u>1,095,163</u>	<u>1,369,759</u>
<b>Noncurrent Assets:</b>		
Cash and investments, at fair value (Notes 1b and 2):		
Unrestricted (cost: \$426,060 and \$237,814 for 2019 and 2018, respectively)	428,060	236,311
Restricted (cost: \$47,058 and \$82,413 for 2019 and 2018, respectively)	47,460	83,706
Total cash and investments	<u>475,520</u>	<u>320,017</u>
Capital assets:		
Plant and equipment - non depreciable (Notes 1h and 6f)	1,576,945	1,727,072
Plant and equipment - depreciable (Notes 1h and 6f)	10,155,460	9,835,093
Participation rights in State Water Project (Notes 1i and 7)	5,400,792	5,254,557
Participation rights in other facilities (Note 1i)	459,049	459,489
Total capital assets	<u>17,592,246</u>	<u>17,276,211</u>
Less accumulated depreciation and amortization	<u>(7,121,354)</u>	<u>(6,812,702)</u>
Total capital assets, net	<u>10,470,892</u>	<u>10,463,509</u>
Other assets, net of current portion:		
Deposits, prepaid costs, and other (Note 8)	370,384	302,141
Total other assets	<u>370,384</u>	<u>302,141</u>
Total noncurrent assets	<u>11,316,796</u>	<u>11,085,667</u>
Total assets	<u>12,411,959</u>	<u>12,455,426</u>
<b>Deferred Outflows of Resources:</b>		
Loss on bond refundings (Note 1n)	23,331	37,582
Loss on swap terminations (Note 1n)	17,804	26,691
Pension related (Notes 1l, 1n, and 4)	106,936	138,405
OPEB related (Notes 1m, 1n, and 5)	32,067	34,674
Effective swaps (Note 1n)	4,488	—
Total deferred outflows of resources	<u>184,626</u>	<u>237,352</u>
<b>Total Assets and Deferred Outflows of Resources</b>	<b>\$ 12,596,585</b>	<b>\$ 12,692,778</b>

See accompanying notes to basic financial statements.

## STATEMENTS OF NET POSITION

(Dollars in thousands)	September 30,	
	2019	2018
<b>LIABILITIES, DEFERRED INFLOWS OF RESOURCES, AND NET POSITION</b>	(Unaudited)	
<b>Current Liabilities:</b>		
Accounts payable and accrued expenses (Note 1j)	\$ 156,805	\$ 148,926
Current portion of long-term debt	501,519	291,057
Current portion of accrued compensated absences (Note 1k)	22,000	19,700
Current portion of customer deposits and trust funds	5,935	6,318
Current portion of workers' compensation and third party claims (Note 11)	4,884	4,083
Current portion of other long-term liabilities	216,599	211,197
Accrued bond interest	36,150	40,259
Matured bonds and coupons not presented for payment	1,754	1,760
Total current liabilities	945,646	723,300
<b>Noncurrent Liabilities:</b>		
Long-term debt, net of current portion	3,659,515	4,083,464
Revolving notes (Note 3a)	46,800	15,600
Accrued compensated absences, net of current portion (Notes 1k)	28,335	29,840
Customer deposits and trust funds, net of current portion	44,622	41,176
Net pension liability (Notes 1l and 4)	634,037	660,917
Net OPEB liability (Notes 1m and 5)	202,680	215,718
Workers' compensation and third party claims, net of current portion (Note 11)	8,640	9,831
Fair value of interest rate swaps (Note 3e)	61,388	41,184
Other long-term liabilities, net of current portion	2,205	2,204
Total noncurrent liabilities	4,688,222	5,099,934
Total liabilities	5,633,868	5,823,234
<b>Commitments and Contingencies</b> (Note 6)	—	—
<b>Deferred Inflows of Resources:</b>		
Effective swaps (Note 1n)	—	21,876
Pension related (Notes 1l, 1n and 4)	24,207	17,836
OPEB related (Notes 1m, 1n, and 5)	7,288	6,928
Total deferred inflows of resources	31,495	46,640
<b>Total Liabilities and Deferred Inflows of Resources</b>	<b>5,665,363</b>	<b>5,869,874</b>
<b>Net Position</b> (Note 10):		
Net investment in capital assets, including State Water Project costs	6,334,990	6,137,202
Restricted for:		
Debt service	218,554	199,460
Other	238,741	204,723
Unrestricted	138,937	281,519
Total net position	6,931,222	6,822,904
<b>Total Liabilities, Deferred Inflows of Resources, and Net Position</b>	<b>\$ 12,596,585</b>	<b>\$ 12,692,778</b>

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**STATEMENTS OF REVENUES, EXPENSES  
AND CHANGES IN NET POSITION**

(Dollars in thousands)	Three Months Ended September 30,	
	2019	2018
<b>Operating Revenues</b> (Note 1c):	(Unaudited)	
Water revenues	\$ 343,910	\$ 389,829
Readiness-to-serve charges	33,250	35,000
Capacity charge	7,610	8,902
Power sales	4,324	4,041
Total operating revenues	389,094	437,772
<b>Operating Expenses:</b>		
Power and water costs	107,490	110,722
Operations and maintenance	131,648	118,761
Total operating expenses	239,138	229,483
Operating income before depreciation and amortization	149,956	208,289
Less depreciation and amortization	(74,836)	(81,229)
Operating income	75,120	127,060
<b>Nonoperating Revenues (Expenses)</b> (Note 1p):		
Taxes, net (Note 1e)	35,774	32,621
Bond interest, net of \$2,000 and \$4,200 of interest capitalized in fiscal years 2020 and 2019, respectively (Note 1h)	(26,174)	(28,727)
Investment income, net	5,977	3,673
Other, net	4,326	1,753
Total nonoperating expenses, net	19,903	9,320
<b>Changes in Net Position Before Contributions</b>	95,023	136,380
Capital contributions (Note 1o)	—	39
Changes in net position	95,023	136,419
Net position at June 30, 2019 and 2018	6,836,199	6,686,485
<b>Net position at September 30, 2019 and 2018</b>	\$ 6,931,222	\$ 6,822,904

See accompanying notes to basic financial statements.

## STATEMENTS OF CASH FLOWS

(Dollars in thousands)	Three Months Ended September 30,	
	2019	2018
<b>Cash Flows from Operating Activities:</b>	(Unaudited)	
Cash received from water sales	\$ 241,953	\$ 321,197
Cash received from readiness-to-serve charges	9,701	10,394
Cash received from capacity charge	3,335	3,734
Cash received from power sales	4,969	3,692
Cash received from other exchange transactions	36,245	29,394
Cash paid for operations and maintenance expenses	(67,411)	(63,923)
Cash paid to employees for services	(101,512)	(109,614)
Cash paid for power and water costs	(132,625)	(110,042)
Other cash flows for operating activities	(31)	(1,049)
Net cash provided (used) by operating activities	<u>(5,376)</u>	83,783
<b>Cash Flows from Noncapital Financing Activities:</b>		
Proceeds from other collections	<u>2,540</u>	2,726
Net cash provided by noncapital financing activities	<u>2,540</u>	2,726
<b>Cash Flows from Capital and Related Financing Activities:</b>		
Acquisition and construction of capital assets	(69,432)	(48,335)
Payments for State Water Project costs	(74,290)	(68,089)
Proceeds from short and long-term debt	—	15,600
Payments for bond issuance costs	(1,638)	(1,497)
Principal paid on debt	(116,825)	(124,025)
Interest paid on debt	(53,866)	(69,671)
Proceeds from tax levy	4,318	10,689
Transfer from escrow trust accounts	1,308	18,323
Payments of rebatable arbitrage	—	(10)
Net cash used by capital and related financing activities	<u>(310,425)</u>	(267,015)
<b>Cash Flows from Investing Activities:</b>		
Purchase of investment securities	(741,670)	(1,915,725)
Proceeds from sales and maturities of investment securities	1,052,142	1,948,580
Investment income	2,878	4,527
Net cash provided by investing activities	<u>313,350</u>	37,382
Net change in cash	89	(143,124)
Cash at July 1, 2019 and 2018	22	162,379
<b>Cash at September 30, 2019 and 2018 (Notes 1b and 2a)</b>	<u>\$ 111</u>	<u>\$ 19,255</u>

See accompanying notes to basic financial statements.

**STATEMENTS OF CASH FLOWS**

(Dollars in thousands)	Three Months Ended September 30,	
	2019	2018
<b>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED (USED) BY OPERATING ACTIVITIES</b>	(Unaudited)	
<b>Operating Income</b>	<b>\$ 75,120</b>	<b>\$ 127,060</b>
<b>Adjustments to Reconcile Operating Income to Net Cash Provided by Operating Activities:</b>		
Depreciation and amortization expense	74,836	81,229
Increase in accounts receivable	(88,869)	(60,607)
Increase in inventories	(6,102)	(2,352)
Increase in deposits, prepaid costs, and other	(136,794)	(111,067)
Increase (decrease) in accounts payable, and accrued expenses	8,435	(6,019)
Decrease in OPEB liabilities	25,654	24,851
Increase in other items	42,344	30,688
Total Adjustments	(80,496)	(43,277)
<b>Net cash provided (used) by operating activities</b>	<b>\$ (5,376)</b>	<b>\$ 83,783</b>
<b>RECONCILIATION OF CASH AND INVESTMENTS TO CASH</b>		
Unrestricted cash and investments (at September 30, 2019 and 2018 includes \$111 and \$19,255 of cash, respectively)	\$ 510,802	\$ 588,140
Restricted cash and investments	369,073	426,441
Total cash and investments, at fair value	879,875	1,014,581
Less: carrying value of investments	(879,764)	(995,326)
<b>Total Cash (Notes 1b and 2a)</b>	<b>\$ 111</b>	<b>\$ 19,255</b>

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**NOTES TO BASIC FINANCIAL STATEMENTS**

September 30, 2019 and 2018

(Unaudited)

**I. REPORTING ENTITY AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES****(a) Reporting Entity**

The Metropolitan Water District of Southern California (Metropolitan), a special district of the State of California, was organized in 1928 by vote of the electorates of several Southern California cities following adoption of the Metropolitan Water District Act (Act) by the California Legislature. Metropolitan's primary purposes under the Act are to develop, store, and distribute water, at wholesale, to its member public agencies for domestic and municipal purposes. Surplus water is sold for other beneficial uses, including agricultural use. 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. There are 26 independent member agencies of Metropolitan, consisting of 14 cities, 11 municipal water districts, and one county water authority. Metropolitan has no financial accountability for its member agencies. Metropolitan is governed by a 38-member Board of Directors (Board) comprised of representatives of the member agencies. Representation and voting rights are based on assessed valuations of property pursuant to Sections 52 and 55 of the Act. Each member agency is entitled to have at least one representative on the Board plus an additional representative for each full five percent of the assessed valuation of real property within the jurisdictional boundary of each member 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. However, effective January 1, 2020, no member agency shall have fewer than the number of representatives the agency had as of January 1, 2019. No single member agency has a voting majority.

The Metropolitan Water District Asset Financing Corporation (MWDAFC) was incorporated on June 19, 1996. The MWDAFC is a California nonprofit public benefit corporation formed to assist Metropolitan by acquiring, constructing, operating and maintaining facilities, equipment, or other property needed by Metropolitan and leasing or selling such property to Metropolitan. The MWDAFC is governed by a board of five directors, each of whom must be a member of Metropolitan's Board. MWDAFC had no financial operations during the three months ended September 30, 2019 or 2018. MWDAFC is a component unit of Metropolitan and its activities will be blended with those of Metropolitan for financial reporting purposes should it commence operations.

**(b) Principles of Presentation**

Metropolitan is accounted for as an enterprise fund and applies all applicable Governmental Accounting Standards Board (GASB) pronouncements in its accounting and reporting. The accompanying basic financial statements reflect the flow of economic resources measurement focus and the full accrual basis of accounting. Under full accrual accounting, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred regardless of the timing of related cash flows.

For purposes of the statements of cash flows, Metropolitan defines cash as demand account balances and cash on hand.

**(c) Revenue Policies**

Water revenues, which include funds received from charges for the sale and availability of water, including water rates and other exchange and wheeling transactions, is the principal source of Metropolitan's revenues. Other sources of operating revenue include readiness-to-serve charges, capacity charge, and hydroelectric power sales. Other revenues include ad valorem property taxes and investment income.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

Water rates are established by the Board on a biennial basis. Water rates are supported by cost of service studies. Water rates are not subject to regulation by the California Public Utilities Commission or by any other local, state, or federal agency. Water is delivered to the member agencies on demand and revenue is recognized at the time of sale.

Metropolitan's rate structure consists of unbundled rate elements (supply, treatment, conveyance and distribution, power, and demand management) designed to provide transparency regarding the cost of specific functions to member agencies. It is designed to improve regional water resources management and accommodate a water transfer market. The rate structure also includes tiered pricing for supply, a capacity charge, and a readiness-to-serve charge.

**(d) Fair Value Measurements**

Metropolitan categorizes the fair value measurements for assets and liabilities within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs of assets and liabilities as follows: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that a government can access at the measurement date; Level 2 inputs are inputs—other than quoted prices—that are observable for identical assets or liabilities, either directly or indirectly; and Level 3 inputs are unobservable inputs, such as management's assumption of the default rate among underlying mortgages of a mortgage-backed security. Metropolitan reports its investments and liabilities using valuation techniques consistent with market and cost approaches to determine the fair value.

**(e) Taxing Authority**

Metropolitan is expressly empowered under the Act to levy and collect taxes on all taxable property within its boundaries for the purpose of carrying on its operations and paying its obligations, subject to certain limitations in the Act, the California Revenue and Taxation Code, and the California Constitution. Property taxes are levied annually by the Board effective as of July 1, using a lien date of January 1, and are payable by property owners in two equal installments that are due on November 1 and February 1, and become delinquent after December 10 and April 10, respectively. Property taxes levied by Metropolitan are billed and collected by the counties in its service area and are remitted to Metropolitan periodically throughout the year.

Property tax revenue is used to pay Metropolitan's general obligation bond debt service and a portion of its obligations under its contract with the state for a water supply and participation in the State Water Project (SWP and the State Water Contract). In setting the annual levy, Metropolitan takes into account potential delinquencies, tax allocations to the successor agencies of former redevelopment agencies, and supplemental tax collections. Metropolitan recognizes property taxes receivable on July 1 of each fiscal year and recognizes revenue over the following twelve month period beginning July 1 through June 30 (the period for which the tax is levied).

As a result of legislation enacted in 1984, commencing with the fiscal year ended June 30, 1991, tax levies, other than annexation taxes, are limited to the amount needed to pay debt service on Metropolitan's general obligation bonds and Metropolitan's proportionate share of general obligation bond debt service of the state under the State Water Contract. However, under the terms of the 1984 legislation, the Board may suspend this particular restriction upon a finding that doing so is essential to Metropolitan's fiscal integrity. The Board made such a finding for fiscal years ended June 30, 2014 through 2020, and maintained the tax rate for those fiscal years at the rate levied during

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

fiscal year ended June 30, 2013 to pay a portion of State Water Contract costs other than general obligation debt service.

**(f) Other Receivables**

Other receivables include amounts for taxes, hydroelectric power sales, readiness-to-serve charges, and other billings.

**(g) Inventories**

Metropolitan’s inventories are valued based on a moving-average cost. Expenses are recorded when inventories are used. Components of inventories at September 30, 2019 and 2018 were as follows:

(Dollars in thousands)	September 30,	
	2019	2018
Water in storage	\$ 114,805	\$ 87,105
Operating supplies	14,300	12,973
Total inventories	\$ 129,105	\$ 100,078

**(h) Capital Assets**

Metropolitan’s capital assets include plant and equipment, which are recorded at cost. Construction costs are capitalized if they exceed \$50,000 and the asset has a useful life of at least five years. The cost of constructed assets may include labor, materials, certain general and administrative expenses, and interest incurred during construction periods. Depreciation is calculated using the straight-line method based on the estimated average useful lives of the assets, which are 10 to 80 years for buildings, storage, distribution facilities, and miscellaneous assets and 10 to 50 years for treatment plants and hydroelectric power recovery facilities. Improvements or refurbishments with aggregated costs that meet capitalization thresholds and that extend the useful life of an existing asset by at least 5 years are capitalized.

Major computer systems software, whether purchased or internally developed, is capitalized if the cost exceeds \$250,000 and the useful life is at least three years. Vehicles and operating equipment are capitalized if the cost equals or exceeds \$5,000 and the useful life is at least four years. Depreciation is calculated using the straight-line method based on the estimated useful lives and ranges from 3 to 10 years for major computer systems software and 4 to 10 years for vehicles and operating equipment.

**(i) Participation Rights**

Metropolitan participates in various storage and water management programs entitling it to certain water rights. Projects include the SWP and various storage and water management programs. Metropolitan's participation in these projects is through cash payments. The value of participation rights is equal to the amounts spent for the construction of capital assets, such as pipelines, pumping facilities, and storage facilities, and amortized over the life of the agreements. These assets are not owned by Metropolitan. Certain projects also require payments for ongoing maintenance; those payments are charged to expense as incurred. (See Note 7.)

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

**(j) Disaggregation of Payable Balances**

Accounts payable and accrued expenses at September 30, 2019 and 2018 were as follows:

(Dollars in thousands)	September 30,	
	2019	2018
Department of Water Resources (SWP):		
Capital, operating, maintenance, power, replacement, and variable power	\$ 112,522	\$ 108,001
Vendors	29,401	28,963
Accrued power costs	2,072	6,746
Accrued salaries	7,199	38
Conservation credits	5,611	5,178
Total accounts payable and accrued expenses	\$ 156,805	\$ 148,926

**(k) Compensated Absences**

Metropolitan’s employees earn vacation, sick, and compensatory leave in varying amounts depending primarily on length of service. Upon termination from Metropolitan service, employees are entitled to full payment for accrued vacation and compensatory leave at their final pay rates, and are entitled to payment for approximately one-half of their accrued sick leave at such rates. Metropolitan records its obligations for vacation, sick, and compensatory leave earned by eligible employees based on current pay rates. The allocations to the current and long-term portions of these vested obligations were based on experience and projections of turnover.

**(l) Pension Accounting**

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the Plan and additions to/deductions from the Plan’s fiduciary net position have been determined on the same basis as they are reported by the California Public Employees' Retirement System (CalPERS) Financial Office. For this purpose, benefit payments (including refunds of employee contributions) are recognized when currently due and payable in accordance with the benefit terms. Investments are reported at fair value.

GASB requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

Valuation Date (VD): June 30, 2017

Measurement Date (MD): June 30, 2018

Measurement Period: July 1, 2017 to June 30, 2018

**(m) OPEB Accounting**

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of Metropolitan’s plan (OPEB Plan), the assets of which are held by the California Employer's Retiree Benefit Trust (CERBT), and additions to/deductions from the OPEB Plan’s fiduciary net position have been determined on the same basis. For this purpose, benefit payments are recognized when currently due and payable in accordance with the benefit terms. Investments are reported at fair value.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

GASB requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

Valuation Date (VD): June 30, 2017

Measurement Date (MD): June 30, 2018

Measurement Period: July 1, 2017 to June 30, 2018

**(n) Deferred Outflows/Inflows of Resources**

The net investment in capital assets, including State Water Project costs of \$6.3 billion and \$6.1 billion at September 30, 2019 and 2018, respectively, includes the effect of deferring the recognition of losses from bond refundings. The deferred outflows from losses on bond refundings at September 30, 2019 and 2018 were \$23.3 million and \$37.6 million, respectively. This is amortized and recognized as a component of interest expense in a systematic and rational manner over the remaining life of the old or the new debt, whichever is shorter.

The unrestricted net position amount of \$138.9 million and \$281.5 million at September 30, 2019 and 2018, respectively, includes the effect of deferring the recognition of losses from swap terminations resulting in defeasance of debt, the increase or decrease in fair value of Metropolitan's effective interest rate swaps, and deferred amounts related to pension and OPEB.

The deferred outflows from losses on swap terminations resulting in debt defeasance at September 30, 2019 and 2018, respectively, were \$17.8 million and \$26.7 million. These deferred outflows of resources are amortized and recognized as a component of interest expense in a systematic and rational manner over the remaining life of the old debt or the life of the new debt, whichever is shorter.

The deferred outflows related to pension at September 30, 2019 and 2018 were \$106.9 million and \$138.4 million, respectively. The deferred inflows related to pension at September 30, 2019 and 2018 were \$24.2 million and \$17.8 million, respectively.

The deferred outflows related to OPEB at September 30, 2019 and 2018 were \$32.1 million and \$34.7 million, respectively. The deferred inflows related to OPEB at September 30, 2019 and 2018 were \$7.3 million and \$6.9 million, respectively.

Deferred outflows and inflows of resources related to the net difference between projected and actual earnings on Pension and OPEB plan investments are amortized on a straight-line basis over five years. All other deferred outflows and inflows of resources related to Pension and OPEB are amortized on a straight-line basis over the expected average remaining service lives of all members with benefits as of the beginning of the measurement period.

The deferred outflow from the decline in fair value of interest rate swaps of \$4.5 million at September 30, 2019 and the deferred inflow from the increase in fair value of interest rate swaps of \$21.9 million at September 30, 2018, would be recognized as an investment loss or gain, respectively, upon the early termination of the swaps. Metropolitan will only terminate its interest rate swap agreements in advance of the contractual termination dates if market conditions permit. The deferred outflow and the deferred inflow also would be recognized as an investment

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

loss or gain, respectively, if the swaps were determined no longer to be effective hedges. Finally, if the bond associated with a swap is refunded, the deferred outflow or the deferred inflow would be reduced and the deferred loss or gain on refunding would be increased by the same amount. The deferred loss or gain would be amortized as a component of interest expense over the life of the old debt or the new debt, whichever is shorter.

**(o) Capital Contributions**

Capital contributions are comprised of federal, state, and private grants. These grants are typically of a reimbursable nature: Metropolitan first pays for the project and then the granting agency reimburses Metropolitan for its eligible expenses. The portion of the grants restricted for capital purposes are reflected as capital contributions in the statements of revenues, expenses and changes in net position when they are earned, irrespective of the timing of the receipts. Examples of capital projects where grants are received include water treatment plant improvements, such as fluoridation and water storage programs.

**(p) Operating and Nonoperating Revenues and Expenses**

Metropolitan's primary purpose is to provide a supplemental supply of water for domestic and municipal uses. Accordingly, Metropolitan defines operating revenues as revenues derived from the sale and availability of water, including water rates and other exchange and wheeling transactions. It also includes readiness-to-serve charges, capacity charge, and hydroelectric power sales. Operating expenses include the cost of sales and services, administrative expenses, and depreciation and amortization of capital assets.

Revenues from property taxes and investment income, as well as interest expense on outstanding debt, are related to capital and financing activities and are defined as nonoperating revenues and expenses.

**(q) Restricted and Unrestricted Resources**

When both restricted and unrestricted resources are available for use, it is Metropolitan's practice to use restricted resources first, then unrestricted resources as they are needed.

**(r) Use of Estimates**

The preparation of basic financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the basic financial statements and reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**(s) New Accounting Pronouncements**

Metropolitan implemented the following GASB Statements during the twelve months ended September 30, 2019:

In November 2016, the GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. This Statement addresses accounting and financial reporting for certain asset retirement obligations (AROs) which are legally enforceable liabilities associated with the retirement of a tangible capital asset and should be recognized as a liability based on the guidelines in this Statement. In addition, this Statement requires disclosure of information about the nature of AROs, the methods and assumptions used for the estimates of the the liabilities, and the estimated remaining useful life of the associate tangible capital assets. The requirements of this statement were effective for fiscal year 2019 but Metropolitan does not currently have any AROs based on the guidelines in this Statement. Therefore, there were no

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

impacts on previously reported balances in the Statements of Net Position or the Statements of Revenues, Expenses and Changes in Net Position and there was no impact on note disclosures for the most recent fiscal year.

In June 2017, the GASB issued Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*. The primary objective of this Statement is to improve the information that is disclosed in notes to the financial statements related to debt, including direct borrowings and direct placements. This Statement requires that additional essential information related to debt be disclosed in notes to financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences, significant termination events with finance-related consequences, and significant subjective acceleration clauses. The requirements of this statement were effective for fiscal year 2019.

Metropolitan is currently evaluating its accounting practices to determine the potential impact on the financial statements for the following GASB Statements that will be implemented in a future fiscal year:

- GASB Statement No. 87, *Leases*.
- GASB Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*.
- GASB Statement No. 90, *Majority Equity Interests - an amendment of GASB Statements No. 14 and No. 61*.
- GASB Statement No. 91, *Conduit Debt Obligations*.

The following pronouncements were issued by GASB but were determined to not be applicable to Metropolitan's financial statements:

- GASB Statement No. 84, *Fiduciary Activities*.

**2. CASH AND INVESTMENTS**

As a public agency, Metropolitan's investment practices are prescribed by various provisions of the California Government Code and the Act, as well as by administrative policies. Metropolitan's statement of investment policy is approved annually by the Board and describes the Treasurer's investment authority, practices, and limitations. The basic investment policy objectives, in order of importance, are safety of principal, liquidity, and return on investment.

Cash and investments may or may not be restricted as to use, depending on the specific purposes for which such assets are held (see Notes 2d and 10).

A summary of Metropolitan's deposit and investment policies, information on interest and credit risks, and restricted cash and investments is provided below.

**(a) Deposits**

The California Government Code requires California banks and savings and loan associations to secure a local government agency's deposits by pledging government securities as collateral.

As of September 30, 2019 and 2018, Metropolitan's cash balances with financial institutions were \$106,000 and \$19,250,000 respectively, and cash on hand was \$5,000 at each year-end.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

**(b) Investments**

Metropolitan is permitted by State law and Board policy to invest in a variety of instruments including U.S. Treasury securities, federal agencies, repurchase agreements, negotiable certificates of deposit, bankers' acceptances, prime commercial paper, Government-sponsored enterprise (GSE), California local agency securities, including securities issued by Metropolitan, medium-term corporate notes, time deposits, investment contracts, shares of beneficial interest, and Local Agency Investment Fund (LAIF).

As of September 30, 2019 and 2018, Metropolitan had the following investments at fair value:

(Dollars in thousands)	September 30,	
	2019	2018
U.S. Treasury securities	\$ 79,510	\$ 267,933
U.S. Guarantees – GNMA's	—	3
Federal agency securities	62,586	133,955
Supranationals	24,834	—
Prime commercial paper	79,500	111,695
Medium-term corporate notes	225,480	119,498
Negotiable certificates of deposit	143,143	239,977
Money Market Funds	76,352	467
GSE	71,118	63,233
Municipal bonds	2,124	10,250
California Asset Management Program	50,117	—
Local Agency Investment Fund	65,000	48,315
Total investments	\$ 879,764	\$ 995,326



**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

Metropolitan categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The following is the summary of the fair value hierarchy of the fair value of investments of Metropolitan as of September 30, 2019 and 2018:

(Dollars in thousands)	Fair Value Measurement Using					
	9/30/2019	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	9/30/2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)
Investments by fair value level:						
U.S. Treasury securities	\$ 79,510	\$ 79,510	\$ —	\$ 267,933	\$ 267,933	\$ —
U.S. Guarantees – GNMMAs	—	—	—	3	3	—
Federal agency securities	62,586	62,586	—	133,955	133,955	—
Supranationals	24,834	24,834	—	—	—	—
Prime commercial paper	79,500	—	79,500	111,695	1,087	110,608
Medium-term corporate notes	225,480	225,480	—	119,498	119,498	—
Negotiable certificates of deposit	143,143	103,076	40,067	239,977	239,977	—
GSE	71,118	71,118	—	63,233	63,233	—
Municipal bonds	2,124	2,124	—	10,250	10,250	—
Total investments by fair value level	<b>\$ 688,295</b>	<b>\$ 568,728</b>	<b>\$ 119,567</b>	<b>\$ 946,544</b>	<b>\$ 835,936</b>	<b>\$ 110,608</b>
Investments not subject to fair value level:						
Money Market Funds <sup>1</sup>	76,352			467		
California Asset Management Program	50,117			—		
Local Agency Investment Fund	65,000			48,315		
Total investments	<b>\$ 879,764</b>			<b>\$ 995,326</b>		

<sup>1</sup> As of September 30, 2019, the balance was invested in Dreyfus Gov't Cash Management, Dreyfus AMT-Free Tax Exempt (DGCXX & DEIXX) and BlackRock Treasury Trust (TTXX). As of September 30, 2018, the balance was invested in BlackRock Treasury Trust (TTXX).

Investments classified in Level 1 of the fair value hierarchy, valued at \$568.7 million and \$835.9 million as of September 30, 2019 and 2018, respectively, are valued using quoted prices in active markets.

Prime commercial paper totaling \$79.5 million and \$110.6 million and negotiable certificates of deposit totaling \$40.1 million and \$0 as of September 30, 2019 and 2018, respectively, classified in Level 2 of the fair value hierarchy were valued using matrix pricing.

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

September 30, 2019 and 2018

(Unaudited)

Metropolitan owns investments utilizing a stable one dollar per share value. These investment assets are exempt from reporting under the fair value measurement levels. There are no redemption restrictions for the investments reported at a value of one dollar per share.

**Interest rate risk.** In accordance with Metropolitan's investment policy, interest rate risk was managed by limiting the duration of the various portfolio segments. Each segment has limitations on the amount of duration exposure (see the following for specific durations).

**Internally Managed Segment**

This segment of the portfolio was managed against the Intercontinental Exchange Bank of America Merrill Lynch (ICE BoAML) 3-Month Treasury Bill Index, approved by the Finance and Insurance Committee. The benchmark duration as of September 30, 2019 and 2018 was 0.23 and the portfolio duration was permitted to vary from the benchmark by plus or minus 0.20. As of September 30, 2019 and 2018, Metropolitan's investments and portfolio durations for this segment were as follows:

(Dollars in thousands)	September 30,			
	2019		2018	
	Fair value	Duration	Fair value	Duration
U.S. Treasury securities	\$ 24,299	1.48	\$ 41,289	1.16
Federal agency securities	62,336	0.99	127,477	0.02
Supranationals	24,834	0.28	—	—
Prime commercial paper	79,500	0.38	111,695	0.10
Medium-term corporate notes	154,053	0.81	50,138	0.10
Negotiable certificates of deposit	143,143	0.46	238,938	0.17
Municipal bonds	775	4.80	719	5.76
GSE	7,676	2.54	—	—
Money Market Funds	75,361	—	—	—
California Asset Management Program	50,117	—	—	—
Local Agency Investment Fund	65,000	—	48,315	—
Total portfolio segment	\$ 687,094		\$ 618,571	
Portfolio duration		0.51		0.18

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

***Externally Managed Segment***

This segment of the portfolio was managed against the ICE BoAML, U.S. Corporate and Government, one to five years, A-Rated and above index approved by the Finance and Insurance Committee. The benchmark duration as of September 30, 2019 and 2018 were 2.60 and 2.62, respectively, and the portfolio duration was permitted to vary from the benchmark by plus or minus 1.50. As of September 30, 2019 and 2018, Metropolitan's investments and portfolio durations for this segment were as follows:

(Dollars in thousands)	September 30,			
	2019		2018	
	Fair value	Duration	Fair value	Duration
U.S. Treasury securities	\$ 51,641	3.19	\$ 209,648	2.51
U.S. Guarantees – GNMMAs	—	—	3	3.65
Federal agency securities	—	—	5,515	9.22
Medium-term corporate notes	71,427	2.15	67,912	2.67
Money Market Funds	520	—	464	—
GSE	63,442	2.14	63,233	2.33
Total portfolio segment	\$ 187,030		\$ 346,775	
Portfolio duration		2.43		2.61

***Bond Reserves and Lake Mathews Segment***

Investments in the bond reserves were managed based on the requirements of each of the bond issues. The Lake Mathews trust funds were managed in a manner that preserved the principal and provided the necessary liquidity to pay its operating expenses. Per Board authorization, the Treasurer was authorized to invest these monies in excess of five years.

As of September 30, 2019 and 2018, Metropolitan's investments and portfolio durations for this segment were as follows:

(Dollars in thousands)	September 30,			
	2019		2018	
	Fair value	Duration	Fair value	Duration
U.S. Treasury securities	\$ 3,570	1.00	\$ 16,996	3.08
Federal agency securities	250	0.52	963	0.04
Medium-term corporate notes	—	—	1,448	0.06
Negotiable certificates of deposit	—	—	1,039	0.25
Money Market Funds	471	—	3	—
Municipal bonds	1,349	3.89	9,531	5.08
Total portfolio segment	\$ 5,640		\$ 29,980	
Weighted average duration		1.59		3.37

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

**Credit risk.** Credit risk was managed by purchasing investments with the nationally recognized credit ratings specified in Metropolitan's investment policy. Additionally, the policy required monitoring the credit ratings of securities held in the portfolio, and if the securities' credit ratings were downgraded, evaluating for potential sale. For certain securities, additional requirements included consideration of net worth, length of time in business, and specified market values.

Presented in the following table is the minimum rating required, if applicable, by investment type pursuant to Metropolitan's investment policy and State law:

<b>Investment Type</b>	<b>Minimum Rating</b>
U.S. Government and agencies	Not applicable.
Bankers' acceptances Prime commercial paper Negotiable certificates of deposit Time deposits	Prime quality of the highest ranking or highest letter and numerical rating ('A1', 'P1', 'F1' or higher) as provided by Moody's Investors Service, Inc., Standard & Poor's Global Ratings Services, and Fitch Ratings. Credit requirement may be waived for the maximum deposit that is insured by the Federal Deposit Insurance Corporation.
Repurchase agreements	Only with primary dealers in government securities or financial institutions with a Moody's Investors Service, Inc. or equivalent rating of 'A' or better.
Investment contracts	Not applicable. Limited to guaranteed investment contracts, or agreements collateralized with U.S. Treasury or agency securities.
Medium-term corporate notes	Rating category of at least 'A' or better, or the equivalent, by a nationally recognized rating agency.
GSE (e.g., FannieMae, FreddieMac)	Issuer's debt must be rated 'A' or higher as provided by a nationally recognized rating agency and the security must be rated in a category of 'AAA' by a nationally recognized rating agency.
Local Agency Investment Fund	Not applicable.
Shares of beneficial interest/ Money Market Funds	Highest ranking of the highest letter and numerical rating provided by not less than two nationally recognized rating agencies.
California local agency securities Municipal bonds	Securities with a maturity in excess of five years must have a credit rating of at least 'AA' (may be insured) and an underlying credit rating of 'A' or better by a nationally recognized rating agency.

Metropolitan's minimum rating for GSE of 'AAA' is more restrictive than the California Government Code requirement of 'AA'.

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

September 30, 2019 and 2018

(Unaudited)

At September 30, 2019 and 2018, Metropolitan's portfolio was invested in the following securities by rating:

(Dollars in thousands)	Rating	September 30,	
		2019	2018
		Fair value	Fair value
U.S. Treasury securities	N/A <sup>1</sup>	\$ 79,510	\$ 267,933
U.S. Guarantees – GNMA's	N/A <sup>1</sup>	—	3
Federal agency securities	AAA <sup>2</sup>	62,586	133,955
Supranationals	AA or higher	24,834	—
Prime commercial paper	A1/P1 <sup>3</sup>	79,500	111,695
Medium-term corporate notes	A <sup>3</sup>	225,480	119,498
Negotiable certificates of deposit	F1 <sup>3</sup>	143,143	239,977
Money Market Funds	AAA	76,352	467
GSE	AAA	71,118	63,233
Municipal bonds	A <sup>3</sup>	2,124	10,250
California Asset Management Program	N/A <sup>4</sup>	50,117	—
Local Agency Investment Fund	N/A <sup>5</sup>	65,000	48,315
<b>Total portfolio</b>		<b>\$ 879,764</b>	<b>\$ 995,326</b>

<sup>1</sup> Credit ratings are not applicable to obligations of the U.S. Government or obligations explicitly guaranteed by the U.S. Government.

<sup>2</sup> Federal Agencies are rated "AAA" by two nationally recognized rating agencies and "AA" by one nationally recognized rating agency.

<sup>3</sup> A or better e.g. F1+, A1+, AA, or AAA.

<sup>4</sup> California Asset Management Program permitted under California Government Code Section 53601(p) and is not rated.

<sup>5</sup> Local Agency Investment Fund is not rated.

**Concentration of credit risk.** In accordance with Metropolitan's investment policy, the minimum requirements for limiting concentration of credit risk defined the maximum percent allowable for investment in each security type as well as the percent allowable for investment by issuer per type. Generally, the maximum allowable for investment by security type varied from 20 percent, for GSE, to 100 percent for U.S. Treasury and agency securities. The percentages of investments that can be purchased by a single issuer, within each security type, ranged from 5 percent, for asset-backed securities, to 10 percent for bankers' acceptances.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

The following table identifies Metropolitan's limits and the percent invested by security type based on fair value, as of September 30, 2019 and 2018.

