

**SUPPLEMENT DATED APRIL 3, 2015
TO OFFICIAL STATEMENT DATED MARCH 11, 2015**

\$429,600,000
Public Utilities Commission
of the City and County of San Francisco
San Francisco Water Revenue Bonds,
2015 Series A
(Refunding)

The following information, dated April 3, 2015 (the "Supplement"), supplements the Official Statement dated March 11, 2015 (the "Official Statement") for the above-captioned bonds. Capitalized terms used in this Supplement but not otherwise defined herein shall have the meanings given to them in the Official Statement.

Governor's Executive Order

The California drought persists, with precipitation and snowpack totals for the current water year remaining significantly below historical averages in the Hetch Hetchy Watershed and other parts of the state. See "THE WATER ENTERPRISE – Current California Drought." Due to the ongoing drought, on April 1, 2015 the Governor of California issued Executive Order B-29-15 (the "2015 Executive Order") mandating, among other provisions, that the State Water Resources Control Board (the "SWRCB") impose restrictions to achieve a state-wide 25% reduction in potable urban water usage in California through February 28, 2016. Such restrictions will require water suppliers to reduce water usage as compared to usage in 2013. The 2015 Executive Order further provides that the restrictions imposed should consider the relative per capita usage of each water supplier's service area and require that those suppliers with high per capita use achieve proportionally greater reductions than those with low use. Although per capita water use by the SFPUC's retail customers is below the state-wide average, the SFPUC cannot at this time ascertain the impact on its retail customers of any SWRCB restrictions. See "THE WATER ENTERPRISE – Current Water Supply Sources – Local Water Conservation."

The 2015 Executive Order further requires that the SWRCB direct urban water suppliers to develop rate structures and other pricing mechanisms to maximize water conservation consistent with state-wide water restrictions and that the SWRCB adopt emergency regulations to implement the directive. Until the SWRCB issues rules and regulations implementing the 2015 Executive Order, the SFPUC cannot predict what effect, if any, the 2015 Executive Order will have on the SFPUC's water sales or revenues. However, the SFPUC does not expect the 2015 Executive Order to have a materially adverse effect on the SFPUC's ability to pay the principal of and interest on the 2015 Series A Bonds. The SFPUC will continue to monitor the drought and its effects on water supply and will make necessary adjustments to assure water supply reliability for its customers.

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In the opinion of Sidley Austin LLP, San Francisco, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel, based on existing statutes, regulations, rulings and judicial decisions, and assuming compliance with certain covenants in the documents pertaining to the Bonds and requirements of the Internal Revenue Code of 1986 (the “Code”), as amended, as described herein, interest on the 2015 Series A Bonds is not includable in the gross income of the owners of such Bonds for federal income tax purposes. In the further opinion of Co-Bond Counsel, interest on the 2015 Series A Bonds is not treated as an item of tax preference in calculating the federal alternative minimum taxable income of individuals and corporations. Interest on the 2015 Series A Bonds, however, is included as an adjustment in the calculation of federal corporate alternative minimum taxable income and may therefore affect a corporation’s alternative minimum tax liability. In the further opinion of Co-Bond Counsel, interest on the 2015 Series A Bonds is exempt from personal income taxes imposed by the State of California. Co-Bond Counsel express no opinion regarding any other tax consequences related to the ownership or disposition of, or the accrual or receipt of, interest on the 2015 Series A Bonds. See “TAX MATTERS.”



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Public Utilities Commission
of the City and County of San Francisco
San Francisco Water Revenue Bonds,
2015 Series A
(Refunding)

Dated: Date of Delivery

Due: November 1, as shown on inside front cover

General. This cover page contains certain information for quick reference only. It is not intended to be a summary of the security or terms of the water revenue bonds captioned above (the “2015 Series A Bonds”). Investors are instructed to read the entire Official Statement to obtain information essential to making an informed investment decision.

Authority for Issuance. The Public Utilities Commission of the City and County of San Francisco (the “SFPUC”) is issuing the 2015 Series A Bonds pursuant to authority granted by the Charter of the City and County of San Francisco (the “City”). The 2015 Series A Bonds will be issued under a Twentieth Supplemental Indenture, dated as of April 1, 2015 (the “Twentieth Supplemental Indenture”), by and between the SFPUC and U.S. Bank National Association, as trustee (the “Trustee”), and which supplements the Amended and Restated Indenture, dated as of August 1, 2002, by and between the SFPUC and the Trustee (as supplemented and amended to date, including as supplemented by the Twentieth Supplemental Indenture, the “Indenture”). See “SECURITY FOR THE BONDS.”

Purposes. The 2015 Series A Bonds are being issued to refund and defease a portion of the outstanding water revenue bonds of the SFPUC. Proceeds of the 2015 Series A Bonds will also be applied to pay the costs of issuance of the 2015 Series A Bonds. See “PLAN OF REFUNDING.”

Denominations and Interest. The 2015 Series A Bonds will be available in the denominations of \$5,000 or any integral multiple thereof and will mature in the years and amounts and accrue interest from their date of delivery at the rates set forth on the inside cover page of this Official Statement. Interest on the 2015 Series A Bonds is payable semiannually on May 1 and November 1 of each year, commencing November 1, 2015. See “THE 2015 SERIES A BONDS.”

Book-Entry Only. The 2015 Series A Bonds will be issued as fully registered bonds, registered in the name of Cede & Co., as nominee of The Depository Trust Company, New York, New York (“DTC”), and will be available to ultimate purchasers (the “Beneficial Owners”), under the book-entry only system maintained by DTC. Beneficial Owners will not receive physical certificates representing their interests in the 2015 Series A Bonds. The principal of, premium, if any, and interest on the 2015 Series A Bonds are payable to DTC by the Trustee, and, so long as DTC is acting as securities depository for the 2015 Series A Bonds, disbursements of such payments to DTC Participants is the responsibility of DTC and disbursements of such payments to the Beneficial Owners is the responsibility of DTC Participants. See “THE 2015 SERIES A BONDS.”

Redemption. The 2015 Series A Bonds are subject to optional redemption prior to maturity as described herein.

Security. Under the Indenture, the SFPUC has irrevocably pledged the Revenues of its Water Enterprise to the punctual payment of principal of, and premium, if any, and interest on the Bonds, which consist of all outstanding parity revenue bonds issued under the Indenture, including the 2015 Series A Bonds, subject to the allocation of funds provided in the Indenture. The 2015 Series A Bonds are payable on parity with certain Outstanding Bonds previously issued by the SFPUC under the Indenture. See “SECURITY FOR THE BONDS.”

Limited Obligation. The SFPUC is not obligated to pay the principal of, or premium, if any, or interest on the 2015 Series A Bonds from any source of funds other than Revenues. The SFPUC has no taxing power. The General Fund of the City is not liable for the payment of the principal of, or premium, if any, or interest on the 2015 Series A Bonds, and neither the credit nor the taxing power of the City is pledged to the payment of the principal of, or premium, if any, or interest on the 2015 Series A Bonds. The 2015 Series A Bonds are not secured by a legal or equitable pledge of, or charge, lien, or encumbrance upon, any of the property of the City or of the SFPUC or any of its income or receipts, except Revenues. See “SECURITY FOR THE BONDS.”

MATURITY SCHEDULE
(See inside cover)

The 2015 Series A Bonds are offered when, as and if issued by the SFPUC and received by the Underwriters, subject to the approval of validity by Sidley Austin LLP, San Francisco, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel to the SFPUC, and to certain other conditions. Certain matters will be passed upon for the SFPUC and the City by Orrick, Herrington & Sutcliffe LLP, San Francisco, California, Disclosure Counsel, and by the City Attorney of the City and County of San Francisco. Montague DeRose and Associates, LLC, Walnut Creek, California, and Backstrom McCarley Berry & Co., LLC, San Francisco, California, Co-Financial Advisors to the SFPUC, assisted in the structuring of this financing. Certain matters will be passed upon for the Underwriters by Stradling Yocca Carlson & Rauth, a Professional Corporation, Sacramento, California. It is expected that the 2015 Series A Bonds in fully registered form will be available for delivery in book-entry form through the facilities of DTC, on or about April 16, 2015.

J.P. Morgan

RBC Capital Markets

BoFA Merrill Lynch

Citigroup

Siebert, Bradford Shank & Co., L.L.C.

US Bancorp

MATURITY SCHEDULE

2015 Series A Bonds

\$429,600,000 Serial Bonds

Maturity (November 1)	Principal Amount	Interest Rate	Yield*	CUSIP [†] Base Number: 79765R
2018	\$ 3,220,000	3.00%	1.09%	C72
2019	10,000,000	5.00	1.37	F20
2019	4,000,000	2.00	1.37	C80
2020	10,000,000	5.00	1.62	F38
2020	4,635,000	4.00	1.62	C98
2021	12,120,000	5.00	1.80	F46
2021	3,205,000	3.00	1.80	D22
2022	10,000,000	5.00	2.00	F53
2022	6,045,000	4.00	2.00	D30
2023	26,620,000	5.00	2.19	F61
2023	1,450,000	4.00	2.19	D48
2024	27,435,000	5.00	2.35	F79
2024	2,050,000	4.00	2.35	D55
2025	30,990,000	5.00	2.48 ^(c)	D63
2026	20,945,000	5.00	2.62 ^(c)	D71
2027	20,530,000	5.00	2.74 ^(c)	D89
2028	21,580,000	5.00	2.84 ^(c)	D97
2029	22,685,000	5.00	2.91 ^(c)	E21
2030	19,760,000	5.00	2.95 ^(c)	F95
2030	4,050,000	3.25	3.37	E39
2031	25,000,000	5.00	2.99 ^(c)	E47
2032	26,280,000	5.00	3.04 ^(c)	E54
2033	27,490,000	4.00	3.51 ^(c)	E62
2034	28,610,000	4.00	3.55 ^(c)	E70
2035	25,290,000	4.00	3.59 ^(c)	F87
2035	4,475,000	3.625	3.69	E88
2036	31,135,000	5.00	3.16 ^(c)	E96

* Reoffering yields have been provided by the Underwriters. See "UNDERWRITING."

† CUSIP is a registered trademark of The American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed by Standard & Poor's Financial Services LLC 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. Neither the SFPUC nor the Underwriters assume any responsibility for the accuracy of the CUSIP data.

^(c) Yield to par call on May 1, 2025.

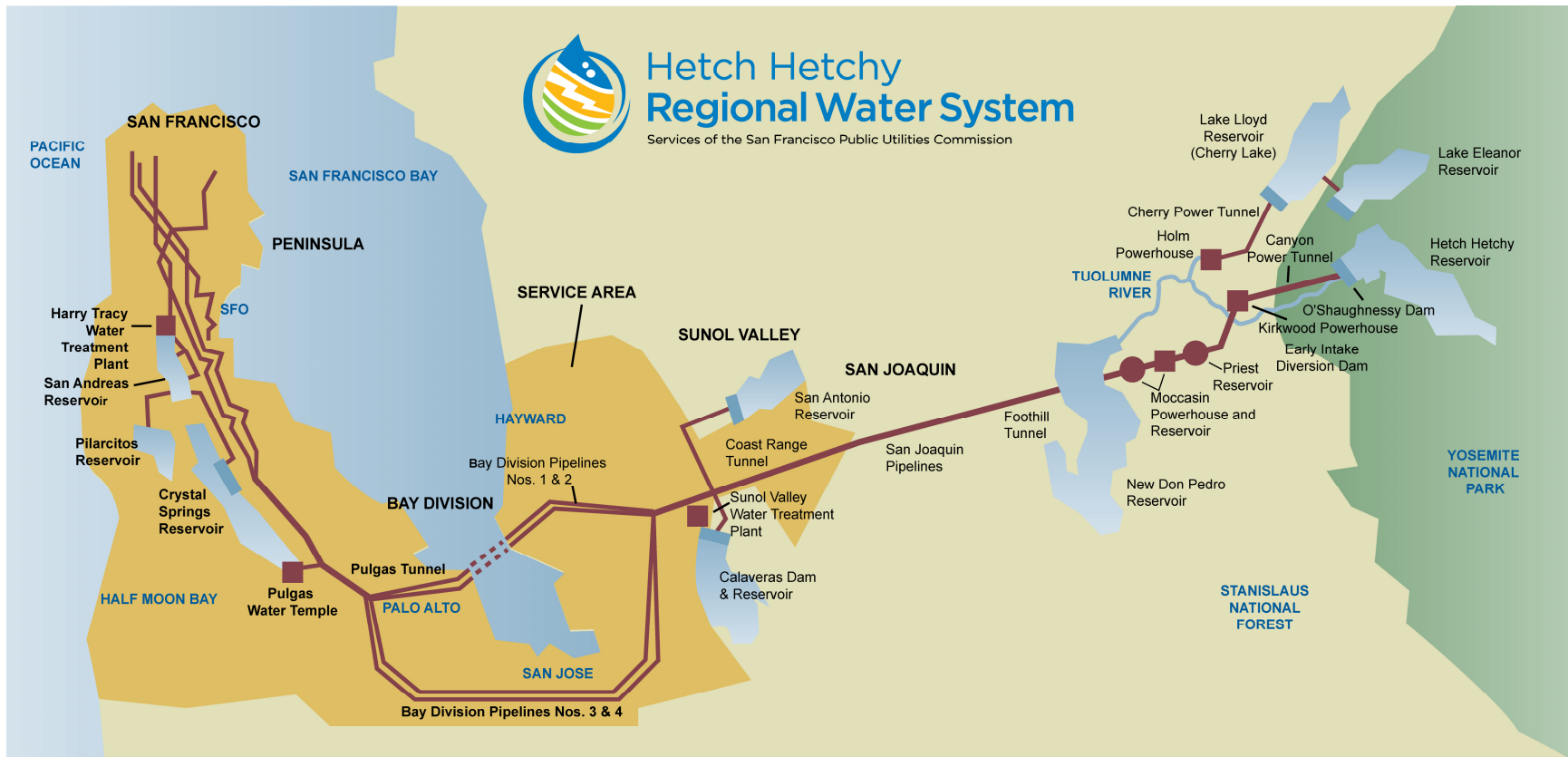


Figure 1-1 (Not to Scale) – The above map depicts the Hetch Hetchy Regional Water System. For further description of the SFPUC’s Water System, see “THE WATER ENTERPRISE.”

The 2015 Series A Bonds are not secured by a legal or equitable pledge of, or charge, lien or encumbrance upon, any of the property of the SFPUC or any of its income or receipts, except Revenues. See “SECURITY FOR THE BONDS.”

GENERAL INFORMATION

No dealer, broker, salesperson or other person has been authorized by the SFPUC to give any information or to make any representation other than those contained herein and, if given or made, such other information or representation must not be relied upon as having been authorized by the SFPUC.

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 2015 Series A Bonds, by any person in any jurisdiction in which it is unlawful for such person to make such an offer, solicitation or sale. This Official Statement is not to be construed as a contract with the initial purchasers of the 2015 Series A Bonds. Any statement made in this Official Statement involving any forecast or matter of estimates or opinion, whether or not expressly so stated, is intended solely as such and not as a representation of fact.

The information set forth herein other than that provided by the SFPUC, although obtained from sources which are believed to be reliable, is not guaranteed as to accuracy or completeness. The information and expressions of opinion herein are subject to change without notice and neither 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 SFPUC or the City since the date hereof.

The Underwriters 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 City maintains a website at <http://www.sfgov.org> and the SFPUC maintains a website at <http://www.sfwater.org>. In addition, certain information and reports found on other websites, and other information and reports, are referred to in this Official Statement. *The information and reports available on such websites, and the other referenced information and reports, are not incorporated by reference into this Official Statement and should not be relied upon in making an investment in the 2015 Series A Bonds.*

The issuance and sale of the 2015 Series A Bonds have not been registered under the Securities Act of 1933 in reliance upon the exemption provided thereunder by Section 3(a)(2) for the issuance and sale of municipal securities.

IN CONNECTION WITH THE OFFERING OF THE 2015 SERIES A BONDS, THE UNDERWRITERS MAY OVERALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE 2015 SERIES A BONDS AT LEVELS ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

This Official Statement is delivered for use in connection with the issuance, sale and delivery of the 2015 Series A Bonds and may not be reproduced or used, in whole or in part, for any other purpose.

FORWARD-LOOKING STATEMENTS

CERTAIN STATEMENTS CONTAINED IN THIS OFFICIAL STATEMENT REFLECT NOT HISTORICAL FACTS BUT FORECASTS AND "FORWARD-LOOKING STATEMENTS." ALL FORWARD-LOOKING STATEMENTS ARE PREDICTIONS AND ARE SUBJECT TO KNOWN AND UNKNOWN RISKS AND UNCERTAINTIES. NO ASSURANCE CAN BE GIVEN THAT THE FUTURE RESULTS DISCUSSED HEREIN WILL BE ACHIEVED, AND ACTUAL RESULTS MAY DIFFER MATERIALLY FROM THE FORECASTS DESCRIBED HEREIN. IN THIS RESPECT, THE WORDS "ESTIMATE," "PROJECT," "ANTICIPATE," "EXPECT," "INTEND," "BELIEVE" AND SIMILAR EXPRESSIONS ARE INTENDED TO IDENTIFY FORWARD-LOOKING STATEMENTS. ALL PROJECTIONS, FORECASTS, ASSUMPTIONS, EXPRESSIONS OF OPINIONS, ESTIMATES AND OTHER FORWARD-LOOKING STATEMENTS ARE EXPRESSLY QUALIFIED IN THEIR ENTIRETY BY THE CAUTIONARY STATEMENTS SET FORTH IN THIS OFFICIAL STATEMENT. GIVEN THEIR UNCERTAINTY, INVESTORS ARE CAUTIONED NOT TO PLACE UNDUE RELIANCE ON SUCH STATEMENTS.

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

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CITY AND COUNTY OF SAN FRANCISCO

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Edwin M. Lee

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OFFICIAL STATEMENT

\$429,600,000
PUBLIC UTILITIES COMMISSION
OF THE CITY AND COUNTY OF SAN FRANCISCO
SAN FRANCISCO WATER REVENUE BONDS,
2015 SERIES A
(Refunding)

INTRODUCTION

This Introduction is qualified in its entirety by reference to the more detailed information included and referred to elsewhere in this Official Statement. The offering of the 2015 Series A Bonds to potential investors is made only by means of the entire Official Statement. Terms used in this Introduction and not otherwise defined have the respective meanings assigned to them elsewhere in this Official Statement, including “APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE.”

General

This Official Statement, including the cover page and Appendices hereto, is provided to furnish certain information in connection with the offering by the Public Utilities Commission of the City and County of San Francisco (the “SFPUC”) of the water revenue bonds captioned above (the “2015 Series A Bonds”).

Authority for Issuance

The SFPUC is issuing the 2015 Series A Bonds under Section 9.109 of the Charter (the “Charter”) of the City and County of San Francisco (the “City”).

The 2015 Series A Bonds will be issued under a Twentieth Supplemental Indenture, dated as of April 1, 2015 (the “Twentieth Supplemental Indenture”), by and between the SFPUC and U.S. Bank National Association, as trustee (the “Trustee”), which supplements the Amended and Restated Indenture, dated as of August 1, 2002, by and between the SFPUC and the Trustee (as supplemented and amended to date, including as supplemented by the Twentieth Supplemental Indenture, the “Indenture”).

The 2015 Series A Bonds are being issued under a resolution adopted by the SFPUC governing body (the “Commission”) on February 10, 2015, which resolution incorporates certain provisions of a prior resolution adopted by the Board of Supervisors of the City (the “Board of Supervisors”) on May 1, 2012.

