



NEW ISSUES – BOOK-ENTRY ONLY SYSTEM

RATINGS:

Fitch: “AA”

S&P: “_”

Kroll: “AA”

See “Ratings” herein.

In the opinion of Hawkins Delafield & Wood LLP, Bond Counsel to the City, under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described herein, (i) interest on the Series 2018 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 Series 2018 Bonds is not treated as a preference item in calculating the alternative minimum tax under the Code; such interest, however, is included in the adjusted current earnings of certain corporations for purposes of calculating the alternative minimum tax imposed for taxable years beginning prior to January 1, 2018. In addition, in the opinion of Bond Counsel, under existing statutes, interest on the Series 2018 Bonds is exempt from State of California personal income.



\$220,465,000*
CITY OF LOS ANGELES
Wastewater System Subordinate
Revenue Bonds,
Series 2018-A
(Green Bonds)

\$141,570,000*
CITY OF LOS ANGELES
Wastewater System Subordinate
Revenue Bonds,
Refunding Series 2018-B

Dated: Date of Delivery

Due: June 1, as shown on the inside cover

The \$220,465,000* City of Los Angeles Wastewater System Subordinate Revenue Bonds, Series 2018-A (Green Bonds) (the “Series 2018-A Subordinate Bonds”) and the \$141,570,000* City of Los Angeles Wastewater System Subordinate Revenue Bonds, Refunding Series 2018-B (the “Series 2018-B Subordinate Bonds”) and, together with the Series 2018-A Subordinate Bonds, the “Series 2018 Bonds”) are being issued by the City of Los Angeles (the “City”) pursuant to the Charter of the City of Los Angeles (the “City Charter”), Article 6.7 of Chapter 1 of Division 11 of the Administrative Code of the City (the “Procedural Ordinance”), and, with respect to the Series 2018-B Subordinate Bonds, Articles 10 and 11 of Chapter 3 of Part 1 of Division 2 of Title 5 (Section 53570 *et seq.* and Section 53580 *et seq.*, respectively) of the California Government Code (as amended, the “Refunding Law”). The Series 2018 Bonds are also issued pursuant to the Wastewater System Subordinate Revenue Bonds General Resolution, adopted by the Council of the City (the “City Council”) on March 26, 1991, as amended and supplemented (the “Subordinate General Resolution”), including as amended and supplemented by the Twenty-Fourth Supplemental Resolution, adopted by the City Council on October 16, 2018.

The proceeds of the Series 2018-A Subordinate Bonds, together with certain other amounts from the City, will be used to: (i) finance the construction and improvement of the System (herein defined); (ii) pay all Outstanding Wastewater System Commercial Paper Notes (defined herein); and (iii) pay certain costs of issuing the Series 2018-A Subordinate Bonds. The proceeds of the Series 2018-B Subordinate Bonds, together with certain other amounts from the City, will be used to: (i) refund a portion of the City’s Wastewater System Subordinate Revenue Bonds, Variable Rate Refunding Series 2012-D (the “Series 2012-D Subordinate Bonds” and the refunded portion herein referred to as “Refunded Bonds”); (ii) pay all or a portion of the termination payments in connection with the termination of the Swap Agreements (defined herein); and (iii) pay certain costs of issuing the Series 2018-B Subordinate Bonds. See “Plan of Finance” herein.

The pledge, assignment and lien on the Revenues (herein defined) granted pursuant to the General Resolution (herein defined) to secure the Senior Lien Bonds (herein defined) issued and to be issued under the General Resolution are, in all respects, prior to the pledge, assignment and lien on the Revenues granted pursuant to the Subordinate General Resolution, including the pledge, assignment and lien with respect to the Series 2018 Bonds and other Subordinate Bonds issued and to be issued pursuant to the Subordinate General Resolution.

The Series 2018 Bonds are special, limited obligations of the City payable solely from the Revenues, on a basis subordinate to the Senior Lien Bonds, and from amounts on deposit in the 2018 Subordinate Debt Service Fund created pursuant to the Subordinate General Resolution. The City is not obligated to make payments from any other source. The Series 2018 Bonds are not payable from the General Fund of the City and are not a general obligation of the City, and neither the full faith and credit nor the taxing power of the City is pledged to the payment of any amounts due on the Series 2018 Bonds.

Interest on the Series 2018 Bonds will be payable on June 1 and December 1, commencing on June 1, 2019. The Series 2018 Bonds will be issued as fully-registered bonds, will mature in the principal amounts in each year (subject to prior redemption), and will bear interest at the respective rates per annum as set forth on the inside cover of this Official Statement. The Series 2018 Bonds will be registered in the name of Cede & Co., as nominee of The Depository Trust Company (“DTC”). DTC will act as securities depository for the Series 2018 Bonds. Ownership interests in the Bonds may be purchased in book-entry form only. So long as DTC or its nominee is the Owner of the Series 2018 Bonds, payments of the principal of, redemption premium, if any, and interest on the Series 2018 Bonds will be made as described in Appendix G – “Book-Entry Only System” attached hereto.

The Series 2018 Bonds are subject to redemption prior to maturity, as described herein. See “Redemption of the Series 2018 Bonds” herein.

This cover page contains information for general reference only. Investors must read the entire Official Statement to obtain information essential to making an informed investment decision.

The Series 2018 Bonds are offered when, as and if issued, subject to the approval of legality by Hawkins Delafield & Wood LLP, Bond Counsel to the City. Certain legal matters will be passed upon for the City by Nixon Peabody LLP, Disclosure Counsel, and by Michael N. Feuer, City Attorney, and for the Underwriters by their counsel, Stradling Yocca Carlson & Rauth, a Professional Corporation. It is anticipated that the Series 2018 Bonds will be available for delivery to DTC in New York, New York on or about November __, 2018.

Siebert Cisneros Shank & Co., L.L.C.
Drexel Hamilton, LLC

Jefferies
Fidelity Capital Markets

Dated: October __, 2018

* Preliminary, subject to change.

MATURITY SCHEDULES

\$220,465,000*

**City of Los Angeles Wastewater System Subordinate Revenue Bonds,
Series 2018-A (Green Bonds)**

<u>Year (June 1)</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Yield</u>	<u>Price</u>	<u>CUSIP[†] (Base: 53945C)</u>
	\$	%	%	%	

\$ _____ % Term Bonds due June 1, 20__ Yield: _____ % Price _____ %
CUSIP[†] No. 53945C _____

* Preliminary, subject to change.

[†] CUSIP is a registered trademark of the American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed by S&P Global Market Intelligence on behalf of The American Bankers Association. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Services. CUSIP numbers have been assigned by an independent company not affiliated with the City and are included solely for the convenience of investors. None of the City, the Underwriters, or the Municipal Advisor, are responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the Series 2018 Bonds or as included herein. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Series 2018 Bonds as a result of various subsequent actions including, but not limited to, refunding in whole or in part 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 certain maturities of the Series 2018 Bonds.

\$141,570,000*
City of Los Angeles Wastewater System Subordinate Revenue Bonds,
Refunding Series 2018-B

<u>Year (June 1)</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Yield</u>	<u>Price</u>	<u>CUSIP[†] (Base: 53945C)</u>
	\$	%	%	%	

* Preliminary, subject to change.

† CUSIP is a registered trademark of the American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed by S&P Global Market Intelligence on behalf of The American Bankers Association. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Services. CUSIP numbers have been assigned by an independent company not affiliated with the City and are included solely for the convenience of investors. None of the City, the Underwriters, or the Municipal Advisor, are responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the Series 2018 Bonds or as included herein. The CUSIP number for a specific maturity is subject to being changed after the issuance of the Series 2018 Bonds as a result of various subsequent actions including, but not limited to, refunding in whole or in part 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 certain maturities of the Series 2018 Bonds.

No dealer, broker, salesperson or other person has been authorized by the City to give any information or to make any representations other than those contained herein and, if given or made, such other information or representations must not be relied upon as having been authorized by the City. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the Series 2018 Bonds by a person in any jurisdiction in which it is unlawful for such person to make an offer, solicitation or sale.

This Official Statement is not to be construed as a contract with the purchasers of the Series 2018 Bonds. Statements contained in this Official Statement which involve estimates, forecasts or matters of opinion, whether or not expressly so described herein, are intended solely as such and are not to be construed as a representation of facts.

The information set forth in this Official Statement has been obtained from the City and other sources which are believed by the City to be reliable. The Underwriters (as defined herein) have provided the following sentence for inclusion in this Official Statement. The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their 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. 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 create any implication that there has been no change in the affairs of the City since the date hereof. All summaries of the Series 2018 Bonds, the Resolutions (as defined herein) and other documents summarized herein, are made subject to the provisions of such documents respectively and do not purport to be complete statements of any or all of such provisions.

This Official Statement is submitted in connection with the issuance of the Series 2018 Bonds referred to herein and may not be reproduced or used, in whole or in part, for any other purpose.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE SERIES 2018 BONDS AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME. THE UNDERWRITERS MAY OFFER AND SELL THE SERIES 2018 BONDS TO CERTAIN DEALERS AND DEALER BANKS AND BANKS ACTING AS AGENT AT PRICES LOWER THAN THE PUBLIC OFFERING PRICES STATED ON THE INSIDE COVER PAGE HEREOF AND SAID PUBLIC OFFERING PRICES MAY BE CHANGED FROM TIME TO TIME BY THE UNDERWRITERS.

The City maintains a website at www.lacity.org. The information presented therein is not a part of this Official Statement, is not incorporated by reference herein, and should not be relied upon in making an investment decision with respect to the Series 2018 Bonds.

CITY OF LOS ANGELES

Mayor

Eric Garcetti

City Council

Gilbert Cedillo (*District 1*)

Paul Krekorian (*District 2*)

Bob Blumenfield (*District 3*)

David E. Ryu (*District 4*)

Paul Koretz (*District 5*)

Nury Martinez (*District 6*)

Monica Rodriguez (*District 7*)

Marqueece Harris-Dawson (*District 8*)

Curren D. Price, Jr. (*District 9*)

Herb J. Wesson, Jr. (*District 10*)

Mike Bonin (*District 11*)

Mitchell Englander (*District 12*)

Mitch O'Farrell (*District 13*)

José Huizar (*District 14*)

Joe Buscaino (*District 15*)

CITY OFFICIALS

Michael N. Feuer, *City Attorney*

Ron Galperin, *City Controller*

Richard H. Llewellyn, Jr., *City Administrative Officer*

Claire Bartels, *City Treasurer*

Holly L. Wolcott, *City Clerk*

BOARD OF PUBLIC WORKS

Kevin James, President

Heather Marie Repenning, Vice President

Joel F. Jacinto, Commissioner

Michael R. Davis, President Pro Tempore

Aura Garcia, Commissioner

Bureau of Engineering

Gary Lee Moore, P.E.

City Engineer

Bureau of Sanitation

Enrique C. Zaldivar

Director

Office of Accounting

Victoria A. Santiago

Director

SPECIAL SERVICES

City Department Issuing Debt

City Administrative Officer of the City of Los Angeles

Debt Management Group

Bond Counsel

Hawkins Delafield & Wood LLP

Disclosure Counsel

Nixon Peabody LLP

Paying Agent

Treasurer of the City of Los Angeles

Municipal Advisors

Public Resources Advisory Group

Montague DeRose and Associates, LLC

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OFFICIAL STATEMENT

\$220,465,000*
CITY OF LOS ANGELES
Wastewater System Subordinate
Revenue Bonds, Series 2018-A
(Green Bonds)

\$141,570,000*
CITY OF LOS ANGELES
Wastewater System Subordinate
Revenue Bonds, Refunding Series 2018-B

INTRODUCTION

This introduction is not a summary of this Official Statement. It is only a brief description of and guide to, and is qualified by, more complete and detailed information contained in the entire Official Statement, including the cover page and appendices hereto, 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, the City Charter and laws of the State of California and any documents referred to herein do not purport to be complete and such references are qualified in their entirety by reference to the complete provisions. All capitalized terms used in this Official Statement and not otherwise defined herein have the meanings set forth in the Resolutions (defined herein).

General

The \$220,465,000* City of Los Angeles Wastewater System Subordinate Revenue Bonds, Series 2018-A (Green Bonds) (the “Series 2018-A Subordinate Bonds”) and \$141,570,000* City of Los Angeles Wastewater System Subordinate Revenue Bonds, Refunding Series 2018-B (the “Series 2018-B Subordinate Bonds” and, together with the Series 2018-A Subordinate Bonds, the “Series 2018 Bonds”) are being issued by the City of Los Angeles (the “City”) pursuant to the Charter of the City of Los Angeles (the “City Charter”), Article 6.7 of Chapter 1 of Division 11 of the Administrative Code of the City (the “Procedural Ordinance”), and, with respect to the Series 2018-B Subordinate Bonds, Articles 10 and 11 of Chapter 3 of Part 1 of Division 2 of Title 5 (Section 53570 et seq. and Section 53580 et seq., respectively) of the California Government Code (as amended, the “Refunding Law”). The Series 2018 Bonds are also issued pursuant to the Wastewater System Subordinate Revenue Bonds General Resolution, adopted by the Council of the City (the “City Council”) on March 26, 1991, as amended and supplemented (the “Subordinate General Resolution”), including as amended and supplemented by the Twenty-Fourth Supplemental Resolution, adopted by the City Council on October 16, 2018 (the “Twenty-Fourth Supplemental Resolution”).

The proceeds of the Series 2018-A Subordinate Bonds, together with certain other amounts from the City, will be used to: (i) finance the construction and improvement of the System (herein defined); (ii) pay all Outstanding Wastewater System Commercial Paper Notes (defined herein); and (iii) pay certain costs of issuing the Series 2018-A Subordinate Bonds. The proceeds of the Series 2018-B Subordinate Bonds, together with certain other amounts from the City, will be used to: (i) refund a portion of the City’s Wastewater System Subordinate Revenue Bonds, Variable Rate Refunding Series 2012-D (the “Series 2012-D Subordinate Bonds” and the refunded portion herein referred to as “Refunded Bonds”); (ii) pay all or a portion of the termination payments in connection with the termination of the Swap Agreements (defined herein); and (iii) pay certain costs of issuing the Series 2018-B Subordinate Bonds. See “Plan of Finance” herein.

* Preliminary, subject to change.

Under the Wastewater System Revenue Bonds General Resolution, adopted by the City Council on November 10, 1987, as amended and supplemented (the “General Resolution” and, together with the Subordinate General Resolution, the “Resolutions”), the City has previously issued multiple series of Senior Lien Bonds (the “Existing Senior Lien Bonds”). As of September 1, 2018, the City had \$1,022,140,000 aggregate principal amount of Existing Senior Lien Bonds Outstanding. Under the Subordinate General Resolution, the City has previously issued multiple series of Subordinate Bonds (the “Existing Subordinate Bonds”) that have a lien on Revenues (herein defined) subordinate to that of the Existing Senior Lien Bonds. As of September 1, 2018, the City had \$1,573,970,000 aggregate principal amount of Existing Subordinate Bonds Outstanding, excluding Wastewater System Commercial Paper Notes (defined herein) Outstanding.

Under the Subordinate General Resolution, the City has also authorized a maximum of \$400,000,000 aggregate principal amount of Subordinate Bonds in the form of Wastewater System Commercial Paper Notes (the “Wastewater System Commercial Paper Notes”). The Wastewater System Commercial Paper Notes are currently supported by letters of credit (the “Letters of Credit”) issued by Barclays Bank PLC (“Barclays”) and Sumitomo Mitsui Banking Corporation (“SMBC”). The maximum amount of Wastewater System Commercial Paper Notes that may be Outstanding at any particular time under the existing Letters of Credit for the Wastewater System Commercial Paper Notes is \$200,000,000. On October 16, 2018, the City Council approved the extension of the Barclays Letter of Credit in the amount of \$100,000,000 plus interest, and the substitution of the SMBC Letter of Credit with a new Letter of Credit in the amount of \$150,000,000 plus interest to be provided by The Toronto-Dominion Bank, acting through its New York Branch (“Toronto-Dominion”), which extension and substitution is expected to close on October 23, 2018. There are currently \$50,000,000 aggregate principal amount of Wastewater System Commercial Paper Notes Outstanding. Subsequent to the refunding described herein, no Wastewater System Commercial Paper Notes will be Outstanding. See “Financial Operations of the Wastewater System – Outstanding Indebtedness” and “Plan of Finance” herein. Additional Senior Lien Bonds and Subordinate Bonds may be issued pursuant to the provisions of the General Resolution and the Subordinate General Resolution, respectively, subject to satisfaction of the conditions precedent set forth therein. See “Plan of Finance” and “Security and Sources of Payment for the Series 2018 Bonds – Additional Senior Lien Bonds” and “– Additional Subordinate Bonds” herein.

The System

The City owns and operates a wastewater system (“System”), which serves an approximately 600 square mile area with a population in excess of four million or approximately half of the population of Los Angeles County. The System has two distinct service areas: the Hyperion System and Terminal Island System (each as described herein). Total average daily flow during Fiscal Year 2017-18 was 333 million gallons per day. The System also provides wastewater conveyance, treatment and disposal services to 29 sanitation districts, cities, governmental entities and private businesses which adjoin the City. The System consists of more than 6,700 miles of sewers and interceptors, four treatment plants and various other facilities.

The SCM Fund; Senior Lien Bonds

The Existing Senior Lien Bonds, and any other bonds issued in the future under the General Resolution (collectively, the “Senior Lien Bonds”) are secured by a pledge of and first lien on (i) Revenues; and (ii) all moneys and securities held in the Reserve Fund, the Debt Service Fund (except for amounts segregated for the payment of specific Senior Lien Bonds that have become due and payable or that have been called for redemption, which amounts are held in trust for such specific Senior Lien Bonds only), and the Construction Funds. “Revenues” generally consist of all revenues of the City’s Sewer Construction and Maintenance Fund (the “SCM Fund”) and revenues otherwise attributable to the System, including earnings received from investments in the SCM Fund, the Debt Service Fund, the Reserve Fund and the Emergency

Fund, provided that Revenues shall not include any amount received from the levy or collection of taxes, amounts designated for capital costs received under contracts with contracting agencies, moneys received as grants, earnings on the Construction Funds or the proceeds of borrowings or insurance.

Pursuant to the General Resolution, Revenues in the SCM Fund are to be used on an ongoing basis to pay or provide for the ordinary and reasonable expenses of the operation and maintenance of the System including, without limitation, refunds and the reasonable expenses of management, repair and other expenses necessary to maintain and preserve the System in good repair and working order when such amounts become due in the ordinary course of business. On or before the twenty-fifth day of each month, the City is to transfer amounts from the SCM Fund to the Debt Service Fund, Reserve Fund, and Emergency Fund (all held under the General Resolution for the Senior Lien Bonds), amounts sufficient to make the deposits therein required under the General Resolution.

Security and Sources of Payment for the Series 2018 Bonds

The Series 2018 Bonds, the Existing Subordinate Bonds and any bonds issued in the future under the Subordinate General Resolution (collectively, the “Subordinate Bonds”) are secured by a pledge of and second lien on the Revenues, on a basis subordinate to the pledge of and lien on Revenues to the Senior Lien Bonds. The pledge, assignment and lien on the Revenues granted to secure the Senior Lien Bonds is, in all respects, prior to the pledge, assignment and lien granted by the Subordinate General Resolution for the benefit of the Subordinate Bonds. The Revenues, including Revenues held in the SCM Fund and the earnings on such Revenues, will be used first to pay the Senior Lien Bonds as the same become due, and to make current deposits into the funds held pursuant to the General Resolution before such Revenues will be available for deposit into the funds and accounts held under the Subordinate General Resolution for the benefit of the Subordinate Bonds. The Series 2018 Bonds are also secured by a pledge and lien on the 2018 Subordinate Debt Service Fund created pursuant to the Twenty-Fourth Supplemental Resolution. See “Security and Sources of Payment for the Series 2018 Bonds” herein.

Limited Obligations

The Series 2018 Bonds are special, limited obligations of the City payable solely from the Revenues, on a basis subordinate to the Senior Lien Bonds, and from amounts on deposit in the 2018 Subordinate Debt Service Fund created pursuant to the Subordinate General Resolution. The City is not obligated to make payment from any other source. The Series 2018 Bonds are not payable from the General Fund of the City and are not a general obligation of the City, and neither the full faith and credit nor the taxing power of the City is pledged to the payment of any amounts due on the Series 2018 Bonds.

Forward-Looking Statements

Certain statements included or incorporated by reference in the Official Statement constitute “forward-looking statements.” Such statements are generally identifiable by the terminology used such as “plan,” “expect,” “estimate,” “budget,” “projected” or other similar words. The achievement of certain 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 described to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Although the City believes that such expectations reflected in such forward-looking statements are reasonable, there can be no assurance that such expectations will prove to be correct. The City is not obligated to issue any updates or revisions to the forward-looking statements if or when its expectations, or events, conditions or circumstances on which such statements are based occur, do not occur, or change.

Continuing Disclosure

For purposes of assisting the Underwriters (as defined herein) in complying with Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission (the “Rule”), the City has agreed to provide audited financial statements of the City for the SCM Fund and other financial and operating data relating to the System, not later than the June 30 after the end of each Fiscal Year, commencing on June 30, 2019 for the report for Fiscal Year 2017-18, or if the Fiscal Year-end changes from June 30, not later than 365 days after the end of the City’s Fiscal Year, to the Electronic Municipal Market Access (“EMMA”) database maintained by the Municipal Securities Rulemaking Board (the “MSRB”), and to provide notices to the MSRB through EMMA of the occurrence of certain enumerated events, as required by the Rule. See “Continuing Disclosure” herein and Appendix H – “Form of Continuing Disclosure Certificate” attached hereto.

Miscellaneous

Copies of the resolutions and additional information may be obtained upon request from the Office of the City Administrative Officer, City of Los Angeles, 200 North Main Street, City Hall East, Room 1500, Los Angeles, California 90012, Attention: Debt Management Group, (213) 473-7500. Certain capitalized terms used herein have the meanings ascribed to such terms in Appendix B – “Glossary of Defined Terms” attached hereto. See also Appendix D – “Glossary of System Terms” attached hereto.

PLAN OF FINANCE

Series 2018-A Subordinate Bonds. The proceeds of the Series 2018-A Subordinate Bonds, together with certain other amounts from the City, will be used to: (i) finance the construction and improvement of the System; (ii) pay all Outstanding Wastewater System Commercial Paper Notes in the aggregate principal amount of \$50,000,000; and (iii) pay certain costs of issuing the Series 2018-A Subordinate Bonds.

The City intends to refund all of the currently Outstanding Wastewater System Commercial Paper Notes in the aggregate principal amount of \$50,000,000, by depositing into the debt service fund established under the Subordinate General Resolution for the payment of the Wastewater System Commercial Paper Notes (the “CP Debt Service Fund”) a portion of the proceeds of the Series 2018-A Subordinate Bonds which, together with a contribution of the available moneys for the City representing accrued interest payable upon the respective maturities of the Wastewater System Commercial Paper Notes, will be sufficient to pay all principal of and interest on the Wastewater System Commercial Paper Notes as such Wastewater System Commercial Paper Notes mature on their respective maturity dates.

Series 2018-B Subordinate Bonds. The proceeds of the Series 2018-B Subordinate Bonds, together with certain other amounts from the City, will be used to: (i) refund the Refunded Bonds; (ii) pay all or a portion of the termination payments in connection with the termination of the Swap Agreements; and (iii) pay certain costs of issuing the Series 2018-B Subordinate Bonds.

The following table sets forth the Refunded Bonds to be refunded with a portion of the proceeds of the Series 2018-B Subordinate Bonds.

Refunded Bonds*

Series	Maturity (June 1)	Outstanding Principal Amount	Principal to Be Refunded	Redemption Date*	Redemption Price ⁽¹⁾	CUSIP ⁽²⁾
Series 2012-D Subordinate Bonds	2032	\$280,860,000	\$	November 15, 2018	100%	544653BT4

⁽¹⁾ Expressed as a percentage of the principal amount.

⁽²⁾ Neither the City nor the Underwriters are responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the applicable bonds or as included herein.

In order to effect the refunding of the Refunded Bonds, the Underwriters will wire transfer to U.S. Bank National Association (the “Paying Agent for the Refunded Bonds”) monies which will be sufficient to pay the principal of and interest on the Refunded Bonds to November 15, 2018 and to redeem the Refunded Bonds on such date at a redemption price equal to 100% of the principal amount of the Refunded Bonds to be redeemed plus accrued interest thereon to the date of redemption, without premium, plus all fees and other amounts required to be paid in connection with any redemption.

Upon delivery of the Series 2018-B Subordinate Bonds, the City will pay termination payments to the counterparties to the Swap Agreements. See “Financial Operations of the Wastewater System – Swap Agreements” herein.

Substantially simultaneously with the issuance of the Series 2018 Bonds, the City intends to issue its Wastewater System Subordinate Revenue Bonds, Variable Rate Refunding Series 2018-C (the “Series 2018-C Subordinate Bonds”), the proceeds of which will be used to: (i) refund the portion of the Series 2012-D Subordinate Bonds not refunded by the proceeds of the Series 2018-B Subordinate Bonds; (ii) fund any remaining termination payments with respect to the termination of the Swap Agreements; and (iii) pay certain costs of issuing the Series 2018-C Subordinate Bonds. See “Financial Operations of the Wastewater System – Anticipated Financings” herein.

“Green Bond” Designation

The City has made a broad commitment to sustainability and is currently developing the One Water LA Plan (the “Plan”), which provides for a collaborative approach to develop an integrated framework for managing the City’s watersheds, water resources, and water facilities in an environmentally, economically and socially beneficial manner through 2040. The City has defined the capital improvements to be financed with the proceeds of the Series 2018-A Subordinate Bonds as “Green Projects” based on the environmental benefits of these capital facilities. Accordingly, the City is designating the Series 2018-A Subordinate Bonds as “Green Bonds.” The terms “Green Project” and “Green Bonds” are neither defined in nor related to provisions in the General Resolution or the Subordinate General Resolution. Owners of the Series 2018-A Subordinate Bonds do not have any security other than as provided in the Subordinate General Resolution nor do such owners of the Green Bonds assume any specific project risk related to any of the projects funded thereby. The City assumes no obligation to ensure that those projects it has defined as Green Projects comply with any legal or other standards or principles that relate to Green Projects.

Use of Proceeds. The particular capital improvements that the City has defined as “Green Projects” include wastewater system facilities which support the overall treatment objective of meeting the discharge standards in the NPDES (as herein defined) permits, wastewater collection and pumping facilities which reduce sewage spills, water recycling projects and air quality projects that support the construction and operation of the City’s wastewater system facilities. The City’s existing facilities consist of four wastewater

* Preliminary, subject to change.

treatment plants, a collection system with more than 6,700 miles of mainline sewers, the Hyperion Service Area and the Hyperion Water Reclamation Plant. See “The Wastewater System.” Proceeds of the Series 2018-A Subordinate Bonds will be used to fund portions of the Wastewater System Capital Improvement Program (the “CIP”), an ongoing, ten-year, capital expenditure program. See “Wastewater System Capital Improvement Plan – Current Major Projects of the Wastewater Capital Improvement Program.”

Process for Evaluation and Selection. The City’s wastewater operations are subject to regulatory requirements relating to the Federal Water Pollution Control Act, as amended (the “Clean Water Act”) as well as additional regulations set forth by US EPA, SWRCB, NPDES (each as herein defined) discharge permits, among others. See “Regulatory Requirements Affecting Operation of the System.” For current and future capital projects, the Bureau of Sanitation is responsible for final decisions relating to Wastewater Program costs and priorities. A Program Review Committee (“PRC”) consisting of the Director, Assistant Directors, and Chief Financial Officer of the Bureau of Sanitation and the Wastewater Deputy City Engineer annually evaluates the CIP and meets monthly to consider any changes affecting the scope, cost, schedule, and overall implementation of the program. See “Wastewater System Capital Improvement Plan – Current Major Projects of the Wastewater Capital Improvement Program.”

Management of Proceeds and Reporting. The proceeds of the Series 2018-A Subordinate Bonds will be deposited into a segregated account and disbursed to pay the costs of “Green Projects,” as defined by the City. The City will file annual updates regarding the use of the proceeds of the Series 2018-A Subordinate Bonds on the EMMA website at <http://www.emma.msrb.org> by December 31 after the end of each Fiscal Year until all of the proceeds of the Series 2018-A Subordinate Bonds are expended, at which time no further updates will be provided. Such information on this website is not incorporated herein by this reference.

ESTIMATED SOURCES AND USES OF FUNDS

The proceeds of the Series 2018 Bonds, together with certain other amounts, are expected to be applied as set forth below:

	<u>Series 2018-A Subordinate Bonds</u>	<u>Series 2018-B Subordinate Bonds</u>	<u>Total</u>
Estimated Sources of Funds			
Principal Amount	\$	\$	\$
Premium/(Discount)			
Cash Deposit by the City			
Total	<u>\$</u>	<u>\$</u>	<u>\$</u>
Estimated Uses of Funds			
Deposit into Construction Fund	\$	\$	\$
Deposit into Wastewater System			
Commercial Paper Notes Debt Service Fund			
Deposit for Refunded Bonds			
Swap Termination Payments			
Costs of Issuance ⁽¹⁾			
Total	<u>\$</u>	<u>\$</u>	<u>\$</u>

⁽¹⁾ Includes underwriters' discount, municipal advisors' fees and expenses, rating agency fees, issuing and paying agent fees and expenses, bond counsel fees and expenses, disclosure counsel fees and expenses, printing costs and other miscellaneous expenses.

DESCRIPTION OF THE SERIES 2018 BONDS

The Series 2018 Bonds will be dated and will bear interest from their date of delivery. Interest on the Series 2018 Bonds will be payable semi-annually on June 1 and December 1, commencing on June 1, 2019. Interest will be calculated on the basis of a year of 360 days and twelve 30-day months. The Series 2018 Bonds will be issuable as fully-registered bonds, will mature in the principal amounts in each year (subject to prior redemption), and will bear interest at the respective rates per annum as set forth on the inside cover of this Official Statement.

The Series 2018 Bonds will be registered 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 Series 2018 Bonds. Ownership interests in the Series 2018 Bonds may be purchased in book-entry form only. So long as DTC or its nominee is the Owner of the Series 2018 Bonds, payments of the principal of, redemption premium, if any, and interest on the Series 2018 Bonds will be made as described in Appendix G – "Book-Entry Only System" attached hereto.

REDEMPTION OF THE SERIES 2018 BONDS*

Redemption of the Series 2018 Bonds

Optional Redemption. The Series 2018-A Subordinate Bonds maturing before June 1, 20__ are not subject to redemption before their stated maturities. The Series 2018-A Subordinate Bonds maturing on

* Preliminary, subject to change.

and after June 1, 20__ are subject to redemption, as a whole or in part as designated by the City, or, absent such designation, *pro rata* among maturities and by lot within any one maturity if less than all of the Series 2018-A Subordinate Bonds of such maturity are to be redeemed, prior to their respective maturity dates, at the option of the City, on any date on or after _____ 1, 20__, at a redemption price equal to the principal amount of the Series 2018-A Subordinate Bonds to be redeemed plus accrued interest thereon to the date of redemption, without premium.

The Series 2018-B Subordinate Bonds maturing before June 1, 20__ are not subject to redemption before their stated maturities. The Series 2018-B Subordinate Bonds maturing on and after June 1, 20__ are subject to redemption, as a whole or in part as designated by the City, or, absent such designation, *pro rata* among maturities and by lot within any one maturity if less than all of the Series 2018-B Subordinate Bonds of such maturity are to be redeemed, prior to their respective maturity dates, at the option of the City, on any date on or after _____ 1, 20__, at a redemption price equal to the principal amount of the Series 2018-B Subordinate Bonds to be redeemed plus accrued interest thereon to the date of redemption, without premium.

Mandatory Sinking Fund Redemption. The Series 2018-A Subordinate Bonds with a stated maturity date of June 1, 20__ are subject to mandatory sinking fund redemption prior to maturity, commencing on June 1, 20__, and on each June 1 thereafter until maturity, in accordance with the terms of the following mandatory sinking fund redemption schedule (subject to adjustment in the event of an optional redemption of the Series 2018-A Subordinate Bonds, as provided in the Twenty-Fourth Supplemental Resolution):

Series 2018-A Term Bonds Maturing June 1, 20__

<u>Redemption Date (June 1)</u>	<u>Principal Amount</u>
20__	\$
20__	
20__	
20__	
20__ (maturity)	

Selection of Series 2018 Bonds for Redemption. The Series 2018 Bonds that are subject to optional redemption will be selected among such maturities as the City may designate, or, absent such designation, shall be redeemed *pro rata* among maturities. Series 2018 Bonds, may be redeemed by lot within any one maturity in any manner the City shall deem appropriate.

Notice of Redemption of Series 2018 Bonds

At least 20 days and no more than 60 days before each date of redemption, the City will give notice by electronic means of communication to each registered owner of a Series 2018 Bond to be redeemed at the owner's registered address. So long as DTC is the registered owner of Series 2018 Bonds to be redeemed, notice of redemption shall be sent to DTC. Failure to give any required notice of redemption will not affect the validity of the call for redemption of any Series 2018 Bond in respect of which no failure occurs.

The notice of redemption will (i) specify the Series 2018 Bonds to be redeemed, the redemption date, the redemption prices and the place or places where amounts due upon such redemption will be payable and, if less than all of the Series 2018 Bonds of a Series are to be redeemed, the numbers of the

Series 2018 Bonds, and the portions of Series 2018 Bonds, to be redeemed; (ii) state any condition to such redemption; and (iii) state that on the redemption date, and upon the satisfaction of any such condition, the Series 2018 Bonds to be redeemed shall cease to bear interest. If at any time the Series 2018 Bonds are no longer book-entry bonds, such notice of redemption will further contain the following information: (i) the CUSIP numbers of all Series 2018 Bonds or portions thereof being redeemed; (ii) the date of original issuance of the Series 2018 Bonds; (iii) the rate of interest borne by the Series 2018 Bonds being redeemed; (iv) the maturity date of the Series 2018 Bonds being redeemed; (v) the redemption price or, if applicable, a description of the mechanism or method for determining the redemption price; and (vi) any other descriptive information to identify accurately the Series 2018 Bonds or portions thereof being redeemed.

Any notice of redemption may be conditional, other than notice of redemption from mandatory sinking fund payments, and may be rescinded by written notice given by the City. Upon such rescission, the City shall give notice of such rescission in the same manner, and to the same persons, as notice of such redemption was given. Any optional redemption of the Series 2018 Bonds and notice thereof will be rescinded and cancelled if for any reason on the date fixed for redemption moneys are not available and held in trust for such purpose in an amount sufficient to pay in full on such date the principal of, interest, and any premium due on such Series 2018 Bonds called for redemption.

Effect of Redemption of Series 2018 Bonds

On the date designated for redemption, notice having been given in the manner and under the conditions provided in the Subordinate General Resolution and moneys for payment of the redemption price being held in trust to pay the redemption price, the Series 2018 Bonds called for redemption shall become due and payable, interest on such Series 2018 Bonds shall cease to accrue, such Series 2018 Bonds shall cease to be entitled to any lien, benefit or security under the Subordinate General Resolution and the owners of such Series 2018 Bonds shall have no rights in respect thereof except to receive payment of the redemption price.

SECURITY AND SOURCES OF PAYMENT FOR THE SERIES 2018 BONDS

Sources of Payment

All Revenues received by the City from the ownership and operation of the System (less billing and collection fees paid to the Department of Water and Power (“DWP”)) are deposited, after collection, into the SCM Fund held by the City Treasurer. The SCM Fund has been operated as a special fund of the City since it was created by an ordinance adopted by the City Council in 1970. For the City’s internal purposes, the City has also created a SCM Fund and a Sewer Capital Fund into which amounts from the Sewer Construction and Maintenance Fund may be transferred, and the City may create other funds into which Revenues are deposited or held. All of such funds are collectively referred to as the “SCM Fund,” and amounts in all of such funds will be held and used as the SCM Fund. All expenditures related to the construction, operation, maintenance and repair of the System are accounted for in the SCM Fund. Audited financial statements of the SCM Fund for the Fiscal Years ended June 30, 2017 and 2016 are attached as Appendix E hereto. The City is required to prepare annually audited financial statements of the SCM Fund.

“Revenues” means all revenues of the SCM Fund and revenues otherwise attributable to the System, including, but not limited to, those revenues currently arising as a result of the imposition of sewer service charges, industrial waste surcharge and inspection fees, sewage disposal contract charges, sewerage facility charges and bonded sewer fees and all other income and receipts derived by the City from the ownership or operation of the System or arising from the System and including amounts attributable to extensions, additions and improvements to the System and all other amounts received by the City in payment for

providing wastewater collection, treatment and/or disposal services; and all earnings received from the investment of the SCM Fund, the Debt Service Fund (as defined in the General Resolution), the Reserve Fund (as defined in the General Resolution) and the Emergency Fund (as defined in the General Resolution); and all earnings received on the Debt Service Fund created under the Subordinate General Resolution, provided, however, that Revenues do not include:

- (i) any amount received from the levy or collection of taxes;
- (ii) amounts received under contracts or agreements with governmental or private entities and designated for capital costs;
- (iii) moneys received as grants from the United States of America or from the State of California or other political bodies;
- (iv) earnings on the Construction Funds (as defined in the General Resolution);
- (v) the proceeds of borrowings; and
- (vi) proceeds of insurance.

Subordinate Pledge of Revenues

To secure the payment of all Subordinate Bonds issued pursuant to the terms of the Subordinate General Resolution, the City has pledged, placed a second lien upon and assigned to the Owners of the Subordinate Bonds (1) the Revenues and (2) the Revenues held in the SCM Fund including the earnings on such Revenues. The City has previously pledged and assigned the Revenues and granted a lien upon the Revenues to secure all Senior Lien Bonds, whenever issued, including Senior Lien Bonds issued subsequent to the issuance of Subordinate Bonds (including the Series 2018 Bonds). The pledge, assignment and lien on the Revenues granted to secure the Senior Lien Bonds is, in all respects, prior to the pledge, assignment and lien granted by the Subordinate General Resolution. The Revenues, including Revenues held in the SCM Fund and the earnings on such Revenues, will be used first to pay the Senior Lien Bonds as the same become due and make current deposits into the funds held pursuant to the General Resolution before such Revenues will be available to pay Subordinate Bonds. This pledge of and lien upon the Revenues will be for the equal and proportionate benefit and security of all Subordinate Bonds issued under the terms of the Subordinate General Resolution, all of which, regardless of the time or times of their authentication and delivery or maturity, will be of equal rank without preference, priority or distinction as to lien or otherwise. The pledge and lien granted by the Subordinate General Resolution will remain effective for so long as any Subordinate Bonds are Outstanding thereunder. Amounts in the Debt Service Fund and Construction Fund established for any Series of the Subordinate Bonds are pledged to secure such Subordinate Bonds in accordance with the terms of the applicable Supplemental Resolution.

In the Subordinate General Resolution, the City represents and states that except for the pledge granted to secure the Senior Lien Bonds, the City has not previously pledged the Revenues or the SCM Fund nor created any lien thereon, and the City covenants that, until all the Subordinate Bonds issued under the provisions of the Subordinate General Resolution and the interest thereon will have been paid or are deemed to have been paid, it will not, except to the extent additional Senior Lien Bonds are issued under the terms of the General Resolution, grant any prior or parity pledge of Revenues or the SCM Fund, or create or permit to be created any charge or lien on the Revenues ranking prior to or on a parity with the charge and lien which secures the Subordinate Bonds issued pursuant to the Subordinate General Resolution. The City will not, by the provisions of the Subordinate General Resolution, be restricted or limited in its ability to issue additional Senior Lien Bonds, all of which will rank prior to the Subordinate

Bonds with respect to the pledge of, lien on and assignment of the Revenues. The City may create or permit to be created a charge or lien on the Revenues ranking junior and subordinate to the charge and lien which secures the Subordinate Bonds issued pursuant to the Subordinate General Resolution.

No Reserve for Subordinate Bonds

No reserve is established for the Subordinate Bonds, including the Series 2018 Bonds. Under the terms of the General Resolution, a Reserve Fund is required to be created and funded in an amount equal to Maximum Annual Debt Service on all Senior Lien Bonds issued and Outstanding under the General Resolution. Moneys held in the Reserve Fund may not be used to pay the principal of, premium, if any, and interest on the Series 2018 Bonds.

No Pledge of Refundable Credits

The City previously issued \$177,420,000 aggregate principal amount of Wastewater System Revenue Bonds, Series 2010-A (the “Series 2010-A Senior Lien Bonds”) and designated such bonds as “Build America Bonds” under the provisions of the American Recovery and Reinvestment Act of 2009. The City previously issued \$89,600,000 aggregate principal amount of Wastewater System Revenue Bonds Series 2010-B (the “Series 2010-B Senior Lien Bonds”) and designated such bonds as “Recovery Zone Economic Development Bonds” (together with the Build America Bonds, the “Direct Subsidy Bonds”) under the provisions of the American Recovery and Reinvestment Act of 2009. Prior to March 1, 2013, the City received periodic payments (“Refundable Credits”) from the United States Treasury equal to 35% of the interest payable on the Series 2010-A Senior Lien Bonds and periodic Refundable Credits from the United States Treasury equal to 45% of the interest payable on the Series 2010-B Senior Lien Bonds. As a result of the Sequester (herein defined) described under “Risk Factors – Effect of Federal Sequestration on Refundable Credits,” the City expects to receive an estimated \$365,267 reduction in Refundable Credits in connection with the Series 2010-A Senior Lien Bonds and the Series 2010-B Senior Lien Bonds for the current federal fiscal year ending September 30, 2019. Until further action is taken by the United States Congress, Sequestration will continue and there could be additional reductions for future years.

The Refundable Credits constitute amounts payable by the Federal government under Section 6431 of the Code, and which, in the case of the Series 2010-A Senior Lien Bonds, the City has elected to receive under Section 54AA(g)(1) of the Code. All of the Refundable Credits received by the City are to be deposited upon receipt into the debt service account established with respect to the Series 2010-A Senior Lien Bonds and the Series 2010-B Senior Lien Bonds to which they relate, and are pledged to the payment of the Series 2010-A Senior Lien Bonds and the Series 2010-B Senior Lien Bonds only. The Refundable Credits are not pledged to the payment of the Series 2018 Bonds. On April 25, 2017, the City amended each of the Resolutions to provide for an offset to the debt service on the Direct Subsidy Bonds, and a corresponding offset to Revenues in the amount of the Refundable Credits. See “– Amendment to the Resolutions Relating to the Refundable Credits” and “Risk Factors – Effect of Federal Sequestration on Refundable Credits” herein.

Subordinate Bonds Rate Covenant

The City covenants in the Subordinate General Resolution that it will at all times while any Subordinate Bonds remain Outstanding, establish, fix, prescribe and collect rates, fees and charges in connection with the use of the System so that Revenues for each Fiscal Year will be at least sufficient to pay the following amounts: (1) the interest on and principal of the Outstanding Senior Lien Bonds and Subordinate Bonds as they become due and payable; (2) all other payments required for compliance with the terms of the Senior Lien Resolution and the Subordinate General Resolution and of any Supplemental Resolutions issued thereunder; (3) all other payments to meet any other obligations of the City which are

charges, liens, or encumbrances upon, or payable from, the Revenues; and (4) all current operation and maintenance costs of the System (but not including such operation and maintenance costs as are scheduled to be paid by the City from moneys other than Revenues, such moneys to be clearly available for such purpose). The City further agrees that it will establish, fix, prescribe and collect rates, fees and charges in connection with the use of the System so that during each Fiscal Year the Net Revenues are equal to at least 110 percent of the actual debt service becoming due on Outstanding Senior Lien Bonds and Subordinate Bonds in such year provided that for such purposes, the principal amount of Senior Lien Bonds and Subordinate Bonds becoming due in such year which is paid from the proceeds of other borrowings shall not be included as debt service becoming due in such year.

Additional Subordinate Bonds

As a condition to the issuance of any additional Subordinate Bonds, the City will first be required to obtain a certificate or certificates prepared by a Consultant or by Consultants showing that the Net Revenues for the immediately preceding Fiscal Year or for any 12 consecutive months out of the 18 consecutive months immediately preceding the issuance of the proposed Subordinate Bonds were at least equal to 110 percent of the Maximum Annual Debt Service for all Senior Lien Bonds and Subordinate Bonds which will be Outstanding immediately after issuance of the proposed Subordinate Bonds. For purposes of preparing the certificate or certificates described above, the Consultant or Consultants may rely upon financial statements prepared by the City that have not been subject to audit by an independent certified public accountant if audited financial statements for the Fiscal Year or period are not available.

For purposes of the computations to be made as described in the preceding paragraph, the determination of Net Revenues may take into account any increases in rates and charges which relate to the System and will take into account any reductions in such rates and charges, which increases or decreases have been authorized by the City to be implemented and which will be effective prior to or at the time of issuance of such proposed Subordinate Bonds.

Except as described in the last sentence of this paragraph, the certificate or certificates described above will not be required if the Subordinate Bonds being issued are for purposes of refunding the Outstanding Senior Lien Bonds or Subordinate Bonds, and if at the time of the issuance of such Subordinate Bonds, a certificate of an Authorized City Representative will be delivered showing that Maximum Annual Debt Service on all Senior Lien Bonds and Subordinate Bonds Outstanding after the issuance of the refunding Subordinate Bonds will not exceed Maximum Annual Debt Service on all Senior Lien Bonds and Subordinate Bonds Outstanding prior to the issuance of such Subordinate Bonds. The exception provided by this paragraph will not apply with respect to Subordinate Bonds not constituting part of a Commercial Paper Program issued to refund Subordinate Bonds constituting part of a Commercial Paper Program unless the authorized principal amount of the Commercial Paper Program is reduced by an amount equal to the Subordinate Bonds refunded.

If any of the Outstanding Series of Subordinate Bonds or Senior Lien Bonds constitutes Variable Rate Indebtedness, or if Subordinate Bonds proposed to be issued would constitute Variable Rate Indebtedness for purposes of the Subordinate General Resolution only (except as otherwise provided in the Subordinate General Resolution), such Subordinate Bonds or Senior Lien Bonds will be assumed to bear interest at the rate quoted in *The Bond Buyer Revenue Bond Index* for the last week of the month preceding the date of calculation of Maximum Annual Debt Service, as published in *The Bond Buyer*, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United States Treasury bonds having an equivalent maturity as the then Outstanding Subordinate Bonds or Senior Lien Bonds for which the interest rate is to be assumed or having an equivalent maturity as the additional Subordinate Bonds proposed to be

issued, or if there are no such Treasury bonds having equivalent maturities, 100% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets.

Additional Senior Lien Bonds

In addition to the Existing Senior Lien Bonds, the City may authorize one or more other series of Additional Senior Lien Bonds which are secured by the pledge of Revenues made under the General Resolution equally and ratably with Senior Lien Bonds previously issued. See Appendix C – “Summary of Certain Provisions of the Resolutions” attached hereto.

Flow of Funds Under the General Resolution and the Subordinate General Resolution

The SCM Fund. The City has agreed under the General Resolution that so long as any Bonds remain Outstanding it will continue to maintain the SCM Fund or another special fund or special funds into which all Revenues will be deposited and any and all such funds into which Revenues are deposited by the City shall be maintained and the amounts therein held and used as provided in the General Resolution.

Pursuant to the General Resolution, the City has agreed that it will deposit all Revenues (except the earnings on the Debt Service Fund (as defined in the General Resolution) created and held under the General Resolution and the Reserve Fund (as defined in the General Resolution) created and held under the General Resolution for which the special provision is made in the General Resolution and except for the earnings on funds created and held under Supplemental Resolutions for which special provision may be made) as collected, into the SCM Fund. All Revenues in the SCM Fund shall be held by the City in trust and applied as provided in the General Resolution, and pending such application, such amounts shall be subject to a lien and charge in favor of the Holders of the Bonds issued and Outstanding under the General Resolution.

Payment of Operation and Maintenance Expenses. Prior to making deposits into the Debt Service Fund, Reserve Fund or Emergency Fund, Revenues on deposit to the credit of the SCM Fund will be used to pay or provide for the ordinary and reasonable expenses of the operation and maintenance of the System when such amounts become due in the ordinary course of business, including, without limitation, refunds, the reasonable expenses of management, and repair and other expenses necessary to maintain and preserve the System in good repair and working order.

Deposits to the Debt Service Fund, Reserve Fund and Emergency Fund Under the General Resolution. On or before the twenty-fifth day of each month, the City must withdraw from the SCM Fund an amount sufficient to make the deposits described in (a), (b) and (c) below and to deposit such amount to the credit of the following funds and in the priority listed. If in any month available moneys are insufficient to make all of such deposits, moneys will be deposited first to the Debt Service Fund and, thereafter, to the Reserve Fund and, thereafter, to the Emergency Fund. Deposits from the SCM Fund are required to be made as follows:

(a) to the credit of the Debt Service Fund, an amount equal to the Aggregate Accrued Interest and Aggregate Accrued Principal for the current calendar month, less any Excess in the fund on the first day of the month, plus any Deficiency existing on the first day of such calendar month, plus any amount of interest or principal on Bonds which has become due and has not been paid and for which there are insufficient funds in the Debt Service Fund or another special fund or account to be used to make such payment;

(b) to the credit of the Reserve Fund, the following amounts, if any: (i) if, as of the most recent valuation of the Reserve Fund, the value thereof was less than the Reserve Fund Requirement and the amount of such deficiency has not previously been restored, then commencing with the first month of the

first Fiscal Year following such valuation and continuing until such deficiency has been eliminated (which may be by subsequent valuation), one-twelfth of the difference between the Reserve Fund Requirement and the value of the Reserve Fund on such valuation date, plus (ii) if any amount has been withdrawn from the Reserve Fund during the preceding 12 months to prevent a default on the Bonds or to make a deposit into the Rebate Fund and the Reserve Fund has not subsequently been restored to the Reserve Fund Requirement, an amount equal to one-twelfth of the amount so withdrawn, plus (iii) if any Bonds have been issued during the preceding 12 months and, at the time of such issuance, the City did not deposit into the Reserve Fund the full amount necessary to increase the amount in the Reserve Fund to the Reserve Fund Requirement and the amount of such deficiency has not previously been deposited into the Reserve Fund, an amount equal to one-twelfth of the difference between the Reserve Fund Requirement due upon the issuance of such series of Bonds and the amount deposited into the Reserve Fund at the time of issuance; and

(c) to the credit of the Emergency Fund, the following amounts, if any: (i) if, as of the most recent valuation of the Emergency Fund, the value thereof was less than the Emergency Fund Requirement and the amount of such deficiency has not previously been restored then commencing with the first month of the first Fiscal Year following such valuation and continuing until such deficiency has been eliminated (which may be by subsequent valuation), one-twelfth of the difference between the Emergency Fund Requirement and the value of the Emergency Fund on such valuation date, plus (ii) if any amount has been withdrawn from the Emergency Fund during the preceding 12 months to pay expenses arising from an emergency or a liability claim and the Emergency Fund has not subsequently been restored to the Emergency Fund Requirement, one-twelfth of the amount so withdrawn.

Deposit of Revenues to Funds and Accounts Under the Subordinate General Resolution. So long as the requirements set forth below are met, the City may, at any time, as provided by Supplemental Resolution, withdraw amounts from the SCM Fund to make deposits to the debt service funds and reserve funds created under Supplemental Resolutions or otherwise to make payments or provide for payments on Subordinate Bonds. The foregoing provisions are, however, restricted to the extent that no amount will be withdrawn from the SCM Fund to make deposits to funds created under Supplemental Resolutions or otherwise make payments or provide for payments on Subordinate Bonds unless:

- (a) all operation and maintenance expenses are being or have been paid as they become due;
- (b) the monthly deposits to be made into the Debt Service Fund, the Reserve Fund and the Emergency Fund (each such fund as defined in and held under the General Resolution) for all prior months have been made in full and no deficiency exists with respect to the Debt Service Fund under the General Resolution;
- (c) the amounts which are or will be required to be deposited into the Debt Service Fund, the Reserve Fund and the Emergency Fund (each as defined in the General Resolution) and held under the General Resolution during the then current calendar month have been deposited into such funds or such amounts are segregated within the SCM Fund to be used to make such deposits prior to the withdrawal or use of funds for the purpose of paying or providing for the payment of Subordinate Bonds; and
- (d) after any such withdrawal or segregation as provided in (c) above and after the withdrawal for the purpose of paying or providing for the payment of Subordinate Bonds, there will remain in the SCM Fund an amount at least equal to the amount reasonably estimated by the City to be needed to provide for the System's operation and maintenance expenses during the next 45 days.

So long as the conditions (a), (b), (c), and (d) above are met, then the City may at any time and, subject to the conditions set forth above, shall, as required by Supplemental Resolutions, withdraw from

the SCM Fund such amounts as are needed to pay debt service on Subordinate Bonds and fulfill other funding requirements contained in Supplemental Resolutions under which Subordinate Bonds have been issued.

Moneys Remaining in the SCM Fund. In addition to paying operation and maintenance expenses and making the deposits to the Debt Service Fund, Reserve Fund and Emergency Fund, amounts in the SCM Fund may, from time to time, be used to pay capital expenses of the System or may be used for any other lawful purpose related to the System, but if and only if all of the following conditions are met prior to any such withdrawal:

- (a) all operation and maintenance expenses are being or have been paid as they become due;
- (b) the monthly deposits to be made pursuant to certain provisions of the General Resolution for all prior months have been made in full and no Deficiency (as defined in the General Resolution) exists with respect to the Debt Service Fund as defined in and created under the General Resolution; and all payments to be made to pay or provide for payment of Subordinate Bonds under the terms of Supplemental Resolutions which payments have become due have been paid in full and no deficiency then exists in any Debt Service Fund or Reserve Fund;
- (c) the amounts which are or will be required to be deposited pursuant to certain provisions of the General Resolution during the then current calendar month are deposited as provided in the General Resolution or such amounts are segregated with the SCM Fund to be used to make such deposits prior to the withdrawal or use of funds for other purposes under this paragraph; and all amounts to be paid on the Subordinate Bonds or otherwise required under the terms of Supplemental Resolutions to be deposited to provide for the payment of Subordinate Bonds during the then current calendar month have been paid or deposited or such amounts (which may be an estimated amount deemed appropriate by the City) are segregated within the SCM Fund to be used to make such deposits prior to the withdrawal or use of funds for other purposes under this paragraph; and
- (d) after such withdrawal, there will remain in the SCM Fund an amount at least equal to the amount reasonably estimated by the City to be needed to provide for the System's operation and maintenance expenses during the next 45 days.

Any amounts in the SCM Fund which are not Revenues may be withdrawn at any time and without restriction and such amounts may be withdrawn without regard to the requirements of the preceding paragraph, it being the intent of the General Resolution and the Subordinate General Resolution, that the various funds described in the General Resolution and the Subordinate General Resolution, respectively, and the balances required to be maintained in the SCM Fund are to be maintained from the Revenues.

Books and Accounts

The City prepares annual financial statements of the SCM Fund in accordance with generally accepted accounting principles which are audited by an independent certified public accountant. See Appendix E – “City of Los Angeles Sewer Construction and Maintenance Fund Financial Statements and Required Supplementary Information for the Fiscal Years ended June 30, 2017 and 2016 (With Independent Auditor's Report Thereon) and Debt Service Compliance Report for the Fiscal Year ended June 30, 2017 (With Independent Auditor's Report Thereon)” attached hereto. The City will make the financial statements available for examination by any Bondholder or any Beneficial Owner and will furnish a copy of the financial statements to any Bondholder or any Beneficial Owner upon request. The City may charge a fee to cover the cost of copying.

The City is also required to prepare and adopt a budget for the SCM Fund annually prior to the beginning of the Fiscal Year and a five-year capital plan or capital budget setting forth in reasonable detail the amount expected to be expended in each year for capital needs of the System and the purposes for which such amounts are expected to be expended.

Operation and Maintenance of the System

The City covenants that it will maintain and preserve the System in good repair and working order, in conformity with standards customarily followed for municipal wastewater systems of like size and character. The City also covenants that it will from time to time make all necessary and proper repairs, renewals, replacements and substitutions to the properties of the System, so that at all times business carried on in connection with the System will and can be properly and advantageously conducted in an efficient manner and at reasonable cost.

Emergency Fund

In 1987, the City established an Emergency Fund in connection with the issuance of the initial series of Bonds and deposited therein \$5 million. The City has never withdrawn money from the Emergency Fund and the Emergency Fund is currently funded at its original amount of \$5 million. Amounts in the Emergency Fund may be used by the City, if other funds are not readily available and sufficient, to pay extraordinary and unexpected repair or replacement expenses of the System or liability claims related to the System. Amounts will be withdrawn from the Emergency Fund only after delivery to the Treasurer of a certificate signed by an Authorized City Representative stating that an extraordinary and unexpected event has occurred or that an amount is due as a result of a liability claim, that the expense resulting from such event or the claim which is to be paid is in excess of \$500,000, that other funds are not readily available to pay such expense or claim, and that the expenditure of such funds has been duly authorized in accordance with City procedures. The Treasurer will annually, on or about January 15 of each year, and at such other times as the City deems appropriate, value the Emergency Fund on the basis of the market value thereof. If, upon any valuation of the Emergency Fund, the value thereof is less than the Emergency Fund Requirement or if the City withdraws funds from the Emergency Fund and such withdrawal reduces the balance in such fund below the Emergency Fund Requirement, then deposits shall be made into the Emergency Fund from the SCM Fund as provided in the General Resolution. Such deposits will be made after deposits to the Debt Service Fund and Reserve Fund pursuant to the General Resolution and prior to the withdrawal or use of funds for the purpose of paying or providing for the payment of Subordinate Bonds. See "Security and Sources of Payment for the Series 2018 Bonds – Flow of Funds Under the General Resolution and Subordinate General Resolution" herein.

Insurance and Condemnation

The City agrees that it will maintain commercial insurance or provide a self-insurance reserve against loss or damage to the System from fire, storm or other causes to the extent that such insurance or reserves are customary for sewer systems in metropolitan areas. However, the City is not required to maintain insurance against earthquake damage if it determines that earthquake insurance is not available on the open market, from reputable companies at a reasonable price. The City does not currently maintain earthquake insurance on the System and does not anticipate obtaining such coverage in the future. The City is not required to maintain liability insurance or self-insurance reserves in lieu of liability insurance in any period for which the City agrees to hold the SCM Fund harmless from all general, automobile, and public liability claims filed during such period.

The City carries commercial insurance with an equipment breakdown limit of \$1 billion (policy limit) for loss to boiler and machinery, excluding damage caused by earthquake and flood. The deductible

for this policy is \$100,000 and is paid from amounts in the SCM Fund. The City carries all risk property coverage with limits of \$1 billion for damage to real and personal property, excluding damage caused by earthquake and flood. The deductible for this policy is \$100,000 which is covered by the SCM Fund. The City carries property terrorism coverage with limits of \$200 million for certified acts of terrorism. The deductible for this policy is \$100,000 and is paid from amounts in the SCM Fund.

The General Resolution provides that the proceeds of any property damage insurance will be applied to the restoration, replacement or reconstruction of the property or facility lost or damaged, unless the City determines that such property or facility is not necessary to the efficient or proper operation of the System and therefore determines not to restore, replace or reconstruct such property or facilities. Any proceeds of such insurance not applied to restoration, replacement or reconstruction or remaining after such work is completed will be deposited in the SCM Fund and be available for other proper uses of funds deposited in the SCM Fund. Proceeds of any liability insurance will be applied by the City in satisfaction of the applicable claim. If the City has elected to self-insure its property damage risks, then, unless the City determines not to restore, replace or reconstruct such property or facilities, amounts in the self-insurance fund will be withdrawn and used to restore, replace or reconstruct the property or facility lost or damaged as a result of a casualty for which such fund was created. If the City has elected to self-insure its liability risk, then amounts in the self-insurance fund of the SCM Fund will be withdrawn and applied in satisfaction of claims arising as a result of events for which such fund was created.

The General Resolution provides that if any property or facilities comprising part of the System will be taken through the exercise of the power of eminent domain, the City will apply the proceeds of any award received on account of such taking to the replacement of the property or facilities so taken, unless the City determines that such property or facility is not necessary to the efficient or proper operation of the System and therefore determines not to replace such property or facilities. Any proceeds of such award not applied to replacement or remaining after such work has been completed will be deposited in the SCM Fund and be available for other proper uses of funds deposited in the SCM Fund.

Amendment to the Resolutions Relating to the Refundable Credits

On April 25, 2017, the City amended each of the Resolutions to provide for an offset to debt service on the Direct Subsidy Bonds and a corresponding offset to Revenues in the amount of the Refundable Credits (the amendments being referenced herein as the “Refundable Credits Amendments”). The Resolutions, as amended, provide that (i) for the purpose of calculating Maximum Annual Debt Service, in determining the amount of interest coming due during any twelve-month period ending June 30 on any Series of Subordinate Bonds or Senior Lien Bonds, as applicable, that were issued as Build America Bonds or Recovery Zone Economic Development Bonds, such amount shall be reduced by an amount equal to the Refundable Credits the City is scheduled to receive with respect to such Subordinate Bonds issued as Direct Subsidy Bonds or Senior Lien Bonds issued as Direct Subsidy Bonds, as applicable, during each such twelve-month period ending June 30 (and to avoid double counting, an equivalent amount shall be deducted from Revenues for the purpose of such calculation); and (ii) with respect to the Rate Covenant, for the purpose of calculating actual debt service becoming due on Outstanding Senior Lien Bonds (in the case of the amendment to the General Resolution), or Outstanding Senior Lien Bonds and Subordinate Bonds (in the case of the amendment to the Subordinate General Resolution), in determining the amount of interest coming due during any twelve-month period ending June 30 on any Series of Subordinate Bonds or Senior Lien Bonds, as applicable, that were issued as Direct Subsidy Bonds, such amount shall be reduced by an amount equal to the Refundable Credits the City is scheduled to receive with respect to Subordinate Bonds or Senior Lien Bonds, as applicable, during each such twelve-month period ending June 30 (and to avoid double counting, an equivalent amount shall be deducted from Revenues for the purpose of such calculation). See Appendix C – “Summary of Certain Provisions of the Resolutions” attached hereto.

THE WASTEWATER SYSTEM

Service Area

The System provides wastewater collection, treatment and disposal services for an area of approximately 600 square miles that includes most of the City. The wastewater service area within the Los Angeles Basin is determined by natural drainage patterns and does not generally conform to political boundaries. Because of the economics associated with gravity flow, parts of the City are served by other agencies and the System provides wastewater service for communities outside the boundaries of the incorporated City. Areas within the City limits that are not served by the City are served by the Los Angeles County Sanitation Districts. See page 21 herein for a map of the System.

Existing Facilities

Treatment Plants. The City's four wastewater treatment plants receive flows from two distinct service areas. Central, western and northern areas of the City are tributary to a coastal plant, the Hyperion Water Reclamation Plant ("HWRP"), and to two inland plants along the Los Angeles River, the Donald C. Tillman Water Reclamation Plant ("DCTWRP") and the Los Angeles-Glendale Water Reclamation Plant ("LAGWRP"). The southern harbor area of the City is tributary to the Terminal Island Water Reclamation Plant ("TIWRP"). For ease of reference, the two service areas are referred to herein as the Hyperion System and the Terminal Island System.

The following table sets forth the approximate first year of operation, the current design capacities and the influent flows of the Hyperion System treatment facilities and the Terminal Island System treatment facilities:

**TABLE 1
EXISTING WASTEWATER TREATMENT FACILITIES**

Treatment Facility	Approximate First Year of Operation	Current Design Capacity (mgd)⁽¹⁾	Average Flow (mgd)⁽²⁾
HYPERION SYSTEM			
Hyperion ⁽³⁾	1923	450	259
Los Angeles-Glendale ⁽⁴⁾	1976	20	17
Tillman ⁽⁴⁾	1984	80	45
Total Hyperion System		<u>550</u>	<u>321</u>
TERMINAL ISLAND SYSTEM			
Terminal Island ⁽⁵⁾	1935	30	12
TOTAL BOTH SYSTEMS		<u>580</u>	<u>333</u>

Source: Bureau of Sanitation.

(1) "mgd" means million gallons per day.

(2) These numbers are average flows for Fiscal Year 2017-18.

(3) This facility utilizes activated sludge secondary treatment.

(4) These facilities utilize activated sludge secondary treatment followed by coagulation, filtration, chlorination and dechlorination.

(5) This facility utilizes activated sludge secondary treatment and filtration.

Collection System. The Wastewater collection and conveyance system consists of more than 6,700 miles of mainline sewers, in excess of 100,000 maintenance holes, 44 wastewater pumping plants, and other miscellaneous facilities. Sixty-seven percent of the sewers have been in service for 50 years or more with

the oldest pipes installed about 130 years ago. See “Wastewater System Capital Improvement Program – Current Major Projects of the Wastewater System Capital Improvement Program – Current Projects – Secondary Sewer Renewal Program” herein for a description of the City’s program for replacing portions of the Collection System, including renewals of secondary sewers.