	Investment Policy Limits	Percent of Portfolio	
		2019	2018
U.S. Treasury securities	100%	9.04 %	26.92 %
Federal agency securities	100%	7.11 %	13.46 %
Supranationals	30%	2.82 %	— %
Prime commercial paper	25%	9.04 %	11.22 %
Medium-term corporate notes	30%	25.63 %	12.01 %
Negotiable certificates of deposit	30%	16.27 %	24.11 %
Money Market Funds	20%	8.68 %	0.05 %
GSE	20% <sup>1</sup>	8.08 %	6.35 %
Municipal bonds	30%	0.24 %	1.03 %
California Asset Management Program	20%	5.70 %	— %
Local Agency Investment Fund	N/A	7.39 %	4.85 %
Total portfolio		100.00 %	100.00 %

<sup>1</sup> Mortgage-backed securities included in GSE are limited to 100% of the investment portfolio in accordance with Metropolitan's investment policy.

At September 30, 2019 and 2018, Metropolitan had the following investments (obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government not listed) representing five percent or more of its investments:

(Dollars in thousands)	2019	
Local Agency Investment Fund	\$ 65,000	7.39 %
California Asset Management Program	\$ 50,117	5.70 %
Federal Home Loan Bank	\$ 45,425	5.16 %
Federal National Mortgage Association <sup>1</sup>	\$ 60,629	6.89 %

<sup>1</sup> Invested in commercial paper and certificates of deposit

(Dollars in thousands)	2018	
Federal Home Loan Bank	\$ 90,288	9.07 %
Federal Home Loan Mortgage Corporation	\$ 51,558	5.18 %

**Custodial credit risk.** At September 30, 2019 and 2018, Metropolitan's investments were insured, registered or held, in Metropolitan's name, in safekeeping at Metropolitan's bank, which was not a counterparty to the investment transactions. The exceptions were \$65.0 million and \$48.3 million in deposits in the California State managed LAIF as of September 30, 2019 and 2018, respectively.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

The LAIF, created by California statute, is part of a pooled money investment account (PMIA). The LAIF has oversight by the Local Investment Advisory Board, which consists of five members designated by statute. The Chairwoman is the State Treasurer, or her designated representative.

The total amount invested by all public agencies in LAIF as of September 30, 2019 and 2018 was \$24.5 billion and \$20.2 billion, respectively. At September 30, 2019 and 2018, the PMIA had a balance of \$97.4 billion and \$88.3 billion, respectively, of which, 2.14 percent and 2.52 percent were invested in medium-term and short-term notes and asset-backed securities, respectively. The average maturity of LAIF investments as of September 30, 2019 and 2018 was 185 days and 193 days, respectively.

**(c) Reverse Repurchase Agreements**

Metropolitan is permitted, subject to conditions imposed by State law, to sell securities owned under written agreements and to buy back the securities on or before a specified date for a specified amount. No such reverse repurchase agreements were entered into during the twelve months ended September 30, 2019 and 2018.

**(d) Restricted Cash and Investments**

Metropolitan has established a number of separate accounts, also referred to as funds, to provide for specific activities in accordance with special regulations, bond covenants, and trust arrangements. The accounts are classified as "restricted." Most restricted accounts have the minimum cash and investment balance requirements and all are nondiscretionary in terms of the use of assets. Among other things, the restricted amounts provide for payments of debt service on Metropolitan's bonds; reserves for principal and interest on outstanding bonds; payments for arbitrage tax rebate; construction of capital assets; payment of Metropolitan's operations and maintenance expenses; and payment of the costs related to the closure and postclosure maintenance of Metropolitan's solid waste landfill facility.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

**3. SHORT-TERM AND LONG-TERM DEBT**

Metropolitan's enabling Act specifies that its indebtedness shall be limited to 15 percent of the assessed value of all taxable property within Metropolitan's service area. Existing outstanding debt of \$4.208 billion and \$4.390 billion at September 30, 2019 and 2018, respectively, represents less than one percent of the fiscal year 2019 and 2018 total taxable assessed valuation of \$2,917 billion and \$2,741 billion, respectively.

Metropolitan's long-term debt consists of general obligation and revenue bond issues as well as other obligations. The general obligation bonds are secured by Metropolitan's authority to levy ad valorem property taxes. The revenue bond obligations are special limited obligations of Metropolitan and are secured by a pledge of Metropolitan's net operating revenues. Such obligations contain certain restrictive covenants, with which Metropolitan has complied. Substantially all of the bond issues contain call provisions. Substantially all of the debt proceeds have been, and are expected to continue to be, utilized to fund new facilities, improvements and betterments, and to refund outstanding bonds.

**(a) Commercial Paper and Revolving Notes**

Metropolitan may issue up to \$200.0 million in commercial paper to fund a portion of its capital investment plan, as approved by Metropolitan's Board. There was no commercial paper issued in fiscal years 2019 and 2018 and no commercial paper was outstanding at September 30, 2019 and 2018. Metropolitan may also issue other forms of short-term debt such as variable rate water revenue bonds and revolving notes (see Notes 3c and 3f). A total of \$46.8 million and \$15.6 million of revolving notes were outstanding at September 30, 2019 and 2018, respectively.

**(b) General Obligation Bonds**

In 1966, voters authorized Metropolitan to incur up to \$850.0 million of general obligation bond indebtedness to finance a portion of Metropolitan's capital investment plan. The original amounts, issued as Series A through H under the 1966 authorization, totaled \$850.0. Metropolitan has refunded a portion of these general obligation bond issues through the issuance of refunding bonds. A total of \$48.0 million and \$60.6 million in general obligation refunding bonds were outstanding at September 30, 2019 and 2018, respectively.

The general obligation refunding bond issues include both serial and term bonds that mature in varying amounts through March 2037 at interest rates ranging from 1.5 percent to 5.0 percent. The term bonds are subject to mandatory redemption prior to maturity. All general obligation bonds maturing on or after the earliest applicable call date are subject to optional redemption prior to maturity, callable on interest payment dates, and subject to early redemption.

**(c) Revenue Bonds**

Pursuant to a 1974 voter authorization, additional funds, primarily for funding the capital investment plan, are obtained through the sale of water revenue bonds. Revenue bonds may be issued subject to certain conditions, including a requirement that the total of revenue bonds outstanding does not exceed the equity (net position) of Metropolitan as of the fiscal year end prior to such issuance. Metropolitan has refunded some of these revenue bonds through the issuance of refunding bonds. A total of \$3.816 billion and \$4.110 billion of revenue bonds and revenue refunding bonds were outstanding at September 30, 2019 and 2018, respectively.



**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

Each fixed rate revenue and revenue refunding bond issue consists of either serial or term bonds or both that mature in varying amounts through July 2045 at interest rates ranging from 1.49 percent to 6.95 percent. The term bonds are subject to mandatory redemption prior to maturity. Substantially all revenue bonds maturing on or after the earliest applicable call date are subject to optional redemption prior to maturity, callable on any interest payment dates, and subject to early redemption.

**(d) Bond Refundings and Defeasances**

Metropolitan has issued Waterworks General Obligation Refunding Bonds, Water Revenue Refunding Bonds, Special Variable Rate Water Revenue Refunding Bonds, and short-term notes to refund various issues of Waterworks General Obligation Bonds, Waterworks General Obligation Refunding Bonds, Water Revenue Bonds, Water Revenue Refunding Bonds, Special Variable Rate Water Revenue Refunding Bonds, and revolving notes previously issued. The net proceeds from these sales were used to redeem the refunded bonds and fund certain swap termination payments or to purchase U.S. Treasury securities that were deposited in irrevocable escrow trust accounts with a bank acting as an independent fiscal agent to provide for all future debt service on the bonds being refunded. As a result, those bonds are considered defeased and the related liabilities have been excluded from Metropolitan's basic financial statements.

**(e) Interest Rate Swaps**

Metropolitan has eight outstanding interest rate swap agreements as of September 30, 2019. These agreements require that Metropolitan pay fixed interest rates and receive interest at variable interest rates which are Metropolitan's hedging derivative instruments.

**Pay-Fixed, Receive-Variable**

**Objective of the Swaps:** In order to take advantage of low interest rates in the marketplace, Metropolitan entered into eight separate pay-fixed, receive-variable interest rate swaps at costs that were less than what Metropolitan otherwise would have paid to issue fixed rate debt in the tax-exempt municipal bond market.

**Terms:** The notional amounts of the swaps match the principal amounts of the associated debt in total. Metropolitan's swap agreements contain scheduled reductions to outstanding notional amounts that are expected to approximately follow scheduled or anticipated reductions in the associated long-term debt.

**Fair Values:** At September 30, 2019, all pay-fixed, receive-variable swaps had a negative fair value. Because the coupons on Metropolitan's variable rate bonds adjust to changing interest rates, the bonds do not have corresponding fair value changes. The fair values of the swaps were estimated using the zero-coupon method and exclude accrued interest. This method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swaps.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

**Credit Risks:** As of September 30, 2019, Metropolitan was not exposed to credit risk on the outstanding pay-fixed, receive-variable swaps that had negative fair values. However, should interest rates change and the fair values of the swaps become positive, Metropolitan would be exposed to credit risk to each swap counterparty in the amount of the derivatives' fair value. Should the counterparties to the transactions fail to perform according to the terms of the swap contract, Metropolitan would face a maximum possible loss equal to the fair value of these swaps.

All swap agreements contain specific collateral requirements that are in effect for Metropolitan and the counterparties. The swaps require different collateral levels based on credit ratings and the fair value of the swap. Generally, the fair value threshold levels are also reduced as the credit ratings are reduced. Collateral on all swaps is to be in the form of U.S. government securities that may be held by the party posting the collateral. Metropolitan had no posted collateral as of September 30, 2019.

Each swap contains cross-default provisions that allow the nondefaulting party to accelerate and terminate all outstanding transactions and to net the transactions' fair values into a single sum to be owed by, or owed to, the nondefaulting party.

As of September 30, 2019, Metropolitan has pay-fixed, receive-variable swap transactions with one counterparty in the amount of \$216.0 million or 43.8 percent of the notional amount of Metropolitan's outstanding pay-fixed, receive-variable swap transactions. This counterparty is rated Aa2/A+/AA by Moody's, Standard & Poor's, and Fitch Ratings, respectively.

**Basis Risk:** The interest rates on Metropolitan's variable rate bonds are expected to be equivalent, but not necessarily equal to the variable rate payments received from counterparties on pay-fixed, receive-variable interest rate swaps. To the extent these variable payments differ, Metropolitan is exposed to basis risk. When the rates received from the counterparties are less than the rates on variable rate bonds associated with the respective swap transactions there is a basis loss. When the rates received from the counterparties are greater than the rates on variable rate bonds associated with the respective swap transactions there is a basis gain. As of September 30, 2019, the interest rates of the variable rate debt associated with these swap transactions range from 1.10 percent to 2.34 percent. Metropolitan's variable rate payments received from the counterparties of these swaps ranged from 1.17 percent to 1.46 percent.

**Termination Risk:** Metropolitan may terminate any of the swaps if the other party fails to perform under the terms of the swap agreements. If any of the swaps are terminated, the associated variable rate bonds would no longer carry a synthetic fixed interest rate. Also, if at the time of termination the swap has a negative fair value, Metropolitan would be liable to the counterparty for a payment equal to the swap's fair value.

**Tax Risk:** As with other forms of variable rate exposure and the relationship between the taxable and tax-exempt markets, Metropolitan is exposed to tax risk should tax-exempt interest rates on variable rate debt issued in conjunction with the swaps rise faster than taxable interest rates received by the swap counterparties, due particularly to reduced federal or state income tax rates, over the term of the swap agreement.

## NOTES TO BASIC FINANCIAL STATEMENTS

(CONTINUED)

September 30, 2019 and 2018

(Unaudited)

**(f) Variable Rate Bonds**

The variable rate bonds bear interest at daily and weekly rates ranging from 1.10 percent to 2.34 percent as of September 30, 2019 and 0.55 percent to 2.48 percent as of September 30, 2018. Metropolitan can elect to change the interest rate period of the bonds with certain limitations.

Metropolitan has entered into standby bond purchase agreements (SBPA) with commercial banks to provide liquidity for six separate variable rate bond issues listed in the table below. Bondholders have the right to tender such variable rate bonds to the paying agent on any business day with same day notice. In the event that tendered bonds are not remarketed, the paying agent will draw on the SBPA to pay such bondholders. The draw on the SBPA creates a new debt obligation between Metropolitan and the Bank, called a Bank Bond.

The Bank Bonds that would be issued under the SBPA would initially bear interest at a per annum interest rate equal to, depending on the applicable SBPA, either: (a) one month LIBOR plus 7.50 percent; or (b) the highest of the (i) the Prime Rate plus one percent, (ii) Federal Funds Rate plus two percent, and (iii) seven percent (with the spread or rate increasing in the case of each of (i), (ii) and (iii) of this clause (b) after 90 days). To the extent such bank bonds have not been remarketed or otherwise retired as of the earlier of the 90th day following the draw on the SBPA or the stated expiration date of the related SBPA, Metropolitan's obligation to repay the principal of the Bank Bonds would be payable in semi-annual installments over a period of approximately one, three, or five years, depending on the applicable SBPA. Metropolitan has secured its obligation to repay principal and interest under the SBPAs as a senior lien obligation.

In addition, such bonds are subject to mandatory tender for purchase under certain circumstances, including upon the expiration of the SBPA. Metropolitan intends to either renew the facility or exercise its right to remarket the debt as a long-term financing. The portion that would be due in the next fiscal year in the event that the outstanding variable rate bonds were tendered and purchased by the commercial banks under the standby agreements was \$45.3 million and \$129.8 million at September 30, 2019 and 2018, respectively.

Metropolitan has the following six variable rate bonds that are supported by a SBPA as of September 30, 2019 and 2018:

(Dollars in thousands)

Bond Issue	Amount		Expiration Date	Interest Rate	Current Amount	
	9/30/2019	9/30/2018			9/30/2019	9/30/2018
<b>Water Revenue Bonds</b>						
2000 Series B-3	\$ 88,800	\$ 88,800	3/27/20	Reset Daily	\$ 88,800	\$ —
2017 Series A	80,000	80,000	3/27/20	Reset Daily	80,000	—
<b>Water Revenue Refunding Bonds</b>						
2018 Series A-1, A-2	209,870	210,040	6/25/21	Reset Daily	—	—
2016 Series B-1, B-2	103,670	103,670	7/19/21	Reset Daily	—	—
Total	\$ 482,340	\$ 482,510			\$ 168,800	\$ —

**NOTES TO BASIC FINANCIAL STATEMENTS***(CONTINUED)*

September 30, 2019 and 2018

(Unaudited)

Metropolitan has the following eight variable rate bonds that are not supported by a SBPA as of September 30, 2019 and 2018:

(Dollars in thousands)

<b>Bond Issue</b>	<b>Amount</b>	<b>Interest Rate</b>
<b>Water Revenue Refunding Bonds</b>		
2013 Series D	\$ 87,445	Reset Weekly
2014 Series D	38,465	Reset Weekly
2015 Series A-1, A-2	188,900	Reset Weekly
<b>Subordinate Water Revenue Bonds</b>		
2016 Series A	175,000	1M LIBOR plus % spread
2017 Series C	80,000	SIFMA Index plus % spread
<b>Subordinate Water Revenue Refunding Bonds</b>		
2017 Series D	95,630	SIFMA Index plus % spread
2017 Series E	95,625	SIFMA Index plus % spread
<b>Total</b>	<b>\$ 761,065</b>	

The Subordinate Water Revenue Bonds, 2016 Series A were issued by Metropolitan through a Continuing Covenant Agreement with BANA (2016 BANA Agreement). The Subordinate 2016 Series A bonds are subject to mandatory tender for purchase on the scheduled mandatory tender date of December 21, 2020, 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. A failure by Metropolitan to pay the purchase price of such bonds on the mandatory tender date would constitute an event of default under Metropolitan's Subordinate Debt Resolutions if not remedied within five business days. Metropolitan intends to either extend the 2016 BANA Agreement or remarket the bonds in the public debt market prior to the scheduled mandatory tender date. Metropolitan has secured its obligation to pay principal and interest under the 2016 BANA Agreement as a Subordinate Lien Parity Obligation.

The current terms of the Subordinate Water Revenue Refunding Bonds, 2017 Series D and Series E (SIFMA Index Mode), and the Subordinate Water Revenue Bonds, 2017 Series C (SIFMA Index Mode), require bondholders to tender their bonds for purchase on the scheduled mandatory tender date of July 10, 2020. A failure by Metropolitan to pay the purchase price from the proceeds of remarketing or other funds, for a period of five business days following written notice by any owner of such bonds, will constitute an event of default under Metropolitan's Subordinate Debt Resolutions. Upon the occurrence and continuance of such events of default, the owners of 25 percent in aggregate principal amount of the Subordinate Revenue Bonds then outstanding may elect a bondholders' committee to exercise rights and powers of such owners under the Subordinate Debt Resolutions, including the right to declare the entire unpaid principal of the Subordinate Revenue Bonds then outstanding to be immediately due and payable.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

Four series of the variable rate bonds that are not supported by a SBPA are self-liquidity bonds. These variable rate bonds outstanding at September 30, 2019 and 2018 had no long-term take out provisions therefore, the entire principal amount of \$314.8 million, may be tendered for purchase upon one week’s notice from bondholders. However, on June 25, 2018, Metropolitan entered into a Revolving Credit Agreement (RCA), under which Metropolitan may borrow up to \$200.0 million, to pay the purchase price (principal and accrued interest) of any self-liquidity bonds tendered for purchase. Borrowings made by Metropolitan under the RCA initially bear interest at a fluctuating per annum interest rate equal to, at Metropolitan’s discretion, either: (a) one month LIBOR plus 1.50 percent; or (b) the higher of (i) the Federal Funds Rate plus 0.50 percent, and (ii) the Prime Rate (increasing in any case periodically, beginning after 90 days). The RCA permits repayment of any borrowed principal funds over ten semi-annual installments beginning 180 days after the funds are borrowed. The RCA has a stated expiration date of June 23, 2023. As a result of the RCA, \$114.8 million was reported as current liabilities as of September 30, 2019 and 2018.

As of September 30, 2019 and 2018, the four series of variable rate self-liquidity bonds not supported by a SBPA but are covered by the RCA are as follows:

(Dollars in thousands)

<b>Bond Issue</b>	<b>Amount</b>	<b>Expiration Date</b>	<b>Interest Rate</b>	<b>Borrowing Amount</b>	<b>Current Amount</b>
<b>Water Revenue Refunding Bonds</b>					
2013 Series D	\$ 87,445	6/23/23	Reset Weekly	\$ 87,445	\$ —
2014 Series D	38,465	6/23/23	Reset Weekly	38,465	—
2015 Series A-1, A-2	188,900	6/23/23	Reset Weekly	74,090	114,810
Total	\$ 314,810			\$ 200,000	\$ 114,810

**4. PENSION PLAN**

**(a) General Information about the Pension Plan**

**Plan Description**

All full-time Metropolitan employees are required to participate in Metropolitan’s Miscellaneous Plan with CalPERS, an agent multiple-employer public employee defined benefit pension plan. CalPERS acts as a common investment and administrative agent for participating public entities within the State of California. A menu of benefit provisions as well as other requirements is established by State statutes within the Public Employee’s Retirement Law. Metropolitan selects optional benefit provisions from the benefit menu by contract with CalPERS and adopts those benefits through Board approval. CalPERS issues a separate comprehensive annual report. Copies of CalPERS’ annual financial report may be obtained from its Executive Office, 400 Q Street, Sacramento, CA 95811.

**Benefits Provided**

CalPERS provides retirement and disability benefits, annual cost-of-living adjustments, and death benefits to plan members and beneficiaries. Benefits are based on years of credited service, equal to one year of full-time employment. Employees hired prior to January 1, 2013 (Classic members) with five years of total service are eligible

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

to retire at age 50 with statutorily reduced benefits; employees hired after January 1, 2013 (PEPRA members) with at least five years of credited service are eligible to retire at age 52 with statutorily reduced benefits. All members are eligible for improved non-industrial disability benefits after five years of service. The death benefit is one of the following: the Basic Death Benefit, the 1959 Survivor Benefit, or the Optional Settlement 2W Death Benefit.

**5. POSTEMPLOYMENT BENEFITS OTHER THAN PENSIONS (OPEB)**

**(a) Plan Description and Benefits Provided**

Through CalPERS, Metropolitan offers medical insurance to active and retired employees, as well as their qualified dependents under the Public Employees’ Medical and Hospital Care Act (PEMHCA). Under PEMHCA, health coverage for the employee continues into retirement. Current plans offered are PERS Care PPO, PERS Choice PPO, PERS Select PPO, Blue Shield HMO, and Kaiser HMO. Metropolitan participates in the CERBT Fund, which is an agent multiple-employer plan available to employers to pre-fund OPEB benefits. Benefit provisions are established through negotiations between Metropolitan and its various bargaining units, which also apply to retirees. For employees hired on or after January 1, 2012, retirees must have a minimum of 10 years of PERS service and no less than five years of Metropolitan service in order to receive post-employment health benefits in accordance with PERS as per Government Code Section 22893. CalPERS issues a separate comprehensive annual report that includes financial statements for its CERBT Fund. Copies of CalPERS’ annual financial report may be obtained from its Executive Office, 400 Q Street, Sacramento, CA 95811.

**6. COMMITMENTS AND CONTINGENCIES**

**(a) State Water Contract (see Note 7)**

Estimates of Metropolitan’s share of the projected fixed costs of the SWP are provided annually by the State. The estimates are subject to future increases or decreases resulting from changes in planned facilities, refinements in cost estimates, and inflation. During the next five years, payments under the State Water Contract, exclusive of variable power costs, are currently estimated by the State to be as follows:

(Dollars in thousands)	State Water Contract Payments
Year ending June 30:	
2020	\$ 436,659
2021	481,395
2022	475,254
2023	471,481
2024	468,548

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

Metropolitan intends to exercise its option to extend its agreement with the State through 2085, which will result in annual minimum operations and maintenance costs through 2085. In addition, the amounts shown above do not contain any escalation for inflation, are subject to significant variation over time because the amounts are based on a number of assumptions, and are contingent on future events. None of the estimated long-term commitments are recorded as liabilities in the accompanying basic financial statements.

**(b) Bay/Delta Regulatory and Planning Activities**

The State Water Resources Control Board (State Board) is the agency responsible for setting water quality standards and administering water rights throughout California. Decisions of the State Board can affect the availability of water to Metropolitan and other water users throughout California. The State Board exercises its regulatory authority over Bay/Delta watershed supplies by means of public proceedings leading to regulations and decisions.

In September 2006, then Governor Schwarzenegger established a Delta Vision Process to identify a strategy for managing the Delta as a sustainable resource. The process was tied to legislation that created a Blue Ribbon Task Force (BRTF) and cabinet-level committee tasked with developing a durable vision for sustainable management of the Delta over the long-term which addressed a full array of issues, including land use, infrastructure, flood protection, and natural resources including water supply. The BRTF released its final Delta Vision Strategic Plan in October 2008 and a final implementation report was submitted to the Governor in January 2009. Subsequently, the Delta Reform Act of 2009 was enacted, which created the Delta Stewardship Council (DSC), a seven member appointed body charged with developing a Delta Plan to support carrying out the Delta Vision, which the DSC completed on September 1, 2013. The Delta Plan anticipated the need for periodic reviews and updates in response to changing circumstances and conditions in the Delta. The DSC amended the Delta Plan in February 2016 to include an initial set of performance measures in September 2016 to exempt single-year water transfers from consideration as covered actions. DSC adopted three amendments to the Delta Plan in April 2018, with another proposed update on Ecosystem due for completion.

To avoid endangering listed species or adversely modifying their critical habitat, agencies consult with the California Department of Fish and Wildlife Service (CDFW) or similar agencies under section 7 of the California Endangered Species Act (ESA). If a project may adversely affect a listed species, a formal consultation is held with the fish agencies. The consulting service then issues a biological opinion about whether a project is likely to jeopardize a listed species or destroy or adversely modify its critical habitat. The U.S. Bureau of Reclamation (USBR) and the California Department of Water Resources (DWR) have been working with the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) on the reconsultation for the Coordinated Long-Term Operation of the Central Valley Project and State Water Project. Earlier this year, USBR released a biological assessment to support consultation under the Endangered Species Act. In June 2019, the USFWS and NMFS completed the effects analyses and submitted them for peer review. A revised draft biological opinion was released on July 31, 2019, for another round of independent peer review and for review by the public water agencies. The final biological opinions are expected to be released before the end of the calendar year. Similarly, DWR will be consulting with the CDFW regarding permits for operation of the State Water Project under the ESA.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

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(Unaudited)

The Bay Delta Conservation Plan (BDCP), which began in 2007, is a voluntary collaboration of state, federal, and local water agencies, state and federal fish agencies, environmental organizations, and other interested parties to provide a comprehensive habitat conservation and restoration program for the Delta. In addition, the BDCP would provide the basis for permits under federal and state endangered species laws for activities covered by the plan based on the best available science, identified sources of funding, and an adaptive management and monitoring program. On April 30, 2015, the state announced its intent to include new alternatives separating the conveyance facilities and habitat restoration measures into two separate permitting efforts namely: California WaterFix and California EcoRestore. Under the California WaterFix, the new water conveyance facilities with proposed design changes would be constructed and operated. On February 12, 2019, Governor Newsom announced the shift to a single tunnel project now referred to as the Delta Conveyance Project. As a result, DWR withdrew the approval of California WaterFix, decertified the Environmental Impact Report, and rescinded various permitting applications including those submitted to the State Board, U.S. Army Corps of Engineers, and State and federal Endangered Species Acts permits on May 2, 2019 and rescinded the California WaterFix Bond Resolution on May 7, 2019. The Delta Conveyance Design and Construction Authority executive director has been authorized to execute an amendment to the Joint Exercise of Powers Agreement for Planning and Environmental Services in support of the environmental analysis for a potential Delta Conveyance Project. This amendment outlines the agency's relationship with DWR and its scope of activities in support of environmental planning for a new single tunnel Delta conveyance proposal.

On April 29, 2019, Governor Newsom issued an executive order calling for the development of a water resilience portfolio meeting the needs of California's communities, economy, and environment through the 21st century. This includes the governor's vision for a modern water supply infrastructure, a more climate resilient water supply for people and the environment, and the State Water Project in particular must be updated to respond to climate change.

**(c) Imperial Irrigation District**

As of September 30, 2019, Metropolitan had advanced to the Imperial Irrigation District (IID) a total of \$344.4 million for construction costs, operations and maintenance costs, and indirect costs of the conservation projects. Metropolitan remains obligated to pay IID for actual operation and maintenance costs for the remainder of this agreement through at least 2041. In return, Metropolitan will receive 85,000-105,000 acre-feet in 2019 and annually thereafter depending upon the amount used by the CVWD. A total of at least 85,000 and 105,000 acre-feet will be/was available in calendar years 2019 and 2018, respectively, for diversion by Metropolitan.

**(d) Sale of Water by the Imperial Irrigation District to San Diego County Water Authority**

In April 1998, the San Diego County Water Authority (SDCWA) and IID executed an agreement (Transfer Agreement) for SDCWA's purchase from IID of Colorado River water that is conserved within IID. SDCWA is a Metropolitan member agency and one of the largest water purchasers from Metropolitan. In October 2003 the Transfer Agreement was revised as part of the Quantification Settlement Agreement (see Note 6e). The amended Transfer Agreement sets the maximum transfer amount at 205,000 acre-feet in 2021, with the transfer gradually ramping up to that amount over an approximately twenty-year period, stabilizing at 200,000 acre-feet per year beginning in 2023.



**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

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(Unaudited)

No facilities exist to provide for delivery of water from IID to SDCWA. In 1998, Metropolitan and SDCWA entered into an agreement for the exchange of the IID water to be acquired by SDCWA under the Transfer Agreement, with water to be delivered by Metropolitan. In 2003, the boards of directors of Metropolitan and SDCWA agreed to an increase in the price that SDCWA would pay to Metropolitan for this exchange of water, in return for Metropolitan's assignment to SDCWA of Metropolitan's rights to water conserved as a result of the lining of the All-American and Coachella Canals and \$235.0 million, as set forth in an amended exchange agreement (Exchange Agreement) and an Allocation Agreement. Under the Exchange Agreement, 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 the conserved canal lining water allocated to SDCWA. In exchange, Metropolitan delivers an equal volume of water from its own sources of supply through its delivery system to SDCWA. The deliveries to both Metropolitan and SDCWA are deemed to be made in equal monthly increments. SDCWA pays Metropolitan a volumetric price for each delivery 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 Note 1c). SDCWA has challenged the validity of Metropolitan's charges for conveyance of water that became effective January 1, 2011 and January 1, 2012, in *San Diego County Water Authority v. Metropolitan Water District of Southern California; et al.* On June 8, 2012, SDCWA filed a separate lawsuit challenging the rates adopted by Metropolitan's Board on April 10, 2012 and effective on January 1, 2013 and January 1, 2014. On May 30, 2014, SDCWA filed a separate lawsuit challenging the rates adopted by Metropolitan's Board on April 8, 2014 and effective on January 1, 2015 and January 1, 2016. On April 13, 2016, SDCWA filed a separate lawsuit challenging the rates and charges adopted by Metropolitan's Board on April 12, 2016 and effective on January 1, 2017 and January 1, 2018. On June 8, 2018, SDCWA filed a separate lawsuit challenging the rates and charges adopted by Metropolitan's Board on April 10, 2018 and effective on January 1, 2019 and January 1, 2020. The Exchange Agreement requires Metropolitan to pay the disputed portion of the amount paid by SDCWA under the Exchange Agreement and interest thereon to SDCWA, if SDCWA prevails in a dispute over the price payable by SDCWA under the Exchange Agreement. See Claims and Litigation, Note 6g.

**(e) Quantification Settlement Agreement**

The Quantification Settlement Agreement (QSA) is part of the California Plan, which is a plan to reduce California's use of Colorado River water to its basic apportionment of 4.4 million acre-feet per year when necessary through water conservation, transfers from higher priority agricultural users to Metropolitan's service area, and storage programs. The QSA was executed in October 2003 and establishes Colorado River water use limits for IID and the CVWD. It also provides for specific acquisitions of conserved water and water supply arrangements for up to 75 years and restores the opportunity for Metropolitan to receive any special surplus water.

**(f) Construction Programs and Contracts**

The estimated cost, excluding contingencies, of Metropolitan's capital program for fiscal years 2020 through 2024 totals approximately \$1.46 billion. However, due to various uncertainties such as lower than anticipated construction bids, permitting delays, and facility shutdowns constraints, capital spending is budgeted at \$250.0 million per year for the fiscal years 2020 through 2024.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

Over the next three years, Capital Investment Plan spending totals approximately \$845.0 million with over \$650.0 million targeted for major efforts such as mechanical and electrical refurbishments to major components of the Colorado River Aqueduct and Metropolitan's water treatment plants, refurbishment/replacement of pressure control facilities throughout the distribution system, replacement of reservoir floating covers and liners and seismic upgrades to appurtenant components, rehabilitation through relining of the Prestressed Concrete Cylinder Pipe portions of the Allen McColloch and Rialto Pipelines, and Calabasas, Second Lower, and Sepulveda feeders, replacement/upgrade to the Supervisory Control and Data Acquisition (SCADA) system, and the Los Angeles headquarters building seismic and security upgrades.

**(g) Claims and Litigation**

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 affect charges for transportation of water, resulting 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.

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.

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 were for breach of the water Exchange Agreement between Metropolitan and SDCWA (see note 6d) due to a price 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; and illegality of the rate structure integrity provision in conservation and local resources incentive agreements between Metropolitan and SDCWA. The rate structure integrity provision permitted 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 contained 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. The complaint contained 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.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

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. 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 did not affect SDCWA's separate challenge to Metropolitan's rates adopted in April 2012, which also includes Proposition 26 allegations.

Following trial of both lawsuits in two phases, concluding on January 23, 2014 and April 30, 2015, respectively, the Superior Court of the State of California, County of San Francisco (the "Superior Court"), issued its Final Judgment and a Peremptory Writ of Mandate in the 2010 and 2012 SDCWA v. Metropolitan cases. Metropolitan appealed the trial court's decision in each case, and SDCWA filed a cross-appeal of the court's ruling on the rate structure integrity claim and an attorneys' fees order.

On June 21, 2017, the California Court of Appeal released its decision in the appeals and cross-appeal filed by Metropolitan and SDCWA, respectively. The Court of Appeal ruled that Metropolitan may lawfully include its State Water Project transportation costs in the System Access Rate and System Power Rate that are part of the Exchange Agreement's price term, and that Metropolitan may also lawfully include the System Access Rate in its wheeling rate, reversing the trial court decision on this issue. The Court held Metropolitan's allocation of the State Water Project transportation costs as its own transportation costs is proper and does not violate the wheeling statutes (Water Code, § 1810, et seq.), Proposition 26 (Cal. Const., Article XIII C, §1, subd.(e)), whether or not that Proposition applies to Metropolitan's rates, California Government Code section 54999.7, the common law, or the terms of the parties' Exchange Agreement.

The Court of Appeal also ruled that the administrative record before it for the rates in calendar years 2011 through 2014 did not support Metropolitan's inclusion of its Water Stewardship Rate as a transportation cost in the Exchange Agreement price or the wheeling rate, under the common law and wheeling statutes. Having made that determination, the Court of Appeal stated it need not evaluate the issue under any other law. The court did not address the allocation of the Water Stewardship Rate in subsequent years based on a different record. The court noted, and in a subsequent modification confirmed, that its holding does not preclude Metropolitan from including the Water Stewardship Rate in Metropolitan's full service rate.

The Court of Appeal held that because the Water Stewardship Rate was included in the Exchange Agreement price, there was a breach by Metropolitan of the Exchange Agreement in 2011 through 2014. The court remanded the case to the trial court for a redetermination of damages in light of its ruling concerning the Water Stewardship Rate. The Court of Appeal agreed with the trial court that statutory prejudgment interest applies with respect to any damages award, not a lesser contractual interest. The Court of Appeal reversed the trial court by finding that the Exchange Agreement may entitle SDCWA to attorneys' fees for the second phase of the case concerning breach of contract; but directed the trial court on remand to make a new determination of the prevailing party, if any. The cases were therefore remanded to the trial court for a review of both damages and attorneys' fees.

With respect to other issues considered on appeal, the Court of Appeal upheld the trial court's ruling that Metropolitan improperly excludes SDCWA's payments under the Exchange Agreement in Metropolitan's

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

calculation of SDCWA's preferential rights. The court also ruled that SDCWA had the constitutional right to challenge the rate structure integrity provision in Metropolitan's conservation and local resources incentive agreements, and found that the rate structure integrity provision was invalid and unenforceable as an unconstitutional condition on the provision of a public benefit. The court's remand order included the trial court's entry of declaratory relief on the rate structure integrity provision claim.

On September 27, 2017, the California Supreme Court denied SDCWA's petition for review, declining to consider the Court of Appeal's decision. The Court of Appeal's decision is therefore final.

On July 25, 2018, the Superior Court issued an order regarding the scope of the matters to be reconsidered by the Superior Court on remand pursuant to the Court of Appeal decision. With respect to the Superior Court's re-determination of damages in light of the Court of Appeal's ruling that the administrative record for calendar years 2011 through 2014 did not support Metropolitan's inclusion of its demand management costs in the Exchange Agreement price, the Superior Court ruled that it will award SDCWA \$28,678,190.90 in contract damages for breach of the Exchange Agreement, plus prejudgment interest at 10 percent per annum. The Superior Court determined that Metropolitan is not entitled in the remand proceedings to show what it could have lawfully charged SDCWA for demand management costs and to deduct that from SDCWA's damages.

The Superior Court further ruled that SDCWA is not entitled in the remand proceedings to litigate the issue of "offsetting benefits" under the wheeling statutes for the parties' Exchange Agreement. The Superior Court found that such claim is both outside the scope of remand and waived.

The Superior Court also ruled that SDCWA is entitled to judgment on its declaratory relief cause of action declaring the rate structure integrity provision in Metropolitan's conservation and local resources incentive agreements invalid and unenforceable, SDCWA is entitled to further proceedings to litigate the issue of an entitlement to monetary restitution for 2011 through 2014, and the parties shall also litigate in further proceedings the issue of what prospective relief SDCWA may be entitled to in connection with this cause of action. Finally, the Superior Court confirmed, as the parties agreed, that it will conduct further proceedings for a redetermination of the prevailing party and attorneys' fees in this matter.