See “OBLIGATIONS PAYABLE FROM REVENUES – Authority for Issuance of Revenue Bonds and Other Obligations Payable from Revenues.”

Purposes

The 2015 Series A Bonds are being issued for the purpose of providing funds, together with certain other moneys available for such purpose, to refund all or a portion of various series of the SFPUC’s outstanding bonds. Proceeds of the 2015 Series A Bonds will also be applied to pay the costs of issuance of the 2015 Series A Bonds. See “PLAN OF REFUNDING” and “OBLIGATIONS PAYABLE FROM REVENUES – Outstanding Parity Revenue Bonds.”

The SFPUC and the Water Enterprise

The SFPUC is a department of the City responsible for the maintenance, operation and development of three utility enterprises. See “THE PUBLIC UTILITIES COMMISSION.”

The SFPUC owns and operates a municipal water supply, storage and distribution system (the “Water Enterprise”) that provides drinking water to retail customers in the City and certain retail customers outside of the

City (the “Retail Customers”) and to wholesale customers in three other San Francisco Bay Area counties (the “Wholesale Customers”). The Water Enterprise consists of water treatment and distribution facilities located outside of the City (the “Regional Water System”) and water treatment and distribution facilities located inside the City (the “In-City Distribution System”). See “WATER FACILITIES.”

Water rates for Retail Customers are set by the SFPUC, subject to rejection by resolution of the Board of Supervisors. Water rates for Wholesale Customers are set pursuant to the Water Supply Agreement, which became effective in July 2009 (the “Water Supply Agreement” or “WSA”), between the City and the Wholesale Customers. See “FINANCIAL OPERATIONS.”

The other two enterprises of the SFPUC provide wastewater services to customers in the City and power, mainly hydroelectric, for City government operations and to other users. The revenues of these other two enterprises are not available for, and do not secure, payment of the principal of, or premium, if any, or interest on the Bonds, including the 2015 Series A Bonds. See “THE PUBLIC UTILITIES COMMISSION.”

Security for the Bonds

Under the Indenture, the SFPUC has irrevocably pledged the Revenues of its Water Enterprise and all Refundable Credits received by the SFPUC to the punctual payment of principal of, and premium, if any, and interest on any parity revenue bonds issued under the Indenture, including the 2015 Series A Bonds (collectively, the “Bonds”), subject to the allocation of funds provided in the Indenture. The 2015 Series A Bonds and all other Bonds are secured by a parity lien on Revenues.

The SFPUC is not obligated to pay the principal of, or premium, if any, or interest on the 2015 Series A Bonds from any source of funds other than Revenues (as defined in the Indenture). The SFPUC has no taxing power. The General Fund of the City is not liable for the payment of the principal of, or premium, if any, or interest on the 2015 Series A Bonds, and neither the credit nor the taxing power of the City is pledged to the payment of the principal of, or premium, if any, or interest on the 2015 Series A Bonds. The 2015 Series A Bonds are not secured by a legal or equitable pledge of, or charge, lien or encumbrance upon, any of the property of the City or of the SFPUC or any of its income or receipts, except Revenues.

No Bond Reserve Account will be established for the 2015 Series A Bonds. Bond Reserve Accounts have been established with respect to other series of Bonds.

See “SECURITY FOR THE BONDS.”

Outstanding and Future Parity Bonds

The SFPUC has previously issued revenue bonds, and in the future expects to issue additional bonds, pursuant to the Indenture and secured by Revenues of the Water Enterprise on parity with the 2015 Series A Bonds. The 2015 Series A Bonds and all other bonds issued pursuant to the Indenture are referred to collectively in this Official Statement as the “Bonds.” See “OBLIGATIONS PAYABLE FROM REVENUES.”

The Indenture provides that additional series of Bonds secured by Revenues on parity with the Outstanding Bonds and the 2015 Series A Bonds (each an “Additional Series of Bonds”) may be issued if certain conditions are met. See “SECURITY FOR THE BONDS – Additional Series of Bonds.”

Following the issuance of the 2015 Series A Bonds, the SFPUC anticipates that it will issue an Additional Series of Bonds to fund the SFPUC’s Water System Improvement Program (“WSIP”) and other capital projects in the third quarter of Fiscal Year 2015-16 in an aggregate principal amount of approximately \$330 million. The SFPUC may also issue refunding bonds from time to time in response to market conditions in order to achieve debt service savings. See “FINANCING OF CAPITAL IMPROVEMENTS.”

Fifth Supplemental Indenture Amendments Effective

The SFPUC entered into a Fifth Supplemental Indenture, dated as of June 1, 2010 (the “Fifth Supplemental Indenture”), amending and supplementing certain provisions of the Indenture, including provisions (i) relating to the treatment of “Refundable Credits” received with respect to any bonds issued as “Build America Bonds” or any

future federal direct-pay subsidy program, (ii) giving the Commission the flexibility to issue additional bonds which are not secured by a bond reserve fund, and (iii) replacing monthly deposits with semi-annual deposits of Revenues under the Indenture to fund the interest, principal and bond reserve accounts. Upon issuance of the 2015 Series A Bonds, all provisions of the Fifth Supplemental Indenture will have become effective. The description of the Indenture contained in this Official Statement reflects the amendments made by the Fifth Supplemental Indenture. See “SECURITY FOR THE BONDS.”

Risk Factors

Investment in the 2015 Series A Bonds is subject to material risks. For a general overview of certain risk factors which should be considered, in addition to other matters set forth in this Official Statement, in evaluating an investment in the 2015 Series A Bonds, see “RISK FACTORS.”

Continuing Disclosure

The SFPUC has covenanted for the benefit of the owners and beneficial owners of the 2015 Series A Bonds to provide certain financial information and operating data not later than nine months following the end of its Fiscal Year (presently June 30), beginning on March 31, 2016, with the report for Fiscal Year 2014-15, and to provide notices of the occurrence of certain enumerated events. These covenants have been made in order to assist the Underwriters in complying with Rule 15c2-12(b)(5) of the Securities and Exchange Commission (the “Rule”). See “CONTINUING DISCLOSURE” and “APPENDIX G – FORM OF CONTINUING DISCLOSURE CERTIFICATE.” Although the SFPUC filed on EMMA materials describing the effectiveness of certain amendments to the indenture pursuant to which the SFPUC’s wastewater bonds have been issued, it failed to file timely a simultaneous and duplicative notice of material event. The SFPUC has, at least twice in the last five years, failed to file in a timely manner notice of a change in the rating of SFPUC bonds resulting from a change in the rating of a bond insurer. The current ratings of the SFPUC’s insured bonds are correct on EMMA.

Other Matters

Brief descriptions of the 2015 Series A Bonds, the security and sources of payment for the 2015 Series A Bonds, the SFPUC, the Water Enterprise, the WSIP and certain non-WSIP capital improvements are provided herein. Such descriptions do not purport to be comprehensive or definitive. Definitions of certain capitalized terms used herein may be found in “APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE.” All references made to various documents herein are qualified in their entirety by reference to the forms thereof, all of which are available for inspection at the office of the SFPUC at:

San Francisco Public Utilities Commission
525 Golden Gate Avenue, 13th Floor
San Francisco, CA 94102
Attention: Assistant General Manager, Business Services and Chief Financial Officer
(415) 554-3155

THE 2015 SERIES A BONDS

General

The 2015 Series A Bonds will be dated as of their date of delivery and will accrue interest from their date of delivery at the rates per annum set forth on the inside cover page of this Official Statement. Interest on the 2015 Series A Bonds is payable on May 1 and November 1 of each year, beginning November 1, 2015. Interest on the 2015 Series A Bonds will be calculated on the basis of a 360-day year composed of twelve 30-day months.

The 2015 Series A Bonds will mature on the dates and in the principal amounts set forth on the inside cover page of this Official Statement. The 2015 Series A Bonds will be issued in fully registered form in denominations of \$5,000 or any integral multiple of \$5,000.

Book-Entry Only System

The 2015 Series A Bonds will be registered in the name of Cede & Co., as nominee for The Depository Trust Company (“DTC”), New York, New York, as the Owner of the 2015 Series A Bonds.

So long as DTC, or its nominee, Cede & Co., is the Owner of the 2015 Series A Bonds, all payments on the 2015 Series A Bonds will be made directly to DTC. Disbursement of such payments to the DTC Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners of the 2015 Series A Bonds will be the responsibility of the DTC Participants. See “APPENDIX H – SECURITIES DEPOSITORY AND BOOK-ENTRY SYSTEM.”

Redemption

Optional Redemption. The 2015 Series A Bonds maturing prior to November 1, 2025 are not subject to redemption prior to their stated maturity dates.

The 2015 Series A Bonds maturing on or after November 1, 2025, are subject to redemption prior to their respective stated maturities, at the option of the SFPUC, from any source of available funds, as a whole or in part on any date on or after May 1, 2025, from such maturities or portions of maturities as are determined by the SFPUC and by lot within any one maturity, at a redemption price equal to 100% of the principal amount of the 2015 Series A Bonds to be redeemed, plus accrued interest to the date fixed for redemption, without premium.

Selection of 2015 Series A Bonds for Redemption. Subject to DTC’s procedures relating to the selection of bonds for redemption (see “APPENDIX H – SECURITIES DEPOSITORY AND THE BOOK-ENTRY SYSTEM”), whenever less than all of the 2015 Series A Bonds of any one tenor and maturity are called for redemption and those 2015 Series A Bonds are redeemable by lot, the Trustee will select the 2015 Series A Bonds of the tenor and maturity to be redeemed from the Outstanding 2015 Series A Bonds of that tenor and maturity, by lot or by any other manner the Trustee deems fair and equitable. For purposes of such selection, 2015 Series A Bonds will be deemed to be made up of \$5,000 portions of principal, any of which may be redeemed separately.

Notice of Redemption. Notice of redemption will be mailed by the Trustee at least thirty days but not more than sixty days prior to the redemption date, to DTC (so long as the DTC Book-Entry System is used). The actual receipt by the owner of any 2015 Series A Bond of notice of such redemption is not a condition precedent to redemption, and failure to receive a redemption notice or any defect in a redemption notice will not affect the validity of the proceedings for the redemption of such 2015 Series A Bonds or the cessation of the accrual of interest on the date fixed for such redemption. See “APPENDIX H – SECURITIES DEPOSITORY AND THE BOOK-ENTRY SYSTEM.”

Rescission of Notice of Redemption. The SFPUC may, at its option, prior to the date fixed for redemption in any notice of optional redemption, rescind and cancel such notice of redemption by written request to the Trustee and the Trustee will mail notice of such cancellation to the recipients of the notice of redemption being cancelled.

Effect of Redemption. When notice of redemption has been duly given as described above, and moneys for payment of the redemption price are held by the Trustee, the 2015 Series A Bonds called for redemption will, on the redemption date designated in such notice, become due and payable at the redemption price specified in such

notice; and from and after the date so designated interest on the 2015 Series A Bonds called for redemption will cease to accrue, and such 2015 Series A Bonds will cease to be entitled to any benefit or security under the Indenture, and the Owners of said 2015 Series A Bonds will have no rights in respect thereof except to receive payment of the redemption price thereof. The Trustee, upon surrender for payment of any of said 2015 Series A Bonds, will pay such 2015 Series A Bonds at the redemption price, together with accrued interest thereon. All 2015 Series A Bonds redeemed will be cancelled upon surrender and no 2015 Series A Bonds will be issued in place thereof.

PLAN OF REFUNDING

General. The proceeds of the 2015 Series A Bonds, together with certain other moneys available for such purpose, will be applied to: (i) refund all of the SFPUC’s outstanding San Francisco Water Revenue Bonds, 2006 Series A (the “2006 Series A Bonds”); (ii) refund a portion of the SFPUC’s San Francisco Water Revenue Bonds, 2009 Series A (the “2009 Series A Bonds”); and (iii) pay the costs of issuance of the 2015 Series A Bonds. See “OBLIGATIONS PAYABLE FROM REVENUES – Outstanding Parity Revenue Bonds.” The defeasance of the 2006 Series A Bonds will allow \$15,958,031.25 to be released to the SFPUC from the Bond Reserve Account for the 2006 Series A Bonds for the financing of eligible projects.

The following tables detail the Series, maturity dates and principal amounts of Bonds which will be refunded with proceeds of the 2015 Series A Bonds (the “Refunded Bonds”):

Refunded Bonds

*Public Utilities Commission of the City and County of San Francisco
San Francisco Water Revenue Bonds, 2006 Series A*

Maturity	Outstanding Principal Amount	Interest Rate	CUSIP (Base No.: 79765R) ^(C)	Principal Amount to be Refunded	Payment or Redemption Date
11/1/2015	\$ 4,005,000	5.00%	YS2	\$ 4,005,000	11/1/2015
11/1/2016	12,010,000	5.00%	JT7	12,010,000	5/1/2016
11/1/2017	12,625,000	5.00%	JU4	12,625,000	5/1/2016
11/1/2018	13,270,000	5.00%	JV2	13,270,000	5/1/2016
11/1/2019	13,955,000	5.00%	JW0	13,955,000	5/1/2016
11/1/2020	14,670,000	5.00%	JX8	14,670,000	5/1/2016
11/1/2021	15,420,000	5.00%	JY6	15,420,000	5/1/2016
11/1/2022	16,210,000	5.00%	JZ3	16,210,000	5/1/2016
11/1/2023	17,045,000	5.00%	KA6	17,045,000	5/1/2016
11/1/2024	17,915,000	5.00%	KB4	17,915,000	5/1/2016
11/1/2025	18,835,000	5.00%	KC2	18,835,000	5/1/2016
11/1/2026	19,775,000	4.75%	KD0	19,775,000	5/1/2016
11/1/2027	20,740,000	4.75%	KE8	20,740,000	5/1/2016
11/1/2031 ^(T)	93,065,000	4.50%	KF5	93,065,000	5/1/2016
11/1/2033 ^(T)	53,070,000	4.25%	KG3	53,070,000	5/1/2016
11/1/2036 ^(T)	89,250,000	4.75%	KH1	89,250,000	5/1/2016
Total:	\$431,860,000			\$431,860,000	

^(C) CUSIP is a registered trademark of The American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed by Standard & Poor’s Financial Services LLC 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. Neither the SFPUC nor the Underwriters assume any responsibility for the accuracy of the CUSIP data.

^(T) Term Bonds

*Public Utilities Commission of the City and County of San Francisco
San Francisco Water Revenue Bonds, 2009 Series A*

Maturity Affected	Outstanding Principal Amount	Interest Rate	CUSIP (Base No.: 79765R) ^(C)	Principal Amount to be Refunded	Redemption Date
11/1/2023	\$11,730,000	5.00%	PZ6	\$11,730,000	11/1/2019
11/1/2024	12,330,000	5.00%	QA0	12,330,000	11/1/2019
11/1/2025	12,970,000	5.00%	QB8	12,970,000	11/1/2019
11/1/2026	13,635,000	5.00%	QC6	2,000,000	11/1/2019
Total:	\$50,665,000			\$39,030,000	

^(C) CUSIP is a registered trademark of The American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed by Standard & Poor’s Financial Services LLC 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. Neither the SFPUC nor the Underwriters assume any responsibility for the accuracy of the CUSIP data.

A portion of the proceeds of the 2015 Series A Bonds and certain other moneys available for such purpose, in an amount sufficient to refund and legally defease the Refunded Bonds, will be deposited in an Escrow Fund established by the Trustee, acting as escrow agent (the “Escrow Agent”), under an Escrow Agreement, dated as of April 1, 2015 (the “Escrow Agreement”), by and between the SFPUC and the Escrow Agent. A portion of the funds deposited in the Escrow Fund will be invested in federal securities, the principal of and interest on which, when received, will be sufficient, together with other available amounts held in the Escrow Fund, to pay the principal of and interest on the Refunded Bonds on their respective repayment and redemption dates. Pursuant to the Indenture and the irrevocable instructions in the Escrow Agreement, the Refunded Bonds will be paid on their respective maturity dates or redeemed on their respective redemption dates at a redemption price equal to the principal amount of the Refunded Bonds, plus accrued interest to the redemption date, without premium. As a result of the deposit and application of funds as provided in the Escrow Agreement, the Refunded Bonds will be defeased pursuant to the Indenture as of the date of issuance of the 2015 Series A Bonds.

Sufficiency of the deposits in the Escrow Fund for the purposes described in the previous paragraph will be verified by Causey, Demgen & Moore P.C., Denver, Colorado. See “VERIFICATION OF MATHEMATICAL ACCURACY.”

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ESTIMATED SOURCES AND USES OF FUNDS

The proceeds of the 2015 Series A Bonds are expected to be applied as follows:

Sources of Funds

Par Amount	\$429,600,000.00
Plus Net Original Issue Premium	65,914,527.65
Plus Amounts on Deposit With Respect to the Refunded Bonds	13,180,868.75
Total Sources	\$508,695,396.40

Uses of Funds

Deposit to Escrow Fund ⁽¹⁾	\$507,174,969.46
Underwriters' Discount	645,795.79
Costs of Issuance ⁽²⁾	874,631.15
Total Uses	\$508,695,396.40

⁽¹⁾ Represents deposits to the Escrow Fund pursuant to the Twentieth Supplemental Indenture to refund and defease the Refunded Bonds. See "PLAN OF REFUNDING" above.

⁽²⁾ The costs of issuance include amounts for legal fees, Trustee fees, financial advisory fees, rating agency fees, printing costs, and other issuance costs relating to the issuance of the 2015 Series A Bonds.

SECURITY FOR THE BONDS

Pledge of Revenues

General. Under the Indenture, the SFPUC has irrevocably pledged the Revenues of the Water Enterprise and all Refundable Credits received by the SFPUC to the punctual payment of principal of, and premium, if any, and interest on the Bonds, which consist of any parity obligations issued under the Indenture, including the 2015 Series A Bonds, the Outstanding Bonds described below (see "OBLIGATIONS PAYABLE FROM REVENUES – Outstanding Parity Revenue Bonds"), and any Additional Series of Bonds. This pledge is subject to the allocation of funds provided in the Indenture, as described below. See "– Flow of Funds" below.

Pursuant to Section 5451 of the California Government Code, the pledge of, lien on and security interest in Revenues and certain other funds granted by the Indenture is valid and binding in accordance with the terms thereof from the time of issuance of the 2015 Series A Bonds; the Revenues and such other funds shall be immediately subject to such pledge; and such pledge shall constitute a lien and security interest which shall immediately attach to such Revenues and other funds and shall be effective, binding and enforceable against the SFPUC, its successors, creditors, and all others asserting rights therein to the extent set forth and in accordance with the terms of the Indenture irrespective of whether those parties have notice of such pledge and without the need for any physical delivery, recordation, filing or other further act. Such pledge, lien and security interest are not subject to the provisions of Article 9 of the California Uniform Commercial Code.

Limited Obligation. THE SFPUC IS NOT OBLIGATED TO PAY THE PRINCIPAL OF, OR PREMIUM, IF ANY, OR INTEREST ON THE 2015 SERIES A BONDS EXCEPT FROM REVENUES. THE SFPUC HAS NO TAXING POWER. THE GENERAL FUND OF THE CITY IS NOT LIABLE FOR THE PAYMENT OF THE PRINCIPAL OF, OR PREMIUM, IF ANY, OR INTEREST ON THE 2015 SERIES A BONDS, AND NEITHER THE CREDIT NOR THE TAXING POWER OF THE CITY IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF, OR PREMIUM, IF ANY, AND INTEREST ON THE 2015 SERIES A BONDS. THE 2015 SERIES A BONDS ARE NOT SECURED BY A LEGAL OR EQUITABLE PLEDGE OF, OR CHARGE, LIEN, OR ENCUMBRANCE UPON, ANY PROPERTY OF THE CITY OR OF THE SFPUC OR ANY OF ITS INCOME OR RECEIPTS, EXCEPT THE REVENUES.