The City has 24 pumping plants in the Hyperion System and 20 pumping plants in the Terminal Island System, all of which form an integral and essential part of the conveyance system. The collection system is designed with redundancy in the form of standby pumps and power supplies. Certain plants are provided with storage retention basins or emergency bypass lines to address potential collection failures.

The City’s stormwater collection and conveyance system is separate from the wastewater collection and conveyance system. Stormwater is discharged into the Santa Monica Bay and Los Angeles Harbor through a series of storm drains and channels. Some dry weather urban runoff is diverted to the wastewater collection system for treatment at the HWRP.

Recent Collection System Failures. On July 18, 2016, the North Outfall Sewer (“NOS”), with a 66 inch diameter, experienced a catastrophic failure near the intersection of 6th Street and Mission Road, following the discovery of two sinkholes. The failure resulted in a discharge of approximately 2.6 million gallons of wastewater. Stabilizing the situation cost approximately \$4.8 million and replacing 250 linear feet of pipe cost approximately \$8.5 million. A further replacement and realignment of 530 linear feet of pipe is expected to cost \$8.9 million. The wastewater spill is expected to result in regulatory fines.

On February 17, 2017, during heavy rain, a sinkhole developed in the Studio City neighborhood of the City. The damaged sewer pipe has been repaired at a cost of approximately \$1.6 million.

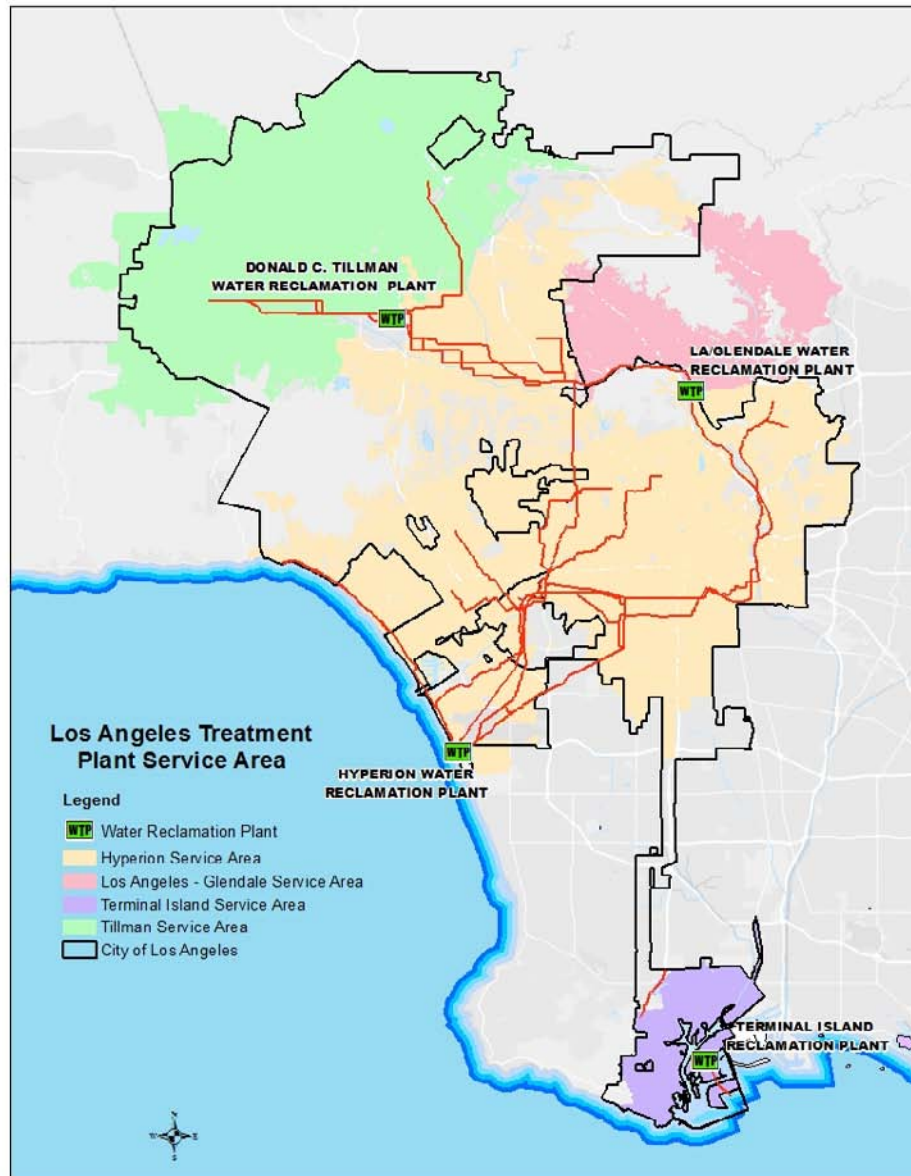
The Bureau of Sanitation completed Phase I of a closed circuit television (“CCTV”) inspection of the NOS in the Fall of 2017. Based on the CCTV inspection, several emergency sewer repairs of damaged NOS sections were initiated. As of July 2018, the majority of these emergency projects have been completed and two are still in construction. The NOS rehabilitation projects were also re-prioritized based on the results of the inspection. An additional phase of CCTV inspection of the NOS and other large size sewers is planned. Although the CIP includes projects to rehabilitate major conveyance sewers, no assurance can be given that future sewer failures will not occur. See “Wastewater System Capital Improvement Program – Current Major Projects of the Wastewater System Capital Improvement Program – Current Projects – Secondary Sewer Renewal Program” herein for a description of the City’s program for replacing portions of the Collection System, including renewals of secondary sewers.

Hyperion Service Area. The Hyperion service area consists of a series of local, collector and interceptor sewers terminating at the HWRP. The seven main interceptor sewers in the Hyperion service area are the Central Outfall Sewer (“COS”), the Coastal Interceptor Sewer (“CIS”), the East Central Interceptor Sewer (“ECIS”), the Northeast Interceptor Sewer (“NEIS”), the North Central Outfall Sewer (“NCOS”), the NOS, and the North Outfall Replacement Sewer (“NORS”).

Hyperion Water Reclamation Plant. The existing HWRP, designed for an average flow of 450 mgd, currently treats an average flow of approximately 259 mgd. The HWRP has a total wet weather flow capacity of 850 mgd. The HWRP provides secondary treatment utilizing the pure oxygen activated sludge process. See “Wastewater System Capital Improvement Program – Current Major Projects of the Wastewater System Capital Improvement Program” herein.

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**CITY OF
LOS ANGELES, CALIFORNIA
WASTEWATER SYSTEM**



Donald C. Tillman and Los Angeles-Glendale Water Reclamation Plants. The DCTWRP is designed to provide tertiary treatment for an average dry weather flow of 80 mgd and a peak wet weather flow of 160 mgd. The purpose of the DCTWRP is to treat all of the wastewater flow from the Additional Valley Outfall Relief Sewer (“AVORS”) and the East Valley Interceptor Sewer (“EVIS”), providing flow relief for downstream reaches of the interceptor system. The LAGWRP is designed to provide tertiary treatment for an average dry weather flow of 20 mgd and a peak wet weather flow of 30 mgd. This plant is able to provide flow relief for the NOS interceptor system by treating a portion of the flow from the eastern section of the San Fernando Valley and the cities of Burbank and Glendale. Sludge produced by the two water reclamation plants is returned to the interceptor system for treatment at the HWRP. In Fiscal Year 2017-18, the DCTWRP and the LAGWRP returned a total of 7.3 mgd of sludge to the HWRP for treatment.

Terminal Island Service Area and Water Reclamation Plant. The service area for the TIWRP consists of the Harbor area of the City located approximately 20 miles south of downtown Los Angeles. This area includes the communities of Wilmington and San Pedro, Terminal Island, and a portion of Harbor City. As it is geographically isolated from the rest of the City, this area requires a separate collection, treatment and disposal system. The TIWRP is designed to treat an average dry weather flow of 30 mgd and a peak wet weather flow of 55 mgd. The TIWRP has provided tertiary treatment since December 1996. The TIWRP also contains advanced wastewater purification facilities that use microfiltration and reverse osmosis to recycle eleven mgd of wastewater. Reclaimed water from the TIWRP is sold to DWP, which then sells the water for its own account.

System Wastewater Flow

The following table sets forth the System wastewater flows for Fiscal Years 2008-2009 through 2017-18 for each treatment plant. The overall decrease in wastewater flow over the last decade is attributable to water conservation efforts. The System’s projected operating results set forth in Table 22 include the existing reduction in wastewater and additional annual reductions of 0.37 percent in wastewater contributed by the System customers in Fiscal Year 2018-19 and for the remainder of the projection period. This 0.37 percent annual rate of reduction is reduced from recent historical annual rates of reduction. See “Financial Operations of the Wastewater System” herein for a description of the effects of the City’s conservation efforts.

TABLE 2
HISTORIC WASTEWATER FLOW
(Amounts in Million Gallons Per Day)

Fiscal Year Ended June 30	HWRP	LAGWRP	DCTWRP	TIWRP	TOTAL
2009	314	19	48	16	397
2010	300	20	48	16	384
2011	300	20	47	16	383
2012	288	20	46	14	368
2013	291	19	47	14	371
2014	279	19	50	15	363
2015	265	18	43	16	342
2016	252	17	46	14	329
2017	258	17	50	13	338
2018	259	17	45	12	333

Source: Bureau of Sanitation.

Subscribing Agencies

Universal Terms Contracts. The City currently provides wastewater conveyance, treatment and disposal services on a wholesale basis to 20 agencies (the “Agencies”) pursuant to Universal Terms Contracts. The Agencies include the cities of Beverly Hills, Burbank, Culver City, El Segundo, Glendale, La Cañada Flintridge, Long Beach, San Fernando and Santa Monica, the Crescenta Valley Water District, the Las Virgenes Municipal Water District, several Los Angeles County Sanitation Districts, the community of Marina Del Rey and Universal City. Service charges to the Agencies are based on the costs of the City’s amalgamated wastewater facilities, including the costs of the four water reclamation plants, the costs of sewers with diameters of 36 inches or larger and of pumping stations and appurtenances connected to those sewers, and half the costs of sewers with diameters that are 30 to 36 inches and of the pump stations and appurtenances connected to those sewers.

The Universal Terms Contracts include the following key provisions: (i) the Agencies will pay shares of the costs of the City’s amalgamated wastewater system facilities regardless of which facilities actually treat and convey their wastewater, (ii) the Agencies’ shares of treatment costs will reflect the flow and quality of their wastewater, (iii) the Agencies’ shares of conveyance costs will reflect their flows and distances to the treatment plants, (iv) the Agencies’ charges will be based on their actual wastewater flow and quality, (v) there will be no limitation on the wastewater that an Agency can discharge into the System, (vi) the Agencies and the City will share the connection fee income paid by new customers discharging to the System, (vii) interest and penalties will be added to late payments by the Agencies, (viii) each Agency may have access to a share of the reusable water produced by the City’s water reclamation plants, and (ix) the contract will have a thirty-year term, except that the parties may initiate renegotiations after ten years for certain changed conditions. All of the Universal Terms Contracts are in effect through 2029. The City expects that wastewater service to the Agencies will be extended beyond 2029 pursuant to renegotiated contracts in part because of the large economies of scale available in the System, the difficulty associated with siting and permitting smaller treatment plants serving just the Agencies, and the high cost of connecting the Agencies’ sewer systems to other regional wastewater systems.

Sewage Disposal Contracts. The City also serves nine other agencies (each, an “SDC Entity” and together with the Agencies, the “Entities”) on a wholesale basis pursuant to the older Sewage Disposal Contracts (“SDCs” and, together with the Universal Terms Contracts, the “Wastewater Service Contracts” or “WSC”). The nine SDC Entities operating under the older SDCs account for 0.3 mgd, which is 0.07% of the 29 Entities’ total average flow in Fiscal Year 2017-18. These customers include the Veteran’s Administration and several small SDC Entities. Although each SDC varies somewhat as to its terms and conditions, in general each SDC requires payment of operation and maintenance expenses and capital costs attributable to those components of the sewer system used by the SDC Entity. See “Financial Operations of the Wastewater System – Sewer Rates and Revenues – *Wastewater Service Contracts*” herein for a description of Revenues relating thereto.

Flow Contributed by the Entities. The Entities contributed approximately 14 percent of the System flow in Fiscal Year 2017-18. The five largest Entities (Beverly Hills, Culver City, Glendale, Los Angeles County Sanitation District Number 4, and Santa Monica) accounted for approximately 79 percent of the 29 Entities’ total flow. The next five largest Entities accounted for approximately 14 percent of the Entities’ total flow. The following table sets forth the largest Entities and the flow contributed by each.

TABLE 3
MAJOR SUBSCRIBING ENTITIES AND FLOW CONTRIBUTED
Fiscal Year 2017-18

Entities	Actual Flow (mgd) ⁽¹⁾
Glendale	13.30
Santa Monica	11.32
Los Angeles County Sanitation District #4	3.80
Culver City	3.62
Beverly Hills	3.58
San Fernando	1.54
Crescenta Valley Water District	1.46
El Segundo	1.40
Marina Del Rey	1.27
Universal City	0.78
Los Angeles County Sanitation District #5	0.66
Burbank ⁽²⁾	0.51
Los Angeles County Sanitation District #16	0.40
Las Virgenes Municipal Water District	0.34
Veterans Administration	0.26
Los Angeles County Sanitation District #9	0.24
All Others	0.44
Total	44.92

Source: Bureau of Sanitation.

⁽¹⁾ “mgd” means million gallons per day.

⁽²⁾ Reflects the flow that was used in billing the City of Burbank for its wastewater service. However, this amount may be revised due to a dispute between the City and the City of Burbank over flow monitoring issues. The City of Burbank has withheld payment, of approximately \$29.6 million, for its wastewater service pending resolution of the issues. An independent consultant has prepared a report evaluating the monitoring issues. The City and the City of Burbank will begin negotiations in determining the net flow from the City of Burbank that will be used in billing in the City of Burbank.

Other Treatment Facilities. The City of Burbank independently owns and operates a wastewater treatment facility capable of treating up to 9 mgd of wastewater flow. The remaining flow and the biosolids from the City of Burbank’s plant are deposited into the System. The City of Burbank could expand its facilities to treat all of the wastewater now produced in the City of Burbank. However, any biosolids generated by the City of Burbank could still be discharged to the System for treatment and disposal.

The City of Glendale is responsible for 50 percent of the operation and maintenance expenses and 50 percent of non-expansion related capital improvement costs associated with the LAGWRP that is owned and operated by the City. The City is responsible for the remainder of the operation and maintenance expenses and non-expansion related capital improvement costs and all expansion related capital improvement costs associated with this plant.

Contract Receipts. The following table sets forth WSC cash receipts from the 29 Entities for Fiscal Years 2013-14 through 2017-18. These amounts constituted approximately 7% of total System revenues in Fiscal Year 2017-18. The City and the City of Burbank have appointed an independent consultant that has prepared a report evaluating the disputed flow monitoring issues.

TABLE 4
SEWER CONSTRUCTION AND MAINTENANCE FUND
CONTRACTUAL WASTEWATER SERVICES RECEIPTS
CASH BASIS (UNAUDITED)
(in Thousands)

Wastewater Service Contract Receipts	Fiscal Year Ended June 30				
	2014	2015	2016	2017	2018
Operation and Maintenance	\$19,291	\$18,459	\$18,822	\$24,303	\$19,975
Capital ⁽¹⁾	12,153	17,703	24,174	22,343	13,642
Total ⁽²⁾	<u>\$31,444</u>	<u>\$36,162</u>	<u>\$42,996</u>	<u>\$46,646</u>	<u>\$33,617</u>

Source: City of Los Angeles, Department of Public Works – Office of Accounting, from records of the City Controller.

⁽¹⁾ Beginning in 2014, the Entities' shares of the System's capital costs have increased as the total capital costs of the System have increased. In addition, the proportion of capital costs that were billable to the Entities (*i.e.*, the costs associated with treatment and larger conveyance projects) have increased as the City has focused its resources on treatment projects that are billable to the Entities rather than the previous emphasis on replacing smaller sewers to meet its CSSA (herein defined) goals. Receipts from the Entities were reduced in Fiscal Year 2017-18 because of reduced reconciliation invoices paid by the Entities in Fiscal Year 2017-18 for service in Fiscal Year 2016-17 and because \$11.5 million for the City of Glendale's share of the cost of LAGWRP was billed too late for the City of Glendale to pay in Fiscal Year 2017-18.

⁽²⁾ Total may not equal sum of components due to rounding.

ORGANIZATION AND MANAGEMENT OF THE SYSTEM

General

The City is the planning agency, owner and operator of the System. The governing body consists of the Mayor, who is chief executive of the City, and a 15-member full-time City Council, which is the legislative body. The Mayor, the members of the City Council, the City Controller and City Attorney are elected officials.

The Board of Public Works manages the Department of Public Works, which administers the City's water pollution control policy and is responsible for operation of the following bureaus: Contract Administration, Engineering, Sanitation, Street Lighting and Street Maintenance Services. The Board of Public Works is composed of five full-time salaried members appointed by the Mayor for a term of five years.

The Board of Public Works advertises and invites proposals for bids, awards contracts for the construction of public facilities, and coordinates the issuance of certain activity permits for use of City-owned property.

Office of Accounting

The Office of Accounting of the Board of Public Works (the "Office of Accounting") provides accounting and financial services to the Department of Public Works for all of its funds and programs, including the SCM Fund and the wastewater program. The Office of Accounting bills and collects revenues from grant agencies and recipients of City services, processes appropriation and encumbrance budgetary documents, initiates payments to contractors, service providers, other City departments and employees, and assures expenditure compliance within appropriations. The Office of Accounting also prepares SCM Fund financial reports and statements, analyzes and provides information on accounting and financial matters, and operates systems to provide general ledger and cost data to departmental users.

Bureau of Engineering

The Bureau of Engineering prepares environmental assessments, preliminary designs, final plans and specifications and estimates for all storm drains, sewers, wastewater treatment plants, bridges, service yards and other public improvements. The Bureau of Engineering handles all contract documents and certain contractual relationships for the aforementioned items during construction. The Bureau of Engineering acquires rights of way and easements required for the various City projects, negotiates and administers short-term rentals of property acquired by the City, sells City-owned properties and examines titles and processes title transfers. For major design projects, such as the current Donald C. Tillman Advanced Water Purification Facility (the “AWPF”) and the rehabilitation of the NOS, the Bureau of Engineering’s staff is augmented through the use of engineering consultants. The City Engineer directs the operations of the Bureau of Engineering and is assisted by the Chief Deputy City Engineer and various Deputy and Division Engineers.

Bureau of Sanitation

The Bureau of Sanitation is responsible for the operation and maintenance of all facilities required for the conveyance, treatment, and disposal of wastewater, including various technical services related to wastewater. The Bureau of Sanitation also has responsibility for the collection and disposal of refuse and other solid waste and for maintenance of local storm drains.

A Director, Chief Operating Officer, Chief Financial Officer, and four Assistant Directors, who together constitute Bureau of Sanitation’s Executive Office, head Bureau of Sanitation. The Chief Operating Officer is in charge of the HWRP, DCTWRP, LAGWRP and TIWRP; the Chief Financial Officer is in charge of administration and finance; and there are Assistant Directors in charge of the Collection System, engineering services and watershed management; Technical Services; Solid Resources Operations; and Solid Resources Program Development. The Chief Operating Officer and the Chief Financial Officer report directly to the Director.

Wastewater treatment plant operations and maintenance activities are the responsibility of plant managers assigned to each of the four treatment plants. The manager of the Wastewater Collection Systems Division is responsible for operating the pump stations and for routine and emergency maintenance on both the separate sanitary sewer and local storm drain systems. The manager of Wastewater Engineering Service Division is responsible for integrated planning for the System.

Technical Services includes five divisions with wastewater functions. The Regulatory Affairs Division monitors legislation, renews and updates permits, and serves as liaison with the various regulatory agencies on matters affecting the Bureau of Sanitation’s operations and facilities. The Environmental Monitoring Division is responsible for treatment plant performance monitoring, water quality monitoring, and reporting functions. The Industrial Waste Management Division conducts industrial waste discharge ordinance compliance monitoring and enforcement. The Information/Control Systems Division produces and maintains the data processing and information control systems. The Industrial Safety and Compliance Division develops and implements training and safety programs.

The Financial Management Division handles financial matters including the development and implementation of policies and procedures.

Bureau of Contract Administration

General. The Bureau of Contract Administration is responsible for administering contracts and permits for construction of all public works projects, including providing inspection services at construction

sites, preparing statements of payments due on contracts, recommending acceptance of public improvement projects, and reviewing contractor compliance with affirmative action and minority business enterprise requirements on City projects.

Contractor Procurement. The City contracts for a variety of services related to the wastewater program, including general engineering consulting services, project design, construction management and scheduling and construction. The Fiscal Year 2018-19 Capital Program includes approximately 147 separate projects, which require the procurement of many contractors. Construction contracts are awarded by competitive bid and require satisfactory bonds. All firms doing business with the City must show proof of insurance in amounts as determined by the City Risk Manager. Required insurance includes but is not limited to general liability, automobile liability and worker's compensation. Additionally, a waiver of subrogation is generally required. Any firm doing business with or in the City must comply with the City business tax statutes.

WASTEWATER SYSTEM CAPITAL IMPROVEMENT PROGRAM

General

The Wastewater System Capital Improvement Program (the "CIP") is an ongoing, ten-year, capital expenditure program. The general objectives of the CIP are to meet federal and State requirements and City policy regarding water pollution control, to provide satisfactory levels of service to users of the System, and to maintain the integrity of the System. The CIP currently includes such improvements to the System as the installation of major interceptor sewers, the renovation or replacement of other major sewers and pumping stations, and the modernization and upgrading of wastewater treatment or reclamation facilities. The City estimates that the total non-labor cost for these projects will be approximately \$1.68 billion during the five-year period from Fiscal Years 2018-19 through 2022-23.

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Prior Year Expenditures

The following table sets forth the unaudited capital expenditures made by the City for the CIP from Fiscal Years 1986-87 through 2017-18.

TABLE 5
WASTEWATER SYSTEM CAPITAL IMPROVEMENT PROGRAM EXPENDITURES
Fiscal Years 1986-87 through 2017-18⁽¹⁾ (Unaudited)
(in Thousands)

Fiscal Year Ended June 30	System-Wide Collection and Pumping	Wastewater Treatment			Major Capital Improvement ⁽⁴⁾	Capital Labor ⁽⁵⁾	Total ⁽⁶⁾
		Hyperion	Other ⁽³⁾	Total			
Prior Years ⁽²⁾	\$2,179,292	\$1,939,438	\$399,961	\$2,339,399	\$4,518,691	\$1,532,948	\$6,051,639
2010	104,190	27,188	21,489	48,677	152,867	75,538	228,405
2011 ⁽⁷⁾	89,859	72,023	23,618	95,641	185,500	67,769	253,269
2012 ⁽⁷⁾	57,569	30,398	10,699	41,097	98,666	60,402	159,068
2013	71,938	32,266	6,480	38,746	110,684	77,519	188,203
2014	72,059	23,751	20,520	44,271	116,330	74,290	190,620
2015	67,512	58,671	12,458	71,129	138,641	75,547	214,188
2016	126,622	71,180	50,236	121,416	248,038	108,031	356,069
2017	98,532	56,161	58,160	114,321	212,853	107,134	319,987
2018	146,700	61,000	31,200	92,200	238,900	115,069	353,969
Total	<u>\$3,014,273</u>	<u>\$2,372,076</u>	<u>\$634,821</u>	<u>\$3,006,897</u>	<u>\$6,021,170</u>	<u>\$2,294,247</u>	<u>\$8,315,417</u>

Source: Bureau of Sanitation and Office of Accounting.

⁽¹⁾ Actual expenditures on a cash basis. Includes the costs of issuance for bonds issued to finance capital improvements.

⁽²⁾ Includes capital improvements from Fiscal Year 1986-87 through 2008- 09.

⁽³⁾ Includes LAGWRP, DCTWRP, and TIWRP projects.

⁽⁴⁾ Represents the sum of System-wide collection and pumping expenditures and wastewater treatment expenditures.

⁽⁵⁾ Includes retirement contributions for System staff who work on the CIP. See "Financial Operations of the Wastewater System – Retirement and Other Postemployment Benefits Contributions" herein for a description of the System's contributions, through the City, to LACERS.

⁽⁶⁾ Represents the sum of major capital improvement expenditures and capital labor expenditures.

⁽⁷⁾ Capital expenditures in Fiscal Year 2011-12 were reduced from capital expenditures for prior years pending the outcome of the rate adjustment process.

Current Major Projects of the Wastewater System Capital Improvement Program

Current Projects. The following projects are currently included in the CIP and some of the projects are expected to be funded in whole or in part from proceeds of the Series 2018-A Subordinate Bonds. The cost estimates for these projects that are set forth below may increase and the expected dates of completion for these projects may be delayed due to unexpected events, circumstances or conditions. The schedule of rate increases that have been approved and the SCM Fund's bonding capacity are sufficient to fund these projects. See "– Financing Plans for the Wastewater System Capital Improvement Program" herein. Portions of the projects described below consist of Green Projects to be financed with proceeds of the Series 2018-A Subordinate Bonds. See "Plan of Finance" herein.

Wastewater Control System Replacement Projects. The City has five projects to replace and upgrade the existing distributed control system and supervisory control and data acquisition system at an estimated cost of \$89 million, of which \$21 million remains to be spent. Construction of the projects began in January 2012, with completion scheduled by Fiscal Year 2019-20.

Venice Pumping Plant Dual Force Main. The City is constructing a dual force main to handle the peak wet weather flow at the pumping plant. The estimated cost for the construction phase of this project is \$89 million, of which \$61 million remains to be spent. Completion of the project is scheduled in Fiscal Year 2020-21.

Secondary Sewer Renewal Program. In addition to the specific projects described above, the City's Secondary Sewer Renewal Program ("SSRP") will continue to be a large portion of the CIP. The City plans to continue the program for the foreseeable future, following the completion of the projects included in the Collection System Settlement Agreement ("CSSA") on June 30, 2014. The majority of these projects will be renewals of secondary sewers. The SSRP includes 54 projects to be funded in Fiscal Years 2018-19 through 2023-24, which projects are projected to cost \$181 million.

Clean Water Campus. The City is planning the construction of a "Clean Water Campus" to provide office space and parking for Bureau of Sanitation staff currently working in a leased facility. The estimated cost for the construction phase of this project is \$54 million. The construction phase of the project is scheduled to begin in Fiscal Year 2020-21, with completion scheduled in Fiscal Year 2021-22.

Additional Projects. In addition to the above, the City plans to spend \$1,360 million through Fiscal Year 2022-23 to fund over 200 additional projects. These projects include sewer rehabilitations, new sewers and rehabilitations and process enhancements at the four treatment plants.

Proposed CIP Expenditures. The Bureau of Sanitation annually prepares a Wastewater System Capital Improvement Expenditure Program budget for the System, which is included for funding in the City's current adopted budget. The following table sets forth a summary of the proposed CIP expenditures for Fiscal Years 2018-19 through 2022-23. See "Financial Operations of the Wastewater System – Water Usage – *General*" herein. The City continually monitors its revenues and billable wastewater volume and adjusts the capital program accordingly.

TABLE 6
SUMMARY OF PROPOSED CAPITAL IMPROVEMENT PROGRAM
Fiscal Years 2018-19 through 2022-23
(in Thousands)

Fiscal Year Ending June 30	Major Capital Improvement⁽¹⁾			Sub-Total Non-Labor	Capital Labor⁽³⁾	Total
	Collection and Pumping	Wastewater Treatment⁽²⁾	System- wide			
2019	\$159,300	\$153,800	\$16,600	\$ 329,700	\$ 91,400	\$ 421,100
2020	187,900	160,200	10,600	358,700	92,100	450,800
2021	184,800	135,100	10,200	330,100	95,400	425,500
2022	136,400	182,500	10,700	329,600	98,900	428,500
2023	158,000	165,900	4,800	328,700	102,500	431,200
Total	\$826,400	\$797,500	\$52,900	\$1,676,800	\$480,300	\$2,157,100

Source: Bureau of Sanitation.

(1) Estimated.

(2) Includes the HWRP, LAGWRP, DCTWRP, and TIWRP projects.

(3) Includes retirement contributions for System staff who work on the CIP. See "Financial Operations of the Wastewater System – Retirement and Other Postemployment Benefits Contributions" herein for a description of the System's contributions, through the City, to LACERS (herein defined). Capital Labor does not include non-labor costs such as Expense & Equipment.

Integrated Resources Plan. In 2006, the City completed an Integrated Resources Plan (“IRP”) for the period through Fiscal Year 2019-20 that evaluated the needs of the System in conjunction with water reclamation, groundwater recharge, and stormwater management. Some of the projects set forth in the IRP are also projects to be completed pursuant to the City’s CIP. The timing and cost of specific projects depends on actual and projected wastewater flow and other factors affecting operation and maintenance. Additional projects may be required pursuant to the IRP depending on system flow, regulatory requirements and other factors. The IRP proposes capital improvements in the last three years of the plan (Fiscal Years 2017-18 through 2019-20) that are currently estimated to cost \$150 million. As described above, the CIP includes a total of \$1.68 billion of capital projects through Fiscal Year 2022-23. The City completed a five-year review of the IRP in June, 2012. The review resulted in the delay of certain projects and a reduction of capital expenditures due to the decline in wastewater flows. For a discussion of the projected funding sources for capital projects pursuant to the IRP, see “– Financing Plans for the Wastewater System Capital Improvement Program” below.

One Water LA Plan, Formerly Known as the Integrated Resources Plan. There are currently two phases to the Plan, with Phase 1 consisting of the development of initial planning baselines and the establishment of guiding principles and Phase 2 consisting of development of projects and policies for coordinated water management and facilities planning citywide, updated facilities plans for stormwater and wastewater, and guidance for updates of other future master plans citywide. Phase 1 was completed in 2015 and Phase 2 has an expected plan launch in fall 2018. Projects and policies developed as part of the Plan may result in the deferral or elimination of projects set forth in the IRP.

Program Review

The Bureau of Sanitation is responsible for final decisions relating to Wastewater Program costs and priorities. A Program Review Committee (“PRC”) consisting of the Director, Chief Operating Officer, Assistant Directors, and Chief Financial Officer of the Bureau of Sanitation and the Wastewater Deputy City Engineer annually evaluates the CIP and meets monthly to consider any changes affecting the scope, cost, schedule, and overall implementation of the program. From time to time, the City Controller audits various departments and bureaus of the City. One such audit of the Bureau of Sanitation, dated January 15, 2009 (“Controller’s Audit”), found that the Bureau of Sanitation has adequately planned for infrastructure needs to serve the City’s wastewater demands and the CIP for the System addresses the facilities needed to collect, treat and dispose of the City’s wastewater.

A 2016 Controller’s audit evaluated the Bureau of Sanitation’s recycled water program. The audit recommended partnering with DWP in expanding relationships with nearby water districts, pursuing more capital funding from the State, increasing the capture of stormwater and upgrading treatment infrastructure.

Financing Plans for the Wastewater System Capital Improvement Program

There are four primary funding sources available for the CIP: (i) System Revenues, (ii) Wastewater Service Contracts, (iii) proceeds of debt issuances, and (iv) Federal Emergency Management Agency (“FEMA”) and other federal grants and reimbursements.

System Revenues derived from user fees will continue to finance a portion of capital improvements. Wastewater service contract capital payments made under agreements or contracts with 29 regional entities include reimbursement for certain capital improvements and related engineering and contract administration costs. Debt financing (primarily revenue bonds and commercial paper) will provide supplemental funds required by the CIP. The City estimates that a total of approximately \$1.4 billion of the CIP expenditures from Fiscal Years 2018-19 through 2022-23 will be financed through the issuance of bonds, notes or other forms of indebtedness.

The Outstanding Senior Lien Bonds and Subordinate Bonds were issued pursuant to the Charter of the City and the Revenue Bond Law of 1941. Pursuant thereto, the voters of the City authorized the issuance of wastewater system revenue bonds and notes in an aggregate principal amount of \$3.5 billion. The voters of the City subsequently approved a new Charter which became effective July 1, 2000. Under the new Charter, revenue bonds and notes of the City may be issued in accordance with the Procedural Ordinance and without any further authorization by the voters of the City. The Series 2018 Bonds will be issued pursuant to the Charter of the City and the Procedural Ordinance.

The City had \$95 million aggregate principal amount of outstanding loans from the Clean Water State Revolving Fund (the “SRF”) as of August 2018. The City’s existing SRF Clean Water loans will be paid through Fiscal Year 2024-25. The SRF Clean Water loans are secured on a basis subordinate to all outstanding and hereinafter issued Senior Lien Bonds and the Subordinate Bonds, including Wastewater System Commercial Paper Notes.

On July 30, 2018, the City submitted a Letter of Interest (“LOI”) to the United States Environmental Protection Agency (the “USEPA”) for financing under the Water Infrastructure Finance and Innovation Act (“WIFIA”) for the AWPf project and three related projects at DCTWRP. The project, scheduled to be completed in June 2024, will provide high quality recycled water for groundwater recharge. The LOI anticipates WIFIA funding of \$176.4 million for the project. A State Revolving Fund Loan would provide \$27.0 million for the project, with the remaining project cost funded by other debt and cash from Revenues.

On January 17, 1994, a 6.7 magnitude earthquake centered in Northridge, California, caused widespread damage to commercial and residential structure. Since the earthquake, the SCM Fund had systematically made repairs to the parts of the System that were damaged. Much of this work was eligible for reimbursement from the Federal Emergency Management Agency (FEMA) and the California Office of Emergency Services (CalOES).

During Fiscal Year 2017-18, the CAO worked on closing out the disaster assistance grant and distributed the final installment of funds sent by FEMA/CalOES to the various City departments affected by the earthquake. On June 26, 2018, the CAO transferred \$3.33 million from the Disaster Trust Fund to the SCM Fund. Of this amount, \$2.26 million was paid by the State, while the remaining \$1.07 million was from FEMA. This brings the total revenue collected from FEMA/CalOES to \$201.1 million. Since there are no further revenues from FEMA and the State, this brings final resolution to the reimbursements requests for the costs incurred to repair damages to the System.

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The following table sets forth the projected major funding sources for the CIP for Fiscal Years 2018-19 through 2022-23.

TABLE 7
PROJECTED MAJOR FUNDING SOURCES FOR
WASTEWATER SYSTEM CAPITAL IMPROVEMENT PROGRAM⁽¹⁾
(in Thousands)

Description	Fiscal Year Ending June 30					Total
	2019	2020	2021	2022	2023	
Net Debt Financing ⁽²⁾	\$299,970	\$269,970	\$274,970	\$284,970	\$279,970	\$1,409,850
Grants / FEMA ⁽³⁾	—	—	—	—	—	—
WSC ⁽⁴⁾ Capital Payments	25,865	35,021	27,227	16,863	9,015	113,990
System Revenues ⁽⁵⁾	136,000	173,000	181,000	178,000	182,000	850,000
Interest Income	4,828	4,901	4,714	4,890	4,840	24,173
Use of available fund balances	(45,563)	(32,092)	(62,411)	(56,223)	(44,625)	(240,913)
Total ⁽⁶⁾	<u>\$421,100</u>	<u>\$450,800</u>	<u>\$425,500</u>	<u>\$428,500</u>	<u>\$431,200</u>	<u>\$2,157,100</u>

Source: Bureau of Sanitation.

⁽¹⁾ Positive amounts represent a draw-down of funds. Negative amounts represent an increase in funds. Amounts attributable in each fund vary from time to time depending on projects included in the then-current CIP.

⁽²⁾ Reflects use of proceeds of Bonds and/or Wastewater System Commercial Paper Notes in the indicated Fiscal Year. See Table 22 hereof for projected debt financings and assumptions relating thereto.

⁽³⁾ Bureau of Sanitation aggressively pursues grant opportunities, however, to be conservative; those grants are not reflected until they have been secured.

⁽⁴⁾ Wastewater Service Contracts.

⁽⁵⁾ System Revenues assume rate increases of 4.5% annually beginning in Fiscal Year 2020-21. Rate increases after Fiscal Year 2020-21 have not yet been approved by the City Council.

⁽⁶⁾ Excludes prior fiscal year's ending fund balance. Total may not equal sum of components due to individual rounding.

FINANCIAL OPERATIONS OF THE WASTEWATER SYSTEM

Sewer Rates and Revenues

General. The City's user fee system consists of a sewer service charge, industrial wastewater surcharge and fees, a sewerage facilities charge, wastewater service contracts and miscellaneous fees, as summarized below. The City has approved rates which will increase through Fiscal Year 2020-21. These rates and charges were predicated on assumptions of expected volume of wastewater operations. In addition to the foregoing fees and charges, the City recovers the cost of System operations and maintenance (including replacement) and a portion of major capital expenditures through federal Clean Water and FEMA Grants, interest earnings and miscellaneous revenues.

- *Sewer Service Charge:* This charge is based on metered water usage and includes reduced rates for low income households and a compensating surcharge for non-low income households and commercial customers. Revenues from the Sewer Service Charge ("SSC") constitute the largest component of the System's total operating receipts, having comprised over 85.3% of total operating receipts of the System annually from Fiscal Years 2013-14 through 2017-18. Revenues from the SSC are anticipated to be approximately 81% of Revenues for Fiscal Year 2018-19.
- *Wastewater Service Contracts:* The wastewater service contracts with the Entities provide for cost reimbursement of capital and operation and maintenance expenses. Revenues from

WSC operation and maintenance payments are anticipated to be 7.3 percent of Revenues for Fiscal Year 2018-19.

- *Industrial Wastewater Surcharge and Fees:* The Quality Surcharge Fee is designed to recover the costs related to suspended solids (“SS”) and biochemical oxygen demand (“BOD”) strengths above normal or domestic strength values as well as costs for administering and maintaining the surcharge program. Industrial Wastewater Permit Application Fees are designed to recover the cost required to process permit applications for applicable users. Inspection and Control Fees are designed to recover the costs of necessary inspections of permitted users. Significant Industrial User fees recover a portion of additional costs incurred in the monitoring and inspection of certain industrial users subject to EPA categorical pretreatment requirements. Revenues from industrial wastewater surcharge and fees are anticipated to be approximately 2.5 percent of estimated Revenues for Fiscal Year 2018-19.
- *Sewerage Facilities Charge:* The Sewerage Facilities Charge (“SFC”) is designed to recover the cost of the System capacity required by new sewer connections and increases in capacity required by current System users. Revenues from SFC are anticipated to be approximately 2.1 percent of Revenues for Fiscal Year 2018-19.
- *Miscellaneous Fees:* These fees include bonded sewer fees, septage fees, sewer tap fees, and other miscellaneous revenue sources.

Pursuant to the Municipal Code of the City, all revenues derived from these user fees and charges are deposited into the SCM Fund and expended “only for sewer and sewage-related purposes, including but not limited to industrial waste control and water reclamation purposes.” All interest earnings on moneys held in the SCM Fund are retained in the Fund. The methodology for developing the fee schedules for the above outlined charges is governed in part by the Municipal Code of the City of Los Angeles and the SWRCB, acting on behalf of the United States Environmental Protection Agency (“US EPA”).

While the Municipal Code requires that the income from the fees and charges assessed for sewer services equal the overall cost of operation, maintenance, coverage and capital improvements of the System, the SWRCB and the US EPA impose additional requirements, relating to cost recovery, on specific components of the City’s wastewater income structure. In accordance with State and federal guidelines, operation and maintenance costs, including renewal and replacement (“OM&R”), are recovered solely from the OM&R component of the SSC, the OM&R component of the industrial waste surcharge and inspection and control fees, the OM&R component of the significant industrial user fee and the OM&R component of the sewage disposal contract fees. Specific revenue calculation requirements and policies for specific components of the City’s sewer charges are described below.

Sewer Service Charge. The City currently imposes a SSC based on a rate of \$5.11 per 100 cubic feet of wastewater discharged into the System. As described below, the City adopted a series of annual SSC rate increases effective from April 2012 through Fiscal Year 2020-21. The adopted SSC rate increases are expected to provide approximately \$1.1 billion in additional revenues from Fiscal Years 2018-19 through 2027-28 to fund additional capital projects and debt financing relating thereto, taking into account the most recent projections of billable wastewater volume. The City previously projected \$1.7 billion in additional revenues from the adopted rate increases to fund additional capital projects and debt financing for the ten-year period from Fiscal Years 2017-18 to 2026-27. The decrease in projected revenues reflect reductions in wastewater flow, as well as one fewer adopted future rate increases in the ten year period. It is assumed that billable wastewater volume will continue to decrease at a rate of 0.37 percent per year, which is equal to the average reduction in the past two years. See “– Water Usage – General” herein. The

SSC is expected to provide approximately \$626.8 million in revenue for Fiscal Year 2018-19. See “–Projected Statement of Revenues and Expenditures” herein. The Bureau of Sanitation has hired a consultant to prepare a wastewater rate study to propose a series of annual rate increases beginning on July 1, 2021. The study is also evaluating possible changes to the rate structure to make SSC revenue less sensitive to decrease in wastewater volume.

The following table sets forth the current SSC rate, the annual SSC rate increases adopted by the City to be effective on July 1, 2019 and July 1, 2020.

TABLE 8
SEWER SERVICE CHARGE RATE INCREASES

<u>Effective Date</u>	<u>SSC Rate (\$/hcf)</u>	<u>Percentage Increase from Prior Year</u>
Current Rate	\$5.11	6.5%
July 1, 2019	5.44	6.5
July 1, 2020	5.80	6.5

The determination of the SSC for residential customers, including multiple family dwellings up to four units, is based on winter water usage, which is established annually to determine each residential customer’s minimum daily water consumption. Once established, each residential customer’s minimum daily water consumption is presumed to closely approximate the sewer discharge and will be used to compute the SSC for the ensuing Fiscal Year. Qualifying low-income residential customers receive a 31 percent discount on the first 1,800 cubic feet of bimonthly wastewater volume. Low-income discounts are offset by a 0.84 percent surcharge applied to the base SSC of all other users who do not qualify as low-income residential customers and by the City’s General Fund.

The winter water use method does not apply to commercial customers, including multiple family dwellings of five or more units, industrial, governmental and other non-residential users, who are billed at the rate of \$5.11 per 100 cubic feet of 93 percent of total metered water usage effective July 1, 2018. The default percentage discharge may be adjusted within a range of 90 to 94 percent based on DWP updates to its water conservation policies, which currently includes a mandatory water conservation ordinance that imposes increased rates on water usage above certain specified levels. Prior to April 6, 2012, the default percentage discharge was 90 percent. The default percentage discharge was subsequently increased to 93 percent to reflect the use of less irrigation water, which resulted in a higher percentage of the metered water used entering the sewer. Users whose water does not enter the sewer system are not billed for that water usage.

The ten largest customers of the System for Fiscal Year 2017-18 provided approximately 5.7 percent of the SSC revenue in that year. The following table sets forth the SSC for each of the ten largest customers:

TABLE 9
SEWER SERVICE CHARGE BILLED TO
TEN LARGEST CUSTOMERS
Fiscal Year 2017- 2018

User	Customer Type	SSC Billed
City of Los Angeles	Government	\$ 7,386,802
Los Angeles Unified School District	School district	6,454,310
County of Los Angeles	Government	4,955,747
Phillips 66 Company	Petroleum product refiner	4,117,877
University of California – Los Angeles	Education	3,223,414
Anheuser-Busch, LLC	Brewing company	2,187,432
University of Southern California	Education	1,802,390
Baxalta U.S. Inc.	Biopharmaceutical Company	1,311,882
Park La Brea	Apartment Complex	1,228,492
ERP Operating, LP	Property maintenance; real estate	1,189,910
Total		<u>\$33,858,256</u>

Source: Bureau of Sanitation.

Quality Surcharge Fees, Inspection and Control Fees, Industrial Wastewater Permit Application Fees and Significant Industrial User Fees. Pursuant to Section 64.30 of the Municipal Code of the City and the Revenue Program Guidelines for Wastewater Agencies published by the SWRCB, Division of Water Quality, the City assesses a Quality Surcharge Fee (“QSF”) on users of the wastewater system whose wastewater discharge strength, as measured by SS and BOD, is higher than 265 milligrams per liter of BOD and/or 275 milligrams per liter of SS (domestic strength). Treatment of “high strength” wastewater results in additional operating costs, such as the cost of additional chemicals, power and solids storage capacity and final disposal. Since July 1, 2018, the QSF rates have been \$0.533/lb for BOD and \$0.536/lb for SS.

The City has adopted a series of annual QSF rate increases that will go into effect through Fiscal Year 2020-21. The increases from July 1, 2018 through July 1, 2020 are expected to provide approximately \$18 million in additional revenues over the next ten years. The QSF is expected to provide approximately \$10.5 million in revenue for Fiscal Year 2018-19. See “– Projected Statement of Revenues and Expenditures” herein.

The current QSF rate and the annual QSF rate increases adopted by the City are set forth in the following table.

TABLE 10
QUALITY SURCHARGE FEES RATE INCREASES

Effective Date	BOD Rate (\$/pounds of BOD)	Percentage Increase from Prior Year	SS Rate (\$/pounds of SS)	Percentage Increase from Prior Year
Current Rate	\$0.533	6.5%	\$0.536	6.5%
July 1, 2019	0.567	6.5	0.571	6.5
July 1, 2020	0.604	6.5	0.608	6.5

Most of the QSF revenue is attributable to certain large customers of the System. The largest QSF revenue contributor in Fiscal Year 2017-18 was Darling International, Inc., with a total surcharge of

\$463,656. Grifols Biologicals, Inc. was the second largest contributor with a total surcharge of \$428,230. Baxalta US Inc., Juanita's Foods, and American Linen Supply Company followed with total surcharges of \$371,113, \$277,462 and \$176,269 in Fiscal Year 2017-18, respectively. These five customers accounted for 9.9 percent of the QSF revenue.

The wastewater strength unit costs applied to QSF customers are also applied to users who participate in the low-strength SSC and "zero-based" QSF program. Under this program, users with one or both wastewater strength parameters below domestic strength values can petition for a "low-strength" SSC rate that includes only the flow component of the unit SSC. These low-strength customers are then billed for the strength component of the SSC by paying a "zero-based" QSF equal to the treatment cost for the actual concentrations of BOD and SS in their discharge.

The current "low-strength" SSC rate and the annual "low-strength" SSC rate increases adopted by the City through Fiscal Year 2020-21 are set forth in the following table.

TABLE 11
"LOW-STRENGTH" SSC RATE INCREASES

<u>Effective Date</u>	<u>"Low-Strength" SSC Rate (\$/hcf)</u>	<u>Percentage Increase From Prior Year</u>
Current Rate	\$3.546	6.5%
July 1, 2019	3.777	6.5
July 1, 2020	4.022	6.5

In addition to the strength charges, when applicable, the City charges three other industrial waste related fees, including an Inspection and Control Fee for each industrial user ("IU") in possession of a valid Industrial Wastewater Permit. This fee is designed to recover the cost of inspecting and monitoring IUs and is set by ordinance. The Inspection and Control Fee currently ranges from \$75 to \$4,470 per IU per year based on the number of site visits that are needed for each class of IUs. The City administers the Industrial Waste Source Control Program to reduce the introduction of all regulated pollutants and prevent the discharge of all prohibited pollutants into the sewer system. All IUs must obtain permits to discharge into the System. For Fiscal Year 2017-18, 16,840 local IUs were permitted to discharge to the System. Permit Application Fees are currently \$544. The City also has established Significant Industrial User ("SIU") fees. All IUs with discharges in excess of 25,000 gallons per day of process wastewater, and all IUs that are subject to the Federal Categorical Pretreatment Standards established by the US EPA regardless of their discharge amounts, are classified as SIUs. There are 178 SIUs currently regulated by the City. Existing SIU fees range from \$3,388 to \$6,399, depending on the SIU classification. The City has adopted a series of annual increases through Fiscal Year 2020-21 for the three fees described in this paragraph. The scheduled increases and percentage increase are the same as those set forth in Table 10. The City estimates that the QSF, inspection and control fees, permit application fees and SIU fees will account for approximately 2.8 percent of estimated Revenues for Fiscal Year 2018-19.

The City has implemented a commercial and industrial grease control ordinance, known as the Fats, Oils and Grease Control Program ("FOG Control Program"). The goal of this program is to reduce the amount of grease that accumulates in sewers, leading to blockages and potential overflows. As of June 30, 2018, approximately 9,120 food service establishments ("FSEs") were regulated under the FOG Control Program. These businesses are required to obtain an Industrial Wastewater Permit, pay a one-time application fee of \$544 and pay an annual Inspection and Control Fee of \$373.

As of June 2018, the City also permits and regulates approximately 1,672 dental offices in the City to control the potential discharge of certain heavy metals into the sewer system. These offices must obtain an Industrial Wastewater Permit and follow best management practices (“BMPs”) for capture of certain elements. Dental offices meeting the BMPs are inspected every five years and businesses not complying with the BMPs are inspected every year and are subject to higher fees.

Sewerage Facilities Charge. The SFC is a fee collected when a customer is initially connected to the City’s sewer system. The “System Buy-In Approach” is used to determine SFCs for new connections and increased usage of the System. The parameters used to calculate the SFC are set forth in an ordinance adopted by the City Council. These parameters permit charges for wastewater strength to be determined separately. A customer’s SFC is based on two measures of wastewater strength, BOD and SS, in addition to the customer’s flow. This approach determines the SFC based on flow and strength proportionate to shares of the equity of the wastewater system, as originally contributed by the existing system customers. The SFC is based on the reproduction cost, less depreciation value of the existing facilities, and the applicable portion of wastewater system reserve funds, minus the outstanding debt of the wastewater system. Revenue from the SFC is dependent on growth and new construction within the City.

The SFC base rates are currently \$344 per 100 gallons per day of flow, \$159 per pound per day of BOD, and \$147 per pound per day of SS. Applying the base rates to the sewage generation factors for typical three and four-bedroom single-family residences results in SFCs of \$950 and \$1,136, respectively.

Pursuant to the Municipal Code of the City, the Board of Public Works is authorized to issue refund credits to qualifying SIUs for unused capacity if: (1) the SFC payment was made and the current occupant of the property for which the SFC payment was made is an SIU, (2) the SIU is also an owner of the property for which the payment was made, (3) the flow from the property is less than the amount for which SFC payment was made, (4) the SIU can demonstrate that the reduced amount of flow was caused by the use of water conservation practices, pretreatment of discharge, or use of environmentally responsible practices and (5) the SIU, at the time of submission of the written claim, is not delinquent in payment of any monies owed with respect to sewer, water course and drains charges, including SSCs. The City issued no refund credits for Fiscal Year 2017-18 and, as of September 1, 2018, has no authorized future credits. However, future credits are possible if additional SIUs are granted refund credits.

Wastewater Service Contracts. The City provides wastewater conveyance, treatment, and disposal services to 29 local Entities pursuant to Sewage Disposal Contracts and Universal Terms Contracts executed and in force with each Entity. The capital charge component of Wastewater Service Contracts payments is not treated as Revenue to the SCM Fund and is not available to pay debt service on the Senior Lien Bonds or the Subordinate Bonds, including the Series 2018 Bonds. These contracts generally extend through the useful life of the facilities which transport or treat the respective Entity’s wastewater. However, all Sewage Disposal Contracts are subject to renegotiation as described below. See “The Wastewater System – Subscribing Agencies” herein.

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Historical Sewer Rates and Charges

The following table sets forth the City's SSC, QSF and SFC from Fiscal Years 2013-14 through 2017-18.

TABLE 12
SEWER CONSTRUCTION AND MAINTENANCE FUND RATES AND CHARGES
Fiscal Years 2013- 2014 through 2017-18

Fiscal Year Ended June 30	Sewer Service Charge⁽¹⁾⁽⁵⁾	Quality Surcharge Fees⁽²⁾		Sewerage Facilities Charge (per 100 gal. avg. flow)⁽³⁾	Typical Monthly Single Family Residential SSC⁽⁴⁾
		BOD	SS		
2014	\$3.73	\$0.393	\$0.395	\$413.00	\$29.84
2015	3.97	0.416	0.419	413.00	31.76
2016	4.23	0.441	0.444	413.00	32.57
2017	4.51	0.470	0.472	413.00	34.73
2018	4.80	0.500	0.503	413.00	33.60

Source: City of Los Angeles, Bureau of Sanitation.

⁽¹⁾ This charge is based on dollars per 100 cubic feet (hcf or hundred cubic feet) of billable wastewater volume. For residential customers, including multiple-family dwellings up to four units, this charge is applied to each customer's minimum daily water usage during the winter water use period. For commercial customers, including multiple family dwellings of five or more units, this charge was applied to 93% of total metered water usage. See "– Sewer Rates and Revenues" herein for a description of adjustments to the default percentage discharge for commercial customers through Fiscal Year 2020-21.

⁽²⁾ The surcharge is based on a rate per pound of BOD or SS in excess of domestic strength wastewater 265 mg/L BOD and 275 mg/L SS.

⁽³⁾ Sewerage Facilities Charge includes strength charges.

⁽⁴⁾ These figures do not reflect effects of low-income assistance program. Amounts based on average billable wastewater volumes of approximately 8.0 hcf per month for Fiscal Years 2013-14 and 2014-15, and 7.7 hcf per month for Fiscal Years 2015-16 and 2016-17 and 7.0 hcf per month in Fiscal Year 2017-18. The typical charges are higher than shown previously because they are now calculated by dividing the billable wastewater volume for single family residential customers by the total number of service points rather than by the number of accounts. A service point is a location where wastewater service is provided. There are more accounts than service points because a service point can have more than one account as customers discontinue and establish service during a year. This results in higher typical charges when the charges are based on service point rather than on accounts.

⁽⁵⁾ The rates and charges, except for the SFC, will increase each year thereafter until after July 1, 2020. See "– Sewer Rates and Revenues" herein.

Rate Setting Process

The City is required by the General Resolution to establish rates and charges for the use of the System to produce Net Revenues in each year at least equal to 125 percent of actual debt service on all Senior Lien Bonds in such year, and by the Subordinate General Resolution to establish rates and charges to produce Net Revenues in each year at least equal to 110 percent of actual debt service on Senior Lien Bonds and Subordinate Bonds, in such year. The SSC, the QSF, the SFC, Industrial Waste Inspection and Control Fees, Bonded Sewer Fees and other miscellaneous fees and charges are established by ordinance adopted by a majority vote of the City Council and approved by the Mayor and become effective after a posting period of 30 days from the date of its publication.

The Bureau of Sanitation annually reviews the System's rates and charges as part of the budgetary process. The Mayor and City Council may enact rate increases as part of the budgetary process or at any time upon recommendation by the Bureau of Sanitation and City Administrative Officer. The Mayor is required each year to submit a proposed budget to the City Council by April 20. The proposed budget is prepared by the City Administrative Officer and reflects the Mayor's budget priorities as established by the Mayor's budget policy letter distributed to City departments early in the Fiscal Year.

The Mayor's proposed budget is reviewed by the Budget and Finance Committee of the City Council, which recommends the proposed budget, with any modification, to the City Council. The City Council is required under the City Charter, to adopt the proposed budget, as modified, by June 1. The Mayor has five working days after adoption to veto any items modified by the City Council. The City Council then has five working days to override by a two-thirds vote any items changed by the Mayor.

The adopted budget is subject to mid-year revisions to reflect passage of the State budget and any resulting increases or decreases in State payments to the City, any changes in revenue projections and unexpected adjustments in expenditures.

The City has adopted a series of rate increases for the SSC, SFC and QSF that will become effective through Fiscal Year 2020-21 without further action by the City. See “– Sewer Rates and Revenues” herein. The City complied with the notice and hearing requirements of Proposition 218 (see “– Proposition 218” below) in setting the new rates for the SSC and the Quality Surcharge Fee, the only user fees to which Proposition 218 applies.

The City has begun studies of potential future rate increases for the SSC and QSF beginning in Fiscal Year 2021-22.

Proposition 218

On November 5, 1996, California voters approved an initiative known as the Right to Vote on Taxes Act (“Proposition 218”) that added Articles XIIC and XIID to the California Constitution. Proposition 218 limits the application of property-related fees and charges and requires them to be submitted to property owners for approval or rejection, after notice and public hearing. Proposition 218 also extended the initiative power to reducing or repealing local property-related fees and charges, regardless of the date such fees and charges were imposed. Fees and charges for sewer, water and refuse collection services are excepted from the voter approval provisions of Proposition 218 pursuant to Article XIID. Because water and sewer charges are similarly treated under Article XIID, the City believes that the judicial determinations with respect to water charges, as described below, would also apply to sewer charges.

Section 1 of Article XIIC requires majority voter approval for the imposition, extension or increase of general taxes and Appendix H Section 2 thereof requires two thirds voter approval for the imposition, extension or increase of special taxes. Section 3 of Article XIIC expressly extends the initiative power to give voters the power to reduce or repeal local taxes, assessments, fees and charges, regardless of the date such taxes, assessments, fees or charges were imposed. Appendix H Section 3 expands the initiative power to include reducing or repealing assessments, fees and charges, which had previously been considered administrative rather than legislative matters and therefore beyond the initiative power. This extension of the initiative power is not limited by the terms of Article XIIC to fees imposed after November 6, 1996, the effective date of Proposition 218, and absent other legal authority could result in the reduction in any existing taxes, assessments or fees and charges imposed prior to November 6, 1996.

“Fees” and “charges” are not expressly defined in Article XIIC or in SB 919, the Proposition 218 Omnibus Implementation Act enacted in 1997 to prescribe specific procedures and parameters for local jurisdictions in complying with Article XIIC and Article XIID (“SB 919”). However, on July 24, 2006, the California Supreme Court ruled in *Bighorn-Desert View Water Agency v. Verjil (Kelley)* (the “*Bighorn Decision*”) that charges for ongoing water delivery are property-related fees and charges within the meaning of Article XIID and are also fees or charges within the meaning of Section 3 of Article XIIC. The California Supreme Court held that such water service charges may, therefore, be reduced or repealed through a local voter initiative pursuant to Section 3 of Article XIIC.

In the *Bighorn Decision*, the California Supreme Court did state that nothing in Section 3 of Article XIIC authorizes initiative measures that impose voter-approval requirements for future increases in fees or charges for water delivery. The California Supreme Court stated that water providers may determine rates and charges upon proper action of the governing body and that the governing body may increase a charge which was not affected by a prior initiative or impose an entirely new charge. The Supreme Court further stated in the *Bighorn Decision* that it was not holding that the initiative power is free of all limitations and was not determining whether the initiative power is subject to the statutory provision requiring that water service charges be set at a level that will pay debt service on bonded debt and operating expenses. Such initiative power could be subject to the limitations imposed on the impairment of contracts under the contract clause of the United States Constitution. Additionally, SB 919 provides that the initiative power provided for in Proposition 218 “shall not be construed to mean that any owner or beneficial owner of a municipal security, purchased before or after [the effective date of Proposition 218] assumes the risk of, or in any way consents to, any action by initiative measure that constitutes an impairment of contractual rights” protected by the United States Constitution. No assurance can be given that the voters of the City will not, in the future, approve initiatives which repeal, reduce or prohibit the future imposition or increase of assessments, fees or charges, including the City’s SSC, which are a significant source of Revenues pledged to the payment of debt service on Series 2018 Bonds.

Notwithstanding the fact that the SSC may be subject to reduction or repeal by voter initiative undertaken pursuant to Section 3 of Article XIIC, the City has covenanted to establish, fix, prescribe and collect rates, fees and charges in connection with the use of the System which meet the requirements of the Resolutions and in accordance with applicable law.

Article XIID defines a “fee” or “charge” as any levy other than an *ad valorem* tax, special tax, or assessment imposed upon a parcel or upon a person as an incident of property ownership, including a user fee or charge for a property-related service. A “property-related service” is defined as “a public service having a direct relationship to a property ownership.” In the *Bighorn Decision*, the California Supreme Court held that a public water agency’s charges for ongoing water delivery are fees and charges within the meaning of Article XIID. Article XIID requires that any agency imposing or increasing any property-related fee or charge must provide written notice thereof to the record owner of each identified parcel upon which such fee or charge is to be imposed and must conduct a public hearing with respect thereto. The proposed fee or charge may not be imposed or increased if a majority of owners of the identified parcels file written protests against it. As a result, the local government’s ability to increase such fee or charge may be limited by a majority protest.

In addition, Article XIID also includes a number of limitations applicable to existing fees and charges including provisions to the effect that (i) revenues derived from the fee or charge shall not exceed the funds required to provide the property-related service; (ii) such revenues shall not be used for any purpose other than that for which the fee or charge was imposed; (iii) the amount of a fee or charge imposed upon any parcel or person as an incident of property ownership shall not exceed the proportional cost of the service attributable to the parcel; and (iv) no such fee or charge may be imposed for a service unless that service is actually used by, or immediately available to, the owner of the property in question. Property-related fees or charges based on potential or future use of a service are not permitted.

Further, pursuant to *Capistrano Taxpayers Association v. City of San Juan Capistrano*, tiered rates charged to different classes of customers must be calculated based on the actual costs of providing the service. In *Capistrano Taxpayers Association*, the Court of Appeal held that Proposition 218 requires public water agencies to calculate the actual costs of providing water at various levels of usage and that Article XIID, section 6, subdivision (b)(3) of the California Constitution, as interpreted by the California Supreme Court in *Bighorn* provides that water rates must reflect the “cost of service attributable” to a given parcel. The Court of Appeal further stated that “[w]hile tiered, or inclined rates that go up progressively in relation

to usage are perfectly consonant with [A]rticle XIID, section 6, subdivision (b)(3) and Bighorn, the tiers must still correspond to the actual cost of providing service at a given level of usage.”

The City believes that current sewer fees and charges that are subject to Proposition 218 should comply with the provisions thereof or are immune from legal challenge and that the City will continue to comply with the rate covenant set forth in the General Resolution in conformity with the provisions of Article XIID of the California State Constitution. The City also believes that its sewer connection charges, Industrial Wastewater Permit Application Fees, Inspection and Control Fees and Sewerage Facilities Charges are not subject to the requirements of Article XIID. Should it become necessary to increase the sewer fees and charges above current levels, the City would be required to comply with the requirements of Article XIID in connection with such proposed increase. No assurance can be given that the voters of the City will not, in the future, approve initiatives which repeal, reduce or prohibit the future imposition or increase of assessments, fees or charges, including the City’s service fees and charges.

Implementing legislation pertaining to Proposition 218 may be introduced in the State legislature from time to time. Moreover, Proposition 218 was adopted as a measure that qualified for the ballot pursuant to California’s initiative process. From time to time other initiative measures could be adopted to modify Proposition 218. No assurance may be given as to the terms of such legislation or initiatives or their potential impact on the various fees and charges that constitute Revenues of the System, however, there could be a material negative impact on the City’s ability to collect such Revenues.

On November 2, 2010, voters of the State approved Proposition 26 (“Proposition 26”), which amended Article XIIC of the State Constitution to expand the definition of a “tax” so that certain fees and charges imposed by governmental entities are subject to approval by two-thirds of each house of the State Legislature or approval by local voters, as applicable. Proposition 26 lists several exceptions to such definition of “tax”, including property-related fees imposed in accordance with Article XIID (Proposition 218), reasonable regulatory costs of performing investigations and inspections, and charges imposed as a condition of property development. The City believes that Proposition 26 does not apply to any of the User Fees imposed by the City because such fees are within various exceptions to Proposition 26.

Water Usage

General. The ability of the System to operate effectively is affected by the water supply for the City. DWP’s Los Angeles Aqueduct supply deliveries have, over the years, been reduced to fulfill environmental restoration commitments in the Mono Basin and Owens Valley. As a result, DWP has increased its purchase of water from The Metropolitan Water District of Southern California (“MWD”), a wholesale water supplier for the Southern California region. DWP is working with MWD to develop supply reliability for the City and all of MWD’s service area. The adequacy of MWD’s overall future supply reliability is dependent upon maintaining the supply of water available to MWD from the Colorado River and northern California, through the State Water Project’s California Aqueduct operated by the State of California Department of Water Resources (“DWR”) and various projects relating to water conservation, recycled water, conjunctive use, water transfers and exchanges, groundwater recovery and seawater desalination.

The adequacy of DWP’s water supply is affected by many factors, including but not limited to annual snowpack and rainfall, population growth, water use, groundwater basin quality and recharge trends, federal and State environmental rules and regulations, environmental restoration commitments, water quality, climate change, and area of origin issues. Sustained drought conditions or low water levels could adversely affect DWP’s water supply, water rates and demand for water services. Additionally, any natural disaster or other physical calamity, including acts of terrorism, earthquake, earth movements, floods, extreme weather or gradual climate change, may have the effect of reducing water availability, quality

and/or distribution capabilities of DWP, impair the financial stability of DWP, affect infrastructure and other public improvements and private improvements and the continued habitability and enjoyment of such private improvements thus affecting revenues of DWP through damage to the Water System and to the economy of the surrounding area. See “Risk Factors – Potential Impact of Drought and Other Risks Relating to the Water Supply” herein.