On September 14, 2018, Metropolitan filed a Petition for Writ of Mandate with the California Court of Appeal, requesting the court to require the Superior Court to recalculate contract damages for breach of the Exchange Agreement from years 2011 through 2014, to include a set-off for the additional sums SDCWA would have paid had Metropolitan collected the Water Stewardship Rate through its full service sales as SDCWA argued was correct. On November 1, 2018, the Court of Appeal determined that it would not review the issue at this stage of the cases. Metropolitan may raise this issue again on any later appeal from the cases' final judgment.

Due to SDCWA's litigation challenging Metropolitan's rates, and pursuant to the Exchange Agreement between Metropolitan and SDCWA, as of September 30, 2019, Metropolitan held \$56.9 million in a designated fund, the Exchange Agreement Set-Aside Fund. This amount includes the disputed Water Stewardship Rate payments for calendar years 2011 through the present, and interest earned by Metropolitan thereon. The amount held does not

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

include statutory prejudgment interest or any post-judgment interest, attorneys' fees, or costs the court may award. The Exchange Agreement Set-Aside Fund also does not include any amounts applicable to the rate structure integrity provision declaratory relief cause of action, because that claim does not involve disputed payments under the Exchange Agreement.

On February 14, 2019, Metropolitan tendered to SDCWA payment of \$44.4 million for the San Francisco Superior Court's contract damages award for Water Stewardship Rate payments from 2011 through 2014, plus statutory interest through February 15, 2019, with a reservation of appeal rights, in the San Diego County Water Authority v. Metropolitan Water District of Southern California, et al., 2010 and 2012 actions. This tender was made under compulsion to cease accrual of statutory interest in excess of market rates, but did not affect Metropolitan's rights to appeal, including its right to challenge the amount of the damages award. The tendered payment included \$31.6 million of amounts withdrawn from the Exchange Agreement Set-Aside Fund and \$12.8 million withdrawn from reserves (representing statutory interest). On March 7, 2019, SDCWA rejected the tendered payment and returned the uncashed check for the tendered payment. The returned funds were credited back to the Exchange Agreement Set-Aside Fund and Metropolitan reserves in the amounts drawn. The balance in the Exchange Agreement Set-Aside Fund set forth above includes the returned funds.

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. 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. Following a stipulated order issued by the court on November 10, 2016, SDCWA filed a First Amended Petition for Writ of Mandate and Complaint and the court ordered the case stayed pending final resolution of the 2010 and 2012 SDCWA v. Metropolitan cases' appeals. The amended petition/complaint adds allegations of the same Exchange Agreement breach as in the previous cases listed above and breach of a provision that requires Metropolitan to set aside disputed amounts, relating to the manner in which Metropolitan has set aside the amounts; 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 the services provided or, alternatively, a reduction in SDCWA's future fees. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On June 9, 2017, SDCWA filed a new Petition for Writ of Mandate and Complaint challenging the Readiness-to-Serve Charge and Capacity Charge for 2018 adopted by Metropolitan's Board on April 11, 2017. These two charges are set annually, and SDCWA's 2016 lawsuit included a challenge to these two charges for 2017. The new lawsuit similarly alleges the 2018 Readiness-to-Serve Charge and Capacity Charge violate the California Constitution,

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

statutes, and common law. The petition/complaint asserts misallocation of costs. Metropolitan was served with the petition/complaint on June 20, 2017. On July 18, 2017, SDCWA filed a first amended petition/complaint to add Metropolitan's Board action of July 11, 2017 to make minor corrections to the Readiness-to-Serve Charge. On July 31, 2018, pursuant to stipulation by the parties, the San Francisco Superior Court ordered that the case be stayed. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On June 8, 2018, SDCWA filed a new lawsuit that alleges all rates and charges for 2019 and 2020 adopted by Metropolitan's Board on April 10, 2018 violate the California Constitution, statutes, and common law. The Petition for Writ of Mandate and Complaint asserts the Water Stewardship Rate is unlawful per se and its collection in transportation charges is also unlawful; failure to provide wheelers a reasonable credit for "offsetting benefits" pursuant to Water Code Section 1810, et seq., which SDCWA contends (and Metropolitan disputes) applies to the parties' Exchange Agreement; over-collection and misallocation of costs, including misallocation of Metropolitan's California WaterFix costs as its transportation costs; and specified procedural violations. SDCWA states in the Petition and Complaint that it intends to amend its complaint to allege additional claims against Metropolitan, including but not limited to a claim for breach of contract. Following a stipulated order issued by the San Francisco Superior Court on January 10, 2019, SDCWA filed a First Amended Petition for Writ of Mandate and Complaint and the court ordered the case stayed pending final resolution of the 2010 and 2012 SDCWA v. Metropolitan cases. The amended petition/complaint adds a cause of action for breach of the Exchange Agreement alleging Metropolitan charged an unlawful price that includes the Water Stewardship Rate (despite suspension of this charge), failing to provide credit for offsetting benefits, charging transportation rates that are not based on costs of service, including California WaterFix costs, and not following procedural requirements; and requests a refund to SDCWA of any amount Metropolitan has collected in excess of the reasonable costs of the services provided or, alternatively, a reduction in SDCWA's future fees. This 2018 lawsuit has not yet been assigned to a department in the San Francisco Superior Court. Metropolitan is unable to assess at this time the likelihood of success of this case, any possible appeal or any future claims.

On August 29, 2019, as a result of changes in reorganization of assignments at the San Francisco Superior Court, the 2010, 2012, 2016, and 2017 SDCWA v. Metropolitan cases were reassigned to a different department of the Court. SDCWA filed a motion for peremptory disqualification of the new judge and on September 6, 2019, the motion was sustained. On September 27, 2019, the 2010, 2012, 2016, and 2017 cases were assigned to Department 304, a different department within the complex division in which the 2014 case is already pending.

**(h) Drinking Water Quality Standards**

Under the Safe Drinking Water Act Amendments of 1996, Congress required the United States Environmental Protection Agency to set new drinking water quality standards. New standards to control microbial pathogens and disinfection byproducts (DBPs) became effective in 2002. These rules are known as the Interim Enhanced Surface Water Treatment Rule and the Stage 1 Disinfectants/Disinfection By-Product Rule. These standards became more stringent in a second set of regulations effective 2006. The second set of regulations (the Stage 2 Disinfectants/Disinfection Byproducts Rule and the Long-Term 2 Enhanced Surface Water Treatment Rule) did not require additional capital investment by Metropolitan.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

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(Unaudited)

Metropolitan identified ozone disinfection as the most cost-effective option to minimize the production of DBPs and achieve other water quality objectives. Ozone is now used as the primary disinfectant at Diemer, Jensen, Mills, Skinner and Weymouth plants. The cost of implementing ozone treatment at all five plants was approximately \$1.1 billion.

**(i) Reid Gardner Generating Station**

Reid Gardner Generating Station (Plant) is a 557 megawatt coal-fired plant located near Moapa, Nevada. The Plant is owned and operated by Nevada Energy (NE). In 1983, DWR entered in to a Participation Agreement to import power from the Plant to serve the State Water Project energy needs. DWR's interest in the Plant terminated on July 25, 2013. DWR and NE negotiated the terms of the divestiture including DWR's obligations to mitigate any environmental impacts associated with the electricity generated for DWR over the past thirty years. Metropolitan paid approximately 75.0 percent of DWR's costs associated with the generation of electricity at the Plant and will pay this proportion of DWR's assigned mitigation costs.

**(j) Landfill Obligation**

Federal and State laws and regulations require that Metropolitan perform certain maintenance and monitoring functions at its sole landfill site for 30 years after closure. They further require that a separate funding mechanism be established to ensure that sufficient funds are available for closure and postclosure costs. In October 1995, the landfill was closed and management's estimate of closure and postclosure costs for this site totaled approximately \$2.0 million. The required thirty-year postclosure maintenance and monitoring of the landfill officially started in January 1998; after the installation of the landfill's final cover was completed. No amounts were expended for post closure maintenance and monitoring activities during the three months ended September 30, 2019 and approximately \$5,000 was expended during three months ended September 30, 2018.

The actual cost of postclosure care may be higher due to inflation, changes in technology, or changes in landfill laws or regulations. Funding of these costs has been derived from a separate trust account that has been established for closure and postclosure costs. The balance of the trust account is sufficient to cover the landfill liability.

**7. PARTICIPATION RIGHTS IN STATE WATER PROJECT**

Metropolitan is one of 29 water suppliers contracting with the State of California for a system to provide water throughout much of California. Under the terms of the State Water Contract, as amended, Metropolitan is obligated to pay allocable portions of the cost of construction of the system and ongoing operations and maintenance costs through at least the year 2035, regardless of the quantities of water available from the project (see Note 6a). Metropolitan and the other contractors may also be responsible to the State for certain obligations of any contractor who defaults on its payments to the State.

Approximately 35 percent and 37 percent of Metropolitan's total expenditures during the three months ended September 30, 2019 and 2018, respectively, pertained to its net payment obligations for the State Water Project. These payments were primarily based on the contractual water delivery request, the annually requested and actual deliveries received, and the cost of power required for such deliveries, offset by credits received from the project.

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

The State Water Contract provides Metropolitan rights to water through 2052 but Management’s present intention is to exercise Metropolitan’s option to extend the contractual period to at least 2085, under similar terms, based on the Agreement in Principle reached in 2014. This corresponds to an estimated 125-year service life for the original facilities. The State is obligated to provide specified quantities of water throughout the life of the contract, subject to certain conditions.

The State has power generation facilities associated with its reservoirs and aqueducts. The power generated is utilized by the system for water transportation purposes. Power generated in excess of system needs is marketed to various utilities and California’s power market. The revenues resulting from sales of excess power reduce the costs of pumping. Metropolitan and the other water contractors are responsible for repaying the capital and operating costs of the power facilities regardless of the amount of power generated.

Metropolitan capitalizes its share of system construction costs as participation rights when such costs are billed by the State (see Notes 1h and 6a). Metropolitan’s share of system operations and maintenance costs is charged to expense.

Metropolitan amortizes a portion of capitalized participation rights each month using a formula that considers the total estimated cost of the project, the estimated useful life, and estimated production capacity of the assets based upon information provided by the State of California. In fiscal year 2006, the formula was modified to use maximum annual contracted deliveries as the production capacity estimate as previous estimates of total production were less reliable than expected. Amortization expense totaled \$35.4 million and \$32.8 million for the three months ended September 30, 2019 and 2018, respectively.

**8. DEPOSITS, PREPAID COSTS, AND OTHER**

Balances at September 30, 2019 and 2018 were as follows:

(Dollars in thousands)	September 30,	
	2019	2018
Prepaid water costs	\$ 224,610	\$ 181,624
Prepaid costs-Delta Habitat conservation and conveyance	58,627	58,627
Prepaid costs-California WaterFix	41,500	23,400
Prepaid expenses	20,817	12,462
Preliminary design/reimbursable projects	13,571	12,487
Other	140,352	145,116
Total deposits, prepaid costs, and other	499,477	433,716
Less current portion	(129,093)	(131,575)
Noncurrent portion	\$ 370,384	\$ 302,141



**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

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(Unaudited)

**(a) Prepaid Water Costs**

Metropolitan has entered into several water exchange and storage agreements with other agencies. These agreements provide Metropolitan with additional reliable water supplies to supplement deliveries of Colorado River and State Water Project water. Metropolitan is also actively pursuing other agreements, both within and outside its service area, to provide additional water supplies. The exchange and storage agreements generally provide for advance delivery of water during periods when water is available. At a later time when water is needed, these programs can then return water to improve Metropolitan's reliability. Expenditures associated with these agreements have been recorded as prepaid costs and are charged to cost of water as the water is withdrawn. At September 30, 2019 and 2018, prepaid water costs totaled approximately \$224.6 million and \$181.6 million, respectively, based on volumes of 1,128,000 acre-feet and 913,000 acre-feet, as of such dates.

**(b) Prepaid Costs—Delta Habitat Conservation and Conveyance**

In March 2009, Metropolitan, other State Water Project contractors, federal Central Valley Project contractors, and the U.S. Department of Interior's Bureau of Reclamation entered into funding agreements with DWR. The agreements are known collectively as the Delta Habitat Conservation and Conveyance Program (DHCCP) Funding Agreement and the Bay Delta Conservation Plan and Delta Habitat Conservation and Conveyance Plan (BDCP - DHCCP) Supplemental Funding Agreement. Metropolitan's three-year DHCCP agreement provides funding of approximately \$35.0 million for Metropolitan's share (24 percent). Metropolitan's two-year BDCP-DHCCP agreement provides funding of approximately \$25.0 million (25 percent). The funding provided by both agreements supports development of the BDCP which was later on adapted as California WaterFix (see Note 6b and 8c) through environmental analysis, planning and design of Delta conservation measures including Delta water conveyance options. Total prepaid costs at September 30, 2019 and 2018 were \$58.6 million.

**(c) Prepaid Costs—California WaterFix**

As of September 30, 2019 and 2018, Metropolitan disbursed a total of \$41.5 million and \$23.4 million, respectively, to DWR for preconstruction planning costs of the California WaterFix in accordance with the advance funding agreement entered into in August 2018. The \$41.5 million was Metropolitan's share (31 percent) of the funding and DWR intends to refund Metropolitan for funds advanced through this agreement through bond financing actions. However, as a result of the shift to a single tunnel project and DWR's withdrawal of approval of the California WaterFix Project as well as the rescission of other permitting applications (see Note 8b), Metropolitan requested, on June 27, 2019, that DWR return its contributions that have not been spent as of May 2, 2019. DWR responded that all unspent funds will be remitted after a full accounting has been completed.

**(d) Preliminary Design/Reimbursable Projects**

Metropolitan engages in preliminary design activities prior to obtaining Board approval of capital projects. The costs of these designs are recorded as prepaid costs. Once Board approval is obtained, these costs are added to the cost of the relevant construction project.

Reimbursable projects include work Metropolitan is contracted to perform for outside, non-related parties, and is subsequently billed for reimbursement.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

**9. DEFERRED COMPENSATION AND SAVINGS PLANS**

For the benefit of its employees, Metropolitan has adopted a deferred compensation plan in accordance with Section 457 of the Internal Revenue Code. Generally, eligible employees may defer receipt of a portion of their salary until termination, retirement, death, or unforeseeable emergency. Until the funds are paid or otherwise made available to the employee, the employee is not obligated to report the deferred salary for income tax purposes.

Metropolitan has established another compensation deferral arrangement in accordance with Section 401(k) of the Internal Revenue Code. The 401(k) Consolidated Savings Plan (savings plan) is available to substantially all employees. Metropolitan has established a matching contribution program, subject to a maximum of 4.5 percent of the employee's total cash compensation, on behalf of each participating employee in the savings plan. Amounts deferred by participants, Metropolitan matching contributions, and accumulated earnings thereon are fully vested.

Deferred amounts and matching contributions, if any, for both plans are transferred by Metropolitan each pay period to a third-party administrator who coordinates the investment of such proceeds in a variety of investment vehicles in accordance with the instructions of each participant. Accordingly, neither the assets nor the related liability of each plans were included in the accompanying basic financial statements at September 30, 2019 and 2018.

The Treasurer serves as Trustee for both the deferred compensation and savings plans. Metropolitan is not liable to its employees for any losses that may be incurred in connection with their participation in the plans.

**10. NET POSITION**

Net position is classified as either restricted, unrestricted, or net investment in capital assets, including State Water Project Costs.

Net investment in capital assets, including State Water Project costs consist of capital assets, net of accumulated depreciation and amortization, and reduced by the outstanding balances of any bonds, notes, or other borrowings attributable to the acquisition or construction of those assets and deferred outflows and inflows of resources related to debt. Metropolitan's capital assets, including State Water Project costs include plant and equipment (Notes 1h), participation rights in State Water Project (Notes 1i and 7), and participation rights in other facilities. Net investment in capital assets, including State Water Project costs were approximately \$6.3 billion and \$6.1 billion at September 30, 2019 and 2018, respectively.

The restricted component of net position are those items that have external constraints placed on them by creditors, grantors, contributors, or laws or regulations of other governments, or imposed by law through constitutional provisions of enabling legislation. Restricted net position totaled \$457.3 million and \$404.2 million at September 30, 2019 and 2018, respectively, of which \$218.6 million and \$199.5 million, respectively, represents principal and interest set aside for the next bond payment. The remaining \$238.7 million and \$204.7 million, respectively, relates to estimated operating and maintenance expense for October and November of the subsequent fiscal year. Each of these requirements is related to bond covenants.

**NOTES TO BASIC FINANCIAL STATEMENTS****(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

The unrestricted component of net position are those items that do not meet the definition of “restricted” or “net investment in capital assets, including State Water Project costs.” Unlike the restricted net position, the Board has discretion in determining the use and establishing minimum/maximum balance requirements for the unrestricted cash and investment portion of net position. The Board may at any time change or eliminate amounts established for these purposes. Unrestricted net position totaled \$138.9 million and \$281.5 million at September 30, 2019 and 2018, respectively.

**11. RISK MANAGEMENT**

Metropolitan is exposed to various risks of loss related to the design, construction, treatment, and delivery of water resources. Metropolitan self-insures most of its property losses, the first \$25.0 million for general liability, fiduciary liability and directors’ and officers’ liability, and \$5.0 million for workers’ compensation. Metropolitan supplements its self-insurance program with \$75.0 million excess general liability coverage, \$60.0 million excess fiduciary liability coverage, \$65.0 million excess for directors’ and officers’ liability coverage, and statutory limits excess workers’ compensation coverage. Special insurance policies carried include aircraft hull and liability, a limited property damage policy, crime insurance, specialty crime coverage, and travel accident coverage. Coverage types and limits for fiscal year 2019 were unchanged from fiscal year 2018. Settlement amounts did not exceed the self-insurance or insurance coverage limits in any of the past three years.

Liabilities are reported when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated. Liabilities include an estimated amount for claims that have been incurred but not reported. Claims liabilities are calculated considering the effects of inflation, recent claim settlement trends including frequency and amount of payouts, and other economic and social factors. The present value of liabilities for unpaid claims is based on a 1.5 percent annual interest rate over the life of the claims.

**12. SUBSEQUENT EVENT**

On October 1, 2019, Metropolitan issued \$100.0 million of The Metropolitan Water District of Southern California Index Notes (Tax-Exempt and New Money), Subseries A-1 (the Subseries A-1 Notes), at a rate equal to the SIFMA Municipal Swap Index plus 33 basis points. The Subseries A-1 Notes were issued under Metropolitan’s existing noteholder’s agreement, executed on April 1, 2016, with RBC Municipal Products, LLC (RBC), as amended, under which Metropolitan may borrow, pay down and re-borrow up to \$200.0 million, through the issuance and sale from time to time of notes issued by Metropolitan and purchased by RBC. Proceeds of the Subseries A-1 Notes will be used to fund capital expenditures and reimburse prior capital expenditures. 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, RBC could terminate its commitment and declare all amounts then outstanding to be immediately due and payable. Metropolitan has secured its obligation to pay principal and interest on the Subseries A-1 Notes as senior parity obligations. Any principal remaining outstanding at the April 5, 2022 commitment end date is required to be paid by Metropolitan in quarterly installments over a period of approximately one year.

On November 15, 2019, Metropolitan provided a statutory Offer to Compromise to SDCWA to resolve all pending litigation filed by SDCWA. The offer, which is not confidential, was made under California Code of Civil Procedure

**NOTES TO BASIC FINANCIAL STATEMENTS**

**(CONTINUED)**

September 30, 2019 and 2018

(Unaudited)

Section 998. It may be accepted within 30 days, and is otherwise deemed withdrawn. In exchange for entry of stipulated judgments/dismissals with prejudice in all existing litigation filed by SDCWA against Metropolitan, SDCWA's release and waiver of other claims, and certain confirmations, Metropolitan offered: (1) payment of \$72,096,671.32 to SDCWA, representing SDCWA's payment of the Water Stewardship Rate (WSR) in connection with Exchange Agreement deliveries for calendar years 2011-2017, with interest for calendar years 2011-2014 already litigated; (2) amendment of the Exchange Agreement price term to a fixed amount of \$450 per acre-foot of exchange water delivered, with an escalator based on the Construction Cost Index (20 Cities), and the addition of transportation costs of a state Delta conveyance project; (3) amendment of the Exchange Agreement term providing for monthly equal deliveries of exchange water to a more flexible delivery within the calendar year based on SDCWA's needs; and (4) for each party to bear their own attorneys' fees and costs in the litigation. Metropolitan's Exchange Agreement Set-Aside Fund (Fund) contains SDCWA's disputed WSR payments for 2011-2017, plus interest based on Metropolitan's investments. The Fund balance was \$57.03 million as of October 31, 2019. The \$72.09 million payment would derive from: (1) WSR payments for 2011-2017 from the Fund, and (2) 10 percent statutory interest (accepting SDCWA's calculation) on the 2011-2014 WSR payments from the remainder of the Fund and from unrestricted reserves.

**APPENDIX C**

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**SUMMARY OF CERTAIN PROVISIONS OF  
THE RESOLUTIONS**

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## APPENDIX C

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### SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS

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*The following is a summary of certain provisions of the Master Resolution, as amended and supplemented to date, including as amended and supplemented by the Twenty-Third Supplemental Resolution. This summary does not purport to be complete and is qualified in its entirety by reference to the foregoing documents for a complete statement of provisions thereof.*

#### DEFINITIONS

The following are definitions of certain terms used in this Summary. Such definitions also apply to terms used in the Official Statement to the extent that such terms are not otherwise defined in the Official Statement. Terms not defined below have the meanings specified in the Resolutions.

“2020 Water Revenue Bonds” means the Bonds described in the Twenty-Third Supplemental Resolution, authorized and issued pursuant to the Master Resolution, as supplemented by the Twenty-Third Supplemental Resolution, and includes Fixed Rate Bonds and Variable Rate Bonds.

“Accreted Value” means, with respect to any Capital Appreciation Bond or Capital Appreciation Parity Obligation, the principal amount thereof plus the interest accrued thereon from its delivery date, compounded at the approximate interest rate thereof on each date specified therein. With respect to any Capital Appreciation Bonds, the Accreted Value at any date to which reference is made will be the amount set forth in the Accreted Value Table as of such date, if such date is a compounding date, and if not, will be determined by straight-line interpolation with reference to such Accreted Value Table.

“Accreted Value Table” means the table denominated as such, and as to which reference is made in, a Supplemental Resolution for any Capital Appreciation Bonds issued pursuant to such Supplemental Resolution.

“Additional Revenues” means, for any period of calculation, all interest, profits and other income received from the investment of any moneys of Metropolitan and any other revenues (other than Operating Revenues) of Metropolitan, in each case to the extent available to pay principal and Accreted Value of and interest on the Bonds during such period.

“Assumed Debt Service” means, with respect to any Excluded Principal Payment for any Fiscal Year (or other designated 12 month period) on or after the Excluded Principal Payment date the sum of the amount of principal and interest which would be payable in each such Fiscal Year (or other designated 12 month period) if that Excluded Principal Payment were amortized for a period specified by Metropolitan at the time of issuance of such Bonds or Parity Obligations (no greater than thirty (30) years from the date of such Excluded Principal Payment) on a substantially level debt service basis, calculated based on a fixed interest rate equal to the rate at which Metropolitan could borrow (as of the time of calculation) for such period, as certified by a certificate of a financial advisor or investment banker delivered to Metropolitan at the time of issuance of such Bonds or Parity Obligations, which may rely conclusively on such certificate, within thirty (30) days of the date of calculation.

“Authorized Investments” means, any investments in which Metropolitan may legally invest sums subject to its control pursuant to Sections 53601 and 53635 of the California Government Code, as further restricted by the Administrative Code of Metropolitan (as amended from time to time), as certified to each Fiscal Agent, and will include Designated Investments.

“Authorized Representative” means each of the General Manager and the Director of Finance and any other officer or employee of Metropolitan authorized by the General Manager or the Director of Finance to act as an Authorized Representative.

“Bond Obligation” means, as of any date of calculation, (1) with respect to any Outstanding Current Interest Bond, the principal amount of such Bond, and (2) with respect to any Outstanding Capital Appreciation Bond, the Accreted Value thereof as of the date on which interest on such Capital Appreciation Bond was compounded next preceding such date of calculation (unless such date of calculation is a date on which such interest is compounded, in which case, as of such date).

“Bond Register” means the Bond Register as defined in the Master Resolution.

“Bond Reserve Requirement” means the reserve requirement established for a Series of 2020 Water Revenue Bonds under the terms of the sales documents or trust agreement with respect to such Series and pursuant to the terms of the Twenty-Third Supplemental Resolution.

“Bond Service Fund” means the Water Revenue Bonds, Bond Service Fund established pursuant to the Resolutions.

“Bonds” means The Metropolitan Water District of Southern California Water Revenue Bonds, authorized by and at any time Outstanding pursuant to the Resolutions.

“Business Day” means any day other than (1) a Saturday, Sunday, or a day on which banking institutions in the State or the State of New York are authorized or obligated by law or executive order to be closed, (2) for purposes of payments and other actions relating to credit or liquidity enhanced Bonds, a day upon which commercial banks in the city in which is located the office of the credit or liquidity enhancer at which demands for payment under the credit document with respect to the credit or liquidity enhancement are to be presented are authorized or obligated by law or executive order to be closed, and, if specified in a Supplemental Resolution, (3) a day upon which the principal office of Metropolitan is authorized to be closed.

“Capital Appreciation Bonds” means any Bonds the interest on which is compounded and not scheduled to be paid until maturity, prior redemption or conversion thereof.

“Capital Appreciation Parity Obligations” means any Parity Obligations the interest with respect to which is compounded and not scheduled to be paid until maturity, prior redemption or conversion thereof.

“Certificate,” “Statement,” “Request,” “Requisition” and “Order” of Metropolitan means, respectively, a written certificate, statement, request, requisition or order signed by an Authorized Representative.

“Code” means the Internal Revenue Code of 1986, as amended.

“Construction Costs” means the cost of acquiring, constructing, reconstructing, replacing, extending and improving any project eligible to be financed under the Act.

“Construction Fund” means, with respect to a Series of 2020 Water Revenue Bonds, the Water Revenue Bonds 2020 Water Revenue Construction Fund established for such Series pursuant to the Twenty-Third Supplemental Resolution.

“Continuing Disclosure Certificate” means, with respect to a Series of 2020 Water Revenue Bonds, the Continuing Disclosure Certificate or Undertaking of the District, delivered by the District in connection with the issuance of such Series of 2020 Water Revenue Bonds.

“Costs of Issuance” means all items of expense directly or indirectly payable by or reimbursable to the District and related to the authorization, execution, sale and delivery of a Series of 2020 Water Revenue Bonds, including but not limited to advertising and printing costs, costs of preparation and reproduction of documents, filing



and recording fees, initial fees and charges of any agent including any Fiscal Agent, paying agent, remarketing agent, legal fees and charges, underwriter discounts, fees and disbursements of consultants and professionals, financial advisor fees and expenses, rating agency fees, fees and charges for preparation, execution, transportation and safekeeping of the 2020 Water Revenue Bonds, and any other cost, charge or fee in connection with the delivery of the 2020 Water Revenue Bonds.

“Costs of Issuance Fund” means, with respect to a Series of 2020 Water Revenue Bonds, the Water Revenue Bonds 2020 Water Revenue Costs of Issuance Fund established for such Series pursuant to the Twenty-Third Supplemental Indenture.

“Controller” means the Controller of Metropolitan, who may also be a Fiscal Agent for a Series of Bonds if so designated in the Supplemental Resolution authorizing the issuance of such Series.

“Credit Facility” means a letter of credit, line of credit, liquidity facility or other credit facility issued by a financial institution or other form of credit enhancement, including, but not limited to, municipal bond insurance and guarantees, delivered to the Treasurer or the Fiscal Agent for a Series or portion of a Series of Bonds, which provides for payment, in accordance with the terms of such Credit Facility, of principal or Accreted Value, premium and/or interest of such Series or portion of a Series of Bonds and/or the purchase price of such Series of Bonds or portion thereof. A Credit Facility may be comprised of one or more credit facilities issued by one or more financial institutions.

“Current Interest Bonds” means the Bonds of any Series, other than Capital Appreciation Bonds, which pay interest at least annually to the Owners thereof excluding the first payment of interest thereon.

“Designated Investments” means, with respect to the Bonds of a Series, any investments designated as Designated Investments in the Supplemental Resolution authorizing the issuance of the Bonds of that Series.

“Director of Finance” means the Chief Financial Officer of Metropolitan.

“Excluded Principal Payment” means each payment of principal of Bonds or Parity Obligations which Metropolitan designates (in the Supplemental Resolution or other document delivered on a date not later than the date of issuance of such Bonds or Parity Obligations) to be an Excluded Principal Payment. No such determination will affect the security for such Bonds or Parity Obligations or the obligation of Metropolitan to pay such payments from Net Operating Revenues or from the applicable reserve fund or account, if any.

“Expenditures” means cash disbursements of Metropolitan.

“Federal Securities” means direct obligations of, or obligations the timely payment of which are unconditionally guaranteed by, the United States of America or the Treasury Department of the United States of America or securities or receipts evidencing direct ownership interests in the foregoing obligations or specific portions (such as principal or interest) of the foregoing obligations which are held in safekeeping by a custodian on behalf of the owners of such receipts.

“Final Compounded Amount” means the Accreted Value of any Capital Appreciation Bond on its maturity date.

“Fiscal Agent” means with respect to any Series of Bonds, the fiscal agent appointed pursuant to the Supplemental Resolution authorizing the issuance of such Series (which may be the Treasurer or the Controller).

“Fiscal Year” means the period beginning on July 1 of each year and ending on the next succeeding June 30, or any other twelve-month period later selected by Metropolitan as the official fiscal year of Metropolitan.

“Fixed Rate Bonds” means 2020 Water Revenue Bonds other than Variable Rate Bonds.

“General Manager” means the General Manager of Metropolitan.

“Initial Amount” means the principal amount of a Capital Appreciation Bond on the date of issuance and delivery to the original purchaser thereof.

“Mandatory Sinking Account Payment” means, with respect to Bonds of any Series and maturity, the amount required by the Resolutions to be deposited by the Treasurer in the Bond Service Fund for the payment of Term Bonds of such Series and maturity.

“Maximum Annual Debt Service” means, as of any date of calculation, the greatest amount of principal and interest becoming due and payable on all Bonds and Parity Obligations in any Fiscal Year including the Fiscal Year in which the calculation is made or any subsequent Fiscal Year; provided, however, that for the purposes of computing Maximum Annual Debt Service:

(a) Excluded Principal Payments will be excluded from such calculation and Assumed Debt Service will be included in such calculation;

(b) if the Parity Obligations or Bonds are Variable Rate Indebtedness and (i) are secured pursuant to a Credit Facility which, if drawn upon, could create a repayment obligation which has a lien on Net Operating Revenues subordinate to the lien of the Parity Obligations or Bonds or (ii) are not secured by any Credit Facility, the interest rate on such Parity Obligations or Bonds for periods when the actual interest rate cannot yet be determined will be assumed to be equal to an interest rate calculated by multiplying 1.20 times the interest rate on the Parity Obligations or Bonds on the date of calculation or, if such Parity Obligations or Bonds are not currently Outstanding, 1.20 times the interest rate that such Parity Obligations or Bonds would bear if they were Outstanding on such date, as certified by a Certificate of a financial advisor or investment banker delivered to Metropolitan;

(c) if the Parity Obligations or Bonds are Variable Rate Indebtedness and are secured pursuant to a Credit Facility which, if drawn upon, could create a repayment obligation which has a lien on Net Operating Revenues on a parity with the lien of the Parity Obligations or Bonds, the interest rate on such Parity Obligations or Bonds for periods when the actual interest rate cannot yet be determined will be assumed to be equal to the lesser of (i) the then current “prime rate” of the provider of the Credit Facility and (ii) the maximum rate permitted on the Parity Obligations or Bonds;

(d) principal and interest payments on Parity Obligations and Bonds will be excluded to the extent such payments are to be paid from amounts on deposit (and investment earnings thereon) as of the date of calculation with the Treasurer, any Fiscal Agent or any other fiduciary in an escrow irrevocably dedicated therefor and to the extent that such interest payments are to be paid from the proceeds of Parity Obligations or Bonds held by the Treasurer, the Fiscal Agent or any other fiduciary as capitalized interest specifically to pay such interest;

(e) if the Bonds or Parity Obligations are Paired Obligations, the interest rate on such Bonds or Parity Obligations will be the collective fixed interest rate to be paid by Metropolitan with respect to such Paired Obligations;

(f) in determining the principal amount due in each Fiscal Year, payment (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization) will be assumed to be made in accordance with any amortization schedule established for such debt, including any Mandatory Sinking Account Payments or any scheduled redemption or payment of Bonds or Parity Obligations on the basis of Accreted Value, and for such purpose, the redemption payment or payment of Accreted Value will be deemed a principal payment and interest that is compounded and paid as Accreted Value will be deemed an interest payment due on the scheduled redemption or payment date; and

(g) with respect to each interest rate swap agreement constituting a Parity Obligation then in effect, if any, there will be added into the calculation of Maximum Annual Debt Service an amount equal to the greater of:

(i) 0 and

(ii) (a) if the swap rate applicable to Metropolitan under such interest rate swap agreement is fixed, an amount equal to (1) (x) such fixed swap rate less (y) the variable swap rate applicable to the counterparty to such interest rate swap agreement at such date of determination, times (2) the notional amount of such interest rate swap agreement, or

(b) if the swap rate applicable to Metropolitan under such interest rate swap agreement is variable, an amount equal to (1) (x) 1.20 times the variable swap rate at such date of determination less (y) the fixed swap rate applicable to the counterparty to such interest rate swap agreement, times (2) the notional amount of such interest rate swap agreement,

in each case the notional amount of, and swap rates applicable to each party on such date of determination under, such interest rate swap agreement will be as set forth in a certificate of a financial advisor or investment banker delivered to Metropolitan.

Notwithstanding any other subsection of this definition of Maximum Annual Debt Service, except as set forth in subsection (g) above, no amounts payable under any interest rate swap agreement constituting a Parity Obligation will be included in the calculation of Maximum Annual Debt Service.

“Municipal Obligations” means municipal obligations, rated in the highest Rating Category by any Rating Agencies, meeting the following conditions:

(a) the municipal obligations are not to be redeemable prior to maturity, or the trustee with respect to such obligations has been given irrevocable instructions concerning their calling and redemption;

(b) the municipal obligations are secured by Federal Securities, which Federal Securities, except for provisions relating to surplus moneys not required for the payment of the municipal obligations and the substitution of such Federal Securities for other Federal Securities satisfying all criteria for Federal Securities, may be applied only to interest, principal and premium payments of such municipal obligations;

(c) the principal of and interest on the Federal Securities (plus any cash in the escrow fund) are sufficient, without reinvestment, to meet the liabilities of the municipal obligations; and

(d) the Federal Securities serving as security for the municipal obligations are held by an escrow agent or trustee.

“Net Operating Revenues” means Operating Revenues less Operation and Maintenance Expenditures paid from Operating Revenues.

“Operating Revenues” means all revenues received by Metropolitan from charges for the sale and availability of water, including, without limitation, Metropolitan’s water rates, readiness-to-serve charge, standby charge, new demand charge, connection maintenance charge, and treated water peaking charge.

“Operation and Maintenance Expenditures” means the necessary Expenditures for operating and maintaining the properties, works, and facilities of Metropolitan and will include (i) Expenditures for such charges as may be payable by Metropolitan under the State Water Contract and under that certain contract entitled “The Devil Canyon-Castaic Contract” between Metropolitan and certain other Southern California public agencies, dated June 23, 1972, as amended from time to time, which charges constitute operation, maintenance, power and replacement charges, (ii) any necessary contributions to medical, health, retirement or other similar benefits of Metropolitan employees and annuitants and (iii) such other Expenditures of Metropolitan generally classified as operating and maintenance Expenditures, excluding any charges for depreciation or amortization. Notwithstanding the preceding sentence, for purposes of payment of Operation and Maintenance Expenditures only, Operation and Maintenance Expenditures will not include a portion of any payment calculated pursuant to Section 25(d) of the first aforementioned contract which Metropolitan determines is attributable to the capital costs of off-aqueduct power facilities, as such facilities are defined in Article (1)(i)(2) of such contract.

“Operation and Maintenance Fund” means the fund of that name established and continued pursuant to the Resolutions.

“Outstanding” means (1) when used as of any particular time with reference to Bonds (excluding, solely for the purpose of determining whether the requisite aggregate principal amount of Bonds have concurred in any demand, request, direction, or waiver, those Bonds which are owned by or held by or for the account of Metropolitan), all Bonds theretofore, or thereupon being, authenticated and delivered by the Fiscal Agent for that Series under the Resolutions except (A) Bonds theretofore cancelled by the Fiscal Agent for that Series or surrendered to the Fiscal Agent for that Series for cancellation; (B) Bonds with respect to which all liability of Metropolitan has been discharged in accordance with the Resolutions; (C) Bonds for the transfer or exchange of or in lieu of or in substitution for which other Bonds have been authenticated and delivered by the Fiscal Agent for that Series pursuant to the Resolutions; and (D) Bonds no longer deemed to be outstanding under the Resolutions as provided in the Supplemental Resolution pursuant to which such Bonds were issued; (2) when used as of any particular time with reference to Prior Lien Bonds, all Prior Lien Bonds deemed outstanding within the meaning of the respective Prior Lien Bonds Resolutions; and (3) when used as of any particular time with reference to Parity Obligations, all Parity Obligations deemed outstanding or not satisfied within the meaning of the documents authorizing such Parity Obligations.