Water Enterprise. The Indenture defines "Enterprise" (referred to in this Official Statement as the "Water Enterprise") as the whole and each and every part of the municipal water supply, storage and distribution system of the SFPUC, located partially within and partially outside of the City, including all of the presently existing

municipal water system of the City and all additions, betterments and extensions to that water system. The Water Enterprise is defined to exclude any water supply, storage or distribution facilities under the jurisdiction of the Hetch Hetchy Water and Power Project (“Hetch Hetchy Water and Power”), which consists of upcountry water supply and power generating facilities, including the Power Enterprise, all of which are also under the jurisdiction of the SFPUC. See “THE PUBLIC UTILITIES COMMISSION – General” and “– Organization, Purposes and Powers.”

Revenues. The Indenture defines “Revenues” as all gross revenues of the Water Enterprise, including all charges received for and all other income and receipts derived by the SFPUC or the City from the operation of the Water Enterprise, or arising from the Water Enterprise, including water connection and installation charges.

The term “Revenues” also includes all interest, profits or other income derived from the deposit or investment of any moneys in any fund or account established under the Indenture (excluding any Rebate Fund and any escrow fund pledged for the payment of defeased bonds) or in any fund or account of the Water Enterprise and legally available to pay Debt Service on the Bonds, and any other moneys, proceeds and other amounts (including, without limitation, those listed in (1) through (10) below) that the SFPUC determines should be “Revenues” under the Indenture.

However, the term “Revenues” excludes the following:

- (1) any money received by or for the account of the City or the SFPUC from the levy or collection of taxes;
- (2) moneys received from the State of California (the “State”) and the United States of America and required to be deposited in restricted funds;
- (3) refundable deposits made to establish credit;
- (4) advances and contributions made to the SFPUC or the City to be applied to construction;
- (5) moneys required to be paid to the State and the United States of America pursuant to agreements with the City or the SFPUC;
- (6) moneys received from insurance proceeds or the sale of or upon the taking by or under the threat of eminent domain of all or any part of the Water Enterprise;
- (7) proceeds from Bonds issued by the SFPUC or proceeds from loans obtained by the SFPUC;
- (8) moneys or securities received by the City or the SFPUC as gifts or grants, the use of which is restricted by the donor or grantor;
- (9) sewer service fees or charges; and
- (10) any surcharge imposed by, or upon the direction of any joint powers agency or other governmental entity, other than the SFPUC, the City or any department or agency of the City, whether or not collected by the SFPUC, the City or any department or agency of the City, for the purpose of financing improvements to the facilities comprising the Water Enterprise.

Refundable Credits. The Indenture defines “Refundable Credits” as (a) with respect to a Series of Bonds issued as Build America Bonds under Section 54AA of the Code, the amounts which are payable by the Federal government under Section 6431 of the Code, which the SFPUC has elected to receive under Section 54AA(g)(1) of the Code, and (b) with respect to a Series of Bonds issued as Build America bonds under any other provisions of the Code that creates, in the determination of the SFPUC, a substantially similar direct-pay subsidy program, the amounts which are payable by the Federal government under the applicable provisions of the Code, which the SFPUC has elected to receive under the applicable provisions of the Code. Refundable Credits are not included in the calculation of Revenues for any purpose under the Indenture.

Flow of Funds

Under the Indenture, moneys in the Revenue Fund, including earnings thereon, will be appropriated, transferred, expended or used for the following purposes pertaining to the financing, maintenance and operation of the Water Enterprise and related facilities owned, operated or controlled by the SFPUC, and only in accordance with the following priority:

- (1) the payment of operation and maintenance expenses for such utility and related facilities;
- (2) the payment of pension charges and proportionate payments to such compensation and other insurance or outside reserve funds as the SFPUC may establish or the Board of Supervisors may require with respect to employees of the SFPUC;
- (3) the payment of principal, interest, reserve, sinking fund, and other mandatory funds created to secure revenue bonds hereafter issued by the SFPUC for the acquisition, construction or extension of the Water Enterprise or related facilities owned, operated or controlled by the SFPUC;
- (4) the payment of principal and interest on general obligation bonds heretofore or hereafter issued by the City for Water Enterprise purposes;
- (5) reconstruction and replacement as determined by the SFPUC or as required by any Water Enterprise revenue bond ordinance duly adopted and approved;
- (6) the acquisition of land, real property or interest in real property for, and the acquisition, construction, enlargement and improvement of, new and existing buildings, structures, facilities, equipment, appliances and other property necessary or convenient to the development or improvement of such utility owned, controlled or operated by the SFPUC; and
- (7) for any other lawful purpose of the SFPUC including the transfer of surplus funds under the Charter.

Revenue Fund

Deposits to Revenue Fund and Interest Fund. In accordance with the Charter, but subject to the budget and fiscal provisions of the Charter, the entire gross revenue of the Water Enterprise will be deposited into the Revenue Fund held by the Treasurer of the City (the "Treasurer"). The Treasurer will hold the amounts in the Revenue Fund separate from all other City funds.

The SFPUC will transfer to the Trustee for deposit into the Interest Fund all Refundable Credits received by the SFPUC.

Application of Revenue Fund. The Treasurer will pay over to the Trustee all moneys in the Revenue Fund, after paying operation and maintenance expenses and making required deposits into pensions or other funds established with respect to SFPUC employees (as required by the Indenture), to the extent necessary to make the following deposits:

Interest. First, on or before the fifth Business Day preceding each subsequent interest payment date, the Treasurer is required to pay to the Trustee for deposit in the Interest Fund an amount equal to the sum of the following:

- (1) The amount of interest becoming due and payable on the Outstanding Bonds of such Series that are Current Interest Bonds (except for Bonds constituting Variable Rate Indebtedness) on such interest payment date (less any amounts on deposit in such fund, including, but not limited to, Refundable Credits available to pay such interest, but excluding amounts on deposit which are reserved as capitalized interest to pay interest during any subsequent period).

- (2) 110% of the estimated aggregate amount of interest due on such interest payment date on the Outstanding Variable Rate Indebtedness. However, the amount required to be deposited to the Interest Fund for any period may be reduced by the amount by which the deposit in the prior period for interest estimated to accrue on Outstanding Bonds if such Series that are Variable Rate Indebtedness exceeded the actual amount of interest accrued during that period. Also, the amount required to be deposited into the Interest Fund for any period will be increased by the amount by which the deposit in the prior period for interest estimated to accrue on Outstanding Variable Rate Indebtedness was less than the actual amount of interest accruing during that period. Finally, the amount required to be deposited into the Interest Fund for any period will be reduced by any Refundable Credits on deposit in the Interest Fund and available to pay interest for such period.

No deposit needs to be made into the Interest Fund if the amount contained in that fund is at least equal to the interest to become due and payable on the next interest payment date upon all Bonds that are Outstanding (but excluding any moneys on deposit in the Interest Fund from the proceeds of any Series of Bonds or other source and reserved as capitalized interest to pay interest on any interest payment dates following said next interest payment date). See “APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Revenues and Funds – Establishment and Maintenance of Funds for Revenues; Use and Withdrawal of Revenues – Interest Fund, Refundable Credits.”

Moneys in the Interest Fund will be used and withdrawn by the Trustee solely to pay the interest on the Bonds as it becomes due and payable (including accrued interest on any Bonds purchased or redeemed prior to maturity under the Indenture).

Principal. Second, on or before the fifth Business Day preceding each subsequent principal payment date, the Treasurer is required to pay to the Trustee for deposit in the Principal Fund an amount equal to the sum of the following:

- (1) the aggregate amount of Bond Obligation of such Series (less any amounts on deposit in such fund) becoming due and payable on such principal payment date, plus
- (2) the Minimum Sinking Fund Account Payments required to be made with respect to any Term Bonds of such Series on such principal payment date, plus
- (3) if any Letter of Credit Agreement has been entered into on parity with the Bonds, sufficient amounts to pay the obligations of the SFPUC under the Letter of Credit Agreement due on such principal payment date.

If the amounts on deposit in the Principal Fund are insufficient to make all deposits required to be made with respect to any principal payment date, such amounts will be applied on a Proportionate Basis and in such proportion as the Serial Bonds, the Minimum Sinking Fund Payments for Term Bonds, and the Letter of Credit Agreement obligations shall bear to each other. See “APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Revenues and Funds – Establishment and Maintenance of Funds for Revenues; Use and Withdrawal of Revenues – Principal Fund; Sinking Fund Accounts.”

Bond Reserve Fund. Third, in the event of any withdrawal from any Reserve Account, the Treasurer is required to pay to the Trustee for deposit in such Reserve Account, on a *pari passu* basis with transfers to any Reserve Account, on or before the fifth Business Day preceding each interest payment date following such withdrawal, an amount sufficient to replenish any prior withdrawal from such Reserve Account, either in two semi-annual installments for Reserve Accounts established with respect to fixed rate Bonds only or in equal installments over a 12-month period for Reserve Accounts established with respect to any Variable Rate Bonds, so that the balance in such Reserve Account is equal to the Required Reserve with respect to the applicable Series of Bonds (or such larger balance as may be required by any Supplemental Indenture) at the end of such 12-month period.

If a Bond Reserve Fund Policy satisfies all or a portion of the Required Reserve and a drawing is made on the Bond Reserve Fund Policy, on or before the fifth Business Day prior to each interest payment date following such drawing, the Treasurer must pay, either in two semi-annual installments for Reserve Accounts established with respect to fixed rate Bonds only or in equal installments over a 12-month period for Reserve Accounts established with respect to any Variable Rate Bonds, an amount sufficient to repay the aggregate amount of Policy Costs owing with respect to such drawing by the end of such 12-month period to the Reserve Provider (as defined in the Indenture) or to the Trustee (who will remit the payment to the Reserve Provider). See “APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE.”

Funds or a Bond Reserve Fund Policy on deposit in a Reserve Account will be applied solely to the payment of the Series of Bonds to which such Reserve Account relates and will not be available for payment for any other Series of Bonds. No Reserve Account has been established with respect to the 2015 Series A Bonds.

Monthly Fund Deposits Through November 1, 2015. Prior to the issuance of the 2015 Series A Bonds and the effectiveness of all provisions of the Fifth Supplemental Indenture, the Indenture required that the Treasurer make monthly installment deposits to the Interest Fund, the Principal Fund and, when and as applicable, the Bond Reserve Fund. Until the November 1, 2015 payment date, the Treasurer will continue making such monthly deposits. Following the November 1, 2015 principal and interest payment, the Treasurer shall make deposits pursuant to the Indenture as described in this section, “– Application of Revenue Fund.” See “APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Revenues and Funds – Establishment and Maintenance of Funds for Revenues; Use and Withdrawal of Revenues.”

Rate Covenants

Sufficiency of Revenues. The SFPUC has covenanted in the Indenture 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 water, services and facilities furnished by the Water Enterprise so as to yield Revenues at least sufficient, after making reasonable allowances for contingencies and errors in the estimates, to pay the following amounts:

- (1) the interest on and principal of the Bonds as they become due and payable (but not including any interest moneys for the payment of which have been deposited in the Interest Fund from the proceeds of any Series of Bonds or from any other source);
- (2) all other payments required for compliance with the terms of the Indenture and of any Supplemental Indenture providing for the issuance of Additional Series of Bonds pursuant to the Indenture;
- (3) all other payments to meet any other obligations of the SFPUC which are charges, liens or encumbrances upon, or payable from, the Revenues; and
- (4) all current Operation and Maintenance Costs of the Water Enterprise (but not including such Operation and Maintenance Costs as are scheduled to be paid by the SFPUC from moneys other than Revenues, such money to be clearly available for such purpose).

Debt Service Coverage. In addition to the requirements set forth above, the Indenture provides that the SFPUC will, at all times while any of the Bonds remain Outstanding, establish, fix, prescribe and collect rates, fees and charges in connection with the water, services and facilities furnished by the Water Enterprise so as to yield Net Revenues for the twelve months following the date of calculation, which (together with any fund balances of the SFPUC or the Water Enterprise legally available for payment of Debt Service and not budgeted to be expended during such twelve months but excluding the Bond Reserve Fund and Rebate Fund) are equal to at least 1.25 times Annual Debt Service for such twelve-month period, but from such Debt Service excluding any funded interest.

For the purpose of calculating Maximum Annual Debt Service, Annual Debt Service, Debt Service, and Average Annual Debt Service, 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 Build America Bonds, such amount will be reduced by an amount equal to the Refundable Credits the SFPUC is scheduled to receive during each such twelve-month period ending June 30. If the amount of Refundable Credits received by the SFPUC for any Series of Bonds that were issued as Build America Bonds is reduced or not received during any twelve-month period ending June 30, SFPUC will calculate the amount of interest coming due for the subsequent twelve-month period ending June 30 without deducting an amount equal to the Refundable Credits for the purpose of calculating Annual Debt, Annual Debt Service, Debt Service and Average Annual Debt Service until the receipt of such Refundable Credits resumes and all prior deficiencies are cured.

Net Revenues and Operation and Maintenance Costs. For purposes of the rate covenants contained in the Indenture, “Net Revenues” and “Operation and Maintenance Costs of the Enterprise” are defined as follows:

The term “Net Revenues” is defined in the Indenture as:

- all of the Revenues (but not including interest on investment of funds required to be deposited in said funds or investment earnings required to be deposited in the Improvement Fund) less
- all Operation and Maintenance Costs of the Enterprise (but not including such Operation and Maintenance Costs as are scheduled to be paid by the SFPUC from moneys other than Revenues, such moneys to be clearly available for such purpose).

The Indenture defines the term “Operation and Maintenance Costs of the Enterprise” as the reasonable and necessary costs of operating and maintaining the Water Enterprise, calculated on sound accounting principles, including (among other things) salaries and wages, fees for services, costs of materials, supplies and fuel, reasonable expenses of management, legal fees, accounting fees, repairs and other expenses necessary to maintain and preserve the Water Enterprise in good repair and working order, and reasonable amounts for administration, overhead, insurance, taxes (if any), other similar costs, and the payment of pension charges and proportionate payments to such compensation and other insurance or outside reserve funds as the SFPUC may establish or the Board of Supervisors may require with respect to employees of the SFPUC.

“Operation and Maintenance Costs of the Enterprise” exclude in all cases the following:

- (1) depreciation and obsolescence charges or reserves therefor,
- (2) amortization of intangibles or other bookkeeping entries of a similar nature,
- (3) costs of capital additions, replacements, betterments, extensions or improvements to the Water Enterprise, which under generally accepted accounting principles are chargeable to a capital account or to a reserve for depreciation, and
- (4) charges for the payment of principal and interest on any general obligation bonds, revenue bonds or other indebtedness heretofore or hereafter issued for Water Enterprise purposes.

See “APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Definitions.”

Bond Reserve Account

No Bond Reserve Account for the 2015 Series A Bonds. The Indenture establishes the Bond Reserve Fund and requires the establishment of a bond reserve account (each, a “Bond Reserve Account”) within the Bond Reserve Fund for each Series of Bonds issued under the Indenture, and requires the deposit in each Bond Reserve Account of an amount equal to the Required Reserve for the related Series of Bonds. Each Bond Reserve Account is available only for the payment of debt service on the Series of Bonds for which such Bond Reserve Account was established. For any Series of Additional Bonds, the Required Reserve will be the amount, if any, required to be deposited into the Bond Reserve Account for such Series of Bonds as set forth in the Supplemental Indenture pursuant to which such Series of Additional Bonds is issued. See “APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE – Definitions – Required Reserve.”

Pursuant to the Indenture, the Required Reserve for any Series of Bonds may be funded through a Bond Reserve Fund Policy, which is a policy of insurance or surety bond issued by a Municipal Bond Insurer, or a letter of credit issued by a Qualified Bank.

Pursuant to the Twentieth Supplemental Indenture, no Bond Reserve Account has been established for the 2015 Series A Bonds.

Uses of Bond Reserve Accounts. The Trustee will use and withdraw moneys in a Bond Reserve Account solely to pay the principal of, sinking fund account payments and interest on the related Series of Bonds if no other moneys are available for these purposes, or to pay or redeem all of the Bonds of such Series then Outstanding. Each such Bond Reserve Account will be applied solely to the payment of debt service on the series of Bonds for which such Bond Reserve Account was established and will not be available for the payment of any other series of Bonds.

So long as the SFPUC is not in default under the Indenture, and in each Reserve Account there is a balance equal to the Required Reserve for the related series of Bonds, the Trustee will withdraw any amount in a Bond Reserve Account in excess of the related Required Reserve semiannually, on May 1 and November 1 of each year, and transfer that excess amount to the Treasurer for deposit in the Revenue Fund or, during the period of construction of the Project or any portion thereof, the Improvement Fund.

Existing Bond Reserve Account Surety Bonds. The applicable Required Reserve relating to the SFPUC's San Francisco Water Revenue Bonds, 2006 Refunding Series B and 2006 Refunding Series C, are each satisfied by surety bonds issued by Syncora Guarantee (formerly known as XL Capital Assurance Inc.) ("Syncora). The Indenture does not require that the rating of any surety bond held in a Bond Reserve Account be maintained after the date of deposit and the ratings of Syncora have been reduced or withdrawn subsequent to the deposit of such surety bonds. In the event of a financial failure of a surety bond provider, the SFPUC may elect to fund a cash reserve in place of the affected surety bond or bonds. **Neither of the surety bonds are available to pay principal of, or premium, if any, or interest on the 2015 Series A Bonds.**

Additional Series of Bonds

Additional Bonds Test in the Indenture. The Indenture provides that Additional Series of Bonds secured by Revenues on parity with the Outstanding Bonds and the 2015 Series A Bonds (each an "Additional Series of Bonds") may be issued if certain conditions are met, including the SFPUC's delivery to the Trustee of the following documents (among others):

- (1) A certificate of the SFPUC setting forth the following:
 - (a) Net Revenues for any period of twelve consecutive calendar months out of the eighteen calendar months next preceding the authentication and delivery of the Additional Series of Bonds, and
 - (b) the Debt Service for such 12-month period, and demonstrating that for such 12-month period Net Revenues equaled at least 1.25 times the Debt Service.
- (2) If any portion of the proceeds of such Additional Series of Bonds is to be used to finance construction, a certificate of the Consulting Engineers setting forth:
 - (a) the estimated date of completion for the portion of the Project for which such Additional Series of Bonds is being issued and for any other uncompleted portion of the Project, and
 - (b) an estimate of the cost of construction of such portion of the Project and of any other uncompleted portion of the Project.
- (3) A written report of a Qualified Independent Consultant setting forth estimates for each of the next three Fiscal Years of:
 - (a) Revenues,

- (b) Operation and Maintenance Costs of the Water Enterprise, and
- (c) Net Revenues.

If any portion of the proceeds of such Additional Series of Bonds is to be used to finance construction, the estimate will be made for the three Fiscal Years following the Fiscal Year in which the Consulting Engineers estimate such portion of the Project will be completed.

- (4) A certificate of the SFPUC setting forth the following:
 - (a) the estimates of Net Revenues provided by the Qualified Independent Consultant pursuant to paragraph (3) above for each of such three Fiscal Years, and
 - (b) the Annual Debt Service for such three Fiscal Years (including estimated Annual Debt Service for future Additional Series of Bonds, if any), that will be required to complete payment of any uncompleted portion of the Project (based on the estimate of the Consulting Engineers), which certificate demonstrates that the estimated Net Revenues in each of such three Fiscal Years is at least equal to 1.25 times the Annual Debt Service for the corresponding Fiscal Year.