In recent years the State has experienced serious drought conditions. On January 17, 2014, Governor Edmund G. Brown, Jr. declared a drought state of emergency, asked residents to reduce their water consumption by twenty percent and directed State agencies to take certain actions to ameliorate the shortage of water. On May 9, 2016, as a result of persistent severe drought conditions in many areas of the State, Governor Brown issued an executive order (the “2016 Executive Order”) that, among other things, made permanent many of the temporary conservation measures set forth in the Governor’s previous executive orders relating to the drought conditions. On April 7, 2017, as a result of the record rain and snowfall that have occurred in the State between November 2016 and March 2017, Governor Brown declared an end to the drought emergency in California (except with respect to four counties mostly located in the State’s agricultural Central Valley). However, the conservation measures put in place by the 2016 Executive Order during the drought will continue.

On October 14, 2014, Los Angeles Mayor Eric Garcetti issued Executive Directive Number Five setting a goal of reducing per-capita water use by twenty percent in the City, directing City departments to take certain actions to meet the goal, and asking City residents to take certain voluntary actions. At this time, the City’s drought control efforts will continue notwithstanding the end to the drought emergency in California.

The City previously projected \$1.7 billion in additional revenues from its adopted rate increases to fund additional capital projects and debt financing for the ten-year period from Fiscal Years 2017-18 to 2026-27. The decrease in projected revenues reflect reductions in wastewater flow through Fiscal Year 2017-18. The reduction of wastewater flow due to indoor water conservation has continued in the past two years, but at a reduced rate. Future wastewater flow will be affected by water conservation, but also by the increased numbers of customers due to continued infill development in the City. It is assumed that the wastewater volume contributed by the City’s customers will continue to decrease at 0.37 percent per year equal to the average reduction of wastewater flow treated by the City’s water reclamation plants over the past two years. No assurance can be provided that the extreme drought conditions experienced in recent years will not return. See “Risk Factors – Potential Impact of Drought and Other Risks Relating to the Water Supply” herein.

City Water Supply Plan. The City developed the 2015 Urban Water Management Plan (UWMP) with the purpose of meeting all future water demands with water supplies under average and dry year conditions. The UWMP, updated every five years, is the City’s plan for water supply and guides the decision-making process to secure a reliable water supply for the City. In addition to, and building on the UWMP and other efforts, the City recently completed the Plan which is a collaborative approach to integrated water management and aims to further the many opportunities that exist to integrate efforts and programs. The Plan provides a comprehensive strategy consisting of new project, program and policy opportunities to manage water in a more integrated, collaborative, and sustainable manner. Both plans support the overall City goals for 50% reduction of purchased imported water by 2025, and 50% local water supply by 2035.

Number of Service Points and Billable Wastewater Volume

The following table sets forth the number of wastewater system service points that were billed and the billable wastewater volume subject to SSC during the past five Fiscal Years. A service point is a

location where wastewater service is provided. There can be multiple accounts per service point in a single year, and multiple service points per account. This data has been restated to more accurately reflect the provision of wastewater services to customers. Previously, these figures were calculated based on the number of accounts that were billed.

TABLE 13
WASTEWATER SYSTEM SERVICE POINTS AND
BILLABLE WASTEWATER VOLUME

Customer Class	Number of Service Points Fiscal Year Ended June 30				
	2014	2015	2016	2017	2018⁽¹⁾
Single Family	471,533	476,675	480,665	479,069	491,229
Small Multifamily	70,778	70,583	70,128	70,128	70,408
Large Multifamily	40,311	40,567	40,491	40,280	40,982
Commercial/Industrial	52,655	53,046	52,614	52,099	53,413
All Others	4,112	4,089	4,022	3,964	3,958
Total Customers	639,389	644,960	647,920	645,540	659,990

Customer Class	Billable Wastewater Volume⁽²⁾ Fiscal Year Ended June 30				
	2014	2015	2016	2017	2018
Single Family ⁽³⁾	45,520	45,921	44,934	44,070	40,440
Small Multifamily ⁽³⁾	11,776	11,867	12,108	11,558	11,955
Large Multifamily ⁽⁴⁾	45,027	41,391	38,944	38,879	39,592
Commercial/Industrial ⁽⁴⁾	32,448	33,161	32,140	30,319	31,037
All Others	6,899	6,684	5,661	6,128	6,059
Total Billable Wastewater Volume ⁽⁵⁾	141,670	139,024	133,787	130,954	129,083

Source: Bureau of Sanitation.

⁽¹⁾ The number of service points that were billed in Fiscal Year 2017-18 increased from the previous year because of charges from prior years that were cancelled and rebilled in Fiscal Year 2017-18.

⁽²⁾ In thousands of hcf (hundred cubic feet).

⁽³⁾ Billable wastewater volume for single family and multi-family dwellings of up to four units are based on each residential customer's minimum average daily water consumption during the winter water use, further reduced by a dry weather compensation factor.

⁽⁴⁾ Billable wastewater volume for large multifamily, commercial industrial and other customers is generally equal to 93 percent of total water sales volume. All customers who can demonstrate that the billable wastewater volume is less than 74 percent of annual water sales are billed at the lower estimate.

⁽⁵⁾ Totals may not equal sum of components due to individual rounding.

The changes in billable wastewater volume from Fiscal Years 2013-14 through 2017-18 were caused in large part by the success of water conservation measures, which were mandatory beginning June 1, 2009. See “– Sewer Rates and Revenues – *Sewer Service Charge*” herein.

The following table sets forth the projected number of service points and billable wastewater volume subject to SSC for Fiscal Years 2018-19 through 2022-23.

TABLE 14
PROJECTED WASTEWATER SYSTEM SERVICE POINTS AND
BILLABLE WASTEWATER VOLUME

Customer Class	Number of Service Points				
	Fiscal Year Ended June 30				
	2019	2020	2021	2022	2023
Single Family	482,140	483,683	485,231	486,783	488,341
Small Multifamily	70,578	70,803	71,030	71,257	71,485
Large Multifamily	40,538	40,668	40,798	40,929	41,060
Commercial/Industrial	52,433	52,601	52,769	52,938	53,107
All Others	3,989	4,002	4,015	4,028	4,041
Total Customers	649,678	651,757	653,843	655,935	658,034

Customer Class⁽¹⁾	Billable Wastewater Volume⁽²⁾				
	Fiscal Year Ended June 30				
	2019	2020	2021	2022	2023
Single Family ⁽³⁾	44,687	44,521	44,356	44,191	44,026
Small Multifamily ⁽³⁾	11,001	10,961	10,920	10,879	10,839
Large Multifamily ⁽⁴⁾	37,751	37,611	37,472	37,332	37,193
Commercial/Industrial ⁽⁴⁾	30,417	30,304	30,192	30,079	29,967
All Others ⁽⁴⁾	4,758	4,740	4,723	4,705	4,687
Total Billable Wastewater Volume ⁽⁵⁾	128,614	128,137	127,663	127,186	126,712

Source: Bureau of Sanitation.

⁽¹⁾ Assumes future decline in wastewater volume of 0.37 percent per year due to water conservation equal to the annual reduction in the wastewater treated by the City's water reclamation plants in the past two years.

⁽²⁾ In thousands of hcf (hundred cubic feet).

⁽³⁾ Billable wastewater volume for single family and multifamily dwellings of up to four units are based on each residential customer's minimum average daily water consumption during the winter water use period, as adjusted by a dry weather compensation factor.

⁽⁴⁾ Billable wastewater volume is generally equal to 93 percent of total annual water sales volume, subject to adjustment in connection with DWP water conservation policy changes. See "Sewer Rates and Revenues" for a description of adjustments to the default percentage discharge for commercial customers. All customers who can demonstrate that their billable wastewater volume is less than 74 percent of annual water sales are billed at the lower estimate.

⁽⁵⁾ Totals may not equal sum of components due to individual rounding.

Billing and Collection

Sewer Service Charge. Billing and collection services for the SSC are provided by DWP. With some limited exceptions, DWP currently bills residential customers on a bimonthly basis and commercial and industrial customers on a monthly basis. DWP prepares bills covering water and electric charges and non-DWP charges (such as sewer services, solid resources fee and State and local taxes). A utility project charge associated with certain "rate reduction bonds" authorized by Assembly Bill 850, to be issued by the Southern California Public Water Authority, will also be included on the bills DWP sends to its customers. The charge has not yet been added to the utility bills because of upgrades to the billing system. The utility project charge is a separately imposed charge and will not be included in DWP and the Bureau of Sanitation revenues.

Payments are posted in the following order: overdue receivables, customer deposits, water charges (including the utility project charge associated with the rate reduction bonds), electric charges, State and

local taxes, sewer service charges, solid resources fees and bulky item fees. DWP transfers projected SSC revenue to the SCM Fund on a weekly basis based on expected revenues. The last payment of the month is adjusted for the actual revenues received for the month. A monthly billing and collection fee of \$248,400 is also subtracted from one of the weekly payments.

If a customer pays less than the amount billed for a billing period, then the payment is credited to the various utility services in the order set forth in the preceding paragraph. Payments received for the next billing period are credited first to the services in arrears, in the following order: (1) any required deposits, (2) water and electric charges, which are credited proportionally, and (3) the SSC, solid resources fee and bulky item fee, which are also credited proportionally. Remaining payments are then credited to the current services in the order set forth in the preceding paragraph. This procedure in effect brings any customer's delinquent sewer service charges current, prior to applying payments against current charges, including water and electric.

DWP policy for most customers is that when a utility accounts receivable (water or electric) in arrears is \$150 or greater, a late payment charge of 18 percent per annum is applied. When the total accounts receivable in arrears reaches \$250, a collection procedure is started. The first step in this procedure is a "final notice." This notice is mailed to the customer 20 days after the current bill's issue date, when the past due balance of the account reaches a certain threshold in arrears (varies depending on the customer's credit standing with DWP). This notice provides the customer a 'last day to pay,' typically two weeks from the date this final notice is issued.

A five-day shut off notice is issued to the customer after the 'last day to pay' date, which is approximately 37 days from the bill issue date, if the delinquent amount remains over \$250. A customer's failure to pay by the conclusion of the five-day period leads to a temporary shut off of water and/or electrical service on the first field call. Should the bill remain unpaid ten days after the initial shut off, the water and/or electrical service may be permanently discontinued if a follow-up check in the field confirms this customer is no longer at the service location.

Certain DWP customers receive water and electric service by means of a master meter which may serve multiple dwelling units. Water and electrical service to multiple dwelling unit residences served by a master meter may be disconnected for non-payment. In February 1998, DWP implemented the Utility Maintenance Program as an alternative to the termination of master-metered service. This program is an extension of the existing Rent Escrow Accounts Program. Tenants who participate in the program have the option of putting their rent into an escrow trust fund established by the Los Angeles Housing Department to maintain utility services until such time as the delinquent bill is paid in full.

Customer accounts where the water and/or electrical service are disconnected due to non-payment are monitored by DWP collections personnel. Unless a customer vacates the service location, DWP collections personnel will continue to regard the customer's account as an active account and attempt collection of the delinquent amount. Should the customer vacate the service location, a closing bill is generated which initiates further collection efforts. An outside collection agency may be used on accounts with \$10.00 to \$4,999.99 outstanding as soon as 45 days after the closing bill is issued. Accounts with \$5,000.00 or more outstanding are referred to the City Attorney for legal action. If the delinquent amount remains outstanding approximately three months after the closing bill has been issued, the amount owed is transferred into "write off", where collection efforts will be maintained for up to four years from the closing bill issue date. The four-year period may be extended by up to one year under certain circumstances.

In September 2013, DWP launched a new customer information and billing system, designed and implemented by Pricewaterhouse Coopers LLP. Immediately following the launch of the new billing system, DWP experienced numerous billing issues in connection with the new system, including, but not

limited to, (a) the inability to issue bills to customers, (b) the inability to issue accurate bills to customers, (c) an increase in estimated bills that were sent to customers where metering information was not available, and (d) the inability to generate multiple business reports, including financial reports reflecting DWP's accounts receivable.

As a result of the numerous billing issues, in November 2013, DWP temporarily adjusted its collection practices for past due balances until the problems with the new billing system could be resolved. Delayed billing and reduced collection efforts resulted in customer payments below anticipated levels. Commercial collections for past due amounts were recommenced in February 2014 and residential collections for past due amounts were recommenced in June 2014, with both efforts focused on collecting the higher balances of past due amounts. In an effort to reduce the past due balances, DWP offered a late payment penalty waiver to residential customers if such customers' balances were paid off by the end of June 2014.

Additionally, as a result of the problems with the new customer information and billing system, several class action lawsuits were instituted against DWP by ratepayers claiming damages to certain of billing issues. DWP has reached a settlement in certain of these lawsuits (Case Nos. BC565618, BC571644, BC536272, and BC577267), which the court approved. At this point, the majority of customers have received their credits and adjustments and DWP is working with a court appointed monitor to complete the analysis of the remaining customer accounts and reach compliance with various metrics agreed to by DWP to improve customer experience and ensure accurate customer billing.

DWP is the billing agent of the SCM Fund for its SSC revenues. As such, DWP maintains the records of all SSC account receivables, both collectible and uncollectible. Included in these records are the SCM Fund uncollectable SSC receivables arising from the transition to the new billing system, but are waiting to be written off until resolution of the settled lawsuits, and possibly after resolution of DWP's lawsuit filed against Pricewaterhouse Coopers LLP related to the new customer information and billing system.

There are two other pending class action lawsuits: (a) *Morski v. City of Los Angeles*, Case No. BC 568722 (the "Morski Action") and (b) *Macias, et al. v. City of Los Angeles*, Case No. BC 594049 (the "Macias Action"). The Morski Action generally alleges that DWP's practice of tiered billing violates applicable City ordinances insofar as DWP bases such tiered billing on anything other than regular actual monthly meter reads ("Non-Monthly Tiered Billing"). The Macias Action includes such Non-Monthly Tiered Billing claims, and also alleges that DWP violated California's Bane Act by threatening customers with termination of their utility services. Finally, the Macias Action broadly alleges claims that overlap with those settled by DWP in several other class actions. Both cases are in their early stages, and it is therefore difficult to estimate the potential financial exposure to DWP.

The total SSC accounts receivable were \$93.8 million as of June 30, 2017 and \$103.6 million as of June 30, 2018.

The annual rate adjustment effective July 1, 2015 was mostly offset by a 3.8 percent reduction in the billable sewage volume for Fiscal Year 2015-16. This resulted in a 2.0 percent increase in the billed SSC revenue. The Fiscal Year 2015-16 revenue remitted by DWP to the System was 7.0 percent higher than the Fiscal Year 2014-15 revenue. The five percent difference between the increased billed and remitted revenues can therefore be largely attributed to the recovery of accounts receivable from years prior to Fiscal Year 2015-16. The accounts receivable had increased due to changes in collection practices associated with implementation of DWP's new billing system. The Fiscal Year 2016-17 revenue was \$555 million, a 1.0 percent increase from the actual Fiscal Year 2015-16 revenue. The Fiscal Year 2017-18 revenue of \$589 million was a 6.1 percent increase from Fiscal Year 2016-17. The \$627 million revenue in the budget for

Fiscal Year 2018-19 assumes no further sewage volume reduction from Fiscal Year 2017-18 levels. However, since the budget was established, sewage volume has continued to decrease, though at a reduced rate from previous years. SSC revenue projections for Fiscal Years 2019-20 to 2022-23 assume a 0.37 percent annual reduction of sewage volume. The Bureau of Sanitation and DWP continue to work together to refine projections of the impact of water conservation on the SSC revenues.

The following table sets forth the SSC budgeted, billed, and collected amounts for Fiscal Years 2013-14 through 2017-18:

TABLE 15
SSC REVENUE
BUDGET, BILLINGS, AND REMITTANCE
Fiscal Year Ending June 30
(in Thousands)

Fiscal Year	Budgeted	Billed	Remitted	Billed as a Percent of Budget	Remitted as a Percent of Billed⁽¹⁾
2014 ⁽²⁾	\$542,000	\$506,884	\$491,135	93.5%	96.9%
2015 ⁽³⁾	577,000	530,147	513,931	91.9	96.9
2016 ⁽⁴⁾	541,000	540,717	549,943	99.9	101.7
2017	532,395	565,789	555,309	106.3	98.1
2018	561,010	594,365	589,046	105.9	99.1

Source: Bureau of Sanitation.

⁽¹⁾ DWP's remittance rate of SSC revenue varies from year to year and may exceed 100% because of differences in average time taken by customers to pay their bills and differences in the estimation used to calculate expected revenue versus actual revenue. The remittance rate in Fiscal Year 2015-16 reflects collection of accounts receivable in prior years.

⁽²⁾ Billings were below budgeted due to the success of water conservation measures and issues from DWP's new billing system.

⁽³⁾ Budgeted revenues in Fiscal Year 2014-15 included an assumption of recovery of \$25 million from uncollected Fiscal Year 2013-14 billings. Billed and remitted revenue increased by 4.6 percent from the previous year, reflecting a 1.9 percent reduction in the billable wastewater volume partially offsetting the effect of the annual rate adjustment effective July 1, 2014.

⁽⁴⁾ DWP previously halted their collection process once it was determined that there were significant programming issues in their new billing system. Remittances in Fiscal Years 2015-16 and 2016-17 reflect collection of prior years' accounts receivable due to resumption of DWP's collections measures consistent with their stated collections policies.

Sewerage Facilities Charge. The SFC is collected along with Bonded Sewer Fees and Tapping Fees as part of the building permit and sewer connection permit application procedures. Permits are not granted until the SFC payment has been received. The SFC, Bonded Sewer Fees, and Tapping Fees are deposited by the Department of Public Works directly into the SCM Fund as received by the City.

Industrial Waste Charges. Billings for QSF, Inspection and Control Fees and SIU Fees are prepared by the Bureau of Sanitation, Industrial Waste Management Division. All customers are billed quarterly in arrears except for dental offices that are billed annually in advance. Payments are remitted to the Department of Public Works and deposited directly into the SCM Fund. All fees that are not paid by the end of the month in which they are due become delinquent and a delinquency charge of 2.5 percent of the principal balance owed is added to the amount due. The delinquent dates are February 1, May 1, August 1 and November 1. Delinquent accounts are referred to a collection agency or to the Office of Finance for collection activities within 45 days of the delinquent date.

Wastewater Service Contract Charges. Billings under the Universal Terms Contracts and the older Sewage Disposal Contracts are prepared annually by the Department of Public Works according to the contractual obligation of each Agency or Entity (as described in "The Wastewater System – Subscribing Agencies" herein) to pay its contractual share of operation and maintenance ("O&M") expenses and capital

costs of the System. Allocations of O&M expenses and capital costs are prepared by the Bureau of Sanitation. Under contractual provisions, O&M and capital bills for those Agencies with Universal Terms Contracts are payable bimonthly during the year in which they receive service, with a later reconciled bill to adjust for actual costs. For other Entities, O&M and capital bills are payable in arrears. Some of the Sewage Disposal Contracts do not specify the timing of capital bills and, in nearly all such cases, they are billed semiannually in arrears.

The City has certain billed accounts receivable with respect to these charges. The Universal Terms Contracts between the City and most Agencies allow the City to collect late payment charges. Late payment charges are not authorized under the older contracts, which provide less than one percent of the total billings to the Agencies and other Entities. It is the City’s policy to carefully monitor its accounts receivable. If payment is not made by the contractual due date, overdue notices are sent and telephone contact made to determine why payment was not made. The City has not terminated service when an Entity failed to pay these charges because of the essential nature of the service provided to the Entities by the System. In those cases where late payments do occur, the City has imposed late charges sufficient to offset any lost revenues as a result of such delinquencies.

Labor and Employment

Several City departments and bureaus contribute labor and employee time to the operation of the System. See “Organization and Management of the System” herein. The primary labor and employment budget for the System is that of the Bureau of Sanitation, whose authorized workforce is as shown in the following table:

TABLE 16
BUREAU OF SANITATION AUTHORIZED POSITIONS

Fiscal Year Ending June 30	Authorized Number of Positions
2015	1,276
2016	1,298
2017	1,331
2018	1,300
2019	1,377

Bureau of Sanitation’s workforce is 99% unionized under a number of separate labor organizations that collectively refer to themselves as the Coalition of Los Angeles City Unions as well as the non-coalition Engineers and Architects Association. The City has memoranda of understanding that are effective through either Fiscal Year 2017-18 or 2018-19 with all unions that are part of Bureau of Sanitation. The System has not experienced any work stoppage over the past five years and does not currently anticipate any work stoppage. See Appendix A – “Certain Information Regarding the City of Los Angeles– Budget and Financial Operations – Labor Relations” attached hereto.

Retirement and Other Postemployment Benefits Contributions

The City’s annual required contribution to the Los Angeles City Employee’s Retirement System (“LACERS”) includes amounts related to the retirement benefits and other postemployment healthcare benefits (“OPEB”) of City employees who work on the System, which are attributable to the SCM Fund. See Appendix A – “Certain Information Regarding the City of Los Angeles – Budget and Financial Operations – Labor Relations” attached hereto. Such System-related expenses, including any additional

amounts relating to the Early Retirement Incentive Program, are first paid from the City's General Fund and subsequently reimbursed from the SCM Fund through application of a Cost Allocation Plan ("CAP"), which is subject to approval each year by the Federal government in connection with on-going grant compliance procedures. The CAP is based on historical data from the prior two years. Annual OPEB amounts attributable to the SCM Fund are included in the retirement calculations for the CAP rates applicable to the System.

The System's percentage share of such costs may increase or decrease from year to year depending on, among other things, the number of covered employees attributable to the SCM Fund, the overall number of City employees and the retirement benefits accruing to the respective employees. The following table sets forth retirement and OPEB contributions from the SCM Fund for Fiscal Years 2013-14 through 2017-18.

TABLE 17
SEWER CONSTRUCTION AND MAINTENANCE FUND
RETIREMENT AND OPEB CONTRIBUTIONS

Fiscal Year	Total City Contribution⁽¹⁾	Wastewater System Contribution⁽²⁾	Wastewater System Percentage
2014	367,772,000	28,780,215	7.83
2015	411,509,000	31,937,635	7.76
2016	434,639,000	32,349,557	7.44
2017	459,400,000	34,065,441	7.42
2018	450,813,000	33,277,267	7.38

Source: City of Los Angeles, Office of the City Administrative Officer.

⁽¹⁾ Total City contributions are based on the CAP, which is based on actual historical data that lags by two years and is reconciled by an adjustment factor.

⁽²⁾ Based on the City's overhead rates for the respective Fiscal Year for budget purposes.

The System's contribution to the City's pension and OPEB costs for Fiscal Year 2017-18 is expected to be \$33,277,267, which is approximately 7.38% of the City's pension cost and 3.20% of the System's budget. The City is generally projecting increases to the amount it will contribute to LACERS over the next three years. See Appendix A – "Certain Information Regarding the City of Los Angeles – Budget and Financial Operations – Los Angeles City Employees' Retirement System ("LACERS")" attached hereto for a description of the City's historical and current projected pension and OPEB contributions. The System's projected share of the City's projected contributions to LACERS are included in the pro forma statement of financial operations included herein. See "– Projected Operation and Maintenance Expenses" herein.

The City's current retirement contribution projections, as set forth in Appendix A, are based on, among other things, information provided by LACERS' actuary and LACERS' current actuarial assumptions, which are based on the results of LACERS' most recent triennial experience study. Actual retirement and OPEB costs attributable to the SCM Fund may be more or less than and may vary materially from the amounts included in the projections for the System. The System has experienced similar fluctuations in expenditures in the past and will make adjustments to revenues and expenditures as necessary to address any such changes in expenditures. There can be no assurance that the retirement and OPEB costs attributable to the SCM Fund will not materially increase.

Cash Receipts and Disbursements

The following table sets forth unaudited cash receipts and disbursements of the SCM Fund for Fiscal Years 2013-14 through 2017-18.

TABLE 18
SEWER CONSTRUCTION AND MAINTENANCE FUND
SUMMARY OF OPERATIONS AND DEBT SERVICE COVERAGE
CASH BASIS (UNAUDITED) (in Thousands)
Fiscal Year Ended June 30⁽¹⁾

	2014	2015	2016	2017	2018
OPERATING RECEIPTS					
Sewer Service Charge	\$491,135	\$513,931	\$549,943	\$555,309	\$589,046
Sewerage Facilities Charge	12,061	17,194	14,503	18,640	16,468
Industrial Waste Fees ⁽²⁾	16,222	18,294	18,174	19,607	17,221
Wastewater Service Contracts ⁽³⁾	19,290	18,459	18,822	24,303	19,975
Interest Income ⁽⁴⁾	2,448	1,803	2,901	3,737	4,700
Other	2,592	2,960	3,043	3,066	4,275
Total Operating Receipts	543,748	572,641	607,386	624,662	651,685
Non-Operating Revenues ⁽⁵⁾	16,946	14,373	19,713	14,321	33,998
TOTAL REVENUES	560,694	587,014	627,099	638,983	685,683
Less: Operating Expenses ⁽⁶⁾	286,581	283,317	270,233	288,730	308,191
NET REVENUES	274,113	303,697	356,866	350,253	377,492
DEBT SERVICE					
Senior Debt Service	\$ 97,924	\$101,423	\$106,353	\$ 85,573	\$ 78,707
Subordinate Debt					
Wastewater System Commercial Paper Notes	—	93	17	—	—
Variable and Fixed Rate Subordinate Bonds	79,074	87,033	93,170	106,329	127,700
State Revolving Fund Loan	13,605	13,605	13,605	13,605	13,605
TOTAL DEBT	\$190,603	\$202,154	\$213,145	\$205,507	\$220,012
NET REVENUES AFTER DEBT SERVICE	\$ 83,510	\$101,543	\$143,721	\$144,746	\$157,480
Debt Service ⁽⁷⁾	\$176,998	\$188,549	\$199,540	\$191,902	\$206,407
Senior Debt Service Coverage	2.80	2.99	3.36	4.09	4.80
Debt Service Coverage ⁽⁷⁾	1.55	1.61	1.79	1.83	1.83
NON-OPERATING REVENUES					
Grant Reimbursement	\$ 48	\$ 2,467	\$ —	\$ —	\$ —
State Grants – Others	—	1	194	—	—
Wastewater Service Contracts ⁽⁸⁾	12,153	17,703	24,174	22,343	13,642
FEMA Reimbursement	1,224	80	—	27,495	3,330
Interest Income on Bonds- Construction Funds	178	—	—	—	2,981
Total Non-Operating Revenues	\$ 13,603	\$ 20,251	\$ 24,368	\$ 49,838	\$ 19,953
NON-OPERATING EXPENSES					
Deposits to Escrow Accounts ⁽⁹⁾	\$ —	\$ —	\$ —	\$ 13,170	\$ —
BALANCE AVAILABLE⁽¹⁰⁾	\$ 97,113	\$121,794	\$168,089	\$181,414	\$177,433

Source: City of Los Angeles, Office of Accounting. Amounts above were prepared on a cash basis and differ from amounts in the Debt Service Compliance Report for the Fiscal Year ended June 30, 2017 (With Independent Auditor's Report Thereon) attached as Appendix E hereto, which were prepared on an accrual basis. (Footnotes continued on following page)

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- (1) This Table 18 has been restated to correctly account for the BABs and RZEDB credits.
 - (2) Includes Quality Surcharge Fees, Permit Application Fees, Inspection and Control Fees, and SIU Fees.
 - (3) Operations and maintenance portion of Wastewater Service Contract payments (excluding capital charge component, which is not treated as Revenues).
 - (4) Interest on all SCM funds except construction funds. Amounts in the SCM Fund are invested separately from amounts from the City's General Fund.
 - (5) Includes non-operating revenues considered in the debt service coverage calculation as defined in the Wastewater General Resolution. After the April 25, 2017 adoption of the Refundable Credits Amendments, the BABs and RZEDB credits are not included in the non-operating revenues considered in the debt service coverage calculation.
 - (6) Operating expenses for 12-Month Ending on June 30, 2016 and 2017 include SSC refunds of approximately \$168k and \$209k.
 - (7) Excludes SRF loan, which is subordinate to the Senior Lien Bonds, the Subordinate Bonds and the Wastewater System Commercial Paper Notes.
 - (8) This category includes only the capital portion of Wastewater Service Contract payments.
 - (9) Release of money in the Debt Service Fund and Reserve Fund in connection with the refunding of certain prior bonds.
 - (10) Amount represents surplus Revenues equal to the balance of operating and non-operating revenues available for capital costs or other purposes. This category does not include prior Fiscal Year's ending fund balance or interest on all construction funds.

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Sewer Construction and Maintenance Fund Cash Balances

The following table sets forth the cash balances of the Sewer Construction and Maintenance Fund's unrestricted and restricted funds.

TABLE 19
SEWER CONSTRUCTION AND MAINTENANCE FUND
CASH BALANCES IN ALL FUNDS (UNAUDITED)
(in Thousands)

	As of June 30				
	2014	2015	2016	2017	2018
UNRESTRICTED FUNDS					
Sewer Construction and Maintenance ⁽¹⁾	\$ 75,651	\$ 56,950	\$ 66,217	\$ 31,602	\$ 97,540
Sewer Operation and Maintenance ⁽²⁾	24,333	41,535	45,359	48,110	10,206
Sewer Capital ⁽³⁾	18,424	31,512	28,414	56,152	18,749
Construction Funds ⁽⁴⁾⁽⁵⁾	—	—	—	262,538	—
Total Unrestricted Funds	<u>\$118,408</u>	<u>\$129,997</u>	<u>\$139,990</u>	<u>\$398,402</u>	<u>\$126,495</u>
RESTRICTED FUNDS					
Construction Funds ⁽⁵⁾	\$151,903	\$252,054	\$110,364	—	\$168,576
Reserve Funds ⁽⁶⁾	101,944	108,407	108,356	\$102,413	103,807
Debt Service Funds	20,510	16,598	19,746	20,743	20,784
Operation and Maintenance Reserve	37,027	36,981	37,099	39,590	41,495
Insurance and Liability Claims Funds ⁽⁷⁾	3,000	3,000	3,000	3,000	3,000
Emergency Fund	5,000	5,000	5,000	5,026	5,017
Rebate Funds	366	366	366	366	530
Total Restricted Funds	<u>\$319,750</u>	<u>\$422,406</u>	<u>\$283,931</u>	<u>\$171,138</u>	<u>\$343,209</u>
TOTAL FUNDS	<u>\$438,158</u>	<u>\$552,403</u>	<u>\$423,921</u>	<u>\$569,540</u>	<u>\$469,704</u>

Source: City of Los Angeles, Office of Accounting, from records of the City Controller.

(1) All Revenues are deposited into this account.

(2) These funds are residual after paying O&M expenses.

(3) Grant receipts and Wastewater Service Contract capital payments are deposited into this account.

(4) The construction funds were reported as unrestricted in 2017 due to a change in the City's financial reporting practices and accounting. However, in 2018 and thereafter, the City will report the construction funds as restricted, to reflect the actual use of these funds.

(5) These funds are funded with proceeds of the Senior Lien Bonds, Subordinate Bonds, and Wastewater System Commercial Paper Notes.

(6) These funds are funded with proceeds of Senior Lien Bonds.

(7) Amounts in these funds are Operations and Maintenance Reserve allocated for insurance and liability claims.

Property, Plant and Equipment

The City has consistently invested in its property, plant and equipment. Expenditures for property, plant and equipment of the System (at cost) was \$8.0 billion in Fiscal Year 2016-17, representing an approximate 31 percent increase in investment in the last ten Fiscal Years. Net debt represented approximately 67 percent of net plant as of June 30, 2017, which is down from a high of approximately 71 percent as of June 30, 1992 and up from the percentages over most of the last ten years. The following table sets forth the City's expenditures on property, plant and equipment and the balances in the total debt attributable thereto for the last ten Fiscal Years.

TABLE 20
SEWER CONSTRUCTION AND MAINTENANCE FUND
GROWTH IN PROPERTY, PLANT AND EQUIPMENT
(in Thousands)

Fiscal Year Ended June 30	Property, Plant and Equipment (at cost)	Net Property, Plant and Equipment (depreciated)	Total Debt	Net Debt⁽¹⁾	Net Debt as Percent of Net Plant
2008	\$6,063,168	\$3,715,623	\$2,271,653	\$2,182,043	58.73%
2009	6,332,843	3,831,965	2,405,516	2,306,865	60.20
2010	6,541,977	3,891,258	2,505,709	2,409,807	61.93
2011	6,684,116	3,865,681	2,567,085	2,459,480	63.62
2012	6,804,411	3,833,969	2,507,195	2,404,503	62.72
2013	7,000,335	3,863,746	2,582,893	2,484,657	64.31
2014	7,176,030	3,895,191	2,611,225	2,509,142	64.42
2015	7,415,073	3,990,863	2,852,209	2,744,506	68.77
2016	7,660,074	4,086,529	2,750,730	2,641,228	64.63
2017	7,954,118	4,226,698	2,920,128	2,817,566	66.66

Source: City of Los Angeles, Office of Accounting.

⁽¹⁾ Total debt net of balances in debt service reserve funds.

Projected Operation and Maintenance Expenses

The following table sets forth the projection of total wastewater system operation and maintenance expenses by major service category and expense for Fiscal Years 2018-19 through 2022-23.

TABLE 21
PROJECTED OPERATION AND MAINTENANCE EXPENSES
(in Thousands)

	As of June 30				
	2019	2020	2021	2022	2023
Conveyance System	\$ 65,006	\$ 67,244	\$ 69,281	\$ 71,324	\$ 73,427
Wastewater Treatment:					
Hyperion System	146,880	151,737	156,425	160,965	165,637
Terminal Island System	23,626	24,355	25,204	25,970	26,760
Total Treatment	\$170,506	\$176,092	\$181,629	\$186,935	\$192,397
Departmental Support ⁽¹⁾	\$106,449	\$110,461	\$113,755	\$117,110	\$120,568
City Support Services ⁽²⁾	38,670	27,172	27,859	28,536	29,231
Total O&M Expenses ⁽³⁾	<u>\$380,631</u>	<u>\$380,969</u>	<u>\$392,524</u>	<u>\$403,905</u>	<u>\$415,623</u>

Source: Bureau of Sanitation.

⁽¹⁾ Includes Environmental Monitoring and Regulation, Industrial Waste Management, Wastewater Engineering Services, Executive, Administration, Financial Management, Information & Control Systems, and Industrial Safety and Compliance Divisions of the Bureau of Sanitation and other Bureau support services such as solid resources management.

⁽²⁾ Includes support services from City Departments or Offices outside of the Bureau of Sanitation. Also includes allowances for SSC refunds and billing services provided by DWP.

⁽³⁾ Total may not equal sum of components due to individual rounding.

The foregoing projection is based upon City estimates which reflect, as of the date of projection, analysis of historical costs, known and expected changes in future service requirements, increased costs due to treatment plant modifications and expanded operational procedures, and an overall estimate of future price escalation.

Projected Statement of Revenues and Expenditures

The following table sets forth a projected operations statement based on revenue and expenditure projections developed by the Bureau of Sanitation. This projected operations statement includes a number of assumptions, including that the number of customers will remain approximately the same as it is at this time and that sewage volume will decrease at an annual rate of 0.37 percent, which is a smaller annual decrease than in previous years. The volume reduction resulted from water conservation measures enacted due to the recent drought in the State. The achievement of certain results or other expectations contained in the following table involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements reflected in the following table to be materially different from any future results, performance or achievements expressed or implied by such table. Although, in the opinion of the Bureau of Sanitation, such projections are reasonable, there can be no assurance that any or all of such projections will be realized or predictive of future results.

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TABLE 22
PRO FORMA STATEMENT OF FINANCIAL OPERATIONS
UNDER INDICATED REVENUE LEVELS
(in Thousands)
Fiscal Year Ending June 30

	2019	2020	2021	2022	2023
REVENUES					
Rates As of July 1, 2017	\$602,944	\$602,038	\$598,728	\$595,744	\$592,538
Increased Rates	35,456	76,836	120,298	153,181	185,878
Total User Charges Revenue ⁽¹⁾	638,400	678,874	719,026	748,925	778,416
Other Revenue ⁽²⁾	119,416	109,035	107,569	108,958	109,617
Total Revenue ⁽³⁾	<u>\$757,816</u>	<u>\$787,909</u>	<u>\$826,595</u>	<u>\$857,883</u>	<u>\$888,033</u>
EXPENDITURES					
Operation & Maintenance Expense ⁽⁴⁾⁽⁵⁾	\$380,631	\$380,969	\$392,524	\$403,905	\$415,623
Debt Service					
Senior Lien Bonds					
Existing Senior Lien Bonds ⁽⁶⁾	54,628	58,458	76,076	86,387	52,758
Additional Senior Lien Bonds ⁽⁷⁾	0	15,375	35,550	53,481	72,572
Subordinate Bonds					
Existing Subordinate Bonds ⁽⁸⁾	144,467	138,637	117,409	111,731	141,350
Series 2018 Bonds ⁽⁹⁾	9,710	19,015	19,016	19,014	19,014
Series 2018-C Subordinate Bonds ⁽¹⁰⁾	2,125	3,924	3,909	3,916	3,916
Additional Subordinate Bonds	0	0	0	0	0
Accruals for Subsequent Years ⁽¹¹⁾	(4,523)	2,267	3,755	2,661	2,979
Wastewater System Commercial Paper Notes ⁽¹²⁾	625	5,123	6,000	6,000	6,000
SRF Clean Water Loans	13,605	13,605	13,605	13,605	13,605
Operating Reserve ⁽¹³⁾	2,429	42	1,424	1,404	1,444
Cash Financing of Construction	136,000	173,000	181,000	178,000	182,000
Additions to Minimum Operating Balance	29,954	431	(748)	709	(298)
Total Expenditures ⁽¹⁴⁾	<u>\$769,651</u>	<u>\$810,848</u>	<u>\$849,520</u>	<u>\$880,813</u>	<u>\$910,963</u>

Source: Bureau of Sanitation.

(1) Includes increases effective on each of July 1 from Fiscal Years 2018-19 through 2020-21 and assumed 4.5 percent annual increases in Fiscal Years 2021-22 and 2022-23. Assumes continued 0.37 percent annual reduction of sewage volume, reflecting the average reduction of wastewater flow treated by the City's water reclamation plants from Fiscal Years 2015-16 to 2017-18. See "– Water Usage" and "Risk Factors – Potential Impact of Drought and Other Risks Relating to the Water Supply" herein.

(2) Includes revenue from the O&M portion of wastewater service contract payments, the SFC, industrial wastewater fees, interest income on all funds except Construction Funds, bonded sewer fees, and miscellaneous revenue. For Fiscal Year 2019-20, amounts are less than for the previous year because in Fiscal Year 2019-20 "Other Revenue" includes a credit owed by the General Fund for prior overpayment for overhead expenses and an amount for Refundable Credits that will be credited to a bond fund in future years.

(3) The increase in the projected revenue for Fiscal Year 2018-19 as compared to the actual revenue for Fiscal Year 2017-18 is primarily due to increased service charge revenue following the rate increase effective July 1, 2018 together with the expected receipt of the past due service charge revenue from the City of Burbank.

(4) See Table 21 (Projected Operation and Maintenance Expenses) herein for the components of the O&M expense. Includes the System's projected share of the City's projected contributions to LACERS, based on projected contributions as of June 1, 2014. See "– Retirement and Other Postemployment Benefits Contributions" herein.

(Footnotes continued on next page.)

(Footnotes continued from previous page.)

- (5) The increase in the projected operation and maintenance expense for Fiscal Year 2018-19 as compared to the actual revenue for Fiscal Year 2017-18 is primarily due increased reimbursement to the General Fund for services provided to the SCMF, expected payout for litigation settlement, and increased salaries.
- (6) Represents principal and interest becoming due and payable on all Senior Lien Bonds issued and Outstanding in each Fiscal Year, following the refunding of the Refunded Bonds, as offset by the Refundable Credits relating to Direct Subsidy Bonds pursuant to a resolution adopted by City Council on April 25, 2017. For Fiscal Year 2018-2019, the Refundable Credits reflect an expected reduction of 6.2%, or \$365,267 as a result of the Sequester. The effect of Sequestration on Fiscal Years 2019-20 through 2022-23 is currently unknown and for the purposes of this forecast no reduction is assumed. See “Security and Sources of Payment for the Series 2018 Bonds – Amendment to the Resolutions Relating to the Refundable Credits” herein.
- (7) Assumes an interest rate of 5.00 percent for additional Senior Lien Bond issuances and 30-year amortization structured against existing debt service. Assumes bond issuances funding net construction proceeds of \$170 million, \$275 million, \$285 million, \$280 million, and \$195 million in Fiscal Years 2019-20 through 2023-24, respectively.
- (8) Represents principal and interest becoming due and payable on all Existing Subordinate Bonds issued and Outstanding in each Fiscal Year, following the delivery of the Series 2018-B Subordinate Bonds and the Series 2018-C Subordinate Bonds, and the corresponding refunding of the Series 2012-D Subordinate Bonds and termination of the Swap Agreements. See “Plan of Finance” and “– Anticipated Financings” herein.
- (9) Includes projected debt service on the 2018-A Subordinate Bonds and Series 2018-B Subordinate Bonds.
- (10) Includes projected debt service on the Series 2018-C Subordinate Bonds. Assumes an all-in interest cost of 3.0 percent on the Series 2018-C Subordinate Bonds.
- (11) Additional deposits in the Debt Service Fund; amounts are in excess of required monthly principal and interest deposits.
- (12) Reflects interest at an assumed annual interest rate of 3.0 percent on projected Wastewater System Commercial Paper Notes.
- (13) Reflects excess amounts available for deposit into the Operating Reserve.
- (14) Total may not equal sum of components due to individual rounding.

Outstanding Indebtedness

Senior Lien Bonds and Subordinate Bonds heretofore issued were issued pursuant to the City Charter and the Authorizations. Pursuant to the amended and restated charter approved by the voters of the City, additional revenue bonds and notes of the City in excess of the aggregate principal amount approved pursuant to the Authorizations may be issued upon adoption of a procedural ordinance and without any further authorization by the voters of the City. The Series 2018 Bonds are being issued pursuant to the City Charter and the Procedural Ordinance.

As of September 1, 2018, the City had \$1,022,140,000 aggregate principal amount of Existing Senior Lien Bonds Outstanding and \$1,573,970,000 aggregate principal amount of Existing Subordinate Bonds Outstanding, excluding Wastewater System Commercial Paper Notes Outstanding.

In addition, the City has also authorized a maximum of \$400,000,000 aggregate principal amount of Subordinate Bonds in the form of Wastewater System Commercial Paper Notes. The Wastewater System Commercial Paper Notes are currently supported by Letters of Credit issued by Barclays and SMBC. The maximum amount of Wastewater System Commercial Paper Notes that may be Outstanding at any particular time under the existing Letters of Credit for the Wastewater System Commercial Paper Notes is \$200,000,000. On October 16, 2018, the City Council approved the extension of the Barclays Letter of Credit in the amount of \$100,000,000 plus interest, and the substitution of the SMBC Letter of Credit with a new Letter of Credit in the amount of \$150,000,000 plus interest to be provided by Toronto-Dominion, which extension and substitution is expected to close on October 23, 2018. There are currently \$50,000,000 aggregate principal amount of Wastewater System Commercial Paper Notes Outstanding. Subsequent to the refunding described herein, no Wastewater System Commercial Paper Notes will be Outstanding. See “Plan of Finance” herein.

The following table sets forth the Outstanding Wastewater System Revenue Bonds and Wastewater System Commercial Paper Notes.

TABLE 23
CITY OF LOS ANGELES OUTSTANDING WASTEWATER SYSTEM
REVENUE BONDS AND COMMERCIAL PAPER REVENUE NOTES
(in Thousands) (as of September 1, 2018)⁽¹⁾

Issue	Amount Issued	Amount Outstanding	Final Maturity
Series 2009-A	\$ 454,785	\$ 7,445	6/1/2019
Series 2010-A	177,420	177,420	6/1/2039
Series 2010-B	89,600	89,600	6/1/2040
Series 2010-A (Subordinate)	199,790	68,140	6/1/2032
Series 2012-A (Subordinate Refunding)	157,055	99,395	6/1/2024
Series 2012-B (Subordinate Refunding)	253,880	246,365	6/1/2032
Series 2012-A (Refunding)	49,650	49,650	6/1/2024
Series 2012-C (Subordinate Refunding)	133,715	117,545	6/1/2027
Series 2012-D (Subordinate Refunding)	280,860	280,860	6/1/2032
Series 2013-A (Subordinate Refunding)	349,505	290,730	6/1/2035
Series 2013-A	149,980	149,980	6/1/2043
Series 2013-B (Refunding)	143,880	109,015	6/1/2035
Series 2015-A	188,755	188,755	6/1/2045
Series 2015-B (Refunding)	41,175	41,175	6/1/2035
Series 2015-C	100,835	100,835	6/1/2045
Series 2015-D (Refunding)	108,860	108,265	6/1/2034
Series 2015-A (Subordinate Refunding)	21,650	21,650	6/1/2024
Series 2017-A (Subordinate)	227,540	227,540	6/1/2047
Series 2017-B (Subordinate Refunding)	107,155	107,155	6/1/2039
Series 2017-C (Subordinate Refunding) (Taxable)	115,455	114,590	6/1/2039
CP Notes ⁽²⁾	200,000	50,000	
	<u>\$3,551,545</u>	<u>\$2,646,110</u>	

⁽¹⁾ Does not include the issuance of the Series 2018 Bonds, the completion of the refunding described under “Plan of Finance” herein, nor the completion of the refunding described under “– Anticipated Financings” herein.

⁽²⁾ The City has authorized a maximum of \$400,000,000 aggregate principal amount of Subordinate Bonds in the form of CP Notes. However, upon the closing of the new LOCs with Barclays and Toronto-Dominion, the maximum amount of CP Notes that may be Outstanding at any particular time will be \$250,000,000.

Annual Debt Service Requirements

The following table sets forth the amounts required in each Fiscal Year ending June 30 for the payment of principal and interest on all Outstanding Senior Lien Bonds and Subordinate Bonds.

TABLE 24
CITY OF LOS ANGELES
WASTEWATER SYSTEM REVENUE BONDS
DEBT SERVICE ON ALL SENIOR LIEN BONDS AND SUBORDINATE BONDS

Fiscal Year Ending June 30	Series 2018-A Subordinate Bonds			Series 2018-B Subordinate Bonds			Debt Service on Other Subordinate Bonds ⁽¹⁾⁽²⁾	Debt Service on All Subordinate Bonds	Debt Service on All Senior Lien Bonds ⁽¹⁾⁽³⁾	Total Debt Service on All Bonds ⁽²⁾
	Principal	Interest	Total Principal and Interest	Principal	Interest	Total Principal and Interest				
2019	\$	\$	\$	\$	\$	\$	\$ 147,731,170.96	\$ 147,731,170.96	\$ 60,519,465.10	\$ 208,250,636.06
2020							148,256,576.74	148,256,576.74	64,349,602.60	212,606,179.34
2021							127,028,238.14	127,028,238.14	81,967,102.60	208,995,340.74
2022							121,350,747.44	121,350,747.44	92,278,352.60	213,629,100.04
2023							150,969,671.54	150,969,671.54	58,649,852.60	209,619,524.14
2024							109,981,499.04	109,981,499.04	97,117,352.60	207,098,851.64
2025							148,351,434.44	148,351,434.44	61,289,852.60	209,641,287.04
2026							161,510,635.32	161,510,635.32	49,724,602.60	211,235,237.92
2027							150,811,382.52	150,811,382.52	61,546,852.60	212,358,235.12
2028							118,096,072.72	118,096,072.72	71,574,102.60	189,670,175.32
2029							123,938,790.56	123,938,790.56	65,730,852.60	189,669,643.16
2030							117,497,325.06	117,497,325.06	71,863,352.60	189,360,677.66
2031							117,171,880.96	117,171,880.96	71,863,852.60	189,035,733.56
2032							116,847,284.16	116,847,284.16	71,865,602.60	188,712,886.76
2033							70,936,222.76	70,936,222.76	71,869,602.60	142,805,825.36
2034							70,938,512.40	70,938,512.40	71,866,602.60	142,805,115.00
2035							79,283,576.66	79,283,576.66	63,237,602.60	142,521,179.26
2036							33,618,012.60	33,618,012.60	79,709,352.60	113,327,365.20
2037							33,619,917.36	33,619,917.36	78,714,847.66	112,334,765.02
2038							33,622,089.46	33,622,089.46	77,685,223.50	111,307,312.96
2039							33,619,471.66	33,619,471.66	76,621,481.06	110,240,952.72
2040							14,521,362.50	14,521,362.50	103,806,970.56	118,328,333.06
2041							14,521,562.50	14,521,562.50	63,260,150.00	77,781,712.50
2042							14,520,762.50	14,520,762.50	63,263,400.00	77,784,162.50
2043							14,523,362.50	14,523,362.50	63,261,650.00	77,785,012.50
2044							14,523,000.00	14,523,000.00	63,228,900.00	77,751,900.00
2045							14,521,662.50	14,521,662.50	63,230,150.00	77,751,812.50
2046							14,522,775.00	14,522,775.00	0	14,522,775.00
2047							14,524,500.00	14,524,500.00	0	14,524,500.00
Total	\$	\$	\$	\$	\$	\$	\$2,331,359,500.00	\$2,331,359,500.00	\$1,920,096,732.08	\$4,251,456,232.08

⁽¹⁾ Preliminary, subject to change. Includes debt service on the Series 2012-D Subordinate Bonds to be refunded by the Series 2018-B Subordinate Bonds and the Series 2018-C Subordinate Bonds. See “Plan of Finance” and “– Anticipated Financings” herein.

⁽²⁾ Assumes an all-in interest cost of 3.79 percent on the \$151,085,000 portion of the Series 2012-D Subordinate Bonds associated with the Swap Agreements, and an all-in interest cost of 3.0 percent on the remaining \$129,775,000 portion of the Series 2012-D Subordinate Bonds. It is expected that upon delivery of the Series 2018-B Subordinate Bonds and the Series 2018-C Subordinate Bonds, the Series 2012-D Subordinate Bonds will be refunded in whole and the Swap Agreements will be terminated. See “Plan of Finance” and “– Anticipated Financings” herein. Total may not equal sum of components due to individual rounding.

⁽³⁾ Does not reflect any offset for the Refundable Credits.

Variable Rate Bonds

The Series 2012-D Subordinate Bonds are variable rate obligations initially bearing an adjustable interest rate based on the London Interbank Offered Rate (“LIBOR”) index and determined in accordance with the paying agent agreement therefor (the “2012D Paying Agent Agreement”). It is anticipated that there will be no outstanding Series 2012-D Subordinate Bonds after the delivery of the Series 2018-B Subordinate Bonds and Series 2018-C Subordinate Bonds. However, the City anticipates issuing the Series 2018-C Subordinate Bonds as variable rate obligations. See “Plan of Finance” and “– Anticipated Financings” herein.

Swap Agreements

The City has entered into a Swap Agreement with The Bank of New York Mellon (the “Bank of New York Mellon”) and a Swap Agreement with Dexia Crédit Local, New York Branch (“Dexia”) (collectively, the “Swap Agreements”). Each Swap Agreement has an outstanding notional amount of \$75,542,500, for a total of \$151,085,000, and a termination date of June 1, 2028. In each swap agreement, the City pays a fixed rate of 3.34%, and the swap counterparty pays 64.1% of 1-month USD-LIBOR, adjusted weekly. As of August 31, 2018, the remaining portion of each Swap Agreement had a market value of approximately (\$8.85 million), for a combined total market value of (\$17.7 million), with negative amounts indicating a City liability in the event of a termination requiring termination payments.

Upon the delivery of the Series 2018-B Subordinate Bonds, the City will pay all or a portion of the termination payments relating to the Swap Agreements. The City will finance the termination payments with a portion of the proceeds of the Series 2018-B Subordinate Bonds, and to the extent proceeds of the Series 2018-B Subordinate Bonds are insufficient to pay all of the termination payments, then the proceeds of the Series 2018-C Bonds will be used to pay off any remaining termination payments. See “Plan of Finance” and “– Anticipated Financings” herein.

Anticipated Financings

As discussed in the “Plan of Finance” section, the City intends to issue its Wastewater System Subordinate Revenue Bonds, Variable Rate Refunding Series 2018-C. The proceeds of the City’s Wastewater System Subordinate Revenue Bonds, Variable Rate Refunding Series 2018-C are expected to be used to: (i) refund the portion of the City’s Series 2012-D Subordinate Bonds not refunded by the proceeds of the Series 2018-B Subordinate Bonds; (ii) pay any remaining termination payment with respect to the termination of the Swap Agreements; and (iii) pay certain costs of issuing the Series 2018-C Subordinate Bonds.

The City also anticipates issuing additional Senior Lien Bonds and Subordinate Bonds (including Wastewater System Commercial Paper Notes) from time to time to finance capital improvement projects. See “Wastewater System Capital Improvement Program – Financing Plans for the Wastewater System Capital Improvement Program” herein.

Cash Basis Debt Service Coverage

The following table sets forth the projected cash basis debt service coverage for Fiscal Years 2018-19 through 2022-23. Such debt service coverage projections are based on a number of assumptions, including that the number of customers will remain approximately the same as it is at this time. The achievement of certain results or other expectations contained in the following table involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements reflected in the following table to be materially different from any future results, performance

or achievements expressed or implied by such table. Although, in the opinion of the Bureau of Sanitation, such projections are reasonable, there can be no assurance that any or all of such projections will be realized or predictive of future results.

TABLE 25
DEBT SERVICE COVERAGE PROJECTIONS
(in Thousands)
Fiscal Year Ending June 30

	2019	2020	2021	2022	2023
Net Revenues – Current Rates ⁽¹⁾	\$341,730	\$329,804	\$313,054	\$299,701	\$285,091
Additional Revenue from Future Rate Increases ⁽²⁾	35,456	76,836	120,298	153,181	185,878
Additional Interest Income ⁽³⁾	(1)	300	719	1,096	1,441
Projected Net Revenue	<u>\$377,185</u>	<u>\$406,940</u>	<u>\$434,071</u>	<u>\$453,978</u>	<u>\$472,410</u>
Debt Service					
Existing Senior Lien Bonds ⁽⁴⁾	\$ 54,628	\$ 58,458	\$ 76,076	\$ 86,387	\$ 52,758
Additional Senior Lien Bonds ⁽⁵⁾	0	15,375	35,550	53,481	72,572
Total Senior Lien Bonds Debt Service	<u>\$54,628</u>	<u>\$73,833</u>	<u>\$111,626</u>	<u>\$139,868</u>	<u>\$125,330</u>
Existing Subordinate Bonds ⁽⁶⁾	\$144,467	\$138,637	\$117,409	\$111,731	\$141,350
Series 2018 Bonds ⁽⁷⁾	9,710	19,015	19,016	19,014	19,014
Series 2018-C Subordinate Bonds ⁽⁸⁾	2,125	3,924	3,909	3,916	3,916
Additional Subordinate Bonds	0	0	0	0	0
Wastewater System Commercial Paper Notes ⁽⁹⁾	625	5,125	6,000	6,000	6,000
Total Debt Service on All Bonds and Wastewater System Commercial Paper Notes	<u>\$211,555</u>	<u>\$240,534</u>	<u>\$257,960</u>	<u>\$280,529</u>	<u>\$295,610</u>
Projected Debt Service Coverage					
Total Senior Debt	690%	551%	389%	325%	377%
Total Senior and Subordinate Debt	178%	169%	168%	162%	160%

Source: Bureau of Sanitation.

(1) Net Revenues, as defined by the General Resolution based on rates and charges currently in effect.

(2) Includes projected increases effective on each of July 1 from Fiscal Year 2018-19 through 2023-24. There is no assurance that debt service coverage for Fiscal Years 2018-19 through 2022- 23, inclusive, will be at the levels currently projected.

(3) Includes assumed annual interest earnings of 2.03 percent on increased reserve funds resulting from proposed additional Bond sales.

(4) Reflects principal and interest becoming due and payable on all Senior Lien Bonds issued and Outstanding in each Fiscal Year, following the refunding of the Refunded Bonds, as offset by the Refundable Credits pursuant to a resolution adopted by City Council on April 25, 2017. For Fiscal Year 2018-19, the Refundable Credits reflect an expected reduction of 6.2%, or \$365,267 as a result of the Sequester. The effect of Sequestration on Fiscal Years 2019-20 through 2022-23 is currently unknown and for the purposes of this forecast no reduction is assumed. See “Security and Sources of Payment for the Series 2018 Bonds – Amendment to the Resolutions Relating to the Refundable Credits” herein.

(5) Principal and interest becoming due and payable on projected additional revenue bonds in each Fiscal Year. Assumes an interest rate of 5.00 percent for additional Senior Lien Bond issuances and 30-year principal amortization structures. See Table 22 for additional information on projected debt issuance.

(6) Represents principal and interest becoming due and payable on all Subordinate Bonds issued and Outstanding in each Fiscal Year, following the refunding of the Series 2012-D Subordinate Bonds and the termination of the Swap Agreements.

(7) Estimated debt service on the Series 2018-A Subordinate Bonds and the Series 2018-B Subordinate Bonds, including the associated termination of the Swap Agreements.

(8) Estimated debt service on the Series 2018-C Subordinate Bonds, assuming an all-in cost of funds of 3.0%.

(9) Interest at an assumed annual interest rate of 3.0 percent for Fiscal Year 2018-19.

REGULATORY REQUIREMENTS AFFECTING OPERATION OF THE SYSTEM

General

The City's wastewater operations are subject to regulatory requirements relating to the Clean Water Act. The regulatory requirements are administered by the US EPA through the SWRCB. Regulations of these agencies deal primarily with the quality of effluent which may be discharged from the four wastewater treatment facilities, the recycling of residual solids generated by the wastewater treatment plants, the reuse of reclaimed water for irrigation and industrial uses to conserve potable water, and the nature of waste material (particularly industrial waste) discharged into the collection system. As a condition of having received federal EPA grant funds under the Clean Water Act for planning, design, and construction of various wastewater projects, the City is subject to additional requirements. Among the grant-related requirements are guidelines which must be followed concerning planning methodologies, design criteria, procurement, construction activities, and financing of facilities.

To comply with federally mandated effluent quality and disposal criteria, the City must operate its wastewater treatment facilities according to discharge limitations and reporting requirements set forth in NPDES discharge permits. All wastewater treatment plants currently comply with the requirements of their respective NPDES permits.

To comply with other federal regulations concerning the discharge of waste materials into the sewer system, the City must administer and enforce industrial pretreatment limitation standards upon users of the system. The City has had an industrial waste program in effect since the early 1940s. The City has been approved by the State and the US EPA to administer its own industrial pretreatment program.

The City's industrial waste ordinance sets forth the water quality standards that industrial users must meet and provides enforcement procedures for violators. The Industrial Waste Management Division of the Bureau of Sanitation is currently responsible for monitoring industrial sites, food service establishments, and dental offices located in the City. In addition, each Entity is required to permit and monitor all industries within its respective service area. Agencies served under the Universal Terms Contracts are now contractually required to meet the federal pretreatment requirements.

Another grant-related regulatory requirement is that the City has an approved user charge system. Such user charge regulations require the City to recover annual operation, maintenance, and replacement costs from users of the system in a proportionate manner according to the customer's level of use. Such factors as volume, flow rate, and strength of wastewater are to be considered in determining proportionate use. User fee rates are reviewed periodically and established at a level necessary to generate sufficient revenues to recover the annual operation, maintenance and replacement costs. User fee rates for all users, except Entities still served by the old SDCs and certain City operations are established to recognize the volume and strength characteristics of wastewater contributed to the system. The SWRCB approved the City's original Revenue Program on September 23, 1987. The Agencies also must file their respective revenue programs with the SWRCB in connection with the City's Revenue Program. In order to comply with SWRCB revenue program requirements for proportional cost recovery by user class, the outdated SDCs are being renegotiated to reflect both volume and wastewater strength requirements.

In addition to federal requirements, the City must comply with State requirements which are generally more stringent. The primary State law concerned with the control of water quality is the Porter-Cologne Water Quality Control Act of 1969, as amended (the "Porter-Cologne Act"). The basic tenor of that act was set by the policy that the waters of the State must be protected for use and enjoyment by the people of the State. The Porter-Cologne Act directly addresses the issue of water reclamation and reuse. A declared policy of the law is that the people of the State have a primary interest in the development of

facilities to reclaim wastewater to supplement existing surface and underground water supplies in order to meet their water requirements. The legislative intent was to undertake all possible development of water reclamation facilities to make reclaimed water available for use. The law requires the State Department of Health Services to establish statewide reclamation criteria for each type of use where such use involves public health.

Biosolids Management

The City currently reuses biosolids, a byproduct and residual of wastewater treatment, as a soil amendment at the City-owned Green Acres Farm (the Farm) in Kern County. A Kern County initiative (Measure E) was passed by voters in July 2006 to prohibit biosolids land application in the unincorporated areas of the Kern County, which if allowed to stand, would have eliminated the use of the Farm for biosolids management. Thus, in January 2011, the City filed a state claim challenging Measure E. The court granted a preliminary injunction in July 2011 allowing the City to maintain biosolids operations at the Farm while the litigation was pending. Following trial in Tulare County Superior Court, the court ruled in favor of the City. On September 28, 2016, Judge Lloyd Hicks issued a 48-page opinion that Measure E is “invalid and void for all purposes, for the dual reasons that it exceeds Kern’s police power authority and is preempted by state law.” The court formed its ruling based on the lack of evidence of biosolids posing a risk to human health, and that the California Integrated Waste Management Act, which requires local governments to maximize recycling, has control over a local voter initiative. The Measure E judgment was entered on March 14, 2017. In August 2017, a settlement agreement was signed. As part of the settlement, another related lawsuit regarding the CEQA process for the Farm was also concluded. This will preclude any further appeals on the Measure E case. The City will continue to maintain its operations at the Farm for the 100% beneficial reuse of biosolids.

The City continues to investigate and evaluate a new beneficial use option for its biosolids called the Terminal Island Renewable Energy (“TIRE”) demonstration project. The TIRE Project applies innovative technology to convert biosolids into clean energy by deep well placement and geothermal biodegradation. The TIRE project is currently injecting about 300 tons of bio-slurry material per day into the deep subsurface. The demonstration permit will expire on December 2018. An application for another 5-year permit has been submitted to US EPA Region IX.

The City also composts a portion of its biosolids at its Griffith Park compost facility. Composting is the process by which organic materials such as biosolids are decomposed into a nutrient-rich soil conditioner.

Air Quality

South Coast Air Quality Management District. The air quality issues relating to treatment plants have been the subject of increased federal, State and local regulation. The US EPA has delegated most enforcement responsibilities of the federal Clean Air Act, as amended (“CAA”) to the South Coast Air Quality Management District (“SCAQMD”). The Bureau of Engineering obtains SCAQMD permits to construct many System capital improvement projects. The Bureau of Sanitation tracks federal and State air quality legislation and proposed federal, State and regional regulations, prepares responses to issues that may impact System operations and future development and coordinates SCAQMD permits to construct larger System projects such as the Digester Gas Utilization Project (“DGUP”) at HWRP.

Pollutant and Air Toxics Emissions. All of the City’s treatment plants monitor and report on pollutant emissions and certain air toxics pursuant to SCAQMD requirements, which are based on requirements of AB 2588 (1987) as amended. SCAQMD requires Annual Emissions Reports (“AERs”) of air contaminants and has designated HWRP and TIWRP as high priority emitters and requires a health risk

assessment (“HRA”) from each facility every four years, or as requested by SCAQMD. An HRA is a comprehensive analysis of the dispersion of hazardous substances into the environment, the potential for human exposure, and a quantitative assessment of both individual and population-wide health risks associated with those levels of exposure. Future HRA analyses will be based on the recently revised Exposure Assessment by the California Office of Environmental Health Hazard Assessment (“OEHHA”). Due to 2016 revised Exposure Assessment Guidelines of the OEHHA, SCAQMD has amended Rules 1401, 1401.1, 1402, and 212, and has revised its Risk Assessment Procedures. It is expected that this may result in more public notices for future construction or operations at HWRP and potentially TIWRP. No issues are expected to arise from AERS, Hot Spots reports, or HRAs.

SCAQMD Air Quality Management Plan and National Ambient Air Quality Standards. Every three (3) years, SCAQMD is required to review its Air Quality Management Plan (“AQMP”). The South Coast Air Basin is in extreme non-attainment for ozone, a federal criteria pollutant in accordance with the National Ambient Air Quality Standards (“NAAQS”) of the CAA. To meet requirements of the CAA, the 2016 adopted AQMP is focused on reducing NO_x and volatile organic compounds (“VOCs”), which are precursors to ozone. Although emissions from stationary sources, SCAQMD’s primary area of jurisdiction, have been significantly reduced during the past few decades, further reduction of ozone from stationary sources is a priority for the SCAQMD, as are beneficial uses, in issuing air permits. Because the City consistently invests in beneficial uses and equipment that best reduce NO_x, VOCs, PM and other pollutants, SCAQMD rules should not impinge significantly on the City. SCAQMD is working with US EPA and California Air Resources Board (“CARB”) to reduce ozone from mobile sources sufficiently to meet attainment. A recent August 2018 development from the USEPA relative to car and light truck emissions makes ozone attainment more difficult.