“Owner” or “Bondholder” whenever used in the Resolutions with respect to a Bond, means the person in whose name such Bond is registered.

“Paired Obligations” means any one or more Series (or portion thereof) of Bonds or Parity Obligations, designated as Paired Obligations in the Supplemental Resolution or other document authorizing the issuance or incurrence thereof, which are simultaneously issued or incurred (i) the principal of which is of equal amount maturing and to be retired on the same dates and in the same amounts, and (ii) the interest rates on which, taken together, result in an irrevocably fixed interest rate obligation of Metropolitan for the term of such Bonds or Parity Obligations.

“Parity Obligations” means (1) any indebtedness or other obligation of Metropolitan for borrowed money, (2) any obligations of Metropolitan for deferred purchase price, (3) any lease obligation of Metropolitan, or (4) any other obligation of Metropolitan, in each case having a lien and charge upon, or being payable from, the Net Operating Revenues on a parity with the Bonds.

“Person” means an individual, corporation, firm, association, partnership, trust, or other legal entity or group of entities, including a governmental entity or any agency or political subdivision thereof.

“Prior Lien Bonds” means the bonds issued and outstanding pursuant to the Prior Lien Bonds Resolutions.

“Prior Lien Bonds Maximum Annual Debt Service” with respect to the Prior Lien Bonds means the largest of the sums obtained by totaling for the current Fiscal Year and each future Fiscal Year (a) the principal amount of serial Prior Lien Bonds maturing during such Fiscal Year, (b) the principal amount of term Prior Lien Bonds maturing or required to be paid during such Fiscal Year, together with any premium thereon, and (c) the interest which would be due during such Fiscal Year on such serial Prior Lien Bonds and term Prior Lien Bonds; all after excluding from such amounts principal and interest on Prior Lien Bonds previously retired.

“Prior Lien Bonds Resolutions” means the resolutions of Metropolitan with respect to Metropolitan’s Waterworks Refunding Revenue Bonds, Issue of 1978; Metropolitan’s Waterworks Revenue Bonds, Issue of 1979; Metropolitan’s Waterworks Revenue Bonds, Issue of 1983; and Metropolitan’s Waterworks Refunding Revenue Bonds, Issue of 1986.

“Rating Agencies” means either or both of Moody’s Investors Service and Standard & Poor’s Ratings Services and such other securities rating agencies providing a rating with respect to a Series of Bonds.

“Rating Category” means (1) with respect to any long-term rating category, all ratings designated by a particular letter or combination of letters, without regard to any numerical modifier, plus or minus sign or other

modifier and (2) with respect to any short-term or commercial paper rating category, all ratings designated by a particular letter or combination of letters and taking into account any numerical modifier, but not any plus or minus sign or other modifier.

“Redemption Fund” means the Water Revenue Bonds, Redemption Fund established and maintained pursuant to the Master Resolution with respect to the Bonds.

“Redemption Price” means, with respect to any Bond (or portion thereof) the principal amount or Accreted Value of such Bond (or portion) plus the applicable premium, if any, payable upon redemption thereof pursuant to the provisions of such Bond and the Resolutions.

“Reserve Fund” means, with respect to a Series of 2020 Water Revenue Bonds, the Water Revenue Bonds 2020 Water Revenue Reserve Fund established for such Series pursuant to the Twenty-Third Supplemental.

“Reserve Remainder Fund” means the fund of that name established and continued pursuant to the Master Resolution.

“Resolutions” means, collectively, the Resolutions as supplemented, modified or amended by each Supplemental Resolution.

“Securities Depository” means the Securities Depository acting as such hereunder (initially DTC) and which may be the District.

“Serial Bonds” means Bonds, maturing in specified years, for which no Mandatory Sinking Account Payments are provided.

“Series” whenever used in the Resolutions with respect to Bonds, means all of the Bonds designated as being of the same series, authenticated and delivered in a simultaneous transaction, regardless of variations in maturity, interest rate, redemption and other provisions, and any Bonds thereafter authenticated and delivered upon transfer or exchange or in lieu of or in substitution for (but not to refund) such Bonds as provided in the Resolutions.

“State” means the State of California.

“State Water Contract” means that certain contract entitled “A Contract Between the State of California Department of Water Resources and The Metropolitan Water District of Southern California for a Supply of Water,” dated November 4, 1960, as amended from time to time.

“Supplemental Resolution” means any resolution duly adopted by Metropolitan, supplementing, modifying or amending the Master Resolution, in accordance with its provisions.

“Term Bonds” means Bonds payable at or before their specified maturity date or dates from Mandatory Sinking Account Payments established for that purpose and calculated to retire such Bonds on or before their specified maturity date or dates.

“Treasurer” means the Treasurer of Metropolitan, who may also be a Fiscal Agent for a Series of Bonds if so designated in the Supplemental Resolution authorizing the issuance of such Series.

“Twenty-Third Supplemental Resolution” means Resolution 9262 of the District, and any amendments, modifications or supplements hereto.

“Tax Certificate” means, with respect to a Series of 2020 Water Revenue Bonds, the Tax and Nonarbitrage Certificate of the District delivered by the District in connection with the issuance of such Series of 2020 Water Revenue Bonds.

“Variable Rate Bonds” means 2020 Water Revenue Bonds bearing interest as determined from time to time by a remarketing agent or a calculation agent, pursuant to an index or otherwise in accordance with the provisions of the trust agreement with respect to such 2020 Water Revenue Bonds.

“Variable Rate Indebtedness” means any indebtedness or obligation, other than Paired Obligations, the interest rate on, or amount of, which is not fixed at the time of incurrence of such indebtedness or obligation, and has not at some subsequent date been fixed, at a single numerical rate for the entire remaining term of the indebtedness or obligation.

“Water Revenue Fund” means the fund of that name established and continued pursuant to the Resolutions.

“Water System” means the properties, works and facilities of Metropolitan necessary for the supply, availability, development, storage, transportation, treatment or sale of water.

## THE MASTER RESOLUTION

### General

The Master Resolution authorizes the creation of “The Metropolitan Water District of Southern California Water Revenue Bonds,” which Bonds may be issued in an unlimited principal amount, subject, however, to the limitations contained in the Metropolitan Water District Act and the Resolutions, and will be issued in Series pursuant to Supplemental Resolutions adopted under the terms and conditions provided in the Master Resolution.

Transfer of Bonds. Any Bond may, in accordance with its terms, be transferred, upon the register required to be kept pursuant to the provisions of the Master Resolution, by the Person in whose name it is registered, in Person or by his duly authorized attorney, upon surrender of such Bond for cancellation, accompanied by delivery of a written instrument of transfer, duly executed in a form approved by the Fiscal Agent for such Bond.

Whenever any Bond or Bonds of a Series are surrendered for transfer, Metropolitan will execute and the Fiscal Agent for that Series will authenticate and deliver a new Bond or Bonds, of the same Series, tenor and maturity and for a like aggregate principal amount; provided that, unless otherwise provided in any Supplemental Resolution, a Fiscal Agent is not required to register a transfer of any Bonds within 15 days before the date of selection of Bonds for redemption, or of any Bond or portion of a Bond so selected for redemption. A Fiscal Agent may require the Bondholder requesting such transfer to pay any tax or other governmental charge required to be paid with respect to such transfer.

Exchange of Bonds. Bonds of any Series may be exchanged at the designated office of the Fiscal Agent for that Series for a like aggregate principal amount of Bonds of other authorized denominations of the same Series, tenor and maturity; provided that, unless otherwise provided in any Supplemental Resolution, a Fiscal Agent is not required to exchange Bonds within 15 days before the date of selection of Bonds for redemption, or exchange any Bond or portion of a Bond so selected for redemption. The Fiscal Agent will require the Bondholder requesting such exchange to pay any tax or other governmental charge required to be paid with respect to such exchange.

Bond Register. The Fiscal Agent for each Series of Bonds will keep or cause to be kept at its designated office sufficient books for the registration and transfer of the Bonds of that Series, which will at all times be open to inspection during normal business hours by Metropolitan; and, upon presentation for such purpose, the Fiscal Agent will, under such reasonable regulations as it may prescribe, register or transfer or cause to be registered or transferred, on such books, Bonds as provided in the Master Resolution.

Temporary Bonds. The Bonds may be issued in temporary form exchangeable for definitive Bonds when ready for delivery. Any temporary Bond may be printed, lithographed or typewritten, will be of such denomination as may be determined by Metropolitan, will be in registered form and may contain such reference to any of the provisions of the Master Resolution as may be appropriate. A temporary Bond may be in the form of a single Bond payable in installments, each on the date, in the amount and at the rate of interest established for the Bonds maturing on such date. Every temporary Bond will be executed by Metropolitan and authenticated by the Fiscal Agent upon

the same conditions and in substantially the same manner as the definitive Bonds. If Metropolitan issues temporary Bonds it will execute and deliver definitive Bonds as promptly thereafter as practicable, and thereupon the temporary Bonds may be surrendered, for cancellation, in exchange therefor at the designated office of the Fiscal Agent for such Series and that Fiscal Agent will authenticate and deliver in exchange for such temporary Bonds an equal aggregate principal amount of definitive Bonds of authorized denominations of the same Series, tenor and maturity or maturities. Until so exchanged, the temporary Bonds will be entitled to the same benefits under the Master Resolution as definitive Bonds authenticated and delivered under the Master Resolution.

Bonds Mutilated, Lost, Destroyed or Stolen. If any Bond becomes mutilated, Metropolitan at the expense of the Owner of said Bond, will execute, and the Fiscal Agent for such Bond will thereupon authenticate and deliver, a new Bond of like tenor and amount in exchange and substitution for the Bond so mutilated, but only upon surrender to the Fiscal Agent of the Bond so mutilated. Every mutilated Bond so surrendered to the Fiscal Agent for that Bond will be cancelled by it and destroyed. If any Bond is lost, destroyed or stolen, evidence of such loss, destruction or theft may be submitted to Metropolitan and the Fiscal Agent for that Bond and, if such evidence be satisfactory to both that Fiscal Agent and Metropolitan and indemnity satisfactory to them will be given, Metropolitan at the expense of the Owner, will execute, and that Fiscal Agent will thereupon authenticate and deliver, a new Bond of like tenor and amount in lieu of and in substitution for the Bond so lost, destroyed or stolen (or if any such Bond has matured or has been called for redemption, instead of issuing a substitute Bond, the Fiscal Agent for that Series may pay the same without surrender thereof upon receipt of the aforementioned indemnity). Metropolitan may require payment of a sum not exceeding the actual cost of preparing each new Bond issued under the Master Resolution and of the expenses which may be incurred by Metropolitan and the Fiscal Agent in the premises. Any Bond issued under the provisions of the Master Resolution in lieu of any Bond alleged to be lost, destroyed or stolen will constitute an original additional contractual obligation on the part of Metropolitan whether or not the Bond so alleged to be lost, destroyed or stolen be at any time enforceable by anyone, and will be entitled to the benefits of the Master Resolution with all other Bonds secured by the Master Resolution. Neither Metropolitan nor any Fiscal Agent will be required to treat both the original Bond and any substitute Bond as being Outstanding for the purpose of determining the principal amount of Bonds which may be issued under the Master Resolution or for the purpose of determining any percentage of Bonds Outstanding under the Master Resolution, but both the original and substitute Bond will be treated as one and the same.

### **Supplemental Resolutions; Additional Bonds**

The Bonds of each Series will bear interest, if any, at such rate or rates or determined in such manner (not to exceed the maximum rate of interest permitted by law) and payable at such intervals as may be determined by Metropolitan at the time of issuance thereof (pursuant to the Supplemental Resolution under which such Series are issued), and will mature and become payable on such date or dates and in such year or years as Metropolitan may determine (pursuant to the Supplemental Resolution creating such Series). The Bonds of each Series may be subject to mandatory or optional purchase or redemption upon such terms and conditions and upon such notice and with such effect as provided in the Supplemental Resolution creating such Series.

The Bonds of any Series may be issued in such denominations as may be authorized by the Supplemental Resolution creating such Series in fully registered or bearer form, with or without coupons or in fully registered book-entry form.

### **Redemption of Bonds**

Terms of Redemption. Each Series of Bonds may be made subject to redemption prior to its respective stated maturities, as a whole or in part, at such time or times, upon such terms and conditions and upon such notice and with such effect as may be provided in the Supplemental Resolution creating such Series of Bonds.

Redemption at the Direction of Metropolitan. In the case of any redemption of Bonds at the direction of Metropolitan, Metropolitan will select the series, maturities and principal amounts thereof to be redeemed and the Treasurer will give written notice to the Fiscal Agent for each Series of Bonds to be redeemed specifying the redemption date and the maturities and Bond Obligation amounts of such Series to be redeemed, and directing the Fiscal Agent to give notice of redemption to the Owners of Bonds selected for redemption. Metropolitan will give such notice at least 15 Business Days (or such shorter period as may be agreed to by the Fiscal Agent) before the last

day on which the Fiscal Agent for that Series may give notice of redemption to the Owners of the Bonds of that Series.

Payment of Redeemed Bonds. Notice having been given in the manner provided in the Master Resolution, the Bonds or portions thereof so called for redemption will become due and payable on the redemption date so designated at the Redemption Price, plus interest accrued and unpaid to the redemption date, and, upon presentation and surrender thereof at the office specified in such notice, such Bonds, or portions thereof, will be paid at the Redemption Price, plus interest accrued and unpaid to the redemption date. If there is drawn for redemption a portion of a Bond, Metropolitan will execute and the Fiscal Agent for that Bond will authenticate and deliver, upon the surrender of such Bond, without charge to the Owner thereof, for the unredeemed balance of the principal amount of the Bond so surrendered, a Bond of like Series and maturity in any authorized denomination. If, on the redemption date, moneys for the redemption of all the Bonds or portions thereof of any like Series and maturity to be redeemed, together with interest to the redemption dates, will be available therefor on said date and if notice of redemption has been given as aforesaid, then, from and after the redemption date interest on the Bonds or portion thereof of such Series and maturity so called for redemption will cease to accrue and become payable. If said moneys are not so available on the redemption date, such Bonds or portions thereof will continue to bear interest until paid at the same rate as they would have borne had they not been called for redemption.

## **Revenues**

Pledge of Net Operating Revenues. The Bonds of each Series are special limited obligations of Metropolitan and are secured by a pledge of and will be a charge upon and will be payable, as to the principal and Accreted Value thereof, interest thereon, and any premiums upon redemption thereof, solely from and secured by a lien upon (i) the Net Operating Revenues, subordinate to the lien thereon of the Prior Lien Bonds pursuant to the Prior Lien Bonds Resolutions, and (ii) the other funds, assets and security described under the Master Resolution and under the Supplemental Resolution creating that Series. Metropolitan has pledged by the Master Resolution and placed a charge upon all Net Operating Revenues, subordinate only to the lien thereon of the Prior Lien Bonds pursuant to the Prior Lien Bonds Resolutions, to secure the payment of the principal and Accreted Value of, premium, if any, and interest on the Bonds and Parity Obligations in accordance with their respective terms without priority or distinction of one over the other, subject only to the provisions of the Master Resolution permitting the application thereof for the purposes and on the terms and conditions set forth in the Master Resolution, and the Net Operating Revenues, subordinate only to the lien thereon of the Prior Lien Bonds pursuant to the Prior Lien Bonds Resolutions, constitute a trust for the security and payment of the interest and any premium on and principal and Accreted Value of the Bonds and Parity Obligations. There are by the Master Resolution pledged to secure the payment of the principal and Accreted Value of and premium, if any, and interest on the Bonds in accordance with their terms all amounts (including proceeds of the Bonds) held by the Treasurer in the Bond Service Fund, subject only to the provisions of the Master Resolution permitting the application thereof for the purposes and on the terms and conditions set forth in the Master Resolution. The pledge of Net Operating Revenues made in the Master Resolution will be irrevocable until there are no Bonds Outstanding.

Equality of Security. The Master Resolution constitutes a contract between Metropolitan and the Owners from time to time of the Bonds. The covenants and agreements set forth in the Master Resolution to be performed by or on behalf of Metropolitan will be for the equal and proportionate benefit, security and protection of all Owners of the Bonds, without preference, priority or distinction as to security or otherwise of any Bond over any other Bond by reason of the Series, time of issue, sale or negotiation thereof or for any cause whatsoever, except as expressly provided therein or in the Master Resolution. Nothing in the Master Resolution prevents additional security being provided to particular Series of Bonds under any Supplemental Resolution.

Establishment of Funds and Accounts; Application. Metropolitan will establish, continue and maintain, as appropriate, in accordance with the terms of the Prior Lien Bonds Resolutions and of the Master Resolution, the following funds and accounts:

1. Water Revenue Fund (the "Water Revenue Fund");
2. Operation and Maintenance Fund (the "Operation and Maintenance Fund");



3. Water Revenue Bonds, Bond Service Fund (the “Bond Service Fund”); and
4. Revenue Remainder Fund (the “Revenue Remainder Fund”).

All funds and accounts established or continued under the Master Resolution or by any Supplemental Resolution will be held by the Treasurer or, if applicable, a Fiscal Agent and will be accounted for separate and apart from all other funds and moneys of the Treasurer or such Fiscal Agent until all Bonds have been paid in full or discharged in accordance with the Master Resolution and any Supplemental Resolution.

Water Revenue Fund. Metropolitan will allocate all Operating Revenues to the Water Revenue Fund, and will effect transfers from the Water Revenue Fund to the other funds held by it or by the Fiscal Agent in the amounts and in the following order of priority:

(i) Operation and Maintenance Expenditures. As soon as practicable in each calendar month, Metropolitan will transfer to the Operation and Maintenance Fund from the Water Revenue Fund an amount sufficient, together with any other revenues lawfully available therefor, to provide for the estimated Operation and Maintenance Expenditures during the current calendar month and the next succeeding calendar month. The Operation and Maintenance Fund will be used for no other purpose than the payment of Operation and Maintenance Expenditures.

(ii) Bond Service Fund. Upon delivery of the Bonds to the purchasers thereof, the amount specified pursuant to the Master Resolution will be placed in the Bond Service Fund.

As soon as practicable in each calendar month, following the transfers required by the Master Resolution, there will be set aside and transferred to the Bond Service Fund an amount equal to (A) (i) with respect to the Outstanding Current Interest Bonds of each Series (except for Bonds constituting Variable Rate Indebtedness or Paired Obligations), such amount as will be sufficient on a monthly pro rata basis to pay the aggregate amount of interest becoming due and payable on the next interest payment date for all such Outstanding Current Interest Bonds of such Series (excluding any interest for which there are moneys deposited in the Bond Service Fund from the proceeds of such Series of bonds or other source and reserved as capitalized interest to pay such interest until the next interest payment date), until the requisite amount of interest becoming due on the next interest payment date on all such Outstanding Current Interest Bonds of such Series (except for Bonds constituting Variable Rate Indebtedness or Paired Obligations) is on deposit in such account, (ii) 110 percent of the aggregate amount of interest, estimated by the Treasurer in his or her reasonable judgment, to accrue during that month on the Outstanding Variable Rate Indebtedness; provided, however, that the amount of such deposit into the Bond Service Fund for any month may be reduced by the amount by which the deposit in the prior month for interest estimated to accrue on Outstanding Variable Rate Indebtedness exceeded the actual amount of interest accrued during that month on said Outstanding Variable Rate Indebtedness and further provided that the amount of such deposit into the Bond Service Fund for any month will be increased by the amount by which the deposit in the prior month for interest estimated to accrue on Outstanding Variable Rate Indebtedness was less than the actual amount of interest accrued during that month on said Outstanding Variable Rate Indebtedness, and (iii) with respect to Outstanding Paired Obligations, such amount as will be sufficient on a monthly pro rata basis to pay the aggregate of the collective fixed interest obligation of Metropolitan for such Paired Obligations coming due and payable on the next interest payment date for such Paired Obligations, and (B) (i) one-sixth of the aggregate semi-annual amount of any Bond Obligation becoming due and payable on the Outstanding Bonds of all Series having semi-annual maturity dates or semi-annual Mandatory Sinking Account Payments due within the next six months, plus (ii) one-twelfth of the aggregate yearly amount of any Bond Obligation becoming due and payable on the Outstanding Bonds of all Series having annual maturity dates or annual Mandatory Sinking Account Payments due within the next twelve months; provided that if the Board irrevocably determines by resolution that any principal payments on the Bonds of any Series will be refunded on or prior to their respective due dates or paid from amounts on deposit in a reserve account established and maintained for Bonds of that Series, no amounts need be set aside toward such principal to be so refunded or paid. If, during the twelve-month period (or six-month period with respect to Bonds having semi-annual Mandatory Sinking Account Payments) immediately preceding a Mandatory Sinking Account Payment date, the Treasurer has purchased Term Bonds of a Series and maturity subject to such Mandatory Sinking Account Payment with moneys in the Bond Service Fund, or, during said period and prior to giving said notice of redemption, Metropolitan has deposited Term Bonds of such Series and maturity with the Fiscal Agent for such Series for cancellation, or Term

Bonds of such Series and maturity were at any time purchased or redeemed by the Treasurer or the Fiscal Agent for such Series from the Redemption Fund, such Term Bonds so purchased or deposited or redeemed will be applied, to the extent of the full principal amount thereof, to reduce amounts required to be deposited in the Bond Service Fund. All Term Bonds purchased from the Bond Service Fund or deposited by Metropolitan with the Fiscal Agent for such Series will be allocated first to the next succeeding Mandatory Sinking Account Payment for such Series and maturity of Term Bonds, then as a credit against such future Mandatory Sinking Account Payments for such Series and maturity of Term Bonds as may be specified in a Request of Metropolitan. All Term Bonds redeemed by the Treasurer or the Fiscal Agent for such Series from amounts in the Redemption Fund will be credited to such future Mandatory Sinking Account Payments for such Series and maturity of Term Bonds as may be specified in a Request of Metropolitan.

No deposit need be made into the Bond Service Fund if (i) the amount contained therein is at least equal to the interest to become due and payable on the estimated interest payment dates falling within the next six months upon all of the Bonds issued under the Master Resolution and then Outstanding (but excluding any moneys on deposit in the Interest Account from the proceeds of any Series of Bonds or other source and reserved as capitalized interest to pay interest on any future interest payment dates following such interest payment dates), and (ii) there is in such fund moneys sufficient to pay the Bond Obligations of all Bonds issued under the Master Resolution and then Outstanding and maturing by their terms or subject to mandatory redemption within the next twelve months. If Metropolitan issues or incurs any Parity Obligations, the payments required to be placed in any debt service fund or sinking fund to pay the principal or Accreted Value of, or mandatory sinking fund payments or interest with respect to, such Parity Obligations will rank and be made on a parity with the payments required to be placed in the Bond Service Fund.

In no event will the amounts set aside as provided above in connection with the Outstanding Bonds of each Series remain unspent for more than twelve months after the date on which such amounts are deposited in the Bond Service Fund, with the exception of a reasonable carry-over amount not to exceed the greater of twelve-months' earnings on such amounts or one-twelfth of the annual debt service on the Outstanding Bonds of such Series. At least once each year, on a date to be set forth in the Tax and Nonarbitrage Certificate prepared in connection with each Series of Bonds, any amount remaining in the Bond Service Fund in connection with each Series of Bonds that exceeds the reasonable carry-over amount described above will be transferred to the Water Revenue Fund.

(iii) Reserve Funds. Metropolitan will deposit as soon as practicable in each calendar month in any reserve fund or account established under a Supplemental Resolution for a Series of Bonds and in any reserve fund or account established for any Parity Obligations, upon the occurrence of any deficiency therein, one-sixth (1/6th) of the aggregate amount of each unreplenished prior withdrawal from such reserve fund or account and the full amount of any deficiency due to any required valuations of the investments in such reserve fund or account until the balance in such reserve fund or account is at least equal to the amount required pursuant to the Supplemental Resolution or other document creating such reserve fund or account. If there will be a deficiency of Operating Revenues to make the deposits required by this paragraph, such Operating Revenues will be deposited into each reserve fund or account on a pro rata basis based on the amount of each such deficiency.

(iv) Excess Earnings Funds. Metropolitan will deposit in any excess earnings or rebate fund or account established in the Excess Earnings Fund pursuant to a Supplemental Resolution for a Series of Bonds such amounts at such times as required pursuant to the Supplemental Resolution or other document creating such account.

(v) Payment of Other Obligations. In each calendar month Metropolitan will make any required transfer or deposit for the payments of any obligations of Metropolitan with a lien on, or payable from, Net Operating Revenues junior to the lien thereon of the Bonds and any Parity Obligations.

(vi) Revenue Remainder Fund. Any amounts remaining in the Water Revenue Fund after the foregoing transfers, except as otherwise provided in a Supplemental Resolution, will be transferred to the Revenue Remainder Fund. Provided Metropolitan is in compliance with all covenants contained in the Master Resolution, moneys in the Revenue Remainder Fund may be used for any lawful purpose of Metropolitan.

Application of Funds and Accounts. All amounts in the Bond Service Fund will be used and withdrawn by the Treasurer solely for the purposes of paying (i) interest on the Bonds as it will become due and payable (including accrued interest on any Bonds purchased or redeemed prior to maturity) and making payments to providers of any Credit Facility for any Bonds with respect to reimbursement to such providers of interest payments on any Bonds made by such providers; and (ii) the Bond Obligation of the Bonds when due and payable at maturity or upon redemption and making payments to providers of any Credit Facility for any Bonds with respect to reimbursement to such providers of payments of principal of Bonds made by such providers.

Notwithstanding the paragraph above, moneys in the Bond Service Fund may be applied to the purchase of Bonds maturing or subject to mandatory sinking fund redemption (1) within the next six months in the case of Bonds subject to semi-annual maturity dates or (2) within the next twelve months in the case of Bonds subject to annual maturity dates (but only to the extent of amounts deposited in the Bond Service Fund in respect of such Bonds), at public or private sale, as and when and at such prices (including brokerage and other charges) as is directed by Metropolitan, except that the purchase price (excluding accrued interest, in the case of current Interest Bonds) will not exceed the principal amount or Accreted Value thereof. All Bonds purchased pursuant to this paragraph will be delivered to the Fiscal Agent for such Bonds and cancelled and destroyed by that Fiscal Agent and a certificate of destruction will be delivered to the Treasurer by the Fiscal Agent for such Series.

Reserve Funds. Amounts on deposit in any reserve fund or account for a Series of Bonds will be used and withdrawn as provided in the Supplemental Resolution authorizing the issuance of such Series.

Excess Earnings Funds. Amounts on deposit in any excess earnings or rebate fund or account established for a Series of Bonds will be used and withdrawn as provided in the Supplemental Resolution authorizing the issuance of such Series.

Establishment, Funding and Application of Redemption Fund. Metropolitan will establish and the Treasurer will maintain and hold in trust a special fund designated as the "Water Revenue Bonds, Redemption Fund." All moneys deposited with the Treasurer for the purpose of optionally redeeming Bonds will, unless otherwise directed by the Board, be deposited in the Redemption Fund. All amounts deposited in the Redemption Fund will be used and withdrawn by the Treasurer solely for the purpose of redeeming Bonds of any Series, in the manner, at the times and upon the terms and conditions specified in the Supplemental Resolution pursuant to which the Series of Bonds was created; provided that, at any time prior to the Fiscal Agent for such Series giving notice of redemption, the Treasurer may apply such amounts to the purchase of Bonds at public or private sale, as and when and at such prices (including brokerage and other charges, but excluding, in the case of Current Interest Bonds, accrued interest, which is payable from the Bond Service Fund) as is directed by Metropolitan except that the purchase price (exclusive of such accrued interest) may not exceed the Redemption Price or Accreted Value then applicable to such Bonds. All Term Bonds purchased or redeemed from amounts in the Redemption Fund will be allocated to Mandatory Sinking Account Payments then applicable to such Series and maturity of Term Bonds as may be specified in a Request of Metropolitan.

Investment of Moneys in Funds and Accounts. All moneys in any of the funds and accounts held by the Treasurer or any Fiscal Agent and established pursuant to the Master Resolution will be invested solely in Authorized Investments maturing or available on demand not later than the date on which it is estimated that such moneys will be required by the Treasurer or such Fiscal Agent.

Unless otherwise provided in a Supplemental Resolution with respect to any fund or account created pursuant to that Supplemental Resolution, all interest, profits and other income received from the investment of moneys in any fund or account will be credited to such fund or account when received. Notwithstanding anything to the contrary contained in this paragraph, an amount of interest received with respect to any Authorized Investment equal to the amount of accrued interest, if any, paid as part of the purchase price of such Authorized Investment will be credited to the fund or account from which such accrued interest was paid.

Unless otherwise provided in a Supplemental Resolution with respect to a fund or account created pursuant to that Supplemental Resolution, the Treasurer and any Fiscal Agent may commingle any of the accounts established pursuant to the Master Resolution into a separate fund or funds for investment purposes only, provided that all funds or accounts held by the Treasurer or any Fiscal Agent under the Master Resolution will be accounted for separately

as required by the Master Resolution. The Treasurer or any Fiscal Agent may sell at the best price obtainable, or present for redemption, any Authorized Investment so purchased whenever it will be necessary to provide moneys to meet any required payment, transfer, withdrawal or disbursement from the fund or account to which such Authorized Investment is credited.

The Treasurer and each Fiscal Agent will keep proper books of record and accounts containing complete and correct entries of all transactions made by each, respectively, relating to the receipt, investment, disbursement, allocation and application of the moneys related to the Bonds, including moneys derived from, pledged to, or to be used to make payments on the Bonds. Such records will specify the account to which each investment (or portion thereof) held by the Treasurer and each Fiscal Agent is to be allocated and will set forth, in the case of each Authorized Investment, (a) its purchase price, (b) identifying information, including par amount, coupon rate, and payment dates, (c) the amount received at maturity or its sale price, as the case may be, including accrued interest, (d) the amounts and dates of any payments made with respect thereto, and (e) the dates of acquisition and disposition or maturity.

### **Covenants**

Under the Master Resolution, Metropolitan makes the following covenants with the Owners; provided, however, that said covenants do not require or obligate Metropolitan to use any of its moneys other than the Operating Revenues. The following covenants will be in effect so long as any of the Bonds issued under the Master Resolution are Outstanding and unpaid, or so long as provision for the full payment and discharge thereof at maturity or upon redemption thereof prior to maturity through the setting apart in the Bond Service Fund or in the Redemption Fund or in a special trust fund to insure the payment or redemption thereof (as the case may be) of money sufficient for that purpose has not been made.

Punctual Payment. Metropolitan has covenanted that it will duly and punctually pay or cause to be paid the principal and Accreted Value of and interest on every Bond issued under the Master Resolution, together with the premium thereon, if any, on the date, at the place and in the manner mentioned in the Bonds in accordance with the Master Resolution, and that the payments into the Bond Service Fund and any reserve fund or account will be made, all in strict conformity with the terms of said Bonds and of the Master Resolution and any Supplemental Resolutions, and that it will faithfully observe and perform all of the conditions, covenants and requirements of the Master Resolution and any Supplemental Resolutions and of the Bonds issued thereunder, and that time of such payment and performance is of the essence of Metropolitan's contract with the Owners of the Bonds.

Discharge Claims. Metropolitan has covenanted that in order to fully preserve and protect the priority and security of the Bonds Metropolitan will pay and discharge all lawful claims for labor, materials and supplies furnished for or in connection with the Water System which, if unpaid, may become a lien or charge upon the Operating Revenues prior or superior to the lien of the Bonds and impair the security of the Bonds. Metropolitan will also pay all taxes and assessments or other governmental charges lawfully levied or assessed upon or in respect of the Water System or upon any part thereof or upon any of the Operating Revenues therefrom.

Against Sale; Eminent Domain. Metropolitan has covenanted that the Water System will not be mortgaged or otherwise encumbered, sold, leased, pledged, any charge placed thereon, or disposed of as a whole or substantially as a whole unless such sale or other disposition be so arranged as to provide for a continuance of payments into the Water Revenue Fund sufficient in amount to permit payment therefrom of the principal and Accreted Value of and interest on and the premiums, if any, due upon the call and redemption thereof, of the Bonds and any Parity Obligations, and also to provide for such payments into any reserve fund or account as are required under the terms of the Master Resolution or any Supplemental Resolutions or any Parity Obligations documents. The Operating Revenues will not be mortgaged, encumbered, sold, leased, pledged, any charge placed thereon, or disposed of or used, nor will any charge be placed thereon, except as authorized by the terms of the Master Resolution or any Supplemental Resolutions. Metropolitan further covenants that it will not enter into any agreement which impairs the operation of the Water System or any part of it necessary to secure adequate Net Operating Revenues to pay the principal and Accreted Value of and interest on the Bonds or any Parity Obligations or which otherwise would impair the rights of the Owners with respect to the Operating Revenues or the operation of the Water System. If any part of the Water System is sold and such sale adversely affects the adequacy of Net Operating Revenues to pay principal and Accreted Value of and interest on the Bonds or any Parity Obligations, the

payment therefor will, at the option of the Board, either be used for the acquisition, construction and financing of additions to and extension and improvements of the Water System or will be used to pay or call and redeem Outstanding Bonds in the manner provided in the Master Resolution or any Supplemental Resolutions.

Metropolitan has covenanted that any amounts received as awards as a result of the taking of all or any part of the Water System by the lawful exercise of eminent domain or sale under threat thereof which adversely affects the adequacy of Net Operating Revenues to pay principal and Accreted Value of and interest on the Bonds or any Parity Obligations will either be used for the acquisition and/or construction of improvements and extensions of the Water System or will be placed in the Bond Service Fund or the Redemption Fund and will be used to pay or call and redeem Outstanding Bonds in the manner provided in the Master Resolution.

Insurance. Metropolitan has covenanted that it will at all times maintain with responsible insurers, to the extent available from responsible insurers at reasonable rates, or through a program of self-insurance (or a combination thereof) all such insurance on the Water System as is customarily maintained with respect to works and properties of like character against accident to, loss of or damage to such works or properties. If any useful part of the Water System is damaged or destroyed, such part will be restored to use. The money collected from insurance against accident to or destruction of the Water System will be used for repairing or rebuilding the damaged or destroyed Water System, and to the extent not so applied, will be applied to the retirement of any Outstanding Bonds.

Metropolitan will also (by self-insuring or by maintenance with responsible insurers, to the extent available from responsible insurers at reasonable rates, or by a combination thereof) provide for workers' compensation insurance and insurance against public liability and property damage to the extent reasonably necessary to protect Metropolitan and the Owners.

Records and Accounts. Metropolitan will keep proper books of records and accounts of the Water System separate from all other records and accounts in which complete and correct entries will be made of all transactions relating to the Water System. Such books will at all times be subject to the inspection of the Owners of not less than 10 percent of the Outstanding Bonds and any Parity Obligations, or their representatives authorized in writing.

Metropolitan will cause the books and accounts of the Water System to be audited annually by an independent certified public accountant or firm of certified public accountants, and will make available for inspection by the Owners at the principal office of Metropolitan and at the office of each Fiscal Agent, a copy of the report of such accountant or accountants.

No Priority for Additional Bonds. No additional bonds, notes or other evidences of indebtedness payable out of the Operating Revenues will be issued having any priority in payment of principal, premium, if any, or interest over the Outstanding Bonds or Parity Obligations.

Limits on Additional Debt. Except Refunding Bonds or Parity Obligations to the extent incurred to pay or discharge Outstanding Bonds or Parity Obligations and which do not result in an increase in the average annual debt service on all Bonds or Parity Obligations to be Outstanding after the issuance of such Refunding Bonds or Parity Obligations, no additional Bonds or Parity Obligations will be created or incurred unless:

First: Metropolitan is not in default under the terms of the Master Resolution; and

Second: Either (i) the Net Operating Revenues as shown by the books and records of Metropolitan for the latest Fiscal Year or for any 12 consecutive month period within the last completed 24-month period ended not more than one month before the issuance of or incurrence of such additional Bonds or Parity Obligations as set forth in a certificate of Metropolitan or (ii) the estimated Net Operating Revenues for the first complete Fiscal Year when the improvements to the Water System financed with the proceeds of the additional Bonds or Parity Obligations is in operation as estimated by and set forth in a certificate of Metropolitan, plus, at the option of Metropolitan, any or all of the items later in this covenant designated (a), (b), (c) and (d), have amounted to not less than 1.20 times the Maximum Annual Debt Service in any Fiscal Year thereafter on all Bonds and Parity Obligations to be Outstanding immediately subsequent to the incurring of such additional Bonds or Parity Obligations.