Such certificate may anticipate projected rates not yet enacted and may include with Revenues for any 12-month period any fund balances of the SFPUC or the Water Enterprise legally available for payment of Debt Service and not budgeted to be expended during such twelve months but excluding the Bond Reserve Fund and Rebate Fund.

All certificates and written reports will be based upon the actual interest rate or rates determined at the time the Additional Series of Bonds are sold.

Issuance of Additional Bonds with Consent of Bond Owners and Credit Provider. The Indenture also provides that Additional Series of Bonds may be issued without compliance with any of the requirements described above with the written consent of Owners of a majority of the aggregate Bond Obligations of Bonds Outstanding and any Credit Provider, if applicable. See “APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE.” Any Additional Bonds issued under this provision would, however, be subject to the requirements for issuing revenue bonds under the City Charter. See “OBLIGATIONS PAYABLE FROM REVENUES – Authority for Issuance of Revenue Bonds and Other Obligations Payable from Revenues.”

Refunding Bonds

Indenture Requirements. The Indenture provides that Additional Series of Bonds may be issued to refund any Bonds, including the 2015 Series A Bonds, without meeting the test for the issuance of Additional Bonds described above, if the SFPUC delivers to the Trustee (among other documents) a certificate of an Independent Certified Public Accountant to the effect that the Average Annual Debt Service for the Additional Series of Bonds will be equal to or less than the Average Annual Debt Service on the Bonds to be refunded.

City Charter Requirements. The Charter requires that refunding bonds may be issued without voter approval only if such refunding results in net debt service savings on a present value basis, calculated as provided by ordinance.

Subordinate Obligations; Obligations Not Payable from Revenues

The Indenture permits the SFPUC to authorize and issue bonds, notes, warrants, certificates or other obligations or evidences of indebtedness, the principal of or interest on which would be payable either (i) from Revenues after and subordinate to the payment from Revenues of the principal of and interest on the Bonds, or (ii) from moneys which are not Revenues.

OBLIGATIONS PAYABLE FROM REVENUES

Authority for Issuance of Revenue Bonds and Other Obligations Payable from Revenues

City Charter. The Charter authorizes the SFPUC to issue revenue bonds and commercial paper notes and to incur other obligations payable from or secured by a pledge of Revenues. The Charter generally requires voter approval of revenue bonds issued by the SFPUC.

Proposition A. On November 5, 2002, voters of the City approved Proposition A (“Proposition A”), specifically authorizing the issuance of up to \$1.628 billion of revenue bonds for the purpose of funding the SFPUC’s Water Enterprise capital improvement program. The SFPUC has previously issued \$1,331,815,000 aggregate principal amount of Bonds and authorized the issuance of up to \$250,000,000 of commercial paper notes pursuant to the authority conferred upon it by Proposition A. The 2006 Series A Bonds, the 2009 Series A Bonds and the 2009 Series B Bonds were all issued pursuant to the authority conferred by Proposition A.

Proposition E. Section 8B.124 of the Charter, enacted by voters of the City on November 5, 2002 as Proposition E, authorizes the SFPUC to issue revenue bonds, when authorized by ordinance approved by two-thirds vote of the Board of Supervisors of the City (the “Board”), for purposes of reconstructing, replacing, expanding, repairing or improving water facilities or clean water facilities or combinations of water and clean water facilities under the jurisdiction of the SFPUC.

Board action to authorize or issue bonds under Proposition E is subject to certain additional conditions, requiring certification by an independent engineer and certification by the San Francisco Planning Department, as discussed in “APPENDIX B – SUMMARIES OF CERTAIN LOCAL INITIATIVES (PROPOSITIONS A, E AND P).” Any such ordinance will become effective thirty days after its adoption unless it is opposed through the referendum process. Opposition may be made by filing with the Board of Supervisors a petition protesting the passage of that ordinance. Such petition must be signed by voters in a number equal to at least 10% of the votes cast for all candidates for Mayor in the last preceding general municipal election for Mayor. If a referendum passes, the ordinance is suspended from becoming effective. The Board of Supervisors may reconsider the ordinance. If it is not entirely repealed, the Board of Supervisors is required to submit the ordinance to voters at the next general municipal or statewide election or at a special municipal election and will not become effective until approved by voters at such an election.

Reconstruction or Replacement of Existing Facilities. Section 9.107(6) of the Charter provides that no voter approval is required for bonds issued for the purpose of the reconstruction or replacement of existing water facilities or electric power facilities or combinations of water and electric power facilities under the jurisdiction of the SFPUC when authorized by resolution adopted by a three-fourths affirmative vote of all members of the Board.

Refunding Bonds. Section 9.109 of the Charter authorizes the Board to provide for the issuance of bonds for the purpose of refunding revenue bonds without voter approval if the issuance and sale of such refunding bonds are expected to result in net debt service savings on a present value basis, calculated as provided by ordinance.

Authority for the Issuance of the 2015 Series A Bonds. The 2015 Series A Bonds are being issued under Section 9.109 of the City Charter.

See “APPENDIX B – SUMMARIES OF CERTAIN LOCAL INITIATIVES (PROPOSITIONS A, E AND P).”

Revenue Bond Oversight Committee

On November 5, 2002, the voters of the City adopted Proposition P, an ordinance that established the Public Utilities Revenue Bond Oversight Committee (“RBOC”) to report publicly to the Mayor, the SFPUC and the Board of Supervisors regarding the expenditure of revenue bond proceeds on the repair, replacement, upgrading and expansion of the Water Enterprise, the Wastewater Enterprise and the Power Enterprise (each as defined herein). The RBOC has commissioned and issued periodic reports containing its findings and recommendations regarding the WSIP, the most recent of which was issued in January 2015.

The RBOC has seven members appointed as follows: two by the Mayor, two by the Board of Supervisors, one by the City Controller, one by the Bay Area Water Users Association (“BAWUA”) under the auspices of the Bay Area Water Supply and Conservation Agency (“BAWSCA”). The seventh member is the City’s Budget Analyst or his or her representative. The work of the RBOC is funded by 1/20th of 1% of the gross bond proceeds of revenue bond issuances or sales to the extent permitted by law.

The RBOC’s current term expires on January 1, 2016.

The RBOC may, by majority vote of all its members, prohibit the issuance or sale of authorized SFPUC revenue bonds which have yet to be issued or sold if, after reviewing materials provided by the SFPUC and conducting its own independent audit, and after consultation with the City Attorney, the RBOC determines that revenue bond proceeds have been or are being spent on purposes not authorized by the authorizing bond resolution or otherwise in a manner amounting to an illegal expenditure or illegal waste of such revenue bond proceeds. The SFPUC may appeal such a decision to the Board of Supervisors within thirty days. The Board of Supervisors may overturn such a decision by the RBOC by a two-thirds vote of all members of the Board of Supervisors with evidence from the SFPUC of corrective measures satisfactory to the Board or may remand the decision to the RBOC for further consideration.

For further information regarding the RBOC, see “APPENDIX B – SUMMARIES OF CERTAIN LOCAL INITIATIVES (PROPOSITIONS A, E AND P).”

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Outstanding Parity Revenue Bonds

All Bonds in the table below (the “Outstanding Bonds”) have been issued pursuant to the Indenture and secured by a pledge of Revenues on parity with the 2015 Series A Bonds.

Series of Bonds	Purpose	Initial Principal Amount	Principal Amount Outstanding as of November 1, 2014
Water Revenue Bonds, 1991 Series A	Repair and replacement of water facilities	\$ 70,145,682 ⁽¹⁾	\$ 7,100,000 ⁽²⁾
Water Revenue Bonds, 2006 Series A ⁽³⁾	Water system improvements under Proposition A	507,815,000	431,860,000
Water Revenue Bonds, 2006 Refunding Series B	Refund previously outstanding Bonds of the SFPUC	110,065,000	82,850,000
Water Revenue Bonds, 2006 Refunding Series C	Refund previously outstanding Bonds of the SFPUC	48,730,000	27,685,000
Water Revenue Bonds, 2009 Series A ⁽³⁾	Water system improvements under Proposition A	412,000,000	366,820,000
Water Revenue Bonds, 2009 Series B	Water system improvements under Proposition A	412,000,000	369,195,000
Water Revenue Bonds, 2010 Series ABC ⁽⁴⁾	Water system improvements under Proposition E	488,705,000	464,310,000
Water Revenue Bonds, 2010 Series DE ⁽⁴⁾	Water system improvements under Proposition E	446,925,000	436,300,000
Water Revenue Bonds, 2010 Series FG ⁽⁴⁾	Water system improvements under Proposition E	532,430,000	529,135,000
Water Revenue Bonds, 2011 Series ABCD	Water system improvements under Proposition E and Refund previously outstanding Bonds of the SFPUC	720,750,000	712,800,000
Water Revenue Bonds, 2012 Series ABC	Water system improvements under Proposition E and Refund previously outstanding Bonds of the SFPUC	701,880,000	701,880,000
Water Revenue Bonds, 2012 Series D	Refund previously outstanding Bonds of the SFPUC	24,040,000	24,040,000
Total		\$4,475,485,682	\$4,153,975,000

⁽¹⁾ Issued as capital appreciation bonds.

⁽²⁾ Represents full accreted value at maturity.

⁽³⁾ All of the 2006 Series A Bonds and a portion of the 2009 Series A Bonds will be refunded by the 2015 Series A Bonds. See “PLAN OF REFUNDING.”

⁽⁴⁾ The 2010 Sub-Series B, Sub-Series E, and Sub-Series G Bonds were issued as Build America Bonds.

Subordinate Debt and Commercial Paper

No Limits on Subordinate Debt. The Indenture does not preclude the SFPUC from issuing bonds or incurring other indebtedness secured by a pledge of Revenues on a basis subordinate to the pledge thereof securing the Bonds.

Commercial Paper Program. The SFPUC has established a commercial paper program to fund construction costs relating to capital projects. See “FINANCING OF CAPITAL IMPROVEMENTS.”

Commercial paper notes (“Commercial Paper Notes”) have been authorized to be issued for the Water Enterprise in an aggregate principal amount not to exceed \$500 million.

The Commercial Paper Notes are secured by a \$200 million letter of credit from The Royal Bank of Canada, a \$200 million liquidity facility from The Bank of Tokyo-Mitsubishi UFJ, Ltd., and a \$100 million liquidity facility from U.S. Bank, N.A. The Commercial Paper Notes are secured and payable from Revenues on a basis subordinate to the payment of debt service on the Bonds.

As of March 2, 2015, the SFPUC had \$186 million principal amount of Commercial Paper Notes outstanding.

State and Federal Loans

The Water Enterprise has no outstanding loan obligations payable to the United States of America or the State from Revenues. The Water Enterprise may in the future, however, participate in federal or State loan programs and incur obligations payable from Revenues. While the Water Enterprise does not have any State or federal loans pending in advance of this issue, it could apply for additional loans in the future. Such loans may be payable on parity with the 2015 Series A Bonds if the conditions for the issuance of parity debt under the Indenture are met. See “SECURITY FOR THE BONDS – Additional Series of Bonds.”

Contingent Payment Obligations

The Water Enterprise has no interest rate swaps, caps or hedges or other contingent payment obligations payable from Revenues. The Water Enterprise may in the future, however, incur contingent payment obligations payable from Revenues. Such contingent payment obligations may be payable on parity with the 2015 Series A Bonds if the conditions for the issuance of parity debt under the Indenture are met. See “SECURITY FOR THE BONDS – Additional Series of Bonds.”

Other Obligations Payable from Revenues

The SFPUC purchased and cleared a parcel at 525 Golden Gate Avenue, one block north of City Hall, and completed the construction of a new, 13-story office building on the site to house the administrative offices of the SFPUC’s three utility enterprises. The SFPUC moved into the building in July 2012. Total project costs were approximately \$202 million and were financed with land sale proceeds, fund balances, grants and the proceeds of certificates of participation (the “2009 Golden Gate COPs”), representing interests in a City General Fund lease, executed and delivered in two series (one of which constitutes Build America Bonds) on October 7, 2009 in the aggregate principal amount of \$167,670,000. Pursuant to a Memorandum of Understanding between the City and the SFPUC, the SFPUC will reimburse the City General Fund for all debt service in connection with this City financing (net of Refundable Credits received). The SFPUC allocates such payment obligations internally among its three utility enterprises based on percentage usage. The Water Enterprise has been allocated 71.4% of such obligations, payable from Revenues on a basis subordinate to the payment of principal of and interest on the Bonds.

Debt Service Requirements

Set forth in the following table are debt service requirements on the 1991 Series A Bonds, the 2006 Series A Bonds, the 2006 Refunding Series B Bonds, the 2006 Refunding Series C Bonds, the 2009 Series A Bonds, the 2009 Series B Bonds, the 2010 Series ABC Bonds, the 2010 Series DE Bonds, the 2010 Series FG Bonds, the 2011 Series ABCD Bonds, the 2012 Series ABC Bonds, the 2012 Series D Bonds and the 2015 Series A Bonds.

DEBT SERVICE REQUIREMENTS ON OUTSTANDING BONDS

Fiscal Year (ending June 30)	Outstanding Bonds ^{(1) (2) (3)}	2015 Series A Principal	2015 Series A Interest	Total Debt Service ^{(2) (3) (4)}
2015 ⁽⁵⁾	\$ 227,666,835	-	-	\$ 227,666,835
2016	220,506,786	-	\$ 20,982,702	241,489,488
2017	230,713,111	-	20,143,394	250,856,505
2018	234,195,762	-	20,143,394	254,339,156
2019	253,266,685	\$ 3,220,000	20,095,094	276,581,779
2020	263,660,764	14,000,000	19,756,794	297,417,558
2021	266,396,816	14,635,000	19,124,094	300,155,910
2022	266,154,538	15,325,000	18,430,319	299,909,856
2023	265,673,066	16,045,000	17,708,344	299,426,410
2024	253,722,904	28,070,000	16,642,944	298,435,848
2025	253,204,753	29,485,000	15,221,569	297,911,321
2026	252,670,516	30,990,000	13,719,944	297,380,460
2027	263,422,540	20,945,000	12,421,569	296,789,109
2028	264,827,478	20,530,000	11,384,694	296,742,171
2029	264,200,515	21,580,000	10,331,944	296,112,459
2030	263,253,453	22,685,000	9,225,319	295,163,771
2031	262,515,015	23,810,000	8,098,381	294,423,396
2032	261,644,436	25,000,000	6,913,569	293,558,005
2033	260,610,451	26,280,000	5,631,569	292,522,020
2034	259,520,891	27,490,000	4,424,769	291,435,660
2035	258,394,979	28,610,000	3,302,769	290,307,748
2036	257,227,209	29,765,000	2,143,659	289,135,868
2037	256,002,864	31,135,000	778,375	287,916,239
2038	257,446,959	-	-	257,446,959
2039	256,171,189	-	-	256,171,189
2040	254,654,124	-	-	254,654,124
2041	199,052,388	-	-	199,052,388
2042	146,478,585	-	-	146,478,585
2043	97,636,475	-	-	97,636,475
2044	97,189,951	-	-	97,189,951
2045	30,341,333	-	-	30,341,333
2046	29,846,313	-	-	29,846,313
2047	29,330,789	-	-	29,330,789
2048	28,786,808	-	-	28,786,808
2049	28,221,241	-	-	28,221,241
2050	27,625,789	-	-	27,625,789
2051	27,006,975	-	-	27,006,975
TOTAL	\$7,369,241,283	\$429,600,000	\$276,625,205	\$8,075,466,488

⁽¹⁾ Includes 1991 Series A Bonds, 2006 Refunding Series B Bonds, 2006 Refunding Series C Bonds, the non-refunded portion of 2009 Series A Bonds, 2009 Series B Bonds, 2010 Series ABC Bonds, 2010 Series DE Bonds, 2010 Series FG Bonds, 2011 Series ABCD Bonds, 2012 Series ABC Bonds and 2012 Series D Bonds. See "PLAN OF REFUNDING."

⁽²⁾ Net of capitalized interest payments.

⁽³⁾ Calculation of interest due on Bonds shown without an offset for Refundable Credits.

⁽⁴⁾ Totals may not add due to independent rounding.

⁽⁵⁾ Includes November 1, 2014 debt service payments previously made and amounts already on deposit with the Trustee relating to the Refunded Bonds and transferred into the Escrow Fund. See "PLAN OF REFUNDING" and "ESTIMATED SOURCES AND USES OF FUNDS."

THE CITY AND COUNTY OF SAN FRANCISCO

The City is the economic and cultural center of the Bay Area and northern California. The limits of the City encompass over 93 square miles, of which 49 square miles are land, with the balance consisting of tidelands and a portion of the San Francisco Bay (the “Bay”). The City is located at the northern tip of the San Francisco Peninsula, bounded by the Pacific Ocean to the west, the Bay and the San Francisco-Oakland Bay Bridge to the east, the entrance to the Bay and the Golden Gate Bridge to the north, and San Mateo County to the south. Silicon Valley is about a 40-minute drive to the south, and the wine country is about an hour’s drive to the north. The City’s most recently completed and adopted Comprehensive Annual Financial Report (the “CAFR”) for its fiscal year 2013-14 reported that the City’s population in 2013 was 837,442 according to the U.S. Census Bureau.

The San Francisco Bay Area consists of the nine counties contiguous to the Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano and Sonoma Counties (collectively, the “Bay Area”). The economy of the Bay Area includes a wide range of industries, supplying local needs as well as the needs of national and international markets. Major business sectors in the Bay Area include retail, entertainment and the arts, conventions and tourism, service businesses, banking, professional and financial services, corporate headquarters, international and wholesale trade, multimedia and advertising, biotechnology and higher education.

The City is a major convention and tourist destination. According to the San Francisco Travel Association, a nonprofit membership organization, during the calendar year 2013, approximately 16.9 million people visited the City and spent an estimated \$9.38 billion during their stay. The City is also a leading center for financial activity in the State and is the headquarters of the Twelfth Federal Reserve District, the Eleventh District Federal Home Loan Bank, and the San Francisco regional Office of Thrift Supervision.

The City benefits from a highly skilled, educated and professional labor force. The CAFR estimates that per-capita personal income of the City for fiscal year 2013-14 was \$76,886. The San Francisco Unified School District operates 5 transitional kindergarten schools, 72 elementary and K-8 school sites, 13 middle schools, 18 senior high schools (including two continuation schools and an independent study school), and 34 State-funded preschool sites, and sponsors 13 independent charter schools. Higher education institutions located in the City include the University of San Francisco, California State University-San Francisco, University of California-San Francisco (a medical school and health science campus), the University of California Hastings College of the Law, the University of the Pacific’s School of Dentistry, Golden Gate University, City College of San Francisco (a public community college), the Art Institute of California – San Francisco, the San Francisco Conservatory of Music, the California Culinary Academy and the Academy of Art University.

San Francisco International Airport (“SFO”), located 14 miles south of downtown San Francisco in an unincorporated area of San Mateo County and owned and operated by the City, is the principal commercial service airport for the Bay Area and one of the nation’s principal gateways for Pacific traffic. In fiscal year 2013-14, SFO serviced approximately 46.1 million passengers and handled 370,525 metric tons of cargo. The City is also served by the Bay Area Rapid Transit District (“BART”) (electric rail commuter service linking the City with the East Bay and the San Francisco Peninsula, including SFO), Caltrain (a conventional commuter rail line linking the City with the San Francisco Peninsula), and bus and ferry services between the City and residential areas to the north, east and south of the City. San Francisco Municipal Railway (“Muni”), operated by the San Francisco Municipal Transportation Agency (the “SFMTA”), provides bus and streetcar service within the City. The Port of San Francisco (the “Port”), which administers 7.5 miles of Bay waterfront held in “public trust” by the Port on behalf of the people of the State, promotes a balance of maritime-related commerce, fishing, recreational, industrial and commercial activities and natural resource protection.