CARB. In December 2007, CARB adopted Mandatory Reporting Requirements (“MRRs”) requiring reporting of GHG emissions from the largest sources, including refineries, general stationary combustion facilities, and hydrogen plants that emit at least 25,000 metric tons of CO₂ equivalents (“MTCO₂e”) per year. On December 16, 2011, CARB reduced the reporting threshold to 10,000 MTCO₂e per year and removed cogeneration as a category subject to MRRs. If DGUP emissions cause HWRP to exceed 10,000 MTCO₂e per year, HWRP will report this to CARB in accordance with the MRRs.

The Cap and Trade program began on January 1, 2012, with enforceable limits on January 1, 2013. This CARB program requires a declining cap for stationary source combustion of fossil fuels above 25,000 MTCO₂e per year. HWRP with DGUP is expected to emit only a fraction of this amount.

AB 617 (2017) requires CARB and air districts, including SCAQMD, to prepare and deploy community air monitoring systems (CAMSs) every year, and develop a state-wide strategy to reduce TACs and criteria air pollutants in communities of high cumulative exposure burden. Air districts, including the SCAQMD, must adopt an expedited schedule to implement best available retrofit control technology. In some cases, City facilities may be required to deploy a fence-line or other monitoring system.

US EPA. On September 22, 2009, the US EPA finalized a rule for GHG MRRs, one in a series of regulatory changes, leaving no impact on Publicly Owned Treatment Works (“POTWs”). Through this series of changes, the regulation clarified that most POTWs, including HTP, are not impacted by the federal MRR, which require reporting only for stationary source combustion emissions of fossil fuels with emissions above 25,000 MTCO₂e per year.

On August 2, 2018, USDOT and USEPA proposed withdrawing California’s waiver for regulating motor vehicles through proposing the SAFE Vehicle Rule, which relaxes CAFE standards for 2021-26 cars and light trucks.

Southern California Alliance of Publicly Owned Treatment Works (“SCAP”) and California Association of Sanitation Agencies (“CASA”). The City is a member of SCAP, which assists POTWs in addressing US EPA, CARB, and SCAQMD regulations affecting POTWs and addresses the climate change and GHG issues of POTWs. The City is also a member of CASA, which provides advocacy for POTWs in a broad spectrum of issues, including those pertaining to air quality and climate change.

No assurance can be given that the cost of compliance with future laws, regulations and orders relating to climate change, greenhouse gases and/or renewable energy would not adversely affect the ability of the System to generate Revenues sufficient to pay debt service on the Series 2018 Bonds.

Water Quality

Total Maximum Daily Loads. The Los Angeles Regional Water Quality Control Board (“LARWQCB”) is required to develop TMDLs for impaired waterbodies. Section 303(d) of the Clean Water Act requires every state to compile a list of waterbodies that are impaired with respect to water quality. Various watersheds in the Los Angeles area have water body segments that are listed as impaired due to a variety of pollutants. Although some TMDLs have already been released, additional TMDLs will be under development and compliance with both existing and new TMDLs will continue into the next decade.

At this time, it is difficult to predict the full impact of TMDLs on the National Pollutant Discharge Elimination System (“NPDES”) effluent limits at the City’s four water reclamation plants. In addition, the Greater Los Angeles County Municipal Separate Storm Sewer System (“MS4”) permit, adopted by the LARWQCB in November 2012, contains provisions that require compliance with all the adopted TMDLs. TMDLs have resulted in two discharge limits included in the City’s NPDES permits (polychlorinated biphenyls and DDT). However, the plant discharges are in compliance with the limits and they are not expected to result in additional costs at the plants. It is expected that significant capital improvements funded by the System may be required to comply with the MS4 requirements and TMDLs and their resulting impact on the City’s future NPDES permits.

NPDES Permits

The City’s four treatment plants are required to obtain five-year NPDES permits that are issued by the LARWQCB. The process of renewing a permit begins when the City files a Report of Waste Discharge (“ROWD”) with the LARWQCB no later than 180 days prior to the permit expiration date. Once an ROWD is complete, about two months before the expiration date, the LARWQCB issues a Tentative Order for review by the City and public. If any changes are made following the review, a Revised Tentative Order is issued. The LARWQCB may consider issues and concerns that are raised or adopt the Revised Tentative Order. About a month after adoption, the LARWQCB will issue the new order containing the new permit. The status of the permits is summarized in the table below:

WATER RECLAMATION PLANT (“WRP”)	NPDES #	PREVIOUS NPDES PERMIT		PENDING / CURRENT NPDES PERMIT		Expected Expiration
		Order #	Expired	Order #	Adopted by LARWQCB	
Donald C. Tillman (“DCTWRP”)	CA0056227	R4-2011-0196	November 10, 2016	R4-2017- 0062	March 2, 2017	April 30, 2022
Los Angeles–Glendale (“LAGWRP”)	CA0053953	R4-2011-0197	November 10, 2016	R4-2017 - 0063	March 2, 2017	April 30, 2022
Hyperion (“HWRP”)	CA0109991	R4-2010-0200	December 23, 2015	R4-2017 -0045	February 2, 2017 June 11, 2015	March 31, 2022
Terminal Island (“TIWRP”)	CA0053856	R4-2010-0071	April 10, 2015	R4-2015-0119- A01	Amended December 1, 2015	July 31, 2020

DCTWRP and LAGWRP. DCTWRP and LAGWRP's NPDES permits were recently renewed and adopted by the LARWQCB. The new permits contain revised effluent limits for ammonia and copper consistent with the Los Angeles River TMDL and reflective of the performance of the treatment plant. DCTWRP and LAGWRP are expected to meet the new limits and there will be no potential financial impact to the City.

The SWRCB has initiated a process to develop a nutrient policy for inland surface waters in California in 2014. The proposed policy will establish methods to develop numeric or narrative water quality objectives for nutrients. Currently, the nutrient policy development is still on-going. Potential impacts of the policy on DCTWRP and LAGWRP may include the need for significant upgrades to the facilities and increased energy demand. Potential cost impacts are unknown at this time.

HWRP. HWRP's NPDES permit was renewed and adopted by the LARWQCB on February 2, 2017. The permit has imposed a new ammonia limit for the effluent. HWRP currently meets this effluent limit, but could have difficulty meeting the limit in the future. The potential impact would be to provide sidestream treatment to reduce ammonia in the effluent at an estimated capital cost of \$40 million to \$50 million.

On September 15, 2015, HWRP discharged 30 million gallons of secondary effluent through its One Mile Outfall, which is permitted for use during an emergency or when the Five Mile Outfall is not in service or cannot convey all of the plant's secondary effluent. The first significant use of the One Mile Outfall in nine years resulted in the flushing out of debris from a January 2005 raw sewage spill of 160,000 gallons that lay dormant in the plant storm drain system tributary to the One Mile Outfall. The debris that was flushed out of the One Mile Outfall into Santa Monica Bay washed ashore and resulted in the closure of Dockweiler and El Segundo Beaches for four days in September of 2015. The City and the RWQCB have reached a \$2.262 million settlement agreement on the discharge. Half of this settlement amount will be offset by SEPs constructed by the City. The remaining half was a fine that has been paid to the RWQCB.

TIWRP. On June 11, 2015, the LARWQCB adopted TIWRP's NPDES Permit. The final permit was subsequently amended and became effective on December 1, 2015. The permit enforces the LARWQCB's Resolution No. 94-009 (adopted October 31, 1994) approving the City's proposal to ultimately phase out the discharge of tertiary-treated wastewater effluent from TIWRP into Los Angeles Harbor at the earliest practicable date, to implement a Water Recycling Program with the goal of doubling water reuse at TIWRP within six years after the startup of the initial reclamation phase, and to achieve total reuse by 2020. The City has submitted its application for the next permit expected in 2020, which is currently under technical review by the USEPA. As of September 2018, the City does not anticipate additional requirements in the new permit.

TIWRP/AWPF. To implement the LARWQCB's Resolution 94-009, the City has been constructing the Harbor Water Recycling Project in phases (Phase I is operational). The recycling project currently treats up to 6 mgd of TIWRP's tertiary-treated effluent by microfiltration and reverse osmosis (MF/RO) at the AWPF for reuse at the Dominguez Gap Seawater Intrusion Barrier Project, and for other various uses in the Los Angeles Harbor area. Phase II of the AWPF project has recently been completed and will increase production of advanced purified recycled water to 12 mgd. The LARWQCB amended and adopted the Waste Discharge Requirements and Water Recycling Requirements for the Harbor Water Recycling Project-Dominguez Gap Barrier Project (Order No. R4-2016-0334) on October 13, 2016.

General. If the plants cannot meet future permit requirements, it is possible that the City may be required to install new treatment processes at a substantial cost to the City. The City cannot currently estimate the cost of such permit requirements, and such permit requirements are not included in the current Capital Improvement Program.

RISK FACTORS

The ability of the City to pay principal of and interest on the Series 2018 Bonds depends primarily upon the receipt by the City of Revenues. Some of the events which could prevent the City from receiving a sufficient amount of Revenues to enable it to pay the principal of and interest on the Series 2018 Bonds are summarized below. The following description of risks is not intended to be an exhaustive list of the risks associated with the purchase of the Series 2018 Bonds and the order of the risks set forth below does not necessarily reflect the relative importance of the various risks.

Limited Obligations

The obligation of the City to pay debt service on the Series 2018 Bonds is a limited obligation of the City and is not secured by a legal or equitable pledge or charge or lien upon any property of the City or any of its income or receipts, except the Revenues. The obligation of the City to pay debt service on the Series 2018 Bonds does not constitute an obligation of the City to levy or pledge any form of taxation or for which the City has levied or pledged any form of taxation. The City is obligated under the Resolutions to pay debt service on the Series 2018 Bonds solely from Revenues.

Factors that can adversely affect the availability of Revenues include, among other matters, drought, general and local economic conditions, and changes in law and government regulations (including initiatives and moratoriums on growth). The realization of future Revenues is also subject to, among other things, the capabilities of management of the City, the ability of the City to provide wastewater service to its retail customers and the Agencies, the ability of the City to establish, maintain and collect charges for the wastewater service to its retail customers and the Agencies and the ability of the City to establish, maintain and collect rates and charges sufficient to pay debt service on the Series 2018 Bonds. See “Financial Operations of the Wastewater System” herein and Appendix E attached hereto.

System Revenues and Expenditures

The operation and maintenance expenses of the System are expected to increase in the next five years. See “Financial Operations of the Wastewater System – Projected Operation and Maintenance Expenses” herein. Actual operation and maintenance expenses may be greater or less than projected. Factors such as changes in technology, regulatory standards, increased costs of material, energy, labor and administration can substantially affect System expenses. Although the City has covenanted to prescribe, revise and collect rates and charges for in amounts sufficient to pay debt service on the Series 2018 Bonds, there can be no assurance that such amounts will be collected. Increases in System rates could result in a decrease in demand for System usage.

Rate-Setting and Initiative Processes Under Proposition 218

Proposition 218 affects the City’s ability to impose future rate increases, and no assurance can be given that future rate increases will not encounter majority protest opposition or be challenged by initiative action authorized under Proposition 218. In the event that future proposed rate increases cannot be imposed as a result of majority protest or initiative, the City might thereafter be unable to generate Revenues in the amounts required to pay debt service on the Series 2018 Bonds. See “Financial Operations of the Wastewater System – Proposition 218” herein.

Proposition 218, as incorporated in the California Constitution under Article XIIC, also provides that the initiative power shall not be prohibited or otherwise limited in matters of reducing or repealing any local tax, assessment, fee or charge and that the power of initiative to affect local taxes, assessments, fees and charges shall be applicable to all local governments. See “Financial Operations of the Wastewater

System – Proposition 218” herein. Notwithstanding the fact that the SSC may be subject to reduction or repeal by voter initiative undertaken pursuant to Section 3 of Article XIII C, the City has covenanted to establish, fix, prescribe and collect rates, fees and charges in connection with the use of the System which meet the requirements of the Resolutions and in accordance with applicable law. No assurance can be given that the voters of the City will not, in the future, approve initiatives which seek to repeal, reduce or prohibit the future imposition or increase of assessments, fees or charges, including the City’s SSC, which are a significant source of Revenues pledged to the payment of debt service on Series 2018 Bonds.

Potential Impact of Drought and Other Risks Relating to the Water Supply

The State’s and City’s recent drought conditions have prompted various actions to reduce water consumption. The City has approved rates which will increase through Fiscal Year 2020-21. These rates and charges were predicated on assumptions of expected volume of wastewater operation. If the water supply decreases significantly, whether by operation of mandatory supply restrictions, prohibitively high water costs or otherwise, flow within the Wastewater System will diminish and Revenues may be adversely affected. The City reduced the funding for CIP projects in Fiscal Year 2015-16 in response to the expected reduction in wastewater volume and Revenues. This funding has since been restored because of continued rate increases. Declines of sewage volume due to water conservation have continued in the past two years, but at a reduced rate. Revenues are projected assuming the continued annual reduction of billable sewage volume of 0.37 percent. No assurance may be made regarding the potential impact of the present or any future drought on the System’s financial condition. See “Financial Operations of the Wastewater System – Water Usage – *General*” herein.

Statutory and Regulatory Compliance

Changes in the scope and standards for public agency wastewater systems, such as the System, may lead to increasingly stringent operating requirements and the imposition of administrative orders issued by Federal or State regulators. Future compliance with such requirements and orders can impose substantial additional costs on the SCM Fund. See “Regulatory Requirements Affecting Operation of the System” herein. In addition, claims against the System for failure to comply with applicable laws and regulations could be significant. Such claims are payable from assets of the System or from other legally available sources. No assurance can be given that the cost of compliance with such existing or future laws, regulations and orders would not adversely affect the ability of the System to generate Revenues sufficient to pay debt service on the Subordinate Bonds, including the Series 2018 Bonds.

Earthquakes and Other Natural Disasters

The City is subject to unpredictable and significant seismic activity. A number of known faults run through the City, and the City lies near the San Andreas Fault, which is the boundary between the Pacific and North American tectonic plates. The complex Los Angeles fault system interacts with the alluvial soils and other geologic conditions in the hills and basins of the area. This interaction poses a potential seismic threat for every part of the City, regardless of the underlying geologic and soils conditions. In addition, there are likely to be unmapped faults throughout the City.

The System is located above or near a number of geological faults capable of generating significant earthquakes. The area is characterized by a number of geotechnical conditions which represent potential safety hazards, including expansive soils and areas of potential liquefaction and landslide. In anticipation of such potential disasters, the City designs and constructs System facilities to the seismic codes in effect at the time of design of the project.

In January 1994, an earthquake of magnitude 6.7 on the Richter Scale occurred in the northwest San Fernando Valley on a previously unmapped fault. It caused widespread damage to commercial and residential structures. Significant damage occurred to the System however sewer service was not interrupted. Pipe fractures were detected using closed circuit television cameras and some portions of the pipe collapsed. The City estimates that repairs to the System in connection with this earthquake cost approximately \$213 million.

Although the City has implemented disaster preparedness plans, there can be no assurance that these or any additional measures will be adequate in the event that a natural disaster occurs, nor that costs of preparedness measures will be as currently anticipated. Further, damage to components of the System could cause a material increase in costs for repairs or a corresponding material adverse impact on Revenues. The City is not obligated under the Resolutions to maintain earthquake insurance on the System, and the City does not now and does not plan to maintain, earthquake insurance on the System.

Unexpected Sewer Failure

The System is subjected to potential failures of its collection and conveyance sewers that can result in unexpected repair costs and regulatory fines. See, for example, “The Wastewater System – Existing Facilities – *Recent Collection System Failures*” herein. Although the CIP includes projects to rehabilitate major conveyance sewers, no assurance can be given that future sewer failures will not occur.

Security of the System

The System is subject to safety and security inspections on a continuing basis by the City. All four treatment plants in the System are maintained as secured facilities, with fences, gates and security guards. All pumping plants with above-ground structures have security fences. Subterranean pumping plants have padlocked hatches. Improved communications systems are being implemented. However, damage to the System resulting from vandalism, sabotage, or terrorist activities may adversely impact the operations and finances of the System. There can be no assurance that the City’s security, emergency preparedness and response plans will be adequate to prevent or mitigate such damage, or that the costs of maintaining such security measures will not be greater than currently anticipated. The City has established the Emergency Fund, which may be used by the City, if other funds are not readily available and sufficient, to pay extraordinary and unexpected repair or replacement expenses of the System or liability claims related to the System. See also “Security and Sources of Payment for the Series 2018 Bonds – Insurance and Condemnation” herein for a description of insurance for the System.

Utility Costs

No assurance can be given that any future significant reduction or loss of power would not materially adversely affect the operations of the System. The volume of wastewater conveyed and treated in the System on a daily basis requires a significant amount of electrical and thermal power. Electricity is needed to run pumps, lights, computers, mechanical valves and other machinery. Thermal energy, usually generated by electrical power or by burning natural gas, provides heat and cooling necessary for both buildings and the wastewater treatment process. Prices for electricity or gas may increase, which could adversely affect the System’s financial condition.

Impact of Economic Conditions on System Revenues

The recent recession and major economic disruptions adversely affected economic activity of the region in general, in particular resulting in decreased economic activity, increased unemployment and a reduction in residential and commercial construction. The City cannot predict the extent of the fiscal

problems that will be encountered in any future economic downturn. Reduction in System users' ability to pay rates and charges, and reduction in the rate at which new customers are added to the System, can adversely impact System Revenues.

Acceleration; Limitations on Remedies

The General Resolution and the Subordinate General Resolution provide that, upon and during the continuance of an Event of Default, the principal of and interest accrued on all Senior Bonds and Subordinate Bonds, respectively, subject to certain conditions, may be declared to be due and payable immediately. The foregoing notwithstanding, the remedy of acceleration is subject to the limitations on legal remedies against public entities in the State, including a limitation on enforcement obligations against funds needed to serve the public welfare and interest. Also, any remedies available to the Owners of the Series 2018 Bonds upon the occurrence of an Event of Default under the respective Resolutions are in many respects dependent upon judicial actions which are often subject to discretion and delay and could prove both expensive and time consuming to obtain.

Further, enforceability of the rights and remedies of the Owners of the Series 2018 Bonds may become subject to (i) the Federal bankruptcy code and applicable bankruptcy, insolvency, reorganization, moratorium, or similar laws relating to or affecting the enforcement of creditor's rights generally, (ii) equity principles which may limit the specific enforcement of certain remedies, (iii) the exercise by the United States of America of the powers delegated to it by the Constitution, and (iv) the exercise of the state police powers. Remedies available to the Owners of the Series 2018 Bonds are in many respects dependent upon judicial action which is often subject to discretion and delay and could prove both expensive and time consuming to obtain.

Swap Agreements

The City is currently a party to two Swap Agreements related to bonds issued under the Subordinate General Resolution. Swap Agreements entail certain financial risks to the City and the City may not realize the expected financial benefits from these swap transactions. In addition, the potential future exposure to the City relating to the difference in payments between the amounts the City receives and pays in connection with a swap agreement, termination payments, or any non-scheduled payment cannot be predicted. See "Financial Operations of the Wastewater System – Swap Agreements" herein for a description of the counterparties to the City's two Swap Agreements and the respective market values thereof.

Upon the delivery of the Series 2018-B Subordinate Bonds, the City will partially or fully terminate the notional amount payable under each Swap Agreement by an amount equal to \$_____ for a remaining outstanding notional amount of \$_____. The City will finance the termination payments with a portion of the proceeds of the Series 2018-B Subordinate Bonds and potentially, a portion of the proceeds of the Series 2018-C Subordinate Bonds. See "Plan of Finance" and "Financial Operations of the Wastewater System – Anticipated Financings" herein.

Risks Related to Variable Rate Bonds

The variable rate of interest that is borne by the Series 2012-D Subordinate Bonds while bearing interest in an index interest rate mode is dependent in part upon the ability of the City to pay the principal of and interest on the Series 2012-D Subordinate Bonds tendered for purchase on each Special Purchase Date and upon an event of default under the 2012-D Continuing Covenant Agreement. In the event the Series 2012-D Subordinate Bonds tendered for purchase cannot be remarketed, assuming no event of default under the 2012-D Continuing Covenant Agreement and assuming certain other conditions are met, the principal amount of the Series 2012-D Subordinate Bonds may be payable in installments over a period

of up to three years. Under such circumstances, the Series 2012-D Subordinate Bonds would bear a variable interest rate that could be significantly higher than the variable rate that was borne by the Series 2012-D Subordinate Bonds prior to the failed mandatory tender for purchase. The accelerated amortization and increased interest rate would significantly increase the size of current debt service payments due and owing on the Series 2012-D Subordinate Bonds.

It is anticipated that there will be no outstanding Series 2012-D Subordinate Bonds after the delivery of the Series 2018-B Subordinate Bonds and Series 2018-C Subordinate Bonds. However, the City anticipates issuing the Series 2018-C Subordinate Bonds as variable rate obligations. See “Plan of Finance” and “Financial Operations of the Wastewater System – Anticipated Financings” herein.

Effect of Federal Sequestration on Refundable Credits

The Refundable Credits payable by the Federal government in connection with the Series 2010-A Senior Lien Bonds and Series 2010-B Senior Lien Bonds are subject to reduction pursuant to existing federal law, which requires that the federal budget authority for all accounts in the domestic mandatory spending category, including payments to issuers of direct-pay bonds such as the City, be reduced beginning federal fiscal year 2013 (the “Sequestration”). Prior to March 1, 2013, the City received Refundable Credits from the United States Treasury equal to 35% of the interest payable on the Series 2010-A Senior Lien Bonds and periodic Refundable Credits from the United States Treasury equal to 45% of the interest payable on the Series 2010-B Senior Lien Bonds. As a result of the Sequester (herein defined) described under “Risk Factors – Effect of Federal Sequestration on Refundable Credits,” the City expects to receive an estimated \$365,267 reduction in Refundable Credits in connection with the Series 2010-A Senior Lien Bonds and the Series 2010-B Senior Lien Bonds for the current federal fiscal year ending September 30, 2019. The Refundable Credits are pledged only to the payment of the Series 2010-A Senior Lien Bonds and Series 2010-B Senior Lien Bonds. The Resolutions provide for an offset to debt service on the Direct Subsidy Bonds and a corresponding offset to Revenues in the amount of the Refundable Credits. The City has paid and will continue to pay debt service on its Bonds without accounting for the Refundable Credits expected to be received from the Federal government. The reduction in the amount of Refundable Credits from the Federal government reduces the amounts available to pay debt service on the Direct Subsidy Bonds. However, such reduction is not expected to materially adversely impact the City’s ability to pay debt service on the Series 2018 Bonds. See “Security and Sources of Payment for the Series 2018 Bonds – Amendment to the Resolutions Relating to the Refundable Credits” herein.

Climate Change

The change in the earth’s average atmospheric temperature, generally referred to as “climate change”, is expected to, among other things, increase the frequency and severity of extreme weather events and cause substantial flooding. The City’s Sustainable City Plan (the “Plan”), released in 2015, provides a 20-year framework intended to both prepare for climate change and mitigate its effects on the City’s economy, infrastructure and communities. The Plan sets forth several actions that may be taken by the City, including improving emergency response functions and disaster preparedness, reducing air and water pollution, and managing rising temperatures in urban environments. In addition, the City has begun construction of a series of groundwater remediation projects to reduce the City’s reliance on imported water as drought conditions continue, is exploring the use of specially designed “cool roofs” to manage the effect of rising temperatures in urban environments and is testing the effects of “cool pavement” (a special coating applied to city streets) to manage urban temperatures. The City continues to explore various other adaptive actions within the framework established by the Plan.

The City cannot predict the timing, extent, or severity of climate change and its impact on the City's operations and finances. Also, additional actions to address climate change may be necessary and the City can give no assurances regarding the impact of such actions on the City's operations and finances.

Cybersecurity

The City relies on a large and complex technology environment to conduct its operations. As a recipient and provider of personal, private and sensitive information, the City and its departments face multiple cyber threats including, but not limited to, hacking, viruses, malware and other attacks on computers and other sensitive digital networks and systems. There have been, however, only limited cyber-attacks on the City's computer system. For example, the City recently experienced a ransomware attack which impacted a single computer at a City department for one business day. The computer was immediately discovered and the malicious file was quarantined to prevent it from spreading to other computers and no data was lost or breached. Following this incident, certain City personnel attended awareness training and the City installed an endpoint detection and response system, which identifies and responds to malicious and other suspicious activities. Also, recently a City department's website was compromised and was unavailable for a few hours. No data was lost and the website was subsequently restored. The City has since increased its server security.

In 2013, the City created the Cyber Intrusion Command Center (the "CICC") under a Mayoral Executive Directive to coordinate cybersecurity preparation and response across City departments. The CICC is comprised of key City departments, cybersecurity professionals, and local and federal law enforcement experts. The CICC has assisted the City in establishing policies for data classification, information handling, and cybersecurity prevention and response protocols. In 2015, the City established an Integrated Security Operations Center with cybersecurity professionals for cyber-attack monitoring and response. In addition, the City has identified critical data assets and applied additional cyber defenses through its Critical Asset Protection program. The City has conducted cyber security awareness training for all City employees with computer access, conducts phishing email tests, and provides periodic cybersecurity newsletters and workshops to its employees. Also, the City conducts annual "penetration tests" to identify and remediate any potential weaknesses in its networks.

No assurances can be given that the City's security and operational control measures will be successful in guarding against any and each cyber threat and attack. The results of any attack on the City's computer and information technology systems could impact its operations and damage the City's digital networks and systems, and the costs of remedying any such damage could be substantial.

In addition to the City cybersecurity preparations, the Bureau of Sanitation Wastewater Industrial Control Systems ("ICS") network is firewalled from the rest of the City's business network. This design is consistent with the Department of Homeland Security's recommended secure network architecture and provides the Bureau of Sanitation with extra layers of protection against possible cyber threats that may impact ICS. The Bureau of Sanitation is an active member of the City's CICC, conducts regular employee cybersecurity awareness training, and makes on-going investments through our Capital Equipment Replacement Program to improve the Bureau of Sanitation Information Technology and cybersecurity infrastructures including but not limited to replacing end-of-life equipment to ensure that security patches are available, deploying/upgrading intrusion prevention/detection systems, end-point protection, security event and incident management, and cybersecurity monitoring. The Bureau of Sanitation Cybersecurity team also engages directly with the Department of Homeland Security Industrial Control Systems Cyber Emergency Response Team, and conducts assessments and mitigation strategies as appropriate. The Bureau of Sanitation also actively participates in the annual Cybersecurity Tabletop Exercise facilitated by the Department of Homeland Security to test and enhance cyber incident response capabilities.

Currently, the Bureau of Sanitation is in the process of replacing its aging control systems, with a new Distributed Control System that will ultimately monitor and control thousands of assets within the Bureau of Sanitation facilities. Honeywell International Incorporated was awarded the 15-year LAWINS contract in December of 2011. The 15-year contract includes design, engineering, procurement, commissioning, maintenance and upgrades for control systems of all Bureau of Sanitation facilities. The driving factors for the project were: managing system obsolescence, managing costs of technology upgrades, efficiency, increasing regulations, reporting requirements, security and emergency response.

TAX MATTERS

Opinion of Bond Counsel

In the opinion of Hawkins Delafield & Wood LLP, Bond Counsel to the City, under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described herein, (i) interest on the Series 2018 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 Series 2018 Bonds is not treated as a preference item in calculating the alternative minimum tax under the Code; such interest, however, is included in the adjusted current earnings of certain corporations for purposes of calculating the alternative minimum tax imposed for taxable years beginning prior to January 1, 2018. In rendering its opinion, Bond Counsel has relied on certain representations, certifications of fact, and statements of reasonable expectations made by the City and others in connection with the Series 2018 Bonds, and Bond Counsel has assumed compliance by the City with certain ongoing covenants to comply with applicable requirements of the Code to assure the exclusion of interest on the Series 2018 Bonds from gross income under Section 103 of the Code.

In addition, in the opinion of Bond Counsel to the City, under existing statutes, interest on the Series 2018 Bonds is exempt from State of California personal income.

Bond Counsel expresses no opinion as to any other federal, state or local tax consequences arising with respect to the Series 2018 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 Series 2018 Bonds.

Certain Ongoing Federal Tax Requirements and Certifications

The Code establishes certain ongoing requirements that must be met subsequent to the issuance and delivery of the Series 2018 Bonds in order that interest on the Series 2018 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 Series 2018 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 Series 2018 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. The City has covenanted to comply with certain applicable requirements of the Code to assure the exclusion of interest on the Series 2018 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 Series 2018 Bonds. It does not purport to address all aspects of federal taxation that may be relevant to a particular owner of a Series 2018 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 Series 2018 Bonds.

Prospective owners of the Series 2018 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 Series 2018 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.

Original Issue Discount

“Original issue discount” (“OID”) is the excess of the sum of all amounts payable at the stated maturity of a Series 2018 Bond (excluding certain “qualified stated interest” that is unconditionally payable at least annually at prescribed rates) over the issue price of that maturity. In general, the “issue price” of a maturity (a bond with the same maturity date, interest rate, and credit terms) means the first price at which at least 10 percent of such maturity was sold to the public, i.e., a purchaser who is not, directly or indirectly, a signatory to a written contract to participate in the initial sale of the Series 2018 Bonds. In general, the issue price for each maturity of Series 2018 Bonds is expected to be the initial public offering price set forth on the cover page of the Official Statement. Bond Counsel further is of the opinion that, for any Series 2018 Bonds having OID (a “Discount Bond”), OID that has accrued and is properly allocable to the owners of the Discount Series 2018 Bonds under Section 1288 of the Code is excludable from gross income for federal income tax purposes to the same extent as other interest on the Series 2018 Bonds.

In general, under Section 1288 of the Code, OID on a Discount Bond accrues under a constant yield method, based on periodic compounding of interest over prescribed accrual periods using a compounding rate determined by reference to the yield on that Discount Bond. An owner’s adjusted basis in a Discount Bond is increased by accrued OID for purposes of determining gain or loss on sale, exchange, or other disposition of such Series 2018 Bond. Accrued OID may be taken into account as an increase in the amount of tax-exempt income received or deemed to have been received for purposes of determining various other tax consequences of owning a Discount Bond even though there will not be a corresponding cash payment.

Owners of Discount Series 2018 Bonds should consult their own tax advisors with respect to the treatment of original issue discount for federal income tax purposes, including various special rules relating thereto, and the state and local tax consequences of acquiring, holding, and disposing of Discount Series 2018 Bonds.

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 Series 2018 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 Series 2018 Bonds.

Information Reporting and Backup Withholding

Information reporting requirements apply to interest paid on tax-exempt obligations, including the Series 2018 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 Series 2018 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 Series 2018 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 Series 2018 Bonds under federal or state law or otherwise prevent beneficial owners of the Series 2018 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 Series 2018 Bonds.

Prospective purchasers of the Series 2018 Bonds should consult their own tax advisors regarding the foregoing matters.

CONTINUING DISCLOSURE

In order to provide certain continuing disclosure with respect to the Series 2018 Bonds in accordance with the Rule, the City has executed a Continuing Disclosure Certificate ("Disclosure

Certificate”) for the benefit of the Owners of the Series 2018 Bonds, pursuant to which Digital Assurance Certification, L.L.C. will serve as the initial dissemination agent. The form of Disclosure Certificate is attached hereto as Appendix H.

Under the Disclosure Certificate, the City will covenant for the benefit of Owners and Beneficial Owners of the Series 2018 Bonds to provide certain annual financial information and operating data, including its audited financial statements for the SCM Fund, relating to the System by not later than June 30 of each Fiscal Year, commencing on June 30, 2019 for the report for Fiscal Year 2017-18, or if the fiscal year-end changes from June 30, not later than 365 days after the end of the City’s Fiscal Year (the “Annual Reports”), and to provide notices of the occurrence of certain enumerated events (the “Listed Events”). The Annual Reports and notices of Listed Events will be filed pursuant to the Rule with the Electronic Municipal Market Access (“EMMA”) database. These covenants will be made in order to assist the Underwriters of the Series 2018 Bonds in complying with the Rule.

The City and its related entities issue a variety of bonds, notes and obligations (“Obligations”), including Obligations issued through its proprietary enterprise programs and for its housing program and other conduit borrowers, as well as Obligations secured by special taxes and special assessments. The representations made by the City in this section regarding its previous continuing disclosure undertakings relate only to those Obligations which are managed by the City Administrative Officer and its staff, including Obligations secured by the City’s general fund (including the City’s Judgment Obligation Bonds and the Bonds and notes issued through the Municipal Improvement Corporation of Los Angeles), General Obligation Bonds, Wastewater System Revenue Bonds, Tax and Revenue Anticipation Notes, and Solid Waste Revenue Bonds. The City’s Department of Airports, Department of Water and Power and Harbor Department (each of which is governed by a Board of Commissioners that is separate from the City Council) enter into continuing disclosure undertakings in connection with the bonds and notes that are secured and payable from their respective enterprise revenues.

The City did not file timely notices of rating changes on several issues of Obligations based on changes in the ratings of certain bond insurers and liquidity providers within the last five years. Notices of all of these rating changes have been filed on the EMMA website.

In addition, the City omitted from the annual reports due in 2016 through 2018 for its Solid Waste Resources Refunding Revenue Bonds, Series 2015-A, a table entitled “SOLID WASTE PROGRAM – CHANGES IN OPERATING CASH.” A supplement entitled “Supplement to Annual Disclosure Filings for the Annual Disclosure Filings due in 2016 through 2018,” which sets forth the outstanding information, has been filed with the MSRB on the EMMA website.

LITIGATION

There is no controversy of any nature now pending against the City or, to the knowledge of its respective officers, threatened, seeking to restrain or enjoin the issuance, sale, execution or delivery of the Series 2018 Bonds or in any way contesting or affecting the validity of the Series 2018 Bonds or any proceedings of the City taken with respect to the issuance or sale thereof, or the pledge or application of any moneys or security provided for the payment of the Series 2018 Bonds or the use of the proceeds of the Series 2018 Bonds. There are no pending lawsuits that in the opinion of the City Attorney challenge the validity of the Series 2018 Bonds, the corporate existence of the City, or the title of the executive officers to their respective offices.

Certain Claims Against the SCM Fund

The City is routinely a party to a variety of pending and threatened lawsuits and administrative proceedings, including those that may affect the SCM Fund of the City. The Office of the City Attorney has prepared the following summary, as of October 1, 2018, of certain claims and lawsuits (with a potential loss exceeding \$1,000,000) pending against the SCM Fund for construction claims and certain other alleged liabilities arising during the ordinary course of operations of the System.

Pearl v. City of Los Angeles. This is a sexual orientation harassment lawsuit alleging hostile work environment based on perceived sexual orientation. The original trial verdict against the City was \$17.5 million but the judge reduced it to \$12.5 million after hearing post-trial motions. The City filed an appeal challenging the amount of damages on the ground that they are punitive damages, which cannot be awarded against a city or any other government entity. Oral argument is expected in late 2018 or early 2019. The City cannot predict the outcome of the appeal but possible City liability could be in excess of \$6 million.

Maxim Tselevich, et al. v. City of Los Angeles. This is a lawsuit alleging that a City sewer system malfunction caused damage to plaintiff's residence and at-home business venture for manufacturing specialty furniture. The City's motion for summary judgment was partially granted and the claims by one of the plaintiffs for health related and business opportunity damages were dismissed. The only remaining claim is for inverse condemnation and the City prevailed at trial on this claim. However, plaintiff filed an appeal. If plaintiff prevails on appeal on the remaining inverse condemnation claim, possible City liability could be approximately \$4 million.

Mark Bingener v. City of Los Angeles. This is a lawsuit involving a fatal traffic accident in which the plaintiff was struck by a vehicle driven by a Bureau of Sanitation employee. The City's motion for summary judgment was granted and the plaintiff appealed. If plaintiff prevails on appeal, the City's exposure could be \$5 million to \$10 million.

Miles, et al. v. City of Los Angeles. This is a lawsuit where three plaintiffs allege that, since June 2011, a putative class they seek to represent of Wastewater Collection Workers and Maintenance Laborers have not been relieved of all duty during their meal and rest breaks such that they are owed meal and rest breaks premium pay for these missed breaks pursuant to certain Labor Code provisions (Labor Code section 226.7 and 512) and Industrial Wage Order No. 9 applicable to the transportation industry. The City denies liability that either the Labor Code provisions or the Wage Order applies to the putative class, or that they have not been afforded off-duty meal or rest breaks. On September 14, 2018, the plaintiffs filed their motion for class certification. The hearing on class certification is scheduled for January 3, 2019. The trial court has set a trial date for December 9, 2019. Plaintiffs have not claimed any specific amount of damages. If the plaintiffs prevail on class certification, the City preliminarily estimates that its exposure could range from \$5 million to \$10 million.

Hoffman v. City. This is a class action challenging the City's calculation of the Dry Winter Compensation Factor relating to sewer service charges. The complaint alleges that the City is charging too much for sewer services charges based on a miscalculation of the Dry Winter Compensation Factor and seeks a refund of those "overpayments." It is too soon for the City to provide a reasonable estimate of potential liability at this time.

Nguyen v. City. In this case, the plaintiff alleges he suffered racial discrimination and a hostile workplace. If the plaintiff prevails, possible City liability could be approximately \$1 million.

In the view of the City, these claims and lawsuits should not result in judgments or settlements which, in the aggregate, would have a material adverse effect on the City's ability to pay debt service on the Series 2018 Bonds.

In addition to the above, the SCM Fund may be impacted as a result of several class action lawsuits that were filed as a result of numerous DWP billing issues, see "Financial Operations of the Wastewater System – Billing and Collection" herein, as well as potential liabilities and/or regulatory fines as a result of certain System failures, see "The Wastewater System – Existing Facilities – *Recent Collection System Failures*" herein and "Regulatory Requirements Affecting Operation of the System – NPDES Permits – *HWRP*" herein.

Claim Filed by the City

On July 23, 2008, the City filed a complaint in the Superior Court for the County of Los Angeles, California, Case Number BC394944, which named a number of investment banking and other firms as defendants, some of which are serving as Underwriters of the Series 2018 Bonds or have been underwriters of the City's Senior Lien Bonds and Subordinate Bonds in the past. The complaint alleged that the defendants manipulated the derivative market by various means which decreased the returns the City earned on guaranteed investment contracts and municipal derivative instruments. The City has settled with certain of the investment banking firms and has agreed to settlements with the remaining defendants with formal dismissals pending.

LEGAL OPINION

The validity of the Series 2018 Bonds and certain other matters are subject to the approval of legality by Hawkins Delafield & Wood LLP, Bond Counsel to the City. A complete copy of the proposed form of opinion of Bond Counsel is contained in Appendix F attached hereto. Bond Counsel undertakes no responsibility for the accuracy, completeness or fairness of this Official Statement. Certain legal matters will be passed upon for the City by Nixon Peabody LLP, Disclosure Counsel, and by Michael N. Feuer, City Attorney, and for the Underwriters by their counsel, Stradling Yocca Carlson & Rauth, a Professional Corporation.

RATINGS

S&P Global Ratings, a business unit of Standard & Poor's Financial Services LLC ("S&P"), Fitch Ratings ("Fitch") and Kroll Bond Rating Agency have assigned the Series 2018 Bonds their ratings of "___," "AA" and "AA," respectively. Such ratings reflect only the views of such organizations and any desired explanation of the significance of such ratings 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; Fitch Ratings, One State Street Plaza, New York, New York 10004; and Kroll Bond Rating Agency, 845 Third Avenue, Fourth Floor, New York, New York 10022. Generally, a rating agency bases its rating on the information and materials furnished to it and on investigations, studies and assumptions of its own.

There is no assurance such ratings will continue for any given period of time or that such ratings will not be revised downward or withdrawn entirely by the rating agencies, if in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the Series 2018 Bonds.

UNDERWRITING

The Series 2018 Bonds are being purchased by Siebert Cisneros Shank & Co., L.L.C., as representative of itself, Jefferies LLC, Drexel Hamilton, LLC and Fidelity Capital Markets (collectively, the “Underwriters”) at a price of \$_____ (which amount represents the principal amount of the Series 2018 Bonds of \$_____, plus/minus a [net] original issue premium/discount of \$_____, and less an underwriters’ discount of \$_____). The Underwriters may offer and sell the Series 2018 Bonds to certain dealers and others at prices lower than the offering prices stated on the inside cover page hereof. The offering prices may be changed from time to time by the Underwriters.

Jefferies LLC (“Jefferies”), one of the Underwriters for the Series 2018 Bonds, has provided the following sentences for inclusion: Jefferies has entered into an agreement (the “Agreement”) with E*TRADE Securities LLC (“E*TRADE”) for the retail distribution of municipal securities. Pursuant to the Agreement, Jefferies will sell Series 2018 Bonds to E*TRADE and will share a portion of its selling concession compensation with E*TRADE.

The following four paragraphs have been provided by the Underwriters:

Certain of 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 services. Certain of the Underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for the City, for which they received or will receive customary fees and expenses.

The City intends to use a portion of the proceeds from the Series 2018-B Subordinate Bonds to redeem the Refunded Bonds. To the extent an Underwriter or an affiliate thereof is an owner of Refunded Bonds, such Underwriter or its affiliate, as applicable, would receive a portion of the proceeds from the issuance of the Series 2018 Bonds contemplated herein in connection with such Refunded Bonds being redeemed by the City.

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, which may include credit default swaps) and financial instruments (including bank loans) 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 the City.

The Underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

MUNICIPAL ADVISORS

Public Resources Advisory Group and Montague DeRose and Associates have served as Municipal Advisors to the City in connection with the issuance of the Series 2018 Bonds. The Municipal Advisors have assisted the City in matters relating to the planning, structuring, issuance and sale of the Series 2018 Bonds. The Municipal Advisors have not audited, authenticated or otherwise independently verified the information set forth in the Official Statement, or any other related information available to the City, with

respect to accuracy and completeness of disclosure of such information. The Municipal Advisors make no guaranty, warranty or other representation respecting accuracy and completeness of the Official Statement.

FINANCIAL STATEMENTS AND DEBT SERVICE COMPLIANCE REPORTS

The SCM Fund Financial Statements and Required Supplementary Information for the Fiscal Years ended June 30, 2017 and 2016 (With Independent Auditor's Report Thereon) and the SCM Fund Debt Service Compliance Report for the Fiscal Year ended June 30, 2017 (With Independent Auditor's Report Thereon) are included as Appendix E. The financial statements of the SCM Fund for the Fiscal Year ended June 30, 2017 and the SCM Fund Debt Service Compliance Report for the Fiscal Year ended June 30, 2017 have been audited by Macias Gini & O'Connell LLP ("Macias"), independent certified public accountants, as stated in their report. Macias has not consented to the inclusion of its reports in Appendix E and Macias has not undertaken to update its reports or to take any action intended or likely to elicit information concerning the accuracy, completeness or fairness of the statements made in this Official Statement, and no opinion is expressed by Macias with respect to any event subsequent to the date of its reports.

MISCELLANEOUS

This Official Statement has been duly approved, executed and delivered by the City.

There are appended to this Official Statement a summary of certain provisions of the Resolutions, a glossary of defined terms, a glossary of System terms, Audited Financial Statements of the SCM Fund, the proposed form of opinion of Bond Counsel, and a general description of the City and a description of the Book-Entry Only System. The Appendices are integral parts of this Official Statement and must be read together with all other parts of this Official Statement.

This Official Statement is not to be construed as a contract or agreement between the City and the purchasers or holders of any of the Series 2018 Bonds. Any statements made in this Official Statement involving matters of opinion, whether or not expressly so stated, are intended merely as an opinion and not as representations of fact. 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, create any implication that there has been no change in the affairs of the City since the date hereof. All references to the City Charter and the Resolutions are brief outlines of certain provisions thereof. Such outlines do not purport to be complete and reference is made to such laws and such documents for a full and complete statement of such provisions.

CITY OF LOS ANGELES

By: _____
Assistant City Administrative Officer

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APPENDIX A

CERTAIN INFORMATION REGARDING THE CITY OF LOS ANGELES

The information contained in Appendix A is provided as general information regarding the City of Los Angeles. Investors are advised that no funds or other financial resources of the City discussed in Appendix A are pledged to the payment of the Series 2018 Bonds. The Series 2018 Bonds are limited obligations secured by and payable only from the sources of funds described in the Official Statement. See “Security and Sources of Payment for the Series 2018 Bonds” in the forepart of this Official Statement.

Certain statements included or incorporated by reference in this Appendix A constitute “forward-looking statements.” Such forward-looking statements are generally identifiable by the terminology used such as “plan,” “expect,” “estimate,” “project,” “budget” or other similar words. The achievement of certain results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, performance or achievements to be materially different from the results, performance or achievements expressed or implied by such forward-looking statements. No assurance is given that actual results will meet City forecasts in any way, regardless of the level of optimism communicated in the information. The City has no plans to issue any updates or revisions to those forward-looking statements if or when its expectations, or events, conditions or circumstances on which such statements are based, occur, do not occur, or change. In addition, in some cases numbers in tables do not sum to the total due to rounding.

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HISTORIC, ECONOMIC AND DEMOGRAPHIC INFORMATION

Founded in 1781, Los Angeles was for its first century a provincial outpost under successive Spanish, Mexican and American rule. The City experienced a population boom following its linkage by rail with San Francisco in 1876. Los Angeles was selected as the Southern California rail terminus because its natural harbor seemed to offer little challenge to San Francisco, home of the railroad barons. But what the region lacked in commerce and industry, it made up in temperate climate and available real estate, and soon tens and then hundreds of thousands of people living in the Northeastern and Midwestern United States migrated to new homes in the region. Agricultural and oil production, followed by the creation of a deep-water port, the opening of the Panama Canal, and the completion of the City-financed Owens Valley Aqueduct to provide additional water, all contributed to an expanding economic base. The City's population climbed to 50,000 persons in 1890, and then swelled to 1.5 million persons by 1940. During this same period, the motor car became the principal mode of American transportation, and the City developed as the first major city of the automotive age. Following World War II, the City became the focus of a new wave of migration, with its population reaching 2.4 million persons by 1960.

The City and its surrounding metropolitan region have continued to experience growth in population and in economic diversity. The City's 470 square miles contain 11.5% of the area/size of the County and approximately 39% of the population of the County of Los Angeles, California (the "County"). Tourism and hospitality, professional and business services, direct international trade, entertainment (including motion picture and television production), and wholesale trade and logistics all contribute significantly to local employment. Emerging industries are largely technology driven, and include biomedical technology, digital information technology, environmental technology and aerospace. The County is a top-ranked county in manufacturing in the nation. Important components of local industry include apparel, computer and electronic components, transportation equipment, fabricated metal, and food processing. Fueled by trade with the Pacific Rim countries, the Ports of Los Angeles and Long Beach combined are the busiest container ports in the nation. As home to the film, television and recording industries, as well as important cultural facilities, the City serves as a principal global cultural center.

Although the economic and demographic information provided below has been collected from sources that the City considers to be reliable, the City has made no independent verification of the information provided by non-City sources and the City takes no responsibility for the completeness or accuracy thereof. The current state of the economy of the City, State of California (the "State") and the United States of America may not be reflected in the data discussed below, because more up-to-date information is not publicly available. This information is provided as general background.

Additional information on economic highlights for the City was prepared by Beacon Economics, and is available on the City's web site at <http://cao.lacity.org/debt/2018.06.01%20-%20City%20of%20Los%20Angeles%20-%20Comparative%20Analysis%20Updated.pdf>. This report is not incorporated by reference.

Population

The table below summarizes City, County, and State population, estimated as of January 1 of each year.

Table 1
CITY, COUNTY AND STATE POPULATION STATISTICS

	City of <u>Los Angeles</u>	Annual <u>Growth Rate⁽¹⁾</u>	County of <u>Los Angeles</u>	Annual <u>Growth Rate⁽¹⁾</u>	State of <u>California</u>	Annual <u>Growth Rate⁽¹⁾</u>
2000 ⁽¹⁾	3,694,742	-	9,519,330	-	33,873,086	-
2005 ⁽¹⁾	3,769,131	0.40%	9,816,153	0.62%	35,869,173	1.18%
2010 ⁽¹⁾	3,792,621	0.12	9,818,605	0.00	37,253,956	0.77
2015 ⁽¹⁾	3,959,840	0.88	10,149,661	0.67	38,912,464	0.89
2016	3,985,114	0.64	10,180,169	0.30	39,179,627	0.69
2017	4,021,488	0.91	10,231,271	0.50	39,500,973	0.82
2018	4,054,400	0.82	10,283,729	0.51	39,809,693	0.78

⁽¹⁾ For five-year time series, figures represent average annual growth rate for each of the five years.

Source: State of California, Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001-2010, with 2000 and 2010 Census Counts, Sacramento, California, November 2012. State of California, Department of Finance, E-4 Population Estimates for Cities, Counties, and the State, 2011-2018, with 2010 Census Benchmark. Sacramento, California, May 2018.

Industry and Employment

The following table summarizes the average number of employed and unemployed residents of the City and the County, based on the annual “benchmark,” an annual revision process in which monthly labor force and payroll employment data, which are based on estimates, are updated based on detailed tax records. The “benchmark” data is typically released in March for the prior calendar year.

Table 2
**ESTIMATED AVERAGE ANNUAL EMPLOYMENT AND
UNEMPLOYMENT OF RESIDENT LABOR FORCE⁽¹⁾**

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
<u>Civilian Labor Force</u>					
City of Los Angeles					
Employed	1,801,000	1,845,900	1,875,700	1,920,200	1,942,200
Unemployed	<u>207,300</u>	<u>176,400</u>	<u>142,100</u>	<u>113,000</u>	<u>99,000</u>
Total	2,008,200	2,022,300	2,017,800	2,033,200	2,041,200
County of Los Angeles					
Employed	4,482,600	4,591,100	4,671,100	4,789,500	4,883,600
Unemployed	<u>484,600</u>	<u>413,000</u>	<u>331,200</u>	<u>265,400</u>	<u>240,300</u>
Total	4,967,200	5,004,100	5,002,300	5,054,900	5,123,900
<u>Unemployment Rates</u>					
City	10.3%	8.7%	7.0%	5.6%	4.8%
County	9.8	8.3	6.6	5.3	4.7
State	8.9	7.5	6.2	5.4	4.8
United States	7.4	6.2	5.3	4.9	4.4

⁽¹⁾ March 2017 Benchmark report as of May 29, 2018; not seasonally adjusted.

Note: Based on surveys distributed to households; not directly comparable to Industry Employment data reported in Table 3.

Sources: California Employment Development Department, Labor Market Information Division for the State, County and City; U.S. Bureau of Labor, Department of Labor Statistics for the U.S.

The California Employment Development Department has reported preliminary unemployment figures for August 2018 of 4.3% statewide, 5.1% for the County, and 5.1% for the City (not seasonally adjusted).

The following table summarizes the California Employment Development Department's estimated annual employment for the County, which includes full-time and part-time workers who receive wages, salaries, commissions, tips, payment-in-kind, or piece rates. Separate figures for the City are not maintained. Percentages indicate the percentage of the total employment for each type of employment for the given year. For purposes of comparison, the most recent employment data for the State is also summarized.

Table 3
LOS ANGELES COUNTY
ESTIMATED INDUSTRY EMPLOYMENT AND LABOR FORCE⁽¹⁾

	County				State of California	
	<u>2000</u>	<u>% of Total</u>	<u>2017</u>	<u>% of Total</u>	<u>2017</u>	<u>% of Total</u>
Agricultural	7,700	0.2%	5,800	0.1%	427,600	2.5%
Mining and Logging	1,800	0.0	2,200	0.0	22,000	0.1
Construction	131,500	3.2	137,700	3.1	809,100	4.7
Manufacturing	617,800	15.0	350,100	7.9	1,311,900	7.6
Trade, Transportation and Utilities	785,000	19.0	838,900	18.9	3,042,600	17.6
Information	244,300	5.9	214,500	4.8	528,700	3.1
Financial Activities	223,400	5.4	221,100	5.0	830,500	4.8
Professional and Business Services	589,100	14.3	613,400	13.8	2,563,100	14.9
Educational and Health Services	464,900	11.3	794,300	17.9	2,636,600	15.3
Leisure and Hospitality	344,900	8.3	523,900	11.8	1,951,300	11.3
Other Services	140,200	3.4	154,100	3.5	563,300	3.3
Government	<u>581,400</u>	<u>14.1</u>	<u>585,500</u>	<u>13.2</u>	<u>2,553,500</u>	<u>14.8</u>
Total ⁽²⁾	4,132,000	100.0%	4,441,400	100.0%	17,240,200	100.0%

⁽¹⁾ The California Economic Development Department has converted employer records from the Standard Industrial Classification coding system to the North American Industry Classification System.

⁽²⁾ May not add due to rounding.

Note: Based on surveys distributed to employers; not directly comparable to Civilian Labor Force data reported in Table 2.

Source: California Employment Development Department, Labor Market Information Division. Based on March 2017 Benchmark report released March 23, 2018.

Personal Income

The U.S. Census Bureau defines personal income as the income received by all persons from all sources, and is the sum of “net earnings,” rental income, dividend income, interest income, and transfer receipts. “Net earnings” is defined as wages and salaries, supplements to wages and salaries, and proprietors’ income, less contributions for government social insurance, before deduction of personal income and other taxes.

The following table summarizes the latest available estimate of personal income for the County, State and United States.

Table 4
COUNTY, STATE AND U.S.
PERSONAL INCOME

Year and Area	Personal Income (thousands of dollars)	Per Capita Personal Income ⁽¹⁾ (dollars)
2013		
County ⁽²⁾	\$ 483,578,594	\$ 48,283
State ⁽²⁾	1,861,956,514	48,555
United States ⁽²⁾	14,068,960,000	44,489
2014		
County ⁽²⁾	\$ 514,516,564	\$51,111
State ⁽²⁾	1,986,025,976	51,317
United States ⁽²⁾	14,811,388,000	46,486
2015		
County ⁽²⁾	\$ 549,073,019	\$54,298
State ⁽²⁾	2,133,664,158	54,664
United States ⁽²⁾	15,547,661,000	48,429
2016		
County ⁽²⁾	\$ 563,907,868	\$55,624
State ⁽²⁾	2,212,691,221	56,308
United States ⁽²⁾	15,912,777,000	49,204
2017		
County ⁽³⁾	N/A	N/A
State ⁽²⁾	\$ 2,303,870,496	\$58,272
United States ⁽²⁾	16,413,550,863	50,392

⁽¹⁾ Per capita personal income was computed using Census Bureau midyear population estimates. Per capita personal income is total personal income divided by total midyear population. Estimates for 2013 to 2017 reflect Census Bureau midyear state population estimates as of December 2017. Estimates for 2013 to 2016 reflect county population estimates as of March 2017.

⁽²⁾ Last updated: March 22, 2018 – new estimates for 2017; revised estimates for 2013 - 2016.

⁽³⁾ Next release – November 15, 2018.

Source: U.S. Bureau of Economic Analysis, “Table SA1 Personal Income Summary” and “Table CA1 Personal Income Summary”.

Retail Sales

As the largest city in the County, the City accounted for \$45 billion (or 29.2%) of the total \$154.2 billion in County taxable sales for 2016. The following table sets forth a history of taxable sales for the City for calendar years 2012 through 2016, 2016 being the last full year for which data is currently available.

Table 5
CITY OF LOS ANGELES
TAXABLE SALES
(in thousands)

	2012	2013	2014	2015	2016
Motor Vehicle and Parts Dealers	\$3,662,657	\$3,983,625	\$4,158,168	\$ 4,616,450	\$ 4,769,093
Home Furnishings and Appliance Stores	1,676,926	1,683,805	1,725,981	1,826,089	1,945,181
Bldg. Materials and Garden Equip. and Supplies	1,942,915	2,086,608	2,179,954	2,335,497	2,384,196
Food and Beverage Stores	2,322,695	2,444,701	2,582,338	2,718,199	2,781,424
Gasoline Stations	5,090,496	4,954,380	4,822,894	4,252,397	3,670,450
Clothing and Clothing Accessories Stores	2,884,984	3,032,886	3,102,222	3,190,617	3,201,152
General Merchandise Stores	2,759,578	2,873,530	2,899,454	2,725,354	2,500,015
Food Services and Drinking Places	6,564,652	6,946,625	7,534,764	8,194,963	8,775,092
Other Retail Group	<u>3,716,658</u>	<u>3,943,616</u>	<u>3,969,898</u>	<u>4,112,670</u>	<u>4,229,201</u>
Total Retail and Food Services	30,621,561	31,949,776	32,975,673	33,972,239	34,355,804
All Other Outlets	<u>9,502,364</u>	<u>9,806,938</u>	<u>10,480,659</u>	<u>10,074,458</u>	<u>10,624,426</u>
TOTAL ALL OUTLETS	\$40,123,926	\$41,756,714	\$43,456,334	\$44,046,697	\$44,980,230
Year-over-year growth	6.0%	4.1%	4.1%	1.4%	2.1%

Source: California State Board of Equalization, Research and Statistics Division.

The City experienced a 2.9% growth in sales tax revenues in Fiscal Year 2016-17 (excluding additional receipts from the restoration of the 1% local tax rate), estimates 3.6% growth for Fiscal Year 2017-18, and projects 3.5% growth in sales tax receipts for the Fiscal Year 2018-19 Adopted Budget.

Land Use

The following table, derived from data maintained by the Los Angeles County Assessor, indicates various land uses within the City based on assessed valuation and the number of parcels.

Table 6
CITY OF LOS ANGELES
ASSESSED VALUATION AND PARCELS BY LAND USE

	2017-18 <u>Assessed Valuation⁽¹⁾</u>	% of <u>Total</u>	No. of <u>Parcels</u>	% of <u>Total</u>
Non-Residential				
Commercial Office	\$ 81,696,410,903	14.94%	35,982	4.58
Vacant Commercial	2,229,933,010	0.41	1,217	0.15
Industrial	38,694,352,154	7.07	19,997	2.54
Vacant Industrial	1,841,327,493	0.34	4,094	0.52
Recreational	1,968,622,688	0.36	802	0.10
Government/Social/Institutional	3,424,152,581	0.63	3,754	0.48
Miscellaneous	<u>412,305,160</u>	<u>0.08</u>	<u>2,867</u>	<u>0.36</u>
Subtotal Non-Residential	\$130,267,103,989	23.81%	68,713	8.74%
Residential				
Single Family Residence	\$288,756,702,948	52.79%	498,231	63.41%
Condominium/Townhouse	36,815,358,543	6.73	86,529	11.01
Mobile Homes and Lots	114,122,340	0.02	3,294	0.42
Mobile Home Park	176,813,031	0.03	90	0.01
2-4 Residential Units	28,453,236,579	5.20	74,218	9.45
5+ Residential Units/Apartments	59,349,537,762	10.85	34,850	4.44
Vacant Residential	<u>3,065,831,860</u>	<u>0.56</u>	<u>19,833</u>	<u>2.52</u>
Subtotal Residential	\$416,731,603,063	76.19%	717,045	91.26%
Total	\$546,998,707,052	100.00%	785,758	100.00%

⁽¹⁾ Local Secured Assessed Valuation, excluding tax-exempt property.

Source: California Municipal Statistics, Inc.

Construction Activity

The table below provides a summary of building permits issued by the City by calendar year.

Table 7
CITY OF LOS ANGELES
RESIDENTIAL BUILDING PERMIT VALUATIONS AND NEW UNITS

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Valuation ⁽¹⁾	\$4,246	\$6,416	\$6,808	\$6,822	\$7,924
Residential ⁽²⁾	1,732	2,668	3,385	3,359	3,522
Non-Residential ⁽³⁾	605	968	880	729	1,197
Miscellaneous Residential ⁽⁴⁾	48	18	28	25	134
Miscellaneous Non-Residential ⁽⁵⁾	31	18	40	56	87
Number of Residential Units:					
Single family ⁽⁶⁾	1,254	1,852	2,246	2,393	3,148
Multi-family ⁽⁷⁾	<u>7,136</u>	<u>9,607</u>	<u>13,246</u>	<u>11,495</u>	<u>10,984</u>
Subtotal Residential Units	8,390	11,459	15,492	13,888	14,132
Number of Non-Residential Units ⁽⁸⁾	0	326	613	97	630
Miscellaneous Residential Units ⁽⁹⁾	536	274	393	672	4,701
Miscellaneous Non-Residential Units ⁽¹⁰⁾	323	267	736	1,036	100
Total Units	9,249	12,326	17,234	15,693	19,563

- (1) In millions of dollars. "Valuation" represents the total valuation of all construction work for which the building permit is issued.
- (2) Valuation of permits issued for Single-Family Dwellings, Duplexes, Apartment Buildings, Hotel/Motels, and Condominiums.
- (3) Valuation of permits issued for Special Permits, Airport Buildings, Amusement Buildings, Churches, Private Garages, Public Garages, Gasoline Service Stations, Hospitals, Manufacturing Buildings, Office Buildings, Public Administration Buildings, Public Utilities Buildings, Retail Stores, Restaurants, School Buildings, Signs, Private Swimming Pools, Theater Buildings, Warehouses, Miscellaneous Buildings/Structures, Prefabricated Houses, Solar Heaters, Temporary Structures, Artists-in-Residence, Foundation Only, Grade – Non-Hillside, Certificates of Occupancy – Use of Land, Grading – Hillside.
- (4) Valuation of permits issued for "Additions Creating New Units – Residential" and "Alterations Creating New Units – Residential."
- (5) Valuation of permits issued for "Additions Creating New Units – Commercial" and "Alterations Creating New Units – Commercial."
- (6) Number of dwelling units permitted for Single-Family Dwellings and Duplexes.
- (7) Number of dwelling units permitted for new Apartment Buildings, Hotel/Motels, and Condominiums.
- (8) Number of dwelling units permitted for Airport Buildings, Amusement Buildings, Churches, Private Garages, Public Garages, Gasoline Service Stations, Hospitals, Manufacturing Buildings, Office Buildings, Public Administration Buildings, Public Utilities Buildings, Retail Stores, Restaurants, School Buildings, Signs, Private Swimming Pools, Theater Buildings, Warehouses, Miscellaneous Buildings/Structures, Prefabricated Houses, Solar Heaters, Temporary Structures, Artists-in-Residence.
- (9) Number of dwelling units added includes "Addition Creating New Units – Residential" and "Alterations Creating New Units - Residential."
- (10) Number of dwelling units added includes "Additions Creating New Units – Commercial" and "Alterations Creating New Units - Commercial."

Source: City of Los Angeles, Department of Building and Safety.

MUNICIPAL GOVERNMENT

The City is a charter city originally incorporated in 1850. Under the State Constitution, charter cities such as the City are generally independent of the State Legislature in matters relating to municipal affairs. Charter cities, however, are subject to State Constitutional restrictions. The most recent charter was adopted in 1999, became effective July 1, 2000, and has been amended a number of times by voter approval. In an amendment approved by voters in 2015 (Charter Amendment 1), the City's primary and general election dates were moved to June and November of even-numbered years, beginning in 2020, in order to align them with federal and state elections.

The measure also extended the terms of officials elected in 2015 and 2017; these candidates were given five and a half-year terms instead of the customary four to transition to the new election dates.

The City is governed by the Mayor and the Council. The Mayor is elected at-large for a four-year term. As executive officer of the City, the Mayor has the overall responsibility for administration of the City. The Mayor recommends and submits the annual budget to the Council and passes upon subsequent appropriations and transfers, approves or vetoes ordinances, and appoints certain City officials and commissioners. He supervises the administrative process of local government and works with the Council in matters relating to legislation, budget, and finance. As prescribed by the Charter and City ordinances, the Mayor operates an executive department, of which he is the ex-officio head. The current Mayor, Eric Garcetti, assumed office on July 1, 2013 and was elected to a second term on March 7, 2017, which will end in 2022 due to the change in election dates.

The Council, the legislative body of the City, is a full-time council. The Council enacts ordinances subject to the approval of the Mayor and may override the veto of the Mayor by a two-thirds vote. The Council orders elections, levies taxes, authorizes public improvements, approves contracts, adopts zoning and other land use controls, and adopts traffic regulations. The Council adopts or modifies the budget proposed by the Mayor. It authorizes the number of employees in budgetary departments, creates positions and fixes salaries. The Council consists of 15 members elected by district for staggered four-year terms.

The other two elective offices of the City are the Controller and the City Attorney, both elected for four-year terms. The Controller is the chief accounting officer for the City. The current Controller, Ron Galperin, assumed office on July 1, 2013, and was elected to a second term on March 7, 2017, which will end in 2022 due to the change in election dates.

The City Attorney is attorney and legal advisor to the City and to all City boards, departments, officers, and entities, and prosecutes misdemeanors and violations of the Charter and City ordinances. The current City Attorney, Mike Feuer, assumed office on July 1, 2013, and was elected to a second term on March 7, 2017, which will end in 2022 due to the change in election dates.

All citywide elected officials are subject to term limits of two four-year terms, while Council members are subject to term limits of three four-year terms.