The items any or all of which may be added to such Net Operating Revenues for the purpose of meeting the requirement set forth in this covenant are the following:

(a) An allowance for any increase in Net Operating Revenues (including, without limitation, a reduction in Operation and Maintenance Expenditures) which may arise from any additions to and extensions and improvements of the Water System to be made or acquired with the proceeds of such additional Bonds or Parity Obligations or with the proceeds of bonds previously issued, and also for net revenues from any such additions, extensions or improvements which have been made or acquired with moneys from any source but which, during all or any part of such Fiscal Year or such 12 consecutive month period within the last completed 24-month period, were not in service, all in an amount equal to the estimated additional average annual net revenues to be derived from such additions, extensions and improvements for the first 36-month period in which each addition, extension or improvement is respectively to be in operation, all as shown by the certificate of Metropolitan.

(b) An allowance for earnings arising from any increase in the charges made for the use of the Water System which has become effective prior to the incurring of such additional Bonds or Parity Obligations but which, during all or any part of such Fiscal Year or such 12 consecutive month period within the last completed 24-month period, was not in effect, in an amount equal to the amount by which the Net Operating Revenues would have been increased if such increase in charges had been in effect during the whole of such Fiscal Year or such 12 consecutive month period within the last completed 24-month period, as shown by the certificate of Metropolitan.

(c) Any Additional Revenues.

(d) Any other moneys of Metropolitan reasonably expected to be available to pay principal and Accreted Value of and interest on the Bonds or Parity Obligations, as evidenced by a certificate of Metropolitan.

Third: On the date of delivery of and payment for such additional Bonds or Parity Obligations, the amount in any reserve fund or account for any Bonds or Parity Obligations previously established is not less than an amount required to be maintained in such fund pursuant to the Supplemental Resolution or other document creating such fund.

Nothing in the Master Resolution will limit the ability of Metropolitan to issue or incur obligations which are junior and subordinate to the payment of the principal, premium, interest and reserve fund requirements for the Bonds and all Parity Obligations and which subordinated obligations are payable as to principal, premium, interest and reserve fund requirements, if any, only out of Net Operating Revenues after the prior payment of all amounts then due required to be paid or set aside under the Master Resolution from Net Operating Revenues for principal, premium, interest and reserve fund requirements for the Bonds and all Parity Obligations, as the same become due and payable and at the times and in the manner as required in the Master Resolution or any Parity Obligations documents.

Operation in an Efficient and Economical Manner. Metropolitan has covenanted and agreed to conduct the operations of the Water System in an efficient and economical manner and to maintain and preserve the Water System in good repair and working order.

### **The Fiscal Agent**

Appointment; Duties of Fiscal Agent. Metropolitan may appoint a Fiscal Agent, who may be the Treasurer or the Controller, or a combination thereof, for a Series of Bonds in the Supplemental Resolution pursuant to which such Bonds are issued. Each Fiscal Agent will act as the agent of Metropolitan and will perform such duties and only such duties as are specifically set forth in the Master Resolution or the Supplemental Resolution pursuant to which it was appointed and no implied covenants will be read into the Master Resolution or such Supplemental Resolution against the Fiscal Agent. Each Fiscal Agent will exercise such of the rights and powers vested in it by the Master Resolution or the Supplemental Resolution pursuant to which it was appointed.

Metropolitan may remove any Fiscal Agent at any time with or without cause and will remove any Fiscal Agent if at any time such Fiscal Agent ceases to be eligible in accordance with the Master Resolution, or becomes

incapable of acting, or is adjudged a bankrupt or insolvent, or a receiver of such Fiscal Agent or its property is appointed, or any public officer takes control or charge of such Fiscal Agent or of its property or affairs for the purpose of rehabilitation, conservation or liquidation, in each case by giving written notice of such removal to such Fiscal Agent, and thereupon will appoint a successor Fiscal Agent by an instrument in writing. Notwithstanding the foregoing, the Treasurer or the Controller may only be removed as a Fiscal Agent by a resolution of the Board.

Each Fiscal Agent may at any time resign by giving 90 days written notice of such resignation to Metropolitan and by giving the Owners notice of such resignation by mail at the addresses shown on the registration books maintained by such Fiscal Agent. Upon receiving such notice of resignation, Metropolitan will promptly appoint a successor Fiscal Agent by an instrument in writing. Notwithstanding the foregoing, in no event may the Treasurer or the Controller resign as a Fiscal Agent unless so directed by a resolution of the Board.

Any removal or resignation of a Fiscal Agent and appointment of a successor Fiscal Agent will become effective only upon acceptance of appointment by the successor Fiscal Agent. If no successor Fiscal Agent has been appointed and has accepted appointment within 45 days of giving notice of removal or notice of resignation as aforesaid, the resigning Fiscal Agent may petition any court of competent jurisdiction for the appointment of a successor Fiscal Agent, and such court may thereupon, after such notice (if any) as it may deem proper, appoint such successor Fiscal Agent. Any successor Fiscal Agent appointed under the Master Resolution, will signify its acceptance of such appointment by executing and delivering to Metropolitan and to its predecessor Fiscal Agent a written acceptance thereof, and thereupon such successor Fiscal Agent, without any further act, deed or conveyance, will become vested with all the rights, powers, duties and obligations of such predecessor Fiscal Agent, with like effect as if originally named Fiscal Agent in the Master Resolution. Upon request of the successor Fiscal Agent, Metropolitan and the predecessor Fiscal Agent will execute and deliver any and all instruments as may be reasonably required for more fully and certainly vesting in and confirming to such successor Fiscal Agent all such rights, powers, duties and obligations.

Unless otherwise provided in a Supplemental Resolution any Fiscal Agent appointed under the provisions of the Master Resolution in succession to a Fiscal Agent will be either the Treasurer or the Controller or a trust company or bank having the powers of a trust company and having a corporate trust office in the State. Any such bank or trust company will be subject to supervision or examination by federal or state authority. If such bank or trust company publishes a report of condition at least annually, pursuant to law or to the regulations of any supervising or examining authority above referred to, then for the purpose of this subsection the combined capital and surplus of such bank or trust company will be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. Each successor will be a bank or a trust company doing business in and having an office in the city where the predecessor did business and had an office.

Upon merger, consolidation, or reorganization of a Fiscal Agent, Metropolitan will appoint a new Fiscal Agent, which may be the corporation resulting from such reorganization. In case at any time a Fiscal Agent ceases to be eligible in accordance with the provisions of the Master Resolution, such Fiscal Agent will resign immediately in the manner and with the effect specified in the Master Resolution.

If, by reason of the judgment of any court, a Fiscal Agent for a Series of Bonds or any successor Fiscal Agent is rendered unable to perform its duties under the Master Resolution, and if no successor Fiscal Agent be then appointed, all such duties and all of the rights and powers of such Fiscal Agent will be assumed by and vest in the Treasurer in trust for the benefit of the Bondholders of such Series.

Liability of Fiscal Agent. The recitals of facts in the Master Resolution, in the Supplemental Resolution pursuant to which a Fiscal Agent is appointed and in the Bonds of such Series contained will be taken as statements of Metropolitan, and the Fiscal Agent for such Series assumes no responsibility for the correctness of the same (other than the certificate of authentication of such Fiscal Agent on each Bond), and makes no representations as to the validity or sufficiency of the Master Resolution or of the Bonds, as to the sufficiency of the Net Operating Revenues or the priority of the lien of the Master Resolution thereon, or as to the financial or technical feasibility of any Project and will not incur any responsibility in respect of any such matter, other than in connection with the duties or obligations expressly in the Master Resolution or in the Bonds assigned to or imposed upon it. Each Fiscal Agent will, however, be responsible for its representations contained in its certificate of authentication on the Bonds. A Fiscal Agent will not be liable in connection with the performance of its duties under the Master Resolution,

except for its own negligence, willful misconduct or breach of the express terms and conditions of the Master Resolution. A Fiscal Agent and its directors, officers, employees or agents may in good faith buy, sell, own, hold and deal in any of the Bonds of a Series for which it has been appointed Fiscal Agent and may join in any action which any Owner of a Bond may be entitled to take, with like effect as if such Fiscal Agent was not the Fiscal Agent for such Series of Bonds. Each Fiscal Agent may in good faith hold any other form of indebtedness of Metropolitan, own, accept or negotiate any drafts, bills of exchange, acceptances or obligations of Metropolitan and make disbursements for Metropolitan and enter into any commercial or business arrangement therewith, without limitation.

A Fiscal Agent will not be liable for any error of judgment made in good faith by a responsible officer unless it is proved that such Fiscal Agent was negligent in ascertaining the pertinent facts. A Fiscal Agent may execute any of the rights or powers hereof and perform the duties required of it under the Master Resolution by or through attorneys, agents, or receivers, and will be entitled to advice of counsel concerning all matters of trust and its duty under the Master Resolution, but such Fiscal Agent will be answerable for the negligence or misconduct of any such attorney-in-fact, agent, or receiver selected by it; provided that such Fiscal Agent will not be answerable for the negligence or misconduct of any attorney-in-law, agent or receiver selected by it with due care.

No provision of the Master Resolution will require a Fiscal Agent to expend or risk its own funds or otherwise incur any financial liability in the performance or exercise of any of its duties under the Master Resolution or under the Supplemental Resolution pursuant to which it was appointed, or in the exercise of its rights or powers.

A Fiscal Agent will not be required to ascertain, monitor or inquire as to the performance or observance by Metropolitan of the terms, conditions, covenants or agreements set forth in the Master Resolution or in the Supplemental Resolution pursuant to which it was appointed, other than the covenants of Metropolitan to make payments with respect to the Bonds when due as set forth in the Master Resolution and to file with such Fiscal Agent when due, such reports and certifications as Metropolitan is required to file with each Fiscal Agent under the Master Resolution.

No permissive power, right or remedy (if any) conferred upon a Fiscal Agent under the Master Resolution will be construed to impose a duty to exercise such power, right or remedy.

A Fiscal Agent will not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, coupon or other paper or document but a Fiscal Agent, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if a Fiscal Agent determines to make such further inquiry or investigation, it will be entitled to examine the books, records and premises of Metropolitan, personally or by agent or attorney.

Whether or not therein expressly so provided, every provision of the Master Resolution relating to the conduct or affecting the liability of or affording protection to any Fiscal Agent will be subject to the provisions of the Master Resolution.

Right of Fiscal Agent to Rely on Documents. A Fiscal Agent will be protected in acting upon any notice, resolution, request, consent, order, certificate, report, opinion, note or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties. A Fiscal Agent may consult with counsel, including, without limitation, counsel of or to Metropolitan, with regard to legal questions, and the written opinion of such counsel addressed to the particular Fiscal Agent will be full and complete authorization and protection in respect of any action taken or suffered by it under the Master Resolution in good faith and in accordance therewith unless it is proved that a Fiscal Agent was negligent in ascertaining the pertinent facts.

Whenever in the administration of the duties imposed upon it by the Master Resolution a Fiscal Agent will deem it necessary or desirable that a matter be proved or established prior to taking or suffering any action under the Master Resolution, such matter (unless other evidence in respect thereof be specifically prescribed in the Master Resolution) may be deemed to be conclusively proved and established by a Certificate of Metropolitan, and such Certificate will be full warrant to a Fiscal Agent for any action taken or suffered in good faith under the provisions of the Master Resolution in reliance upon such Certificate. A Fiscal Agent may also rely conclusively on any report



or certification of any certified public accountant, investment banker, financial consultant, or other expert selected by Metropolitan or selected by such Fiscal Agent with due care in connection with matters required to be proven or ascertained in connection with its administration of the duties created by the Master Resolution.

### **Amendments to Master Resolution**

Amendments Permitted. The Master Resolution and the rights and obligations of Metropolitan, the Owners of the Bonds and any Fiscal Agent may be modified or amended from time to time and at any time by filing with each Fiscal Agent (or if such modification or amendment is only applicable to a Series of Bonds, to such Fiscal Agent) a Supplemental Resolution, adopted by the Board with the written consent of the Owners of a majority in aggregate amount of Bond Obligation of the Bonds (or, if such Supplemental Resolution is only applicable to a Series of Bonds, the Bonds of that Series) then Outstanding; provided that if such modification or amendment will, by its terms, not take effect so long as any Bonds of any particular maturity remain Outstanding, the consent of the Owners of such Bonds will not be required and such Bonds will not be deemed to be Outstanding for the purpose of any calculation of Bonds Outstanding under the Master Resolution.

No such modification or amendment will (a) extend the fixed maturity of any Bond, or reduce the amount of Bond Obligation thereof, or extend the time of payment or reduce the amount of any Mandatory Sinking Account Payment provided for the payment of any Bond, or reduce the rate of interest thereon, or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption thereof, without the consent of the Owner of each Bond so affected, (b) reduce the percentage of Bond Obligation the consent of the Owners of which is required to effect any such modification or amendment, or permit the creation of any lien on the Net Operating Revenues and other assets pledged under the Master Resolution prior to or on a parity with the lien created by the Master Resolution, or deprive the Owners of the Bonds of the lien created by the Master Resolution on such Net Operating Revenues and other assets (in each case, except as expressly provided in the Master Resolution), without the consent of the Owners of all of the Bonds then Outstanding or (c) modify any rights or duties of the Fiscal Agent without its consent.

It will not be necessary for the consent of the Bondholders to approve the particular form of any Supplemental Resolution, but it will be sufficient if such consent approves the substance thereof. Promptly after the adoption by the Board of any Supplemental Resolution pursuant to the Master Resolution, the Fiscal Agent for each Series of Bonds that may be affected by any such modification or amendment will mail a notice provided by Metropolitan, setting forth in general terms the substance of such Supplemental Resolution to the Owners of the Bonds at the addresses shown on the registration books of the Fiscal Agent. Any failure to give such notice, or any defect therein, will not, however, in any way impair or affect the validity of any such Supplemental Resolution.

The Master Resolution and the rights and obligations of Metropolitan, of each Fiscal Agent and of the Owners of the Bonds may also be modified or amended from time to time and at any time by a Supplemental Resolution, which the Board may adopt without the consent of any Bondholders but only to the extent permitted by law and only for any one or more of the following purposes: (1) to add to the covenants and agreements of Metropolitan to be observed, to pledge or assign additional security for the Bonds (or any portion thereof), or to surrender any right or power reserved to or conferred upon Metropolitan, in each case which will not materially and adversely affect the interests of the Owners of any of the Bonds, (2) to make such provisions for the purpose of curing any ambiguity, inconsistency or omission, or of curing or correcting any defective provision, contained in the Master Resolution or in regard to matters or questions arising under the Master Resolution, as the Board may deem necessary or desirable, and which will not materially and adversely affect the interests of the Owners of any of the Bonds, (3) to modify, amend or supplement the Master Resolution to permit the qualification thereof under the Trust Indenture Act of 1939, as amended, or any similar federal statute later in effect, and to add such other terms, conditions and provisions as may be permitted by said act or similar federal statute, and which will not materially and adversely affect the interests of the Owners of the Bonds, (4) to provide for the issuance of a Series of Bonds with such interest rate, payment, maturity and other terms as Metropolitan may deem desirable, subject to certain limitations under the Master Resolution with respect to the issuance of Bonds, (5) to provide for the issuance of Bonds in book-entry form or bearer form, provided that no such provision will materially and adversely affect interests of the Owners of any of the Bonds, (6) if Metropolitan has covenanted in a Supplemental Resolution to maintain the exclusion of interest on a Series of Bonds from gross income for purposes of federal income taxation,

to make such provisions as are necessary or appropriate to ensure such exclusion, and (7) for any other purpose that does not materially and adversely affect the interests of the Owners of any of the Bonds.

Effect of Supplement Resolution. From and after the time any Supplemental Resolution becomes effective pursuant to the Master Resolution, the Master Resolution will be deemed to be modified and amended in accordance therewith, and the respective rights, duties and obligations under the Master Resolution of Metropolitan, each Fiscal Agent and all Owners of Bonds Outstanding will thereafter be determined, exercised and enforced under the Master Resolution subject in all respects to such modification and amendment, and all the terms and conditions of any such Supplemental Resolution will be deemed to be part of the terms and conditions of the Master Resolution for any and all purposes.

Endorsement of Bonds; Preparation of New Bonds. Bonds delivered after any Supplemental Resolution becomes effective pursuant to the Master Resolution may, and if a Fiscal Agent so determines will, bear a notation by endorsement or otherwise in form approved by the Board and such Fiscal Agent as to any modification or amendment provided for in such Supplemental Resolution, and, in that case, upon demand of the owner of any Bond outstanding at the time of such execution and presentation of his Bond for such purpose at the corporate trust office of such Fiscal Agent or at such additional offices as such Fiscal Agent may select and designate for that purpose, a suitable notation will be made on such Bond. If a Supplemental Resolution so provides, new Bonds so modified as to conform, in the opinion of the Board and the Fiscal Agent for such Series, to any modification or amendment contained in such Supplemental Resolution, will be prepared and executed by Metropolitan and authenticated by such Fiscal Agent, and upon demand of the Owners of any Bonds then outstanding will be exchanged at the corporate trust office of such Fiscal Agent, without cost to any Bondholder, for Bonds then Outstanding, upon surrender for cancellation of such Bonds, in equal aggregate principal amounts of the same Series, tenor and maturity.

Amendment of Particular Bonds. The provisions of the Master Resolution will not prevent any Bondholder from accepting any amendment as to the particular Bonds held by him, provided that due notation thereof is made on such Bonds.

## **Defeasance**

Discharge of Master Resolution. Except as may be provided in any Supplemental Resolution creating a Series of Bonds, Bonds of any Series may be paid by Metropolitan in any of the following ways: (a) by paying or causing to be paid the Bond Obligations of and interest on all Bonds Outstanding of the Series, as and when the same become due and payable; (b) by depositing with the Treasurer, the Fiscal Agent for such Series, an escrow agent or other fiduciary, in trust, at or before maturity, money or securities in the necessary amount to pay or redeem all Bonds Outstanding of the Series; or (c) by delivering to the Fiscal Agent for such Series, for cancellation by it, all Bonds then Outstanding of the Series.

If Metropolitan pays all Series for which any Bonds are Outstanding and also pay or cause to be paid all other sums payable to any provider of a Credit Facility under the Master Resolution by Metropolitan, then and in that case, at the election of Metropolitan (evidenced by a Certificate of Metropolitan, filed with each Fiscal Agent, signifying the intention of Metropolitan to discharge all such indebtedness and the Master Resolution), and notwithstanding that any Bonds have not been surrendered for payment, the Master Resolution and the pledge of Net Operating Revenues and other assets made under the Master Resolution and all covenants, agreements and other obligations of Metropolitan under the Master Resolution will cease, terminate, become void and be completely discharged and satisfied. In such event, upon Request of Metropolitan, the Treasurer will cause an accounting for such period or periods as Metropolitan may request to be prepared and filed with Metropolitan and will cause to be executed and delivered to Metropolitan all such instruments as may be necessary or desirable to evidence such discharge and satisfaction.

Discharge of Liability on Bonds. Upon the deposit with the Treasurer or the Fiscal Agent for a Series, an escrow agent or other fiduciary, in trust, at or before maturity, of money or securities in the necessary amount (as provided in the Master Resolution) to pay or redeem any Outstanding Bond (whether upon or prior to its maturity or the redemption date of such Bond), provided that, if such Bond is to be redeemed prior to maturity, irrevocable notice of such redemption has been given as provided in the Master Resolution or provision satisfactory to such

Fiscal Agent has been made for the giving of such notice, then all liability of Metropolitan in respect of such Bond will cease, terminate and be completely discharged; provided that the Owner thereof will thereafter be entitled to the payment of the principal of and premium, if any, and interest on such Bond, and Metropolitan will remain liable for such payment, but only out of such money or securities deposited as aforesaid for their payment, subject, however, to the provisions of the Master Resolution and the continuing duties of the Fiscal Agent for such Series under the Master Resolution. Upon defeasance and discharge of any Bond as provided in the Master Resolution, the Fiscal Agent will provide notice thereof to the Owner of such Bond.

Metropolitan may at any time surrender to the Fiscal Agent for a Series for cancellation by it any Bonds previously issued and delivered, which Metropolitan may have acquired in any manner whatsoever, and such Bonds, upon such surrender and cancellation, will be deemed to be paid and retired.

Deposit of Money or Securities with Treasurer. Unless otherwise provided in a Supplemental Resolution (and then only with respect to the Bonds of the Series authorized thereby), whenever in the Master Resolution it is provided or permitted that there be deposited with or held in trust by the Treasurer or the Fiscal Agent for a Series, an escrow agent or other fiduciary, money or securities in the necessary amount to pay or redeem any Bonds, the money or securities so to be deposited or held may include money or securities held by the Treasurer in the funds and accounts established pursuant to the Master Resolution and will be one or more of the following: (a) lawful money of the United States of America in an amount equal to the Bond Obligation of such Bonds and all unpaid interest thereon to maturity, except that, in the case of Bonds which are to be redeemed prior to maturity and in respect of which notice of such redemption has been given as provided in the Master Resolution or provision satisfactory to the Fiscal Agent for such Series has been made for the giving of such notice, the amount to be deposited or held will be the Bond Obligation or Redemption Price of such Bonds and unpaid interest thereon to the redemption date; or (b) non-callable Federal Securities or Municipal Obligations, the principal of and interest on which when due will, in the opinion of an independent certified public accountant delivered to the Fiscal Agent of such Series for which payment is being made (upon which opinion such Fiscal Agent may conclusively rely), provide money sufficient to pay the Bond Obligation or Redemption Price of and all unpaid interest to maturity, or to the redemption date, as the case may be, on the Bonds to be paid or redeemed, as such Bond Obligation or Redemption Price and interest become due; provided that, in the case of Bonds which are to be redeemed prior to the maturity thereof; notice of such redemption has been given as provided in the Master Resolution or provision satisfactory to the Fiscal Agent for such Series has been made for the giving of such notice; provided, in each case, that the Fiscal Agent for such Series has been irrevocably instructed (by the terms of the Master Resolution or by Request of Metropolitan) to apply such money to the payment of such Bond Obligation or Redemption Price and interest with respect to the Bonds.

Payment of Bonds After Discharge of the Master Resolution. Any moneys held by the Fiscal Agent of a Series, an escrow agent or other fiduciary in trust for the payment of the principal or Accreted Value of, premium, if any, or interest on, any Bond of such Series and remaining unclaimed for two years after such principal or Accreted Value of, premium, if any, or interest on such Bond of such Series has become due and payable (whether at maturity or upon call for redemption as provided in the Master Resolution), if such moneys were so held at such date, or two years after the date of deposit of such moneys if deposited after said date when such Bond became so due and payable, will, upon Request of Metropolitan, be released from the trusts created by the Master Resolution and transferred to the Treasurer, and all liability of the Fiscal Agent for such Series, an escrow agent or other fiduciary with respect to such moneys will thereupon cease; provided, however, that before the release of such trust as aforesaid, such Fiscal Agent may (at the cost of Metropolitan) first mail to the Owners of any Bonds of such Series remaining unpaid at the addresses shown on the registration books maintained by such Fiscal Agent a notice, in such form as may be deemed appropriate by such Fiscal Agent, with respect to the Bonds of such Series so payable and not presented and with respect to the provisions relating to the repayment to the Treasurer of the moneys held for the payment thereof. All moneys held by or on behalf of the Treasurer, the Fiscal Agent for such Series, an escrow agent or other fiduciary for the payment of Bond Obligation of or interest or premium on Bonds of such Series, whether at redemption or maturity, will be held in trust for the account of the Owners thereof and the Treasurer, the Fiscal Agent for such Series, an escrow agent or other fiduciary will not be required to pay Owners any interest on, or be liable to the Owners or any other Person (other than Metropolitan) for any interest earned on, moneys so held. Any interest earned thereon and not needed to pay principal or Accreted Value of or interest on the Bonds will be promptly released to Metropolitan and will be promptly deposited into the Water Revenue Fund.

## **Defaults and Remedies under the Master Resolution**

Events of Default. Each of the following events will be an “Event of Default”: (a) default by Metropolitan in the due and punctual payment of the principal of, premium, if any, or Accreted Value of any Bond (whether at maturity, by acceleration, call for redemption or otherwise); (b) default by Metropolitan in the due and punctual payment of the interest on any Bond; (c) failure of Metropolitan to observe and perform any of its other covenants, conditions or agreements under the Master Resolution or in the Bonds for a period of 90 days after written notice from the Owners of 25 percent in aggregate amount of Bond Obligation of the Bonds then Outstanding, specifying such failure and requesting that it be remedied, or in the case of any such default that cannot with due diligence be cured within such 90 day period, failure of Metropolitan to proceed promptly to cure the same and thereafter prosecute the curing of such default with due diligence; (d) (1) failure of Metropolitan generally to pay its debts as the same become due, (2) commencement by Metropolitan of a voluntary case under the Federal bankruptcy laws, as now or later constituted, or any other applicable Federal or state bankruptcy, insolvency or other similar law, (3) consent by Metropolitan to the appointment of a receiver, liquidator, assignee, trustee, custodian, sequestrator or other similar official for Metropolitan, the Water System or any substantial part of Metropolitan’s property, or to the taking possession by any such official of the Water System or any substantial part of Metropolitan’s property, (4) making by Metropolitan of any assignment for the benefit of creditors, or (5) taking of corporate action by Metropolitan in furtherance of any of the foregoing; (e) the entry of any (1) decree or order for relief by a court having jurisdiction over Metropolitan or its property in an involuntary case under the Federal bankruptcy laws, as now or later constituted, or any other applicable Federal or state bankruptcy, insolvency or other similar law, (2) appointment of a receiver, liquidator, assignee, trustee, custodian, sequestrator or similar official for Metropolitan, the Water System or any substantial part of Metropolitan’s property, or (3) order for the termination or liquidation of Metropolitan or its affairs; or (f) failure of Metropolitan within 90 days after the commencement of any proceedings against it under the Federal bankruptcy laws or any other applicable Federal or state bankruptcy, insolvency or similar law, to have such proceedings dismissed or stayed.

The provisions of clause (c) above are subject to the limitation that if by reason of force majeure Metropolitan is unable in whole or in part to observe and perform any of its covenants, conditions or agreements under the Master Resolution, Metropolitan will not be deemed in default during the continuance of such disability. The term “force majeure” as used in the Master Resolution will include without limitation acts of God, strikes, lockouts or other industrial disturbances; acts of public enemies; orders of any kind of the government of the United States of America or of the State of California or any of their departments, agencies, political subdivisions or officials, or any civil or military authority; insurrections; epidemics; landslides; lightning; earthquakes; fires; riots; hurricanes; storms; floods; washouts; droughts; arrests; restraint of government and people, civil disturbances; explosions; breakage or accident to machinery, transmission pipes or canals; partial or entire failure of utilities; or any other cause or event not reasonably within the control of Metropolitan. Metropolitan will, however, remedy with all reasonable dispatch the cause or causes preventing it from carrying out its agreements, provided that the settlement of strikes, lockouts and other industrial disturbances will be entirely within the discretion of Metropolitan, and Metropolitan will not be required to make settlement of strikes, lockouts and other industrial disturbances by acceding to the demands of the opposing party or parties.

Bondholders’ Committee. If an Event of Default has occurred and is continuing, the Owners of 25 percent in aggregate amount of Bond Obligation of the Bonds then Outstanding may call a meeting of the Owners for the purpose of electing a Bondholders’ committee (a “Bondholders’ Committee”). At such meeting the Owners of not less than a majority in aggregate amount of Bond Obligation must be present in person or by proxy in order to constitute a quorum for the transaction of business, less than a quorum, however, having power to adjourn from time to time without any other notice than the announcement thereof at the meeting. A quorum being present at such meeting, the Owners present in person or by proxy may, by a majority of the votes cast, elect one or more persons, who may or may not be Owners, to the Bondholders’ Committee. The Owners present in person or by proxy at such meeting, or at any adjourned meeting thereof (a) will prescribe the manner in which the successors of the persons elected to the Bondholders’ Committee will be elected or appointed, (b) may prescribe rules and regulations governing the exercise by the Bondholders’ Committee of the power conferred upon it in the Master Resolution, and (c) may provide for the termination of the existence of the Bondholders’ Committee. The Bondholders’ Committee is declared to be trustee for the Owners of all Bonds then Outstanding, and is empowered to exercise in the name of the Bondholders’ Committee as trustee all the rights and powers conferred in the Master Resolution on any Owner, provided, however, that whenever any provision thereof requires the consent, approval or concurrence of the

Owners of a specified percentage of Bond Obligation, in order to exercise the right or power conferred in the Master Resolution on the Owners to which such percentage obtains, the Bondholders' Committee either will have been elected by or their election will have been approved by or concurred in, and such committee will then represent, the Owners of such specified percentage of the Bond Obligation. A certificate of the election of the Bondholders' Committee, including the names and addresses of its chairman and other members, will be filed with the Authorized Representative.

Acceleration. Upon the occurrence and continuation of an Event of Default specified in subsection (d), (e) or (f) of "Events of Default" above, the Bondholders' Committee or, if there is none, the Owners of 25 percent in aggregate amount of Bond Obligation of the Bonds then Outstanding may, by written notice to Metropolitan, declare the entire unpaid principal and Accreted Value of the Bonds due and payable and, thereupon, the entire unpaid principal and Accreted Value of the Bonds will forthwith become due and payable. Upon any such declaration Metropolitan will forthwith pay to the Owners of the Bonds the entire unpaid principal and Accreted Value of, premium, if any, and accrued interest on the Bonds, but only from Net Operating Revenues and other moneys specifically pledged in the Master Resolution for such purpose. If at any time after such a declaration and before the entry of a final judgment or decree in any suit, action or proceeding instituted on account of such default or before the completion of the enforcement of any other remedy under the Master Resolution, the principal and Accreted Value of all Bonds that have matured or been called for redemption pursuant to any sinking fund provision and all arrears of interest have been paid and any other Events of Default which may have occurred have been remedied, then the Bondholders' Committee or, if there is none, the Owners of 25 percent in aggregate amount of Bond Obligation of the Bonds then Outstanding may, by written notice to Metropolitan, rescind or annul such declaration and its consequence. No such rescission or annulment will extend to or affect any subsequent default or impair any right consequent thereon.

Receiver. Upon the occurrence and continuation of an Event of Default for a period of 60 days, the Bondholders' Committee or, if there is none, the Owners of 25 percent in aggregate amount of Bond Obligation of the Bonds then Outstanding will be entitled to the appointment of a receiver upon application to any court of competent jurisdiction in the State of California. Any receiver so appointed may enter and take possession of the Water System, operate, maintain and repair the same, to the extent permitted by law impose and prescribe rates fees and other charges, and receive and apply all Net Operating Revenues thereafter arising therefrom in the same manner as Metropolitan itself might do. No bond will be required of such receiver.

Other Remedies; Rights of Bondholders. Upon the occurrence and continuation of an Event of Default the Owners may proceed to protect and enforce their rights by mandamus or other suit, action or proceeding at law or in equity, including an action for specific performance of any agreement contained in the Master Resolution. No remedy conferred by the Master Resolution upon or reserved to the Owners is intended to be exclusive of any other remedy, but each such remedy will be cumulative and will be in addition to any other remedy given to the Bondholders thereunder or now or later existing at law or in equity or by statute. No delay or omission to exercise any right or power accruing upon any default or Event of Default will impair any such right or power or will be construed to be a waiver of any such default or Event of Default or acquiescence therein, and every such right and power may be exercised from time to time and as often as may be deemed expedient. No waiver of any default or Event of Default under the Master Resolution by the Owners will extend to or will affect any subsequent default or Event of Default or will impair any rights or remedies consequent thereon.

Unconditional Rights to Receive Principal, Accreted Value, Premium and Interest. Nothing in the Master Resolution will affect or impair the right of any Owner to enforce, by action at law, payment of the principal and Accreted Value of, premium, if any, or interest on any Bond at and after the maturity thereof, or on the date fixed for redemption or upon the same being declared due prior to maturity as provided in the Master Resolution, or the obligation of Metropolitan to pay the principal and Accreted Value of, premium, if any, and interest on each of the Bonds issued thereunder to the respective holders thereof at the time and place, from the source and in the manner therein and in the Bonds expressed.

## **Miscellaneous**

Liability of Metropolitan Limited to Net Operating Revenues. Notwithstanding anything in the Master Resolution or in the Bonds contained, Metropolitan will not be required to advance any moneys derived from any

source other than the Net Operating Revenues and other money, assets and security pledged under the Master Resolution for any of the purposes in the Master Resolution mentioned, whether for the payment of the principal, Accreted Value or Redemption Price of or interest on the Bonds or for any other purpose of the Master Resolution.

The general fund of Metropolitan is not liable for the payment of any Bonds, any premium thereon upon redemption prior to maturity or their interest, nor is the credit or taxing power of Metropolitan pledged for the payment of any Bonds, any premium thereon upon redemption prior to maturity or their interest. The Owner of any Bond will not compel the exercise of the taxing power by Metropolitan or the forfeiture of any of its property. The principal and Accreted Value of and interest on any Bonds and any premiums upon the redemption of any thereof prior to maturity are not a debt of Metropolitan nor a legal or equitable pledge, charge, lien or encumbrance upon any of its property or upon any of its income, receipts or revenues, except the Net Operating Revenues and other funds, security or assets which are pledged to the payment of the Bonds, interest thereon and any premiums upon redemption.

Evidence of Rights of Bondholders. Any request, consent or other instrument required or permitted by the Master Resolution to be signed and executed by Bondholders may be in any number of concurrent instruments of substantially similar tenor and will be signed or executed by such Bondholders in Person or by an agent or agents duly appointed in writing. Proof of the execution of any such request, consent or other instrument or of a writing appointing any such agent, or of the holding by any Person of Bonds transferable by delivery, will be sufficient for any purpose of the Master Resolution and will be conclusive in favor of the Fiscal Agent for such Series and of Metropolitan if made in the manner provided in the Master Resolution.

The fact and date of the execution by any Person of any such request, consent or other instrument or writing may be proved by the certificate of any notary public or other officer of any jurisdiction, authorized by the laws thereof to take acknowledgments of deeds, certifying that the Person signing such request, consent or other instrument acknowledged to him the execution thereof, or by an affidavit of a witness of such execution duly sworn to before such notary public or other officer.

The ownership of Bonds will be proved by the bond registration books held by the Fiscal Agent for such Series. The Fiscal Agent of a Series may establish a record date as of which to measure consent of the Bondholders of such Series in order to determine whether the requisite consents are received.

Except as may be provided in the Supplemental Resolution authorizing a Series of Bonds, any request, consent, or other instrument or writing of the Owner of any Bond of such Series will bind every future Owner of the same Bond and the Owner of every Bond issued in exchange therefor or in lieu thereof, in respect of anything done or suffered to be done by the Fiscal Agent for such Series or Metropolitan in accordance therewith or reliance thereon.

Disqualified Bonds. In determining whether the Owners of the requisite aggregate principal amount of Bonds have concurred in any demand, request, direction, consent or waiver under the Master Resolution, Bonds which are owned or held by or for the account of Metropolitan, or by any other obligor on the Bonds, or by any Person directly or indirectly controlling or controlled by, or under direct or indirect common control with, Metropolitan or any other obligor on the Bonds (except for any remarketing or other underwriting agent), will be disregarded and deemed not to be Outstanding for the purpose of any such determination. Bonds so owned which have been pledged in good faith may be regarded as Outstanding for the purposes of the Master Resolution if the pledgee establishes to the satisfaction of the Fiscal Agent for such Series the pledgee's right to vote such Bonds and that the pledgee is not a Person directly or indirectly controlling or controlled by, or under direct or indirect common control with, Metropolitan or any other obligor on the Bonds. In case of a dispute as to such right, any decision by such Fiscal Agent taken upon the advice of counsel will be full protection to such Fiscal Agent.

Money Held for Particular Bonds. The money held by the Treasurer or a Fiscal Agent for the payment of the interest, principal, Accreted Value or Redemption Price due on any date with respect to particular Bonds (or portions of Bonds in the case of registered Bonds redeemed in part only) will, on and after such date and pending such payment, be set aside on Metropolitan's books and held in trust by the Treasurer for the Owners of the Bonds entitled thereto, subject, however, to the provisions of the Master Resolution.

Proceedings Constitute Contract. The provisions of the Master Resolution will constitute a contract between Metropolitan and the Bondholders of such Bonds, and the provisions of the Master Resolution and thereof will be enforceable by any Bondholder for the equal benefit and protection of all Bondholders similarly situated by mandamus, accounting, mandatory injunction or any other suit, action or proceeding at law or in equity that is now or may later be authorized under the laws of the State in any court of competent jurisdiction.