The City is governed by a Board of Supervisors elected from eleven districts to serve four-year terms, and a Mayor who serves as chief executive officer, elected citywide to a four-year term. Edwin M. Lee is the 43rd and current Mayor of the City, having been elected by the voters of the City in November 2011. The City’s budget for fiscal years 2014-15 and 2015-16 totals \$8.58 billion and \$8.56 billion, respectively. The City’s General Fund portion of each year’s budget is \$4.27 billion in fiscal year 2014-15 and \$4.33 billion in fiscal year 2015-16, with the balance being allocated to all other funds, including enterprise fund departments, such as the SFMTA, SFO, the Port and the SFPUC. The City’s CAFR estimates that the City employed approximately 29,236 full-time-equivalent

employees at the end of fiscal year 2013-14. According to the Controller, the preliminary fiscal year 2014-15 total net assessed valuation of taxable property in the City is approximately \$181.8 billion.

THE GENERAL FUND OF THE CITY IS NOT LIABLE FOR THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE 2015 SERIES A BONDS, AND NEITHER THE CREDIT NOR THE TAXING POWER OF THE CITY IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE 2015 SERIES A BONDS. THE 2015 SERIES A BONDS ARE NOT SECURED BY A LEGAL OR EQUITABLE PLEDGE OF, OR CHARGE, LIEN, OR ENCUMBRANCE UPON, ANY OF THE PROPERTY OF THE CITY.

THE PUBLIC UTILITIES COMMISSION

General

The SFPUC is a department of the City responsible for the maintenance, operation and development of three utility enterprises: the Water Enterprise, the Wastewater Enterprise and the Power Enterprise (which is a component of Hetch Hetchy Water and Power).

- The Water Enterprise provides drinking water to Retail Customers in the City, to certain Retail Customers outside the City and to Wholesale Customers in three other Bay Area counties.
- The Wastewater Enterprise provides wastewater and stormwater collection, treatment and disposal services for the City (the “Wastewater Enterprise”).
- Hetch Hetchy Water and Power operates dams (including O’Shaughnessy Dam), reservoirs (including Hetch Hetchy Reservoir), hydroelectric generation and transmission facilities and water transmission facilities from Hetch Hetchy Valley to the connection with the Water Enterprise (collectively, the “Hetch Hetchy Project”). In addition, Hetch Hetchy Water and Power provides hydroelectric, solar and other power for municipal and public infrastructure, services and facilities (the “Power Enterprise”). The SFPUC’s enterprises are operated and managed as separate financial entities with separate enterprise funds.

The revenues of the Wastewater Enterprise and the Power Enterprise are not available for payment of the principal of, premium, if any, or interest on the Bonds. See “SECURITY FOR THE BONDS – Pledge of Revenues.”

Organization, Purposes and Powers

Water Enterprise. Nearly 2.6 million people rely on water supplied by the SFPUC to meet their daily water needs through its Water Enterprise. The SFPUC serves as the retail water supplier for the City and is responsible for water deliveries to residents and institutions within the city limits, as well as to a number of retail accounts outside of the City limits. In addition, the SFPUC sells water to 27 Wholesale Customer entities in San Mateo, Alameda and Santa Clara Counties under the WSA and related individual contractual agreements. Collectively, with the exception of the Cordilleras Mutual Water Association, the Wholesale Customers constitute BAWSCA, which is a public agency separate and apart from the 27 Wholesale Customers. See “THE WATER ENTERPRISE.”

The Water Enterprise consists of over 389 miles of pipeline, over 74 miles of tunnels, 11 reservoirs, five pump stations, and three water treatment plants located outside of the City (the “Regional Water System”) and over 1,235 miles of pipeline, 11 reservoirs, eight storage tanks, 24 pump stations, eight hydropneumatic stations and 17 chlorination stations located within the city limit of the City (the “In-City Distribution System”).

The Regional Water System draws approximately 85% of its water from the Upper Tuolumne River Watershed, collected in the Hetch Hetchy Reservoir in Yosemite National Park, feeding a single aqueduct system, delivering water 120 miles by gravity to Bay Area reservoirs and users. The remaining water supply is drawn from local surface waters in the Alameda and Peninsula watersheds.

Approximately 67% of the SFPUC’s water supply is delivered to the Wholesale Customers, and Retail Customers represent the remaining 33% of water deliveries.

Hetch Hetchy – Water and Power Operations. Hetch Hetchy Water and Power operates the Hetch Hetchy Project, which provides water for distribution through the Water Enterprise and hydroelectric power to the Power Enterprise. The Power Enterprise, which is a component of the Hetch Hetchy Project, was created in February 2005 as a separate system within Hetch Hetchy Water and Power. The Power Enterprise focuses on providing adequate and reliable supplies of electric power to meet the municipal requirements of the City, including power to operate municipal streetcars and electric buses, street and traffic lights, municipal buildings and other City facilities, including San Francisco International Airport. Additionally, the Power Enterprise provides power to the Modesto and Turlock Irrigation Districts (collectively, the “Districts”), located in the central valley of California, and to other commercial customers consistent with prescribed contractual obligations and federal law.

A number of the facilities of the Hetch Hetchy Project are joint assets and are used for both water transmission and power generation and transmission, benefitting both Hetch Hetchy Water and the Power Enterprise. All power sales revenues are allocated to the Power Enterprise. Operating and capital costs benefitting the Power Enterprise and 55% of operating and capital costs that jointly benefit both Hetch Hetchy Water and the Power Enterprise are allocated to the Power Enterprise. Operating and capital costs benefitting Hetch Hetchy Water and 45% of operating capital costs jointly benefitting both Hetch Hetchy Water and the Power Enterprise are allocated to the Water Enterprise. Costs allocated to the Water Enterprise are paid through an inter-enterprise transfer from the Water Enterprise to Hetch Hetchy Water and Power. Such transfers constitute “Operation and Maintenance Costs of the Enterprise.” See “FINANCIAL OPERATIONS – Operating and Maintenance Expenses” and “– Inter-Enterprise Transfers.”

The revenues of the Power Enterprise are not “Revenues” under the Indenture and do not secure the payment of the principal of, premium, if any, or interest on the Bonds. See “SECURITY FOR THE BONDS – Pledge of Revenues.”

Wastewater Enterprise. The Wastewater Enterprise’s collection and treatment system consists of a combined sewer collection system conveying wastewater and stormwater flows within the City to three water pollution control plants, also located within the City. Treated effluent flows are then discharged through deep-water outfalls into the San Francisco Bay and Pacific Ocean. The Wastewater Enterprise also operates wastewater treatment facilities on Treasure Island pursuant to a “caretaker” contractual agreement and certain lease agreements between the Treasure Island Development Authority and the U.S. Navy.

The revenues of the Wastewater Enterprise are not “Revenues” under the Indenture and do not secure the payment of the principal of, premium, if any, or interest on the Bonds. See “SECURITY FOR THE BONDS – Pledge of Revenues.”

Commission Members

Under the Charter, the SFPUC is given exclusive charge of the operation and management of all water, wastewater and municipal customers’ energy supplies and utilities of the City as well as the real, personal and financial assets under the SFPUC’s jurisdiction. The SFPUC is governed by the Commission.

In June 2008, an initiative measure amended the Charter, changing the process for Commission appointments, and establishing qualifications for commissioners, as follows:

- The Commission consists of five members appointed by the Mayor, subject to confirmation by a majority of the Board of Supervisors.
- Seat 1 is designated for a member with experience in environmental policy and an understanding of environmental justice issues.
- Seat 2 is designated for a member with experience in ratepayer or consumer advocacy.
- Seat 3 is designated for a member with experience in project finance.
- Seat 4 is designated for a member with expertise in water systems, power systems, or public utility management.

- Seat 5 is designated for an at-large member.

- In order to stagger the terms of the commissioners, the members appointed to Seats 2 and 4 served for an initial term of two years from August 1, 2008. The remaining three members appointed to Seats 1, 3, and 5 served for an initial term of four years from August 1, 2008. Thereafter, the terms of all members are four years.

- Members may be suspended by the Mayor and may be removed by a three-fourths vote of the Board of Supervisors for official misconduct.

The current members of the Commission and the appointment and expiration dates of their terms are:

<u>Name and Title</u>	<u>Seat</u>	<u>Originally Appointed</u>	<u>Term Expires</u>
Ann Moller Caen, President	3	March 1997	August 2016
Francesca Vietor, Vice President	1	September 2008	August 2016
Vince Courtney	5	January 2011	August 2016
Anson Moran	4	July 2009	August 2018
Ike Kwon	2	February 2015	August 2018

Management

Management of the SFPUC is led by the General Manager. The General Manager is appointed by the Mayor from candidates submitted by the Commission. Once appointed by the Mayor, the General Manager serves at the pleasure of the Commission; however, the Commission also has Charter authority to employ the General Manager under an individual contract.

Brief biographies of the General Manager and principal members of the senior management of the SFPUC are set forth below.

Harlan L. Kelly, Jr. Harlan L. Kelly, Jr. became General Manager of the SFPUC in September 2012. He previously served as the SFPUC’s Assistant General Manager, Infrastructure, and was responsible for implementing over \$10 billion in capital programs for water, sewer and power, including the \$4.6 billion Water System Improvement Program, the \$6.9 billion Sewer System Improvement Program, and the \$202 million SFPUC Headquarters and Administration Building at 525 Golden Gate Avenue. His civil engineering career spanning nearly three decades includes his tenure as the City Engineer of San Francisco. At San Francisco Department of Public Works, he held functional and project management positions, including Acting General Manager, and Deputy Director of Engineering, during which he managed complex capital improvement programs that included the rebuild and seismic retrofit of City Hall, and expansions of convention, hospital, county jail, and public arts facilities. He is a licensed professional engineer, and a graduate of the University of California at Berkeley. He is the recipient of the Municipal Fiscal Advisory Committee’s Public Municipal Excellence Award from the San Francisco Planning and Urban Research Association; the Public Works Leader of the Year Award from the American Public Works Association – Northern California Chapter; the Eminent Engineer Award from the National Engineering Honor Society Tau Beta Pi; and the Heroes and Hearts Award from the San Francisco General Hospital Foundation for exceptional community service. He is a member of the Construction Managers Association of America, the American Society of Civil Engineers, the National Society of Black Engineers, and the American Public Works Association. He is co-founder of the youth internship program Project Pull, which has been in continuous operation since 1995, and he has served on the Board of Directors of the Embarcadero YMCA.

Michael Carlin. Michael Carlin is the SFPUC Deputy General Manager. Mr. Carlin has worked for the SFPUC since 1996 and served from 2004 through 2009 as Assistant General Manager for Water. Since 2009 he has served as Deputy General Manager. Mr. Carlin acts as Chief Operating Officer of the SFPUC, reporting directly to the General Manager, and oversees the SFPUC’s efforts to integrate Asset Management, Supervisory Control & Data Acquisition, Work Order Writing & Tracking, Security and other systems and functions across the Water, Wastewater and Power Enterprises and throughout the organization. Mr. Carlin also plays a leading role in overseeing new initiatives and the many environmentally innovative “green” projects that cut across enterprises within the SFPUC, including a comprehensive SFPUC-wide approach towards confronting and adapting to the

impacts of climate change. He joined the SFPUC as the Water Resources Planning Manager in 1996. Prior to joining the City, he was the Chief of Planning for the San Francisco Bay Regional Water Quality Control Board. Mr. Carlin holds a B.A. in Biology from San Francisco State University and an M.P.A. with an emphasis in Environmental Management from Golden Gate University.

Steven R. Ritchie. Steven Ritchie is the Assistant General Manager of the Water Enterprise, responsible for overseeing water system operations and planning from Hetch Hetchy through the Regional Water System to the City Distribution Division. He is also responsible for the management of the SFPUC's lands and natural resources. Mr. Ritchie was the Manager of Planning at the SFPUC from 1995 to 1998. Prior to his current assignment, he managed the South Bay Salt Pond Restoration Project, a multi-agency effort to restore 15,100 acres of valuable habitat in South San Francisco Bay, while providing for flood risk management and public access. In addition, Mr. Ritchie has worked at management positions at the San Francisco Bay Regional Water Quality Control Board (1987-1995), the CalFed Bay-Delta Program (1998-2000), and URS consultants (2000-2004). He has a B.S. and M.S. in Civil Engineering from Stanford University.

Tommy T. Moala. Tommy T. Moala is the Assistant General Manager of the Wastewater Enterprise which protects public health and safety through the collective treatment of raw sewage runoff. The City's unique and award-winning combined sewer system treats on average more than 79 million gallons per day of sewage and stormwater during dry weather periods. Mr. Moala oversees operations, equipment and facilities maintenance, structural design and governmental compliance for the City's three wastewater treatment plants, 993-mile long sewer system and network of wastewater pumping stations. A former Naval Propulsion Engineer, Mr. Moala has more than 15 years of experience in wastewater in-plant management. He began his 20-year career with the SFPUC as a Stationary Engineer, moving up steadily through the ranks to Senior Engineer, Chief Stationary Engineer and Operations Manager, and setting the Wastewater Enterprise's standard for zero-violations along the way. A team recipient of the National Protection Agency O & M Award and the National Association of Clean Water Agency Award, Mr. Moala has also received then-Mayor Gavin Newsom's Public Managerial Excellence Award and the SFPUC O'Shaughnessy Award for organizing the SFPUC Emergency Response Team dispatched to Hurricane Katrina. He is a member of the Water Environment Federation, the California Water Environment Federation, the National Association of Clean Water Agencies and the American Water Works Association.

Barbara Hale. Barbara Hale is Assistant General Manager of the Power Enterprise. Ms. Hale oversees the Power Enterprise, including Power Retail Services, Utilities Services, Regulatory Affairs, Infrastructure Development and Power Purchasing and Scheduling. She is responsible for the development of a strategic business plan for the organization, setting out priorities, objectives, schedules and policy issues. Ms. Hale oversees all power-related inter-governmental relations, works directly with the Commission on policy and capital matters, and provides direction and leadership to a multi-discipline staff at remote and downtown locations. Ms. Hale provides strategic advice on energy policy matters to the General Manager and manages a staff responsible for developing specific energy efficiency projects and renewable and other advanced sources of electrical generation. Ms. Hale also acts as liaison between the SFPUC and State and federal agencies responsible for energy policy, such as the California Public Utilities Commission, the California Energy Commission, the California Power Authority, the Federal Energy Regulatory Commission, and the United States Department of Energy. Ms. Hale graduated cum laude from San Francisco State University with a B.A. in Economics, receiving special recognition for high achievement with the Department Honors Award. Ms. Hale has pursued extensive graduate coursework in Applied Economics.

Emilio Cruz. Emilio Cruz is the Assistant General Manager of Infrastructure, responsible for overseeing all water, power and sewer capital programs and projects, including the Water System Improvement Program, Sewer System Improvement Program, and Hetchy System Improvement Program. He leads the Infrastructure Division, coordinating the work of the following Bureaus: Environmental Management, Construction Management, Engineering Management, Project Management, Project Controls, and Contract Administration. Mr. Cruz brings to the SFPUC all the attributes of a dynamic career encompassing twenty-five years serving the City, and private and non-profit sectors. He was Program Manager of the Waterfront Capital Improvement Program under the Chief Administrative Officer of San Francisco; Director of Facilities and Operations for the Port of San Francisco; Chief of Staff to the Mayor; General Manager of the Municipal Railway; Vice President of URS Corporation; Director of Economic Development for the City and County of San Francisco; Chief Operating Officer of the Hispanic Scholarship Fund; Vice President and Partner of EPC Consultants; and most recently, Program Manager for the \$4.2

billion Transbay Terminal Program. He is a graduate of Stanford University, with a B.S. in Civil Engineering. He has led numerous boards, including the San Francisco Board of Education, and San Francisco Planning and Urban Research (SPUR), for which he served as President and Vice President, respectively.

Juliet Ellis. Juliet Ellis is the Assistant General Manager for External Affairs at the SFPUC. Prior to holding her position as an Assistant General Manager, Ms. Ellis served on the Commission as a Commissioner for two years. During her time as a Commissioner, she championed the adoption of an Environmental Justice and Community Benefits policy. Ms. Ellis now oversees the implementation of these policies as Assistant General Manager, along with the Policy and Government Affairs, Communications, and Sustainability Planning teams within the SFPUC. Ms. Ellis also oversees the agency's national partnerships with other public utilities with the goal of scaling community benefits programs within the public sector. Before joining the SFPUC, Ms. Ellis spent nine years as the Executive Director of Urban Habitat, a regional social and environmental justice organization. She also served as the Associate Program Officer for Neighborhood and Community Development at The San Francisco Foundation. Ms. Ellis has served on numerous national, regional and local boards and committees.

The position of Assistant General Manager, Business Services and Chief Financial Officer is currently vacant.

Employee Relations

The wages, hours and working conditions of City employees are determined by collective bargaining pursuant to State law (the Meyers-Milias-Brown Act, California Government Code Sections 3500-3511) and the Charter. Except for nurses and a few hundred unrepresented employees, the Charter requires that bargaining impasses be resolved through final and binding interest arbitration conducted by a panel of three arbitrators. The award of the arbitration panel is final and binding unless legally challenged. Wages, hours and working conditions of nurses are not subject to interest arbitration, but are subject to Charter-mandated economic limits. Strikes by City employees are prohibited by the Charter. Since 1976, no City employees have participated in a union-authorized strike.

The City's budget for fiscal years 2014-15 and 2015-16 includes 27,669 and 29,053 budgeted City positions, respectively. City workers are represented by 37 different labor unions. The largest unions in the City are the Service Employees International Union, Local 1021; the International Federation of Professional and Technical Engineers, Local 21; and the unions representing police, fire, deputy sheriffs and transit workers. In May 2014, the City negotiated three-year agreements (for fiscal years 2014-15 through 2016-17) with most of its labor unions. In general, the parties agreed to: (1) annual wage increases schedule of 3% (October 11, 2014), 3.25% (October 10, 2015), and between 2.25% and 3.25% depending on inflation (July 1, 2016); and (2) some structural reforms of the City's healthcare benefit and cost-sharing structures to rebalance required premiums between the two main health plans offered by the City. These changes to health contributions build on reforms agreed to by most unions during earlier negotiations.

The SFPUC employs approximately 2,300 of the City's workers. The Charter governs the SFPUC's employment policies and authorizes the San Francisco Civil Service Commission to establish rules and procedures to implement those policies. Of the 37 labor unions representing City workers more broadly, 14 presently represent SFPUC employees. Most SFPUC employees collectively bargain every three years.

Over the next five years, nearly half of the SFPUC workforce will be eligible for retirement. A new generation of jobs will require workers with specialized training, skills and experience. The SFPUC's Strategic Sustainability Plan includes indicators for employee training and development. The SFPUC also provides ethics training, diversity training, management training, environmental management system training, as well as fraud prevention and awareness training.

WATER FACILITIES

General

The facilities of the Water Enterprise consist of the Regional Water System and the In-City Distribution System.

The Regional Water System evolved through the development of two separate water systems: the Spring Valley Water Company and the Hetch Hetchy Project.