The City Administrative Officer (“CAO”) is the chief fiscal advisor to the Mayor and Council and reports directly to both. The CAO is appointed by the Mayor, subject to Council confirmation. In February 2017, the Mayor appointed Richard H. Llewellyn, Jr. as Interim City Administrative Officer; he was permanently appointed to the position by the Mayor and confirmed by the Council in February 2018.

The City Treasurer (the “Treasurer”) receives, invests and is the custodian of the City’s funds and those of affiliated entities. The Treasurer also serves as the City’s Investment Officer. The Treasurer is appointed by the Mayor and confirmed by the Council. On July 1, 2011, the Office of the Treasurer was consolidated into the Office of Finance. Claire Bartels, the Director of Finance, also serves as the City Treasurer.

The City has 38 departments and bureaus for which operating funds are annually budgeted by the Council. In addition, three departments (the Department of Water and Power (“DWP”), the

Harbor Department, and the Department of Airports) and one State-chartered public agency (the Housing Authority of the City) are under the control of boards appointed by the Mayor and confirmed by the Council. The City obtains water and electricity from DWP, the largest municipally-owned utility in the nation. Two departments, the Los Angeles City Employees' Retirement System and the Fire and Police Pension System, are under the control of boards whose membership is comprised of Mayoral appointees and representatives elected by system members.

Public services provided by the City include police, fire and paramedics; residential refuse collection and disposal, wastewater collection and treatment, street maintenance, traffic management, storm water pollution abatement, and other public works functions; enforcement of ordinances and statutes relating to building safety; public libraries; recreation and parks; community development; housing and aging services; and planning.

BUDGET AND FINANCIAL OPERATIONS

Risk Management and Retention Program

Because of its size and its financial capacity, the City has long followed the practice of directly assuming most insurable risks without procuring commercial insurance policies. The extent and variety of City exposure is such that the cost of the premiums outweighs the benefits of such coverage. The City administers, adjusts, settles, defends and pays claims from budgeted resources. The City is self-insured for workers' compensation as permitted under State law. The City procures commercial insurance when required by bond or lease financing covenants and for other limited purposes.

Funds are budgeted annually to provide for claims and other liabilities based both on the City's historical record of payments and an evaluation of known or anticipated claims. The Fiscal Year 2018-19 Adopted Budget provides funding of \$89.1 million for these liabilities, of which \$80 million is dedicated to liabilities that must be paid from the General Fund. The 2018-19 Adopted Budget also includes an additional \$20 million in the Unappropriated Balance, Reserve for Extraordinary Liabilities, which is also available for this purpose. From time to time, the City may issue judgment obligation bonds to finance larger judgments or settlements, as it did in Fiscal Year 2008-09 and Fiscal Year 2009-10. Claims and other liabilities against the Wastewater System (the "System") are paid from the Sewer Construction and Maintenance Fund. The System's recent claims payment experience is listed in the table below.

Table 8
SEWER CONSTRUCTION AND MAINTENANCE FUND
LIABILITY CLAIMS PAID⁽¹⁾
(\$ in thousands)

<u>Fiscal Year</u>	<u>Claims Paid</u>
2014-15	\$2,377
2015-16	1,792
2016-17	1,799
2017-18 (Estimated)	3,750
2018-19 (Adopted Budget)	3,750

⁽¹⁾ Cash basis.

Source: City of Los Angeles, Office of the City Administrative Officer.

Workers' Compensation, Employee Health Care and Other Human Resources Benefits

The City appropriates funds to a Human Resources Benefits Fund to account for various programs to provide benefits to its employees, in addition to retirement and other post-employment benefits as described below. The Fund is administered by the Personnel Department, and does not account for retirement or other post-employment benefits. Total benefits expenditures are shown in the following table.

Table 9
HUMAN RESOURCES BENEFITS⁽¹⁾
(\$ in thousands)

	<u>2014-15</u>	<u>2015-16</u>	<u>2016-17</u>	<u>Estimated 2017-18</u>	<u>Adopted 2018-19</u>
Workers' Compensation/Rehabilitation	\$161,500	\$169,601	\$175,831	\$189,500	\$194,000
Contractual Services	26,480	21,141	20,152	23,230	25,830
Civilian FLEX Program ⁽²⁾	227,017	235,918	255,129	276,415	286,257
Supplemental Civilian Union Benefits	4,094	4,318	4,889	4,607	5,113
Police Health and Welfare Program	129,359	134,340	139,498	145,526	158,068
Fire Health and Welfare Program	46,437	47,037	49,348	52,523	56,927
Unemployment Insurance	5,000	2,989	2,538	2,900	2,800
Employee Assistance Program	1,250	1,463	1,535	1,587	1,662
Total	<u>\$601,137</u>	<u>\$616,807</u>	<u>\$648,920</u>	<u>\$696,288</u>	<u>\$730,657</u>

⁽¹⁾ Cash basis.

⁽²⁾ Reflects all civilian health, dental, union supplemental benefit and life insurance subsidies.

Source: City of Los Angeles, Office of the City Administrative Officer.

The System pays its pro-rata share of these and certain other costs through a line item budgeted as "Reimbursement of General Fund Costs" in the Sewer Construction and Maintenance Fund budget. The volatility in these reimbursements reflects changes in the City's cost allocation plan and occasional overpayments of related costs, which are reconciled in subsequent years.

Table 10
SEWER CONSTRUCTION AND MAINTENANCE FUND
REIMBURSEMENT OF GENERAL FUND COSTS
(\$ in thousands)

<u>Fiscal Year</u>	<u>Expenditures⁽¹⁾</u>
2014-15	\$79,547
2015-16	54,760
2016-17	69,284
2017-18 (Estimated)	95,138
2018-19 (Adopted Budget)	107,585

⁽¹⁾ Cash basis.

Source: City of Los Angeles, Office of the City Administrative Officer.

Labor Relations

In 1971, the City adopted an employee relations ordinance under the provisions of the Meyers-Milias-Brown Act (“MMBA”). Under the MMBA, management must bargain with recognized employee organizations on terms and conditions of employment, including wages, hours, and other working conditions. The CAO is the formal management representative on employee relations matters, representing the Mayor and Council in negotiations with recognized employee organizations. The CAO receives direction from the Executive Employee Relations Committee (“EERC”), consisting of the Mayor, the President of the Council, the President Pro-Tempore of the Council and the chairpersons of the Council’s Budget and Finance, and Personnel and Animal Welfare Committees. Formal Memoranda of Understanding (“MOUs”) are executed between the City and the employee organizations incorporating the negotiated wages and working conditions for each bargaining unit. For expired contracts, the terms continue to be observed during negotiations of a new contract, unless a provision has a specific termination date.

There are 41 individual MOUs, affecting about 36,400 full-time City employees (these bargaining units include employees of the Airport and Harbor departments, but exclude DWP employees) that are represented by 22 labor unions/employee associations. The remaining approximately 800 employees are not represented. The vast majority of employees that are members of the Los Angeles City Employees’ Retirement System (“LACERS”) are considered to be “civilian” employees. Employees that are members of the City of Los Angeles Fire and Police Pension Plan (“LAFPP”) are considered to be “sworn” or “safety” employees. See **“BUDGET AND FINANCIAL OPERATIONS—Los Angeles City Employees’ Retirement System (“LACERS”).”**

Multi-year agreements are currently in place with the Los Angeles Police Protective League; the United Firefighters of Los Angeles City; the 19 bargaining units that comprise the “Coalition of LA City Unions” (which includes 17 full-time and two part-time bargaining units); and the five bargaining units represented by the Engineers and Architects Association. The agreements provide for salary increases as shown on the table below.

The following table summarizes the membership and status of the largest unions and employee associations. Most Wastewater System employees are members of the Service Employees International Union, which is represented by the Coalition of LA City Unions, whose contract expired on June 30, 2018. As noted above, the terms of the expired contract continue to be observed during negotiations of a new contract, which is currently underway.

Table 11
STATUS OF LABOR CONTRACTS
LARGEST EMPLOYEE ORGANIZATIONS
(As of July 1, 2018)

<u>Organization</u>	<u>Full-Time Employees Represented⁽¹⁾</u>	<u>Number of Bargaining Units</u>	<u>Status of Memorandum of Understanding</u>	<u>Cost of Living Adjustment⁽²⁾</u>
Los Angeles Police Protective League	9,897	1	Contract expires 7/31/19	2% on 7/8/18 2% on 7/7/19
United Firefighters of Los Angeles City	3,282	1	Contract expires 6/30/19	4% effective 6/26/16 2% effective 7/9/17 2% effective 1/7/18 2% effective 7/8/18
Coalition of LA City Unions ⁽³⁾	15,653	17	Contracts expired 6/30/18	2% on 7/9/17 2.75% step on 1/7/18 Salaries restructured
Engineers and Architects Association	4,937	4	Contracts expire 6/22/19	1.5% increase effective 12/13/15. 2.25% effective 6/26/16 2.25% effective 6/25/17 2.25% effective 6/24/18
Municipal Construction Inspectors Association	866	1	Contract expires 6/22/19	3% effective 11/13/16 2% effective 6/25/17 1.5% effective 12/10/17 2% effective 6/10/18 2% effective 6/23/19 Salaries restructured

⁽¹⁾ Total employees in all departments except DWP.

⁽²⁾ Adjustments for the term covered by the specific MOU. Also includes certain “step increases” for variation in pay based on longevity.

⁽³⁾ Includes Service Employees International Union, Local 721, American Federation of State, County and Municipal Employees, Laborers’ International Union of North America Local 777, Los Angeles/Orange County Building & Construction Trades Council, IUOE Local 501, and the Teamsters, Local 911.

Source: City of Los Angeles, Office of the City Administrative Officer.

The table below shows total authorized City staffing for all departments except Airports, Harbor, DWP, LACERS, and LAFPP. The Los Angeles Police Department (“LAPD”) represents the single largest department in terms of authorized positions.

Table 12
AUTHORIZED CITY STAFFING⁽¹⁾

	<u>2014-15</u>	<u>2015-16</u>	<u>2016-17</u>	<u>2017-18</u>	<u>Adopted 2018-19</u>
Sworn					
Police	10,480	10,522	10,545	10,547	10,549
Fire	<u>3,232</u>	<u>3,292</u>	<u>3,350</u>	<u>3,350</u>	<u>3,363</u>
Subtotal Sworn	13,712	13,814	13,895	13,897	13,912
Civilian					
Police	3,227	3,313	3,330	3,335	3,388
Fire	342	342	379	383	397
All Others	<u>14,594</u>	<u>15,107</u>	<u>15,501</u>	<u>15,760</u>	<u>16,063</u>
Subtotal Civilian	<u>18,163</u>	<u>18,762</u>	<u>19,210</u>	<u>19,478</u>	<u>19,848</u>
Total	31,875	32,576	33,105	33,375	33,760

⁽¹⁾ As authorized in the Adopted Budget. Includes permanent (“regular”) positions and excludes temporary personnel (also referred to as “resolution authority positions”), which total 2,400 for Fiscal Year 2018-19. Also excludes personnel of the departments of Airports, Harbor, DWP, LACERS and LAFPP.

Source: City of Los Angeles, Office of the City Administrative Officer.

Los Angeles City Employees’ Retirement System (“LACERS”)

The City has three single-employer defined benefit pension plans created by the City Charter: the Los Angeles City Employees’ Retirement System (“LACERS”), the City of Los Angeles Fire and Police Pension Plan (“LAFPP”) and, for employees of DWP, the Water and Power Employees’ Retirement, Disability and Death Benefit Insurance Plan (the “Water and Power Plan”). Both LACERS and LAFPP (collectively, the “Pension Systems”) are funded primarily from the City’s General Fund, while the Water and Power Plan is funded by that department’s proprietary revenues. Employees of the City’s Wastewater System are members of LACERS.

LACERS, established in 1937 under the Charter, is a contributory plan covering most City employees except uniformed fire and police personnel who are members of Los Angeles Fire and Police Pensions, and employees of the Department of Water and Power. As of June 30, 2017, the date of its most recent actuarial valuation, LACERS had 25,457 active members, 18,805 retired members and beneficiaries, and 7,428 inactive members. The number of retired members was significantly increased, and the number of active members significantly decreased, as a result of the City’s Early Retirement Incentive Program in Fiscal Year 2009-10. LACERS is funded pursuant to the Entry Age Cost Method, which is designed to produce stable employer contributions in amounts that increase at the same rate as the employer’s payroll (i.e., level percent of payroll).

LACERS provides retirement, disability, death benefits, post-employment healthcare and annual cost-of-living adjustments to plan members and beneficiaries. As required by the City Charter, the actuarial valuations for LACERS are prepared on an annual basis and the applicable actuary recommends contribution rates for the fiscal year beginning after the completion of that

actuarial valuation. When approved by LACERS' board of administration, these become the City's contribution rates for such years.

LACERS' annual valuations determine the contribution rate, as a percentage of covered payroll, needed to fund the normal retirement costs accrued for current employment and to amortize any unfunded actuarial accrued liability ("UAAL"). The UAAL represents the difference between the present value of estimated future benefits accrued as of the valuation date and the actuarial value of assets currently available to pay these liabilities. The valuation is an estimate based on relevant economic and demographic assumptions, with the goal of determining the contributions necessary to sufficiently fund over time the benefits for currently active, vested former members and retired employees and their beneficiaries. Various actuarial assumptions are used in the valuation process, including the assumed rate of earnings on the assets of the plan in the future, the assumed rates of general inflation, salary increases, inflation in health care costs, assumed rates of disability, the assumed retirement ages of active employees, the assumed marital status at retirement, and the post-employment life expectancies of retirees and beneficiaries. As plan experience differs from adopted assumptions, the actual liabilities will be more or less than the liabilities calculated based on these assumptions. The contribution rates in the following year's valuations are adjusted to take into account actual plan performance in the current and prior years. In addition, LACERS performs an experience study every three years and further adjusts its assumptions accordingly.

A number of assumptions are made in calculating the actuarial valuation of retirement benefits. The following are some of the key assumptions used by LACERS' actuary, The Segal Company, in preparing LACERS' actuarial report as of June 30, 2017.

Table 13
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
ACTUARIAL ASSUMPTIONS
As of June 30, 2017

Investment rate of return	7.25%
Inflation rate	3.00%
Real across-the-board salary increase (net of inflation)	0.50%
Projected salary increases	Ranges from 3.90% to 10.00%, based on service
Cost of living adjustments for pensioners	3.00% for Tier 1; 2.00% for Tier 3

Source: Los Angeles City Employees' Retirement System Actuarial Valuation and Review of Retirement and Health Benefits as of June 30, 2017.

In 2017, the LACERS Board adopted a 7.25% assumed investment return and 3.00% price inflation, with a plan to conduct a full experience study of economic and demographic assumptions in the summer of 2018. Consistent with this previous action, the LACERS Board considered the full experience study in August 2018. In addition to demographic assumption changes including mortality, the LACERS actuary (Segal Consulting) recommended further reducing the inflation rate to 2.75% and the assumed investment return to 7.0%. The LACERS Board, however, only adopted changes to the demographic actuarial assumptions and not the economic assumptions. Instead the LACERS Board decided to consider all economic and demographic assumptions in

2020. The economic assumption changes will have the impact of increasing the City's contribution rate beginning in fiscal year 2019-20, all else being equal.

The valuations incorporate a variety of actuarial methods, some of which are designed to reduce the volatility of contributions from year to year. When measuring the value of assets for determining the UAAL, many pension plans, including LACERS, "smooth" market value gains and losses over a period of years to reduce volatility. These smoothing methodologies result in an actuarial value of assets that are lower or higher than the market value of assets.

LACERS' Board uses a market value corridor of 40%. A "corridor" is used in conjunction with asset smoothing, in order to keep the actuarial value of assets within a certain percentage of the market value of assets. For example, if a system has a 40% corridor, the actuarial value of assets must be between 60% and 140% of the market value of assets. Market losses and gains are recognized under a seven-year asset smoothing period, where only 1/7 of annual market gains or losses are recognized in the actuarial value of assets each year. The remaining gains or losses are spread equally over the next six years.

To limit future fluctuations in asset values due to large unrecognized gains reflecting several years of fairly large annual market gains and losses from a volatile market, the LACERS Board adopted a one-time adjustment, as of June 30, 2014, to its current asset smoothing policy by combining the unrecognized gains and losses of the prior years into one layer and spreading it evenly over six years. As of June 30, 2017, there was a total unrecognized net gain of \$2.6 million. The following table shows the original market gains and losses, and the unrecognized gains and losses as of June 30, 2017.

Table 14
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
CALCULATION OF UNRECOGNIZED RETURN DUE TO ASSET SMOOTHING
As of June 30, 2017

<u>Year Ended June 30</u>	<u>Original Market Gain (Loss)</u>	<u>Portion Not Recognized</u>	<u>Amount Not Recognized</u>
2013	\$ (81,571,421)	2/6	\$ (27,190,474) ⁽¹⁾
2014	1,246,285,581	3/7	534,122,392
2015	(707,760,540)	4/7	(404,434,594)
2016	(1,065,023,569)	5/7	(760,731,121)
2017	770,969,472	6/7	660,830,976
Total unrecognized return (loss)			\$ 2,597,179

⁽¹⁾ All deferred unrecognized investment gains as of June 30, 2013 were combined into a single layer, to be recognized over the six-year period beginning July 1, 2013.

Source: Los Angeles City Employees' Retirement System Actuarial Valuation and Review of Retirement and Health Benefits as of June 30, 2017.

LACERS amortizes components that contribute to its UAAL over various periods of time, depending on how the unfunded liability arose, layering separate, fixed amortization periods. Under current funding policy, actuarial losses and gains are amortized over fixed 15-year periods. Liabilities or surpluses due to assumption changes are funded or credited over 15 and 20 years for retiree health care benefits and retirement benefits, respectively. Liabilities caused by future early

retirement incentives will be funded over five years; other benefit changes will be amortized over 15 years.

The table below shows the actuarial value of the City's liability for retirement benefits (excluding retiree health care and other post-employment benefits), the actuarial value of assets available for retirement benefits, and two indicators of funding progress for LACERS, the funded ratio and the ratio of UAAL to annual payroll.

Table 15
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF FUNDING PROGRESS FOR RETIREMENT BENEFITS
ACTUARIAL VALUE BASIS
(\$ in thousands)⁽¹⁾

<u>Actuarial Valuation As of June 30</u>	<u>Actuarial Value of Assets</u>	<u>Actuarial Accrued Liability (AAL)</u>	<u>Unfunded AAL⁽²⁾</u>	<u>Funded Ratio⁽³⁾</u>	<u>Covered Payroll⁽⁴⁾</u>	<u>Unfunded AAL as a Percentage Of Covered Payroll⁽⁵⁾</u>
2008	\$ 9,438,318	\$11,186,404	\$1,748,085	84.4%	\$1,977,645	88.4%
2009	9,577,747	12,041,984	2,464,237	79.5	1,816,171	135.7
2010	9,554,027	12,595,025	3,040,998	75.9	1,817,662	167.3
2011	9,691,011	13,391,704	3,700,693	72.4	1,833,392	201.9
2012	9,934,959	14,393,959	4,458,999	69.0	1,819,270	245.1
2013	10,223,961	14,881,663	4,657,702	68.7	1,846,970	252.2
2014	10,944,751	16,248,853	5,304,103	67.4	1,898,064	279.5
2015	11,727,161	16,909,996	5,182,835	69.4	1,907,665	271.7
2016	12,439,250	17,424,996	4,985,746	71.4	1,968,703	253.3
2017	13,178,334	18,458,188	5,279,854	71.4	2,062,316	256.0

⁽¹⁾ Table includes funding for retirement benefits only. Other Post-Employment Benefits (OPEB) are not included.

⁽²⁾ Actuarial Accrued Liability minus Actuarial Value of Assets, commonly referred to as UAAL. Positive numbers represent a funded ratio less than 100%.

⁽³⁾ Actuarial value of assets divided by Actuarial Accrued Liability.

⁽⁴⁾ Annual payroll for members of LACERS.

⁽⁵⁾ UAAL divided by covered payroll.

Source: Los Angeles City Employees' Retirement System Actuarial Valuation and Review of Retirement and Health Benefits as of June 30, 2017.

The actuarial value of assets is different from the market value of assets as gains and losses are smoothed over a number of years. The following table shows the funding progress of LACERS based on the market value of the portion of system assets allocated to retirement benefits.

Table 16
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF FUNDING PROGRESS FOR RETIREMENT BENEFITS
MARKET VALUE BASIS
(\$ in thousands)⁽¹⁾

<u>Actuarial Valuation As of June 30</u>	<u>Market Value of Assets</u>	<u>Actuarial Accrued Liability (AAL)</u>	<u>Unfunded Liability⁽²⁾</u>	<u>Funded Ratio (Market Value)⁽³⁾</u>	<u>Covered Payroll⁽⁴⁾</u>	<u>Unfunded Liability as a Percentage Of Covered Payroll (Market Value)⁽⁵⁾</u>
2008	\$9,059,551	\$11,186,404	\$2,126,853	81.0%	\$1,977,645	107.5%
2009	7,122,911	12,041,984	4,919,073	59.2	1,816,171	270.9
2010	7,804,223	12,595,025	4,790,802	62.0	1,817,662	263.6
2011	9,186,697	13,391,704	4,205,007	68.6	1,833,392	229.4
2012	9,058,839	14,393,959	5,335,120	62.9	1,819,270	293.3
2013	10,154,486	14,881,663	4,727,177	68.2	1,736,113	272.3
2014	11,791,079	16,248,853	4,457,774	72.6	1,802,931	247.3
2015	11,920,570	16,909,996	4,989,426	70.5	1,835,637	271.8
2016	11,809,329	17,424,996	5,615,667	67.8	1,968,703	285.2
2017	13,180,516	18,458,188	5,277,672	71.4	2,062,316	256.0

(1) Table includes funding for retirement benefits only. Other Post-Employment Benefits (OPEB) are not included.

(2) Actuarial Accrued Liability minus Market Value of Assets. Positive numbers represent a funded ratio less than 100%.

(3) Market value of assets divided by actuarial accrued liability.

(4) Annual payroll for members of LACERS.

(5) Unfunded liability divided by covered payroll.

Source: Calculated based on data from Los Angeles City Employees' Retirement System Actuarial Valuation reports.

LACERS has adopted asset allocation plans to guide their investments in stocks, bonds, real estate, alternatives and cash equivalents over a three- to five-year period. The asset allocations of LACERS are summarized further below. Market value investment returns for the past 10 fiscal years are shown in the table below. Any return below the actuarial assumed rate of return (lowered to 7.25% as of its June 30, 2017 actuarial valuation) represents an actuarial investment loss, while any return above the assumed rate of return represents an actuarial investment gain.

Table 17
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
HISTORICAL MARKET VALUE INVESTMENT RETURNS

<u>Fiscal Year</u>	<u>LACERS</u>
2007-08	(5.7)%
2008-09	(19.5)
2009-10	12.9
2010-11	22.6
2011-12	1.1
2012-13	14.3
2013-14	18.4
2014-15	2.8
2015-16	0.5
2016-17	13.3

Source: City of Los Angeles, LACERS Actuarial Valuation reports.

The City has never issued pension obligation bonds to fund any of its pension systems. The City does pre-pay its annual contribution to LACERS out of the proceeds of its annual issuance of tax and revenue anticipation notes.

The table below summarizes the City's payments to LACERS over the past five years, including the budgeted payment for Fiscal Year 2018-19. This table includes costs for retirement, as well as for retiree health care (see **"BUDGET AND FINANCIAL OPERATIONS —Other Post-Employment Benefits"**), and other miscellaneous benefits.

Table 18
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
SOURCES AND USES OF CONTRIBUTIONS
(\$ in thousands)⁽¹⁾

	<u>2014-15</u>	<u>2015-16</u>	<u>2016-17</u>	<u>Adopted Budget 2017-18</u>	<u>Adopted Budget 2018-19</u>
Sources of Contributions					
Contributions for Council-controlled					
Departments	\$411,509	\$434,639	\$459,400	\$450,813	\$488,414
Airport, Harbor Departments, LACERS, LAFPP	<u>94,209</u>	<u>103,120</u>	<u>106,766</u>	<u>102,214</u>	<u>110,370</u>
Total	\$505,718	\$537,759	\$566,166	\$553,027	\$598,784
Percent of payroll – Tier 1	26.56%	28.75%	28.16%	27.22%	28.31%
Percent of payroll – Tier 2	19.63%	26.42%			
Percent of payroll – Tier 3			24.96%	24.64%	25.88%
Uses of Contributions					
Current Service Liability (Normal cost)	\$193,769	\$190,777	\$206,982	\$214,403	\$223,667
UAAL	305,891	363,929	366,172	359,542	397,617
Adjustments ⁽²⁾	<u>6,058⁽³⁾</u>	<u>(16,947)⁽⁴⁾</u>	<u>(6,988)⁽⁵⁾</u>	<u>(20,918)⁽⁶⁾</u>	<u>(22,500)⁽⁷⁾</u>
Total	\$505,718	\$537,759	\$566,166	\$553,027	\$598,784

⁽¹⁾ Includes funding for OPEB.

⁽²⁾ Includes the excess benefit plan, the family death benefit plan, and the limited term plan fund. Beginning with the 2014-15 payment, the true-up obligation for the prior year is also reflected in this line item.

⁽³⁾ Payment for a 2013-14 true-up in the amount of \$5,191,511 (all agencies) was made in 2014-15.

⁽⁴⁾ Adjustments for 2015-16 include the 2014-15 true-up which consists of an \$18,052,498 credit (all agencies), which is partially offset by \$1,105,000 in excess benefit, family death and limited term plan costs.

⁽⁵⁾ Adjustments for 2016-17 include the 2015-16 true-up, which consists of a \$24,031,072 credit (all agencies) and which is partially offset by a \$15,854,076 one-time lump sum payment for the retroactive upgrade of past Tier 2 members to Tier 1, and \$1,189,000 in excess benefit, family death and limited term plan costs.

⁽⁶⁾ Adjustments for 2017-18 include the 2016-17 true-up which consists of a \$22,341,265 credit (all agencies) and \$1,423,000 in excess benefit family death, and limited term plan costs. The entire portion of the City's contribution attributed to the enhanced benefit for the Airport Peace Officers who remain in LACERS will be borne exclusively by the Airports Department. As a result, the final contribution obligation for all agencies has been adjusted accordingly.

⁽⁷⁾ Adjustments for 2018-19 include the 2017-18 true-up which consists of a \$23,745,605 credit (all agencies) and \$1,246,000 in excess benefit, family death, and limited term plan costs. The final contribution obligation for all agencies has been adjusted accordingly for the enhanced benefit for the Airport Peace Officers who remain in LACERS.

Source: City of Los Angeles, Office of the City Administrative Officer.

In 2012, the City Council adopted a new civilian retirement tier ("Tier 2"), which applied to all employees hired on or after July 1, 2013. Subsequently, as part of an agreement with the Coalition of LA City Unions, both the City and the Coalition agreed to transfer all Tier 2 employees into Tier 1 effective February 21, 2016. Any new employee hired into a position eligible for

LACERS members on or after February 21, 2016 will, unless eligible for Tier 1 membership under specific exemptions, be enrolled in a new “Tier 3”.

The following table includes a summary of the major plan design changes from Tier 1 to Tier 3.

Table 19
COMPARISON OF LACERS TIER I AND TIER III PLAN DESIGNS

<u>Plan Feature</u>	<u>Tier I⁽¹⁾</u>	<u>Tier III</u>
Normal Retirement (Age / Years of Service (“YOS”))	60 / 10 70 / Any	60 / 30 60 / 10
Early, Unreduced Retirement Eligibility	55 / 30	55 / 30
Benefit Factors	2.16% @ 55 / 30	1.5% @ 60 / 10 2.0% @ 60 / 30 2.0% @ 55 / 30 2.0% @ 63 / 10 2.1% @ 63 / 30
Compensation Used to Determine Retirement Allowance	Highest consecutive 12 months, including most bonuses	Last 36 months prior to retirement, including most MOU bonuses
Maximum Benefit	100%	80%
Employee Contribution Base	6%	7%
Early Retirement Incentive Program Employee Contribution	1% Until 2026 or when ERIP debt is paid, whichever is sooner	N/A
Other Post-Employment Benefits (OPEB), e.g., retiree healthcare Employee Contribution	4%	4%
Maximum Annual COLA	3%	2%
COLA Bank	Yes	No
Survivor Continuance	50%	50%
Death Benefit	\$2,500	\$2,500
Retiree Health Subsidy	Eligible at 55 / 10 Subsidy two-party Kaiser rate Vesting 40% at 10 Years of Service (YOS), 100% at 25 YOS	Eligible at 55 / 10 Subsidy two-party Kaiser rate Vesting 40% at 10 YOS, 100% at 25 YOS
Disability Retirement	More than 5 YOS Maximum 1.43% per YOS or 33% of final compensation Less than 5 YOS, return contributions	More than 5 YOS Maximum 1.43% per YOS or 33% of final compensation Less than 5 YOS, return contributions
Government Service Buyback	Member contribution	Member pays employee and employer contributions, except for limited military or maternity leave time.

⁽¹⁾ Does not reflect Tier 1 Enhanced Benefits for approximately 500 Airport Peace Officers.

Source: City of Los Angeles, Office of the City Administrative Officer

The following table sets forth LACERS' investments and asset allocation targets.

Table 20
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
ASSET CLASS MARKET VALUE AND ALLOCATION⁽¹⁾
(\$ in million)
As of March 31, 2018

<u>Asset Class</u>	<u>Market Value</u>	<u>Actual Allocation (%)</u>	<u>New Target Allocation Approved April 2018 (%)</u>
U.S. Equity	\$ 4,408	25.91%	19.00%
Non-U.S. Equity	5,481	32.21	27.00
Fixed Income Securities	2,982	17.52	13.75
Credit Opportunities	794	4.66	12.25
Real Assets	1,565	9.20	13.00
Private Equity	1,709	10.04	14.00
Cash	77	0.45	1.00
Total Portfolio	\$17,016	100.00%	100.00%
⁽¹⁾ All assets, including pension and OPEB.			

Source: LACERS Portfolio Performance Review for the Quarter Ending March 31, 2018.

The information contained in this section and the following section, **“Other Post-Employment Benefits,”** is primarily derived from information produced by LACERS and its independent actuaries. The City has not independently verified the information provided by LACERS. The comprehensive annual financial reports of LACERS, actuarial valuations for retirement and health benefits, and other information concerning LACERS are available on LACERS' website, at www.lacers.org/aboutlacers/reports/index.html. Information set forth on such website is not incorporated by reference herein. For additional information regarding the LACERS, see also Note 5 in the “Notes to the City's Basic Financial Statements” in the City's Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2017.

Investors are cautioned that, in considering information on LACERS, including the amount of the UAAL for retirement and other benefits, the funded ratio, the calculations of normal cost, and the resulting amounts of required contributions by the City, this is “forward looking” information. Such “forward looking” information reflects the judgment of the Board of LACERS and its actuaries as to the value of future benefits over the lives of the currently active employees, vested terminated employees, and existing retired employees and beneficiaries. These judgments are based upon a variety of assumptions, one or more of which may prove to be inaccurate and/or be changed in the future.

Other Post-Employment Benefits

Retired members and surviving spouses and domestic partners of LACERS members are eligible for certain subsidies toward their costs of medical and dental insurance and other benefits. These benefits are paid by the respective retirement system. These retiree health benefits are accounted for as “Other Post-Employment Benefits” (“OPEB”).

The City began making payments to LACERS to pre-fund its OPEB obligations in Fiscal Year 1989-90, in an amount then determined by LACERS and their actuaries. The calculations of OPEB funding requirements are made by the same actuaries that perform the analysis of LACERS' retirement benefits, and generally rely on the same actuarial assumptions, other than those assumptions such as medical inflation specific to OPEB.

As of June 30, 2017, the unfunded healthcare benefits liabilities of LACERS are as follows:

Table 21
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
SCHEDULE OF FUNDING PROGRESS FOR OTHER POST-EMPLOYMENT BENEFITS
(\$ in thousands)

Actuarial Valuation As of June 30	Actuarial Value of Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL ⁽¹⁾	Funded Ratio ⁽²⁾	Covered Payroll ⁽³⁾	Unfunded AAL as a Percentage of Covered Payroll ⁽⁴⁾
2008	\$1,342,920	\$1,928,043	\$585,123	69.7%	\$1,977,645	29.6%
2009	1,342,497	2,058,177	715,680	65.2	1,816,171	39.4
2010	1,425,726	2,233,874	808,148	63.8	1,817,662	44.5
2011	1,546,884	1,968,708	421,824	78.6	1,833,392	23.0
2012	1,642,374	2,292,400	650,027	71.6	1,819,270	35.7
2013	1,734,733	2,412,484	677,751	71.9	1,846,970	36.7
2014	1,941,225	2,662,853	721,628	72.9	1,898,064	38.0
2015	2,108,925	2,646,989	538,065	79.7	1,907,665	28.2
2016	2,248,753	2,793,689	544,935	80.5	1,968,703	27.7
2017	2,438,458	3,005,806	567,348	81.1	2,062,316	27.5

⁽¹⁾ Actuarial Accrued Liability minus Actuarial Value of Assets, commonly referred to as UAAL. Positive numbers represent an actuarial deficit.

⁽²⁾ Actuarial value of assets divided by Actuarial Accrued Liability.

⁽³⁾ Annual payroll against which UAAL amortized.

⁽⁴⁾ UAAL divided by covered payroll.

Source: The City of Los Angeles City Employees' Retirement System Actuarial Valuations.

Historically, plan members did not contribute towards healthcare subsidy benefits; all such costs were funded from the employer's contribution and investment returns thereon. The City negotiated bargaining agreements that require a 4% active employee contribution toward retiree healthcare for its entire civilian workforce and the option of a 2% active employee contribution toward retiree healthcare for its sworn workforce hired before July 1, 2011. Sworn employees hired after July 1, 2011, are members of Tier 6 which requires a 2% contribution toward retiree healthcare. Employees who contribute to retiree healthcare benefits are vested in future subsidy increases authorized by the retirement boards. For those sworn employees that opted not to make an additional contribution toward retiree healthcare, their retiree health subsidy has been frozen and cannot surpass the maximum subsidy level in effect as of July 1, 2011.

Projected Retirement and Other Post-Employment Benefit Expenditures

The table below illustrates the City's projected contributions to LACERS for the next four fiscal years based on projected rates from the City's actuary applied against projected payroll by the CAO. It should be noted that these projections were completed before LACERS adopted new demographic assumptions which will increase the City's contribution rate beginning in fiscal year

2019-20, all else being equal. These contributions illustrate the projected cost of both pension and OPEB under the existing assumptions.

Table 22
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
PROJECTED CONTRIBUTIONS
(\$ in thousands)

	Adopted Budget 2018-19	Projection 2019-20	Projection 2020-21	Projection 2021-22	Projection 2022-23
LACERS					
Contributions for Council-controlled Departments ⁽¹⁾⁽²⁾	\$488,414	\$518,838	\$518,242	\$520,768	\$537,555
Percentage of Payroll ⁽³⁾	28.02%	27.81%	28.34%	26.94%	27.27%
Incremental Change	\$37,601	\$30,424	\$(596)	\$2,526	\$16,787
% Change	8.34%	6.23%	(0.11)%	0.49%	3.22%

⁽¹⁾ Includes the General Fund and various special funds.

⁽²⁾ Assumes 7.25% return on investment.

⁽³⁾ Reflects combined rates for all benefit tiers.

Source: City of Los Angeles, Office of the City Administrative Officer, based on information from the system's actuary.

City Treasury Investment Practices and Policies

The Treasurer invests available cash for the City, including that of the proprietary departments, as part of a pooled investment program that combines general receipts with special funds for investment purposes and allocates interest earnings on a pro-rata basis when the interest is earned, and distributes interest receipts based on the previously established allocations. The Treasurer also maintains a limited number of special pools established for specific purposes.

The City's General Pool is further divided into a core pool and a reserve pool. The core or liquidity portion is targeted at the City's net liquidity requirements for six months. All investments in the core section of the portfolio have maturities of one year or less. The balance of the General Pool not required for the City's six-month liquidity requirement is invested in the reserve portfolio. The reserve portfolio holds investments ranging from one to five years.

Table 23
POOLED INVESTMENT FUND
GENERAL POOL
Investments as of July 31, 2018

Description	Par Value	Market Value	Percent of Total Funds (Market Value)	Average Days
Bank Deposits ⁽¹⁾	\$ 121,983,574	\$ 121,983,574	1.33%	0
Money Market Funds	132,000,083	132,000,083	1.44%	0
LAIF (State of California)	0	0	0.00%	0
Subtotal Cash and Overnight Investments	\$ 253,983,656	\$ 253,983,656	2.78%	0
CDARS ⁽²⁾	\$ 0	\$ 0	0.00%	0
Commercial Paper	589,694,000	588,814,738	6.43%	26
Negotiable Certificates of Deposit	0	0	0.00%	0
Corporate Notes	217,310,000	216,502,278	2.37%	213
U.S. Agencies/Munis/Supras	432,775,000	432,346,515	4.72%	41
U.S. Treasuries	950,000,000	945,061,700	10.33%	255
Subtotal: Pooled Investments	\$2,189,779,000	\$2,182,725,231	23.85%	147
Total Short Term Core Portfolio	\$2,443,762,656	\$2,436,708,887	26.63%	131
Money Market Funds	\$ 0	\$ 0	0.00%	0
Commercial Paper	0	0	0.00%	0
Negotiable Certificates of Deposit	0	0	0.00%	0
Corporate Notes	1,274,795,000	1,253,305,839	13.70%	968
Asset-Backed Securities	115,337,000	113,964,878	1.25%	1,184
U.S. Agencies/Munis/Supras	609,830,000	596,713,752	6.52%	879
U.S. Treasuries	4,855,000,000	4,749,607,300	51.91%	1,034
Total Long-Term Reserve Portfolio	\$6,854,962,000	\$6,713,591,769	73.37%	1,011
Total Cash and Pooled Investments	\$9,298,724,656	\$9,150,300,657	100.00%	776
	Short-Term Core Portfolio	Long-Term Reserve Portfolio	Consolidated	
Average Weighted Maturity	131 Days	2.8 Years	2.1 Years	
Effective Yield	1.69%	1.88%	1.83%	

⁽¹⁾ Collected balance for Wells Fargo Active Accounts.

⁽²⁾ Certificate of Deposit Account Registry Service, which provides capital to community banks that lend and provide services in economically distressed areas. Deposits are insured through FDIC.

Source: City of Los Angeles, City Treasurer.

The City's treasury operations are managed in compliance with the California Government Code and according to the City's Statement of Investment Policy (the "Investment Policy"), which

sets forth liquidity parameters, maximum maturities and permitted investment vehicles, which include U.S. Treasuries, U.S. Government Agencies and Corporate Notes.

Additionally, daily investment activity is reviewed independently by an outside investment advisor to ensure that all security transactions are in accordance with all policies as delineated above.

The Treasurer does not invest in structured or range notes, securities that could result in zero interest accrual if held to maturity, variable rate, floating rate or inverse floating rate investments, or mortgage-derived interest or principal-only strips, among other instruments prohibited by State law and the City's Investment Policy.

The Investment Policy permits the Treasurer to engage custodial banks to enter into short-term arrangements to loan securities to various brokers. Cash and/or securities (United States Treasuries and Federal Agencies) collateralize these lending arrangements, the total value of which is at least 102% of the market value of securities loaned out. The securities lending program is limited to a maximum of 20% of the market value of the Treasurer's pool by the City's Investment Policy and the California Government Code.

APPENDIX B

GLOSSARY OF DEFINED TERMS

The following are definitions of certain terms contained in the General Resolution and the Subordinate General Resolution.

“Accrued Interest” as defined in the General Resolution means, for any calendar month, the amount of interest which has accrued or will accrue on a Series of Outstanding Bonds during that month less (i) any interest which accrues during such period, but is to be paid from moneys or Permitted Investments or the earnings thereon, which moneys or Permitted Investments are on deposit in a separate fund or account or are otherwise segregated for such purpose and (ii) interest which has accrued but is not due and payable within the 12-month period immediately following such accrual; for purposes of this definition interest which has accrued but is not due and payable within the 12-month period immediately following such accrual shall be included as Accrued Interest in 12 equal consecutive monthly installments commencing in the twelfth month preceding the payment date; with respect to the calculation of the amount to be deposited into the Debt Service Fund for any given month for any Series of Bonds the interest rate on which will or may fluctuate from the date of calculation to the end of such calendar month, interest after the calculation date, for purposes of calculating Accrued interest for such month, will be assumed to accrue at a rate equal to 110% of the rate of interest on such Bonds on the date of calculation; for purposes of determining any Deficiency or Excess, interest accruing on fluctuating rate Bonds for any prior month shall be calculated at the actual rate or rates for such month.

“Accrued Principal” as defined in the General Resolution means, for any calendar month, the amount of principal which has “accrued” or will “accrue” on a Series of Outstanding Bonds during that month less any principal which accrues during such period but is to be paid from moneys or Permitted Investments or the earnings thereon, which moneys or Permitted Investments are on deposit in a separate fund or account or are otherwise segregated for such purpose; for purposes of this definition, it shall be assumed that principal accrues in 12 equal monthly installments commencing in the twelfth month preceding the date on which payment is due, except that (i) with respect to principal on a Series of Bonds which is payable more frequently than annually, principal shall accrue in equal monthly installments from one payment date to the next and (ii) if the first principal payment date on a Series of Bonds is less than 12 months after the issuance of such Series, principal due on such first payment date shall accrue in equal monthly installments from the date of issuance to the first payment date and (iii) with respect to Balloon Indebtedness and commercial paper which is intended at the time of issuance to be paid with the proceeds of a corresponding issue of commercial paper, the entire principal amount shall be deemed to accrue in the month in which such Balloon Indebtedness or commercial paper is due and payable and not in monthly installments prior to such date. In all events, principal shall be determined to accrue in amounts sufficient to assure that the full amount due on any principal payment date and to be paid from the Debt Service Fund will be on deposit in the Debt Service Fund on the payment date. For purposes of determining Accrued Principal, a payment to be made on the basis of an accreted value shall be deemed a principal payment. If Bonds have been declared to be due and payable upon the occurrence and continuance of an Event of Default as provided in the General Resolution, then, in each calendar month, the entire unpaid principal of all Bonds which have been accelerated shall be deemed to have accrued in that calendar month.

“Aggregate Accrued Interest” as defined in the General Resolution means, for any calendar month, the sum of the Accrued Interest for that month for all Series of Outstanding Bonds.

“Aggregate Accrued Principal” as defined in the General Resolution means, for any calendar month, the sum of the Accrued Principal for that month for all Series of Outstanding Bonds.

“Authorized City Representative” means the Mayor, the City Clerk, the City Controller, the City Administrative Officer or a duly authorized designee of any of the foregoing, or any one or more of them and, in addition to the foregoing, for the purpose of directing the investment of money under the General Resolution and the Subordinate General Resolution only, the Treasurer or any Assistant Treasurer.

“Authorized Denominations” means denominations of \$5,000 and any integral multiples thereof.

“Balloon Indebtedness” means, with respect to any Series of Bonds or Subordinate Bonds, 25% or more of the principal of which matures on the same date or within a 12-month period, that portion of such Series which matures on such date or within such 12-month period; provided, however, that to constitute Balloon Indebtedness the amount of indebtedness maturing on a single date or over a 12-month period must equal or exceed 150% of the amount of such Series which matures during any preceding 12-month period. For purposes of this definition, the principal amount maturing on any dates shall be reduced by the amount of such indebtedness which is required, by the documents governing such indebtedness, to be amortized by prepayment or redemption prior to its stated maturity date.

“Bond” or “Bonds” means bonds, notes and other indebtedness, obligations or securities of any kind or class issued or incurred as provided in the General Resolution and secured by the General Resolution and the pledge of Revenues granted thereby. The term “Bonds” includes, but is not limited to, obligations in the form of bonds, notes, contracts, lease obligations, bond anticipation notes, commercial paper and certificates of participation. The term “Bond” or “Bonds” does not include any obligations incurred by the City on a subordinated basis as permitted by the General Resolution.

“Bond Counsel” means a firm of attorneys that are nationally recognized as experts in the area of municipal finance.

“Bondholder,” “Holder,” “Owner” or “Registered Owner” means at any given time the person in whose name a Bond or Bonds or a Subordinate Bond or Subordinate Bonds are at such time registered on the books maintained by the City or its Registrar. Beneficial Owners are not Bondholders, Holders, Owners or Registered Owners within the meaning of the General Resolution or the Subordinate General Resolution, as applicable, and shall, except as specifically provided in the General Resolution or the Subordinate General Resolution, derive their rights only through the entity which is the Registered Owner of the Bond or Subordinate Bond in which they are a Beneficial Owner.

“Build America Bonds” means any bonds or other obligations issued as Build America Bonds under Section 54AA of the Code, or under any other provisions of the Code, that creates, in the determination of the City, a substantially similar direct-pay subsidy program that provides comparable security for the Owners of the Bonds.

“Code” means the Internal Revenue Code of 1986, as amended.

“Commercial Paper Notes” or “CP Notes” the City’s Wastewater System Commercial Paper Revenue Notes which the City has issued and will issue from time to time on a parity with the Subordinate Bonds, as authorized as of the date hereof under the Subordinate General Resolution, as amended and supplemented.

“Commercial Paper Program” as defined in the Subordinate General Resolution means an aggregate principal amount of short-term obligations of the City payable from the Revenues and authorized by the Council to be incurred through the issuance and refinancing, from time to time, of notes of the City with maturities of not to exceed 270 days. The maximum aggregate principal amount of notes which may be Outstanding at any time is limited by the Council. The term “Commercial Paper Program” shall also

include the City's agreement with and obligations to any and all banks and other credit enhancers or liquidity providers entered into in connection with the program.

"Construction Fund" as defined in the General Resolution means any of the Construction Funds created as provided in the General Resolution for the purpose of serving as a depository of Bond proceeds to be used to pay Project Costs. The General Resolution provides that a separate Construction Fund be created for each Series if needed. "Construction Fund" as defined in the Subordinate General Resolution means any of the Construction Funds permitted by the Subordinate General Resolution to be created by a Supplemental Resolution thereto.

"Consultant" means the consultant, consulting firm, engineer, architect, engineering firm, architectural firm, accountant or accounting firm retained by the City to perform acts and carry out the duties provided for such Consultant in the General Resolution or the Subordinate General Resolution, as applicable. Such consultant, consulting firm, engineer, architect, engineering firm, architectural firm, accountant or accounting firm shall be nationally recognized within its profession for work of the character required.

"Debt Service Fund" as defined in the General Resolution means the Debt Service Fund created under the General Resolution as a fund into which money is to be deposited to be used to pay debt service on the Bonds. "Debt Service Fund" in the Subordinate General Resolution means any of the Debt Service Funds permitted by the Subordinate General Resolution to be established pursuant to a Supplemental Resolution thereto.

"Deficiency" as defined in the General Resolution means, at any time, the amount by which the sum of the Aggregate Accrued Interest and the Aggregate Accrued Principal for all prior calendar months with respect to unpaid interest and principal on all Outstanding Bonds exceeds the amount on deposit in the Debt Service Fund. For purposes of determining whether any Deficiency exists in the Debt Service Fund with respect to Bonds, amounts therein which have been segregated to pay Bonds which have previously become due and payable but have not yet been presented for payment and amounts therein which have been segregated to pay the redemption price of any Bond shall be disregarded.

"Direct Subsidy Bonds" includes Build America Bonds and Recovery Zone Economic Development Bonds.

"Emergency Fund" as defined in the General Resolution means that fund required to be established as provided in the General Resolution to be available for use for emergency needs of the System.

"Emergency Fund Requirement" as defined in the General Resolution means the sum of \$5,000,000 or such greater amount as shall from time to time be recommended by a Consultant and approved by the City, as provided in the General Resolution.

"Event of Default" means any occurrence or event specified in the General Resolution or Subordinate General Resolution, as applicable, as described in Appendix C below under the respective caption "Events of Default and Remedies."

"Excess" as defined in the General Resolution means, at any time, the amount by which the amount on deposit in the Debt Service Fund exceeds the sum of the Aggregate Accrued Interest and Aggregate Accrued Principal for all prior months with respect to unpaid interest and principal on all Outstanding Bonds. For purposes of determining whether any Excess exists in the Debt Service Fund with respect to Bonds, amounts therein which have been segregated to pay Bonds which have previously become due and

payable but have not yet been presented for payment and amounts therein which have been segregated to pay the redemption price of any Bond shall be disregarded.

“Expenses” means the total operating expenses of the System as determined in accordance with generally accepted accounting principles except, to the extent such items are included in such operating expenses, depreciation, interest on Outstanding Bonds and Subordinate Bonds and amortization of financing expenses.

“Fiscal Year” means the period of time beginning on July 1 of any given year and ending on June 30 of the immediately subsequent year, or such other annual period as the City designates as its fiscal year.

“General Resolution” means the “Wastewater System Revenue Bonds General Resolution” adopted by the City Council on November 10, 1987, as amended and supplemented from time to time.

“General Wastewater System Construction Fund” means that fund created by Ordinance No. 165924 of the City adopted on May 22, 1990 into which the City shall from time to time deposit either directly or by payment from other funds Bond proceeds and the earnings thereon to be used to pay Project costs.

“Government Obligations” means (i) direct obligations of, or obligations the principal of and interest on which are unconditionally guaranteed by, the United States of America and (ii) securities or receipts evidencing ownership interests in obligations or specified portions (such as principal or interest) of obligations described in (i).

“Maximum Annual Debt Service” (A) as defined in the General Resolution means, at any point in time, with respect to Bonds then Outstanding, the maximum amount of principal and interest becoming due in the then current or any future Fiscal Year, calculated by the City or by a Consultant as provided in the definition thereof, and (B) as defined in the Subordinate General Resolution means, at any point in time, with respect to Bonds and Subordinate Bonds then Outstanding, the maximum amount of principal and interest becoming due in the then current or any future Fiscal Year, calculated by the City or by a Consultant as provided in the definition thereof,. For purposes of calculating Maximum Annual Debt Service the following assumptions shall be used to calculate the principal and interest becoming due in any Fiscal Year:

- (i) in determining the principal amount due in each year, payment shall (except to the extent a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including any scheduled retirement of commercial paper not intended at the time of calculation to be repaid from the proceeds of a subsequent borrowing and including any scheduled mandatory redemption or prepayment of: (a) for purposes of the General Resolution, Bonds, and (b) for purposes of the Subordinate General Resolution, Bonds or Subordinate Bonds, as applicable, on the basis of accreted value, and for such purpose, the redemption payment or prepayment shall be deemed a principal payment; in determining the interest due in each year, interest payable at a fixed rate shall (except to the extent subsection (ii) or (iii) of this definition applies) be assumed to be made at such fixed rate and on the required payment dates;

- (ii) (a) for purposes of the General Resolution, if all or any portion or portions of an Outstanding Series of Bonds constitutes Balloon Indebtedness or if all or any portion or portions of a Series of Bonds then proposed to be issued would constitute Balloon Indebtedness, then, for purposes of determining Maximum Annual Debt Service, each

maturity which constitutes Balloon Indebtedness shall be treated as if it were to be amortized in substantially equal annual installments of principal and interest over a term of 25 years commencing in the year the stated maturity of such Balloon Indebtedness occurs; the interest rate used for such computation shall be the rate quoted in *The Bond Buyer Revenue Bond Index* for the last week of the month preceding the date of calculation, as published in *The Bond Buyer*, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield as of the date of calculation for United States Treasury bonds maturing at least 25 years after the date of such calculation, or if there are no such Treasury bonds having such maturities, 100% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets; with respect to any Series of Bonds only a portion of which constitutes Balloon Indebtedness, the remaining portion shall be treated as described in (i) above and, with respect to any Series or that portion of a Series which constitutes Balloon Indebtedness, all payments of principal and interest becoming due prior to the year of the stated maturity of the Balloon Indebtedness shall be treated as described in (i) above, and (b) for purposes of the Subordinate General Resolution, if all or any portion or portions of an Outstanding Series of Bonds or Subordinate Bonds constitutes Balloon Indebtedness or if all or any portion or portions of a Series of Subordinate Bonds then proposed to be issued would constitute Balloon Indebtedness, then, for purposes of determining Maximum Annual Debt Service, each maturity which constitutes Balloon Indebtedness shall be treated as if it were to be amortized in substantially equal annual installments of principal and interest over a term of 30 years commencing in the year the stated maturity of such Balloon Indebtedness occurs; the interest rate used for such computation shall be the rate quoted in *The Bond Buyer Revenue Bond Index* for the last week of the month preceding the date of calculation, as published in *The Bond Buyer*, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield as of the date of calculation for United States Treasury bonds maturing at least 25 years after the date of such calculation, or if there are no such Treasury bonds having such maturities, 100% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets; with respect to any Series of Bonds or Subordinate Bonds only a portion of which constitutes Balloon Indebtedness, the remaining portion shall be treated as described in (i) above and, with respect to any Series or that portion of a Series which constitutes Balloon Indebtedness, all payments of principal and interest becoming due prior to the year of the stated maturity of the Balloon Indebtedness shall be treated as described in (i) above;

(iii) (a) for purposes of the General Resolution, if any of the Outstanding Series of Bonds constitutes Tender Indebtedness or if Bonds then proposed to be issued would constitute Tender Indebtedness, then, for purposes of determining Maximum Annual Debt Service, Tender Indebtedness shall be treated as if the principal amount of such Bonds were to be amortized in substantially equal annual installments of principal and interest over a term of 25 years commencing in the year in which such Series is first subject to tender; the interest rate used for such computation shall be the rate quoted in *The Bond Buyer Revenue Bond Index* for the last week of the month preceding the date of calculation, as published in *The Bond Buyer*, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield as of the date of calculation for United States Treasury bonds maturing at least 25 years after the date of such calculation, or if there are no such Treasury bonds having such maturities, 100% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets; with respect to all principal and

interest payments becoming due prior to the year in which such Tender Indebtedness is first subject to tender such payments shall be treated as described in (i) above unless the interest during that period is subject to fluctuation, in which case the interest becoming due prior to such first tender date shall be determined as provided in (iv) or (v) below, as appropriate, and (b) for purposes of the Subordinate General Resolution, if any of the Outstanding Series of Bonds or Subordinate Bonds constitutes Tender Indebtedness or if Subordinate Bonds then proposed to be issued would constitute Tender Indebtedness, then, for purposes of determining Maximum Annual Debt Service, Tender Indebtedness shall be treated as if the principal amount of such Bonds or Subordinate Bonds were to be amortized in substantially equal annual installments of principal and interest over a term of 30 years commencing in the year in which such Series is first subject to tender; the interest rate used for such computation shall be the rate quoted in *The Bond Buyer Revenue Bond Index* for the last week of the month preceding the date of calculation, as published in *The Bond Buyer*, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield as of the date of calculation for United States Treasury bonds maturing at least 25 years after the date of such calculation, or if there are no such Treasury bonds having such maturities, 100% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets; with respect to all principal and interest payments becoming due prior to the year in which such Tender Indebtedness is first subject to tender such payments shall be treated as described in (i) above unless the interest during that period is subject to fluctuation, in which case the interest becoming due prior to such first tender date shall be determined as provided in (iv) below;

(iv) (a) for purposes of the General Resolution, if any Outstanding Bonds constitute Variable Rate Indebtedness (except to the extent subsection (ii) relating to Balloon Indebtedness or (iii) relating to Tender Indebtedness apply), the interest rate on such Bonds shall be assumed to be 110% of the greater of (a) the daily average interest rate on such Bonds during the 12 months ending with the month preceding the date of calculation, or such shorter period that such Bonds shall have been outstanding, or (b) the rate of interest on such Bonds on the date of calculation, and (b) for purposes of the Subordinate General Resolution, if any of the Outstanding Series of Bonds or Subordinate Bonds constitutes Variable Rate Indebtedness or if Subordinate Bonds proposed to be issued would constitute Variable Rate Indebtedness (except to the extent subsection (ii) relating to Balloon Indebtedness, (iii) relating to Tender Indebtedness or subsection (v)(b) relating to a Commercial Paper Program apply), then, such Bonds or Subordinate Bonds shall be assumed to bear interest at the rate quoted in *The Bond Buyer Revenue Bond Index* for the last week of the month preceding the date of calculation of Maximum Annual Debt Service, as published in *The Bond Buyer*, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United States Treasury bonds having an equivalent maturity as the then Outstanding Bonds or Subordinate Bonds for which the interest rate is to be assumed or having an equivalent maturity as the additional Subordinate Bonds proposed to be issued, or if there are no such Treasury bonds having equivalent maturities, 100%, of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets;

(v) (a) for purposes of the General Resolution, if Bonds proposed to be issued will be Variable Rate Indebtedness (except to the extent subsection (ii) relating to Balloon Indebtedness, (iii) relating to Tender Indebtedness apply), then, such Bonds shall be assumed to bear interest at the rate quoted in *The Bond Buyer Revenue Bond Index* for the

last week of the month preceding the date of sale of such additional Bonds, as published in *The Bond Buyer*, or if that index is no longer published, another similar index selected by the City, or if the City fails to select a replacement index, an interest rate equal to 80% of the yield for outstanding United States Treasury bonds having an equivalent maturity as the additional Bonds proposed to be issued, or if there are no such Treasury bonds having equivalent maturities, 100%, of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets; and (b) for purposes of the Subordinate General Resolution, if Outstanding Bonds or Subordinate Bonds are, or Subordinate Bonds proposed to be issued will be, part of a Commercial Paper Program, such bonds shall be deemed to be Balloon Indebtedness for purposes of this definition of Maximum Annual Debt Service and the entire principal amount of such obligations shall be deemed to mature on the final date of the program, and, prior to the final date of the program, interest shall be calculated as for Variable Rate Indebtedness under (iv) above; provided, however, that if Subordinate Bonds are issued to an Insurer or a liquidity provider as part of or in connection with a Commercial Paper Program, if any calculation of Maximum Annual Debt Service is made after the termination of the Commercial Paper Program but prior to the time all obligations to the Insurer or liquidity provider have been satisfied, then the Subordinate Bonds held by the Insurer or liquidity provider shall be treated in accordance with provisions (i) through (iv) of this definition and not as part of a Commercial Paper Program; for purposes of calculating Maximum Annual Debt Service for a Commercial Paper Program, the entire maximum authorized principal amount of the program shall be deemed to be Outstanding and shall be included in the calculations as Outstanding whether or not such amount has been issued and whether or not such amount is actually Outstanding;

(vi) if moneys or Permitted Investments have been deposited by the City into a separate fund or account or are otherwise held by the City or by a fiduciary to be used to pay principal and/or interest on (a) for purposes of the General Resolution, specified Bonds, and (b) for purposes of the Subordinate General Resolution, specified Bonds or Subordinate Bonds, as applicable, then the principal and/or interest to be paid from such moneys or Permitted Investments or from the earnings thereon shall be disregarded and not included in calculating Maximum Annual Debt Service; and

(vii) For the purpose of calculating Maximum Annual Debt Service, in determining the amount of interest coming due during any twelve-month period ending June 30 on any Series of Senior Lien Bonds or Subordinate Bonds that were issued as Direct Subsidy Bonds, such amount shall be reduced by an amount equal to the Refundable Credits the City is scheduled to receive during each such twelve-month period ending June 30 (and to avoid double counting, an equivalent amount shall be deducted from Revenues for the purpose of such calculation).

“Net Revenues” means, for any given period, the Revenues for such period less the Expenses for such period, but excluding any profits or losses on the early extinguishment of debt or on the sale or other disposition, not in the ordinary course of business, of investments or fixed or capital assets.

“Opinion of Bond Counsel” means an opinion of Counsel by Bond Counsel.

“Outstanding” shall mean when used with respect to Bonds or Subordinate Bonds, Bonds which have been authenticated and delivered under the General Resolution and/or Subordinate Bonds which have been authenticated and delivered under the Subordinate General Resolution, respectively, except:

(i) Bonds or Subordinate Bonds canceled or purchased by the City for cancellation or delivered to or acquired by the City for cancellation and, in all cases, with the intent to extinguish the debt represented thereby, as applicable;

(ii) Bonds or portions of Bonds which have been paid or are deemed to be paid in accordance with the General Resolution as described in Appendix C below under the caption “Defeasance” relating to the General Resolution, or Subordinate Bonds or portions of Subordinate Bonds which have been paid or are deemed to be paid in accordance with the Subordinate General Resolution as described in Appendix C below under the caption “Defeasance” relating to the Subordinate General Resolution, as applicable;

(iii) Bonds in lieu of which other Bonds have been authenticated under the General Resolution or Subordinate Bonds in lieu of which other Subordinate Bonds have been authenticated under the Subordinate General Resolution, as applicable;

(iv) Bonds or Subordinate Bonds or portions of Bonds or Subordinate Bonds that have become due (at maturity or on redemption, acceleration or otherwise) and for the payment of which sufficient moneys, including interest accrued to the due date, are held by the City or an agent of the City separate and apart for such purpose, as applicable;

(v) Bonds or Subordinate Bonds which, under the terms of the Supplemental Resolution pursuant to which they were issued, are deemed to be no longer Outstanding; and

(vi) for purposes of any consent or other action to be taken by the holders of a specified percentage of Bonds under the General Resolution, Bonds held by or for the account of City, unless such Bonds are pledged to secure a debt to an unrelated party, in which case such Bonds shall, for purposes of consents and other Bondholder action, be deemed to be Outstanding and owned by the party to which such Bonds are pledged, and for purposes of any consent or other action to be taken by the holders of a specified percentage of Subordinate Bonds under the Subordinate General Resolution, Subordinate Bonds held by or for the account of City, unless such Subordinate Bonds are pledged to secure a debt to an unrelated party, in which case such Subordinate Bonds shall, for purposes of consents and other Bondholder action, be deemed to be Outstanding and owned by the party to which such Subordinate Bonds are pledged, as applicable.

“Paying Agent” means with respect to Bonds or Subordinate Bonds or any Series of Bonds or Subordinate Bonds, as applicable, the bank, trust company or other financial institution, if any, or other entities designated as the place or entity which shall make payments on the Bonds or Subordinate Bonds or a Series of Bonds or Subordinate Bonds, as applicable, and/or the interest thereon instead of or in addition to the City Treasurer’s office.

“Permitted Encumbrances” means:

(i) utility, access and other easements and rights-of-way, restrictions, encumbrances and exceptions which do not materially interfere with or materially impair the operation of the portion of the System affected thereby;

(ii) any mechanic’s, laborer’s, materialman’s, supplier’s or vendor’s lien or right in respect thereof if payment is not yet due under the contract in question or if such lien is being contested; and

(iii) such minor defects and irregularities of title which do not materially adversely affect the value of, or materially impair, the property affected thereby for the purpose for which it was acquired or is held by the City.

“Permitted Investments” means (i) Government Obligations, (ii) obligations of any state or territory of the United States or any agency or political subdivision thereof rated by S&P, if the Series of Bonds or Subordinate Bonds which such Permitted Investments secure is then rated by S&P, and by Moody’s, if such Series is then rated by Moody’s, at least as high as such Series of Bonds or Subordinate Bonds, as applicable, (iii) obligations of any state or territory of the United States or any agency or political subdivision thereof for the payment of the principal or redemption price of and interest on which there shall have been deposited Government Obligations maturing as to principal and interest at times and in amounts sufficient to provide such payment, (iv) time certificates of deposit issued by a state or nationally chartered bank or trust company or a state or federal savings and loan association, provided that such certificates of deposit shall be (1) continuously and fully insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation or (2) continuously and fully secured by Government Obligations, which securities shall have a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such certificate of deposit, (v) bankers’ acceptances which are issued by a bank or trust company rated “A” or higher by Moody’s and S&P; provided that such bankers’ acceptances may not exceed 270 days’ maturity, (vi) repurchase agreements with any bank or trust company or government bond dealer reporting to, trading with and recognized as a primary dealer by the Federal Reserve Bank of New York, which agreement is secured by Government Obligations, provided that the underlying securities are required by the repurchase agreement to be held by any such bank, trust company or primary dealer having a combined capital and surplus of at least \$100,000,000 and being independent of the issuer of such repurchase agreement, and provided that the securities are continuously maintained at a market value of not less than the amount so invested, (vii) commercial paper of “prime” quality of the highest or of the highest letter and numerical rating as provided by Moody’s and S&P, (viii) investment agreements with (1) any bank or trust company or government bond dealer reporting to, trading with and recognized as a primary dealer by the Federal Reserve Bank of New York, having a combined capital and surplus of at least \$100,000,000, or (2) any corporation that is organized and operating within the United States and that has total assets in excess of \$500,000,000 and that has an “A” or higher rating for its debt, other than commercial paper, as provided by Moody’s and S&P, provided that such investment agreements shall be continuously and fully secured by Government Obligations, which securities shall have a market value (exclusive of accrued interest) at all times at least equal to the principal amount so invested, (ix) government money market portfolios or money market funds restricted to obligations issued or guaranteed as to payment of principal and interest by the full faith and credit of the United States, which portfolios, unless held by the Treasurer for five business days or less, shall have a rating in the highest two categories provided by Moody’s and S&P, and (x) for purposes of the Subordinate General Resolution, with respect to funds held in funds and accounts required under the terms of a specific Supplemental Resolution or securing specific Subordinate Bonds or Subordinate Bonds of a specific Series of Subordinate Bonds, such other securities or investment vehicles as are specified as Permitted investments under the terms of the Supplemental Resolution creating such funds and accounts or setting forth the terms of such Series.