No remedy conferred by the Master Resolution upon any Bondholder is intended to be exclusive of any other remedy, but each such remedy is cumulative and in addition to every other remedy and may be exercised without exhausting and without regard to any other remedy conferred by any law of the State. No waiver of any default or breach of duty or contract by any Bondholder will affect any subsequent default or breach of duty or contract or will impair any rights or remedies on said subsequent default or breach. No delay or omission of any Bondholder to exercise any right or power accruing upon any default will impair any such right or power or will be construed as a waiver of any such default or acquiescence therein. Every substantive right and every remedy conferred upon the Bondholders may be enforced and exercised as often as may be deemed expedient. In case any suit, action or proceeding to reinforce any right or exercise any remedy will be brought or taken and the Bondholder prevails, said Bondholder will be entitled to receive from the Water Revenue Fund reimbursement for reasonable costs, expenses, outlays and attorney's fees and should said suit, action or proceeding be abandoned, or be determined adversely to the Bondholder then, and in every such case, Metropolitan and the Bondholder will be restored to their former positions, rights and remedies as if such suit, action or proceeding had not been brought or taken.

After the issuance and delivery of the Bonds of any Series, the Master Resolution will be irrevocable, but will be subject to modification to the extent and in the manner provided in the Master Resolution, but to no greater extent and in no other manner.

Future Contracts. Nothing contained in the Master Resolution will be deemed to restrict or prohibit Metropolitan from making contracts or creating bonded or other indebtedness payable from the general fund of Metropolitan, as the case may be, or from taxes or any source other than the Net Operating Revenues, and from and after the sale of the Bonds of any Series, the general fund of Metropolitan will not include the Net Operating Revenues and no contract or other obligation payable from the general fund of Metropolitan will be payable from the Net Operating Revenues, except as provided in the Master Resolution.

Waiver of Personal Liability. No Board member, officer, agent or employee of Metropolitan or any Fiscal Agent will be individually or personally liable for the payment of the principal, Accreted Value or Redemption Price of or interest on the Bonds or be subject to any personal liability or accountability by reason of the issuance thereof; but nothing contained in the Master Resolution will relieve any such Board member, officer, agent or employee of Metropolitan or any Fiscal Agent from the performance of any official duty provided by law or by the Master Resolution.

Governing Law. The Master Resolution will be construed and governed in accordance with the laws of the State of California.

Payment and Performance on a Business Day. Except as specifically set forth in a Supplemental Resolution, any payments or transfers which would otherwise become due on any day which is not a Business Day will become due or will be made on the next succeeding Business Day and no interest will accrue for such period.

### **TWENTY-THIRD SUPPLEMENTAL RESOLUTION**

The Twenty-Third Supplemental Resolution authorizes the issuance of the 2020 Authorization Bonds, including the 2020A Bonds, issued pursuant to the Master Resolution. The provisions of the Twenty-Third Supplemental Resolution include, but are not limited to, the following provisions. Metropolitan will not fund a reserve fund for the 2020A Bonds.

## Sources of Payment

The payment of the principal, Accreted Value and Final Compounded Amount of, and interest and any redemption premiums on the 2020 Water Revenue Bonds will be secured by and payable solely from Net Operating Revenues and other funds pledged under the Master Resolution and the Twenty-Third Supplemental Resolution.

## The 2020 Water Revenue Bonds

Place of Payment. Subject as described under “Book-Entry System” below, for so long as the Treasurer is the Fiscal Agent, the principal or Final Compounded Amount of the Bonds will be payable in lawful money of the United States of America upon presentation and surrender of such Fixed Rate Bonds at the corporate office of Metropolitan. Interest on the 2020 Water Revenue Current Interest Bonds will be paid by check or draft mailed by first class mail to the persons whose names appear on the registration books of the Fiscal Agent as the registered Owners of such 2020 Water Revenue Current Interest Bonds as of the close of business on the Record Date at such persons’ addresses as they appear on such registration books, except that an Owner of \$1,000,000 or more in principal amount of Fixed Rate Bonds which are Current Interest Bonds may be paid interest by wire transfer to an account in the United States if such Owner makes a written request of the Fiscal Agent at least thirty (30) days preceding any interest payment date specifying the wire transfer instructions for such Owner. Such notice may provide that it will remain in effect for later interest payments until changed or revoked by another written notice. Payments of default interest will be paid by check, draft or wire transfer to the Owners as of a special record date to be fixed by the Fiscal Agent, notice of which special record date will be given to the Owners by the Fiscal Agent not less than ten (10) days prior thereto. Principal of and interest on the Variable Rate Bonds will be payable as provided in the applicable Trust Agreement.

Book-Entry System. Except as otherwise provided in the Trust Agreement with respect to Variable Rate Bonds of any Series, the 2020 Water Revenue Bonds will be initially issued in the form of a single (unless more than a single 2020 Water Revenue Bond is required by the Securities Depository), separate, fully registered 2020 Water Revenue Bond (which may be typewritten) for each of the maturities of the 2020 Water Revenue Bonds. Upon initial issuance, the ownership of each such 2020 Water Revenue Bond will be registered in the Bond Register of the Fiscal Agent in the name of the Nominee of the Securities Depository. Except as provided in the Twenty-Third Supplemental Resolution, the ownership of each Outstanding 2020 Water Revenue Bond will be registered in the Bond Register of the Fiscal Agent in the name of the Nominee.

With respect to the 2020 Water Revenue Bonds registered in the Bond Register of the Fiscal Agent in the name of the Nominee, Metropolitan and the Fiscal Agent will have no responsibility or obligation to any Participant or to any person on behalf of which a Participant holds an interest in the 2020 Water Revenue Bonds. Without limiting the immediately preceding sentence, Metropolitan and the Fiscal Agent will have no responsibility or obligation (unless the Fiscal Agent is at such time the Securities Depository) with respect to (i) the accuracy of the records of the Securities Depository, the Nominee or any Participant with respect to any ownership interest in the 2020 Water Revenue Bonds, (ii) the delivery to any Participant or any other person, other than an Owner as shown in the Bond Register of the Fiscal Agent, of any notice with respect to the 2020 Water Revenue Bonds, or (iii) the payment to any Participant or any other person, other than an Owner as shown in the Bond Register of the Fiscal Agent, of any amount with respect to principal of or interest and premium, if any, on the 2020 Water Revenue Bonds. Metropolitan and the Fiscal Agent may treat and consider the person in whose name each 2020 Water Revenue Bond is registered in the Bond Register of the Fiscal Agent as the holder and absolute Owner of such 2020 Water Revenue Bond for the purpose of payment of principal or Final Compounded Amount of, and interest on, such 2020 Water Revenue Bond, for the purpose of giving notices and other matters with respect to such 2020 Water Revenue Bond, and for all other purposes whatsoever.

The Fiscal Agent will pay all principal and Accreted Value of and interest on the 2020 Water Revenue Bonds only to or upon the order of the respective Owners, as shown in the Bond Register of the Fiscal Agent, or their respective attorneys, duly authorized in writing, and all such payments will be valid and effective to fully satisfy and discharge the obligations hereunder with respect to the payment of principal and Final Compounded Amount of, and interest on, the 2020 Water Revenue Bonds to the extent of the sum or sums so paid. No person other than an Owner, as shown in the Bond Register of the Fiscal Agent, will receive a 2020 Water Revenue Bond evidencing the obligation to make payments of principal, Final Compounded Amount and interest and premium, if



any, pursuant to the Twenty-Third Supplemental Resolution. Upon delivery by the Securities Depository to the Fiscal Agent and Metropolitan of written notice to the effect that the Securities Depository has determined to substitute a new nominee in place of the Nominee, and subject to the provisions herein with respect to record dates, the word Nominee in the Twenty-Third Supplemental Resolution will refer to such new nominee of the Securities Depository.

Payments and Notices to the Nominee. Notwithstanding any other provision of the Twenty-Third Supplemental Resolution or the Master Resolution to the contrary, so long as any 2020 Water Revenue Bond is registered in the name of the Nominee, all payments with respect to principal and Final Compounded Amount of, and interest and premium, if any, on, such 2020 Water Revenue Bond and all notices with respect to such 2020 Water Revenue Bond will be made and given, respectively, as provided in the Representation Letter or as otherwise instructed by the Securities Depository.

### **Establishment of Funds; Covenants**

Application of Proceeds of 2020 Water Revenue Bonds. The proceeds of the sale of a Series of 2020 Water Revenue Bonds and such other moneys as are available and necessary to accomplish the purposes of the Twenty-Third Supplemental Resolution from time to time will be deposited with the Treasurer and will be held in trust and, unless otherwise specified in a Certificate of an Authorized Representative, will be set aside by the Treasurer as follows:

(a) The Treasurer will deposit in the Bond Service Fund the amount of such proceeds representing interest accrued, if any, on such Series of 2020 Water Revenue Bonds to the date of delivery thereof.

(b) The Treasurer will deposit in the applicable Reserve Fund, if any, for each Series of 2020 Water Revenue Bonds an amount equal to the Bond Reserve Requirement for each such Series of 2020 Water Revenue Bonds or provide for a Reserve Fund Credit Policy to satisfy the Bond Reserve Requirement for each such Series of 2020 Water Revenue Bonds.

(c) The Treasurer will deposit in the Costs of Issuance Fund for the applicable Series of 2020 Water Revenue Bonds the amount of such proceeds necessary to pay all Costs of Issuance that are not to be paid from other sources.

(d) The remaining proceeds will be deposited in the Construction Fund for the applicable Series of 2020 Water Revenue Bonds.

Establishment and Application of Costs of Issuance Funds. Metropolitan will establish, and the Treasurer will maintain and hold in trust one or more separate funds which will be designated as the “Water Revenue Bonds 2020 Water Revenue \_\_\_\_\_ Costs of Issuance Fund” (inserting the designation for each Series or multiple Series of 2020 Water Revenue Bonds, as applicable) and will bear such additional designation as will be determined by an Authorized Representative. The moneys in each such Costs of Issuance Fund will be used and withdrawn by the Treasurer to pay Costs of Issuance incurred in connection with the issuance of the applicable Series of 2020 Water Revenue Bonds. The Treasurer will hold moneys in each such Costs of Issuance Fund uninvested until expended unless directed otherwise by a Certificate of an Authorized Representative. Any amounts remaining in a Costs of Issuance Fund six months following the date of issuance of the 2020 Water Revenue Bonds with respect thereto either (i) will be transferred to the corresponding Construction Fund and applied as provided in Section 3.03 or (ii) will be applied for such other lawful purposes determined by Metropolitan as are approved in an Opinion of Bond Counsel to the effect that such action will not, in and of itself, adversely affect the tax-exempt status of interest on the Bonds.

The Treasurer will keep a record of all payments from each Costs of Issuance Fund, which record will state: (i) the item number of such payment; (ii) the name and address of the person to whom each such payment is due, which may be Metropolitan in the case of reimbursement for costs theretofore paid by Metropolitan; and (iii) the purpose by general classification for which each obligation to be paid was incurred.

Establishment and Application of Construction Funds. Metropolitan will establish, and the Treasurer will maintain and hold in trust, one or more separate funds which will be designated as the “Water Revenue Bonds 2020 Water Revenue \_\_\_\_\_ Construction Fund” (inserting the designation for each Series or multiple Series of 2020 Water Revenue Bonds, as applicable) and will bear such additional designation as will be determined by an Authorized Representative. The moneys in each Construction Fund will be used and withdrawn by the Treasurer to pay Construction Costs. All investment earnings on funds held in each Construction Fund will be credited to such fund unless otherwise specified in a Certificate of an Authorized Representative.

The Treasurer will keep a record of all payments from each Construction Fund, which record will state: (i) the item number of such payment; (ii) the name and address of the person to whom each such payment is due, which may be Metropolitan in the case of reimbursement for costs theretofore paid by Metropolitan; and (iii) the purpose by general classification for which each obligation to be paid was incurred.

Establishment, Pledge, Funding and Application of Reserve Funds. In connection with the issuance of each Series of 2020 Water Revenue Bonds pursuant to the Twenty-Third Supplemental Resolution, Metropolitan may establish and, if established, the Treasurer will maintain and hold in trust a separate fund for such Series designated as the “Water Revenue Bonds 2020 Water Revenue Series \_\_\_\_\_ Reserve Fund” (inserting the designation for each Series of 2020 Water Revenue Bonds) and will bear such additional designation as will be determined by an Authorized Representative. Metropolitan will not fund a reserve fund for the 2020A Bonds.

Establishment and Application of Excess Earnings Funds. To ensure proper compliance with the tax covenants contained in the Twenty-Third Supplemental Resolution, Metropolitan will establish when required and, if established, the Treasurer will maintain, a fund for each Series of 2020 Water Revenue Bonds issued hereunder, which fund, if any, will be separate from any other fund or account established and maintained hereunder or under the Master Resolution designated as the “Water Revenue Bonds 2020 Water Revenue Excess Earnings Fund” and will bear such additional designation as will be determined by an Authorized Representative. All money at any time deposited in the Excess Earnings Fund with respect to a Series of 2020 Water Revenue Bonds in accordance with the provisions of the Tax Certificate applicable to such Series will be held by the Treasurer for the account of Metropolitan in trust for payment to the federal government of the United States of America, and neither Metropolitan nor the Owner of any bonds of such Series of 2020 Water Revenue Bonds will have any rights in or claim to such money. All amounts deposited into or on deposit in any such Excess Earnings Fund will be governed by the Twenty-Third Supplemental Resolution and by the applicable Tax Certificate. The Treasurer will invest all amounts held in any such Excess Earnings Fund in accordance with the applicable Tax Certificate. Money will not be transferred from the Excess Earnings Fund established for a Series of 2020 Water Revenue Bonds except in accordance with the Tax Certificate with respect to such Series.

Tax Covenants. In order to maintain the exclusion from gross income of the interest on the 2020 Water Revenue Bonds for federal income tax purposes, Metropolitan covenants to comply with each applicable requirement of Section 103 and Sections 141 through 150 of the Code and Metropolitan agrees to comply with the covenants contained in, and the instructions given pursuant to, each Tax Certificate which by this reference is incorporated herein, as a source of guidance for compliance with such provisions.

Notwithstanding any other provisions of the Master Resolution or the Twenty-Third Supplemental Resolution to the contrary, upon Metropolitan’s failure to observe, or refusal to comply with, the foregoing covenant, no Person other than the Owners of the 2020 Water Revenue Bonds will be entitled to exercise any right or remedy provided to the Owners under the Master Resolution or the Twenty-Third Supplemental Resolution on the basis of Metropolitan’s failure to observe, or refusal to comply with, such covenant.

Establishment and Application of Additional Funds. In addition to the funds established pursuant to the Master Resolution and the Twenty-Third Supplemental Resolution, there will be established and maintained such additional funds and/or accounts as will be set forth in the Trust Agreement, if any, including funds with respect to the purchase and remarketing of Variable Rate Bonds, with respect to the payments to be made by Metropolitan under any interest rate swap agreement or agreements entered into by Metropolitan, and for such other purposes as Metropolitan or the Fiscal Agent deem necessary or desirable.

## **Fiscal Agent and Paying Agent**

The Treasurer of Metropolitan is appointed as Fiscal Agent with respect to the 2020 Water Revenue Bonds. In addition, with respect to a Series of Variable Rate Bonds, if any, an Authorized Representative may appoint a Paying Agent, which will have such duties as will be set forth in the respective Trust Agreement.

## **Undertakings**

Municipal Securities Disclosure. Metropolitan agrees to provide or cause to be provided certain annual financial information and notices of certain material events to the extent required by Rule 15c2-12 adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as amended, with respect to each Series of 2020 Water Revenue Bonds in accordance with the terms of the Continuing Disclosure Certificate, delivered by Metropolitan in connection with such Series of 2020 Water Revenue Bonds.

Default. Failure to comply with the provisions set forth under “Municipal Securities Disclosure” above will not be deemed an Event of Default under the Master Resolution. The sole remedy under “Undertakings” in the event of any failure of Metropolitan to comply with the provisions thereunder will be an action to compel performance, and no person or entity will be entitled to recover monetary damages hereunder under any circumstances.

Amendment. The provisions under “Undertakings” may be amended, supplemented, modified or deleted, from time to time and at any time, as Metropolitan may determine without the consent of any Owner of the 2020 Water Revenue Bonds.

## **Miscellaneous**

2020 Water Revenue Bonds Subject to Master Resolution. Except as expressly provided in the Twenty-Third Supplemental Resolution, every term and condition contained in the Master Resolution will apply to the Twenty-Third Supplemental Resolution and to the 2020 Water Revenue Bonds with the same force and effect as if it were herein set forth at length, with such omissions, variations and modifications thereof as may be appropriate to make the same conform to the Twenty-Third Supplemental Resolution.

Severability of Invalid Provisions. If any one or more of the provisions contained in the Twenty-Third Supplemental Resolution or in the 2020 Water Revenue Bonds will for any reason be held to be invalid, illegal or unenforceable in any respect, then such provision or provisions will be deemed severable from the remaining provisions contained in the Twenty-Third Supplemental Resolution and such invalidity, illegality or unenforceability will not affect any other provision of the Twenty-Third Supplemental Resolution, and the Twenty-Third Supplemental Resolution will be construed as if such invalid, illegal or unenforceable provision had never been contained herein. Metropolitan declares that it would have adopted the Twenty-Third Supplemental Resolution and each and every other Section, paragraph, sentence, clause or phrase of the Twenty-Third Supplemental Resolution and authorized the issuance of the 2020 Water Revenue Bonds pursuant thereto irrespective of the fact that any one or more Sections, paragraphs, sentences, clauses or phrases of the Twenty-Third Supplemental Resolution may be held illegal, invalid or unenforceable.

Governing Law. The Twenty-Third Supplemental Resolution will be construed and governed in accordance with the laws of the State of California.

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**APPENDIX D**

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**BOOK-ENTRY ONLY SYSTEM**

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## APPENDIX D

### BOOK-ENTRY ONLY SYSTEM

#### Introduction

Unless otherwise noted, the information contained under “– General” below has been provided by DTC. Metropolitan makes no representations as to the accuracy or completeness of such information. Further, Metropolitan undertakes no responsibility for and makes no representations as to the accuracy or the completeness of the content of such material contained on DTC’s website as described under “– General,” including, but not limited to, updates of such information or links to other Internet sites accessed through the aforementioned website. The Beneficial Owners of the 2020A Bonds should confirm the following information with DTC, the Direct Participants or the Indirect Participants.

NONE OF METROPOLITAN NOR THE FISCAL AGENT (OR THE AGENT THEREOF) WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DIRECT PARTICIPANTS, TO INDIRECT PARTICIPANTS OR TO ANY BENEFICIAL OWNER WITH RESPECT TO (A) THE ACCURACY OF ANY RECORDS MAINTAINED BY DTC, ANY DIRECT PARTICIPANT OR ANY INDIRECT PARTICIPANT; (B) ANY NOTICE THAT IS PERMITTED OR REQUIRED TO BE GIVEN TO THE OWNERS OF THE 2020A BONDS UNDER THE RESOLUTIONS; (C) THE SELECTION BY DTC OR ANY DIRECT PARTICIPANT OR INDIRECT PARTICIPANT OF ANY PERSON TO RECEIVE PAYMENT IN THE EVENT OF A PARTIAL REDEMPTION OF THE 2020A BONDS, IF APPLICABLE; (D) THE PAYMENT BY DTC OR ANY DIRECT PARTICIPANT OR INDIRECT PARTICIPANT OF ANY AMOUNT TO THE OWNERS OF THE 2020A BONDS; (E) ANY CONSENT GIVEN OR OTHER ACTION TAKEN BY DTC AS THE OWNER OF 2020A BONDS; OR (F) ANY OTHER MATTER REGARDING DTC.

#### General

The Depository Trust Company (“DTC”), New York, New York, will act as securities depository for the 2020A Bonds. The 2020A Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered certificate will be issued for each maturity of the 2020A Bonds and will be deposited with DTC.

DTC, the world’s largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to DTC’s system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a

Direct Participant, either directly or indirectly (“Indirect Participants”). S&P Global Ratings has rated DTC “AA+.” DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at [www.dtcc.com](http://www.dtcc.com). The information set forth on such website is not incorporated herein by reference.

Purchases of the 2020A Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the 2020A Bonds on DTC’s records. The ownership interest of each actual purchaser of each 2020A Bond (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the 2020A Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the 2020A Bonds, except in the event that use of the book-entry system for the 2020A Bonds is discontinued.

To facilitate subsequent transfers, all 2020A Bonds deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of the 2020A Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the 2020A Bonds. DTC’s records reflect only the identity of the Direct Participants to whose accounts such 2020A Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of the 2020A Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the 2020A Bonds, such as redemptions, tenders, defaults, and proposed amendments to the 2020A Bonds documents. For example, Beneficial Owners of the 2020A Bonds may wish to ascertain that the nominee holding the 2020A Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the 2020A Bonds of like maturity are being redeemed, DTC’s practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the 2020A Bonds unless authorized by a Direct Participant in accordance with DTC’s MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to Metropolitan as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.’s consenting or voting rights to those Direct Participants to whose accounts the 2020A Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Payments of principal of, premium, if any, and interest on the 2020A Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC’s practice is to credit Direct Participants’ accounts upon DTC’s receipt of funds and corresponding detail information from Metropolitan or the Fiscal Agent (or its agent), on the payable date in accordance with



their respective holdings shown on DTC's records. Payments by Direct and Indirect Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Fiscal Agent (or its agent) or Metropolitan, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal of, premium, if any, and interest on the 2020A Bonds to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of Metropolitan or the Fiscal Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

NONE OF METROPOLITAN NOR THE FISCAL AGENT (OR THE AGENT THEREOF) WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DIRECT PARTICIPANTS, INDIRECT PARTICIPANTS OR BENEFICIAL OWNERS WITH RESPECT TO THE PAYMENTS OR THE PROVIDING OF NOTICE TO DIRECT PARTICIPANTS, INDIRECT PARTICIPANTS OR BENEFICIAL OWNERS.

Metropolitan and the Fiscal Agent (or its agent) cannot and do not give any assurances that DTC, the DTC Participants or others will distribute payments of principal or interest on the 2020A Bonds paid to DTC or its nominee as the registered owner, or will distribute any notices, to the Beneficial Owners, or that they will do so on a timely basis or will serve and act in the manner described in this Official Statement. Metropolitan and the Fiscal Agent (or its agent) are not responsible or liable for the failure of DTC or any DTC Participant to make any payment or give any notice to a Beneficial Owner with respect to the 2020A Bonds or for an error or delay relating thereto.

DTC may discontinue providing its services as depository with respect to the 2020A Bonds at any time by giving reasonable notice to Metropolitan or the Fiscal Agent. Under such circumstances, in the event that a successor depository is not obtained, 2020A Bond certificates are required to be printed and delivered.

Metropolitan may decide to discontinue use of the system of book-entry only transfers through DTC (or a successor securities depository). In that event, 2020A Bond certificates will be printed and delivered to DTC.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that Metropolitan believes to be reliable, but Metropolitan takes no responsibility for the accuracy thereof.

BENEFICIAL OWNERS WILL NOT RECEIVE PHYSICAL DELIVERY OF 2020A BONDS AND WILL NOT BE RECOGNIZED BY THE FISCAL AGENT (OR ITS AGENT) AS OWNERS THEREOF, AND BENEFICIAL OWNERS WILL BE PERMITTED TO EXERCISE THE RIGHTS OF OWNERS ONLY INDIRECTLY THROUGH DTC AND THE DTC PARTICIPANTS.

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**APPENDIX E**

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**SELECTED DEMOGRAPHIC AND ECONOMIC INFORMATION  
FOR METROPOLITAN'S SERVICE AREA**

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## APPENDIX E

### SELECTED DEMOGRAPHIC AND ECONOMIC INFORMATION FOR METROPOLITAN'S SERVICE AREA

*This Appendix E has been prepared by the Center for Continuing Study of the California Economy ("CCSCE"). Forward looking statements are those of the CCSCE. Neither the CCSCE nor Metropolitan is obligated to issue any updates or revisions to the data set forth in this Appendix E.*

#### General

The map contained in the body of the Official Statement or Remarketing Statement to which this Appendix E is attached shows the area served by Metropolitan. It includes parts of six of the ten counties that comprise Southern California. The area served by Metropolitan represents the most densely populated and heavily industrialized portions of Southern California.

In this Appendix E, the economy of the area served by Metropolitan is generally described in terms of data for the area consisting of Los Angeles, Orange, Riverside, San Bernardino, San Diego, and Ventura counties ("Six County Area"). Although these counties comprise Metropolitan's service area, Metropolitan's territory does not encompass all of the area within each of the six counties. In 2018, the economy of the Six County Area was larger than all but twelve nations of the world. The Six County Area economy ranked between South Korea (\$1.619 trillion) and Australia (\$1.432 trillion), with an estimated gross domestic product ("GDP") of \$1.538 trillion. The Six County Area's gross domestic product in 2018 was larger than all U.S. states except California, Texas and New York.

#### RANKING OF AREAS BY GROSS DOMESTIC PRODUCT (Dollars in Billions)

	2018
United States	\$20,580
China	13,608
Japan	4,971
Germany	3,997
California	2,968
United Kingdom	2,825
France	2,778
India	2,726
Italy	2,074
Brazil	1,868
Texas	1,776
Canada	1,713
New York	1,676
Russian Federation	1,658
South Korea	1,619
Six County Area	1,538
Australia	1,432
Spain	1,426
Mexico	1,224

*Source: Countries--World Bank; U.S.-- Bureau of Economic Analysis; California and Six County Area--U.S. Department of Commerce*

## Summary of Recent Trends and Outlook for the Six County Area Economy

The national economy is in the ninth year of economic expansion. GDP growth since the third quarter of 2014 is shown below. GDP growth in the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2019 declined to near 2%. Reported job growth averaged 189,000 per month in 2017, 204,000 per month in 2018 and 179,000 per month so far in 2019. Recent job growth has resulted in average hourly earnings rising by 3.0% over the 12 months ending October 2019 and the unemployment rate declining to 3.6% in October 2019.

On October 30, 2019, the Federal Reserve Bank lowered the federal funds rate to between 1.5% and 1.75%--the third decline in 2019. At the same time the Federal Reserve Bank signaled no more rate changes are currently planned in the near term. Inflation is now averaging close to 2% on an annual basis and wage gains have risen to above 3% on an annual basis.

The national economy faces potential slowing in the coming years from three factors—the possibility of continuing higher tariffs, a decline in labor force growth from baby boomer retirements, and slowing world economic growth. The UCLA national forecast is shown below with declining GDP and job growth in 2020 and 2021. Congressional Budget Office forecasts GDP growth of 2.1% in 2020, 1.7% for 2021-2024 and 1.8% for 2024-2029.

The Six County Area has regained all the jobs lost during the recession and more. Year-over-year job gains continued into 2019 with year-over-year gains ranging from a high of 2.3% in Riverside-San Bernardino metro area to a low of 0.4% in Ventura County. Job growth for the entire Six County Area for the 12 months ending September 2019 was 139,000 jobs or a gain of 1.5% compared to a 1.9% increase in jobs for the state and 1.5% for the nation for the comparable period. Unemployment rates in the Six County Area have declined sharply between 2010 and September 2019. (See the table below). In September 2019 unemployment rates ranged from a low of 2.4% in Orange County to a high of 4.5% in Los Angeles County.

California and the Six County Area are experiencing growth in both domestic and foreign visitors. Hotel rates and occupancy are increasing in the Six County Area and the same is true for employment in the hotel and amusement park sectors. In 2018 Los Angeles County set tourism records for the fourth year in a row for visitors, 50 million up 3.1% over 2017, according to data from the Los Angeles Tourism and Convention Board. In 2018 passenger travel at Los Angeles International Airport was up 3.5% to 87.5 million trips to set an all-time record. Air passenger travel at the major airports in the Six County Area reached record levels in 2018 and is up 1.9% through August 2019 to 135.3 million trips led by gains at Burbank, Ontario and San Diego airports.

Population growth in California and the Six County Area has been slowing since 2000 compared with previous decades. Population growth slowed after 2005 as high housing prices and large job losses contributed to larger levels of out-migration to other areas of California and other states. Population growth averaged 160,000 between 2010 and 2018 according to the California Department of Finance (“DOF”) estimates, and growth slowed in the past three years. The Six County Area had 22.3 million residents in 2018, approximately 56% of the State’s population.

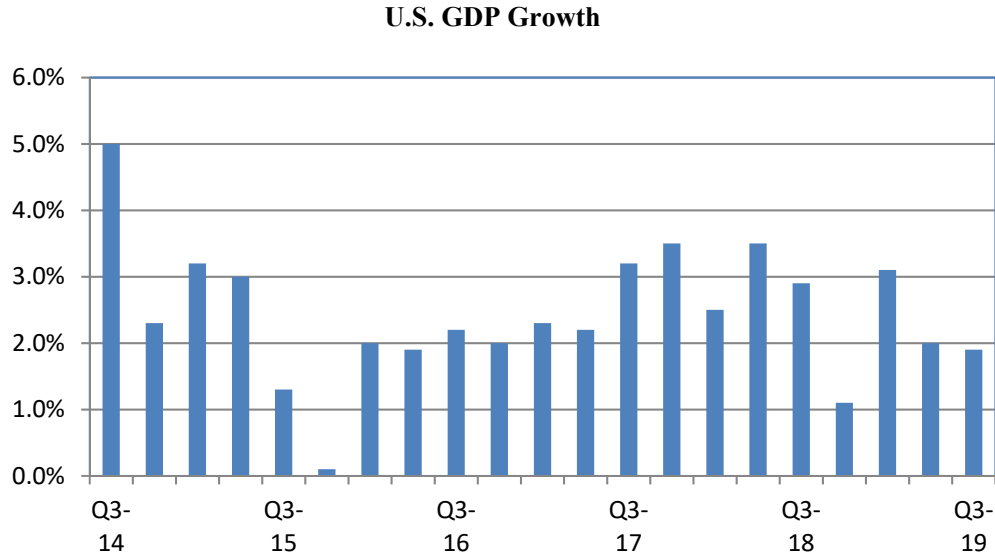
Income, taxable sales and assessed valuation in the Six County Area have increased since 2013 along with record levels in foreign trade and film permits. Gains in income, taxable sales and assessed valuation are all outpacing the growth in consumer price indices in the Six County Area all of which are helping local government revenue growth.

Long-term job growth is driven by the Six County Area’s economic base—those sectors that sell most of their goods and services in national and world markets outside of the Six County Area. Recent projections by the CCSCE, the Southern California Association of Governments (“SCAG”) and the San Diego Association of Governments (“SANDAG”) report that the Six County Area will see job growth that

slightly exceeds the national average during the next 10 to 30 years, led by gains in Professional and Business Services, Wholesale Trade, Tourism and Entertainment, and Health Care.

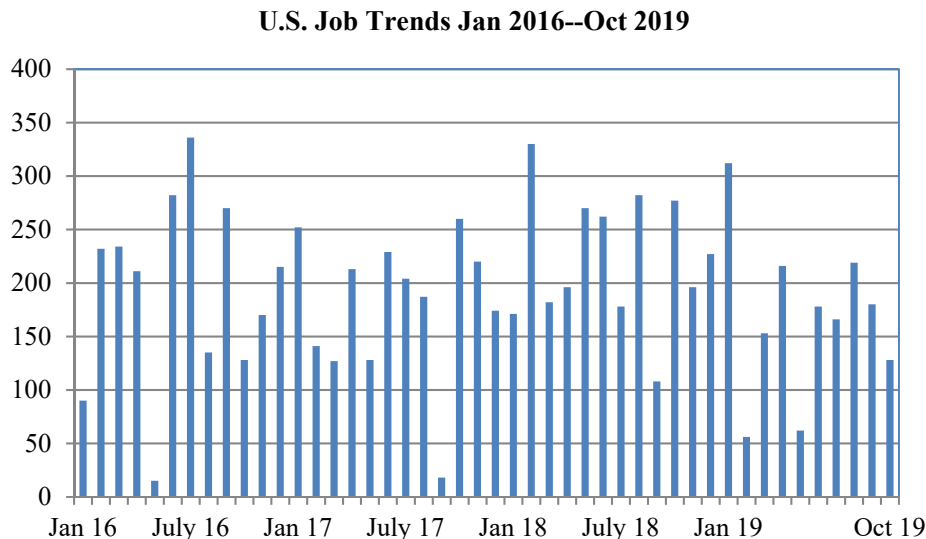
### An Update on the U.S. Economic Outlook

The national economy is in the ninth year of economic expansion. GDP growth since the third quarter of 2014 is shown below. GDP growth in the 2<sup>nd</sup> and 3<sup>rd</sup> quarters of 2019 declined to near 2%.



Source: Bureau of Economic Analysis, U.S. Department of Commerce

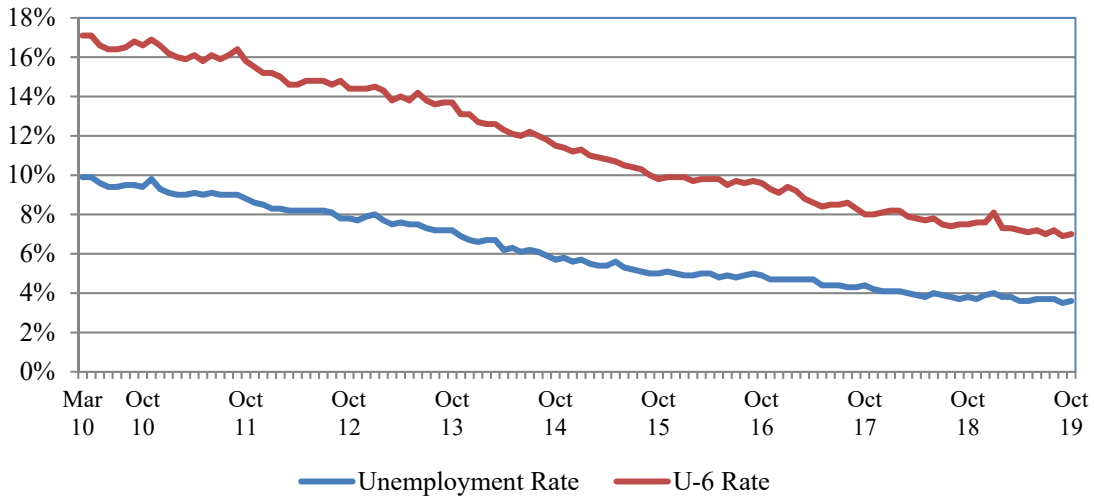
The nation continues to add jobs supported by more workers rejoining the labor force and more previously unemployed workers finding jobs. Reported job growth averaged 189,000 per month in 2017, 204,000 per month in 2018 and 179,000 per month so far in 2019. A large portion of recent job growth has come from existing residents finding jobs and not from population growth. Recent job growth has resulted in average hourly earnings rising by 3.0% over the 12 months ending October 2019.



Source: Bureau of Labor Statistics, U.S. Department of Labor

The unemployment rate in the nation has declined from near 9.9% in March 2010 to 3.6% in October 2019. The U-6 unemployment rate shown below, which includes people working part-time but wanting full-time work and those marginally attached (not currently in the labor force but wanting to work), was 7.0% in March 2019 below the pre-recession level of 7.9% but also well below the 17.1% high in late 2009. Both unemployment rates have declined slightly in recent months.

### U.S. Unemployment Rate



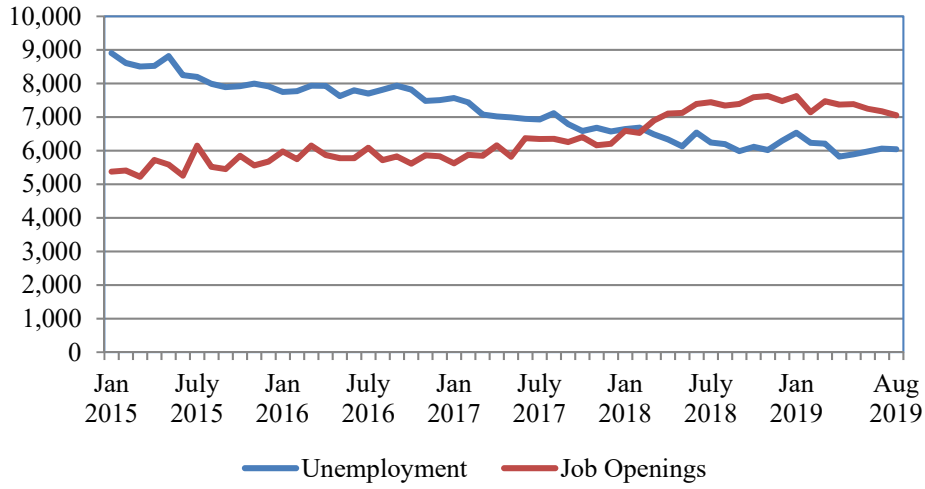
Source: Bureau of Labor Statistics, U.S. Department of Labor

Two other labor market indicators confirm that the job market remains tight. The labor force participation rate declined after 2007 during the recession. But recent strong job growth has brought some workers back into the labor force. The overall participation rate is below the 2007 level as a result of the aging of the workforce pushing more workers into age groups with low participation rates but it has increased slightly in recent months despite increasing numbers of retirements.