- The Spring Valley Water Company was established in 1858, developing a spring and several creeks into a local water system. It expanded over the years with the construction of Pilarcitos Reservoir, followed by San Andreas Reservoir, Upper Crystal Springs Reservoir and Lower Crystal Springs Reservoir, all on the Peninsula in San Mateo County. Later the company extended its system to additional sources on Alameda Creek in Alameda County and expanded its service area to include additional Peninsula and South Bay customers. The City acquired the local supplies and retail distribution system of the Spring Valley Water Company in 1930.

- Following enactment of the federal Raker Act in 1913 (the “Raker Act”), the City was able to proceed with plans to develop its own water supply system. The construction of the Hetch Hetchy Project began in earnest in 1914, and after almost twenty years of construction, including building of the Hetch Hetchy Reservoir and required transmission system, Sierra Nevada water began flowing into the local distribution system in 1934.

See “THE WATER ENTERPRISE – Water Rights and Related Proceedings.”

Since the 1930s, the major additions to the SFPUC’s water system have included the raising of O’Shaughnessy Dam at Hetch Hetchy Reservoir and the development of Lake Lloyd, the construction of additional pipelines across the San Joaquin Valley, and the local construction of San Antonio Reservoir in Alameda County and the Bay Division Pipelines 2, 3 and 4. Other local projects included Crystal Springs Pipeline No. 3, Sunol Valley and San Andreas Filtration Plants, and the Crystal Springs Bypass Tunnel and Balancing Reservoir. The SFPUC has completed or is nearing completion on several WSIP projects including the New Irvington Tunnel, Bay Division Pipeline 5, and a new tunnel under San Francisco Bay between Newark in Alameda County and East Palo Alto in San Mateo County that will replace the transbay portion of Bay Division Pipelines 1 and 2.

The Regional Water System is geographically delineated between the Hetch Hetchy Project and the Bay Area water system facilities.

- The Hetch Hetchy Project is generally comprised of the reservoirs, hydroelectric generation and transmission facilities, and water transmission facilities from Hetch Hetchy Valley west to the Alameda East Portal of the Coast Range Tunnel in Sunol Valley.

- The local Bay Area water system is generally comprised of the facilities west of Alameda East Portal and includes the Alameda and Peninsula watershed reservoirs, two water treatment plants and the distribution system that delivers water to the SFPUC’s Retail Customers and Wholesale Customers.

Hetch Hetchy Project Operations

The Hetch Hetchy Project is operated as a combined water storage and conveyance and electric generation and transmission system. The Water Enterprise and the Power Enterprise coordinate operation of the Hetch Hetchy Project to ensure reliable utility services are provided by the combined system. Pursuant to State statute, the Charter and the terms of the WSA, the SFPUC operates the Hetch Hetchy Project pursuant to a “water first” policy to optimize the reliability and quality of its water deliveries and ensure that hydroelectric generation does not cause any reasonably anticipated adverse impact on water service. Power is generated when water is delivered to meet water system operational requirements.

Hetch Hetchy Project reservoir operations are guided by two principal objectives: collection of Tuolumne River water runoff for diversion to the Bay Area; and fulfillment of the SFPUC’s downstream release obligations.

To ensure water supply, Hetch Hetchy Project reservoirs remain high through the early winter, until snowmelt runoff is forecasted at 90% certainty to fill all Tuolumne reservoirs. When the forecasted snowmelt is certain to be in excess of the fill volume, the reservoirs may be drawn down through Power Enterprise operations without risking water supply. Similarly, the Bay Area reservoirs included in the Regional Water System serving the City and the Water Enterprise's wholesale customers are operated to conserve watershed runoff. As such, reservoirs are drawn down early in the winter period to capture storms and reduce the potential for spilling water out of the reservoirs. In the spring, the Hetch Hetchy Project water that may be drawn down (snowmelt) is often transferred to three of the Bay Area reservoirs that are capable of receiving the water, so that any unused local reservoir storage is filled prior to July 1.

Water Distribution

Regional Water System. The Regional Water System comprises three regional water supply and conveyance systems: the Hetch Hetchy System; the Alameda System; and the Peninsula System (as herein defined).

Hetch Hetchy System. In the Hetch Hetchy System, water is diverted from Hetch Hetchy Reservoir into a series of tunnels and aqueducts from the Sierra Nevada to the San Joaquin Pipelines that cross the San Joaquin Valley to the Coast Range Tunnel (collectively, the "Hetch Hetchy System") which connects to the Alameda system at the Alameda East Portal.

The Alameda System. The "Alameda System" includes two reservoirs, San Antonio Reservoir and Calaveras Reservoir, which collect water from the upper Alameda and San Antonio Creek watersheds in Alameda County plus conveyance facilities connecting the Hetch Hetchy System and Alameda water sources to the Peninsula System. These conveyance facilities include pipelines known as the Alameda Siphons that connect the Coast Range Tunnel to the Irvington Tunnel.

The Irvington Tunnel supplies the five Bay Division Pipelines that cross the South Bay Area to the Peninsula System. Bay Division Pipelines 1 and 2 cross the San Francisco Bay near the Dumbarton Bridge. Bay Division Pipelines 3 and 4 traverse the southerly edge of the San Francisco Bay delivering water to SFPUC customers along the way. Bay Division Pipeline 5 was just completed as part of the WSIP and is the first pipe to be tunneled under the San Francisco Bay. All five pipelines reconnect near the inlet to the Pulgas Tunnel on the Peninsula.

The Sunol Valley Water Treatment Plant filters and disinfects water supplied from San Antonio and Calaveras Reservoirs.

A turnout from the South Bay Aqueduct of the California State Water Project can supply limited supplemental water to San Antonio Reservoir. However, the SFPUC currently possesses no entitlements to water from the State Water Project.

Peninsula System. The "Peninsula System" includes conveyance facilities connecting the Bay Division Pipelines to the In-City Distribution System and to other SFPUC customers on the Peninsula. Two reservoirs, Crystal Springs and San Andreas, collect runoff from the San Mateo Creek watershed. Water from Pilarcitos Reservoir, on Pilarcitos Creek, serves one of the Wholesale Customers, the Coastside County Water District (which includes the City of Half Moon Bay), directly and can also deliver water to Crystal Springs and San Andreas Reservoirs. Water delivered from the Bay Division Pipelines in excess of Peninsula System and in-City demands spills into Crystal Springs and San Andreas Reservoirs. The Harry Tracy Water Treatment Plant filters and disinfects water supplied from Crystal Springs and San Andreas Reservoirs before it is delivered to Peninsula customers and the In-City Distribution System.

In-City Distribution System. The City's retail water supply is delivered to the City in several major pipelines. Two pipelines provide water to the eastside of the In-City Distribution System and three pipelines serve the west side of the In-City Distribution System.

The "In-City Distribution System" delivers water to homes and businesses in the City. Several major pipelines convey water from the Peninsula System to the City. Water to the east side of the In-City Distribution System is fed by two pipelines that terminate at University Mound. Water to the west side of the In-City

Distribution System is fed by two pipelines that terminate at Sunset Reservoir and one that terminates at Merced Manor Reservoir.

Summary of System Facilities. The facilities making up the Regional Water System and the In-City Distribution System are summarized below.

**TABLE 1
SUMMARY OF SYSTEM FACILITIES**

	<u>Regional Water System</u>	<u>In-City Distribution System</u>
Pipelines	389 miles	1,235 miles
Tunnels	74.5 miles	None
Pump Stations	5	24
Reservoirs and/or Water Tanks	11 reservoirs	11 reservoirs/8 water tanks
Treatment Plants	3	None

Source: SFPUC, Water Enterprise

Water Treatment

Hetch Hetchy Water. The Hetch Hetchy Reservoir is the largest unfiltered water supply on the West Coast and one of only a few large unfiltered municipal water supplies in the nation. The water originates from spring snowmelt flowing down the Tuolumne River to the Hetch Hetchy Reservoir, where it is stored.

This pristine water source is located in the well-protected Yosemite National Park and the High Sierra region and meets or exceeds all federal and State criteria for watershed protection. The water originating from the Hetch Hetchy reservoir is protected in pipes and tunnels as it is conveyed to the Bay Area, and requires pH adjustment to control pipeline corrosion and disinfection for bacteria control. Based on the SFPUC’s disinfection treatment practice, extensive bacteriological-quality monitoring, and high-operational standards, the U.S. Environmental Protection Agency and the State of California Department of Health Services have determined that the Hetch Hetchy water source meets federal and State drinking water quality requirements without filtration, and thus the SFPUC is not required to filter water from the Hetch Hetchy Reservoir. For further discussion of the State and federal regulatory requirements affecting the Water Enterprise, see “REGULATORY MATTERS.”

The Tesla Treatment Facility, a key component of the WSIP, enhances high water quality through ultraviolet (“UV”) treatment. The Tesla Treatment Facility was officially dedicated in July 2011, following two years of construction. The facility uses UV light to disinfect Hetch Hetchy water to meet new federal requirements to control the waterborne parasite Cryptosporidium, and is among the largest drinking-water UV disinfection facilities in North America. In the same location, a new disinfection station, with a control room, offices and a water-quality laboratory, has replaced the old station, which was built in 1937 and no longer met applicable fire or earthquake safety standards. See “CAPITAL IMPROVEMENT PROGRAM – Water System Improvement Program” and “APPENDIX D – WATER SYSTEM IMPROVEMENT PROGRAM.”

Local Water. All water derived from sources other than the Hetch Hetchy Reservoir is currently treated at one of two treatment plants: the Sunol Valley Water Treatment Plant (“SVWTP”) and the Harry Tracy Water Treatment Plant (“HTWTP”). Major upgrades of these two facilities are also part of the WSIP. Upgrades of the SVWTP have been completed. Upgrades to the HTWTP are in progress. See “CAPITAL IMPROVEMENT PROGRAM – Water System Improvement Program” and “APPENDIX D – WATER SYSTEM IMPROVEMENT PROGRAM.”

Sunol Valley Water Treatment Plant. The Sunol Valley Water Treatment Plant, a key component of the WSIP, treats all water from the two local reservoirs, Calaveras and San Antonio. The plant has a peak capacity of 160 mgd and a sustainable capacity of 120 mgd. Treatment processes at the Sunol Valley Water Treatment Plant include coagulation, flocculation, sedimentation, filtration, and disinfection. Fluoridation, chloramination and corrosion control treatment are provided for the combined Hetch Hetchy Project and Sunol Valley Water Treatment Plant water at the Sunol chloramination and fluoridation

facilities. The plant also filters Hetch Hetchy water on the occasions when the Sierra supply does not meet required drinking water standards. Should the Bay Area be cut off from Hetch Hetchy supplies because of an emergency, the treatment plant must sustainably treat 160 million gallons of water a day to meet minimum customer demands.

The Sunol Valley Water Treatment Plant Expansion and Treated Water Reservoir Project will add a new water treatment train at the plant, retrofit existing filters, create a 17.5 million gallon circular balancing reservoir for treated water as it leaves the plant. The project will also include other new connections and facilities that will enable the plant to treat enough water to meet basic customer demands alone for up to 60 days after a major earthquake. These improvements will help increase delivery reliability and water quality.

Harry Tracy Water Treatment Plant. The Harry Tracy Water Treatment Plant, a key component of the WSIP, primarily treats water from the Peninsula System reservoirs and has a peak capacity of 140 mgd and a sustainable capacity of 120 mgd. Treatment processes at the Harry Tracy Water Treatment Plant include ozonation, coagulation, flocculation, filtration, disinfection, fluoridation, corrosion control treatment and chloramination.

Updates currently underway to the plant will improve delivery reliability and provide seismic upgrades to achieve a sustained capacity of 140 mgd for at least 60 days, and to provide 140 mgd within 24 hours following a seismic event on the San Andreas Fault, through the addition of filters, upgrades to various systems, and seismic retrofits of critical process units.

Water Storage

Up-Country Storage. The majority of the water delivered by the SFPUC is supplied by runoff from the upper Tuolumne River watershed on the western slope of the central Sierra Nevada. Three major reservoirs collect runoff: Hetch Hetchy Reservoir, Lake Lloyd, and Lake Eleanor.

Downstream of the Hetch Hetchy System on the Tuolumne River is the New Don Pedro Project, owned and operated by the Districts. The New Don Pedro Project includes a dam that impounds the New Don Pedro Reservoir, also owned by the Districts. The City helped fund the original construction of the New Don Pedro Project in exchange for a water bank account (the “Water Bank”) allowing the SFPUC to receive water credits for advanced releases from the Hetch Hetchy Project to the New Don Pedro Reservoir. Exchange storage space in New Don Pedro Reservoir is integrated into Water System operations.

Water stored in the Hetch Hetchy Reservoir is also used for hydroelectric generation and released downstream to satisfy instream flow requirements. Normally only Hetch Hetchy Reservoir supplies water exported to the Bay Area for municipal and industrial uses. Releases from Lake Eleanor and Lake Lloyd are used to satisfy instream flow requirements, satisfy the Districts’ Raker Act entitlements and produce hydroelectric power. Certain water stored in New Don Pedro Reservoir is credited to the City’s Water Bank, which allows the City to meet its Raker Act water obligations to the Districts and divert water supply from the Hetch Hetchy Reservoir to the Bay Area.

Local Storage. On the San Francisco Peninsula, the SFPUC utilizes Crystal Springs Reservoir, San Andreas Reservoir and Pilarcitos Reservoirs located in San Mateo County to capture local watershed runoff. In the Alameda Creek watershed (Alameda County), the SFPUC has constructed the Calaveras Reservoir and San Antonio Reservoir. In addition to using these facilities to capture runoff, San Andreas, San Antonio and Crystal Springs reservoirs also provide storage for Hetch Hetchy Project diversions, and, along with Calaveras, serve as an emergency water supply in the event of an interruption to Hetch Hetchy Project deliveries.

Dam Supervision. Eighteen dams under the jurisdiction of the SFPUC are presently supervised by the California Department of Water Resources’ Division of Dam Safety (“DSOD”). The SFPUC’s Crystal Springs Reservoir System and Calaveras Dam are currently operating under DSOD-imposed restrictions. See “REGULATORY MATTERS – Dam Licensing and Safety Issues.”

System Storage Capacity. The following table summarizes the regional reservoirs within the Water Enterprise.

**TABLE 2
REGIONAL WATER SYSTEM STORAGE CAPACITY
(AS OF FEBRUARY 22, 2015)**

Reservoir	Current Storage (Acre-Feet)	Maximum Storage (Acre-Feet)	Percent of Maximum Storage
<u>Tuolumne System</u>			
Hetch Hetchy	247,120	360,360	68.6%
Cherry	189,160	273,500	69.2%
Lake Eleanor	20,130	27,113	74.2%
Water Bank	253,317	570,000	44.4%
Tuolumne Storage	709,727	1,230,973	57.7%
<u>Local Bay Area Storage</u>			
Calaveras	22,892	96,670	23.7%
San Antonio	35,866	50,637	70.8%
Crystal Springs	51,803	58,309	88.8%
San Andreas	16,967	19,027	89.2%
Pilarcitos	2,473	3,069	80.6%
Total Local Storage	130,002	227,711	57.1%
Total Regional Water System	839,729	1,458,684	57.6%

For the period between 1982 and 2014, median Water System storage was approximately 1.2 million acre feet.

In-City Storage. The Water Enterprise's in-City reservoirs and tanks have the capacity to hold approximately 427 million gallons, or 1,310 acre-feet. The Water Enterprise estimates this capacity to be an approximate five-day supply at the current average rate of consumption for the City. In-City reservoirs that are also terminal reservoirs for the Regional Water System moderate flow peaking for the Regional Water System and water stored in them can be conveyed back to the San Francisco Peninsula.

The following table summarizes the in-City reservoirs and storage tanks maintained by the Water Enterprise.

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**TABLE 3
IN-CITY DISTRIBUTION SYSTEM POTABLE WATER STORAGE CAPACITY**

Reservoir	Millions of Gallons
Sunset ⁽¹⁾	176.7
University Mound ⁽¹⁾	140.9
Sutro	31.4
Summit	14.0
College Hill	13.5
Stanford Heights	12.9
Merced Manor ⁽¹⁾	9.5
Lombard	2.7
Potrero	1.0
Storage Tanks	9.3
Total	411.9

⁽¹⁾ Represent terminal reservoirs for the Regional Water System.
Source: SFPUC, Water Enterprise

In addition, there is an emergency supply of existing non-potable water immediately available within the City at Lake Merced. The Lake Merced reservoir currently holds approximately 1.5 billion gallons.

Physical Condition of Facilities

Certain of the Water Enterprise’s facilities are near the end of their useful life. Long-lived facilities result in decreased reliability due to unplanned outages and place a greater maintenance burden on SFPUC operations. In addition, the vulnerabilities of the Regional Water System are increased by its linear nature and lack of redundancy. Outages at critical points could disrupt delivery to large portions of the Regional Water System. See “RISK FACTORS – Risks Related to Water Enterprise Facilities and Operations.”

Built between 1917 and 1925, the Mountain Tunnel extends 19.2 miles from the Early Intake Dam to the Priest Reservoir. The lower 12 miles are lined. The lining shows signs of deterioration which will likely increase over time. The risk of failure of the Mountain Tunnel, defined as a loss of 25% carrying capacity, is currently low but will increase over time. Failure could cause up to six or more months of water supply disruption and would have a significant impact on Hetch Hetchy Water operations. See “CAPITAL IMPROVEMENT PROGRAM – Mountain Tunnel.”

The Coast Range Tunnel is a 26-mile long running tunnel from Tesla Portal to the Alameda East Portal and was put into operation in 1934. It was inspected in January 2015 after having been last inspected in 1995. The recent inspection revealed that the tunnel is still in good condition, with little change noted since the 1995 inspection.

The WSIP has been designed in part to reduce vulnerability of the Regional Water System and increase reliability of the system to deliver water by improving redundancy needed to accommodate planned outages for maintenance and unplanned outages resulting from facility failure. Repair or replacement of the Mountain Tunnel as well as the replacement, rehabilitation and repair of water pipelines and other in-City facilities are included in the SFPUC’s Ten-Year Capital Plan. See “CAPITAL IMPROVEMENT PROGRAM” and “APPENDIX D – WATER SYSTEM IMPROVEMENT PROGRAM.”

Seismic Hazards

The Hetch Hetchy Project is located largely in Yosemite National Park, one of the most stable seismic zones in the State, and there are no known major faults in the area. The Water Enterprise’s distribution and transmission systems and its customers are, however, located in seismically active regions of the State. The San Andreas Fault lies immediately west of the City, and the Hayward fault is approximately 15 miles to the east. A third major fault, the Calaveras Fault, is a branch of the Hayward Fault and lies east of the Hayward Fault.

During the past 150 years, the San Francisco Bay Area has experienced several major and numerous minor earthquakes. The largest was the 1906 San Francisco earthquake along the San Andreas Fault with an estimated magnitude of 8.2 on the Richter scale. Another was the 1868 Hayward earthquake along the Hayward Fault. The most recent significant earthquake was the October 1989 Loma Prieta earthquake on the San Andreas Fault, which had a magnitude of 7.1 on the Richter scale and an epicenter near Santa Cruz, approximately 55 miles south of San Francisco. According to United States Geological Survey findings, a significant earthquake along these or other faults is probable during the period the 2015 Series A Bonds will be outstanding.

The Regional Water System crosses several active and potentially active faults, including major strike-slip faults within the San Francisco Bay region. Major fault crossings along the pipeline delivery system include the Orestimba fault at Tesla Portal, the Greenville fault in the Coast Range Tunnel, the Calaveras fault at the Alameda Siphons, and the southern Hayward fault at the Bay Division Pipelines numbers 1, 2, 3 and 4. In addition, other lower slip rate but potentially active faults cross the water system. These faults potentially move by secondary or triggered slip during large earthquakes on the San Andreas fault.