“Prior Senior Bonds” means, collectively, all Senior Lien Bonds issued by the City pursuant to the General Resolution prior to the Twenty-Eighth Supplemental Resolution.

“Prior Subordinate Bonds” means, collectively, all Subordinate Bonds issued by the City pursuant to the Subordinate General Resolution prior to the Twenty-Fourth Supplemental Resolution thereto.

“Project” means any purpose for which a Series of Bonds is issued under the terms of the General Resolution or a Series of Subordinate Bonds is issued under the terms of Subordinate General Resolution, as applicable.

“Project Costs” means, with respect to the System, all or any part of the cost of construction, acquisition, alteration, reconstruction, remodeling, maintaining and operating, including, without limiting the generality of the foregoing, all labor, materials, machinery, equipment, lands, structures, real and personal property, rights, rights-of-way, water rights, air rights, franchises, easements and interests acquired or used by the City in connection with the work undertaken; the cost of any demolitions, removals or relocations necessary in connection therewith; financing charges, insurance expenses, capitalized interest for such period as shall be determined by the Council, reserves for debt service and reserves for capital and current expenses; the cost of architectural, engineering, financial and legal services, plans, specifications, appraisals, surveys, inspections, estimates of costs and revenues, and other expenses necessary or incident to determining the feasibility or practicality of such undertaking; organizational, professional, administrative, operating and other expenses incurred prior to the commencement of and during such work; costs of the City properly allocated to a Project and with respect to costs of employees or other labor costs, including the cost of medical, pension, retirement and other benefits as well as salary and wages and the allocable cost of administrative, supervisory and managerial personnel and the properly allocable cost of benefits provided for such personnel; costs of equipment, supplies and training of operating personnel and other expense of completing such work and placing the same in operation; working capital, and such other expenses as may be necessary or incidental to a Project, the financing thereof, including, but not limited to, costs and expenses of consultants and advisors including insurance consultants, accountants, engineers and attorney, printing costs, rating agency fees and expenses, insurance costs and related election expenses and expenses necessary or incidental to placing a Project in operation and all other costs, expenses and charges related directly or indirectly to the System for which the City is otherwise permitted to incur an obligation, including the financing of working capital, whether or not the Project then under consideration involves the acquisition or construction of physical properties.

“Rebate Fund” means any fund created by the City in connection with the issuance of Bonds or Subordinate Bonds or any Series of Bonds or Subordinate Bonds, as applicable, for the purpose of complying with the Code and providing for the collection, holding and payment of amounts to the United States of America.

“Record Date” means, for a June 1 Interest Payment Date, the close of business on the preceding May 15 and, for a December 1 Interest Payment Date, the close of business on the preceding November 15, whether or not such day is a Business Day, or such other record dates designated by the City with respect to a Series of Bonds.

“Recovery Zone Economic Development Bonds” means any bonds or other obligations issued as Recovery Zone Economic Development Bonds under Section 1400U-2 of the Code, or under any other provisions of the Code, that creates, in the determination of the City, a substantially similar direct-pay subsidy program that provides comparable security for the Owners of the Bonds.

“Refundable Credits” means (a) with respect to a Series of Senior Lien Bonds or Subordinate Bonds issued as Build America Bonds under Section 54AA of the Code or a, Series of Senior Lien Bonds or Subordinate Bonds issued as Recovery Zone Economic Development Bonds under Section 1400U-2 of the Code, in either case the amounts which are payable by the Federal government under Section 6431 of the Code, and which, in the case of Build America Bonds, the City has elected to receive under Section 54AA(g)(1) of the Code, or (b) with respect to a Series of Senior Lien Bonds or Subordinate Bonds issued as Build America Bonds or as Recovery Zone Economic Development Bonds, as the case may be, under any other provisions of the Code, that creates, in the determination of the City, a substantially similar direct-

pay subsidy program, the amounts of which are payable by the Federal government under applicable provisions of the Code, which, in the case of Build America Bonds, the City has elected to receive under applicable provisions of the Code.

“Reserve Fund” shall mean (a) for purposes of the General Resolution, the Debt Service Reserve Fund which has been established pursuant the General Resolution and is held as a reserve from which payments of principal and interest on the Bonds can be made if, on any principal or interest payment date on the Bonds, the amounts in the Debt Service Fund available therefor are insufficient to pay the full amount then due, or from which required deposits to the Rebate Fund may be made if other funds are not available therefor, and (b) for purposes of the Subordinate General Resolution, any Debt Service Reserve Fund created for a Series of Subordinate Bonds pursuant to the terms of the Subordinate Resolution or, where specifically stated as such, the Reserve Fund as defined in the General Resolution. There is no Reserve Fund being created for the Series 2018 Subordinate Bonds.

“Reserve Fund Requirement” as defined in the General Resolution means an amount equal to Maximum Annual Debt Service with respect to the Bonds such modification in the assumptions therefor as are described in this definition. For purposes of determining the Reserve Fund Requirement for the Bonds, the annual debt service with respect to any Variable Rate Indebtedness shall, upon the issuance of such Series, be calculated on the basis of the assumptions set forth in subsection (v)(a) of the definition of Maximum Annual Debt Service, and the amount so determined shall not require adjustment thereafter except as appropriate to reflect reductions in the Outstanding principal amount of such Series. For purposes of the Reserve Fund Requirement, the annual debt service requirements assumed at the time of issuance of a Series of Bonds containing Balloon Indebtedness or Tender Indebtedness shall not, with respect to such Series, require subsequent increases.

“Revenues” means all revenues of the SCM Fund and revenues otherwise attributable to the System, including, but not limited to, those revenues currently arising as a result of the imposition of sewer service charges, industrial waste surcharge and inspection fees, sewage disposal contract charges, sewerage facility charges and bonded sewer fees and all other income and receipts derived by the City from the ownership or operation of the System or arising from the System and including amounts attributable to extensions, additions and improvements to the System and all other amounts received by the City in payment for providing wastewater collection, treatment and/or disposal services; and all earnings received from the investment of the SCM Fund, the Debt Service Fund (as defined in the General Resolution), the Reserve Fund (as defined in the General Resolution) and the Emergency Fund (as defined in the General Resolution); provided, however, that Revenues shall not include:

- (1) any amount received from the levy or collection of taxes;
- (2) amounts received under contracts or agreements with governmental or private entities and designated for capital costs;
- (3) moneys received as grants from the United States of America or from the State of California;
- (4) earnings on the Construction Funds;
- (5) the proceeds of borrowings; and
- (6) proceeds of insurance.

“SCM Fund” means, collectively, the City’s Sewer Construction and Maintenance Fund, Sewer Operation and Maintenance Fund and Sewer Capital Fund established under the terms of the City’s Municipal Code as special funds in the City Treasury into which the Revenues are to be deposited, and such term also includes any other fund or series of funds into which Revenues are deposited.

“Senior Lien Bonds” means all Bonds issued pursuant to the General Resolution and various supplements thereto, whenever issued.

“Series” means Bonds or Subordinate Bonds, as applicable, issued at the same time or sharing some other common term or characteristic and designated as a separate Series and, under the Subordinate General Resolution, also means a Commercial Paper Program authorized by the Council notwithstanding the fact that the Subordinate Bonds constituting part of such program are issued at different times and from time to time.

“Subordinate Bonds” means any bonds, notes or other indebtedness, obligations or securities or any kind or class, including Commercial Paper Notes, issued or incurred under and secured by the Subordinate General Resolution.

“Subordinate General Resolution” means the Wastewater System Subordinate Revenue Bonds General Resolution adopted by the City Council on March 26, 1991, as amended and supplemented from time to time.

“Supplemental Resolution” means any supplemental resolution adopted by the City Council providing for the issuance of a Series or multiple Series of Bonds or Subordinate Bonds, as applicable, amending and/or supplementing the General Resolution or the Subordinate General Resolution, respectively, or amending and/or supplementing another Supplemental Resolution.

“System” means the City’s entire wastewater collection, transportation, drainage, treatment and disposal system, including all sewers, pipes, buildings, systems, plants, works, equipment, improvements and other facilities or undertakings of the City relating to the collection, transportation, treatment and disposal of sewage, wastewater, industrial wastewater and infiltration/inflows incidental thereto, including those facilities in existence at the time of adoption of the General Resolution and any and all subsequent additions, extensions, improvements, acquisitions and replacements thereto and all facilities and undertakings relating to or useful in connection with the construction, improvement, replacement, expansion, extension, operation and maintenance of the System. The term System more specifically includes, but is not limited to, sewage and wastewater treatment and disposal plants, sewage pumping plants, water reclamation plants, sewer maintenance yards and headquarters, intercepting and collecting sewers, outfall sewers, trunk, connecting, relief and other sewer mains and additions to, alterations of and reconstruction of, any of them and the lands, rights of way, pipe, conduits, equipment, machinery, apparatus, and property necessary therefor.

“Tender Indebtedness” means any Bonds or Subordinate Bonds, as applicable, or portions of Bonds or Subordinate Bonds, as applicable, a feature of which is an option, on the part of the Bondholders, or an obligation, under the terms of such Bonds or Subordinate Bonds, as applicable, to tender all or a portion of such Bonds or Subordinate Bonds, as applicable, to the City, a Paying Agent or other fiduciary or agent for payment or purchase and requiring that such Bonds or portions of Bonds or Subordinate Bonds, as applicable, be purchased if properly presented. For purposes of the General Resolution, Tender Indebtedness also includes maturities of commercial paper, which are intended at the time of issuance to be paid from proceeds of a corresponding issue of commercial paper.

“Variable Rate Indebtedness” means any portion of indebtedness the interest rate on which is not established at the time of incurrence of such indebtedness and has not, at some subsequent date, been established at a rate which is not subject to fluctuation or subsequent adjustment.

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APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE RESOLUTIONS

Set forth below are summaries of certain provisions of the General Resolution and the Subordinate General Resolution.

THE GENERAL RESOLUTION

The following is a summary of certain provisions of the General Resolution. The summary is only a brief description of limited provisions of such document and is qualified in its entirety by reference to the full text of the General Resolution.

Pledge to Secure Bonds

To secure the payment of all Bonds issued pursuant to the General Resolution, the City pledges to the Owners of the Bonds, places a lien upon and assigns to the Owners (1) the Revenues, including any additional sources of Revenues pledged by Supplemental Resolutions, (2) the Revenues held in the SCM Fund including the earnings on such Revenues and (3) all moneys and securities held in the Reserve Fund, the Debt Service Fund (except as hereinafter described) and the Construction Funds. This pledge and lien is granted for the equal and proportionate benefit and security of all Bonds issued under the terms of the General Resolution, all of which, regardless of the time or times of their authentication and delivery or maturity, will be of equal rank without preference, priority or distinction as to lien or otherwise of any Bond over any other Bonds. Amounts in the Debt Service Fund which have been segregated for the payment of Bonds which have become due and payable or which have been called for redemption but not presented for payment shall be held in trust solely as security for such specific Bonds and be used to pay only such Bonds and shall not be pledged as security for or be available to pay any other Bonds. The pledges and liens granted pursuant to the General Resolution shall remain effective for so long as any Bonds are Outstanding thereunder.

Reserve Fund for Senior Lien Bonds

Under the terms of the General Resolution, the Reserve Fund is required to be created and funded in an amount equal to Maximum Annual Debt Service on all Senior Lien Bonds issued and Outstanding under the General Resolution. Moneys held in the Reserve Fund are to be used for the purpose of paying principal and interest on the Senior Lien Bonds if on any principal or interest payment date the amounts in the Debt Service Fund available therefor are insufficient to pay in full the amounts then due. Moneys held in the Reserve Fund may also be used to make any deposit required to be made to a Rebate Fund if the City does not have other funds available from which such deposit can be made.

The City may satisfy the Reserve Fund Requirement in whole or in part by depositing into the Reserve Fund a Reserve Fund Insurance Policy that satisfies the requirements of the General Resolution. Amounts in the Reserve Fund in excess of the Reserve Fund Requirement are to be transferred to the Debt Service Fund for the Senior Lien Bonds. A "Reserve Fund Insurance Policy" is an insurance policy, a letter of credit or surety bond deposited in the Reserve Fund in lieu of or partial substitution for cash or securities. Debt backed by the entity providing such Reserve Fund Insurance Policy shall be rated in one of the two highest classifications by both Moody's and S&P (without reference to gradations thereof such as "plus" or "minus"). The Reserve Fund does not currently include any Reserve Fund Insurance Policy; it is fully cash funded.

The City shall annually, on or about January 15, value the Reserve Fund on the basis of the market value thereof. If upon any valuation, the value of the Reserve Fund exceeds the Reserve Fund Requirement, the excess amount shall be withdrawn and deposited into the Debt Service Fund; if the value is less than the Reserve Fund Requirement, additional deposits shall be made to the Reserve Fund. For purposes of determining the amount on deposit in the Reserve Fund, any Reserve Fund Insurance Policy shall be deemed to be a deposit in the face amount of the policy or the stated amount of the credit facility provided, as reduced by any payment made thereunder and not reinstated.

At such time as a Series of Senior Lien Bonds is to be paid in full or deemed to be paid in full, if, as a result, the amount in the Reserve Fund will exceed the Reserve Fund Requirement, the excess may at such time be used to pay or provide for the payment of the Senior Lien Bonds of such Series.

Additional Senior Lien Bonds

In addition to the Existing Senior Lien Bonds, the City may authorize one or more other series of Additional Senior Lien Bonds which are secured by the pledge of Revenues made under the General Resolution equally and ratably with Senior Lien Bonds previously issued.

As a condition to the issuance of Additional Senior Lien Bonds, except with respect to certain refunding bonds, the City shall first be required to obtain a certificate or certificates prepared by a Consultant or by Consultants showing (i) that the Net Revenues for the immediately preceding Fiscal Year or for any 12 consecutive months out of the 18 consecutive months immediately preceding the issuance of the proposed Additional Senior Lien Bonds were at least equal to 125 percent of the Maximum Annual Debt Service for all Senior Lien Bonds which will be Outstanding immediately after the issuance of the proposed Bonds, and (ii) that the estimated Net Revenues for the Fiscal Year immediately following the date of issuance of such Series of Senior Lien Bonds will be at least equal to 125 percent of Maximum Annual Debt Service for all Senior Lien Bonds which will be Outstanding immediately after the issuance of the proposed Senior Lien Bonds. For purposes of preparing the certificate described above, the Consultant may rely upon financial statements prepared by the City that have not been subject to audit by an independent certified public accountant if audited financial statements for the Fiscal Year or period are not available.

For purposes of the computations to be made as described in subsection (i) and in subsection (ii) of the preceding paragraph, the determination of Net Revenues may take into account as adjustments any increase in rates and charges and shall take into account any reductions in such rates and charges which relate to the System and which have been authorized by the City to be implemented and which will for purposes of the test described in (i) of the preceding paragraph, be effective prior to or at the time of issuance of such proposed Bonds and for purposes of the test described in (ii) of the preceding paragraph be effective during the Fiscal Year for which such estimate is made.

Refunding Senior Lien Bonds

Notwithstanding the provisions described above, the General Resolution provides that additional series of Senior Lien Bonds may be issued for the purpose of refunding any Outstanding Senior Lien Bonds without compliance with the tests set forth above if, prior to the issuance of such Senior Lien Bonds, an Authorized City Representative shall have delivered a certificate showing that the Maximum Annual Debt Service on all Senior Lien Bonds Outstanding after the issuance of the refunding Senior Lien Bonds will be equal to or less than the Maximum Annual Debt Service on all Senior Lien Bonds Outstanding prior to the issuance of such Senior Lien Bonds.

Subordinated Obligations

The General Resolution provides that the City may issue obligations on a subordinated basis and such obligations may be secured by and be payable from the Revenues provided that such obligations contain an express statement that such obligations are junior and subordinate to the Bonds issued under and secured by the General Resolution as to lien on and source and security for payment from the Revenues. No debt tests or restrictions are imposed by the General Resolution upon the incurrence of such subordinated obligations. Any such subordinated obligations may be paid on an ongoing basis from the Revenues after the payment of operation and maintenance expenses and after making the required monthly deposits to the Debt Service Fund, Reserve Fund and Emergency Fund.

Investments

Moneys held in the SCM Fund, the Debt Service Fund, the Reserve Fund, the Construction Funds and the Emergency Fund will be invested and reinvested as determined by the City, in such investments as the City is generally permitted to invest its funds subject to the restrictions set forth in the General Resolution and the restrictions set forth in any Supplemental Resolution. Moneys on deposit in the Debt Service Fund and the Reserve Fund shall, however, be invested solely in Permitted Investments and the Treasurer shall be authorized to invest such funds in Permitted Investments.

Emergency Fund

Amounts in the Emergency Fund may be used by the City, if other funds are not readily available and sufficient, to pay extraordinary and unexpected repair or replacement expenses of the System or liability claims related to the System. Amounts will be withdrawn from the Emergency Fund only after delivery to the Treasurer of a certificate signed by an Authorized City Representative stating that an extraordinary and unexpected event has occurred or that an amount is due as a result of a liability claim, that the expense resulting from such event or the claim which is to be paid is in excess of \$500,000, that other funds are not readily available to pay such expense or claim, and that the expenditure of such funds has been duly authorized in accordance with City procedures. If, upon any valuation of the Emergency Fund, the value thereof is less than the Emergency Fund Requirement or if the City withdraws funds from the Emergency Fund and such withdrawal reduces the balance in such fund below the Emergency Fund Requirement, then deposits will be made into the Emergency Fund from the SCM Fund as provided in the General Resolution. Such deposits will be made after deposits to the Debt Service Fund and Reserve Fund and prior to the withdrawal or use of funds for the purpose of paying or providing for the payment of Subordinate Bonds.

Rate Covenant

The City has covenanted that it will, at all times while any of the Bonds remain Outstanding, establish, fix, prescribe and collect rates, fees and charges in connection with the use of the System so that Revenues in each Fiscal Year will be at least sufficient to pay the following amounts: (1) the interest on and principal of the Outstanding Bonds as they become due and payable; (2) all other payments required for compliance with the terms of the General Resolution and of any Supplemental Resolution including, but not limited to, the required deposits to the Debt Service Fund, Reserve Fund and Emergency Fund; (3) all other payments to meet any other obligations of the City which are charges, liens or encumbrances upon, or payable from, the Revenues; and (4) all current operation and maintenance costs of the System (but not including such operation and maintenance costs as are scheduled to be paid by the City from moneys other than Revenues). The City further agrees that it will establish, fix, prescribe and collect rates, fees and charges in connection with the use of the System so that during each Fiscal Year the Net Revenues are equal to at least 125% of the actual debt service becoming due on Outstanding Bonds in such year. For the purpose of calculating actual debt service coming due on Outstanding Bonds, in determining the amount

of interest coming due during any twelve-month period ending June 30 on any Series of Bonds that were issued as Direct Subsidy Bonds, such amount shall be reduced by an amount equal to the Refundable Credits the City is scheduled to receive during each such twelve-month period ending June 30 (and to avoid double counting, an equivalent amount shall be deducted from Revenues for the purpose of such calculation).

Liens and Claims

The City agrees that, except for Permitted Encumbrances and except as provided by the next sentence, it will not impose any lien, mortgage or other encumbrance upon the System or any portion of the System nor permit any lien, mortgage or other encumbrance to be imposed or to remain upon the System or any portion of the System. The City may, however, in connection with the acquisition, construction or improvement of a specific part of the System, if otherwise permitted to do so under the City Charter and applicable law, encumber such specific part or permit such part to be encumbered provided that (i) any obligation of the City which is secured by such encumbrance or is incurred in connection therewith is incurred on the terms set forth and after meeting the conditions for the issuance of additional Series of Bonds or is incurred on a subordinated basis and (ii) if the property encumbered is an integral part of the System, the party to which the encumbrance is granted shall have no right to foreclose on the property or otherwise evict the City from such property or prevent its use as intended as part of the System.

Ownership and Operation

The City covenants that it will continue to provide the System as the primary system and as a complete and fully operational system for the collection, transportation, treatment and disposal of sewage, wastewater and industrial wastewater within the City. The City covenants that it will not sell, transfer or otherwise dispose of the System or any part thereof essential to the proper operation of the System except in accordance with the following provisions. The City may sell, transfer or dispose of portions of the System which have become non-operative, worn out, obsolete or are otherwise not needed for the efficient and proper operation of the System. In addition, the City may transfer or sell portions of the System or enter into agreements with others permitting others to operate portions of the System provided that any such transfer, sale or agreement will not result in a reduction in the amount of Revenues the City is entitled to receive or materially increase the Expenses. If any facility or facilities to be transferred, sold or with respect to which the City proposes to enter into an operating agreement are an integral part of the System, such transfer or sale shall not occur or agreement be entered into until a Consultant has delivered a certificate showing that for the Fiscal Year in which the transfer, sale or change in operation occurs and each of the two immediately succeeding years (i) the estimated Net Revenues will be as great or greater than such Consultant estimates such Net Revenues would have been had the transfer, sale or change in operation not occurred or (ii) if estimates show a reduction in the Net Revenues, such reduction is not greater than 10% in any one or more of such years and in each of the three years the Net Revenues are estimated to be at least 125% of Maximum Annual Debt Service. The City will be unconditionally and irrevocably obligated, so long as any of the Bonds are Outstanding and unpaid, to take all lawful action necessary or required to continue to entitle the City to collect the Revenues and deposit the Revenues into the SCM Fund for use as provided in the General Resolution.

Insurance and Condemnation

The City agrees that, to the extent it is customary for sewer systems in metropolitan areas, it will insure or provide a self-insured reserve against loss or damage to the System from fire, storm or other causes. However, the City is not required to maintain insurance or reserve against earthquake damage if it determines that the cost thereof is excessive.

In addition, the City agrees that, to the extent it is customary for sewer systems in metropolitan areas, it will maintain insurance or provide a self-insured reserve against loss or damage from hazards and risks to persons and property of others. Notwithstanding the foregoing, the City will not be required to maintain such liability insurance or self-insurance reserves for any period for which the City agrees to hold the SCM Fund harmless from all general, automobile and public liability claims filed during such period.

The proceeds of any property damage insurance will be applied to the restoration, replacement or reconstruction of the property or facility lost or damaged, unless the City determines that such property or facility is not necessary to the efficient or proper operation of the System and therefore determines not to restore, replace or reconstruct such property or facilities. Any proceeds of such insurance not applied to restoration, replacement or reconstruction or remaining after such work is completed will be deposited in the SCM Fund and be available for other proper uses of funds deposited in the SCM Fund. The proceeds of any liability insurance will be applied by the City in satisfaction of the applicable claim. If the City has elected to self-insure its property damage risks, then, unless the City determines that such property or facility is not necessary to the efficient or proper operation of the System and therefore determines not to restore, replace or reconstruct such property or facilities, amounts in the self-insurance fund will be withdrawn and used to restore, replace or reconstruct the property or facility lost or damaged as a result of a casualty for which such fund was created. If the City has elected to self-insure its liability risk, then amounts in the self-insurance fund of the SCM Fund will be withdrawn and applied in satisfaction of claims arising as a result of events for which such fund was created.

If any property or facilities comprising part of the System shall be taken through the exercise of the power of eminent domain, the City will apply the proceeds of any award received on account of such taking to the replacement of the property or facilities so taken, unless the City determines that such property or facility is not necessary to the efficient or proper operation of the System and therefore determines not to replace such property or facilities. Any proceeds of such award not applied to replacement or remaining after such work has been completed will be deposited in the SCM Fund and be available for other proper uses of funds deposited in the SCM Fund.

Defeasance

Bonds or portions thereof (such portions to be in integral multiples of the Authorized Denominations) which have been paid in full or which are deemed to have been paid in full shall no longer be secured by or entitled to the benefits of the General Resolution except for the purposes of payment from moneys or Government Obligations held for such purpose. When all Bonds which have been issued under the General Resolution have been paid in full or are deemed to have been paid in full, and all other sums payable thereunder by the City, including all necessary and proper fees, compensation and expenses of any Registrar or Paying Agent, have been paid or are duly provided for, the pledge of the Revenues granted under the General Resolution shall cease, terminate and become void, and the General Resolution shall cease to be a lien on such Revenues and shall be discharged, except that funds or securities which are held by the City or Paying Agent for the payment of the principal of, premium if any, and interest on the Bonds shall continue to be held in trust for such purpose.

A Bond shall be deemed to be paid when payment of the principal, interest and premium, if any, either (i) shall have been made in accordance with the terms of the Bonds and the General Resolution or (ii) shall have been provided for by irrevocably setting aside exclusively for such payment, (1) moneys sufficient to make such payment and/or (2) Government Obligations, maturing as to principal and interest or payable to the City or its agent on demand in such amounts and at such times as will insure the availability of sufficient moneys to make such payment. At such times as Bonds are deemed to be paid, such Bonds shall no longer be secured by or entitled to the benefits of the General Resolution, except for the purposes of payment from such moneys or Government Obligations.

Events of Default and Remedies

Each of the following events constitutes an “Event of Default” under the General Resolution:

- (a) a failure to pay the principal of or premium, if any, on any of the Bonds when the same shall become due and payable at maturity or upon redemption;
- (b) a failure to pay any installment of interest on any of the Bonds when such interest shall become due and payable;
- (c) a failure to pay the purchase price of any Bond when such purchase price shall be due and payable upon an optional or mandatory tender date as provided in the Bond;
- (d) a failure in a given Fiscal Year to achieve the level of debt service coverage required by the General Resolution, provided that such event shall not constitute an Event of Default if (i) the budget for such Fiscal Year and the rates and charges implemented in accordance with such budget were such that the required level of debt service coverage was projected to be achieved, (ii) the actual debt service coverage provided by the Net Revenues was at least 100% or greater and (iii) immediately upon discovery of the failure to achieve the required coverage the City commences such action as is necessary to assure that required coverage is achieved in the succeeding year;
- (e) a failure by the City to observe and perform any covenant, condition, agreement or provision (other than as specified in the foregoing paragraphs (a), (b), (c) and (d)) contained in the Bonds or in the General Resolution on the part of the City to be observed or performed, which failure shall continue for a period of 60 days after written notice, specifying such failure and requesting that it be remedied, shall have been given to the City by an Insurer or by the Holders of 25% or more of the principal amount of the Bonds then Outstanding, unless such Insurer (if the Insurer has given the notice of such default) or, if the notice has been given by the Holders, the Holders of Bonds in a principal amount not less than the principal amount of Bonds the Holders of which gave such notice, shall agree in writing to an extension of such period; provided, however, that the Insurer and the Holders shall be deemed to have agreed to an extension of such period if corrective action is initiated by the City within 60 days after receipt of such written notice and is being diligently pursued;
- (f) the use of amounts in the Reserve Fund to pay principal and/or interest on the Bonds or to make a deposit to a Rebate Fund and the failure to restore the amount on deposit in the Reserve Fund to the Reserve Fund Requirement within one year from the date of such withdrawal;
- (g) a failure on the part of the City to collect the Revenues, or an attempt to divert the Revenues for any use prior to the deposit into the SCM Fund or creation of a lien on or a charge against the Revenues or the SCM Fund, the Debt Service Fund, the Reserve Fund or a Construction Fund, which lien or charge is prior to, or, except to the extent permitted by the General Resolution, on a parity with that granted to secure the Bonds; or
- (h) the occurrence of any other Event of Default as is provided in a Supplemental Resolution.

Certain of the Supplemental Resolutions under which various Series of the Bonds were issued provide that the occurrence of an event or the failure to comply with any provisions of the tax certificate

which causes interest on such Series to be includable in gross income for federal income tax purposes will be an Event of Default for so long as any of the Bonds of such Series are unpaid.

Acceleration; Other Remedies

Upon the occurrence and continuance of an Event of Default, any Insurer or the Holders of 25% or more of the principal amount of the Bonds which are then Outstanding may, by written notice to the City, declare the Bonds to be immediately due and payable whereupon the Bonds shall, without further action, become and be immediately due and payable; provided that, with respect to any Series of Bonds which is credit enhanced, no acceleration shall be effective unless the declaration is given by the Insurer or is consented to by the Insurer.

The provisions of the preceding paragraph are subject to the condition that, if after the principal of the Bonds shall have been declared to be due and payable, and before any judgment or decree for the payment of the moneys due shall have been obtained or entered, the City shall cause to be paid all matured installments of interest upon all Bonds and the principal of any and all Bonds which shall have become due otherwise than by reason of such declaration (with interest upon such principal and, to the extent permissible by law, on overdue installments of interest, at the rate per annum specified in the Bonds) and all Events of Default other than nonpayment of the principal of Bonds which shall have become due by such declaration shall have been remedied, then the Holders of a majority in principal amount of Bonds Outstanding may, if all Insurers consent to such waiver, waive the Event of Default and rescind or annul the acceleration and its consequences. But no such waiver, rescission and annulment shall extend to or affect any subsequent Event of Default or impair any right or remedy consequent thereon.

Upon the occurrence and continuance of any Event of Default, the Holders of 10% or more of the principal amount of the Bonds then Outstanding or any Insurer shall have the right:

- (i) by mandamus, or other suit, action or proceeding at law or in equity, to enforce all rights of the Bondholders, and require the City to carry out any agreements with or for the benefit of the Bondholders and to perform its duties or agreements under the General Resolution or any Supplemental Resolution, provided that any such remedy may be taken only to the extent permitted under the applicable provisions of the General Resolution;
- (ii) to bring suit upon the Bonds;
- (iii) to commence an action or suit in equity to require the City to account as if it were the trustee of an express trust for the Bondholders; or
- (iv) by action or suit in equity to enjoin any acts or things which may be unlawful or in violation of the rights of the Bondholders.

In the event of a conflict between the actions taken or proposed to be taken by any Insurer and the Holders of the Bonds or between the Insurers on different Series of Bonds, the position taken by the entity or group of Bondholders representing the greatest principal amount of Bonds shall prevail. For such purposes, the Insurer of a Series of Bonds shall be deemed to represent the entire principal amount of Bonds for which such Insurer provides credit enhancement.

Any Holder of any Bonds issued under the terms of the Revenue Bond Law of 1941 (Section 54300 *et seq.* of the California Government Code) may compel the use of any or all of the remedies provided therein.

Supplemental Resolutions Without the Consent of Bondholders

The City Council may, from time to time, and at any time, without the consent of or notice to the Bondholders, adopt Supplemental Resolutions supplementing and/or amending the General Resolution or any Supplemental Resolution as follows:

- (a) to provide for the issuance of additional Series of Bonds and to set forth the terms of such Bonds and the special provisions which shall apply to such Bonds;
- (b) to cure any formal defect, omission, inconsistency or ambiguity in the General Resolution or any Supplemental Resolution;
- (c) to add to the covenants and agreements of the City in the General Resolution or to surrender any right or power reserved or conferred upon the City, and which shall not adversely affect the interests of the Bondholders;
- (d) to confirm, as further assurance, any interest in and to the Revenues or in and to the funds required to be established as provided in the General Resolution or in and to any other moneys, securities or funds of the City provided pursuant to the General Resolution or to otherwise add additional security for the Bondholders;
- (e) to evidence any change in the terms of any Series of Bonds if such changes are authorized by the Supplemental Resolution at the time the Series of Bonds is issued and such change is made in accordance with the terms of such Supplemental Resolution;
- (f) to comply with the requirements of the Trust Indenture Act of 1939, as from time to time amended or any statutory provisions substituted therefor;
- (g) to modify, alter, amend or supplement the General Resolution or any Supplemental Resolution in any other respect which, in the opinion of a Consultant, the City Attorney or Bond Counsel, in each case evidenced by a written opinion or determination delivered to the City, is not materially adverse to the Bondholders and which will not, in itself, result in a reduction in any credit rating then assigned to any Series of Bonds;
- (h) to provide for uncertificated Bonds or for the issuance of coupons and bearer Bonds or Bonds registered only as to principal;
- (i) to qualify the Bonds or a Series of Bonds for a rating or ratings or an upgrade in a rating or ratings by Moody's and/or S&P;
- (j) to comply with the requirements of the Code as are necessary, in the opinion of Bond Counsel, to prevent the interest on the Bonds or a Series of Bonds from being included in gross income of the recipient for federal income taxation purposes;
- (k) to provide that in lieu of a Reserve Fund securing all Bonds, a separate reserve for each Series of Bonds be established and maintained in the amount of the Maximum Annual Debt Service on the Series of Bonds to which it applies; and
- (l) to provide that Beneficial Owners may be included as Bondholders for any or all purposes and to set forth provisions related thereto, provided that no such provision shall result in any duplication of ownership rights with respect to any Bonds.

Supplemental Resolutions with the Consent of Bondholders

Except for any Supplemental Resolution as described above which does not require Bondholder consent and any Supplemental Resolution adopted pursuant to the provisions described in the next succeeding paragraph below, the City shall not adopt any Supplemental Resolution unless all Insurers and the Holders of not less than 51% in aggregate principal amount of the Bonds then Outstanding shall have consented to and approved the adoption of such Supplemental Resolution. With such consents and approval, the City may, from time to time, adopt any Supplemental Resolution deemed necessary or desirable by the City for the purposes of modifying, altering, amending, supplementing or rescinding, in any particular, any of the terms or provisions contained in the General Resolution or in a Supplemental Resolution; provided, however, that, unless approved in writing by the Holders of all the Bonds which would be affected by such change or unless such change affects less than all Series of Bonds and the provisions described in next succeeding paragraph below are applicable, no Supplemental Resolution shall cause (i) a change in the times, amounts or currency of payment of the principal of or interest on any Outstanding Bonds or (ii) a reduction in the principal amount or redemption price of any Outstanding Bonds or the rate of interest thereon; and nothing contained in the General Resolution shall, unless approved in writing by the Holders of all the Bonds then Outstanding, permit or be construed as permitting (iii) the creation of a lien (except as expressly permitted by the General Resolution as originally executed) upon or pledge of the Revenues, ranking prior to or on a parity with the claim created by the General Resolution, or (iv) except with respect to additional security which may be provided for a particular Series of Bonds, a preference or priority of any Bond or Bonds over any other Bond or Bonds, or (v) a reduction in the aggregate principal amount of Bonds the consent of the Bondholders of which is required prior to the adoption of a Supplemental Resolution.

The City may, from time to time and at any time adopt a Supplemental Resolution which amends the provisions of an earlier Supplemental Resolution under which a Series or multiple Series of Bonds were issued. If such Supplemental Resolution is adopted for one of the purposes that does not require Bondholder consent as described above, no notice to or consent of the Bondholders shall be required. With respect to other Supplemental Resolutions which affect the rights and interests of less than all Series of Bonds Outstanding, then the Holders of not less than 51% in aggregate principal amount of the Bonds of all Series which are directly affected by such changes and all Insurers of Bonds of such Series which are directly affected shall have the right from time to time to consent to and approve the adoption of any Supplemental Resolution deemed necessary or desirable by the City for the purposes of modifying, altering, amending, supplementing or rescinding, in any particular, any of the terms or provisions contained in such Supplemental Resolution and affecting only the Bonds of such Series; provided, however, that, unless approved in writing by the Holders of all the Bonds which would be affected by such change, no Supplemental Resolution shall cause (i) a change in the times, amounts or currency of payment of the principal of or interest on any Outstanding Bonds of such Series or (ii) a reduction in the principal amount or redemption price of any Outstanding Bonds of such Series or the rate of interest thereon.

No Personal Liability of City Officials

No covenant or agreement contained in the Bonds or the General Resolution will be deemed to be the covenant or agreement of any present or future official, officer, agent or employee of the City in his or her individual capacity, and neither the officers of the City nor any person executing the Bonds shall be liable personally on the Bonds or be subject to any personal liability or accountability by reason of the issuance thereof.

THE SUBORDINATE GENERAL RESOLUTION

The following is a summary of certain provisions of the Subordinate General Resolution. The summary is only a brief description of limited provisions of such document and is qualified in its entirety by reference to the full text of the Subordinate General Resolution.

Pledge to Secure Subordinate Bonds

To secure the payment of the Subordinate Bonds, the City pledges, places a second lien upon and assigns to the Owners of the Subordinate Bonds (1) the Revenues and (2) the Revenues held in the SCM Fund including the earnings on such Revenues. The pledge, assignment and lien granted to the Senior Lien Bonds shall, in all respects, be prior to the pledge, assignment and lien granted by the Subordinate General Resolution. The Revenues, including Revenues held in the SCM Fund and the earnings on such Revenues, shall be used first to pay the Senior Lien Bonds as the same become due and make current deposits into the funds held pursuant to the General Resolution before such Revenues will be available to pay Subordinate Bonds. The pledge of and lien upon the Revenues shall be for the equal and proportionate benefit and security of all Subordinate Bonds issued under the terms of the Subordinate General Resolution, all of which, regardless of the time or times of their authentication and delivery or maturity, shall be of equal rank without preference, priority or distinction as to lien or otherwise. The pledge and lien granted under the Subordinate General Resolution shall remain effective for so long as any Subordinate Bonds are Outstanding thereunder. Amounts in any Debt Service Fund, Reserve Fund and Construction Fund established for any Series of Subordinate Bonds shall, by the terms of the Supplemental Resolution setting forth the terms of such Series, be pledged to secure the Subordinate Bonds of such Series in accordance with the terms of such Supplemental Resolution.

In the Subordinate General Resolution the City represents and states that except for the pledge granted to secure the Senior Lien Bonds, the City has not previously pledged the Revenues or the SCM Fund nor created any lien thereon, and the City covenants that, until all the Subordinate Bonds issued under the provision of the Subordinate General Resolution and the interest thereon shall have been paid or are deemed to have been paid, it will not, except to the extent additional Senior Lien Bonds are issued under the terms of the General Resolution, grant any prior or parity pledge of Revenues or the SCM Fund, or create or permit to be created any charge or lien on the Revenues ranking prior to or on a parity with the charge and lien which secures the Subordinate Bonds issued pursuant to the Subordinate General Resolution. The City shall not, by the provisions of the Subordinate General Resolution, be restricted or limited in any way in its ability to issue additional Senior Lien Bonds, all of which shall rank prior to the Subordinate Bonds with respect to the pledge of, lien on and assignment of the Revenues. The City may create or permit to be created a charge or lien on the Revenues ranking junior and subordinate to the charge and lien which secures the Subordinate Bonds issued pursuant to the Subordinate General Resolution.

Investments

Moneys held in the SCM Fund, the Debt Service Funds, the Reserve Funds and the Construction Funds are permitted to be invested and reinvested as determined by the City in such investments as the City is generally permitted to invest its funds and in such investments as are specifically described for investment of any fund under the terms of a Supplemental Resolution subject to the restrictions set forth in any Supplemental Resolution. Such investments may be made by commingling such amounts for investment purposes with other funds of the City, provided that the amount of each such fund and the earning thereon are clearly accounted for.

The Debt Service Funds

Amounts in the Debt Service Funds established pursuant to the Supplemental Resolutions shall be used to pay interest and principal on the Subordinate Bonds of the Series for which such Fund was created as the same becomes due and payable. Such Debt Service Funds may be established and held by the City or established by the City, but held by a Paying Agent, but in any case, the fund shall be held in trust as security and a source of payment for the Series of Subordinate Bonds for which it was created. Amounts which are held in a Debt Service Fund for the payment of Subordinate Bonds which are due and payable but which have not been presented for payment and amounts which are in a Debt Service Fund to pay the redemption price of Subordinate Bonds which have been called for redemption but which have not been presented for payment shall be so designated, segregated in such fund, held in trust for the Owners of such Subordinate Bonds and be available only to make payments on such specific Subordinate Bonds when presented. In addition to the direct payment of principal, interest and redemption price, if interest, principal or redemption price on a Series of Subordinate Bonds is paid by or through a form of credit enhancement provided for such Series of Subordinate Bonds, amounts in the Debt Service Fund created for such Series may, if so provided by Supplemental Resolution, be used to reimburse such amounts to the Insurer providing the credit support.

Reserve Fund

The City may, by Supplemental Resolution, at the time of authorization of any Series of Subordinate Bonds or at any time thereafter, provide for the creation of a Reserve Fund, as security for such Series. The Supplemental Resolution shall provide for the size and manner of funding and replenishing of such Reserve Fund and shall establish such other terms with respect to such Reserve Fund as the City deems to be appropriate. The provisions for funding or replenishing any Reserve Fund shall not permit any deposit into the Reserve Fund to be made from the SCM Fund unless all payments of principal of and interest on all Subordinate Bonds which have become due and payable have been paid in full or provision has been made for the payment thereof. Moneys held in a Reserve Fund shall be used for the purpose of paying principal and interest on Subordinate Bonds in accordance with the Supplemental Resolution under which such Subordinate Bonds are issued and the Reserve Fund created.

Rate Covenant

The City has covenanted that it will, at all times while any of the Subordinate Bonds remain Outstanding, establish, fix, prescribe and collect rates, fees and charges in connection with the use of the System so that Revenues in each Fiscal Year will be at least sufficient to pay the following amounts: (1) the interest on and principal of the Outstanding Senior Lien Bonds and Subordinate Bonds as they become due and payable; (2) all other payments required for compliance with the terms of the General Resolution and the Subordinate General Resolution and of any Supplemental Resolution including, but not limited to, the required deposits under the General Resolution and to the Debt Service Funds and Reserve Funds, if any, created under Supplemental Resolutions; (3) all other payments to meet any other obligations of the City which are charges, liens or encumbrances upon, or payable from, the Revenues; and (4) all current operation and maintenance costs of the System (but not including such operation and maintenance costs as are scheduled to be paid by the City from moneys other than Revenues). The City further agrees that it will establish, fix, prescribe and collect rates, fees and charges in connection with the use of the System so that during each Fiscal Year the Net Revenues are equal to at least 110% of the actual debt service becoming due on Outstanding Senior Lien Bonds and Subordinate Bonds in such year provided that for such purposes, the principal amount of Senior Lien Bonds and Subordinate Bonds becoming due in such year which is paid from the proceeds of other borrowings will not be included as debt service becoming due in such year. For the purpose of calculating actual debt service coming due on Outstanding Senior Lien Bonds and Subordinate Bonds, in determining the amount of interest coming due during any twelve-month period

ending June 30 on any Series of Senior Lien Bonds or Subordinate Bonds that were issued as Direct Subsidy Bonds, such amount shall be reduced by an amount equal to the Refundable Credits the City is scheduled to receive during each such twelve-month period ending June 30 (and to avoid double counting, an equivalent amount shall be deducted from Revenues for the purpose of such calculation).

Liens and Claims

The City agrees that, except for Permitted Encumbrances and except as provided by the next sentence, it will not impose any lien, mortgage or other encumbrance upon the System or any portion of the System nor permit any lien, mortgage or other encumbrance to be imposed or to remain upon the System or any portion of the System. The City may, however, in connection with the acquisition, construction or improvement of a specific part of the System, if otherwise permitted to do so under the City Charter and applicable law, encumber such specific part or permit such part to be encumbered provided that (i) any obligation of the City which is secured by such encumbrance or is incurred in connection therewith is incurred on the terms set forth in the General Resolution or after meeting the conditions for the issuance of additional Series of Subordinate Bonds or is incurred on a subordinated basis and (ii) if the property encumbered is an integral part of the System, the party to which the encumbrance is granted shall have no right to foreclose on the property or otherwise evict the City from such property or prevent its use as intended as part of the System.

Ownership and Operation

The City covenants that it will continue to provide the System as the primary system and as a complete and fully operational system for the collection, transportation, treatment and disposal of sewage, wastewater and industrial wastewater within the City. The City covenants that it will not sell, transfer or otherwise dispose of the System or any part thereof essential to the proper operation of the System except in accordance with the following provisions. The City may sell, transfer or dispose of portions of the System which have become non-operative, worn out, obsolete or are otherwise not needed for the efficient and proper operation of the System. In addition, the City may transfer or sell portions of the System or enter into agreements with others permitting others to operate portions of the System provided that any such transfer, sale or agreement will not result in a reduction in the amount of Revenues the City is entitled to receive or materially increase the Expenses. If any facility or facilities to be transferred, sold or with respect to which the City proposes to enter into an operating agreement are an integral part of the System, such transfer or sale shall not occur or agreement be entered into until a Consultant has delivered a certificate showing that for the Fiscal Year in which the transfer, sale or change in operation occurs and each of the two immediately succeeding years (i) the estimated Net Revenues will be as great or greater than such Consultant estimates such Net Revenues would have been had the transfer, sale or change in operation not occurred or (ii) if estimates show a reduction in the Net Revenues, such reduction is not greater than 10% in any one or more of such years and in each of the three years the Net Revenues are estimated to be at least 110% of Maximum Annual Debt Service on the Senior Lien Bonds and Subordinate Bonds. The City will be unconditionally and irrevocably obligated, so long as any of the Subordinate Bonds are Outstanding and unpaid, to take all lawful action necessary or required to continue to entitle the City to collect the Revenues and deposit the Revenues into the SCM Fund for use as provided in the Subordinate General Resolution.

Insurance and Condemnation

The City agrees that it will, to the extent it is customary for sewer systems in metropolitan areas, insure or provide a self-insured reserve against loss or damage to the System from fire, storm or other causes to the extent that such insurance or reserves are customary for sewer systems in metropolitan areas. However, the City is not required to maintain insurance against earthquake damage if the City determines the cost thereof excessive.

In addition, the City agrees that, to the extent it is customary for sewer systems in metropolitan areas, it will maintain insurance or provide a self-insured reserve against loss or damage from hazards and risks to persons and property of others. Notwithstanding the foregoing, the City will not be required to maintain such liability insurance or self-insurance reserves for any period for which the City agrees to hold the SCM Fund harmless from all general, automobile and public liability claims filed during such period.

The proceeds of any property damage insurance will be applied to the restoration, replacement or reconstruction of the property or facility lost or damaged, unless the City determines that such property or facility is not necessary to the efficient or proper operation of the System and therefore determines not to restore, replace or reconstruct such property or facilities. Any proceeds of such insurance not applied to restoration, replacement or reconstruction or remaining after such work is completed will be deposited in the SCM Fund and be available for other proper uses of funds deposited in the SCM Fund. The proceeds of any liability insurance will be applied by the City in satisfaction of the applicable claim. If the City has elected to self-insure its property damage risks, then, unless the City determines that such property or facility is not necessary to the efficient or proper operation of the System and therefore determines not to restore, replace or reconstruct such property or facilities, amounts in the self-insurance fund will be withdrawn and used to restore, replace or reconstruct the property or facility lost or damaged as a result of a casualty for which such fund was created. If the City has elected to self-insure its liability risk, then amounts in the self-insurance fund of the SCM Fund will be withdrawn and applied in satisfaction of claims arising as a result of events for which such fund was created.

If any property or facilities comprising part of the System shall be taken through the exercise of the power of eminent domain, the City will apply the proceeds of any award received on account of such taking to the replacement of the property or facilities so taken, unless the City determines that such property or facility is not necessary to the efficient or proper operation of the System and therefore determines not to replace such property or facilities. Any proceeds of such award not applied to replacement or remaining after such work has been completed will be deposited in the SCM Fund and be available for other proper uses of funds deposited in the SCM Fund.

Defeasance

Subordinate Bonds or portions thereof (such portions to be in integral multiples of the Authorized Denomination) which have been paid in full or which are deemed to have been paid in full shall no longer be secured by or entitled to the benefits of the Subordinate General Resolution except for the purposes of payment from moneys or Government Obligations held for such purpose. When all Subordinate Bonds which have been issued under the Subordinate General Resolution have been paid in full or are deemed to have been paid in full, and all other sums payable thereunder by the City, including all necessary and proper fees, compensation and expenses of any Registrar or Paying Agent, have been paid or are duly provided for, the pledge of the Revenues granted under the Subordinate General Resolution shall cease, terminate and become void, and the Subordinate General Resolution shall cease to be a lien on such Revenues and shall be discharged, except that funds or securities which are held by the City or Paying Agent for the payment of the principal of, premium, if any, and interest on the Subordinate Bonds shall continue to be held in trust for such purpose.

A Subordinate Bond shall be deemed to be paid when payment of the principal, interest and premium, if any, either (i) shall have been made in accordance with the terms of the Subordinate Bonds and the Subordinate General Resolution or (ii) shall have been provided for by irrevocably setting aside exclusively for such payment, (1) moneys sufficient to make such payment and/or (2) Government Obligations, maturing as to principal and interest or payable to the City or its agent on demand in such amounts and at such times as will insure the availability of sufficient moneys to make such payment. At such times as Subordinate Bonds are deemed to be paid, such Subordinate Bonds shall no longer be secured

by or entitled to the benefits of the Subordinate General Resolution, except for the purposes of payment from such moneys or Government Obligations.

Events of Default and Remedies

Each of the following events constitutes an “Event of Default” under the Subordinate General Resolution:

(a) a failure to pay the principal of or premium, if any, on any of the Senior Lien Bonds or the Subordinate Bonds when the same shall become due and payable at maturity or upon redemption;

(b) a failure to pay any installment of interest on any of the Senior Lien Bonds or the Subordinate Bonds when such interest shall become due and payable;

(c) a failure to pay the purchase price of any Senior Lien Bonds or the Subordinate Bond when such purchase price shall be due and payable upon an optional or mandatory tender date as provided in the Senior Lien Bonds or the Subordinate Bonds;

(d) a failure in a given Fiscal Year to achieve the level of debt service coverage required by the Subordinate General Resolution, provided that such event shall not constitute an Event of Default if (i) the budget for such Fiscal Year and the rates and charges implemented in accordance with such budget were such that the required level of debt service coverage was projected to be achieved, (ii) the actual debt service coverage provided by the Net Revenues was at least 100% or greater and (iii) immediately upon discovery of the failure to achieve the required coverage the City commences such action as is necessary to assure that required coverage is achieved in the succeeding year;

(e) a failure by the City to observe and perform any covenant, condition, agreement or provision (other than as specified in the foregoing paragraphs (a), (b), (c) and (d)) contained in the Subordinate Bonds or in the Subordinate General Resolution on the part of the City to be observed or performed, which failure shall continue for a period of 60 days after written notice, specifying such failure and requesting that it be remedied, shall have been given to the City by an Insurer or by the Holders of 25% or more of the principal amount of the Subordinate Bonds then Outstanding, unless such Insurer (if the Insurer has given the notice of such default) or, if the notice of the failure has been given by the Holders, the Holders of Subordinate Bonds in a principal amount not less than the principal amount of Subordinate Bonds the Holders of which gave such notice, shall agree in writing to an extension of such period; provided, however, that the Insurer and the Holders shall be deemed to have agreed to an extension of such period if corrective action is initiated by the City within 60 days after receipt of such written notice and is being diligently pursued;

(f) a failure on the part of the City to collect the Revenues, or an attempt to divert the Revenues for any use prior to the deposit into the SCM Fund or creation of a lien on or a charge against the Revenues or the SCM Fund, which lien or charge is prior to (except to the extent such lien secures Senior Lien Bonds) or except to the extent permitted by the Subordinate General Resolution, on a parity with that granted to secure the Subordinate Bonds; or the creation of a lien or charge against a Debt Service Fund, Reserve Fund or a Construction Fund (all as defined in the Subordinate General Resolution), which lien or charge is prior to or on a parity with that granted to secure a Series of the Subordinate Bonds; and

(g) the occurrence of any other Event of Default as is provided in a Supplemental Resolution.

Acceleration; Other Remedies

Upon the occurrence and continuance of an Event of Default, any Insurer or the Holders of 25% or more of the principal amount of the Subordinate Bonds which are then Outstanding and which are subject to acceleration may, by written notice to the City, declare the Subordinate Bonds which are subject to acceleration to be immediately due and payable whereupon the Subordinate Bonds which are subject to acceleration shall, without further action, become and be immediately due and payable; provided that, with respect to any Series of Subordinate Bonds which is credit enhanced, no acceleration shall be effective unless the declaration is given by the Insurer or is consented to by the Insurer.

The provisions of the preceding paragraph are subject to the conditions that, if after the principal of the Subordinate Bonds shall have been declared to be due and payable, and before any judgment or decree for the payment of the moneys due shall have been obtained or entered, the City shall cause to be paid all matured installments of interest upon all Subordinate Bonds and the principal of any and all Subordinate Bonds which shall have become due otherwise than by reason of such declaration (with interest upon such principal and, to the extent permissible by law, on overdue installments of interest, at the rate per annum specified in the Subordinate Bonds) and all Events of Default other than nonpayment of the principal of Subordinate Bonds which shall have become due by such declaration shall have been remedied, then the Holders of a majority in principal amount of Subordinate Bonds Outstanding may, if all Insurers consent in writing to such waiver, waive the Event of Default and rescind or annul the acceleration and its consequences. But no such waiver, rescission and annulment shall extend to or affect any subsequent Event of Default or impair any right or remedy consequent thereon.

Upon the occurrence and continuance of any Event of Default, the Holders of 10% or more of the principal amount of the Subordinate Bonds then Outstanding or any Insurer shall have the right:

- (i) by mandamus, or other suit, action or proceeding at law or in equity, to enforce all rights of the Bondholders, and require the City to carry out any agreements with or for the benefit of the Bondholders and to perform its duties or agreements under the Subordinate General Resolution or any Supplemental Resolution, provided that any such remedy may be taken only to the extent permitted under the applicable provisions of the Subordinate General Resolution;
- (ii) to bring suit upon the Subordinate Bonds;
- (iii) to commence an action or suit in equity to require the City to account as if it were the trustee of an express trust for the Bondholders; or
- (iv) by action or suit in equity to enjoin any acts or things which may be unlawful or in violation of the rights of the Bondholders.

In the event of a conflict between the actions taken or proposed to be taken by any Insurer and the Holders of the Subordinate Bonds or between the Insurers on different Series of Subordinate Bonds, the position taken by the entity or group of Bondholders representing the greatest principal amount of Subordinate Bonds Outstanding shall prevail. For such purposes, the Insurer of a Series of Subordinate Bonds shall be deemed to represent the entire principal amount of Subordinate Bonds for which such Insurer provides credit enhancement.

Any Holder of any Subordinate Bond issued under the terms of the Revenue Bond Law of 1941 (Section 54300 *et seq.* of the California Government Code) may compel the use of any or all of the remedies provided therein.

Supplemental Resolutions Without the Consent of Bondholders

The Council may, from time to time, and at any time, without the consent of or notice to the Bondholders, adopt Supplemental Resolutions supplementing and/or amending the Subordinate General Resolution or any Supplemental Resolution as follows:

- (a) to provide for the issuance of a Series or multiple Series of Subordinate Bonds and to set forth the terms of such Subordinate Bonds and the special provisions which shall apply to such Subordinate Bonds;
- (b) to cure any formal defect, omission, inconsistency or ambiguity in the Subordinate General Resolution or any Supplemental Resolution;
- (c) to add to the covenants and agreements of the City in the Subordinate General Resolution or to surrender any right or power reserved or conferred upon the City, and which shall not adversely affect the interests of the Bondholders;
- (d) to confirm, as further assurance, any interest in and to the Revenues or in and to the funds required to be established as provided in the Subordinate General Resolution or in and to any other moneys, securities or funds of the City provided pursuant to the Subordinate General Resolution or to otherwise add additional security for the Bondholders;
- (e) to evidence any change in the terms of any Series of Subordinate Bonds if such changes are authorized by the Supplemental Resolution at the time the Series of Subordinate Bonds is issued and such change is made in accordance with the terms of such Supplemental Resolution;
- (f) to comply with the requirements of the Trust Indenture Act of 1939, as from time to time amended or any statutory provisions substituted therefor;
- (g) to modify, alter, amend or supplement the Subordinate General Resolution or any Supplemental Resolution in any other respect which, in the opinion of a Consultant, the City Attorney or Bond Counsel, in each case evidenced by a written opinion or determination delivered to the City, is not materially adverse to the Bondholders and which will not, in itself, result in a reduction in any credit rating then assigned to any Series of Subordinate Bonds;
- (h) to provide for uncertificated Subordinate Bonds or for the issuance of coupons and bearer Subordinate Bonds or Subordinate Bonds registered only as to principal;
- (i) to qualify the Subordinate Bonds or a Series of Subordinate Bonds for a rating or ratings or an upgrade in a rating or ratings by Moody's, S&P and/or Fitch;
- (j) to comply with the requirements of the Code as are necessary, in the opinion of Bond Counsel, to prevent the interest on the Subordinate Bonds or a Series of Subordinate Bonds from being included in gross income of the recipient for federal income taxation purposes; and.

(k) to provide that Beneficial Owners may be included as Bondholders for any or all purposes and to set forth provisions related thereto, provided that no such provision shall result in any duplication of ownership rights with respect to any Subordinate Bonds.

Supplemental Resolutions with the Consent of Bondholders

Except for any Supplemental Resolution as described above which does not require Bondholder consent and any Supplemental Resolution adopted pursuant to the provisions described in the next succeeding paragraph below, the City shall not adopt any Supplemental Resolution unless all Insurers and the Holders of not less than 51% in aggregate principal amount of the Subordinate Bonds then Outstanding shall have consented to and approved the adoption of such Supplemental Resolution. With such consents and approval, the City may, from time to time, adopt any Supplemental Resolution deemed necessary or desirable by the City for the purposes of modifying, altering, amending, supplementing or rescinding, in any particular, any of the terms or provisions contained in the Subordinate General Resolution or in a Supplemental Resolution; provided, however, that, unless approved in writing by the Holders of all the Subordinate Bonds which would be affected by such change or unless such change affects less than all Series of Subordinate Bonds and the provisions described in the next succeeding paragraph below are applicable, nothing contained in the Subordinate General Resolution shall permit, or be construed as permitting (i) a change in the times, amounts or currency of payment of the principal of or interest on any outstanding Subordinate Bonds or (ii) a reduction in the principal amount or redemption price of any outstanding Subordinate Bonds or the rate of interest thereon; and nothing contained in the Subordinate General Resolution shall, unless approved in writing by the Holders of all the Subordinate Bonds then outstanding, permit or be construed as permitting (iii) the creation of a lien (except as expressly permitted by the Subordinate General Resolution as originally executed) upon or pledge of the Revenues, ranking prior to or on a parity with the claim created by the Subordinate General Resolution, or (iv) except with respect to additional security which may be provided for a particular Series of Subordinate Bonds, a preference or priority of any Subordinate Bond or Subordinate Bonds over any other Subordinate Bond or Subordinate Bonds, or (v) a reduction in the aggregate principal amount of Subordinate Bonds the consent of the Bondholders of which is required prior to the adoption of a Supplemental Resolution.

The City may, from time to time and at any time adopt a Supplemental Resolution which amends the provisions of an earlier Supplemental Resolution under which a Series or multiple Series of Subordinate Bonds were issued. If such Supplemental Resolution is adopted for one of the purposes permitting adoption of a Supplemental Resolution without Bondholder consent as described above, no notice to or consent of the Bondholders shall be required. With respect to other Supplemental Resolutions which affect the rights and interests of less than all Series of Subordinate Bonds outstanding, then the Holders of not less than 51% in aggregate principal amount of the Subordinate Bonds of all Series which are directly affected by such changes and all Insurers of Subordinate Bonds of such Series which are directly affected shall have the right from time to time to consent to and approve the adoption of any Supplemental Resolution deemed necessary or desirable by the City for the purposes of modifying, altering, amending, supplementing or rescinding, in any particular, any of the terms or provisions contained in such Supplemental Resolution and affecting only the Subordinate Bonds of such Series; provided, however, that, unless approved in writing by the Holders of all Subordinate Bonds which would be affected by such change, shall permit, or be construed as permitting (i) a change in the times, amounts or currency of payment of the principal of or interest on any Outstanding Subordinate Bonds of such Series or (ii) a reduction in the principal amount or redemption price of any outstanding Subordinate Bonds of such Series or the rate of interest thereon.

No Personal Liability of City Officials

No covenant or agreement contained in the Subordinate Bonds or the Subordinate General Resolution will be deemed to be the covenant or agreement of any present or future official, officer, agent

or employee of the City in his or her individual capacity, and neither the officers of the City nor any person executing the Subordinate Bonds shall be liable personally on the Subordinate Bonds or be subject to any personal liability or accountability by reason of the issuance thereof.

APPENDIX D

GLOSSARY OF SYSTEM TERMS

The following are definitions of certain terms used in the Official Statement with respect to the Wastewater System.

“Agencies” means the agencies, including the Cities of Beverly Hills, Burbank, Culver City, El Segundo, Glendale, La Cañada Flintridge, Long Beach, San Fernando and Santa Monica, the Crescenta Valley Water District, the Las Virgenes Municipal Water District, several Los Angeles County Sanitation Districts, the community of Marina Del Rey and Universal City, to which the City currently provides wastewater conveyance, treatment and disposal services on a wholesale basis pursuant to Universal Terms Contracts.

“Authorizations” means, collectively, the City Charter of the City of Los Angeles, and the authority of elections held in the City in 1987, 1988 and 1992, under which the voters of the City authorized the issuance of wastewater system revenue bonds and notes in an aggregate principal amount of \$3,500,000,000.

“AVORS” means Additional Valley Outfall Relief Sewer.

“BMPs” means best management practices.

“BOD” means biochemical oxygen demand whose strengths are measured as part of the QSF.

“CARB” means the California Air Resources Board.

“CEQA” means California Environmental Quality Act.

“CIP” means the Wastewater System Capital Improvement Program.

“CIS” means the Coastal Interceptor Sewer.

“Clean Water Act” means the Federal Water Pollution Control Act as amended.

“COS” means the Central Outfall Sewer.

“CSSA” means Collection System Settlement Agreement.

“DCTWRP” means the Donald C. Tillman Water Reclamation Plant.

“Entities” means, collectively, the 29 sanitation districts, cities, governmental entities and private businesses adjoining the City, which are provided wastewater conveyance, treatment and disposal services by the System.

“EPA” means the United States Environmental Protection Agency.

“EVIS” means the East Valley Interceptor Sewer.

“FEMA” means the Federal Emergency Management Agency.

“FOG Control Program” means the Fats, Oils and Grease Control Program, a commercial and industrial grease control ordinance implemented by the City.

“FSEs” means food service establishments.

“HWRP” means the Hyperion Water Reclamation Plant.

“IRP” means the City’s Integrated Resources Plan for the System.

“IU” means Industrial User.

“LAGWRP” means the Los Angeles – Glendale Water Reclamation Plant.

“LARWQCB” means the Los Angeles Regional Water Quality Control Board.

“mgd” means million gallons per day.

“NCOS” means the North Central Outfall Sewer.

“NORS” means the North Outfall Replacement Sewer.

“NOS” means the North Outfall Sewer.

“NPDES” means the National Pollutant Discharge Elimination System.

“OM&R” means the operation and maintenance costs, including renewal and replacement, of the System.

“POTWs” means publicly owned treatment works.

“PRC” means Program Review Committee consisting of the Director, Assistant Directors, and Financial Manager of the Bureau of Sanitation, which annually evaluates the CIP and meets monthly to consider any changes affecting the scope, cost, schedule, and overall implementation of the program.

“QSF” means the Quality Surcharge Fee assessed on users of the wastewater system whose wastewater discharge strength, as measured by SS and BOD, is higher than 265 milligrams per liter of BOD and/or 275 milligrams per liter of SS (domestic strength).

“SCAP” means the Southern California Alliance of Publicly Owned Treatment Works, which consists of the Los Angeles and Orange County Sanitation Districts, the City, and many smaller cities and other jurisdictions, which meet periodically to coordinate efforts to develop a unified strategy and to address air quality issues related to POTWs.

“SCAQMD” means the South Coast Air Management District.

“SCM Fund” means the City’s Sewer Construction and Maintenance Fund.

“SDC” means Sewage Disposal Contracts.

“SFC” means the Sewerage Facilities Charge, which is designed to recover the cost of the System capacity required by new sewer connections and increases in capacity required by current System users.

“SIU” means Significant Industrial User.

“SRF” means the Clean Water State Revolving Fund.

“SS” means suspended solids whose strengths are measured as part of the QSF.

“SSC” means the Sewer Service Charge imposed by the City in connection with wastewater discharged into the System.

“SSRP” means the City’s Secondary Sewer Renewal Program.

“SWRCB” means the California State Water Resources Control Board.

“TIWRP” means the Terminal Island Water Reclamation Plant.

“TMDLs” means total maximum daily loads, whose processes are developed by the LARWQCB and regulated by the Clean Water Act.

“WSC” means Wastewater Service Contracts.