In addition, for the 17 straight months the number of job openings has exceeded the number of unemployed workers. In August 2019 there were 7.1 million job openings and just 6.0 million unemployed workers. These trends point to the strength of the current labor market but also to the difficulty in finding workers for future job growth. (See figure on the next page.)



### Job Openings and Unemployment

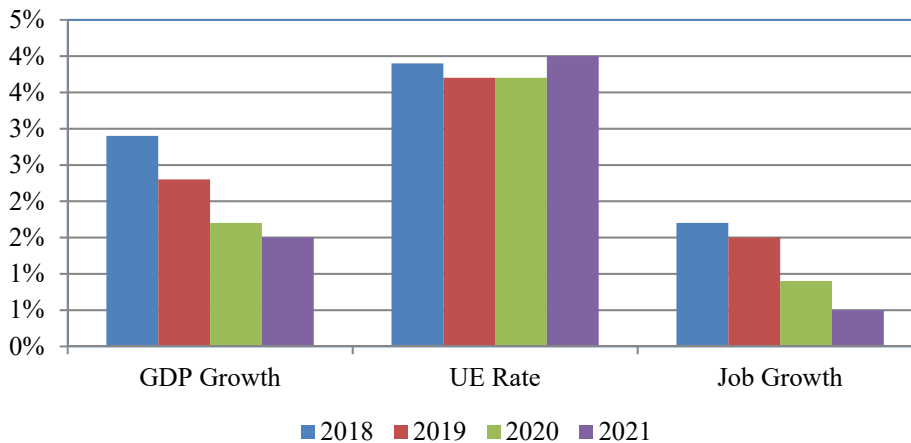


Source: Bureau of Labor Statistics, U.S. Department of Labor

On October 30, 2019, the Federal Reserve Bank lowered the federal funds rate to between 1.5% and 1.75%--the third decline in 2019. At the same time the Federal Reserve Bank signaled no more rate changes are currently planned in the near term. Inflation is now averaging close to 2% on an annual basis, wage gains have risen to above 3% on an annual basis and 30-year mortgage rates have declined to near 3.75% in October 2019.

The national economy faces potential slowing in the coming years from three factors—the possibility of continuing higher tariffs, a decline in labor force growth from baby boomer retirements, and slowing world economic growth. The UCLA national forecast is shown below with declining GDP and job growth in 2020 and 2021. Congressional Budget Office forecasts GDP growth of 2.1% in 2020, 1.7% for 2021-2024 and 1.8% for 2024-2029.

### UCLA Forecast Sept. 2019



The following pages describe current economic trends in the Six County Area.

## Recent Six County Area Job Growth Trends

The Six County Area has regained all the jobs lost during the recession and more. Year-over-year job gains (see the table below) continued into 2019 with year-over-year gains ranging from a high of 2.3% in Riverside-San Bernardino metro area to a low of 0.4% in Ventura County. Job growth for the entire Six County Area for the 12 months ending September 2019 was 139,000 jobs or a gain of 1.5% compared to a 1.9% increase in jobs for the state and 1.5% for the nation for the comparable period.

Job growth was aided by gains in foreign trade, tourism and professional services as well as a rebound in construction and related sectors and continuing growth in health care and food services.

### RECENT EMPLOYMENT TRENDS (Non-Farm Wage and Salary Jobs in Thousands)

	<u>2007</u>	<u>2010</u>	<u>2017</u>	<u>2018</u>	<u>Sept 18</u>	<u>Sept 19</u>	<u>Sept 18-19 % Change</u>
Los Angeles	4,254.2	3,923.2	4,448.3	4,510.1	4,506.2	4,556.7	1.1%
Orange	1,524.0	1,370.3	1,617.0	1,649.3	1,649.4	1,670.9	1.3%
Riverside-San Bernardino	1,289.9	1,151.5	1,454.9	1,504.2	1,502.6	1,537.7	2.3%
San Diego	1,323.8	1,242.0	1,453.2	1,484.6	1,484.4	1,515.0	2.1%
Ventura	<u>298.4</u>	<u>275.5</u>	<u>296.5</u>	<u>300.4</u>	<u>307.8</u>	<u>309.1</u>	0.4%
Total Six County Area	8,690.3	7,962.5	9,269.9	9,448.7	9,450.4	9,589.4	1.5%

*Source: California Employment Development Department (EDD)*

Unemployment rates in the Six County Area have declined sharply between 2010 and September 2019. (See the table below). In September 2019 unemployment rates ranged from a low of 2.4% in Orange County to a high of 4.5% in Los Angeles County.

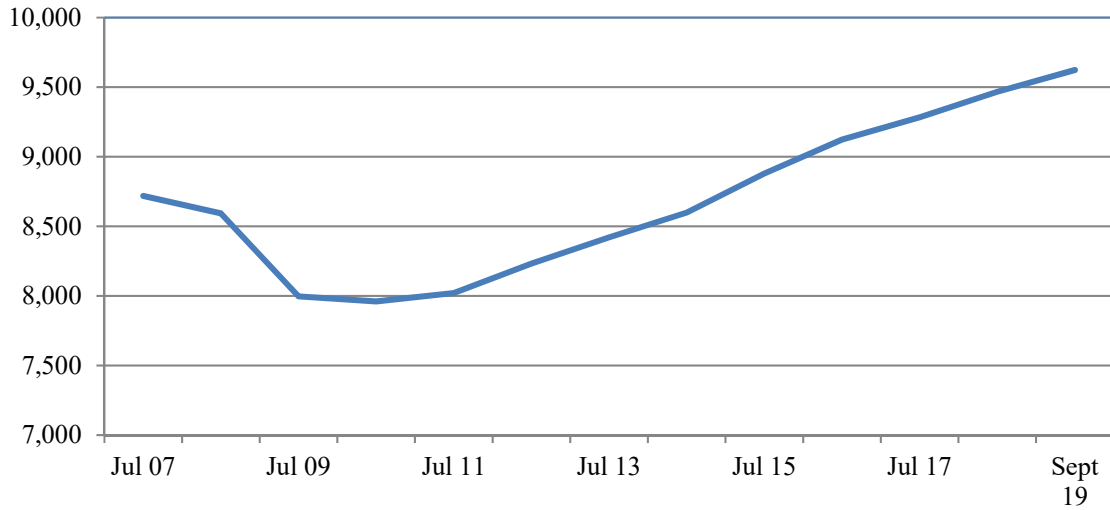
### UNEMPLOYMENT RATES

	<u>2000</u>	<u>2006</u>	<u>2010</u>	<u>2017</u>	<u>2018</u>	<u>Sept 18</u>	<u>Sept 19</u>
Los Angeles County	5.4%	4.8%	12.5%	4.8%	4.7%	4.7%	4.5%
Orange County	3.5%	3.4%	9.7%	3.5%	2.9%	2.8%	2.4%
Riverside County	5.4%	5.0%	13.8%	5.2%	4.4%	4.3%	3.8%
San Bernardino County	4.8%	4.8%	13.5%	4.9%	4.0%	3.8%	3.3%
San Diego County	3.9%	4.0%	10.8%	4.0%	3.3%	3.1%	2.7%
Ventura County	4.5%	4.3%	10.8%	4.5%	3.8%	3.7%	3.2%
United States	4.0%	4.6%	9.6%	4.4%	3.9%	3.7%	3.5%
State of California	4.9%	4.9%	12.2%	4.8%	4.2%	4.1%	4.0%

*Source: U.S. Bureau of Labor Statistics and EDD*

The Six County Area moved from substantial job losses during the recession to sustained job growth during the past 7 years. (See the figure on the following page). The Six County Area has outpaced the nation in job growth since the beginning of 2013. By September 2019 job levels were 904,400 or 10.4% above the pre-recession peak level in July 2007.

### Six County Area Jobs (Thousands)

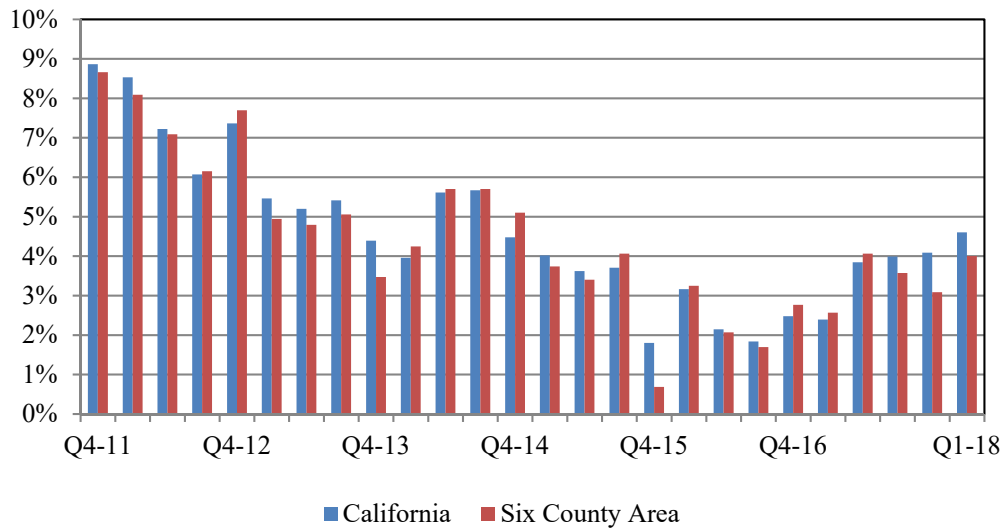


Source: EDD; data are seasonally adjusted

### Taxable Sales and Income

Taxable sales in the Six County Area increased by 4.9% in 2014, 2.8% in 2015, 2.4% in 2016 and 3.4% in 2017 though the rate of gain declined in the last two quarters of 2017 as shown below. The Six County Area accounts for 55% of statewide taxable sales and future results are forecast to reflect the pattern of statewide gains. Taxable sales have grown more slowly than personal income as a higher share of spending is on services and other non-taxable items. The data below go only through Q1-2018 so do not reflect events in the past 18 months.

### Change in Taxable Sales From Year Earlier



Source: California Board of Equalization

Taxable sales in the Six County Area have rebounded from 2010 levels and all the recession losses have been recovered, helping local government revenues. Taxable sales rose faster than inflation in all

counties in each year since 2010. Taxable sales in the Six County Area increased in 2017 by 3.4% while the consumer price index increased by 2.8%.

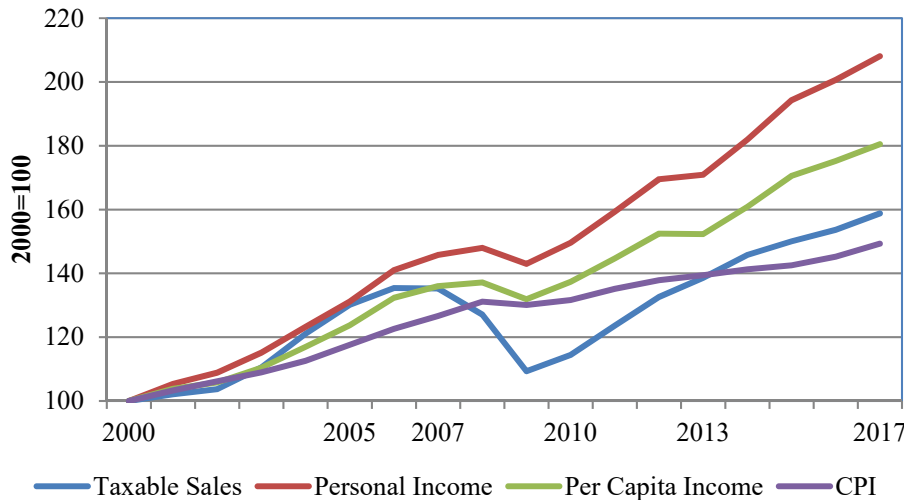
**TAXABLE SALES  
(Dollars in Billions)**

	<u>2000</u>	<u>2006</u>	<u>2010</u>	<u>2016</u>	<u>2017</u>	<u>% Change 2000 - 17</u>	<u>% Change 2006 - 17</u>
Los Angeles County	\$106.7	\$136.2	\$116.9	\$154.2	\$159.3	49%	17%
Orange County	44.5	57.2	47.7	62.5	64.6	45%	13%
Riverside County	17.0	29.8	23.2	34.2	36.1	112%	21%
San Bernardino County	18.9	31.3	24.7	37.0	38.1	102%	22%
San Diego County	36.2	47.8	41.6	55.4	57.0	57%	19%
Ventura County	9.1	12.3	10.2	13.7	13.9	53%	13%
Total Six County Area	<u>\$232.4</u>	<u>\$314.6</u>	<u>\$264.3</u>	<u>\$357.0</u>	<u>\$369.0</u>	59%	17%
Los Angeles Area Consumer Price Index (1982-84 = 100.0)	171.6	210.4	225.9	249.2	256.2	49%	22%

*Source: Taxable Sales—California Board of Equalization, Consumer Price Index—U.S. Bureau of Labor Statistics*

Total personal income reached a record \$1.23 trillion in 2017 in the Six County Area. Per capita personal income reached a record level of \$55,188 in 2017 and the gain in per capita income between 2000 and 2017 now far exceeds the increase in consumer prices. Taxable sales growth kept pace with total income growth through 2005 but has lagged far behind income for the period since 2000 although it has exceeded the increase in consumer prices as shown below. The growth in income and taxable sales is expected to outpace the increase in consumer prices for most future years.

**Growth in Taxable Sales, Income and Consumer Prices in Six  
County Area**



*Sources: California Board of Equalization, U.S. Bureau of Economic Analysis and U.S. Bureau of Labor Statistics*

## Construction Activity

Residential building permit levels in the Six County Area declined sharply after 2004 falling from 108,322 to 17,932 units in 2009. Permit levels have rebounded since 2009 reaching 59,444 in 2017 before declining to 56,400 units in 2018. Permit levels are down 11% for the first nine months of 2019 compared to 2018. Multi-family residential permits are the majority in Los Angeles, Orange and San Diego counties while most permits in Riverside and San Bernardino are for single family homes. Projected long-term job and population growth will support a much higher level of residential construction than is currently occurring. State and regional policies that would make housing easier to build are under discussion.

### RESIDENTIAL BUILDING PERMITS

	<u>2004</u>	<u>2009</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<b>Jan-Sept</b> <u>2018-19</u>
Los Angeles County	26,395	5,653	20,369	22,479	23,222	-14%
Orange County	9,322	2,200	12,134	10,294	8,105	8%
Riverside County	34,226	4,190	6,701	7,335	9,168	-13%
San Bernardino County	18,470	2,495	3,872	6,831	5,086	-5%
San Diego County	17,306	2,990	10,100	10,016	9,570	-23%
Ventura County	<u>2,603</u>	<u>404</u>	<u>1,663</u>	<u>2,489</u>	<u>1,249</u>	14%
Total Six County Area	<u>108,322</u>	<u>17,932</u>	<u>54,839</u>	<u>59,444</u>	<u>56,400</u>	-11%

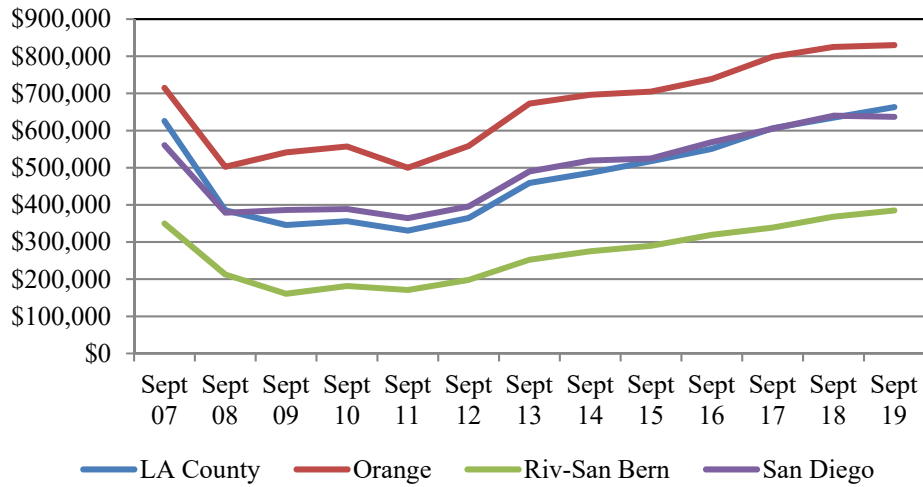
*Source: Construction Industry Research Board and California Homebuilding Foundation*

## Housing Price and Affordability Trends in the Six County Area Economy

The housing market recovery that began in 2012 has continued into 2019. Housing prices increased, the number of new residential building permits rose and the number of new foreclosure filings declined. Mortgage rates have declined in recent months and remain relatively low historically and the number of homes in the unsold inventory is low by historic standards according to the California Association of Realtors (“CAR”).

Median resale housing prices in Six County Area markets have risen substantially in recent years though the rate of increase has slowed recently. In the seven years ending September 2019 median resale prices rose 82% in Los Angeles County, 49% in Orange County, 94% in the Riverside-San Bernardino County area and 61% in San Diego County and are exceeding or nearing pre-recession levels. (See the figure on the following page).

### Median Resale Housing Prices

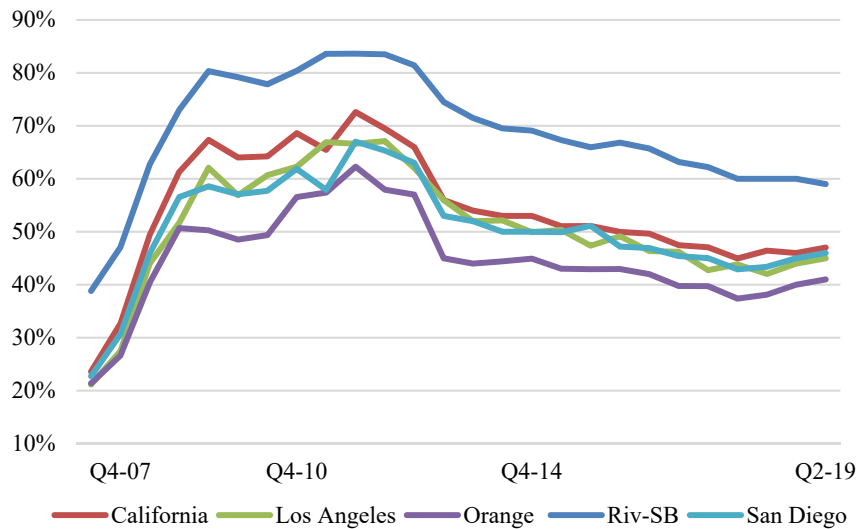


Source: California Association of Realtors

The rise in home prices has led to a decline in housing affordability for first-time homebuyers throughout the Six County Area since 2014 as measured by CAR. Affordability inched up in Q2-2019 in all areas except Riverside-San Bernardino counties.

The long-term demand for housing based on job and population growth remains well above current levels according to projections from SCAG, SANDAG and CCSCE.

### First-Time Buyer Affordability Index



Source: California Association of Realtors

## Nonresidential Construction

Nonresidential construction permit levels reached a record \$15.6 billion in 2018, up 16% over 2017 levels. Permit levels are down 9% in the first nine months of 2019 compared to a year earlier.

The largest gains in 2018 were in Los Angeles, Orange and Riverside counties. All counties except San Bernardino have surpassed pre-recession 2007 levels and the regional total is up nearly 40% since 2007. Public construction, not shown below, has also increased. The increase in residential, nonresidential and public construction is supporting job growth in construction and related industries.

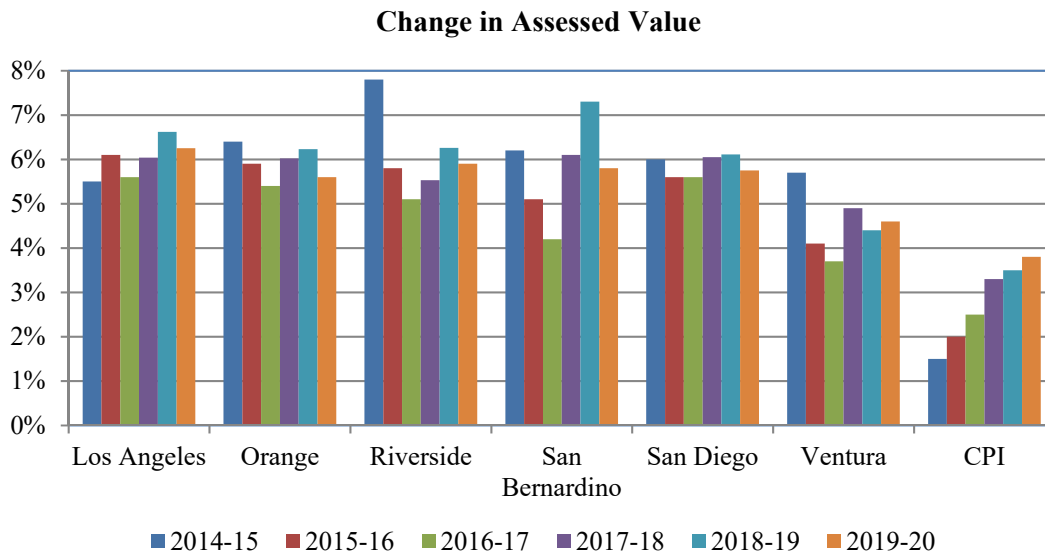
### TOTAL NONRESIDENTIAL CONSTRUCTION PERMIT VALUATION (Dollars in Billions)

	<u>2007</u>	<u>2009</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>Jan-Sept 2018-19</u>
Los Angeles County	\$4.7	\$2.7	\$5.3	\$6.0	\$6.7	-14%
Orange County	2.0	1.0	2.5	2.1	3.5	-22%
Riverside County	1.5	0.4	1.3	1.4	2.0	-18%
San Bernardino County	1.4	0.3	1.0	1.3	1.1	21%
San Diego County	1.4	0.6	1.8	2.4	1.9	26%
Ventura County	<u>0.3</u>	<u>0.2</u>	<u>0.2</u>	<u>0.2</u>	<u>0.4</u>	-42%
Total Six County Area	<u>\$11.3</u>	<u>\$5.1</u>	<u>\$12.1</u>	<u>\$13.4</u>	<u>\$15.6</u>	-9%

Source: Construction Industry Research Board and California Homebuilding Foundation

## Assessed Valuation

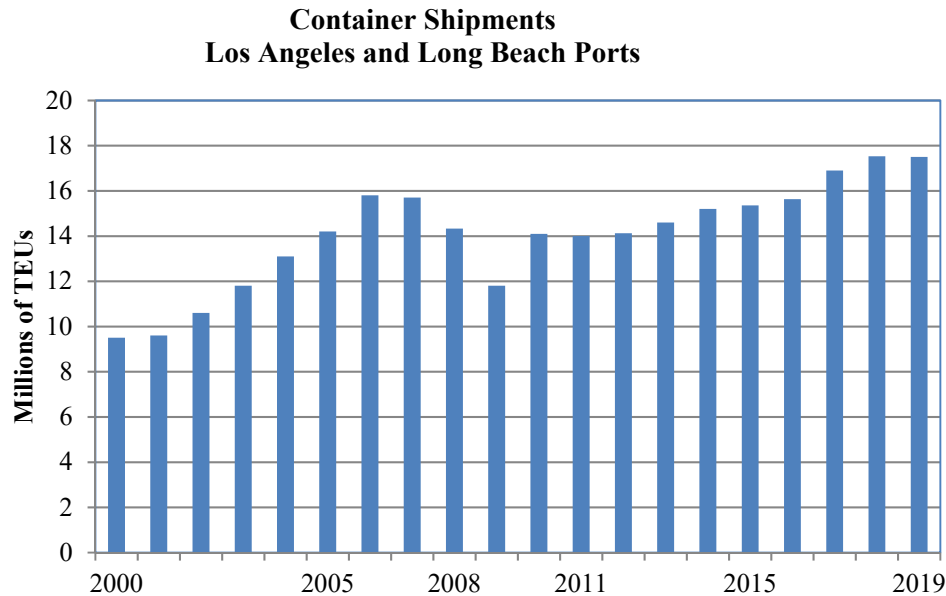
Assessed valuation in the Six County Area has rebounded and outpaced inflation in recent years after a long downturn during the last recession that was a source of fiscal pressure on local communities throughout the Six County Area. Assessed values increased again for the 2019-20 fiscal year with gains ranging from 4.6% in Ventura County to 6.3% in Los Angeles County compared to a 3.6% increase in the Consumer Price Index (CPI) (See figure below). For seven years in a row assessed valuation growth has outpaced inflation in each county in the Six County Area.



Source: County Assessors' Offices and Bureau of Labor Statistics

## International Trade

The recession led to a decline in the dollar volume and physical volume of international trade in the Six County Area after 2006. Container volumes have recovered since 2009 and reached record levels in 2018, up 3.7% over 2017 levels. Tariff increases and slowing world growth resulted in no trade growth in 2019 through September.



*Source: Ports of Los Angeles and Long Beach*

Over the longer term, international trade has been a leading growth sector in the Six County Area. Container volume rose 84% between 2000 and 2018 despite the large drop in 2008 and 2009. Trade volume increased by 6.1% in 2018 to \$619.9 billion including \$545.9 billion in the Los Angeles Customs District, leading all U.S. ports, and \$74.0 billion in the San Diego Customs District. This growth supports jobs and economic activity in the transportation, wholesale trade and warehousing industries as the Six County Area is a gateway for U.S. trade with Pacific Rim countries. For example, in the Riverside-San Bernardino metro area, where many imports are stored and shipped from, an increase in warehousing jobs from 16,500 to 64,900 between 2007 and 2018 occurred, along with 13,000 jobs added in trucking and wholesale trade with all three sectors exceeding pre-recession job levels.

Long-term growth in the United States and in its trading partners can boost international trade levels of activity in the coming years as will new trade agreements. However, the outlook for foreign trade expansion particularly with China and Mexico has become uncertain with the new trade agreements because the impacts on trade volumes among the three countries are not clear at this time.

## Income, Wages and Poverty Rates

Counties in the Six County Area have income and wage levels and poverty rates that range from below the national average to above the national average. Orange and Ventura counties have the highest household income levels within the Six County Area. Los Angeles, Orange and San Diego counties have the highest wage levels, well above the national average. San Diego County income levels are also above the national average. Riverside and San Bernardino counties have per capita income and wage levels that are below the national average. Median household income in 2018 was above the national average in each of the counties in the Six County Area.



Per capita income and median household income measures are affected by demographic trends. Per capita income measures in the region are pushed downward by the above average percent of children in the Six County Area population compared to the national average, while median household income measures are pushed upward by the above average number of wage earners per household in the Six County Area. Income and wage trends in the Six County Area have been comparable to national trends since 2000. Poverty rates exceeded the national average in 2017 in Los Angeles and San Bernardino counties and were below the national average elsewhere in the Six County Area.

Per capita income is based on total personal income divided by population while median household income is based on money income, which is lower than total personal income. The table below shows median household income, per capita income, wage levels and poverty rates for each of the counties in the Six County Area, as well as for California and the United States, in 2018.

Income and poverty levels improved in 2018 throughout the Six County Area (See the table on the following page). Median household income grew faster than inflation in all counties except Ventura. Average wage growth lagged the nation in 2018 in most counties and grew more slowly than inflation except in Los Angeles and San Diego counties. Poverty rates fell throughout the Six County Area although these rates do not take into account the rapid rise in rents and home prices throughout the Six County Area.

### INCOME AND WAGES 2018

	<b>Per Capita Income</b>	<b>Median Household Income</b>	<b>Average Wage</b>	<b>Poverty Rate</b>
Los Angeles County	\$62,224	\$68,093	\$64,921	14.1%
Orange County	\$69,268	\$89,759	\$62,414	10.5%
Riverside County	\$40,637	\$66,964	\$45,097	12.7%
San Bernardino County	\$40,316	\$63,857	\$46,906	14.9%
San Diego County	\$61,386	\$79,079	\$61,926	11.4%
Ventura County	\$61,712	\$84,566	\$55,235	8.9%
California	\$63,557	\$75,277	\$68,478	12.8%
United States	\$54,446	\$61,937	\$57,266	13.1%

Source: Per Capita Income—U.S. Department of Commerce; Median Household Income and Poverty Rate—U.S. Census Bureau (American Community Survey); Average Wage—U.S. Bureau of Labor Statistics

## CHANGE IN INCOME AND WAGES 2017-18

	Per Capita Income	Median Household Income	Average Wage	Poverty Rate
Los Angeles County	5.4%	4.7%	3.1%	-0.8%
Orange County	5.4%	4.1%	1.7%	-1.0%
Riverside County	4.3%	4.7%	2.3%	-0.2%
San Bernardino County	4.3%	5.7%	2.8%	-1.3%
San Diego County	5.7%	3.8%	3.4%	-0.4%
Ventura County	5.0%	2.1%	1.5%	-0.4%
California	5.7%	4.8%	4.0%	-0.5%
United States	4.9%	2.7%	3.4%	-0.3%

Source: Per Capita Income—U.S. Department of Commerce; Median Household Income and Poverty Rate—U.S. Census Bureau (American Community Survey); Average Wage—U.S. Bureau of Labor Statistics

### Population

Population growth in California and the Six County Area has been slowing since 2000 compared with previous decades. Population growth averaged 174,100 per year between 2000 and 2010 compared to 219,300 between 1990 and 2000. Population growth slowed after 2005 as high housing prices and large job losses contributed to larger levels of out-migration to other areas of California and other states.

Population growth averaged 160,000 between 2010 and 2018 according to the DOF estimates, and growth slowed in the past three years. The Six County Area had 22.3 million residents in 2018, approximately 56% of the State's population.

### SIX COUNTY AREA POPULATION (In Thousands)

	<u>1990</u>	<u>2000</u>	<u>2005</u>	<u>2010</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>
Los Angeles County	8,860	9,544	9,810	9,837	10,215	10,262	10,279
Orange County	2,412	2,854	2,957	3,015	3,182	3,206	3,217
Riverside County	1,188	1,557	1,935	2,196	2,362	2,393	2,420
San Bernardino County	1,432	1,719	1,943	2,044	2,145	2,164	2,178
San Diego County	2,505	2,828	2,970	3,100	3,297	3,320	3,344
Ventura County	<u>669</u>	<u>757</u>	<u>797</u>	<u>824</u>	<u>854</u>	<u>855</u>	<u>855</u>
Total Six County Area	<u>17,066</u>	<u>19,259</u>	<u>20,412</u>	<u>21,016</u>	<u>22,055</u>	<u>22,199</u>	<u>22,294</u>

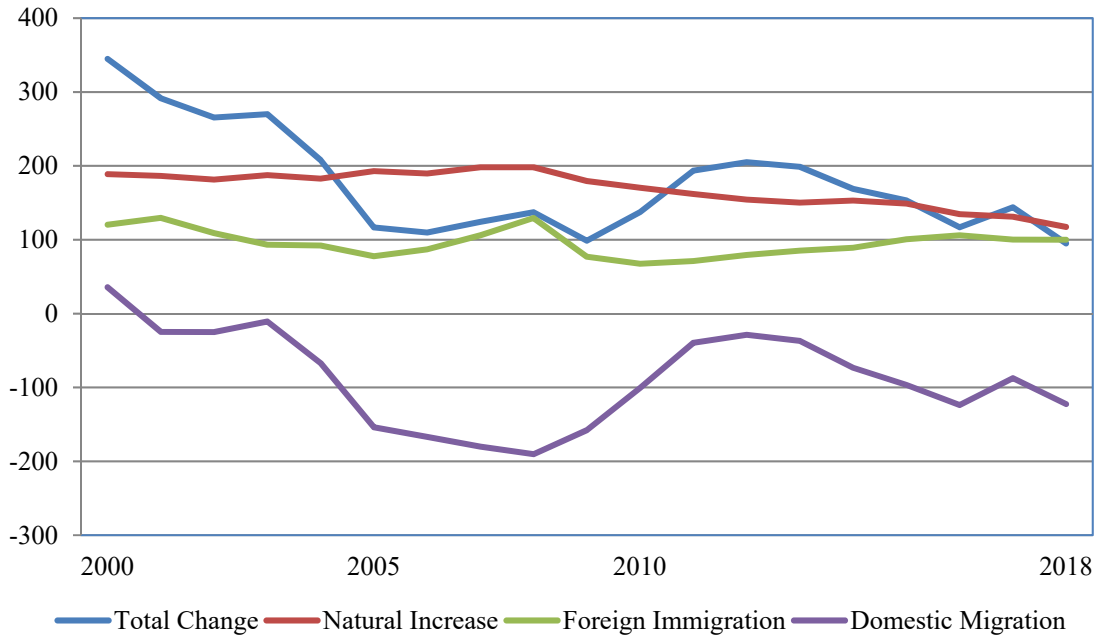
Source: California Department of Finance as of July 1

Six County Area population growth is determined by three major components—natural increase, which is the number of births minus the number of deaths, net foreign immigration, which is the number of people moving to the region from abroad minus the number moving abroad, and net domestic migration, which is the number of people moving from other regions of the state and nation minus the number moving out to these areas. Natural increase was the largest component of population growth from 2000 through 2018 averaging near 169,000 per year. Declining birth rates in recent years have reduced natural increase to near 117,000 in 2018.

Net foreign immigration has averaged 96,000 per year since 2000 while net domestic migration has been negative since 2000 averaging -87,000 per year. Foreign immigration declined during the recession

but has rebounded to more than 100,000 per year since 2015. Net out migration is still negative but at lower levels than during the recession.

**Components of Change in Six County Area Population (Thousands)**



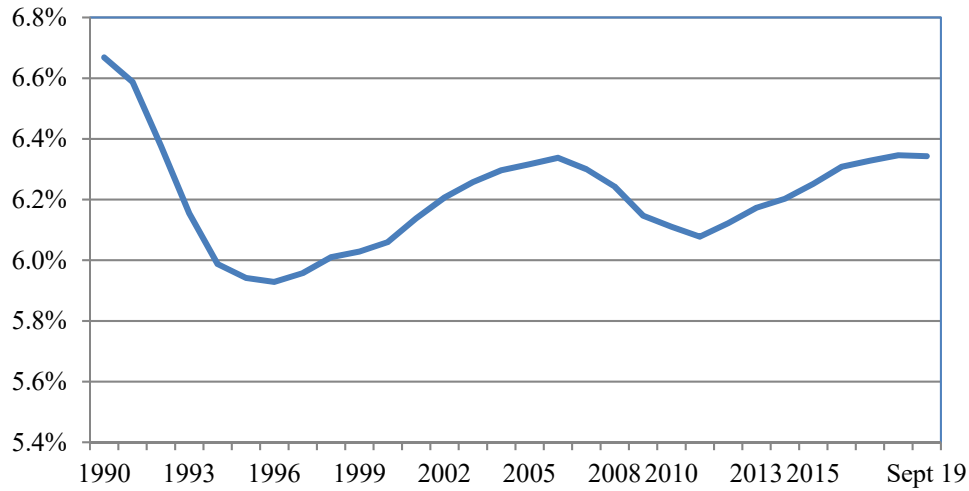
Source: California Department of Finance as of July 1

Population projections for 2040 for the Six County Area from DOF show expected population growth of approximately 3.5 million for the Six County Area, an increase of 16% between 2015 and 2040. This is lower than their previous projection of an 18% increase as a result of falling birth rates.

**Economic Structure of the Six County Area and Long-Term Prospects**

The Six County Area has steadily increased its share of national jobs in recent years. In September 2019 the Six County Area accounted for more than 6.3% of the nation’s non-farm wage and salary jobs, close to the pre-recession highs. The Six County Area economy usually outpaces the nation in growth periods and lags behind in recessions as in the periods after 1990 and 2007.

### Six County Area Share of U.S. Jobs



Sources: EDD, Bureau of Labor Statistics, U.S. Dept. Of Labor, CCSCE

In 2018 Education and Health Services was the largest major industry sector in the Six County Area measured by jobs, with just over 1.5 million jobs or 16% of the Six County Area total (see the table on the following page).

The next largest sectors in 2018 were Professional and Business Services and Government followed by Leisure and Hospitality, Retail Trade, and Manufacturing. Three sectors accounted for 60% of the job growth since 2010: Educational and Health Services, Leisure and Hospitality, and Professional and Business Services. Six County Area job levels in 2018 were more than 750,000 above 2007 levels despite large losses in Manufacturing and smaller declines in other sectors. Between 2010 and 2018 the Six County Area added nearly 1.5 million jobs.