The Greenville, Calaveras, Hayward and San Andreas faults have a high likelihood of producing a major (magnitude ≥ 6.7) earthquake in the San Francisco Bay region in the next 30 years. A large earthquake on these faults has the potential for generating surface-fault rupture that is hazardous to specific SFPUC facilities. A major goal of the WSIP is to rehabilitate and strengthen the tunnels, pipelines and other Water Enterprise facilities that cross or are situated near known active faults.

If a major seismic event or other emergency occurs, the SFPUC is authorized under the WSA to adopt emergency rate surcharges outside of the normal budget development process. Such rate surcharges will be applicable to both Retail Customers and Wholesale Customers and incorporate the same percentage increase for all customers. See “FINANCIAL OPERATIONS – Wholesale Water Sales Revenue.” Any emergency rate surcharge adopted by the SFPUC will remain in effect only until the next budget-coordinated rate-setting cycle, at which time it can be reviewed for continuance. A prolonged reduction in the Water Enterprise’s water supply resulting from a major earthquake could have a material adverse effect on Revenues.

If a significant earthquake occurs that affects the Water Enterprise’s tunnels, pipelines or other facilities, the Water Enterprise would attempt to repair any damage as quickly as possible, but the amount of time required to return the facilities to service would depend on the nature and extent of damage incurred. See also “APPENDIX D– WATER SYSTEM IMPROVEMENT PROGRAM – Levels of Service Goals – Seismic Reliability.”

A major seismic event affecting critical locations prior to completion of WSIP improvements could result in service interruptions of 60 days or longer. The Water Enterprise has established intertie connections with the East Bay Municipal Utility District and the Santa Clara Valley Water District to diversify water supply options in case of a seismic event. Should the Irvington Tunnel or the four major pipelines branching from the Irvington Tunnel become inoperable, the Water Enterprise would attempt to negotiate additional water sharing agreements with these and other regional water utilities which interconnect with Water Enterprise facilities, but there is no assurance that such negotiations would be successful.

If damage to the Irvington Tunnel or the pipelines that connect to the tunnel resulted in the loss of water transported through the tunnel, the remaining water supply would be limited to storage in three reservoirs in San Mateo County (the Crystal Springs, San Andreas and Pilarcitos Reservoirs) and three terminal reservoirs located in San Francisco as well as existing intertie connections. The combined capacity of the three San Mateo County reservoirs is approximately 29.8 billion gallons. The SFPUC typically keeps these reservoirs filled to a combined capacity of 18 billion gallons, or an estimated two and one-half month water supply based on historical average daily water demand of both the Retail Customers and Wholesale Customers. It is anticipated that in-City storage alone would last approximately four to seven days.

Separate from the SFPUC system, the Wholesale Customers have storage ranging from zero to seven days.

System Level of Service Criteria after Seismic Events. The SFPUC has established basic “Level of Service” criteria for the design of new facilities and upgrade of existing facilities, including projects within the WSIP: to deliver winter day demand (“WDD”) of 215 mgd (projected February 2030 demand) within 24 hours after

a major earthquake. This embodies the following primary criteria and assumptions to be used in examining system reliability with system retrofit projects in place:

- Deliver WDD to at least 70% of the Wholesale Customers' turnouts within each of the three customer groups (Santa Clara/Alameda/South San Mateo County, Northern San Mateo County, and City of San Francisco).
- Achieve a 90% confidence level of meeting the above goal, given the occurrence of a major earthquake. The earthquakes considered are treated independently and with equal weighting, without regard to their return period.
- To achieve the basic level of service, the SFPUC will rely on the Wholesale Customers' own water systems and supply or other regional water purveyors systems. The SFPUC will work with the Wholesale Customers to assess their ability to contribute to their own system reliability.
- The SFPUC will consider a facility to have failed if it cannot be brought back to its intended purpose within twenty-four hours without secondary damage resulting.
- To achieve the basic level of service, the SFPUC will assume that power supplies are available, whether from the grid or from standby sources.

No item in the Regional Water System is required to be seismically upgraded or retrofitted as long as the system-wide performance goals established by the SFPUC are expected to be satisfied. Earthquake induced damage to selected components and systems is acceptable, as long as the system-wide performance remains acceptable. See "APPENDIX D – WATER SYSTEM IMPROVEMENT PROGRAM – Levels of Service Goals – Seismic Reliability."

Wildfire Considerations; 2013 Rim Fire

The Hetch Hetchy Project is primarily located in the Sierra Nevada and surrounding foothills, where wildfire is a risk, particularly in the Yosemite National Forest surrounding Hetch Hetchy Reservoir. Wildfires can disrupt the operation of or cause damage to water storage and conveyance facilities and can impact water quality.

The third largest wildfire in the State's history, and the biggest wildfire on record in the Sierra Nevada, started on August 17, 2013 and burned over 257,135 acres. This fire, popularly referred to as the Rim Fire, reached the southern edge of the Hetch Hetchy Reservoir. On August 23, 2013, the City declared a State of Emergency followed by Governor Brown's declaration of a State of Emergency for the San Francisco area. Emergency response teams were immediately deployed to protect the City's resources and assets in the Sierra Nevada. The fire was fully contained in October 2013.

The Rim Fire caused approximately \$40 million in damage to the Hetch Hetchy Project; however, following monitoring of ash deposits and other effects, the SFPUC determined that the Rim Fire did not significantly adversely affect water quality in the Hetch Hetchy Reservoir and neither water supply nor the Water Enterprise's operations were substantively impacted by the fire.

Safety and Security

The safety of the facilities of the Water Enterprise is maintained via a combination of regular inspections by SFPUC employees, electronic monitoring, and analysis of unusual incident reports. All above-ground facilities operated and maintained by the SFPUC are controlled-access facilities with fencing, gates, closed circuit television systems and security officers at certain points. Smaller, above-ground and subterranean pumping stations operated and maintained by the SFPUC are locked with padlock or internal locking mechanisms, and most are monitored via access/intrusion alarms. Security improvements are evaluated on an ongoing basis. The electronic operations and controls have been evaluated and exposure reduced through a series of technology systems enhancements and integration.

THE WATER ENTERPRISE

Water Rights and Related Proceedings

Prior to the Gold Rush in 1849, local water supplies were largely adequate to meet the needs of what is now San Francisco. The Spring Valley Water Company, purchased by the City in 1930, developed much of the local water supplies now available to the Water Enterprise. The City's population grew rapidly after the Gold Rush to nearly 400,000 by the time of the Great Earthquake of 1906.

As early as the 1880s, the City began looking to the Sierra Nevada and the Tuolumne River in what is now Yosemite National Park as a possible source of abundant, clean water for the City and the Bay Area. Hetch Hetchy Valley, which is located on the Tuolumne River in Yosemite National Park, was first recommended as a reservoir site at the turn of the 20th century in a U.S. Geological Survey Study. Then San Francisco Mayor James D. Phelan made the first filings for water rights and reservoir rights-of-way in the Tuolumne River watershed as a private citizen, transferring those filings to the City in 1903.

Following the 1906 earthquake, the City again sought water rights and reservoir rights-of-way in the Tuolumne River watershed and began to develop a preliminary design for the Hetch Hetchy System. It also entered into negotiations with the Modesto Irrigation District and the Turlock Irrigation District (collectively, the "Districts") to protect the Districts' existing water rights and to provide them a share of the hydroelectric power to be produced by Hetch Hetchy facilities, at cost-based rates.

The federal Raker Act, enacted on December 19, 1913, grants to the City rights-of-way and public land use on U.S. government property in the Sierra Nevada to construct, operate and maintain reservoirs, dams, conduits and other structures necessary or incidental to developing and using water and power. It also imposes restrictions on the City's use of the Hetch Hetchy Reservoir, including (among others) the requirement that the City recognize the prior rights of the Districts to receive water, up to specified amounts of natural daily flow, for direct use and storage. After twenty years of construction of dams and aqueducts, water from the Hetch Hetchy System was first delivered to the City on October 24, 1934.

The City holds rights of way under the Raker Act and releases water from its facilities under stipulations with the United States Department of the Interior, which administers the Raker Act. The SFPUC diverts water under its water rights acquired under State water law, which entitle the SFPUC to appropriate in excess of 400 mgd* from the Tuolumne River and its tributaries.

See "– Current Water Supply Sources" and "FUTURE WATER DEMAND AND SUPPLY – Proposals to Restore Hetch Hetchy Valley."

Wholesale Deliveries

Wholesale Service Area and Customer Base. The Water Enterprise provides wholesale water service to 27 Wholesale Customers, which consist of 25 public agencies, one private utility and one private non-profit university. All of the Wholesale Customers are located within the County of Alameda, the County of Santa Clara and the County of San Mateo.

- Alameda County is located on the east side of San Francisco Bay and extends from the Cities of Berkeley and Albany in the north to the City of Fremont in the south. The California Department of Finance Demographic Research Unit estimated Alameda County's population at 1,573,254 as of January 1, 2014. Most of its population is concentrated in a highly urbanized area between the San Francisco Bay and the East Bay Hills.

- Santa Clara County lies immediately south of San Francisco and encompasses an area of approximately 1,316 square miles. Santa Clara County contains 15 incorporated cities, including the City of San Jose, the third largest city in the State. The California Department of Finance Demographic Research Unit estimated Santa Clara County's population at 1,868,558 as of January 1, 2014. Most of its

* Million gallons per day.

population is concentrated in the extensively urbanized and heavily industrialized northern portion of the county.

- San Mateo County is located on the San Francisco Peninsula, west of the San Francisco Bay. San Mateo County covers 446 square miles and contains 20 incorporated cities. Coastal mountains run north and south, dividing the lightly populated western part of the county from the heavily populated eastern corridor between San Francisco and Santa Clara/Silicon Valley. The California Department of Finance Demographic Research Unit estimated San Mateo County’s population at 745,193 as of January 1, 2014.

- Alameda County, Santa Clara County and San Mateo County all have diversified economies and median household incomes higher than State and national averages.

Collectively, the Wholesale Customers provide retail water service to approximately 1.76 million people in their respective service areas. Of the 27 Wholesale Customers, 14 derive 100% of their water from the SFPUC. All Wholesale Customers are billed monthly on the basis of metered water use and in accordance with the WSA.

The following is a list of the Wholesale Customers:

Municipalities	Water Purveying Districts	Private Entities
City of Brisbane	Alameda County Water District	California Water Service Company ⁽¹⁾
City of Burlingame	Coastside County Water District	Stanford University
City of Daly City	Cordilleras Mutual Water Association	
City of East Palo Alto	Estero Municipal Improvement District	
City of Hayward	Guadalupe Valley Municipal Improvement District	
City of Menlo Park	Mid-Peninsula Water District	
City of Millbrae	North Coast County Water District	
City of Milpitas	Purissima Hills Water District	
City of Mountain View	Westborough County Water District	
City of Palo Alto		
City of Redwood City		
City of San Bruno		
City of San Jose ⁽²⁾		
City of Santa Clara ⁽²⁾		
City of Sunnyvale		
Town of Hillsborough		

⁽¹⁾ California Water Service Company, an investor-owned utility, provides water service to four separate districts: Bear Gulch (Atherton vicinity), San Carlos/San Mateo, South San Francisco and Skyline County Water District. California Water Service Company purchases nearly 15% of the water delivered annually by the SFPUC. Such purchases account for more than 10% of the SFPUC’s yearly revenues.

⁽²⁾ The SFPUC provides water on an interruptible basis to fixed service areas in the northern portions of the Cities of San Jose and Santa Clara. See “– Status of San Jose and Santa Clara” below.

The Bay Area Water Supply and Conservation Agency. BAWSCA is the successor agency to BAWUA. BAWUA was originally formed as a non-profit mutual benefit corporation to represent the Wholesale Customers’ collective interests in their interactions with the SFPUC. Concerned that their needs and interests were not properly represented by the SFPUC, BAWUA lobbied for the creation of an entity with authority to plan for and acquire supplemental water supplies, encourage water conservation and use of recycled water on a regional basis, and assist in the financing of essential repairs and improvements to the Regional Water System. This lobbying resulted in the passage of three bills in 2002: AB 1823, which mandated that the SFPUC adopt a capital improvement program; SB 1870, which authorized a financing authority comprising the City and the Wholesale Customers, with the exception of Cordilleras Mutual Water Authority, to finance the Wholesale Customers’ share of the capital improvement program; and AB 2058, which created BAWSCA on May 27, 2003.

BAWSCA is governed by a 26-member Board of Directors which is composed of community leaders representing the 26 Wholesale Customers who are members of BAWSCA (the Cordilleras Mutual Water Association is served under the terms of the WSA, but is not a member of BAWSCA).

BAWSCA has the authority to coordinate water conservation, supply and recycling activities for its agencies; acquire water and make it available to other agencies on a wholesale basis; finance projects, including improvements to the Regional Water System; and build facilities jointly with other local public agencies or on its own to carry out its purposes.

BAWSCA has not, to date, acquired water or built facilities. In February 2013, BAWSCA financed an early repayment of certain capital charges under the WSA. See “FINANCIAL OPERATIONS – Wholesale Water Sales Revenue – Capital Cost Recovery Prepayment.”

Regional Water System Financing Authority. Pursuant to SB 1870, the Wholesale Customers, together with the SFPUC, formed the San Francisco Bay Area Regional Water System Financing Authority (“RFA”). While BAWSCA focuses on planning and water management and may engage in public works projects, the RFA exists solely to help fund capital improvements to the Regional Water System. The RFA has the power to issue revenue bonds to fund projects to improve the reliability of the Regional Water System; provide proceeds of revenue bonds to the City under specified conditions to improve reliability of the system; and apply for and receive State and federal grants, loans and other financial assistance.

In accordance with SB 1870, debt service on any bonds issued by RFA in the future would be secured by, and paid from, a surcharge imposed by the City on behalf of the SFPUC upon Wholesale Customers and, under specific conditions prescribed by SB 1870, upon Retail Customers. This surcharge would be imposed in an amount sufficient to pay debt service on the RFA’s bonds and its operating expenses. Proceeds of the surcharge would not constitute Revenues under the Indenture, and debt service on these bonds, if issued, would not be a debt or liability of the SFPUC or the City.

The RFA has not, to date, issued any revenue bonds, and the SFPUC is not now aware of any current plans by the RFA to do so. The ability of the RFA to issue bonds expires in December 2020.

Prior Master Water Sales Contract. Between 1984 and 2009, Wholesale Customer rates were set pursuant to a Settlement Agreement and Master Water Sales Contract (the “Master Water Sales Contract”).

The Master Water Sales Contract resolved litigation over certain rate-setting practices. Both sides dismissed, with prejudice, the claims related to water sales overcharges and undercharges with the signing of the Master Water Sales Contract. However, the litigation left open certain questions, such as whether the Wholesale Customers are “Co-Grantees” under the Raker Act and, if so, what rights, benefits and privileges accrue to them by reason of such status, including the right to receive water at cost, and the extent to which the City may be legally obligated to provide water to meet growth demands in Wholesale Customer service areas.

The Master Water Sales Contract created a “Supply Assurance” of 184 mgd (measured on an annual average basis), in favor of 25 of the Wholesale Customers (the “Supply Assurance”), that survived the expiration of the Master Water Sales Contract. The Cities of San Jose and Santa Clara are served wholesale water on an interruptible basis and such sales are not deemed to be within the Supply Assurance. Twenty-four of the 25 wholesale customers within the Supply Assurance have individual supply guarantees within the 184 mgd. The City of Hayward does not have an individual supply guarantee as it had previously negotiated an individual contract that did not limit its water use. The City of Hayward continues to receive water under a contract entered into in 1960 with no expiration date or limitation in supply. Under the 184 mgd supply assurance, the 24 wholesale customers with individual supply guarantees would be required to reduce their allocation to accommodate the needs of the City of Hayward.

The Master Water Sales Contract put in place a comprehensive method for allocating the costs of the water system between the SFPUC’s Retail Customers and the Wholesale Customers. All costs of Hetch Hetchy Water and Power associated solely with the Power Enterprise were the responsibility of the City. All costs of the in-City facilities and programs were allocated exclusively to the Retail Customers. Capital costs and most operations and maintenance expenses of the Regional Water System were distributed between the SFPUC and its Retail Customers

and the Wholesale Customers based on proportional water usage: approximately one-third to the City and two-thirds to the Wholesale Customers. The Master Water Sales Contract authorized the SFPUC to recover capital costs using the “utility method” in which such costs are recovered over the useful life of underlying assets through charges for return and depreciation.

Water Supply Agreement. In 2009, the SFPUC and the Wholesale Customers entered into the Water Supply Agreement, with an effective date of July 1, 2009, which replaced the Master Water Sales Contract. The WSA has a 25-year term (with provisions for two conditional five-year extensions).

The WSA provides for the separation of asset and expense categories among wholesale only, regional, and retail only. Annual operations and maintenance expenses are recovered on the basis of proportionate annual use of the Regional Water System in most cases. Hetch Hetchy power costs and revenues are also separated—the Wholesale Customers do not pay for power-related costs, and do not share in power revenues.

The basic framework of the Master Water Sales Contract regarding coordination of wholesale rates with the annual SFPUC budget process, annual compliance audits, resolution of rate disputes via binding arbitration and the annual true up of costs using a balancing account continue, but the Water Supply Agreement effected significant changes in the arrangement between the SFPUC and the Wholesale Customers. The WSA includes the following significant changes.

Allocation of Capital Costs. Instead of continuing with the utility method, the WSA more timely recovers capital costs as follows:

- The costs of existing assets placed in service prior to June 30, 2009, approximately \$367 million in 2009 dollars, were to be repaid based on audited actual costs in monthly installments by Wholesale Customers at an annual interest rate of 5.13% over a 25-year period, in lieu of depreciation and a weighted return on these assets. In February 2013, the Wholesale Customers, through BAWSCA, made an early repayment of the entire cost recovery payment balance. See “FINANCIAL OPERATIONS – Wholesale Water Sales Revenue – Capital Cost Recovery Prepayment.”
- The costs of new regional assets are to be paid for using the cash method. Annual wholesale rates are set to recover the Wholesale Customers’ share of regional asset costs from current revenues for cash-funded assets. Wholesale contributions for debt-financed assets include appropriate contributions towards debt service and coverage based on the Wholesale Customers’ proportionate annual use of the Regional Water System.
- For the portion of capital projects costs that were appropriated but not expended as of June 30, 2009, a 10-year repayment schedule including 4.00% interest has been calculated, based on audited actual costs.

For more information regarding the wholesale rate setting mechanism, see “FINANCIAL OPERATIONS – Wholesale Water Sales Revenue.”

Treatment of Water Supply Issues. The existing 184 mgd Supply Assurance continues in existence, as required in the Master Water Sales Contract. The WSA includes an “Interim Supply Limitation” which limits the amount of water delivered to the Retail Customers and Wholesale Customers from the SFPUC watersheds to 265 mgd through 2018. See “FUTURE WATER DEMAND AND SUPPLY.”

Under the Interim Supply Limitation, Retail Customers will receive 81 mgd and the Wholesale Customers will receive 184 mgd from the Regional Water System. As part of the implementation of the Interim Supply Limitation, the SFPUC established the allocations of the 184 mgd to each of the Wholesale Customers, referred to as “Interim Supply Allocations,” in 2010.