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APPENDIX E

**CITY OF LOS ANGELES SEWER CONSTRUCTION AND MAINTENANCE FUND
FINANCIAL STATEMENTS AND REQUIRED SUPPLEMENTARY INFORMATION FOR THE
FISCAL YEARS ENDED JUNE 30, 2017 AND 2016 (WITH INDEPENDENT AUDITOR'S
REPORT THEREON) AND DEBT SERVICE COMPLIANCE REPORT FOR THE FISCAL
YEAR ENDED JUNE 30, 2017 (WITH INDEPENDENT AUDITOR'S REPORT THEREON)**

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**CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE
FUND
(An Enterprise Fund of the City of Los Angeles)**

Financial Statements and
Required Supplementary Information

For the Fiscal Years Ended June 30, 2017 and 2016
(With Independent Auditor's Report Thereon)



Certified
Public
Accountants

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CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
June 30, 2017 and 2016

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Independent Auditor's Report

Honorable Members of the City Council
City of Los Angeles, California

Report on the Financial Statements

We have audited the accompanying financial statements of the City of Los Angeles Sewer Construction and Maintenance Fund (Fund), an enterprise fund of the City of Los Angeles, California, as of and for the fiscal years ended June 30, 2017 and 2016, and the related notes to the financial statements, as listed in the table of contents.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the 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 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 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 financial statements referred to above present fairly, in all material respects, the respective financial position of the City of Los Angeles Sewer Construction and Maintenance Fund, as of June 30, 2017 and 2016 and the changes in financial position and cash flows thereof for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Fund and do not purport to, and do not present fairly the financial position of the City of Los Angeles, California, as of June 30, 2017 and 2016, the changes in its financial position, or, where applicable, its cash flows for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, as listed in the table of contents, be presented to supplement the financial statements. Such information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the 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 financial statements, and other knowledge we obtained during our audit of the 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.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 23, 2018 on our consideration of the Fund's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of the City's internal control over the Fund's financial reporting and compliance and the results of that testing, and not to provide an opinion on the City's internal control over the Fund's financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control over the Fund's financial reporting and compliance.



Los Angeles, California
January 23, 2018

CITY OF LOS ANGELES
SEWER CONSTRUCTION AND MAINTENANCE FUND
Management's Discussion and Analysis`
June 30, 2017 and 2016
(Unaudited)

The City of Los Angeles' (City) Sewer Construction and Maintenance Fund (Fund) is one of the major funds of the City. It is structured as an enterprise fund by virtue of City Ordinance No. 140190 effective on May 11, 1970, and as amended by City Ordinance No. 162864 effective on November 22, 1987. The Fund accounts for the City's wastewater collection and treatment systems.

This section of the financial report of the Fund presents our discussion and analysis of the Fund's financial performance for the fiscal years ended June 30, 2017 and 2016 and should be read in conjunction with the Fund's financial statements that begin on page 14. Descriptions and other details pertaining to the Fund are included in the notes to the Fund's financial statements (Notes). A reference to the Notes is indicated where applicable.

OVERVIEW OF THE FINANCIAL REPORT

The Fund's financial statements are prepared on an accrual basis of accounting in accordance with the generally accepted accounting principles (GAAP) practiced in the United States of America.

This financial report consists of management's discussion and analysis (MD&A) and the Fund's financial statements, which includes the accompanying notes to the Fund's financial statements.

The *statement of net position* presents information on the Fund's assets, deferred outflows of resources, liabilities, and deferred inflows of resources. The fund's total assets and deferred outflows of resources minus total liabilities and deferred inflows of resources result to the fund's *net position*. Deferred outflows of resources and deferred inflows of resources are consumption or acquisition, respectively, of net asset that are applicable to future periods, as distinguished from assets and liabilities. Net position indicates the net worth of the fund. Over time, increases and decreases in net position may serve as a useful indicator of whether the financial position of the fund is improving or deteriorating. A detailed description on the composition of the net position is in Note 1, on page 19, of the Notes to the Fund Financial Statements.

The *statement of revenues, expenses and changes in net position*, presents information that shows how the Fund's net position changed between the recent fiscal years. All changes in net position are reported as soon as the underlying event giving rise to the change occurs, regardless of the timing of the related cash flows.

The *statement of cash flows* presents the cash provided and used by operating activities, as well as other cash sources and uses, including but not limited to, investment income, proceeds from sale of long-term debt, payments for bond principal and interest, and capital assets additions and betterments.

This MD&A presents the financial position, highlights and analysis of the Fund in a Condensed Statement of Net Position (Table I) and Condensed Statement of Revenues, Expenses and Changes in Net Position (Table II), followed by an analysis of significant changes in major accounts of the Fund.

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FINANCIAL HIGHLIGHTS AND ANALYSIS

The following tables summarize the Fund's financial condition and changes in net position as of the fiscal years ended June 30, 2017, 2016 and 2015.

Table 1 – Condensed Statement of Net Position
(in thousands)

	2017	2016	2015	Change	
				2017	2016
ASSETS					
Current assets	\$ 664,098	\$ 516,022	\$ 618,865	\$ 148,076	\$ (102,843)
Noncurrent assets					
Capital assets	4,226,698	4,086,529	3,990,863	140,169	95,666
Others	147,759	164,684	185,808	(16,925)	(21,124)
TOTAL ASSETS	5,038,555	4,767,235	4,795,536	271,320	(28,301)
DEFERRED OUTFLOWS OF RESOURCES					
Deferred loss on debt refunding	112,711	103,805	114,563	8,906	(10,758)
Deferred outflows on derivative instruments	25,197	36,925	26,759	(11,728)	10,166
Total deferred outflows of resources	137,908	140,730	141,322	(2,822)	(592)
TOTAL ASSETS AND DEFERRED OUTFLOWS	5,176,463	4,907,965	4,936,858	268,498	(28,893)
LIABILITIES					
Current liabilities					
Current portion of long-term debt	95,754	90,779	88,228	4,975	2,551
Others	91,613	72,996	66,213	18,617	6,783
Noncurrent liabilities					
Long-term debt, net of current portion	2,924,614	2,771,710	2,887,048	152,904	(115,338)
Derivative instrument liabilities	25,197	36,925	26,759	(11,728)	10,166
Others	35,630	25,417	33,127	10,213	(7,710)
TOTAL LIABILITIES	3,172,808	2,997,827	3,101,375	174,981	(103,548)
DEFERRED INFLOWS OF RESOURCES					
Deferred gain on debt refunding	445	469	494	(24)	(25)
TOTAL LIABILITIES AND DEFERRED INFLOWS	3,173,253	2,998,296	3,101,869	174,957	(103,573)
NET POSITION					
Net investment in capital assets	1,684,523	1,548,879	1,490,409	135,644	58,470
Restricted					
Debt service	20,774	19,955	17,555	819	2,400
Operations and maintenance and other reserves	48,052	45,946	45,437	2,106	509
Unrestricted	249,861	294,889	281,588	(45,028)	13,301
TOTAL NET POSITION	\$ 2,003,210	\$ 1,909,669	\$ 1,834,989	\$ 93,541	\$ 74,680

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Table II – Condensed Statement Of Revenues, Expenses And Changes In Net Position

	2017	2016	2015	Change	
				2017	2016
OPERATING REVENUES					
Sewer service charges	\$ 570,093	\$ 551,059	\$ 524,807	\$ 19,034	\$ 26,252
Others	63,967	62,033	69,217	1,934	(7,184)
TOTAL OPERATING REVENUES	634,060	613,092	594,024	20,968	19,068
OPERATING EXPENSES					
Operations and maintenance	303,483	295,523	289,498	7,960	6,025
Depreciation	153,875	149,335	143,461	4,540	5,874
TOTAL OPERATING EXPENSES	457,358	444,858	432,959	12,500	11,899
OPERATING INCOME	176,702	168,234	161,065	8,468	7,169
NONOPERATING REVENUES (EXPENSES)					
Non-operating revenues	20,005	16,784	13,329	3,221	3,455
Non-operating expenses	(119,883)	(140,113)	(80,267)	20,230	(59,846)
TOTAL NONOPERATING REVENUE (EXPENSES)	(99,878)	(123,329)	(66,938)	23,451	(56,391)
NET INCOME BEFORE CAPITAL CONTRIBUTIONS	76,824	44,905	94,127	31,919	(49,222)
Capital contributions	16,717	29,775	22,646	(13,058)	7,129
CHANGE IN NET POSITION	93,541	74,680	116,773	18,861	(42,093)
NET POSITION, BEGINNING OF YEAR	1,909,669	1,834,989	1,718,216	74,680	116,773
NET POSITION, END OF YEAR	\$ 2,003,210	\$ 1,909,669	\$ 1,834,989	\$ 93,541	\$ 74,680

Assets

Current Assets

Total current assets increased by \$148.1 million or 28.7% in 2017 compared to 2016. This was mainly due to the net proceeds from the issuance of Wastewater System Subordinate Revenue Bonds, Series 2017-A, issued on May 24, 2017 and collections of Accounts Receivable.

Capital Assets

The Fund's assets consist mainly of capital assets, comprising 81.7% of the total assets and deferred outflows in fiscal year 2017. Net capitalized additions and betterments to the Fund's depreciable assets, including transfers from construction in progress, amounted to \$369.4 million. Of this amount, \$94.3 million was capitalized for project data collection systems and \$243.7 million for treatment plants and equipment. \$31.4 million was acquired for pumping plants, site improvement, and other equipment and vehicles including maintenance yards. Total charges to the construction in progress was \$197.8 million and \$273.1 million was capitalized during the year.

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In fiscal year 2016, capital assets comprised 83.3% of the total assets and deferred outflows. Net capitalized additions and betterments to the Fund's depreciable assets, including transfers from construction in progress, amounted to \$174.2 million. Of this amount, \$56.6 million was capitalized for project data collection systems and \$94.4 million for treatment plants and equipment. \$22.6 million was acquired for other equipment and vehicles including maintenance yards. Total charges to the construction in progress was \$222.0 million and \$151.2 million was capitalized during the year.

In fiscal year 2015, capital assets comprised 80.8% of the total assets and deferred outflows of which net capitalized additions and betterments to the Fund's depreciable assets, including transfers from construction in progress, amounted to \$114.7 million. Of this amount, \$68.9 million was capitalized for project data collection systems and \$31.8 million for treatment plants and equipment. \$13.5 million was acquired for other equipment and vehicles including maintenance yards. Charges to the construction in progress totaled \$189.4 million and \$64.9 million was capitalized during the year.

The ongoing capital improvement program (CIP) of the Fund includes Secondary Sewer Renewal Program for \$7.0 million in fiscal year 2017 and \$9.0 million in 2016. There were no significant improvements for the HWRP Digester Gas Compressor Facility, the Central Outfall Sewer Rehabilitation Slauson Avenue to Vernon Avenue, the LAG Nitrification/Denitrification Blower Procurement and Installation, and the West Los Angeles Interceptor Sewer Rehabilitation Overland to Kelton in fiscal year 2017 compared to \$47.0 million, \$13.0 million, \$12.0 million and 9.0 million, respectively in fiscal year 2016. Additional CIP large projects capitalized during fiscal year 2017 are the HWRP Digester Gas Utilization Plan Facility, \$136.0 million, the North Outfall Sewer Rehabilitation Unit 2 Western to Vermont, \$15.0 million, the HWRP Effluent Pumping Plant Header Replacement, \$14.0 million, the North Outfall Sewer Rehabilitation Unit 5 San Pedro to Hooper, 12.0 million, the PP Venice Discharge Manifold Replacement, 12.0 million, and the HWRP Digester Gas Desulfurization Facility Improvements, 10.0 million.

The objectives of the Fund's CIP are to meet Federal and State requirements and City policy regarding water pollution control; to provide satisfactory levels of service to users of the wastewater system; and to maintain the integrity of the wastewater system. The CIP includes installation of major interceptor sewers, renovation or replacement of other major sewers and pumping stations, and modernization and upgrading of wastewater treatment or reclamation facilities.

Deferred Outflows of Resources

For fiscal year 2017, the 2.0% decrease in deferred outflows of resources was mainly due to the decrease in value of the swap interest rates as of June 30, 2017 from the time the Fund entered into the swap agreements.

Liabilities and Fund Net Position

Current Liabilities

Total current liabilities, including current portion of long term debt, increased by 14.4% in fiscal year 2017 due to the significant increase in retainage fees deposited by contractors in escrow. Retainage are required by the City from contractors to ensure compliance and delivery of services to the City.

Long-term Debt

As of June 30, 2017, the Fund's total long-term debt balance, net of current portion, was \$2,924.6 million which increased by \$152.9 million compared to last year. The net increase was mainly due to the issuance of new debt in May 2017.

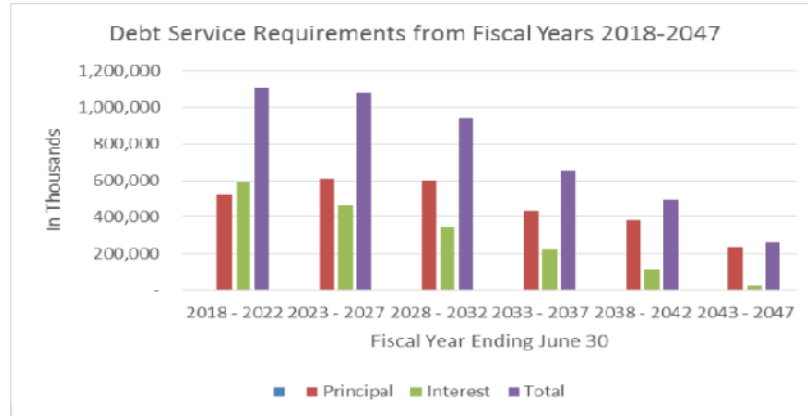
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As of June 30, 2016, the Fund's total long-term debt balance, net of current portion was \$2,771.7 million which decreased by \$115.3 million or 4.0% was mainly due to the debt service payments and refunding. There was no issuance of new debt in fiscal year 2016.

As of June 30, 2015, the Fund's long-term debt balance, net of current portion, was \$2,887.0 million, a 4.2% increase from the prior year balance. The increase was mainly due to the issuance of Series 2015A bonds in June 2015, offset by a reversal of prior year accrual in claims payable.

Based on last five-year average, the Fund's long term debt was 92.9% of total liabilities and deferred inflows of resources, while it is 56.5%, 56.6%, and 58.5% of total assets and deferred outflows of resources in fiscal year 2017, 2016, and 2015, respectively. This debt ratio shows the leverage the Fund has in terms of financial risks. Debt ratios vary in accordance with the type of business. Capital intensive businesses like the Fund tend to have higher debt ratios. The Fund's debt compliance with the City policies and ordinances is discussed and presented in a separate independent audit report titled Debt Service Compliance Report issued together with these Financial Statements.

The Fund's long-term debt final maturities range from June 1, 2018 to June 1, 2047. The total debt service for the next fiscal year 2018 is \$223.0 million, of which \$127.2 million and \$95.8 million is for interest and principal, respectively. The scheduled debt service (principal maturities and interest payments) requirements from June 30, 2018 to June 30, 2047 are summarized in the chart below.



The Fund's bond issuances maintained high bond ratings. The most recent ratings of the senior debt were "AA" by Standard & Poor's Rating Services, Fitch Ratings and Kroll Ratings.

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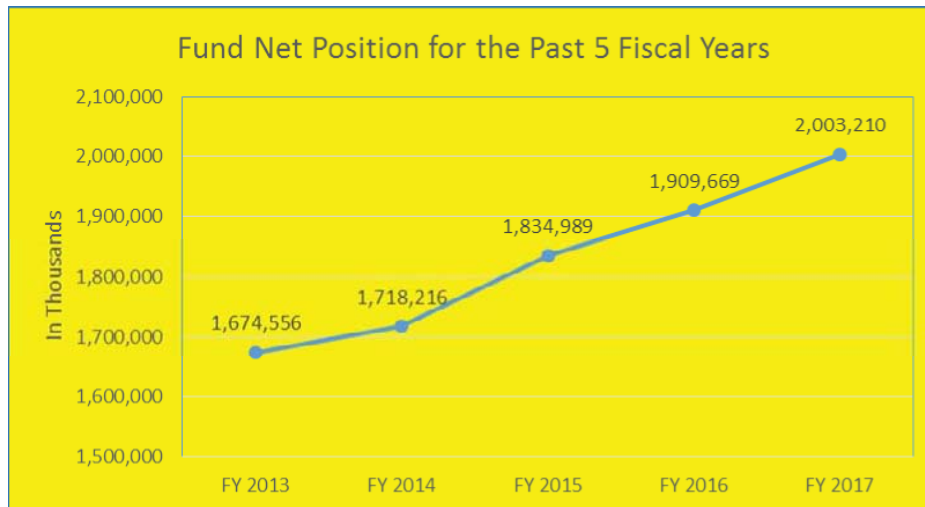
Derivative Instruments

The Fund has recorded the fair value of interest rate swap and corresponding deferred outflows on the statement of net position as of June 30, 2017 for \$25.2 million. The interest rate swap meets the definition of effective hedging derivatives in accordance with the GASB Statement No. 53, "Accounting and Financial Reporting for Derivative Instruments."

Fund Net Position

The Fund net position averages \$1.8 billion per fiscal year for the past five years comprising of 80.8% average investments in capital assets and 14.5% average unrestricted assets used for normal operations. The remaining 4.6% are restricted for debt service and other reserves.

The changes in the Fund net position for the past five years is shown below:



Of the total fund net position of \$2.0 billion in fiscal year 2017, 84.1% reflects the Fund's net investment in capital assets, compared to 81.1% in fiscal year 2016. The increase was mainly due to the unspent portion of the bond proceeds that was issued in May 2017. The Fund uses this portion of net position to provide services to the citizens and contract agencies using the City's wastewater collection and treatment facilities, and therefore, these assets are not available for future spending. An additional 3.4% of the fund net position is restricted for debt service and operations and maintenance. The remaining 12.5% of the total fund net position (15.4% in fiscal year 2016) consist of the unrestricted portion which may be used to meet the Fund's ongoing obligations for operations and maintenance, other debt service and other capital projects expenses.

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Of the total fund net position of \$1.91 billion in fiscal year 2016, 81.1% reflects the Fund's net investment in capital assets, compared to 81.2% in fiscal year 2015. The decrease was mainly due to the decrease in unspent Series 2015A bond proceeds that was issued in June 2015. The Fund uses this portion of net position to provide services to the citizens and contract agencies using the City's wastewater collection and treatment facilities, and therefore, these assets are not available for future spending. An additional 3.5% of the fund net position is restricted for debt service and operations and maintenance. The remaining 15.4% of the total fund net position (15.4% in fiscal year 2015) consist of the unrestricted portion which may be used to meet the Fund's ongoing obligations for operations and maintenance, other debt service and other capital projects expenses.

Of the total fund net position of \$1.84 billion in fiscal year 2015, 81.2% reflects the Fund's significant net investments in capital assets, compared to 81.4% in the prior fiscal year. The increase was mainly due to the unspent Series 2015A bond proceeds that was issued in June 2015. The Fund uses this portion of net position to provide services to the citizens and contract agencies using the City's wastewater collection and treatment facilities, and therefore, these assets are not available for future spending. 3.4% of the fund net position is restricted for debt service and operations and maintenance. The remaining 15.4% of the total fund net consist of the unrestricted portion which may be used to meet the Fund's ongoing obligations for operations and maintenance, other debt service and other capital projects expenses.

Revenues, Expenses and Changes in Fund Net Position

Operating Revenues

The Fund recovers the cost of operations and maintenance and a portion of major capital expenditures of the City's wastewater system through user fees consisting of five major components enumerated below, in addition to Federal and State grants, interest earnings and miscellaneous revenues. The five components of the user fees currently imposed by the City are:

Sewer Service Charge: This charge is based on metered water usage and includes reduced rates for low income households and a compensating surcharge for non-low income households and commercial customers. The billings for Sewer Service Charges are processed through DWP.

Sewerage Facilities Charge: This charge is designed to recover the cost of the system capacity required by new sewer connections and increases in capacity required by current users.

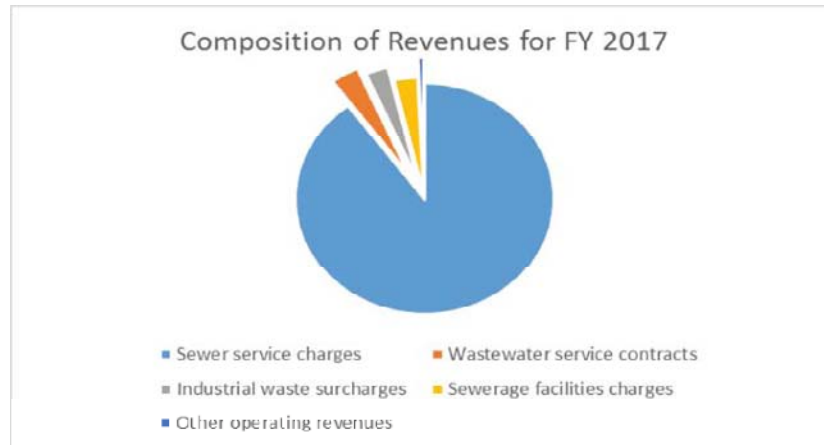
Wastewater Service Contract: The City provides wastewater conveyance, treatment and disposal services to certain local entities. Payments from these entities provide for reimbursement of capital and operation and maintenance expenses.

Industrial Waste Surcharges: The Quality Surcharge Fee is designed to recover the costs related to suspended solids and biochemical oxygen demand strengths above normal or domestic strength values as well as the cost for administering and maintaining the surcharge program. The Industrial Wastewater Permit Application Fee is designed to recover the costs required to process permit applications for applicable users. The Inspection and Control Fee is designed to recover the costs of necessary inspections of permitted users. The Significant Industrial User Fee recovers a portion of additional costs incurred in monitoring and inspection of certain industrial users subject to EPA categorical pretreatment requirements.

Miscellaneous Fee: These include bonded sewer fee, septage fee, sewer tap fee and other miscellaneous revenue sources.

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For fiscal year 2017, Fund revenues were composed of the following:



For fiscal year 2017, the Fund generated total operating revenues of \$634.1 million, an increase of \$21.0 million or 3.4% from fiscal year 2016. Sewer Service Charges increased by \$19.0 million or 3.5% from fiscal year 2016, generating \$570.1 million or 89.9% of the total operating revenues.

For fiscal year 2016, the Fund generated total operating revenues of \$613.1 million, an increase of \$19.1 million or 3.2% from fiscal year 2015. Sewer Service Charges increased by \$26.3 million or 5.0% from fiscal year 2015, generating \$551.1 million or 89.9% of the total operating revenues.

During fiscal year 2015, the Fund generated total operating revenues of \$594.0 million, an increase of \$22.4 million or 3.9% from fiscal year 2014. Sewer Service Charges increased by \$11.6 million or 2.3% from fiscal year 2014, generating \$524.8 million or 88.4% of the total operating revenues.

Ordinance No. 182076 dated March 1, 2012 authorized an increase of 4.5% in Sewer Service Charge from wastewater dischargers, effective on April 6 2012, July 1, 2012 and July 1, 2013. The Ordinance also authorized a series of increases of 6.5% every July 1st from July 1, 2014 until July 1, 2020.

Customers Class and Wastewater Volume

The Fund has five major customer classes. These classes include single family, small multi-family, large multi-family, commercial/industrial and government/municipal. There was no significant change in the number of customers and billable wastewater volume subject to sewer service charges in fiscal years 2017 compared to fiscal year 2016.

The wastewater volume for single family and small multi-family dwellings of up to four units, representing 86.0% of total wastewater system customers for both fiscal years 2017 and 2016, is based on each residential customer's minimum average daily water consumption during winter, further reduced by a dry winter compensation factor.

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The default billable wastewater volume for large multi-family, commercial/industrial and government/municipal customers, representing the remaining 14.0% of total wastewater system customers, is calculated at 93% of their total annual water consumption. All customers who can demonstrate that their billable wastewater volume is less than 74 percent of their annual water consumption can be billed at the lower estimate.

During fiscal year 2017, wastewater system service accounts averaged 666,700, a 1,600 or 0.24% increase from the 665,100 accounts in fiscal year 2016. In fiscal year 2017, total billable wastewater volume was 131.0 million cubic feet, a 1.3% or 1.7 million cubic feet reduction compared to fiscal year 2016's 132.8 million cubic feet. The reduction in billable wastewater volume reflects water conservation in California's ongoing drought.

Operating Expenses

The Fund's major operating expenses include operations and maintenance expenses and reimbursements to the General Fund for services rendered to the Fund. The Fund's operating expenses for fiscal year 2017 were \$457.4 million which increased by \$12.5 million or 2.8% compared to fiscal year 2016. On the average, 66.4% and 33.6% of the total operating expenses were for operating and maintenance expense and depreciation expense, respectively.

The Fund's operating expenses for fiscal year 2016 were \$444.9 million which increased by \$11.9 million or 2.7% compared to fiscal year 2015. The increase was mainly due to increase in labor, non-labor expenses and equipment maintenance expenses which increased collectively by 11% from fiscal year 2015. On the average, 66.4% and 33.6% of the total operating expenses were for operating and maintenance expense and depreciation expense, respectively.

Non-operating Revenues

Major components of non-operating revenues are investment income, grants, non-recurring fees and other non-operating revenues. The interest rates on the Fund's investment pool, reflecting current economic trends, averaged 0.99% in fiscal year 2017, an increase of 0.37% from fiscal year 2016. The Fund's investment income for fiscal year 2017 decreased by 95.0% from \$6.3 million in fiscal year 2016 to \$0.3 million in fiscal year 2017. The significant decrease was mainly due to the decrease in fair market value of investments.

The interest rates on the Fund's investment pool, reflecting current economic trends, averaged 0.62% in fiscal year 2016, an increase of 0.12% from fiscal year 2015. The Fund's investment income for fiscal year 2016 was \$6.3 million, a 161.2% increase from fiscal year 2015. The significant increase was mainly due to the increase in fair market value of investments.

Non-operating Expenses

Major components of the non-operating expenses are interest expense, litigation settlement, and other non-operating expenses. The Fund's interest expense for fiscal years 2017 and 2016 were \$101.1 million and \$103.5 million, respectively; the decrease of \$2.4 million or 2.4% was due to non-issuance of revenue bonds in fiscal year 2016. Other non-operating expenses for fiscal year 2017 were \$18.8 million, which is \$17.8 million lower than fiscal year 2016. The decrease in other non-operating expenses was mainly due to the insignificant loss on abandonment of fixed assets compared to last fiscal year.

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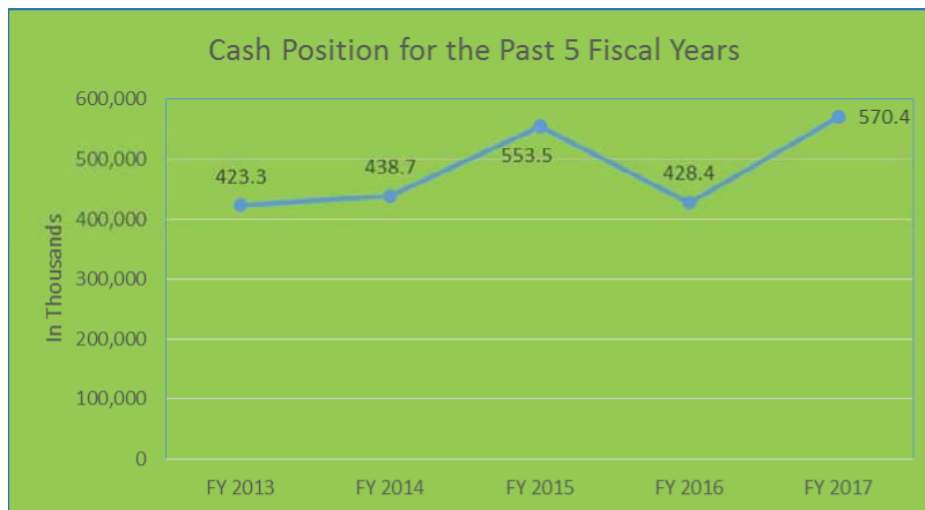
The Fund's interest expense for fiscal years 2016 and 2015 were \$103.5 million and \$96.6 million, respectively; the increase of \$6.9 million or 7.1% was mainly due to the first time payment of interest for bonds issued in 2015. Other non-operating expenses for fiscal year 2016 were \$36.6 million, which is more than double compared to the fiscal year 2015 expenses of \$16.3 million. The significant increase in other non-operating expenses was mainly due to the reversal of a \$24.0 million prior year audit accrual for litigation settlement in 2015 coupled with a significant loss in abandonment of fixed assets in 2016.

Capital Contributions

Certain agencies located outside the City receive wastewater disposal service from the City by contract. These agencies share the costs of the City's treatment and reclamation plants and of the City's larger trunk sewers (known as the Amalgamated System). The agencies pay shares of the operation and maintenance and capital costs of the Amalgamated System as the costs are incurred by the City and do not participate in the City's debt financing program. Payment received from these billings is recorded in the Fund's financial statements as capital contribution, stated at gross amount, without any adjustments for abandonment and maintenance costs. Capital contributions for fiscal years 2017 and 2016 amount to \$16.7 million and \$29.8 million, respectively.

Cash Position

Cash and pooled investments held by the City Treasurer in the Statement of Net Position and Statement of Cash Flows include adjustments for the increase or decrease in the fair market value (FMV) of investments (see Note 1 of the Notes to Fund's Financial Statements). The cash position of the Fund without the adjustment for the increase or decrease in the FMV of investments is shown in the chart below.



As of June 30, 2017, the cash position of the Fund was \$570.4 million, an increase of \$142.0 million from last fiscal year's cash position of \$428.4 million or 33.1%. The increase was mainly due to the bond proceeds to finance the acquisition and construction of capital assets. Out of the \$570.4 cash position, \$171.4 million are restricted for capital construction projects, debt service, and compliance with the operation and maintenance reserve requirement of the bond covenants.

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Requests for Information

This financial report is designed to provide interested parties, public and private sector alike, a general overview of the Fund's financial performance for fiscal year 2017. Questions concerning any of the information presented in this report or requests for additional financial information should be addressed to Victoria A. Santiago, Director, Department of Public Works Office of Accounting, City Hall Main 9th Floor, 200 North Spring Street, Los Angeles, CA 90012.

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Statements of Net Position
June 30, 2017 and 2016
(amounts expressed in thousands)

	<u>2017</u>	<u>2016</u>
ASSETS		
Current assets		
Cash and pooled investments held by the City Treasurer - unrestricted	\$ 398,982	\$ 141,472
Cash and pooled investments held by the City Treasurer - restricted	68,826	177,432
Accounts receivable, net of allowance for doubtful accounts of \$7,378 and \$3,874 for 2017 and 2016, respectively	115,999	117,158
Accrued unbilled revenue	47,704	45,222
Intergovernmental receivable	152	299
Due from other City funds	15,474	18,265
Investment income receivable	862	625
Materials and supplies inventory	16,099	15,549
Total current assets	<u>664,098</u>	<u>516,022</u>
Noncurrent assets		
Restricted assets		
Cash and pooled investments held by the City Treasurer	102,562	109,502
Cash held in escrow	3,307	1,746
Total restricted assets	<u>105,869</u>	<u>111,248</u>
Capital assets		
Not depreciated	447,173	522,518
Depreciated, net of accumulated depreciation of \$3,727,420 and \$3,573,545 for 2017 and 2016, respectively	3,779,525	3,564,011
Total capital assets	<u>4,226,698</u>	<u>4,086,529</u>
Other noncurrent assets		
Advances to other City funds	24,571	30,559
Intergovernmental receivable	17,319	22,877
Total other noncurrent assets	<u>41,890</u>	<u>53,436</u>
Total noncurrent assets	<u>4,374,457</u>	<u>4,251,213</u>
TOTAL ASSETS	<u>5,038,555</u>	<u>4,767,235</u>
DEFERRED OUTFLOWS OF RESOURCES		
Deferred loss on debt refunding	112,711	103,805
Deferred outflows on derivative instruments	25,197	36,925
TOTAL DEFERRED OUTFLOWS OF RESOURCES	<u>137,908</u>	<u>140,730</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	<u>\$ 5,176,463</u>	<u>\$ 4,907,965</u>

(Continued)

The accompanying notes are an integral part of the financial statements.

CITY OF LOS ANGELES
SEWER CONSTRUCTION AND MAINTENANCE FUND

Statements of Net Position (continued)

June 30, 2017 and 2016

(amounts expressed in thousands)

	<u>2017</u>	<u>2016</u>
LIABILITIES		
Current liabilities		
Accounts, contracts and retainage payable	57,410	45,933
Interest payable	11,912	11,321
Due to other City funds	13,063	11,377
Current portion of long-term debt	95,754	90,779
Current portion of claims payable	9,228	4,365
Total current liabilities	<u>187,367</u>	<u>163,775</u>
Noncurrent liabilities		
Advance from other City funds	22,739	21,686
Long-term debt, net of current portion	2,924,614	2,771,710
Claims payable, net of current portion	12,891	1,891
Derivative instrument liabilities	25,197	36,925
Unearned revenue	-	1,840
Total noncurrent liabilities	<u>2,985,441</u>	<u>2,834,052</u>
TOTAL LIABILITIES	<u>3,172,808</u>	<u>2,997,827</u>
TOTAL DEFERRED INFLOWS OF RESOURCES		
Deferred gain on debt refundings	<u>445</u>	<u>469</u>
NET POSITION		
Net investment in capital assets	1,684,523	1,548,879
Restricted		
Debt service	20,774	19,955
Operations and maintenance and other reserves	48,052	45,946
Unrestricted	<u>249,861</u>	<u>294,889</u>
TOTAL NET POSITION	<u>\$ 2,003,210</u>	<u>\$ 1,909,669</u>

The accompanying notes are an integral part of the financial statements.

CITY OF LOS ANGELES
SEWER CONSTRUCTION AND MAINTENANCE FUND
Statement of Revenues, Expenses, and Changes in Net Position
For the Years Ended June 30, 2017 and 2016
(amounts expressed in thousands)

	<u>2017</u>	<u>2016</u>
OPERATING REVENUES		
Sewer service charges	\$ 570,093	\$ 551,059
Wastewater service contracts	22,512	21,113
Industrial waste surcharges	17,988	18,648
Sewerage facilities charges	18,811	19,425
Other operating revenues	4,656	2,847
TOTAL OPERATING REVENUES	<u>634,060</u>	<u>613,092</u>
OPERATING EXPENSES		
Operations and maintenance	303,483	295,523
Depreciation	153,875	149,335
TOTAL OPERATING EXPENSES	<u>457,358</u>	<u>444,858</u>
OPERATING INCOME	<u>176,702</u>	<u>168,234</u>
NONOPERATING REVENUES (EXPENSES)		
Investment income	316	6,338
Interest expense	(101,067)	(103,544)
Other nonoperating revenues (expenses)	873	(26,123)
TOTAL NONOPERATING REVENUES (EXPENSES)	<u>(99,878)</u>	<u>(123,329)</u>
NET INCOME BEFORE CAPITAL CONTRIBUTIONS	76,824	44,905
Capital contributions	<u>16,717</u>	<u>29,775</u>
CHANGE IN NET POSITION	93,541	74,680
NET POSITION, BEGINNING OF YEAR	<u>1,909,669</u>	<u>1,834,989</u>
NET POSITION, END OF YEAR	<u><u>\$ 2,003,210</u></u>	<u><u>\$ 1,909,669</u></u>

The accompanying notes are in integral part of the financial statements.

CITY OF LOS ANGELES
SEWER CONSTRUCTION AND MAINTENANCE FUND

Statements of Cash Flows
For the Years Ended June 30, 2017 and 2016
(amounts expressed in thousands)

	<u>2017</u>	<u>2016</u>
CASH FLOWS FROM OPERATING ACTIVITIES		
Receipts from customers	\$ 626,360	\$ 603,474
Receipts from interfund services	11,517	13,500
Payments to suppliers for goods and services	(48,614)	(80,679)
Payments for interfund services	(245,502)	(219,431)
Net cash provided by operating activities	<u>343,761</u>	<u>316,864</u>
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES		
Payments on other litigation settlement	-	(500)
Cash (transferred) received from noncapital grants	16,328	(152)
Net cash provided by (used for) noncapital financing activities	<u>16,328</u>	<u>(652)</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Acquisition and construction of capital assets	(289,249)	(263,901)
Payments on construction litigation settlement	-	(5,672)
Proceed from sale of bonds and notes	250,708	-
Payments on bonds and notes - principal	(90,779)	(88,228)
Payments on bonds and notes - interest	(116,380)	(124,917)
Payments of bonds and notes expenses	(2,823)	-
Sewage disposal contracts capital contributions	22,343	24,173
Interest subsidies from U.S. Treasury	4,394	10,949
Net cash used for capital and related financing activities	<u>(221,786)</u>	<u>(447,596)</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Investment income received	3,737	2,901
Increase (Decrease) in fair value of investments	(76)	3,387
Net cash provided by investing activities	<u>3,661</u>	<u>6,288</u>
Net increase (decrease) in cash and cash equivalents	141,964	(125,096)
CASH AND CASH EQUIVALENTS, JULY 1	<u>428,406</u>	<u>553,502</u>
CASH AND CASH EQUIVALENTS, JUNE 30	<u>\$ 570,370</u>	<u>\$ 428,406</u>

(continued)

The accompanying notes are an integral part of the financial statements.

CITY OF LOS ANGELES
SEWER CONSTRUCTION AND MAINTENANCE FUND

Statements of Cash Flows (Continued)
For the Years Ended June 30, 2017 and 2016
(amounts expressed in thousands)

	<u>2017</u>	<u>2016</u>
CASH AND CASH EQUIVALENTS COMPONENTS		
Cash and pooled investments held by the City Treasurer		
Unrestricted	\$ 398,982	\$ 141,472
Restricted		
Current	68,826	177,432
Noncurrent	102,562	109,502
Cash and cash equivalents, June 30	<u><u>\$ 570,370</u></u>	<u><u>\$ 428,406</u></u>
 RECONCILIATION OF OPERATING INCOME TO NET		
CASH PROVIDED BY OPERATING ACTIVITIES		
Operating income	\$ 176,702	\$ 168,234
Adjustments to reconcile operating income to net cash provided by operating activities		
Depreciation	153,875	149,335
Provision for uncollectible accounts	3,504	(479)
Changes in assets and liabilities		
(Decrease) in Accounts receivable, Accrued unbilled revenue,	(9,364)	(6,631)
(Decrease) in Materials and supplies inventory	(550)	(537)
Increase/(Decrease) in Accounts, contracts and retainage payable	9,917	(4,050)
(Decrease) in Unearned revenue	(1,840)	(2,508)
Increase in Due to other City Funds	11,517	13,500
Total adjustments	<u>167,059</u>	<u>148,630</u>
NET CASH PROVIDED BY OPERATING ACTIVITIES	<u><u>\$ 343,761</u></u>	<u><u>\$ 316,864</u></u>
 NONCASH INVESTING, CAPITAL, AND FINANCING ACTIVITIES		
Net proceeds of refunding bonds deposited with an irrevocable trust account	\$ 253,635	\$ -
Amortization of deferred charges on refundings	8,931	10,733
Acquisition of capital assets included in liabilities	28,308	25,406
Loss on abandonment of construction in progress	129	30,324
Wastewater service contracts capital contributions	3,138	4,569

The accompanying notes are an integral part of the financial statements.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND

Notes to the Fund Financial Statements

June 30, 2017 and 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Organization and Reporting Entity

The City of Los Angeles (City) Sewer Construction and Maintenance Fund (Fund) was established as an enterprise fund of the City by City Ordinance No. 140190 on May 11, 1970, which was later amended by City Ordinance No. 162864 effective on November 22, 1987. The Fund was established to account for the operations of the City's wastewater collection and treatment system. All monies received from sewer fees are deposited to the Fund and are expended only for sewerage related purposes.

The Fund is reported as a major enterprise fund in the City's basic financial statements. The accompanying financial statements present the net position and changes in net position and cash flows of the Fund. These financial statements are not intended to present the financial position and the results of operation and cash flows of the City.

Basis of Accounting and Financial Statement Presentation

The Fund operates as an enterprise activity. Enterprise funds account for operations that are financed and operated in a manner similar to private business enterprises where the intent of the governing body is that cost of providing services to the general public on a continuing basis be financed or recovered primarily through service charges. The Fund prepares its financial statements on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America (GAAP) as promulgated by the Governmental Accounting Standards Board (GASB). Basis of accounting refers to when revenues and expenses are recognized in the accounts and reported in the financial statements. Enterprise funds are accounted for on the flow of economic resources measurement focus and use the accrual basis of accounting, whereby revenues are recognized when earned and expenses are recognized when incurred, regardless of the timing of related cash flows.

Cash, Cash Equivalents, and Investments

The Fund's cash, cash equivalents, investments and a significant portion of its restricted cash and investments are maintained as part of the City's pool of cash and investments. The Fund's portion of the pool is presented on the statements of net position as "Cash and Pooled Investments held by the City Treasurer." The Fund's investments, including its share in the City's investment pool, are stated at fair value based on quoted market prices except for money market investments that have remaining maturities of one year or less at time of purchase, which are reported at amortized cost. Interest earned on such pooled investments is allocated to the participating City funds based on each fund's average daily cash balance during the allocation period.

The Fund considers a portion of its unrestricted and restricted cash and pooled investments held in the City Treasury as demand deposits and therefore these amounts are reported as cash equivalents. Investments with maturities of three months or less at the time of purchase are considered cash equivalents.

For the purpose of reporting cash flows, the Fund's cash and pooled investments held by the City Treasurer plus any other cash deposits or other short-term investments that are both readily convertible to known amounts of cash and have maturity dates of three months or less at the time of purchase, are considered to be cash and cash equivalents.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Cash Held in Escrow

Agreements with the City allow contractors to place securities or cash in escrow with banks, pending satisfactory completion of a contract, in lieu of retention. Such balances are reported as restricted assets and retainage payable on the statements of net position.

Accounts Receivable and Unbilled Receivables

The Fund recognizes revenue in the period earned. In general, receivables outstanding beyond 70 days from the invoice date are put into the collection process and referred to the City's collection agency for amounts under \$5,000, and Office of Finance for those \$5,000 or more. Uncollectible accounts returned by the collection agencies and the Office of Finance to the originating departments is subject to write off, if the department can show that all reasonable efforts to collect have been undertaken. In accordance with City Ordinance and Collection Policies, accounts for write off need approval by the City's Board of Review for each account under \$5,000 and by the City Council for each account equal to or greater than \$5,000. Allowance for uncollectible accounts for sewer services charges amount to 1% of net sewer billings. Allowance for uncollectible accounts for industrial wastewater surcharges amount to 80% of active accounts over 180 days, 100% of all inactive accounts, and 100% of pending accounts over 180 days.

Materials and Supplies Inventory

Materials and supplies inventory is valued at weighted average cost.

Capital Assets

Purchased or constructed capital assets, including intangible assets, are valued at historical cost or estimated historical cost if actual historical cost is not available. Estimated historical cost is computed by deflating current replacement costs to the year in which the asset was purchased or constructed. The dollar value threshold amounts for capitalization are as follows:

Buildings and structures	\$25,000
Collection system	\$25,000
Site improvements	\$10,000
Equipment and vehicles	\$5,000

The Fund capitalizes interest costs of bond borrowings used during construction. Interest costs capitalized during the fiscal years ended June 30, 2017 and 2016 were \$4.9 million and \$8.1 million, respectively.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Depreciation

Depreciation is computed on a straight-line basis over the estimated useful life of the related asset. The estimated useful lives of property, plants and equipment are as follows:

Collection system	80 years
Site improvements	40 years
Treatment plants and equipment	5 – 50 years
Pumping plants and equipment	7 – 40 years
Other equipment and vehicles	3 – 15 years

Self-Insurance Program

The City is self-insured for workers' compensation, general, automobile and public liability claims. The City's self-insurance program is administered by the General Fund. Claims from the Fund are charged to the Fund based on estimated cash payment in the following fiscal year.

The Fund has commercial insurance for risks of physical damage to real and personal properties and for business interruption expenses. Claims settlements have not exceeded commercial insurance coverage during the last three fiscal years.

Employee Compensation

The Fund has no direct employees. All services related to wastewater collection and treatment operations are performed by employees of the City's General Fund. The Fund reimburses the direct salaries and related costs of said employees to the City's General Fund on a monthly basis based on the budgeted costs of providing these services. Related costs of the employees providing services to the Fund that are reimbursed to the City's General Fund include but are not limited to compensated absences, retirement benefits, health insurance benefits, etc. Such reimbursements are adjusted to actual costs at year-end based on cost reports summarizing all work charged to the Fund. The difference between actual costs and reimbursements to the General Fund are accrued in accordance with the City policy and are included in Due to or Due From Other City Funds.

Since the Fund has no direct employees, accounting standards governing the treatment and recognition of employee compensation and other related costs are not applicable.

Revenue Recognition

The Fund's user charges, such as sewer service charges, industrial waste surcharges, wastewater service contract revenues, and sewerage facilities charges, are adopted by the City Council based on estimated operations and maintenance costs and a portion of capital replacement costs. Except for sewerage facilities charges which are recognized as income when cash is collected, the rest of the user charges are recognized as income when the service is provided.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Certain capital improvements are financed by the Federal and State of California (State) grants. When eligible costs are incurred, grant revenue with a corresponding grant receivable are recognized. Disaster assistance grants from Federal and State agencies are recognized as revenue when the damage survey report is approved by grantor agencies and eligible expenses have been incurred by the Fund.

The capital component of wastewater service contracts represents capital contributions from contracting agencies using the City's wastewater collection and treatment system, which is recognized as capital contributions in the statements of revenues, expenses and changes in net position.

Operating and Non-operating Revenues and Expenses

Operating revenues and expenses generally result and occur, respectively, from providing services and producing and delivering goods in connection with the Fund's normal and regular ongoing operations. The Fund's major operating expenses include operations and maintenance expenditures. All revenues and expenses that do not meet this definition are reported as non-operating revenues and expenses.

Premiums and Discounts

Bond premiums and discounts are deferred and amortized over the life of the bonds. Bonds payable is reported net of the applicable bond premium or discount.

Deferred Outflows/Inflows of Resources

Deferred outflows and inflows of resources is defined as a consumption and acquisition of net position applicable to a future reporting period. Unamortized gains and losses on extinguishment of refunding debt are reported as deferred inflows and deferred outflows of resources, respectively, and amortized over the remaining life of the old debt or life of the new debt, whichever is shorter.

The annual change in the fair value of a hedging derivative is reported as deferred outflows of resources on the statement of net position. Please see note 5 for further details.

Net Position

The financial statements utilize a net position presentation. Net position is categorized as follows:

- *Net Investment in Capital Assets*– This category of net position consists of capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds, mortgages, notes or other borrowings and any deferred outflows of resources related to such borrowings that are attributable to the acquisition, construction or improvement of those assets. If there are significant unspent related debt proceeds at year-end, the portion of the debt attributable to the unspent proceeds is not included in the calculation of net investment in capital assets. Rather, that portion of the debt is offset by unspent proceeds.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

- *Restricted Net Position* – This category presents restricted assets reduced by liabilities and deferred inflows of resources related to those assets. Those assets are restricted due to external restrictions imposed by creditors (such as through bond covenants), grantors or laws and regulations of other governments and restrictions imposed by law through constitutional provisions or enabling legislation. As of June 30, 2017, \$26.2 million was restricted by enabling legislation. There were no amount restricted for fiscal year 2016.
- *Unrestricted* – This category represents net position of the Fund that is not restricted for any project or other purposes.

Use of Restricted/Unrestricted Net Position

When both restricted and unrestricted resources are available for use, the Fund's policy is to use unrestricted resources first, then restricted resources as they are needed.

Use of Estimates

The preparation of the financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions, in some cases when applicable, that affect the amounts in the financial statements and accompanying notes. Actual results could differ from the estimates.

Recent GASB Pronouncements

The GASB has issued several pronouncements that have effective dates that may impact future presentations. The Fund is evaluating the potential impacts of the following GASB statements on its accounting practices and financial statements.

In March 2017, the GASB issued Statement No. 81, *Irrevocable Split-Interest Agreements*, which requires that a government that receives resources pursuant to an irrevocable split-interest agreement recognize assets, liabilities, and deferred inflows of resources at the inception of the agreement and revenue when the resources become applicable to the reporting period. GASB 81 also requires that a government recognize assets representing its beneficial interests in irrevocable split-interest agreements that are administered by a third party, if the government controls the present service capacity of the beneficial interests. Implementation of this statement is effective for fiscal year 2018.

In March 2017, GASB issued Statement No. 85, *Omnibus 2017*. The objective of this statement is to address practice issues that have been identified during implementation and application of certain GASB statements. This Statement addresses a variety of topics including issues related to blending component units, goodwill, fair value measurement and application, and postemployment benefits (pensions and other postemployment benefits). The provisions of this Statement are effective for financial statements beginning after December 15, 2017, which requires the Fund to implement this statement in the year ending June 30, 2019.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

In May 2017, GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*. The primary objective of this statement is to improve consistency in accounting and financial reporting for in-substance defeasance of debt by providing guidance for transactions in which cash and other monetary assets acquired with only existing resources – resources other than the proceeds of refunding debt – are placed in an irrevocable trust for the sole purpose of extinguishing debt. This statement also improves accounting and financial reporting for prepaid insurance on debt that is extinguished and notes to financial statements for debt that is defeased in substance. The provisions of this statement are effective for financial statements beginning after December 15, 2017, which requires the Fund to implement this statement in year ending June 30, 2019.

In June 2017, GASB issued Statement No. 87, *Leases*. This statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. The statement requires a lessee to recognize a lease liability and an intangible right-to-use lease asset, and a lessor to recognize a lease receivable and a deferred inflows of resources. The requirements of this statement are effective for reporting periods beginning after December 15, 2019, which requires the Fund to implement this statement in year ending June 30, 2021.

NOTE 2 – CASH AND INVESTMENTS

Cash and investments as of June 30, 2017 and 2016, consist of the following:

	<u>2017</u>	<u>2016</u>
Cash deposited with the City	\$ 31,935	\$ 15,148
Investments	<u>538,435</u>	<u>413,258</u>
Total Cash and Investments	<u>\$ 570,370</u>	<u>\$ 428,406</u>

Cash and Pooled Investments Held by the City Treasurer

The cash balances of substantially all funds on deposit in the City Treasury are pooled and invested by the City Treasurer for the purpose of maximizing interest earnings through pooled investment activities but safety and liquidity still take precedence over return. Interest earned on pooled investments is allocated to the participating funds based on each fund's average daily deposit balance during the allocation period with all remaining interest allocated to the General Fund. The Fund receives all interest earned on its deposits in the City Treasury.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 2 – CASH AND INVESTMENTS (Continued)

Pursuant to California Government Code Section 53607 and the Los Angeles City Council (City Council) File No. 94-2160, the City Treasurer shall render to the City Council a statement of investment policy (the Policy) annually. City Council File No. 11-1740 was adopted on February 12, 2014, as the City's investment policy. This Policy shall remain in effect until the City Council and the Mayor approve a subsequent revision. The Policy governs the City's pooled investment practices. The Policy addresses soundness of financial institutions in which the Treasurer will deposit funds and types of investment instruments permitted by California Government Code Sections 53600-53635 and 16429.1.

Each investment transaction and the entire portfolio must comply with the California Government Code and Policy. Examples of investments permitted by the Policy are obligations of the U.S. Treasury and government agencies, local agency bonds, commercial paper notes, certificates of deposit (CD) placement service, bankers' acceptances, medium-term notes, repurchase agreements, mutual funds, money market mutual funds, and the State of California Local Agency Investment Fund.

The City issues a publicly available Comprehensive Annual Financial Report (CAFR) that includes complete disclosures related to the entire cash and investment pool. The financial report may be obtained by writing to the City of Los Angeles, Office of the Controller, 200 North Main Street, City Hall East Suite 300, Los Angeles, CA 90012 or by calling (213) 978-7200.

The Fund's investment in the City's cash and investment pool is tracked separately. At June 30, 2017 and 2016, the investments held in the City Treasurer's Special Investment Pool Program and their maturities are as follows (in thousands):

Type of Investments	Amount	Investment Maturities June 30, 2017				
		1 to 30 Days	31 to 60 Days	61 to 365 Days	366 Days To 5 Years	Over 5 Years
U.S. Treasury Notes	\$ 60,960	\$ -	\$ -	\$ 2,812	\$ 38,135	\$ 20,013
U.S. Sponsored Agency Issues	253,297	27,414	38,454	155,235	14,320	17,874
Commercial Paper	209,178	93,438	23,741	91,999	-	-
Supranational Coupons	15,000	-	15,000	-	-	-
Total Special Pool	<u>\$ 538,435</u>	<u>\$ 120,852</u>	<u>\$ 77,195</u>	<u>\$ 250,046</u>	<u>\$ 52,455</u>	<u>\$ 37,887</u>

Type of Investments	Amount	Investment Maturities June 30, 2016				
		1 to 30 Days	31 to 60 Days	61 to 365 Days	366 Days To 5 Years	Over 5 Years
U.S. Treasury Notes	\$ 79,746	\$ -	\$ -	\$ 16,389	\$ 35,649	\$ 27,708
U.S. Sponsored Agency Issues	115,845	11,500	52,292	8,559	24,750	18,744
Commercial Paper	153,858	79,711	14,203	59,944	-	-
Supranational Coupons	63,809	12,492	16,190	35,127	-	-
Total Special Pool	<u>\$ 413,258</u>	<u>\$ 103,703</u>	<u>\$ 82,685</u>	<u>\$ 120,019</u>	<u>\$ 60,399</u>	<u>\$ 46,452</u>

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 2 – CASH AND INVESTMENTS (Continued)

Disclosure Relating to Credit Risk

Generally, credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. Presented below is the actual rating as of year-end for each of the Fund's investment types.

Investment Type June 30, 2017	Total	AA+	A-1	Unrated
U.S Treasury Notes	\$ 60,960	\$ 60,960	\$ -	\$ -
U.S. Sponsored Agency Issues	253,297	42,309	-	210,988
Commercial Paper	209,178	-	209,178	-
Supranational Coupons	15,000	-	-	15,000
Total Investments	<u>\$ 538,435</u>	<u>\$ 103,269</u>	<u>\$ 209,178</u>	<u>\$ 225,988</u>
Investment Type June 30, 2016	Total	AA+	A-1	Unrated
U.S Treasury Notes	\$ 79,746	\$ 79,746	\$ -	\$ -
U.S. Sponsored Agency Issues	115,845	43,763	-	72,082
Commercial Paper	153,858	-	153,858	-
Supranational Coupons	63,809	-	-	63,809
Total Investments	<u>\$ 413,258</u>	<u>\$ 123,509</u>	<u>\$ 153,858</u>	<u>\$ 135,891</u>

Fair Value Measurements

Investments in the City Treasury are stated at fair value based on quoted market prices except for money market investments that have remaining maturities of one year or less at time of purchase, which are reported at amortized cost. The investments are categorized into its fair value measurements within the fair value hierarchy established by GAAP. These principles recognize a three-tiered fair value hierarchy, as follows:

- Level 1: Unadjusted quoted prices in active markets for identical assets or liabilities that the City can access at the measurement date.
- Level 2: Directly or indirectly observable inputs for an asset other than quoted prices.
- Level 3: Unobservable inputs for an asset that are not based on observable market data.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 2 – CASH AND INVESTMENTS (Continued)

At June 30, 2017, the investments by fair value level are as follows:

<u>Investment Type</u>	<u>Amount</u>	<u>Fair value Measurements Using Significant Other Observable Inputs (Level 2)</u>
Investments Subject to Fair Value Hierarchy:		
U.S. Treasury Notes	\$ 60,960	\$ 60,960
U.S. Sponsored Agency Issues	253,297	253,297
 Total Investments Subject to Fair Value	 314,257	 \$ 314,257
Investments Not Subject to Fair Value Hierarchy:		
Commercial Paper	209,178	
Supranational Obligations	15,000	
 Total Investments - Special Pools	 \$ 538,435	

At June 30, 2016, the investments by fair value level are as follows:

<u>Investment Type</u>	<u>Amount</u>	<u>Fair value Measurements Using Significant Other Observable Inputs (Level 2)</u>
Investments Subject to Fair Value Hierarchy:		
U.S. Treasury Notes	\$ 79,746	\$ 79,746
U.S. Sponsored Agency Issues	115,845	115,845
Supranational Obligations	63,809	63,809
 Total Investments Subject to Fair Value	 259,400	 \$ 259,400
Investments Not Subject to Fair Value Hierarchy:		
Commercial Paper	153,858	
 Total Investments - Special Pools	 \$ 413,258	

In accordance with the terms of the Fund's revenue bond agreements, cash is deposited in segregated funds for specified purposes as follows:

Unrestricted Funds

For receiving revenue and to pay or provide for the ordinary and reasonable expenses of the operations and maintenance, debt service and capital expenditures of the sewerage system.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 2 – CASH AND INVESTMENTS (Continued)

Restricted Funds

Debt Service Reserve– to be held as a reserve from which payments of principal and interest on the bonds can be made.

Debt Service– to receive money to be used to pay debt service on the bonds issued by the Fund.

Operations and Maintenance Reserve– an amount to be held that is at least equal to the amount reasonably estimated by the City to provide for the Fund’s operations and maintenance expenses for the next 45 days.

Other Reserves– includes the Emergency, Rebate, and Insurance and Liability Claims Funds.

The Fund's cash on hand and pooled investments held by the City Treasurer as of June 30, 2017 and 2016 were allocated to the following funds (in thousands):

	2017	2016
Unrestricted funds	\$ 398,982	\$ 141,472
Restricted funds		
Current		
Capital construction projects	-	111,531
Debt service	20,774	19,955
Operations and maintenance reserve	42,652	40,523
Other reserves	5,400	5,423
	<u>68,826</u>	<u>177,432</u>
Noncurrent		
Debt service reserve	<u>102,562</u>	<u>109,502</u>
Total restricted funds	<u>171,388</u>	<u>286,934</u>
Total cash and pooled investments held by the City Treasurer	<u>\$ 570,370</u>	<u>\$ 428,406</u>

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 2 – CASH AND INVESTMENTS (Continued)

Cash Held by Escrow Agents

Pursuant to Section 22300 of the Public Contract Code of the State of California, a contractor has the option to deposit securities with the escrow agent as a substitute for retention earnings required to be withheld by the City based on the construction contract entered into between the City and the contractor.

The escrow agent must be a member of the Federal Deposit Insurance Corporation and must be federally insured pursuant to California Government Code Section 53648 and chartered to transact business in California. The contract to implement this type of agreement is called the Escrow Agreement for Security Deposits In Lieu of Retention (Escrow Agreement). The three parties to the Escrow Agreement are the contractor, the escrow company and the City. There are times when cash with escrow is invested in accordance with the direction of the contractor. Interest earned when funds are invested by escrow accrues for the benefit of the contractor. The City has the right to draw upon the securities in the event of default by the contractor. The escrow agent holds the securities for a market value at least equal to the cash amount required to be withheld as retention. As of June 30, 2017 and 2016, cash held by escrow agents amounted to \$3.3 million and \$1.7 million respectively. The decrease in cash was due to decrease in number of escrow accounts during the year.

In accordance with the Escrow Agreement, the escrow agents agree to insure the deposits or collateralize any deposits in excess of \$100,000 pursuant to federal law in compliance with Government Code Section 53652. Thus, assets held by escrow agents are not exposed to custodial credit risk.

NOTE 3 – ACCOUNTS RECEIVABLE

Accounts receivable balances as of June 30, 2017, are summarized as follows (in thousands):

	Billed	Unbilled	Total
Sewer service charges	\$ 95,975	\$ 42,894	\$ 138,869
Sewage disposal contracts			
Operations and maintenance	14,306	1,607	15,913
Capital	7,309	3,203	10,512
Industrial waste surcharges	5,781	-	5,781
Bonded sewer fees	6	-	6
Allowance for doubtful accounts	(7,378)	-	(7,378)
Total	<u>\$ 115,999</u>	<u>\$ 47,704</u>	<u>\$ 163,703</u>

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 3 – ACCOUNTS RECEIVABLE, (Continued)

Accounts receivable balances as of June 30, 2016, are summarized as follows (in thousands):

	Billed	Unbilled	Total
Sewer service charges	\$ 85,859	\$ 39,527	\$ 125,386
Sewage disposal contracts			
Operations and maintenance	17,699	3	17,702
Capital	10,447	5,692	16,139
Industrial waste surcharges	7,018	-	7,018
Bonded sewer fees	9	-	9
Allowance for doubtful accounts	(3,874)	-	(3,874)
Total	<u>\$ 117,158</u>	<u>\$ 45,222</u>	<u>\$ 162,380</u>

NOTE 4 – CAPITAL ASSETS

Capital assets activity for the fiscal year ended June 30, 2017 was as follows (in thousands):

	Balance June 30, 2016	Additions/ Transfers in	Deductions/ Transfers out	Balance June 30, 2017
Capital assets, non-depreciable				
Land	\$ 40,093	\$ 766	\$ -	\$ 40,859
Construction in progress	482,425	197,046	(273,157)	406,314
Total capital assets, non-depreciable	<u>522,518</u>	<u>197,812</u>	<u>(273,157)</u>	<u>447,173</u>
Capital assets depreciated				
Collection system	2,849,945	94,311	-	2,944,256
Treatment plants and equipment	3,932,958	243,667	-	4,176,625
Pumping plants	197,882	13,081	-	210,963
Site improvements	26,054	55	-	26,109
Other equipment and vehicles	130,717	18,275	-	148,992
Total capital assets depreciated	<u>7,137,556</u>	<u>369,389</u>	<u>-</u>	<u>7,506,945</u>
Less: accumulated depreciation				
Collection system	(628,257)	(35,081)	-	(663,338)
Treatment plants and equipment	(2,713,714)	(103,328)	-	(2,817,042)
Pumping plants	(146,021)	(5,057)	-	(151,078)
Site improvements	(7,340)	(1,203)	-	(8,543)
Other equipment and vehicles	(78,213)	(9,206)	-	(87,419)
Total accumulated depreciation	<u>(3,573,545)</u>	<u>(153,875)</u>	<u>-</u>	<u>(3,727,420)</u>
Capital assets depreciated, net	<u>3,564,011</u>	<u>215,514</u>	<u>-</u>	<u>3,779,525</u>
Total capital assets	<u>\$ 4,086,529</u>	<u>\$ 413,326</u>	<u>\$ (273,157)</u>	<u>\$ 4,226,698</u>

Total depreciation expense for the fiscal year ended June 30, 2017 was \$153,875.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 4 – CAPITAL ASSETS (Continued)

Capital assets activity for the fiscal year ended June 30, 2016 was as follows (in thousands):

	Balance July 1, 2015	Additions	Deductions/ Transfers	Balance June 30, 2016
Capital assets, non-depreciable				
Land	\$ 40,093	\$ -	\$ -	\$ 40,093
Construction in progress	411,616	222,047	(151,238)	482,425
Total capital assets, non-depreciable	<u>451,709</u>	<u>222,047</u>	<u>(151,238)</u>	<u>522,518</u>
Capital assets depreciated				
Collection system	2,793,330	56,615	-	2,849,945
Treatment plants and equipment	3,838,532	94,426	-	3,932,958
Pumping plants	197,372	510	-	197,882
Site improvements	26,048	6	-	26,054
Other equipment and vehicles	108,082	22,635	-	130,717
Total capital assets depreciated	<u>6,963,364</u>	<u>174,192</u>	<u>-</u>	<u>7,137,556</u>
Less: accumulated depreciation				
Collection system	(594,978)	(33,279)	-	(628,257)
Treatment plants and equipment	(2,610,818)	(102,896)	-	(2,713,714)
Pumping plants	(141,418)	(4,603)	-	(146,021)
Site improvements	(6,147)	(1,193)	-	(7,340)
Other equipment and vehicles	(70,849)	(7,364)	-	(78,213)
Total accumulated depreciation	<u>(3,424,210)</u>	<u>(149,335)</u>	<u>-</u>	<u>(3,573,545)</u>
Capital assets depreciated, net	<u>3,539,154</u>	<u>24,857</u>	<u>-</u>	<u>3,564,011</u>
Total capital assets	<u>\$ 3,990,863</u>	<u>\$ 246,904</u>	<u>\$ (151,238)</u>	<u>\$ 4,086,529</u>

Total depreciation expense for the fiscal year ended June 30, 2016 was \$149,335.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 5 – LONG-TERM DEBT

Refunding revenue bonds and loans outstanding at June 30, 2017 and 2016 are summarized as follows (in thousands):

	Amount of original issue	Final maturity date	Outstanding At June 30, 2017	Outstanding At June 30, 2016
Refunding Series 2009-A, 1.6% to 5.75%	\$ 454,785	6/1/2039	\$ 34,015	\$ 232,295
Refunding Series 2010-A, 5.713%	177,420	6/1/2039	177,420	177,420
Refunding Series 2010-B, 5.813%	89,600	6/1/2040	89,600	89,600
Refunding Series 2010-A, Subordinate, 2.0% to 5.0%	199,790	6/1/2032	81,430	149,820
Refunding Series 2012-A, 5.0%	49,650	6/1/2024	49,650	49,650
Refunding Series 2012-A, Subordinate, 1.0% to 5.0%	157,055	6/1/2024	123,325	146,395
Refunding Series 2012-B, Subordinate, 2.0% to 5.0%	253,880	6/1/2032	248,025	249,605
Refunding Series 2012-C, Subordinate, 4.0% to 5.0%	133,715	6/1/2027	120,595	127,975
Refunding Series 2012-D, Subordinate, variable	280,860	6/1/2032	280,860	280,860
Refunding Series 2013-A, Subordinate, 2% to 5%	349,505	6/1/2035	303,335	310,470
Refunding Series 2013-A, 5.0%	149,980	6/1/2043	149,980	149,980
Refunding Series 2013-B, 2.0% to 5.0%	143,880	6/1/2035	111,065	113,110
Refunding Series 2015-A, 4.0% to 5.0%	188,755	6/1/2045	188,755	188,755
Refunding Series 2015-B, 5.0%	41,175	6/1/2035	41,175	41,175
Refunding Series 2015-C, 5.0%	100,835	6/1/2045	100,835	100,835
Refunding Series 2015-D, 2.0% to 5.0%	108,860	6/1/2034	108,265	108,265
Refunding Series 2015-A, Subordinate, 5.0%	21,650	6/1/2024	21,650	21,650
Series 2017-A, Subordinate, 4.0% to 5.25%	227,540	6/1/2047	227,540	-
Refunding Series 2017-B, Subordinate, 3.25% to 5.0%	107,155	6/1/2039	107,155	-
Refunding Series 2017-C, Subordinate, 1.35% to 4.029%	114,455	6/1/2039	115,455	-
Total principal amount			2,680,130	2,537,860
Unamortized bond premium			239,998	212,870
Debt due within one year			(84,020)	(79,260)
			<u>2,836,108</u>	<u>2,671,470</u>
State Revolving Fund loan, 1.8%	219,081	8/9/2024	100,240	111,759
Debt due within one year			(11,734)	(11,519)
			<u>88,506</u>	<u>100,240</u>
Long-term debt due in more than one year			<u>\$ 2,924,614</u>	<u>\$ 2,771,710</u>

Wastewater revenue bonds are issued under Senior Lien and Subordinate Lien General Resolutions dated November 10, 1987 and March 26, 1991, respectively, with a total authorization of \$3.5 billion. Proceeds of wastewater revenue bonds and notes are restricted for the funding of the costs of construction, replacement and improvement of the sewerage system of the City.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 5 – LONG-TERM DEBT (Continued)

Under the terms of the General Resolution, the City has pledged the Fund's revenues (as defined) to secure the payment of all bonds issued under the General Resolution. Certain bond agreements provide for the early redemption of the revenue bonds at the City's option at various dates with redemption prices ranging from 100% to 102% of the principal amount of the bonds called for redemption.