Since 2010 most sectors have seen job growth. Construction jobs have rebounded but are still below pre-recession levels. There was strong growth in Professional and Business Services reversing all of the recession job losses. Wholesale Trade activity also rebounded along with port traffic and the growing economy. Financial Services and Information recovered only a portion of recession job losses.

Long-term job growth is driven by the Six County Area’s economic base—those sectors that sell most of their goods and services in national and world markets outside of the Six County Area. Recent projections by CCSCE, SCAG and SANDAG report that the Six County Area will see job growth that slightly exceeds the national average during the next 10 to 30 years, led by gains in Professional and Business Services, Wholesale Trade, Information and the tourism component of Leisure and Hospitality.

**SIX COUNTY AREA  
EMPLOYMENT BY MAJOR SECTOR  
(In Thousands)**

	<b><u>2000</u></b>	<b><u>2007</u></b>	<b><u>2010</u></b>	<b><u>2018</u></b>	<b><u>Change 2007-2010</u></b>	<b><u>Change 2010-2018</u></b>
Farm	67.7	63.8	59.8	54.8	-4.0	-5.0
Natural Resources and Mining	4.6	6.4	6.0	4.8	-0.4	-1.2
Construction	374.0	479.0	299.0	457.9	-180.0	158.9
Manufacturing	1,113.6	888.3	737.4	743.7	-150.9	6.3
Wholesale Trade	383.7	426.1	379.5	424.7	-46.6	45.2
Retail Trade	836.0	950.0	851.4	946.8	-98.6	95.4
Transp, Warehousing and Utilities	298.0	304.4	280.1	404.6	-24.3	124.5
Information	344.6	292.3	258.3	284.3	-34.0	26.0
Financial Activities	449.4	524.3	443.0	478.2	-81.3	35.2
Professional and Business Services	1,181.3	1,286.8	1,133.4	1,377.7	-153.4	244.3
Educational and Health Services	831.1	1,098.3	1,204.5	1,546.7	106.2	342.2
Leisure and Hospitality	741.0	895.0	859.0	1,164.5	-36.0	305.5
Other Services	271.4	293.9	272.4	321.2	-21.5	48.8
Government	1,171.1	1,245.8	1,240.9	1,302.4	-4.9	61.5
 Total Wage and Salary Jobs	 8,067.5	 8,754.4	 8,024.7	 9,512.3	 -729.7	 1,487.6

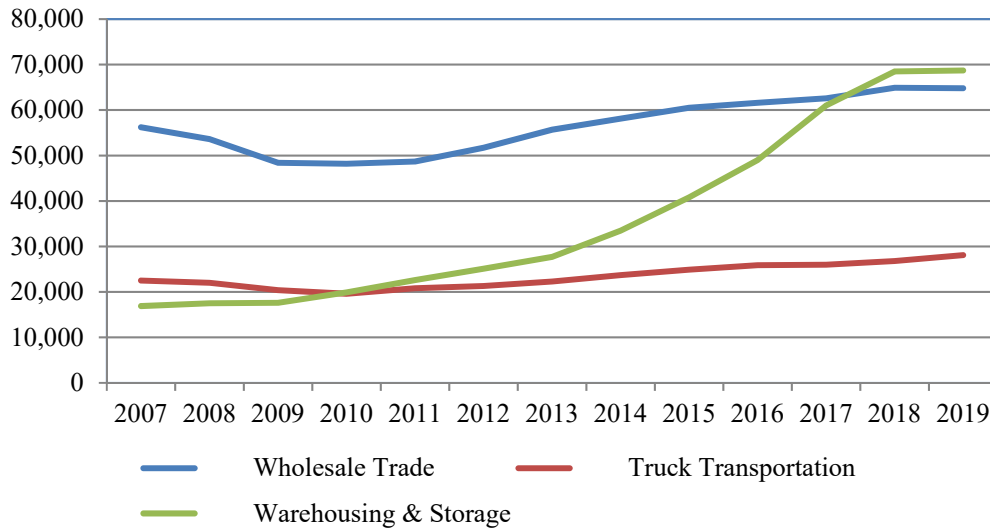
*Source: EDD*

The Six County Area economy has an economic base that is diversified and well positioned to participate in U.S. and world economic growth over the next ten years. Job levels are expected to grow in the high-wage and fast-growing professional, scientific, technical and information services sectors, which include architecture, design, computer, research and development, advertising, legal, accounting, and Internet-related and management services. Other fast-growing sectors over the next ten years include entertainment and tourism industries and health care.

The Six County Area has an above-average share of four additional fast-growing sectors—Wholesale Trade and Transportation, tied to the area’s projected growth in foreign trade; Information, which includes motion pictures; and the tourism component of Leisure and Hospitality, tied to growth in disposable income in the U.S. and worldwide.

The expansion of foreign trade and the growth of distribution centers such as Amazon in the Inland Empire have contributed to a surge in logistics (wholesale trade, warehouse and trucking) jobs in the Riverside-San Bernardino metro area. (See figure on the following page). Between 2007 and 2018 these jobs increased by 64,600 or 68%. The imposition of tariffs has slowed growth in 2019.

### Logistics Jobs in the Riverside-San Bernardino Metro Area



Source: EDD

The diversity of the Six County Area economy has led to GDP growth that slightly exceeded the national average in 2017. Average GDP growth in nominal dollars in 2017 was 4.5% and real GDP growth was 2.6% compared to 2.1% for the nation and 3.0% for the state. In 2017 the Six County Area GDP was just short of \$1.5 trillion.

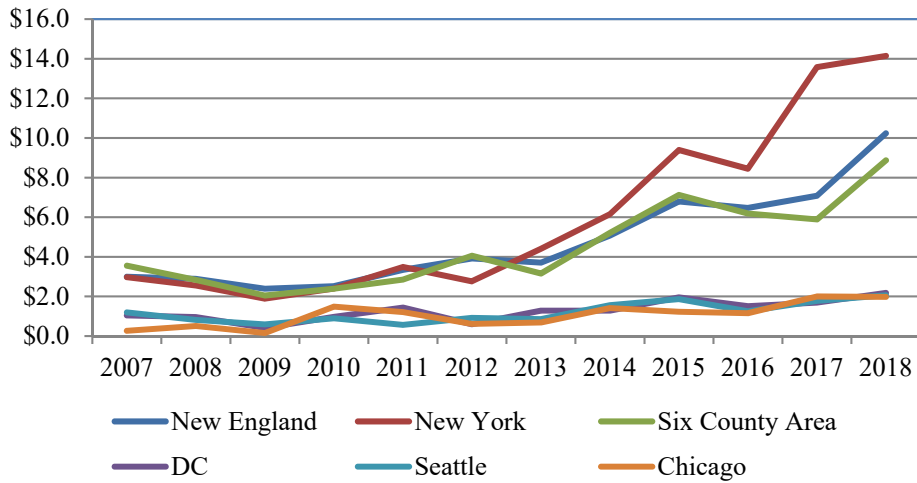
### SIX COUNTY AREA GDP (Billions of Current Dollars)

Metro Area				Growth Rates	
	<u>2015</u>	<u>2016</u>	<u>2017</u>	Current \$ <u>2016-17</u>	Real \$ <u>2016-17</u>
LA-Orange	\$967.1	\$996.4	\$1,043.7	4.7%	2.8%
Ventura	\$49.7	\$49.9	\$50.8	1.8%	-0.4%
Riv.-San Bern.	\$144.1	\$150.6	\$157.9	4.9%	2.9%
San Diego	<u>\$211.8</u>	<u>\$223.0</u>	<u>\$231.8</u>	4.0%	2.2%
Six County Area	\$1,372.7	\$1,419.9	\$1,484.4	4.5%	2.6%

Source: U.S. Department of Commerce; 2017 estimates are preliminary

The Bay Area is by far the largest recipient of new venture capital (VC) funding with \$60.9 billion in 2018 funding. The Six County Area has been one of the top three VC markets behind the Bay Area for the past decade, outpacing the Chicago, Seattle and Washington, DC areas in total funding (see the figure below). In 2018 the Six County Area accounted for \$8.9 billion (a record high VC funding level) behind New York metro and New England. In the first three quarters of 2019 Six County area funding was up 31% passing New England for that period.

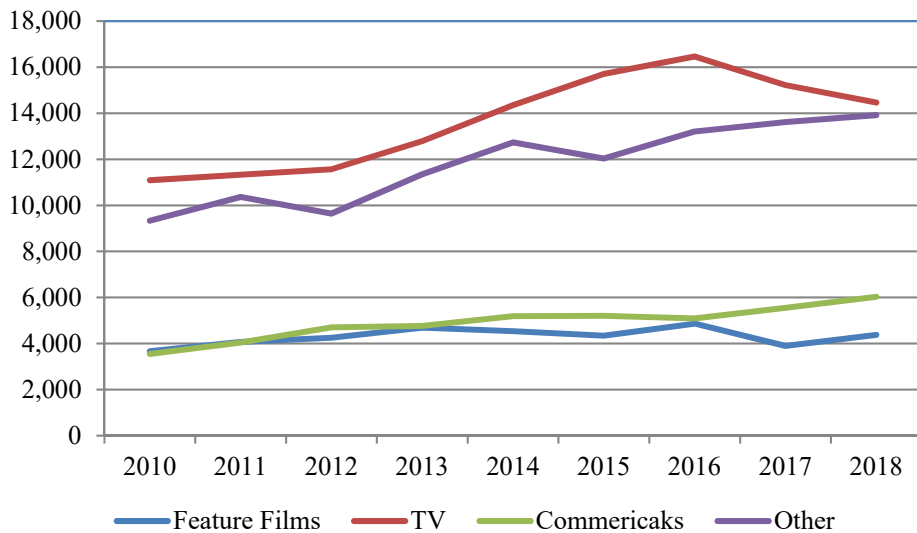
### VC Funding (\$Billions)



Source: PWC, Thomson Reuters, National Venture Capital Association

The motion picture and tourism sectors are two major components of the Six County Area economic base. Film LA reports an increase in the number of filming shoot days since 2010. (See the chart below) However, the mix of production days changed over time with long-term losses in the production of major feature films (though levels have been flat since 2010) and TV drama series offset by larger gains in commercials, other kinds of TV filming and web-based and reality shows, which according to Film LA have lower dollar values per production day of activity. In September 2014 California approved an increase in the state film tax credit to \$330 million per year from \$100 million starting in 2015. Production days increased in 2015 and set a recent record in 2016 of 39,627 production days. Production levels in 2018 were the second highest in recent history.

### Filming Shoot Days in Los Angeles Area

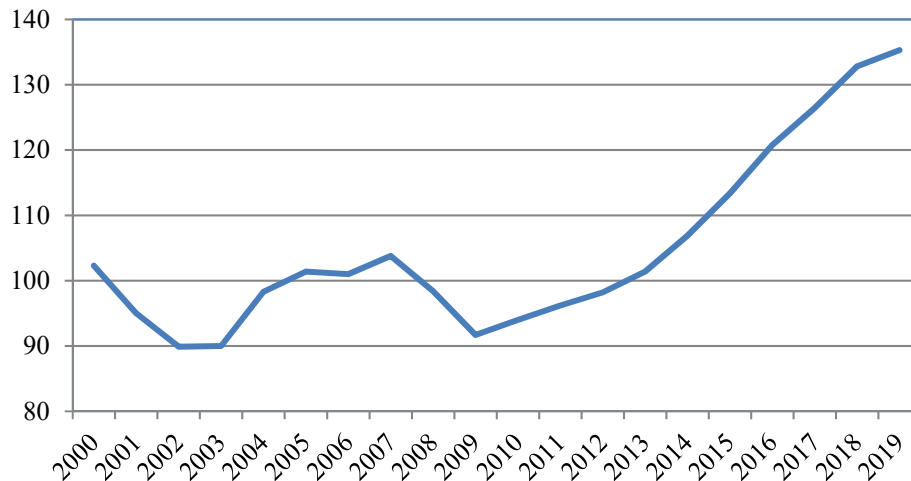


Source: Film LA

California and the Six County Area are experiencing growth in both domestic and foreign visitors. Hotel rates and occupancy are increasing in the Six County Area and the same is true for employment in

the hotel and amusement park sectors. In 2018 Los Angeles County set tourism records for the fourth year in a row for visitors, 50 million up 3.1% over 2017, according to data from the Los Angeles Tourism and Convention Board. Foreign travel to the region surged with gains of 6.9% for China, 4.5% for Canada and 3.0% for the UK. In 2018 passenger travel at Los Angeles International Airport was up 3.5% to 87.5 million trips to set an all-time record. Air passenger travel at the major airports in the Six County Area reached record levels in 2018 and is up 1.9% through August 2019 to 135.3 million trips led by gains at Burbank, Ontario and San Diego airports. (See the chart below.)

**Passengers at Major Airports in the Six County Area**



Source: Airport websites—Los Angeles International, Burbank, John Wayne, Ontario and San Diego

The positives for long-term economic growth include the strength of the region as a center for knowledge-based and creative activities and international trade, tourism and investment with the Pacific Rim. For example, the Six County Area does not have a large number of automotive industry production jobs but nearly all large worldwide auto companies have a major design studio in the Six County Area.

### **Risks for the Long-Term Forecast**

Housing and transportation challenges pose risks to the long-term economic competitiveness and quality of life in the Six County Area. Recent housing shortages have contributed to relatively large increases in home prices and rents. If more housing is not built, continuing increases in housing costs could affect location decisions of firms and families.

The state Department of Housing and Community Development has recently released the Regional Housing Needs Assessment (RHNA) goals for SCAG and SANDAG. The total goal for the Six County Area for the period from 2021 to 2029 is 1.5 million units or nearly three times the recent annual permit levels. More than half of the units are for residents making less than 120% of the area median income. Roughly half of the units are to make up for current shortages and half for projected growth.

In the past three years, the State legislature passed housing legislation to ease development restrictions and to set aside money for subsidized housing. In 2020, the State legislature will consider additional legislation that will make it easier to build housing at all income levels with special attention on housing barriers in jurisdictions that are not meeting the housing targets in their plans.

In addition, the Six County Area needs substantial transportation investment, at least \$500 billion to 2040, to serve the growing number of residents and businesses. The two major planning agencies serving



the Six County Area, SANDAG and SCAG, have plans to address these housing and transportation challenges but they require cooperation from local jurisdictions in siting housing and funding for both transportation and below market housing projects in addition to state and local laws that reduce barriers to and costs of building housing and transportation improvements.

The Six County Area economy is connected to the national and world economies, especially the Pacific Rim, and is subject to fluctuations and changes in long-term demographic trends around the world and changes in national policies that affect the economy.

Two new potential challenges emerged in 2018 and continue today. The federal administration is implementing tariff increases that are prompting retaliation and a potential decline in foreign trade, which is one of the key sectors in the Six County Area economy. In addition changes to federal immigration policy that could reduce the number of immigrants allowed into the country are under consideration. The Six County Area economy has a far above average share of immigrants in the work force at all skill levels and reductions in immigration could have a detrimental effect on the economy in the Six County Area.

Trade and immigration policies also pose risks for future U.S. economic growth. Restricting immigration would come at a time when baby boomer retirements will slow labor force growth and remove experienced workers from the workforce. As of October 2019 new trade and immigration policies are still being negotiated.

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**APPENDIX F**

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**FORM OF OPINION OF BOND COUNSEL**

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## APPENDIX F

### FORM OF OPINION OF BOND COUNSEL

*Upon issuance of the 2020A Bonds, Hawkins Delafield & Wood LLP, Los Angeles, California, Bond Counsel to The Metropolitan Water District of Southern California, will render its approving opinion with respect to the 2020A Bonds in substantially the following form:*

[Closing Date]

The Metropolitan Water District of Southern California  
700 North Alameda Street  
Los Angeles, California 90012

Re: *The Metropolitan Water District of Southern California  
Water Revenue Bonds, 2020 Series A*

Ladies and Gentlemen:

We have examined certified copies of proceedings of the issuance by The Metropolitan Water District of Southern California (“Metropolitan”) of \$207,355,000 aggregate principal amount of its Water Revenue Bonds, 2020 Series A (the “2020A Bonds”).

The 2020A Bonds are issued under and pursuant to the Metropolitan Water District Act, California Statutes 1969, Chapter 209 (the “Metropolitan Act”), as amended and supplemented by Chapter 6, of Part 1, Division 2, Title 5 of the California Government Code, as amended (together with the Metropolitan Act, the “Law”), and Resolution 8329 of the Board of Directors of Metropolitan (the “Board”) adopted on July 9, 1991, as heretofore amended and supplemented (the “Master Resolution”), including as amended and supplemented by Resolution 9262 of the Board adopted on December 10, 2019 (the “Twenty-Third Supplemental Resolution” and, together with the Master Resolution, the “Resolutions”). All terms used herein and not otherwise defined shall have the meanings given such terms in the Resolutions.

The 2020A Bonds mature in the amounts and in the years and bear interest in accordance with the terms of the Resolutions and as described in the Bond Purchase Contract, dated January 27, 2020 (the “Bond Purchase Contract”), by and between Metropolitan and Siebert Williams Shank & Co., LLC, as representative of itself and the several underwriters thereunder, relating to the 2020A Bonds. The 2020A Bonds are subject to redemption prior to maturity on the dates, at the price and upon the notice authorized by the Resolutions and as provided in the Bond Purchase Contract.

On the basis of the foregoing examination and in reliance upon the certified proceedings, we are of the opinion that:

(i) The 2020A Bonds have been duly and validly authorized and issued in accordance with the Constitution and statutes of the State of California and, when issued in duly

authorized form and executed by the proper officials and delivered to and paid for by the purchasers thereof, constitute the legally valid and binding obligations of Metropolitan, enforceable in accordance with their terms, payable solely from the Net Operating Revenues and the other sources provided therefor in the Resolutions.

(ii) The Resolutions have been duly adopted by, and constitute valid and binding obligations of, Metropolitan, enforceable in accordance with their terms.

(iii) Under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described below, (a) interest on the 2020A Bonds is excluded from gross income for federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"), and (b) interest on the 2020A Bonds is not treated as a preference item in calculating the alternative minimum tax under the Code.

The Code establishes certain requirements which must be met subsequent to the issuance of the 2020A Bonds in order that the interest on the 2020A Bonds be and remain excluded from gross income for federal income tax purposes under Section 103 of the Code. These requirements include, but are not limited to, requirements relating to the use and expenditure of proceeds of the 2020A Bonds, restrictions on the investment of proceeds of the 2020A Bonds prior to expenditure and the requirement that certain earnings be rebated to the federal government. Noncompliance with such requirements may cause the interest on the 2020A Bonds to become subject to federal income taxation retroactive to their date of issuance, irrespective of the date on which such noncompliance occurs or is ascertained.

On the date of issuance of the 2020A Bonds, Metropolitan will execute a Tax Certificate relating to the 2020A Bonds containing provisions and procedures pursuant to which such requirements can be satisfied. In executing the Tax Certificate, Metropolitan represents that it will comply with the provisions and procedures set forth therein and that it will do and perform all acts and things necessary or desirable to assure that the interest on the 2020A Bonds will, for federal income tax purposes, be excluded from gross income.

In rendering the opinion in this paragraph (iii), we have relied upon and assumed (a) the material accuracy of Metropolitan's representations, statements of intention and reasonable expectations, and certifications of fact contained in the Tax Certificate with respect to matters affecting the status of the interest on the 2020A Bonds, and (b) compliance by Metropolitan with the procedures and covenants set forth in the Tax Certificate as to such matters.

(iv) Under existing statutes, interest on the 2020A Bonds is exempt from personal income taxes imposed by the State of California.

We express no opinion as to any other federal, state or local tax consequences arising with respect to the 2020A Bonds, or the ownership or disposition thereof, except as stated in paragraphs (iii) and (iv) above. We render our opinion under existing statutes and court decisions as of the date hereof, and assume no obligation to update, revise or supplement our opinion to reflect any action hereafter taken or not taken, any fact or circumstance that may hereafter come to our attention, any change in law or interpretation thereof that may hereafter occur, or for any other reason. We express no opinion as to the consequence of any of the events described in the preceding sentence or the likelihood of their occurrence. In addition, we express no opinion on the effect of any action taken or not taken in reliance upon an opinion of other counsel regarding federal, state or local tax matters, including, without limitation, exclusion from gross income for federal income tax purposes of interest on the 2020A Bonds.

We undertake no responsibility for the accuracy, completeness or fairness of any official statement or other offering materials relating to the 2020A Bonds and express herein no opinion relating thereto.

The foregoing opinions are qualified to the extent that the enforceability of the 2020A Bonds, the Resolutions and the Tax Certificate may be limited by bankruptcy, moratorium, insolvency or other laws affecting creditors' rights or remedies and are subject to general principles of equity (regardless of whether such enforceability is considered in equity or at law), and to the limitations on legal remedies against governmental entities in the State of California (including, but not limited to, rights of indemnification).

Very truly yours,

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**APPENDIX G**

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**FORM OF CONTINUING DISCLOSURE UNDERTAKING**

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## APPENDIX G

### FORM OF CONTINUING DISCLOSURE UNDERTAKING

This Continuing Disclosure Undertaking (the “Undertaking”) is dated as of February 1, 2020 by The Metropolitan Water District of Southern California (“Metropolitan”) in connection with the issuance of its \$207,355,000 Water Revenue Bonds, 2020 Series A (the “Bonds”). The Bonds are being issued under and pursuant to the Metropolitan Water District Act, California Statutes 1969, Chapter 209, as amended and supplemented, including by applicable provisions of the Government Code of the State of California, including Chapter 6 (commencing with Section 54300) of Part 1 of Division 2 of Title 5 (the “Act”), and Resolution 8329 adopted by the Board of Directors of Metropolitan (the “Board”) on July 9, 1991, as amended and supplemented (the “Master Resolution”), including as amended and supplemented by Resolution 9262 adopted by the Board on December 10, 2019 (the “Twenty-Third Supplemental Resolution” and, together with the Master Resolution, the “Resolutions”). Capitalized terms used in this Undertaking which are not otherwise defined in the Resolutions shall have the respective meanings specified above or in Article I hereof. In accordance with the requirements of the Rule (as hereinafter defined), Metropolitan agrees as follows:

#### ARTICLE I Definitions

Section 1.1. Definitions. The following terms used in this Undertaking shall have the following respective meanings:

(1) “Annual Financial Information” means, collectively, (A) the financial information and operating data with respect to Metropolitan, for each fiscal year of Metropolitan, substantially in the form presented in the Official Statement as follows: (i) the table under the caption “OPERATING REVENUES, DEBT SERVICE AND INVESTMENT PORTFOLIO – Debt Service Requirements” in the forepart of the Official Statement; (ii) under the caption “METROPOLITAN’S WATER SUPPLY” in Appendix A to the Official Statement, the table “Metropolitan’s Water Storage Capacity and Water in Storage”; (iii) under the caption “METROPOLITAN REVENUES” in Appendix A to the Official Statement, the tables “Summary of Revenues by Source”, “Summary of Water Transactions and Revenues”, “Summary of Water Rates”, and “Ten Largest Water Customers”; the water standby charge for the fiscal year; revenues for the fiscal year resulting from wheeling and exchange transactions; and the total power revenues for the fiscal year; (iv) under the caption “METROPOLITAN REVENUES – Investment of Moneys in Funds and Accounts” in Appendix A to the Official Statement, the total market value of all Metropolitan funds, earnings on investments and the minimum month-end balance of Metropolitan’s investment portfolio; (v) under the caption “METROPOLITAN EXPENSES” in Appendix A to the Official Statement, the table “Summary of Expenses”; outstanding indebtedness (including revenue bonds, subordinate revenue obligations, variable rate and swap obligations, other revenue obligations and general obligation bonds), the payment obligation under the State Water Contract, a description of other long-term commitments, and the information described under the sub-caption “Defined Benefit Pension Plan and Other Post-Employment Benefits”; (vi) under the caption “HISTORICAL AND PROJECTED REVENUES AND EXPENSES” in Appendix A to the Official Statement, historical revenues and expenses for the then immediately past fiscal year, as presented in the table “Historical and Projected Revenues and Expenses”; (vii) under the caption “MANAGEMENT’S DISCUSSION OF HISTORICAL AND PROJECTED REVENUES AND EXPENSES” in Appendix A to the Official Statement, the percentage of operation and maintenance expenses to total costs; and (viii) under the caption “METROPOLITAN

EXPENSES – Power Sources and Costs; Related Long-Term Commitments” in Appendix A to the Official Statement, the expenses for electric power, for so long as such information shall be deemed to be material by Metropolitan and (B) the information regarding amendments to this Undertaking required pursuant to Sections 4.2(c) and (d) of this Undertaking. Annual Financial Information shall include Audited Financial Statements, if available, or Unaudited Financial Statements.

The descriptions contained in clause (1) above of financial information and operating data constituting Annual Financial Information are of general categories or types of financial information and operating data. When such descriptions include information that no longer can be generated because the operations to which it related have been materially changed or discontinued, or due to changes in accounting practices, or legislative or organizational changes, a statement to that effect shall be provided in lieu of such information. Comparable information shall be provided if available.

(2) “Audited Financial Statements” means the annual financial statements, if any, of Metropolitan, audited by such auditor as shall then be required or permitted by State law or the Resolutions. Audited Financial Statements shall be prepared in accordance with GAAP; provided, however, that Metropolitan may from time to time, if required by Federal or State legal requirements, modify the accounting principles to be followed in preparing its financial statements. The notice of any such modification required by Section 4.2(d) hereof shall include a reference to the specific Federal or State law or regulation describing such accounting principles.

(3) “Counsel” means a nationally recognized bond counsel or counsel expert in federal securities laws, in each case acceptable to Metropolitan.

(4) “EMMA System” means the MSRB’s Electronic Municipal Market Access system or any successor nationally recognized municipal securities information repositories recognized by the SEC for the purposes referred to in the Rule.

(5) “Event Notice” means written or electronic notice of a Notice Event.

(6) “Financial Obligation” means a (a) debt obligation; (b) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (c) guarantee of a debt obligation or any such derivative instrument; provided that “Financial Obligation” shall not include municipal securities as to which a final official statement (as defined in the Rule) has been provided to the MSRB consistent with the Rule.

(7) “GAAP” means generally accepted accounting principles as prescribed from time to time for governmental units by the Governmental Accounting Standards Board.

(8) “MSRB” means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934, as amended.

(9) “Notice Event” means any of the following events with respect to the Bonds:

- (i) principal and interest payment delinquencies;
- (ii) non-payment related defaults, if material;
- (iii) unscheduled draws on debt service reserves reflecting financial difficulties;

- (iv) unscheduled draws on credit enhancements reflecting financial difficulties;
- (v) substitution of credit or liquidity providers, or their failure to perform;
- (vi) adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of any Bonds;
- (vii) modifications to rights of security holders, if material;
- (viii) bond calls, if material, and tender offers;
- (ix) defeasances;
- (x) release, substitution, or sale of property securing repayment of the securities, if material;
- (xi) rating changes;
- (xii) bankruptcy, insolvency, receivership or similar event of Metropolitan (such event being considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for Metropolitan in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or government authority has assumed jurisdiction over substantially all of the assets or business of Metropolitan, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of Metropolitan);
- (xiii) the consummation of a merger, consolidation, or acquisition involving Metropolitan or the sale of all or substantially all of the assets of Metropolitan, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;
- (xiv) appointment of a successor or additional trustee or the change of name of a trustee, if material;
- (xv) incurrence of a Financial Obligation of Metropolitan, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of Metropolitan, any of which affect holders of the Bonds, if material; and

(xvi) default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of Metropolitan, any of which reflect financial difficulties (it being understood that for purposes of Section 2.4 hereof, Metropolitan intends to comply with the provisions of this Undertaking for the Notice Events described in this subparagraph (xvi) and subparagraph (xv) of this paragraph (9) and the definition of “Financial Obligation” in paragraph (6) of this Section 1.1, with reference to the Rule, any other applicable federal securities laws and the guidance provided by the Commission in its Release No. 34-83885 dated August 20, 2018 (the “2018 Release”), and any further amendments or written guidance provided by the Commission or its staff with respect to the amendments to the Rule effected by the 2018 Release).

(10) “Official Statement” means the Official Statement dated January 27, 2020, of Metropolitan relating to the Bonds.

(11) “Rule” means Rule 15c2-12 promulgated by the SEC under the Securities Exchange Act of 1934, as amended, as in effect on the date of this Undertaking, including any official interpretations thereof issued either before or after the effective date of this Undertaking which are applicable to this Undertaking.

(12) “SEC” means the United States Securities and Exchange Commission.

(13) “State” means State of California.

(14) “Unaudited Financial Statements” means the same as Audited Financial Statements, except that they shall not have been audited.

## ARTICLE II The Undertaking

Section 2.1. Purpose. This Undertaking shall constitute a written undertaking for the benefit of the holders of the Bonds and is being executed and delivered solely to assist the underwriter(s) of the Bonds in complying with subsection (b)(5) of the Rule.

### Section 2.2. Annual Financial Information.

(a) Metropolitan shall provide Annual Financial Information with respect to each fiscal year of Metropolitan, commencing with such information with respect to fiscal year 2019-20, by no later than 180 days after the end of the respective fiscal year, to the EMMA System.

(b) Metropolitan shall provide, in a timely manner, notice of any failure of Metropolitan to provide the Annual Financial Information by the dates specified in subsection (a) above to the EMMA System.

Section 2.3. Audited Financial Statements. If not provided as part of Annual Financial Information by the date required by Section 2.2(a) hereof, Metropolitan shall provide Audited Financial Statements, when and if available, to the EMMA System.

Section 2.4. Event Notices. If a Notice Event occurs, Metropolitan shall provide or cause to be provided, in a timely manner not in excess of ten (10) Business Days after the occurrence of such Notice Event, an Event Notice to the EMMA System.

Section 2.5. Additional Information. Nothing in this Undertaking shall be deemed to prevent Metropolitan from disseminating any other information, using the means of dissemination set forth in this Undertaking or any other means of communication, or including any other information in any Annual Financial Information or Event Notice, in addition to that which is required by this Undertaking. If Metropolitan chooses to include any information in any Annual Financial Information or Event Notice in addition to that which is specifically required by this Undertaking, Metropolitan shall have no obligation under this Undertaking to update such information or include it in any future Annual Financial Information or Event Notice.

### ARTICLE III Operating Rules

Section 3.1. Reference to Other Documents. It shall be sufficient for purposes of Section 2.2 hereof if Metropolitan provides Annual Financial Information by specific reference to documents (i) either (1) provided to the EMMA System, or (2) filed with the SEC, or (ii) if such document is a “final official statement,” as defined in paragraph (f)(3) of the Rule, available from the MSRB or the EMMA System.

Section 3.2. Submission of Information. Annual Financial Information may be provided in one document or multiple documents, and at one time or in part from time to time.

Section 3.3. Event Notices. Each Event Notice shall be so captioned and shall prominently state the title, date and CUSIP numbers of the Bonds.

Section 3.4. Transmission of Information and Notices. Any filing under this Undertaking may be made solely by transmitting such filing to (i) the MSRB through the EMMA System or (ii) as otherwise specified in the relevant rules and interpretive advice provided by the SEC. Unless otherwise required by law and, in Metropolitan’s sole determination, subject to technical and economic feasibility, Metropolitan shall employ such methods of information and notice transmission as shall be requested or recommended by the herein designated recipients of Metropolitan’s information and notices.

Section 3.5. Fiscal Year. Annual Financial Information shall be provided at least annually notwithstanding any fiscal year longer than 12 calendar months. Metropolitan’s current fiscal year is July 1 to June 30, and Metropolitan shall promptly notify the EMMA System of each change in its fiscal year.

### ARTICLE IV Termination, Amendment and Enforcement

Section 4.1. Effective Date; Termination.

(a) This Undertaking and the provisions hereof shall be effective upon the issuance of the Bonds.

(b) Metropolitan’s obligations under this Undertaking shall terminate upon a legal defeasance pursuant to Section 9.02 of the Master Resolution, prior redemption or payment in full of all of the Bonds.

(c) This Undertaking, or any provision hereof, shall be null and void in the event that Metropolitan (1) receives an opinion of Counsel, addressed to Metropolitan, to the effect that those portions of the Rule which require this Undertaking, or any of the provisions hereof, do not or no longer apply to the Bonds, whether because such portions of the Rule are invalid, have been repealed, or otherwise, as shall be specified in such opinion, and (2) delivers copies of such opinion to the EMMA System.

Section 4.2. Amendment.

(a) This Undertaking may be amended by Metropolitan, without the consent of the holders of the Bonds (except to the extent required under clause (4)(ii) below), if all of the following conditions are satisfied: (1) such amendment is made in connection with a change in circumstances that arises from a change in legal (including regulatory) requirements, a change in law (including rules or regulations) or in interpretations thereof, or a change in the identity, nature or status of Metropolitan or the type of business conducted thereby, (2) this Undertaking as so amended would have complied with the requirements of the Rule as of the date of this Undertaking, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances, (3) Metropolitan shall have received an opinion of Counsel, addressed to Metropolitan, to the same effect as set forth in clause (2) above, (4) either (i) Metropolitan shall have received an opinion of Counsel or a determination by a person, in each case unaffiliated with Metropolitan (such as bond counsel) and acceptable to Metropolitan, addressed to Metropolitan, to the effect that the amendment does not materially impair the interests of the holders of the Bonds or (ii) the holders of the Bonds consent to the amendment to this Undertaking pursuant to the same procedures as are required for amendments to the Resolutions with consent of holders of Bonds, pursuant to the Resolutions as in effect on the date of this Undertaking, and (5) Metropolitan shall have delivered copies of such opinion(s) and amendment to the EMMA System.

(b) In addition to subsection (a) above, this Undertaking may be amended and any provision of this Undertaking may be waived by Metropolitan, without the consent of the holders of the Bonds, if all of the following conditions are satisfied: (1) an amendment to the Rule is adopted, or a new or modified official interpretation of the Rule is issued, after the effective date of this Undertaking which is applicable to this Undertaking, (2) Metropolitan shall have received an opinion of Counsel, addressed to Metropolitan, to the effect that performance by Metropolitan under this Undertaking as so amended or giving effect to such waiver, as the case may be, will not result in a violation of the Rule and (3) Metropolitan shall have delivered copies of such opinion and amendment to the EMMA System.

(c) To the extent any amendment to this Undertaking results in a change in the type of financial information or operating data provided pursuant to this Undertaking, the first Annual Financial Information provided thereafter shall include a narrative explanation of the reasons for the amendment and the impact of the change.

(d) If an amendment is made to the accounting principles to be followed in preparing financial statements, the Annual Financial Information for the year in which the change is made shall present a comparison between the financial statements or information prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles. Such comparison shall include a qualitative and, to the extent reasonably feasible, quantitative discussion of the differences in the accounting principles and the impact of the change in the accounting principles on the presentation of the financial information. Notice of such amendment shall be provided by Metropolitan to the EMMA System.



Section 4.3. Contract; Benefit; Third-Party Beneficiaries; Enforcement.

(a) The provisions of this Undertaking shall constitute a contract with and inure solely to the benefit of the holders from time to time of the Bonds, except that beneficial owners of Bonds shall be third-party beneficiaries of this Undertaking.

(b) Except as provided in this subsection (b), the provisions of this Undertaking shall create no rights in any person or entity. The obligations of Metropolitan to comply with the provisions of this Undertaking shall be enforceable (i) in the case of enforcement of obligations to provide financial statements, financial information, operating data and notices, by any holder of Outstanding Bonds, or (ii) in the case of any challenge to the adequacy of any financial statements, financial information and operating data so provided to have fully satisfied Metropolitan's obligations hereunder, by the holders of 25 percent in aggregate amount of Outstanding Bonds. The holders' rights to enforce the provisions of this Undertaking shall be limited solely to a right, by action in mandamus or for specific performance, to compel performance of Metropolitan's obligations under this Undertaking. In consideration of the third-party beneficiary status of beneficial owners of Bonds pursuant to subsection (a) of this Section, beneficial owners shall be deemed to be holders of Bonds for purposes of this subsection (b).

(c) Any failure by Metropolitan to perform in accordance with this Undertaking shall not constitute a default or an Event of Default under the Resolutions and shall not result in any acceleration of payment of the Bonds, and the rights and remedies provided by the Resolutions upon the occurrence of a default or an Event of Default shall not apply to any such failure.

(d) This Undertaking shall be construed and interpreted in accordance with the laws of the State, and any suits and actions arising out of this Undertaking shall be instituted in a court of competent jurisdiction in the State; provided, however, that to the extent this Undertaking addresses matters of Federal securities laws, including the Rule, this Undertaking shall be construed in accordance with such Federal securities laws and official interpretations thereof.

THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA

By: \_\_\_\_\_  
Katano Kasaine  
Assistant General Manager/  
Chief Financial Officer

APPROVED AS TO FORM:

MARCIA SCULLY, General Counsel

By: \_\_\_\_\_

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