Long-term Debt Activity

The Fund had the following activity in long-term debt during fiscal year 2017 (in thousands):

	<u>July 1, 2016</u>	<u>Additions</u>	<u>Reductions</u>	<u>Balance June 30, 2017</u>	<u>Due within one year</u>
Revenue refunding bonds	\$ 2,537,860	\$ 450,150	\$ (307,880)	\$ 2,680,130	\$ 84,020
Unamortized bond premium	212,870	54,192	(27,064)	239,998	-
Net revenue refunding bonds	2,750,730	504,342	(334,944)	2,920,128	84,020
State Revolving Fund loan	111,759	-	(11,519)	100,240	11,734
Total	<u>\$ 2,862,489</u>	<u>\$ 504,342</u>	<u>\$ (346,463)</u>	<u>\$ 3,020,368</u>	<u>\$ 95,754</u>

The Fund had the following activity in long-term debt during fiscal year 2016 (in thousands):

	<u>July 1, 2015</u>	<u>Additions</u>	<u>Reductions</u>	<u>Balance June 30, 2016</u>	<u>Due within one year</u>
Revenue refunding bonds	\$ 2,614,780	\$ -	\$ (76,920)	\$ 2,537,860	\$ 79,260
Unamortized bond premium	237,429	-	(24,559)	212,870	-
Net revenue refunding bonds	2,852,209	-	(101,479)	2,750,730	79,260
State Revolving Fund loan	123,067	-	(11,308)	111,759	11,519
Total	<u>\$ 2,975,276</u>	<u>\$ -</u>	<u>\$ (112,787)</u>	<u>\$ 2,862,489</u>	<u>\$ 90,779</u>

New Issuances

On May 24, 2017, the Fund issued Wastewater System Subordinate Revenue Bonds, Series 2017-A, in the amounts of \$227.5 million, with 5% interest rates. The proceeds of the Series 2017-A were used to finance the construction and improvement of the System and pay certain costs of issuing the Series 2017-A Subordinate Bonds.

There were no new issuance in the fiscal year 2016.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 5 – LONG-TERM DEBT (Continued)

Debt Defeasance

On May 24, 2017, the Fund issued Wastewater System Subordinate Revenue Bonds, 2017-B and 2017-C in the amounts of \$107.2 million with 3.25% to 5.0% interest rates and \$115.5 million with 1.35% to 4.029% interest rates, respectively. The proceeds of the Series 2017-B and 2017-C proceeds were used to partially advance refund Series 2009-A bonds and Series 2010-A bonds and pay certain costs of issuing the Series 2017-B and Series 2017-C bonds. As a result of the refunding, the principal balance of \$228.6 million of Series 2009-A and Series 2010-A is considered defeased and the liability for this bond has been removed from the statements of net position.

The total economic gain for the refunding transactions Subordinate Series 2017-B and Subordinate Series 2017-C were \$14.0 million and \$11.0 million respectively. The total cash flow saving for the refunding transactions Subordinate Series 2017-B and Subordinate Series 2017-C were \$22.3 million and \$23.0 million respectively.

The differences between the net carrying amount of the old debt and the amount required to retire the debt in the amount of \$22.6 million is deferred and amortized over the original remaining life of the old debt or life of the new debt, whichever is shorter.

There were no revenue bonds defeased in the fiscal year 2016.

Interest Subsidies

The City has designated the Senior Lien Bonds Series 2010-A and 2010-B as “Build America Bonds” and “Recovery Zone Economic Development Bonds”, respectively, under the provisions of the American Recovery and Reinvestment Act of 2009. The City expects to receive a direct subsidy of 35% and 45% of the interest due to bondholders from the United States Treasury for the Series 2010-A and 2010-B, respectively. As of June 30, 2017 and 2016, the Fund recorded interest subsidies of \$5.5 million and \$5.9 million, respectively, as other non-operating revenues.

State Revolving Fund Loan

In 2003, the City Council adopted a resolution, approved by the Mayor, authorizing a State Revolving Fund Loan (Loan) from the State Water Resources Control Board (SWRCB) in the amount of \$262.9 million to assist in financing the construction of the North Outfall Sewer-East Central Interceptor Project (Project). The Project fulfills certain requirements of the Cease and Desist Order issued by the Regional Water Quality Control Board. The Project is shared by other contract agencies.

As of June 30, 2017 and 2016, the Loan balance amounted to \$100.2 million and \$111.8 million, respectively. The Loan matures in fiscal year 2025 and annual repayment commenced in August 2005 based on a standard fully amortized loan calculation at an effective interest rate of 1.8%. The Loan is paid from the Fund’s revenues subordinate to the Wastewater System revenue bonds and commercial paper notes. The contract agencies were billed beginning August 2005 for their proportionate share of the debt service costs. Payments received from the contract agencies are recorded as capital contribution, which represents their proportionate share of the costs of the Project.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 5 – LONG-TERM DEBT (Continued)

Commercial Paper Debt

The City issues commercial paper (Notes) at prevailing interest rates for the periods of maturity not to exceed 270 days under the commercial paper program on behalf of the Fund. The Notes are secured by Letter of Credit (LOCs) from Barclays Bank PLC and Sumitomo Mitsui Banking Corporation that both expire on December 7, 2018. The aggregate maximum principal amount of the LOCs is \$ 218.0 million, which consist of \$ 100.0 million in principal plus \$ 9 million in interest for each bank. The Fund is responsible for the payment of a non-refundable letter of credit fee for each of the LOC. Should the City draw on the LOCs and not repay the advance within six months, the advance is converted to a new term loan with a semiannual payment due for three years at interest rates not to exceed 12.0% or the maximum rate as permitted by law. Since these Notes are secured by the LOCs with expiration dates in excess of one year after June 30, 2017, the Fund reported these Notes as Long-Term liabilities. There were no outstanding Notes as of June 30, 2017 and 2016.

Scheduled Principal Maturities and Interest

Scheduled annual principal maturities and interest are as follows (in thousands):

<u>Fiscal year ending June 30</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2018	\$ 95,754	\$ 127,228	\$ 222,982
2019	97,943	122,617	220,560
2020	105,151	118,161	223,312
2021	105,888	113,813	219,701
2022	115,180	109,155	224,335
2023 - 2027	609,834	469,214	1,079,048
2028 - 2032	599,250	344,351	943,601
2033 - 2037	432,810	220,984	653,794
2038 - 2042	382,620	112,821	495,441
2043 - 2047	235,940	26,396	262,336
Subtotal	<u>2,780,370</u>	<u>1,764,740</u>	<u>4,545,110</u>
Unamortized bond premiums	239,998	-	239,998
Total	<u>\$ 3,020,368</u>	<u>\$ 1,764,740</u>	<u>\$ 4,785,108</u>

The maturity schedule presented above reflects the scheduled debt service requirements for all of the Fund's long-term debt. Additionally, the schedule includes interest requirements for the variable rate Refunding Series 2012-D Subordinated Revenue Bonds using the weighted average rate in effect as of June 30, 2017 of 0.704%.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 5 – LONG-TERM DEBT (Continued)

Interest Rate Swap Agreements

Objective of the swaps. In March 2006, in order to protect against the potential of rising interest rates, the Fund entered into two separate pay-fixed, receive-variable interest rate swap agreements (Swap Agreements) on the \$316.8 million Wastewater System Subordinate Variable Rate Revenue Refunding Bonds Series 2006 A-D (Series 2006 A-D). The expected costs associated with the swaps are less than what the Fund would have paid if it had issued fixed-rate debt.

On May 1, 2008, the Fund refunded Series 2006 A-D with the issuance of \$314.8 million Wastewater System Subordinate Revenue Bonds Variable Rate Revenue Refunding Series 2008 A-H (Series 2008 A-F1). On April 17, 2012, the Fund refunded a portion of the Series 2008 A-F1 and partially terminated the Swap Agreements by issuing the Series 2012-A Subordinate Bonds. On December 18, 2012, the Fund refunded the remaining outstanding Series 2008 A-H with the issuance of \$280.9 million Wastewater System Subordinate Revenue bonds, Variable Rate Refunding Series 2012-D. Of this amount, the swaps serve as a hedge for \$151.1 million of the Series 2012-D Bonds as of June 30, 2017.

The fair value and notional amounts of the interest rate swaps outstanding at June 30, 2017 and 2016, classified by type, and changes in fair value for the fiscal years then ended as reported in the financial statements are as follows (dollar amounts in thousands):

	Changes in Fair Value		Fair Value at June 30, 2017		Notional
	Classification	Amount	Classification	Amount	
Cash flow hedges:					
Interest rate swaps	Deferred outflows of resources	\$ (25,197)	Liabilities	\$ (25,197)	\$ 151,085

	Changes in Fair Value		Fair Value at June 30, 2016		Notional
	Classification	Amount	Classification	Amount	
Cash flow hedges:					
Interest rate swaps	Deferred outflows of resources	\$ (36,925)	Liabilities	\$ (36,925)	\$ 151,085

Terms, fair values and credit risk. Under the interest Swap Agreements, the Fund owes interest to the counterparties calculated on a notional amount at a fixed rate and the counterparties owe the Fund interest on the same notional amount at a variable rate.

Specific terms, including the fair values and counterparty credit ratings of the outstanding swaps as of June 30, 2017, are as follows (in thousands):

Notional Amount	Effective Date	Fixed Rate Paid	Variable Rate Received	Fair Value	Swap Termination Date	Counterparty Credit Ratings ⁽¹⁾
\$ 75,543	4/6/2006	3.34%	64.1% of LIBOR ⁽²⁾	\$ 12,598	6/1/2028	Aa1/AA-/AA
\$ 75,543	4/6/2006	3.34%	64.1% of LIBOR ⁽²⁾	\$ 12,598	6/1/2028	Baa3/BBB/BBB+

(1) Moody's Investors Service, Standard & Poor's, and Fitch Ratings, respectively as of June 30, 2017.

(2) One-month LIBOR reset monthly. 64.1% of one-Month LIBOR as of June 30, 2017 was 0.78451%.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 5 – LONG-TERM DEBT (Continued)

The notional amounts of the swaps match the principal amount of the associated debt. The Swap Agreements contain scheduled reductions to outstanding notional amounts that follow scheduled reductions in the associated debt.

Method of calculating fair value. Because swap interest rates were lower on June 30, 2017, than at the date the Swap Agreements were entered into, the swaps have a negative fair value as of June 30, 2017 and 2016. The fair values were estimated using the zero-coupon method and include accrued interest. This method calculates the future net settlement payments required by the swap agreements, assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swap.

Risks and description of risks that the Swap Agreements are exposed to that could give rise to financial loss are extant as of June 30, 2017.

Credit risk. The fair values of the swaps represented the Fund's credit exposure to the swap counterparties as of June 30, 2017 and 2016. If a counterparty to a swap transaction failed to perform according to the terms of the swap contract, and the Fund chose to terminate the swap, the Fund would be owed a termination payment by the counterparty. If the swaps had a negative fair value at the time the counterparty failed to perform, the Fund would be required to make a payment to the counterparty. To mitigate credit risk, a counterparty must fully collateralize the fair value of the swap with U.S. government securities if two of its credit ratings fall below Moody's Investors Service Aa3, or AA- of Fitch Ratings or Standard & Poor's. Collateral would be posted with a third-party custodian. Dexia Credit Locale, New York Branch was rated below the specified requirements as of June 30, 2017 and 2016; however, no collateralization was necessary because the fair value of the swap indicated that Dexia Credit Locale would not be required to make a payment to the Fund in the event of a termination at that time.

Basis risk. The Fund is exposed to basis risk when the relationship between 64.1% of LIBOR and the actual rates on the associated variable rate bonds diverge. In this situation the expected savings may not be realized. As of June 30, 2017, the weighted average rate on the variable rate bonds were 0.78384% whereas 64.1% of applicable LIBOR was equal to 0.78451%.

Termination risk. The Fund or the counterparties may terminate the Swap Agreements if the other party fails to perform under the terms of the contract or if various other events occur. If at the time of the termination the swap has a negative fair value, the Fund would be liable to the counterparty for a payment equal to the swap's fair value. If any of the swaps were terminated and not replaced, the Fund would not receive a payment from the counterparty to offset its variable interest expense on the associated variable rate bonds. Annual net interest paid and or received started July 1, 2016 through termination date.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 5 – LONG-TERM DEBT (Continued)

Swap Payments and Associated Debt. Using rates as of June 30, 2017, net swap payments and debt service requirements of the associated variable-rate debt are as follows (in thousands):

Fiscal year ending June 30	Variable-rate bonds		Interest rate swaps, net ⁽²⁾	Total
	Principal	Interest ⁽¹⁾		
2018	\$ -	\$ 1,063	\$ 3,861	\$ 4,924
2019	-	1,063	3,861	4,924
2020	-	1,063	3,861	4,924
2021	-	1,063	3,861	4,924
2022	-	1,065	3,861	4,926
2023-2027	73,070	5,064	18,386	96,520
2028	78,015	828	3,007	81,850
Total	<u>\$ 151,085</u>	<u>\$ 11,209</u>	<u>\$ 40,698</u>	<u>\$ 202,992</u>

(1) Assumes rate of 0.70386% (the applicable rate on June 30, 2017), excluding fixed rate component.

(2) Assumes swap rate of 3.34000% less 0.78451% (64.1% of applicable LIBOR on June 30, 2017).

As rates vary, variable-rate bond interest payments and net swap payments will vary.

NOTE 6 – DISASTER ASSISTANCE GRANT

Earthquake Damage

On January 17, 1994, a 6.8 magnitude earthquake centered in Northridge, California, caused widespread damage to commercial and residential structures. Since the Northridge earthquake, the Fund has systemically made repairs to its wastewater facilities that were damaged. Much of this work is eligible for reimbursement from the Federal Emergency Management Agency (FEMA) and the California Emergency Management Agency (CalEMA), now the California Office of Emergency Services (CalOES).

During fiscal year 2009, the Fund was informed of a de-obligation of the City's FEMA Northridge earthquake grant in the amount of \$35.7 million to offset a portion of the \$75.0 million advance from FEMA received by the City immediately after the Northridge earthquake. The advance was used for earthquake related costs incurred by various City Council controlled departments. The de-obligation may result in FEMA and CalOES withholding the Fund's outstanding grant receivables. On June 23, 2017, the Office of the City Administrative Officer (CAO) transferred \$27.5 million from the Disaster Trust Fund to the SCM Fund. Of this amount \$10.8 million was paid by the State, while the remaining \$16.7 million was from FEMA. The CAO will focus on the final closeout and payment in fiscal year 2018.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 7 – RELATED PARTY TRANSACTIONS

During the normal course of business, the Fund is charged for operations and maintenance services, including salaries and employee benefits, performed on behalf of the Fund by various City General Fund departments. The department performing the most significant services is the Department of Public Works. The Fund makes advances to the City's General Fund at certain intervals throughout the year. At year-end, advances are reconciled with actual amounts incurred by the General Fund on behalf of the Fund and accounts are appropriately adjusted and the General Fund owed the Fund \$24.3 million and \$18.7 million at June 30, 2017 and 2016, respectively. The related charges of approximately \$245.5 million and \$219.4 million were incurred to the City's General Fund during the fiscal years ended June 30, 2017 and 2016, respectively.

The City of Los Angeles Department of Water and Power (DWP) performs the billing and collection function for the Fund's sewer service charges. Accordingly, accounts receivable related to sewer service charges are collected by DWP on behalf of the Fund. DWP's charges for performing the billing and collection functions were \$3 million for each of the fiscal years ended June 30, 2017 and 2016.

Various departments of the General Fund provide services for the operation of the Fund during the fiscal year. The Fund reimburses the departments based on budgeted expenditures during the year and any differences between budget and actual are reimbursed to the Fund periodically. The City intends to repay the Fund in four equal annual installments beginning in fiscal year 2016-17.

Due from/ (to) and advances to other City funds as of June 30, 2017 and 2016 are as follows (in thousands):

	<u>2017</u>	<u>2016</u>
Current portion		
Due from other City funds	\$ 15,474	\$ 18,265
Due to other City funds	<u>(13,063)</u>	<u>(11,377)</u>
Total	<u>2,411</u>	<u>6,888</u>
Noncurrent portion		
Advance to other City funds	\$ 24,571	\$ 30,559
Advance from other City funds	<u>(22,739)</u>	<u>(21,686)</u>
Total	<u>\$ 1,832</u>	<u>\$ 8,873</u>

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 8 – COMMITMENTS AND CONTINGENCIES

Pollution Remediation Obligations

The City was named as a potentially responsible party in a case of contamination which migrated in the soil and ground onto the adjacent property. Cross-claimants assert that their records show that hazardous material was transported to the site from the Hyperion Treatment Plant. There are more than 1,500 potentially responsible parties. The parties are still working on the investigation and extent of contamination. The case was subsequently dismissed during November 2014.

The County of Los Angeles (County) has notified the City and other entities of potential liabilities for cleanup and maintenance of a public golf course, which was created over an old landfill, due to environmental issues including leachate and gas migration. According to the County's review of prior customer records, the Fund used the site for disposal of grit waste from the Hyperion Treatment Plant. Prior to 2014 the City entered into and paid a settlement with the County for \$0.2 million and remained an active participant in the site investigation.

The case is now under review by the California Department of Toxic Substance Control (DTSC), a State agency and part of the California Environmental Protection Agency. The City, along with the County and a number of other public and private entities, are named as Potentially Responsible Parties. The proposed remedial action plan is being evaluated by the DTSC. The estimated cost to remediate the site is presently unknown.

Pending Lawsuits and Claims

Certain claims and lawsuits are pending against the Fund for construction claims and other alleged liabilities arising during the ordinary course of Fund operations. The Fund recognizes liabilities for claims and lawsuits when it is probable that an asset has been impaired or a liability has been incurred and the amount of the loss can be reasonably estimated.

The City Attorney estimates the amount of liabilities that are probable of occurring from these claims and lawsuits. For fiscal years 2017 and 2016, \$22.1 million and \$6.3 million were accrued as claims payable, respectively.

The changes in claims payable of the Fund are as follows (in thousands):

	2017	2016
Balance, July 1	\$ 6,256	\$ 7,342
Provisions for current year and changes		
in estimates for prior years	31,921	5,487
Claims payments	(16,058)	(6,573)
Balance, June 30	<u>\$ 22,119</u>	<u>\$ 6,256</u>
Estimated to be payable in one year	\$ 9,228	\$ 4,365
Payable in more than one year	\$ 12,891	\$ 1,891

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 8 – COMMITMENTS AND CONTINGENCIES (Continued)

Outstanding Contractual Commitments

As of June 30, 2017 and 2016, the Fund had outstanding commitments to fund planned modification and improvement of the City's wastewater collection and treatment system of approximately \$171.4 million and \$148.6 million, respectively.

Other Matters

Sewer Service Charge Revenues

The Los Angeles Department of Water and Power (LADWP) acts as the billing agent for the Sewer Service Charges (SSC) assessed to customers who use the wastewater system. The LADWP transfers revenues to the Fund on a weekly basis, based on anticipated revenues. After the end of the month, a reconciliation between the transfers and the actual SSC revenues is made.

Budgeted SSC revenues for fiscal year (FY) 2016-17 were \$532 million, assuming a five percent reduction in indoor water use from the previous fiscal year due to water conservation in the continuing drought. Actual SSC collections in FY 2016-17 were \$556 million, or 4.5 percent more than expected in the budget.

LADWP transitioned to its new billing system in September 2013. As part of that transition, LADWP encountered some problems with billings; for instance, the parameters for the system identifying if a water read was "too high" or "too low" were set too narrowly, resulting in some meter reads that were correct being replaced with an estimated read. While these billing issues were being resolved, LADWP suspended the normal collections protocols. Certain customers who were not experiencing billing issues appear to have taken advantage of this suspension and have fallen in arrears with their payments. LADWP has returned to their collections protocols, which involve notifying customers of past due amounts, sending a final notice, and turning off power or water service. LADWP has been carrying uncollectable SSC receivables arising from the transition to the new billing system, but is waiting to write-off the receivables until a pending settlement of a class action lawsuit related to the transition is approved to move forward. At this time, the potential liability of the lawsuit to the Fund is unknown.

Sewerage Facilities Charge Credit

Effective April 6, 2012, the City Council and Mayor authorized credits of past Sewerage Facilities Charges (SFC) paid by Significant Industrial Users (SIU) to offset Quality Surcharge Fees (QSF) paid by the customers. It is anticipated that a small number of SIUs are eligible for this program. Granting of a credit will reduce the amount of wastewater an SIU is allowed to discharge, allowing that capacity to be used by other customers who will be required to pay the SFCs. No credits were given in FY 2016-17 and none are expected in FY 2017-18. Until all of the SIUs have been evaluated, the extent that QSF revenue will be reduced due to future credits is unknown.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 8 – COMMITMENTS AND CONTINGENCIES (Continued)

Contract Agencies

Los Angeles Sanitation (LASAN) has entered into universal terms agreements with twenty contract agencies for which the City provides wastewater treatment services. Billings for a fiscal year are estimated based on the City's budgeted costs and the agencies' projected wastewater flow and strength. After the close of the fiscal year, these bills are then reconciled based on actual costs, flows and strengths. Revenues in FY 2016-17 from the estimated bills for service in that year and from the reconciliation bills for service in FY 2015-16 were \$640,000 more than projected. Reconciliation of bills for service in FY 2016-17 have not been completed at this time, so LASAN does not have sufficient data to determine if there is a likelihood of reconciliation amounts that would have a material impact to the Fund in FY 2017-18. The reconciliation bills will include interest for any late payment by agencies.

Disagreements over flow and strength measurements of the City of Burbank's wastewater are being addressed with the joint hiring of a consultant to investigate the differences. The consultant has begun gathering data, but does not anticipate completing its work until the end of 2017. Potential reasons for the flow and strength differences include errors in the measuring devices, inaccurate calibration of the devices, and a net flow equation that does not reflect a representative flow calculation. The City has sent invoices to City of Burbank for FY 2009-10 to FY 2013-14 and for FY 2015-16, with unpaid balances and estimated billings totaling approximately \$28.5 million. City of Burbank has rejected the invoices until the disagreements can be resolved. The FY 2017-18 budget included City of Burbank's payment of \$12.5 million of the unpaid balances during the fiscal year. At this time, LASAN does not have sufficient data to determine the longer-term impact to the Fund.

Future Pension and Healthcare Costs

LASAN has been informed by the CAO to plan for substantial increases to the wastewater program's healthcare costs over the next few years, while projected pension costs have stabilized. LASAN's current financial projections have been modified to include these increases. However, if the increases are larger than the amounts projected by the CAO, there could be material impacts to the Fund.

Front-funded Programs

In 2005, City entered into a memorandum of understanding with the Los Angeles Regional Water Quality Control Board (LARWQCB) to regulate Onsite Wastewater Treatment Systems. During the time that the City has been developing this program, it has been front-funded by the Fund. The costs incurred as of June 30, 2017 were \$3.8 million. When the ordinance governing this program is adopted, a schedule of fees will be included. These fees will be required to recover the past program costs as well as the ongoing operational costs of the program in order to remain in compliance with Proposition 218. At this time it is unknown how long it may take for the Fund to fully recover these costs.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 8 – COMMITMENTS AND CONTINGENCIES (Continued)

Capital Projects

Pending Construction Issues with Collection System Projects

Certain construction projects have pending construction issues that could exceed the project budgets. The City was successful in settling several claims with the Slauson Compton Sewer Rehabilitation contractor over delays attributable to the prolonged submittals and reviews of the traffic control plans. Ongoing efforts are taken to resolve grout overrun, house connection discrepancy, and other issues as the construction progresses. The rehabilitation of the junction structure at the intersection of Slauson and Van Ness has started in 2017 and encountered several unforeseen conditions which will increase construction costs but the City believes it can resolve these issues without significantly impacting the project budget.

Total Maximum Daily Loads (TMDLs)

The United States Environmental Protection Agency (USEPA) and the LARWQCB are required to develop TMDLs for impaired water bodies. Various watersheds in the Los Angeles area have water body segments that are listed as impaired due to a variety of pollutants. Although 22 TMDLs have already been adopted, additional TMDLs will be under development and compliance with both existing and new TMDLs will continue into the next decade. At this time, it is difficult to predict the full impact of TMDLs on the National Pollutant Discharge Elimination System (NPDES) effluent limits at the City's four water reclamation plants. In addition, the proposed Greater Los Angeles County Municipal Separate Stormwater Sewer Systems (MS4) permit, adopted by the LARWQCB in November 2012, contains provisions that require compliance with all the adopted TMDLs. It is expected that significant capital improvements funded by the Fund may be required to comply with the TMDLs and their resulting impact on the City's NPDES permits.

These TMDLs have resulted in seventeen discharge limits in the City's NPDES permits. The discharge limits are for DDT and PCB's for the Hyperion Water Reclamation Plant (HWRP) NPDES permit; Ammonia, Nitrate/Nitrite, Cadmium (wet weather), Copper, Lead, Zinc (wet weather), and E. Coli for the LA-Glendale & DC Tillman Water Reclamation Plant NPDES permit; and Copper, Lead, Zinc, PAH' s, DDT, and PCBs for the Terminal Island Water Reclamation plant (TIWRP) NPDES permit. It is expected that significant capital improvements funded by the Fund may be required to comply with the TMDLs and their resulting impact on the City's NPDES permits.

NPDES Permits

The LARWQCB adopted a new NPDES permit for the HWRP on February 2, 2017. The new permit became effective on April 1, 2017 and imposes a new ammonia limit on the effluent discharge. HWRP may have difficulty meeting this limit in the future, if ammonia concentrations continue to increase due to water conservation efforts and persistent drought conditions. Potential remedies include providing sidestream treatment to reduce ammonia in the effluent at an estimated capital cost of \$40 million to \$50 million.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
Notes to the Fund Financial Statements (Continued)
June 30, 2017 and 2016

NOTE 8 – COMMITMENTS AND CONTINGENCIES (Continued)

The LARWQCB adopted a new NPDES permit for the TIWRP on June 11, 2015 and became effective on December 1, 2015. The Permit enforces the LARWQCB's Resolution No. 94-009 (adopted October 31, 1994), which approved the City's proposal to: 1) ultimately phase out the discharge of tertiary treated wastewater effluent from the TIWRP into the Los Angeles Harbor at the earliest practicable date; and 2) to implement a Water Recycling Program with the goal of doubling water reuse at TIWRP within six years after the startup of the initial reclamation phase, and achieving total reuse by 2020.

To implement Resolution 94-009, the City has been constructing the Harbor Water Recycling Project in phases. Phase I treated up to 6 million gallons per day (mgd) of TIWRP's tertiary treated effluent by microfiltration and reverse osmosis at the Advanced Water Purification Facility (AWPF) for reuse at the Dominguez Gap Seawater Intrusion Barrier Project, and for other various non-potable uses in the Los Angeles Harbor area. Phase II of the A WPF project was completed in FY 2016-17 and will increase production of advanced purified recycled water to 12 mgd once regulators approve the expansion and contracts with customers are completed. The LARWQCB amended and adopted the Waste Discharge Requirements and Water Recycling Requirements (Order No.R4-2016-0334) and approved Phase II of the HWRP Dominguez Gap Barrier Project on October 13, 2016 to increase of capacity to 12 mgd.

Wastewater Spill

On July 5, 2016, a sinkhole was discovered on the sixty-inch North Outfall Sewer near the intersection of 6th Street and Mission Road. Another sinkhole was discovered on July 11, 2016, approximately 530 feet downstream of the first sinkhole. Then, on July 18, 2016, the sewer experienced a catastrophic failure that resulted in a discharge of approximately \$2.6 million gallons of sewage. Since the first incident, stabilization of the pipe was completed at an approximate cost of \$4.8 million, including construction management costs. The damaged sixty-inch pipe was replaced subsequently in two phases. Expedited design plans were prepared for these repairs and contractor cost proposals received and evaluated in accordance with the established Emergency Sewer Repair Program procedures. The Phase I and Phase II Repair Projects abandoned approximately 500 linear feet of existing pipe, replaced approximately 366 linear feet of existing pipe, and installed approximately 410 linear feet of new sixty-three-inch pipe on a new alignment. The new pipe has been in service since June 2017. Remaining street and jobsite restoration work was completed in September 2017. Final construction cost for both Phase I and Phase II work is not expected to exceed the construction budget of \$19.5 million. The wastewater spill is expected to result in regulatory fines of up to \$2.0 million.

**Independent Auditor's Report on Internal Control Over Financial Reporting
and on Compliance and Other Matters Based on an Audit of Financial Statements
Performed in Accordance With *Government Auditing Standards***

Honorable Members of the City Council
City of Los Angeles, California

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the City of Los Angeles Sewer Construction and Maintenance Fund (Fund), an enterprise fund of the City of Los Angeles (City), as of and for the fiscal years ended June 30, 2017 and 2016, and the related notes to the financial statements, and have issued our report thereon dated January 23, 2018.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the City's internal control over the Fund's financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Fund's internal control. Accordingly, we do not express an opinion on the effectiveness of the City's internal control over the Fund's financial reporting.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or, significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Fund's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the City's internal control or on compliance over the Fund's financial reporting. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the City's internal control and compliance over the Fund's financial reporting. Accordingly, this communication is not suitable for any other purpose.

A handwritten signature in black ink that reads "Macias Gini & O'Connell LLP". The signature is written in a cursive, flowing style.

Los Angeles, California
January 23, 2018

CITY OF LOS ANGELES, CALIFORNIA

**SEWER CONSTRUCTION AND
MAINTENANCE FUND**

(An Enterprise Fund of the City of Los Angeles)

Debt Service Compliance Report

For the Fiscal Year Ended June 30, 2017

(With Independent Auditor's Report Thereon)



Certified
Public
Accountants

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CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
(An Enterprise Fund of the City of Los Angeles)

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**Independent Auditor's Report
on Compliance with Aspects of Contractual Agreements**

Honorable Members of the City Council
City of Los Angeles, California:

We have audited, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Sewer Construction and Maintenance Fund (Fund) of the City of Los Angeles, California (City), which comprise the statement of net position as of June 30, 2017, and the related statements of revenues, expenses and change in net position and cash flows for the fiscal year then ended, and the related notes to the financial statements, and have issued our report thereon dated January 23, 2018.

In connection with our audit, nothing came to our attention that caused us to believe that the Fund failed to comply with the terms, covenants, provisions, or conditions of Section 6.03(b) of the City of Los Angeles Wastewater System Revenue Bonds General Resolution of the City Council dated November 10, 1987, and Section 6.03(b) of the City of Los Angeles Wastewater System Subordinate Revenue Bonds General Resolution of the City Council dated March 26, 1991 (collectively, the General Resolutions), insofar as such terms, covenants, provisions, or conditions relate to the ratios of net revenues to debt service for the fiscal year ended June 30, 2017. However, our audit was not directed primarily toward obtaining knowledge of such noncompliance. Accordingly, had we performed additional procedures, other matters may have come to our attention regarding the Fund's noncompliance with the above-referenced terms, covenants, provisions, or conditions of the General Resolutions, insofar as they relate to accounting matters.

This report is solely for the information and use of the City Council and City management and is not intended to be and should not be used by anyone other than these specified parties.

Macias Gini & O'Connell LLP

Los Angeles, California
January 23, 2018

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CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
(An Enterprise Fund of the City of Los Angeles)

**Schedule of Ratios of Net Revenues to Debt Service for Revenue Bonds,
Subordinate Revenue Bonds, and Commercial Paper Revenue Notes
Issued Under Senior Lien and Subordinate Lien General Resolutions, and
State Revolving Fund Loan of the Wastewater System (Schedule)
For the Fiscal Year Ended June 30, 2017
(dollar amounts expressed in thousands)**

**Ratio of Net Revenues to Debt Service for Wastewater System Revenue
Bonds (Senior Lien Bonds):**

Net revenues of the Fund (as defined in Notes 1 and 2)	\$ 333,547
125% of the debt service for Senior Lien Bonds of the Fund (as defined in Notes 1 and 3)	<u>109,031</u>
Excess of the net revenues over 125% of the debt service for Senior Lien Bonds	<u>\$ 224,516</u>
Ratio of net revenues to actual debt service for Senior Lien Bonds (minimum requirement 1.25 to 1)	<u>3.48 to 1</u>

**Ratio of Net Revenues to Debt Service for Wastewater System Revenue
Bonds (Senior Lien Bonds), Subordinate Revenue Bonds and Commercial
Paper Revenue Notes (Subordinate Bonds), and State Revolving Fund Loan:**

Net revenues of the Fund (as defined in Notes 1 and 2)	\$ 333,547
110% of the debt service for Senior Lien Bonds, Subordinate Bonds, and State Revolving Fund Loan (as defined in Notes 3, 4 and 5)	<u>227,875</u>
Excess of the net revenues over 110% of the debt service for Senior Lien Bonds, Subordinate Bonds, and State Revolving Fund Loan	<u>\$ 105,672</u>
Ratio of net revenues to actual debt service for Senior Lien Bonds, Subordinate Bonds, and State Revolving Fund Loan (minimum requirement 1.10 to 1)	<u>1.47 to 1</u>

See Accompanying Notes to Schedule.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
(An Enterprise Fund of the City of Los Angeles)

**Notes to Schedule of Ratios of Net Revenues to Debt Service for Revenue Bonds,
and Subordinate Revenue Bonds
Issued Under Senior Lien and Subordinate Lien General Resolutions, and
State Revolving Fund Loan of the Wastewater System
For the Fiscal Year Ended June 30, 2017**

- Note 1 The “Fund” represents the Sewer Construction and Maintenance Fund of the City of Los Angeles.
- Note 2 Net revenues represent the change in net position reflected in the financial statements of the Fund reduced by amounts received under contract of agreements with governmental or private entities and designated for capital costs, interest subsidy from U.S. Treasury, grants received from federal and state, and interest income of the bond construction funds. It is increased by depreciation, and bond discounts/premiums, amortization of advance and current refunding charges, debt interest expense, and other nonoperating expenses.
- Note 3 Debt service for “Senior Lien Bonds” represents interest and principal, if any, becoming due during the year, on bonds issued under the Wastewater System Revenue Bonds General Resolution of the City of Los Angeles dated November 10, 1987.
- Note 4 Debt service for “Subordinate Bonds” represents interest and principal, if any, becoming due during the year on subordinate revenue bonds and commercial paper revenue notes issued under the Wastewater System Subordinate Revenue Bonds General Resolution of the City of Los Angeles dated March 26, 1991.
- Note 5 Debt service for the State Revolving Fund Loan represents interest and principal becoming due during the year on the state revolving fund loan issued under the State Revolving Fund Loan agreement dated June 5, 2003.

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
(An Enterprise Fund of the City of Los Angeles)

**Supplementary Schedule for Calculation of Net Revenues and
Debt Service for Senior Lien Bonds, Subordinate Bonds, and
State Revolving Fund Loan**
For the Fiscal Year Ended June 30, 2017
(dollars amounts expressed in thousands)

Calculation of Net Revenues as Defined by Senior Lien General Resolution

Change in net position as reflected in the audited Fund financial statements		\$ 93,542
Less:		
Amounts received under contracts or agreements with governmental or private entities and designated for capital costs		(16,717)
Interest income on bond construction funds		(309)
Grants received from federal or state		(10,623)
Interest subsidy from U. S. Treasury		(6,104)
Subtotal		<u>(33,753)</u>
Add:		
Depreciation expense		153,875
Interest on bonds, commercial paper revenue notes, and state revolving fund loan (including amortization of discounts, premiums, and advance and current refunding deferred charges)		101,068
Other nonoperating expenses		18,815
Subtotal		<u>273,758</u>
Net revenues	A	<u>\$ 333,547</u>

Calculation of Debt Service for Senior Lien Bonds as Defined by Senior Lien General Resolution

Principal maturities - Senior Lien Bonds		27,300
Interest payments - Senior Lien Bonds		<u>59,925</u>
Actual debt service	B	87,225
x 125%		<u>1.25</u>
Modified debt service	C	<u>\$ 109,031</u>
Excess of net revenues over modified debt service	(A-C)	<u>\$ 224,516</u>
Ratio of net revenues over actual debt service for Senior Lien Bonds Only	(A/B)	<u>3.48 to 1</u>

CITY OF LOS ANGELES, CALIFORNIA
SEWER CONSTRUCTION AND MAINTENANCE FUND
(An Enterprise Fund of the City of Los Angeles)

**Supplementary Schedule for Calculation of Net Revenues and
Debt Service for Senior Lien Bonds, Subordinate Bonds, and
State Revolving Fund Loan (Continued)**
For the Fiscal Year Ended June 30, 2017
(dollars amounts expressed in thousands)

**Calculation of Debt Service for Senior Lien Bonds, Subordinate Bonds, and
State Revolving Fund Loan as Defined by Senior Lien, Subordinate Lien
General Resolutions, and State Revolving Fund Loan Agreement**

Principal maturities - Senior Lien and Subordinate Bonds		\$	79,260
Principal maturities - State Revolving Fund Loan			11,519
Interest payments - Senior Lien and Subordinate Bonds and CP Notes			114,294
Interest payments - State Revolving Fund Loan			<u>2,087</u>
Actual debt service	D		207,159
x 110%			<u>1.10</u>
Modified debt service	E		<u>227,875</u>
Excess of net revenues over modified debt service	(A-E)		<u>105,672</u>
Ratio of net revenues over actual debt for Senior Lien Bonds, Subordinate Bonds, and State Revolving Fund Loan	(A/D)		<u>1.47 to 1</u>

APPENDIX F
FORM OF OPINION OF BOND COUNSEL

Upon issuance of the Series 2018 Subordinate Bonds, Hawkins Delafield & Wood LLP, Los Angeles, California, Bond Counsel to the City of Los Angeles, will render its approving opinion with respect to the Series 2018 Subordinate Bonds in substantially the following form:

[Closing Date]

City of Los Angeles
Los Angeles, California

Ladies and Gentlemen:

We have acted as Bond Counsel to the City of Los Angeles, California (the “City”) in connection with the issuance of its Wastewater System Subordinate Revenue Bonds, Series 2018-A (Green Bonds) in the aggregate principal amount of \$_____ (the “Series 2018-A Subordinate Bonds”) and the Wastewater System Subordinate Revenue Bonds, Refunding Series 2018-B in the aggregate par amount of \$_____ (the “Series 2018-B Subordinate Bonds” and, together with the Series 2018-A Subordinate Bonds, the “Series 2018 Subordinate Bonds”).

The Series 2018 Subordinate Bonds are issued pursuant to the Charter of the City of Los Angeles, Article 6.7 of Chapter 1 of Division 11 of the Administrative Code of the City, and, with respect to the Series 2018-B Subordinate Bonds, Articles 10 and 11 of Chapter 3 of Part 1 of Division 2 of Title 5 (Section 53570 *et seq.* and Section 53580 *et seq.*, respectively) of the California Government Code (collectively, the “Law”). The Series 2018 Subordinate Bonds are also issued pursuant to the Wastewater System Subordinate Revenue Bonds General Resolution, adopted by the Council of the City (the “City Council”) on March 26, 1991, as amended and supplemented (the “Subordinate General Resolution”), including as amended and supplemented by the Twenty-Fourth Supplemental Resolution, adopted by the City Council on October __, 2018. Capitalized terms used and not otherwise defined herein shall have the meanings ascribed thereto in the Subordinate General Resolution.

The Series 2018-A Subordinate Bonds are being issued for the purpose of providing moneys to finance the construction and improvement of the System, pay all outstanding Wastewater System Commercial Paper Notes and pay certain costs of issuing the Series 2018-A Subordinate Bonds. The Series 2018-B Subordinate Bonds are being issued for the purpose of providing moneys to refund a portion of the City’s Wastewater System Subordinate Revenue Bonds, Variable Rate Refunding Series 2012-D, pay all or a portion of the termination payments in connection with the termination of certain Swap Agreements and pay certain costs of issuing the Series 2018-B Subordinate Bonds.

We have examined and relied on originals or copies, certified or otherwise identified to our satisfaction, of the Law, the Wastewater System Revenue Bonds General Resolution, adopted by the City Council of the City on November 10, 1987, as amended and supplemented from time to time (the “General Resolution”), the Subordinate General Resolution, certifications of the City, and others, and such other

documents, opinions, instruments, proceedings or records as we deemed necessary or appropriate to render the opinions set forth herein.

We have assumed the genuineness of all documents and signatures presented to us. We have not undertaken to verify independently, and have assumed, the accuracy of the factual matters represented, warranted or certified in such documents. Furthermore, we have assumed compliance with all covenants and agreements contained in the Subordinate General Resolution, including (without limitation) covenants and agreements compliance with which is necessary to assure that future actions, omissions or events will not cause interest on the Series 2018 Subordinate Bonds to be included in gross income for Federal income tax purposes.

Based on and subject to the foregoing, and in reliance thereon, as of the date hereof, we are of the opinion that under existing law:

1. The Series 2018 Subordinate Bonds have been duly authorized, executed and delivered by, and constitute the valid and binding special, limited obligations of, the City.

2. The Series 2018 Subordinate Bonds are payable exclusively from and are secured by a pledge of and lien upon Revenues and certain amounts held under or pursuant to the Subordinate General Resolution. The Series 2018 Subordinate Bonds are payable from Revenues on a parity basis with the Subordinate Bonds (as defined in the Subordinate General Resolution) heretofore issued and which may from time to time hereafter be issued under the Subordinate General Resolution. The pledge, assignment and lien on the Revenues granted pursuant to the General Resolution to secure Senior Lien Bonds (as defined in the Subordinate General Resolution) is in all respects prior to the pledge, assignment and lien on the Revenues granted by the Subordinate General Resolution to secure the Series 2018 Subordinate Bonds and all other Subordinate Bonds. The general fund of the City is not liable, and the credit or taxing power of the City is not pledged, for the payment of the Series 2018 Subordinate Bonds or the interest thereon.

3. The Subordinate General Resolution has been duly adopted by the City Council and constitutes the valid and binding obligation of the City. The Subordinate General Resolution creates a valid pledge, to secure the payment of the principal of and the interest on the Series 2018 Subordinate Bonds, of the Revenues of the City and certain other amounts held by the City under the Subordinate General Resolution, subject to the provisions of the Subordinate General Resolution permitting the application thereof for the purposes and on the terms and conditions set forth therein and subject to the prior pledge and assignment thereof granted by the General Resolution to secure the Senior Lien Bonds.

4. The Series 2018 Subordinate Bonds and other subordinate parity debt of the City have been and may from time to time hereafter be issued under the Subordinate General Resolution. Senior Lien Bonds have been and may from time to time be issued under the General Resolution and are payable from Revenues in all respects prior to the pledge, assignment and lien on the Revenues granted by the Subordinate General Resolution to secure the Series 2018 Subordinate Bonds and all other Subordinate Bonds.

5. Under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described below; (a) interest on the Series 2018 Subordinate Bonds is excluded from gross income for federal income tax purposes under Section 103 of the Internal Revenue Code of 1986, as amended (the "Code") and (b) interest on the Series 2018 Subordinate Bonds is not treated as a preference item in calculating the alternative minimum tax under the Code; such interest, however, is included in the adjusted current earnings of certain corporations for purposes of calculating the alternative minimum tax imposed for taxable years beginning prior to January 1, 2018.

The Code establishes certain requirements that must be met subsequent to the issuance and delivery of the Series 2018 Subordinate Bonds in order that, for federal income tax purposes, interest on the Series 2018 Subordinate Bonds be not included in gross income pursuant to Section 103 of the Code. These requirements include, but are not limited to, requirements relating to the use and expenditure of proceeds of the Series 2018 Subordinate Bonds, restrictions on the investment of proceeds of the Series 2018 Subordinate Bonds prior to expenditure and the requirement that certain earnings be rebated to the federal government. Noncompliance with such requirements may cause interest on the Series 2018 Subordinate Bonds to become subject to federal income taxation retroactive to their date of issue, irrespective of the date on which such noncompliance occurs or is ascertained.

On the date of delivery of the Series 2018 Subordinate Bonds, the City will execute a Tax Certificate (the "Tax Certificate") containing provisions and procedures pursuant to which such requirements can be satisfied. In executing the Tax Certificate, the City covenants that the City will comply with the provisions and procedures set forth therein and that the City will do and perform all acts and things necessary or desirable to assure that interest paid on the Series 2018 Subordinate Bonds will, for federal income tax purposes, be excluded from gross income.

In rendering the opinion in paragraph 5 hereof, we have relied upon and assumed (a) the material accuracy of the representations, statements of intention and reasonable expectation, and certifications of fact contained in the Tax Certificate with respect to matters affecting the status of interest paid on the Series 2018 Subordinate Bonds, and (b) compliance by the City with the procedures and covenants set forth in the Tax Certificate as to such tax matters.

6. Under existing statutes, interest on the Series 2018 Subordinate Bonds is exempt from State of California personal income taxes.

We express no opinion as to any other federal, state or local tax consequences arising with respect to the Series 2018 Subordinate Bonds or the ownership or disposition thereof, except as stated in paragraphs 5 and 6 above. We render our opinion under existing statutes and court decisions as of the date of issuance of the Series 2018 Subordinate Bonds, and assume no obligation to update, revise or supplement this 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 Series 2018 Subordinate Bonds.

We undertake no responsibility for the accuracy, completeness or fairness of any official statement or other offering materials relating to the Series 2018 Subordinate Bonds and express herein no opinion relating thereto.

The foregoing opinions are qualified to the extent that the enforceability of the Series 2018 Subordinate Bonds, the General Resolution, the Subordinate General Resolution 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). In addition, the imposition of certain fees and charges by the City relating to the System is subject to the provisions of Articles XIII C and XIII D of the California Constitution.

This opinion is issued as of the date hereof, and we assume no obligation to update, revise or supplement this opinion to reflect any action hereafter taken or not taken, or any facts or circumstances, or any changes in law or in interpretations thereof, that may hereafter arise or occur, or for any other reason.

Respectfully submitted,

APPENDIX G

BOOK-ENTRY ONLY SYSTEM

The information in this Appendix G concerning The Depository Trust Company (“DTC”), New York, New York, and DTC’s Book-Entry system has been obtained from DTC and the City takes no responsibility for the completeness or accuracy thereof. The City cannot and does not give any assurances that DTC, DTC Participants or Indirect Participants will distribute to the Beneficial Owners (a) payments of interest, principal or premium, if any, with respect to the Series 2018 Bonds, (b) certificates representing ownership interest in or other confirmation or ownership interest in the Series 2018 Bonds, or (c) redemption or other notices sent to DTC or Cede & Co., its nominee, as the registered owner of the Series 2018 Bonds, or that they will do so on a timely basis, or that DTC, DTC Participants or DTC Indirect Participants will act in the manner described in this Official Statement. The City, the Paying Agent and the Underwriters 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 Series 2018 Bonds or an error or delay relating thereto. The current “Rules” applicable to DTC are on file with the Securities and Exchange Commission and the current “Procedures” of DTC to be followed in dealing with DTC Participants are on file with DTC.

1. The Depository Trust Company, New York, NY, will act as securities depository for the Series 2018 Bonds. The Series 2018 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 each Series of the Series 2018 Bonds, each in the aggregate principal amount of such maturity of such issue, and will be deposited with DTC.

2. DTC 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 the DTC 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”). DTC has a Standard & Poor’s rating of rating of AA+. The 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. Information on the website is not incorporated herein.

3. Purchases of Series 2018 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2018 Bonds on DTC’s records. The ownership interest of each actual purchaser of each Security (“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 Series 2018 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 Series 2018 Bonds, except in the event that use of the book-entry system for the Series 2018 Bonds is discontinued.

4. To facilitate subsequent transfers, all Series 2018 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 Series 2018 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 Series 2018 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2018 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.

5. 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 Series 2018 Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Series 2018 Bonds, such as redemptions, tenders, defaults, and proposed amendments to the Security documents. For example, Beneficial Owners of Series 2018 Bonds may wish to ascertain that the nominee holding the Series 2018 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.

6. Redemption notices shall be sent to DTC. If less than all of the Series 2018 Bonds within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.

7. Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Series 2018 Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the City 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 Series 2018 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

8. Interest on, principal and redemption price of, and other payments on the Series 2018 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 the City, on payable date in accordance with their respective holdings shown on DTC's records. Payments by 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 City or its agent, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and other payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the City, 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.

9. If applicable, a Beneficial Owner shall give notice to elect to have its Series 2018 Bonds purchased or tendered, through its Participant, to the City's designated agent, and shall effect delivery of such Series 2018 Bonds by causing the Direct Participant to transfer the Participant's interest in the Series 2018 Bonds, on DTC's records, to the City's designated agent. The requirement for physical delivery of Series 2018 Bonds in connection with an optional tender or a mandatory purchase will be deemed satisfied when the ownership rights in the Series 2018 Bonds are transferred by Direct Participants on DTC's records and followed by a book-entry credit of tendered Series 2018 Bonds to the DTC account of the City's designated agent.

10. DTC may discontinue providing its services as depository with respect to the Series 2018 Bonds at any time by giving reasonable notice to the City. Under such circumstances, in the event that a successor depository is not obtained, Security certificates are required to be printed and delivered.

11. The City may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, certificates will be printed and delivered to DTC and the requirements of the Trust Agreement with respect to certificated Series 2018 Bonds will apply.

12. The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the City believes to be reliable, but the City takes no responsibility for the accuracy thereof.

NEITHER THE CITY NOR THE PAYING AGENT WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DTC PARTICIPANTS, INDIRECT PARTICIPANTS OR BENEFICIAL OWNERS WITH RESPECT TO THE PAYMENTS OR THE PROVIDING OF NOTICE TO DTC PARTICIPANTS, INDIRECT PARTICIPANTS OR BENEFICIAL OWNERS OR THE SELECTION OF SERIES 2018 BONDS FOR REDEMPTION.

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APPENDIX H

FORM OF CONTINUING DISCLOSURE CERTIFICATE

This Continuing Disclosure Certificate (the “Disclosure Certificate”) is executed and delivered by the City of Los Angeles (the “City”) in connection with the issuance by the City of its \$_____ City of Los Angeles Wastewater System Subordinate Revenue Bonds, Series 2018-A (Green Bonds) and its \$_____ City of Los Angeles Wastewater System Subordinate Revenue Bonds, Refunding Series 2018-B (collectively, the “Series 2018 Bonds”) pursuant to a Wastewater System Subordinate Revenue Bonds General Resolution, adopted by the City Council on March 26, 1991, as amended and supplemented (the “Subordinate General Resolution”), including as amended and supplemented by the Twenty-Fourth Supplemental Resolution, adopted by the City Council on October 16, 2018.

The City covenants and agrees as follows:

Section 1. Purpose of the Disclosure Certificate. This Disclosure Certificate is being executed and delivered by the City pursuant to Rule 15c2-12(b)(5) (the “Rule”) adopted by the Securities and Exchange Commission, for the benefit of the Bondowners and Beneficial Owners in order to assist the Participating Underwriters in complying with the Rule.

Section 2. Definitions. In addition to the definitions set forth in the Subordinate General Resolution, which shall apply to any capitalized term used in this Disclosure Certificate unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

“Annual Report” shall mean any Annual Report provided by the City pursuant to, and as described in, Sections H3 and 4 of this Disclosure Certificate.

“Beneficial Owner” shall mean any person which (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Series 2018 Bonds (including persons holding Series 2018 Bonds through nominees, depositories or other intermediaries), or (b) is treated as the owner of any Series 2018 Bonds for federal income tax purposes.

“DAC” shall mean Digital Assurance Certification L.L.C.

“Dissemination Agent” shall mean each of the City Administrative Officer of the City, including any interim City Administrative Officer, or any other person authorized to act on the City Administrative Officer’s behalf, acting in the capacity of Dissemination Agent, or any successor Dissemination Agent designated in writing by the City and which has filed with the City a written acceptance of such designation. The initial Dissemination Agent hereunder shall be DAC.

“Listed Events” shall mean any of the events listed in Section 5(a) of this Disclosure Certificate.

“MSRB” means the Municipal Securities Rulemaking Board established pursuant to Section 15B(b)(1) of the Securities Exchange Act of 1934, as amended, or any other entity designated or authorized by the Securities and Exchange Commission to receive reports pursuant to the Rule. Until otherwise designated by the MSRB or the Securities and Exchange Commission, filings with the MSRB are to be made through the Electronic Municipal Market Access (“EMMA”) website of the MSRB, currently located at <http://emma.msrb.org>.

“Official Statement” shall mean the Official Statement dated _____, 2018, issued by the City in connection with the sale of the Series 2018 Bonds.

“Participating Underwriter” shall mean any of the original underwriters of the Series 2018 Bonds required to comply with the Rule in connection with offering of the Series 2018 Bonds.

“Rule” shall mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

“Series 2018 Bonds” shall mean the City of Los Angeles Wastewater System Subordinate Revenue Bonds, Series 2018-A and the City of Los Angeles Wastewater System Subordinate Revenue Bonds, Refunding Series 2018-B.

Section 3. Provision of Annual Reports.

(a) The City shall cause the Dissemination Agent to provide not later than June 30 of each fiscal year, commencing on June 30, 2019 for the report for the 2017-18 fiscal year, or if the fiscal year-end changes from June 30, not later than 365 days after the end of the City’s fiscal year, to the MSRB an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Certificate. If the Dissemination Agent is other than the City or the City Administrative Officer, not later than fifteen (15) days prior to said date, the City shall provide the Annual Report to the Dissemination Agent (if other than the City). The Annual Report may be submitted as a single document or as separate documents comprising a package, and may cross-reference other information as provided in Section 4 of this Disclosure Certificate; provided that the audited financial statements of the Fund (defined below) may be submitted separately from the balance of the Annual Report and not later than the date required above for the filing of the Annual Report if they are not available by that date. If the City’s fiscal year changes (the “new fiscal year”), the City shall give notice of such change in the same manner as for a Listed Event under Section 5(d), and the annual date by which the City must provide its annual report shall change to the last day of the fiscal year immediately following the new fiscal year for which such Annual Report is given.

(b) If the City is unable to provide to the Dissemination Agent an Annual Report by the date required in subsection (a), the Dissemination Agent shall send a notice to the MSRB in substantially the form prescribed thereby.

(c) The Dissemination Agent shall, if the Dissemination Agent is other than the City, file a report with the City certifying that the Annual Report has been provided to the MSRB pursuant to this Disclosure Certificate, and stating the date it was provided.

Section 4. Content of Annual Reports. The City’s Annual Report shall contain or incorporate by reference the following:

(a) The audited financial statements of the City of Los Angeles Sewer Construction and Maintenance Fund (the “Fund”) for the prior fiscal year prepared in accordance with significant accounting policies of the City with respect to the Fund. If such audited financial statements are not available by the time the Annual Report is required to be filed pursuant to Section 3(a), the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained in the Official Statement, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available.

(b) An update to the following tables and other information set forth in the Official Statement:

“EXISTING WASTEWATER TREATMENT FACILITIES” table.

“WASTEWATER SYSTEM CAPITAL IMPROVEMENT PROGRAM EXPENDITURES” table.

“SEWER SERVICE CHARGE BILLED TO TEN LARGEST CUSTOMERS” table.

“SEWER CONSTRUCTION AND MAINTENANCE FUND RATES AND CHARGES” table.

“WASTEWATER SYSTEM SERVICE POINTS AND BILLABLE WASTEWATER VOLUME” table.

“SSC REVENUE BUDGET, BILLINGS, AND REMITTANCE” table.

“BUREAU OF SANITATION AUTHORIZED POSITIONS” table.

“SEWER CONSTRUCTION AND MAINTENANCE FUND RETIREMENT AND OPEB CONTRIBUTIONS” table.

“SEWER CONSTRUCTION AND MAINTENANCE FUND SUMMARY OF OPERATIONS AND DEBT SERVICE COVERAGE CASH BASIS (UNAUDITED)” table.

“SEWER CONSTRUCTION AND MAINTENANCE FUND CASH BALANCES IN ALL FUNDS (UNAUDITED)” table.

“CITY OF LOS ANGELES OUTSTANDING WASTEWATER SYSTEM REVENUE BONDS AND WASTEWATER SYSTEM COMMERCIAL PAPER REVENUE NOTES” table.

(c) An update to the following Sections in the Official Statement: “LITIGATION” and “Appendix A – Certain Information Regarding the City of Los Angeles– BUDGET AND FINANCIAL OPERATIONS.”

The City need not update any particular table or chart so long as (i) the City provides updated information generally of the type previously included in such table or chart, or (ii) such table or chart constitutes information not deemed to be operating data under the Rule.

Any or all of the items listed above may be incorporated by reference from other documents, including official statements of debt issues of the City or related public entities, which have been submitted to the MSRB or the Securities and Exchange Commission. If the document incorporated by reference is a final official statement, it must be available from the MSRB. The City shall clearly identify each such other document so incorporated by reference.

Section 5. Reporting of Significant Events.

(a) Pursuant to the provisions of this Section 5, the City shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Series 2018 Bonds:

- (i) principal and interest payment delinquencies;
- (ii) non-payment related defaults, if material;
- (iii) unscheduled draws on debt service reserves reflecting financial difficulties of the City;
- (iv) unscheduled draws on any credit enhancements reflecting financial difficulties of the City;
- (v) substitution of any 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 of determinations with respect to the tax status of the Series 2018 Bonds, or other material events affecting the tax status of the Series 2018 Bonds;
- (vii) modifications to the rights of Owners of the Series 2018 Bonds, if material;
- (viii) bond calls other than scheduled sinking fund redemptions, if material, and tender offers;
- (ix) defeasances;
- (x) release, substitution, or sale of property, if any, securing repayment of the Series 2018 Bonds, if material;
- (xi) rating changes;
- (xii) bankruptcy, insolvency, receivership or similar event of the City; provided that for the purposes of the event identified in this clause (xii), the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for the City 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 the City, 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 the City;
- (xiii) the consummation of a merger, consolidation, or acquisition involving the City or the sale of all or substantially all of the assets of the City, 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; and

(xiv) appointment of a successor or additional trustee or the change of name of a trustee, if material.

(b) If the Dissemination Agent is other than the City, the Dissemination Agent shall, as soon as reasonably practicable after obtaining actual knowledge of the occurrence of any of the Listed Events contact the City and request that the City promptly notify the Dissemination Agent in writing whether or not to report the event pursuant to Subsections (a) and promptly direct the Dissemination Agent whether or not to report such event to the owners of the Bonds. In the absence of such direction, the Dissemination Agent shall not report such event unless required to be reported by the Dissemination Agent to the owners of the Bonds under the Indenture. The Dissemination Agent may conclusively rely upon such direction or lack thereof. For purposes of this Disclosure Certificate, actual knowledge of the occurrence of such Listed Events shall mean actual knowledge by the Dissemination Agent. The Dissemination Agent shall have no responsibility to determine the materiality of any of the Listed Events. Notwithstanding the foregoing, notice of any Listed Event shall be filed with the Repository through its EMMA system, in an electronic format as prescribed by the Repository, in a timely manner but not in excess of 10 business days after the occurrence of such Listed Event.

(c) Whenever the City obtains knowledge of the occurrence of a Listed Event, but, in the case of a Listed Event described in Subsection (ii), (vii), (viii) (but only with respect to bond calls), (x), (xiii) and (xiv) of Section 5(a), only in the event the City determines that knowledge of occurrence of a Listed Event would be material under applicable federal securities laws, the City shall file or cause to be filed a notice of such occurrence with the Repository through its EMMA system, in an electronic format as prescribed by the Repository, in a timely manner but not in excess of 10 business days after the occurrence of such Listed Event.

Section 6. Termination of Reporting Obligation. The City's obligations under this Disclosure Certificate shall terminate upon the legal defeasance, prior redemption or payment in full of all of the Series 2018 Bonds. If such termination occurs prior to the final maturity of the Series 2018 Bonds, the City shall give notice of such termination in the same manner as for a Listed Event under Section 5(d) hereof.

Section 7. Dissemination Agent. The City may, from time to time, appoint or engage a Dissemination Agent other than the original Dissemination Agent to assist it in carrying out its obligations under this Disclosure Certificate, and may discharge any such Dissemination Agent, with or without appointing a successor Dissemination Agent. The Dissemination Agent shall not be responsible in any manner for the content of any notice or report prepared by the City pursuant to this Disclosure Agreement.

Section 8. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Certificate, the City may amend this Disclosure Certificate, and any provision of this Disclosure Certificate may be waived, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions of Sections 3(a), 4 or 5(a), it may only be made in connection with a change in circumstances that arise from a change in legal requirements, change in law, or change in identity, nature or status of an obligated person with respect to the Series 2018 Bonds, or the type of business conducted;

(b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the bond, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver either (i) is approved by the Holders of the Series 2018 Bonds in the same manner as provided in the General Resolution for amendments to the General Resolution with the consent of Bondowners, or (ii) does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the Bondowners or Beneficial Owners of the Series 2018 Bonds.

In the event of any amendment or waiver of a provision of this Disclosure Certificate, the City shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or in the case of a change of accounting principles, on the principles or the presentation) of financial information or operating data being presented by the City. In addition, if the amendment relates to a change in the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given in the same manner as for a Listed Event under Section 5(d), and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

Section 9. Additional Information. Nothing in this Disclosure Certificate shall be deemed to prevent the City from disseminating any other information, using the means of dissemination set forth in this Disclosure Certificate or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event, in addition to that which is required by this Disclosure Certificate. If the City chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Certificate, the City shall have no obligation under this Disclosure Certificate to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event.

Section 10. Default. In the event of a failure by the City to comply with any provision of this Disclosure Certificate any Bondowners or Beneficial Owners of Series 2018 Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the City to comply with its obligations under this Disclosure Certificate. A default under this Disclosure Certificate shall not be deemed an Event of Default under the General Resolution, and the sole remedy under this Disclosure Certificate in the event of any failure of the City to comply with this Disclosure Certificate shall be an action to compel performance.

Section 11. Duties, Immunities and Liabilities of Dissemination Agent. The Dissemination Agent shall have only such duties as are specifically set forth in this Disclosure Certificate, and the City agrees to indemnify and save the Dissemination Agent, its officers, directors, employees and agents, harmless against any loss, expense and liabilities which it may incur arising out of or in the exercise or performance of its powers and duties hereunder, including the costs and expenses (including attorneys' fees) of defending against any claim of liability, but excluding liabilities due to the Dissemination Agent's negligence or willful misconduct. The obligations of the City under this Section shall survive resignation or removal of the Dissemination Agent and payment of the Series 2018 Bonds.

Section 12. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the City, the Dissemination Agent, the Participating Underwriters, Bondowners and Beneficial Owners from time of the Series 2018 Bonds, and shall create no rights in any other person or entity.

Section 13. Governing Law. The laws of the State of California shall govern this Disclosure Certificate, the interpretation hereof and any right or liability arising hereunder, without regard to principles of conflict of law.

Date: _____, 2018

CITY OF LOS ANGELES

By: _____
Assistant City Administrative Officer

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