Status of San Jose and Santa Clara. The Cities of San Jose and Santa Clara retain their temporary, interruptible status. The SFPUC agrees to supply a combined annual average of nine mgd to the two cities through

2018. The nine mgd allocated to San Jose and Santa Clara is not a part of the Supply Assurance, but is included within the wholesale portion of the Interim Supply Limitation of 184 mgd.

The WSA requires the SFPUC to prepare and consider “Water Supply Development Reports” in the years 2010 through 2017. The annual Water Supply Development Reports are to be based on water projections and work plans for achieving the Interim Supply Limitation in retail and wholesale service areas. If the Water Supply Development Reports show that the Interim Supply Limitation will not be met by June 30, 2018 as a result of Wholesale Customer use in excess of 184 mgd, the SFPUC may issue a 5-year conditional notice of interruption or reduction in supply of water to San Jose and Santa Clara, at which point the SFPUC will prepare a new analysis of water supply that will be used by the Department of City Planning in preparing any necessary documentation under the California Environmental Quality Act (“CEQA”) on the impacts of interrupting or reducing service to San Jose and Santa Clara. The notice of interruption or reduction in supply would be rescinded if subsequent Water Supply Development Reports show that sufficient progress has been made toward meeting the Interim Supply Limitation by June 30, 2018. The 2014 Water Supply Development Report recommended against issuing a conditional 5-year notice of interruption or reduction in supply of water to San Jose and Santa Clara, as projections show that there will be adequate supplies to meet these customers’ needs through 2018 and beyond.

Creation of Transfer Market. The WSA contemplates the creation of a water transfer market that enhances the Wholesale Customers’ ability to keep purchases within the amounts of their respective Interim Supply Allocations. These transfers would remain in effect until rescinded by the transferring parties, and otherwise continue in force until December 31, 2018. In addition, Wholesale Customers may agree to the permanent transfer of portions of their Individual Supply Guarantees, their share of the 184 mgd Supply Assurance. All such transfers are subject to SFPUC approval regarding operational and Raker Act concerns.

Enforcement of Interim Supply Limitation. Commencing in Fiscal Year 2011-12, the SFPUC has established a volume-based “Environmental Enhancement Surcharge” to enforce the Interim Supply Limitation. The Environmental Enhancement Surcharge would apply only if combined retail and wholesale water deliveries from the Regional Water System watersheds exceed 265 mgd. Environmental Enhancement Surcharge proceeds will be placed in a restricted reserve fund to be used only for specific environmental restoration and enhancement measures in the SFPUC’s Sierra and local watersheds, such as those identified in the Watershed Environmental Improvement Program. Specific restoration and enhancement projects would be selected by the SFPUC and BAWSCA, following input from environmental stakeholders and other interested members of the public. No surcharges have been imposed, and as discussed above, it appears unlikely that any surcharges will be imposed through 2018.

Other Significant Provisions. The WSA also contains the following provisions:

- The SFPUC agrees to operate system reservoirs in a manner that assigns higher priority to the delivery of water to the Bay Area and the environment than to generation of hydroelectric power.
- The “Shortage Allocation Plan,” which establishes an allocation of water between the Retail Customers and Wholesale Customers to be applied during droughts, and governs drought shortages of up to 20%.
- Drought pricing and emergency rate increases are allowed.

2018 Water Supply Decisions. Subject to completion of necessary CEQA review and the exercise of retained discretion by the SFPUC to reject or modify proposed projects, the WSA requires the SFPUC to make several decisions by December 31, 2018 as follows:

- Whether to make San Jose and Santa Clara permanent customers, to the extent that the SFPUC determines that long-term water supplies are available.

- Whether to provide water in excess of the Supply Assurance to meet wholesale demands through the year 2030, and whether to offer a corresponding increase in the Supply Assurance.

For a more detailed summary of the WSA, see “APPENDIX C – SUMMARY OF CERTAIN PROVISIONS OF THE WATER SUPPLY AGREEMENT.”

Individual Water Supply Contracts. While the WSA establishes the rate-setting mechanism and the overall supply assurance level for Wholesale Customers, each Wholesale Customer has an individual water supply contract with the City that defines the terms and conditions (including, among others, the point of delivery and service area) by which water is supplied to each such Wholesale Customer.

Retail Deliveries

Retail Service Area and Customer Base. The SFPUC’s retail water customers include the residents, businesses and industries located within the corporate boundaries of the City. In addition to these customers, retail water service is also provided to other customers located outside of the City, such as the Town of Sunol, San Francisco International Airport, Lawrence Livermore Laboratory, Castlewood Country Club and Groveland Community Services District (collectively, the “Retail Customers”). All of the SFPUC’s Retail Customers have been metered since 1916.

Residential Water Use. Due to the moderate climate and the high density housing in the City, much of the water use within the City is indoors. For multi-family units, the average outdoor water use is considerably lower than the statewide residential outdoor average water use of 50% to 60%.

Non-Residential Water Use. Non-residential water use includes all sectors of water users not designated as residential, such as manufacturing, transportation, trade, finance, and government employment sectors, and the large services sector.

Historic Water Sales and Top Customers

Water Sales. The following table shows water sales to retail customers and wholesale customers for the five fiscal years ended June 30, 2010, through June 30, 2014.

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**TABLE 4
HISTORIC WHOLESALE AND RETAIL WATER SALES
FISCAL YEARS ENDED JUNE 30
(IN MGD)**

	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2014 % of Total</i>
<u>Retail customers</u>						
Residential	41.5	41.2	41.0	40.4	40.8	18.8%
Commercial	19.4	19.3	19.2	19.2	18.9	8.7%
Suburban Retail ⁽¹⁾	3.5	3.6	3.6	3.7	3.8	1.8%
Municipal ⁽¹⁾	4.0	3.6	3.2	3.6	3.7	1.7%
Industrial	0.2	0.2	0.2	0.2	0.2	0.1%
Docks & Shipping	0.0	0.0	0.0	0.0	0.0	0.0%
Retail water sales[†]	68.6	67.9	67.3	67.1	67.4	31.1%
<u>Wholesale customers</u>						
California Water Service	32.6	32.2	33.0	33.0	33.8	15.5%
Hayward Municipal Water	17.3	17.0	15.6	15.5	15.2	7.0%
Alameda County Water District	10.8	8.0	8.1	9.1	12.0	5.5%
City of Palo Alto	11.0	11.1	11.4	11.3	11.3	5.2%
City of Redwood City	9.6	9.1	9.1	9.3	9.1	4.2%
City of Mountain View	8.9	8.6	8.8	9.1	9.0	4.2%
City of Sunnyvale	9.9	8.1	9.0	9.5	8.5	3.9%
City of Milpitas	6.3	6.1	6.2	6.4	6.7	3.1%
Estero Muni Improvement District	4.9	4.7	4.1	4.1	4.1	1.9%
City of Daly City	5.1	5.3	3.6	4.1	3.5	1.6%
All Other Wholesale Customers	35.0	35.5	36.0	36.5	36.5	16.8%
Wholesale water sales[†]	151.3	145.7	144.7	147.9	149.7	68.9%
Total water sales[†]	219.9	213.6	212.0	215.1	217.1	100.0%
% Change from prior year	-7.0%	-2.8%	-0.8%	1.4%	1.0%	

[†] Totals may not add due to independent rounding.

⁽¹⁾ The Municipal category includes the San Bruno Jail, a City department located outside San Francisco. San Francisco International Airport was historically included as Municipal customer, but has been restated as a Suburban Retail customer because water sales represent resale to its tenants and not for its own consumption.

Source: SFPUC Comprehensive Annual Financial Report as of June 30, 2014.

Wholesale and retail sales figures do not include “unaccounted for water”. Unaccounted for water includes water delivery system leaks and water not billed or tracked in the system (i.e., water used for fire fighting, flushing water system pipes). Unaccounted for water has averaged approximately 9% per year over the last 30 years.

As shown in the table above, water sales for Fiscal Years 2010-11 and 2011-12 declined due to factors that included increased water conservation, the local economy, and above-average precipitation. Water sales increased in Fiscal Years 2012-13 and 2013-14 due to local economic factors and population growth. The SFPUC currently anticipates that water deliveries for Fiscal Year 2014-15 will decline by 14.0% from the prior Fiscal Year due to declining water use in response to calls for conservation due to historic drought conditions.

Top Five Retail and Top Ten Wholesale Customers. The following table sets forth the top five Retail Customers and top ten Wholesale Customers based on water sales revenues for Fiscal Year 2013-14.

**TABLE 5
TOP FIVE RETAIL CUSTOMERS
AND TOP TEN WHOLESALE CUSTOMERS
FISCAL YEAR ENDED JUNE 30, 2014**

	Water Sales Revenue (In Thousands)	Percent of Wholesale Customer Revenues(1)	Percent of Retail Customer Revenues	Percent of all Water Revenues
<u>Retail Customers</u>				
SF International Airport ⁽²⁾	\$3,046	N/A	1.59%	0.76%
NASA Shared Services Center, LLC	1,551	N/A	0.81	0.39
University of California San Francisco	1,364	N/A	0.71	0.34
Parkmerced Investors Properties, LLC	1,311	N/A	0.68	0.34
Recreation and Parks Department	824	N/A	0.43	0.21
Total:	\$8,096	N/A	4.22%	2.02%
<u>Wholesale Customers</u>				
Calif. Water Service Company	\$47,436	22.63%	N/A	11.81%
Hayward Muni Water System	21,193	10.11	N/A	5.28
Alameda County Water District	16,141	7.70	N/A	4.02
City of Palo Alto	15,855	7.56	N/A	3.95
City of Redwood City	12,847	6.13	N/A	3.20
City of Mountain View	12,691	6.06	N/A	3.16
City of Sunnyvale	12,201	5.82	N/A	3.04
City of Milpitas	9,311	4.44	N/A	2.32
ESD/San Jose Muni Water System	6,512	3.11	N/A	1.62
Burlingame Water Department	5,858	2.79	N/A	1.46
Total:	\$160,045	76.36%	N/A	39.85%

(1) Percentages based on total Wholesale Revenues of \$209,529,000.

(2) Represents water sales to customers through the City enterprise fund for San Francisco International Airport, which is paid through the City's inter-office billing system.

Source: SFPUC Customer Care & Billing System.

Current Water Supply Sources

The Regional Water System. The Regional Water System is a complex system which supplies water from two primary sources: the Tuolumne River through the Hetch Hetchy Reservoir and local runoff into Bay Area reservoirs in the Alameda and Peninsula watersheds. Water developed by Hetch Hetchy Reservoir through the Hetch Hetchy facilities represents the majority of the water supply available to the SFPUC. On average, the Hetch Hetchy Reservoir provides approximately 85% of the water delivered and Bay Area reservoirs provide approximately 15% of the water delivered. The local watershed facilities are operated to capture local runoff for delivery. Local area water production is dependent on precipitation and the ability of the SFPUC to regulate watershed runoff.

Local Groundwater. The City overlies all or part of seven groundwater basins: the Westside, Lobos, Marina, Downtown, Islais Valley, South and Visitation Valley basins. The Lobos, Marina, Downtown and South basins are located wholly within the City limits, while the remaining three extend south into San Mateo County. The portion of the Westside Basin aquifer located within the City is commonly referred to as the North Westside Basin. With the exception of the Westside and Lobos basins, all of the basins are generally inadequate to supply a significant amount of groundwater for municipal supply due to low yield.

Early in its history, the City made significant use of local groundwater, springs, and spring-fed surface water. However, after the development of surface water supplies in the Peninsula and Alameda watersheds by Spring Valley Water Company and the subsequent completion of the Hetch Hetchy Reservoir and aqueduct in the 1930's, the municipal water supply system has relied almost exclusively on surface water from local runoff, the Alameda and Peninsula watersheds, and the Tuolumne River watershed. Local groundwater use, however, has continued in the City primarily for irrigation purposes. The San Francisco Zoo and Golden Gate Park use groundwater for non-potable purposes.

About one mgd of groundwater is delivered to Castlewood Country Club from well fields operated by the SFPUC in Pleasanton and drawn from the Central Groundwater Sub Basin in the Livermore/Amador Valley. These wells are metered and have been in operation for several decades. There is no physical connection between the Castlewood wells and the Regional Water System. For purposes of water accounting and billing, these deliveries to Castlewood are accounted for as part of the SFPUC's Retail Customer base.

Local Recycled Water. From 1932 to 1981, the City's McQueen Treatment Plant provided recycled water to Golden Gate Park for irrigation purposes. Due to changes in regulations the City closed the McQueen plant and discontinued use of recycled water in Golden Gate Park. The City recently completed two recycled water projects: the Sharp Park Recycled Water Project (0.08mgd) and the Harding Park Recycled Water Project (0.23,gd) which provide recycled water for irrigating golf courses. The City also uses disinfected secondary-treated recycled water from the SFPUC's Southeast Water Pollution Control Plant on a limited basis for wash-down operations and provides it to construction contractors for dust control and other nonessential construction purposes. Current use of recycled water for these purposes in the City is less than one mgd.

Local Water Conservation. The SFPUC is committed to demand-side management programs; the City's per capita water use has dropped by about one-third since 1977 in part due to these programs. The first substantial decrease came following the 1976-77 drought in which gross per capita water use dropped from 160 to 130 gallons per capita per day ("gpcd"). Despite continuous growth in the City since then, water demands have remained lower than pre-drought levels.

A second substantial decrease in water use within the City occurred as a result of the 1987-92 drought, when a new level of conservation activities resulted in further water use savings. It is anticipated that through the continuation and expansion of these programs, per capita water use will continue to decrease into the future. Current gross per capita water use within the City is 85.6 gpcd, with residential water use calculated to be approximately 48.8 gpcd, one of the lowest per-capita rates of any major urban area in the State, and approximately one-half of the statewide average. In the current drought, residential water use has decreased further, to 44 gpcd.

The SFPUC's demand management programs range from financial incentives for plumbing devices to improvements in the distribution efficiency of the system. The conservation programs implemented by the SFPUC are based on the California Urban Water Conservation Council's list of fourteen Best Management Practices identified by signatories of the Memorandum of Understanding Regarding Urban Water Conservation in California, executed in 1991.

Water Supply Storage

The amount of water available to the SFPUC's Retail Customers and Wholesale Customers is constrained by hydrology, physical facilities, and the institutional parameters that allocate the water supply of the Tuolumne River. While in most years the SFPUC receives adequate water supply to meet its demands, due to these constraints, the SFPUC is very dependent on reservoir storage to firm up its water supplies. More importantly, reservoir storage provides the Regional Water System with year-to-year water supply carry-over capability. During dry years, the SFPUC has a very small share of Tuolumne River runoff available and the local Bay Area watersheds produce very little water. Reservoir storage is critical to the SFPUC during drought cycles since it enables the SFPUC to carry-over water supply from wet years to dry years. See "WATER FACILITIES – Water Storage."

Water Supply Reliability and Drought Planning

The SFPUC water supply system reliability is expressed in terms of its ability to deliver water during droughts. Reliability is defined by the amount and frequency of water delivery reductions required to balance

customer demands with available supplies in droughts. The total amount of water the SFPUC has available to deliver to its Retail and Wholesale Customers during a defined period of time is dependent on several factors that include the amount of water that is available to SFPUC from natural runoff, the amount of water in reservoir storage, and the amount of water that must be released from the SFPUC's system for commitments to purposes other than customer deliveries (such as releases below Hetch Hetchy reservoir to meet Raker Act and fishery purposes).

The SFPUC operates its system to optimize the reliability and quality of its water deliveries. Hetch Hetchy Reservoir operations are guided by two principal objectives: collection of Tuolumne River water runoff for diversion to the Bay Area; and fulfillment of the SFPUC's downstream release obligations. To ensure water supply, Hetch Hetchy Project reservoirs remain high through the early winter, until sufficient snowmelt runoff is forecasted at 90% certainty to fill all Tuolumne reservoirs. When the forecasted snowmelt is certain to be in excess of the fill volume, the reservoirs may be drawn down through power operations to increase revenue without risking water supply.

Similarly, the Regional Water System Bay Area reservoirs are operated to conserve watershed runoff. As such, reservoirs are drawn down early in the winter period to capture storms and reduce the potential for spilling water out of the reservoirs. In the spring, Hetch Hetchy water (snowmelt) is often transferred to three of the Bay Area reservoirs that are capable of receiving the water so that any unused local reservoir storage is filled prior to July 1.

Prior to 1976, droughts had not seriously affected the ability of the SFPUC to sustain full deliveries to its customers. During the 1976-77 drought, customers' voluntarily reductions decreased gross per capita water use from 160 to 130 gpcd. During a subsequent drought in 1987-92, as reservoir storage continued to decline it became apparent that continued full deliveries could not be sustained without the risk of running out of water before the drought ended. As a result of these experiences, to provide some level of assurance that water could be delivered continuously throughout a drought (although at reduced levels), the SFPUC adopted a drought planning sequence, incorporating an 8.5 year drought scenario for planning purposes, and associated operating procedures that trigger different levels of water delivery reduction rationing relative to the volume of water actually stored in SFPUC reservoirs. Each year, during the snowmelt period, the SFPUC evaluates the amount of total water storage expected to occur throughout the Regional Water System. If this evaluation finds the projected total water storage to be less than an identified level sufficient to provide sustained deliveries during the drought scenario, the SFPUC may impose delivery reductions or rationing.

Rationing. At current contractual obligations to deliver 184 mgd to the SFPUC's wholesale customers and 81 mgd to its retail customers combined with current water supplies and reservoir storages, the Regional Water System can be expected to experience up to a 25% shortage from 15% to 20% of the time, over multiple-year drought sequences. During a drought, Retail and Wholesale Customers could experience a reduction in the amount of water received from the Regional Water System. The amount of the reduction would be dictated by existing contractual agreements between the SFPUC and the Wholesale Customers, as detailed in the existing Water Shortage Allocation Plan ("WSAP"). The WSAP provides specific allocations of available water between the Retail and Wholesale Customers collectively associated with different levels of systemwide shortage. Under the WSAP, specific rationing amounts applied to the Retail and Wholesale Customers will be determined by their subsequent shortage plans as required to remain with their share of the systemwide allocation.

The WSAP has been carried forward in the WSA for systemwide shortages of up to 20%. For shortages in excess of this amount, the WSA provides that the SFPUC may allocate water in its discretion, subject to legal challenge by Wholesale Customers, if agreement cannot be reached regarding treatment of shortages in excess of 20%. The WSA also includes provisions for drought and emergency pricing. See "FINANCIAL OPERATIONS."

System Delivery Capability. System delivery capability is defined as the water delivery the Regional Water System is able to sustain over historical hydrologic conditions including multiple-year drought sequences. Under existing SFPUC operations policies and procedures, the SFPUC has a system delivery capability of 258 mgd. That is, the Regional Water System is capable of sustaining a 258 mgd annual average delivery over a hydrologic period equivalent to that experienced from 1921 to 2002 with shortages due to drought. After completion of the WSIP and development of dry-year supplies, the system delivery capability is anticipated to increase to 262 mgd. During non-drought years, the Regional Water System is capable of sustainably delivering 265 mgd.

Current California Drought

The three-year period of 2012-2014 is the driest three-year period of the SFPUC's 97-year hydrologic record. Based on tree ring analysis, the flow deficit (representing the amount below the normal, or median, flow) in the Tuolumne River has been at its worst since the 18th century (1776-1778).

On January 17, 2014, California Governor Jerry Brown issued a State of Declaration of Emergency for California due to drought and severe water supply conditions in various parts of the state. On January 31, 2014, the SFPUC issued a press release asking all customers of its Hetch Hetchy Regional Water System, including its residential, commercial, industrial and municipal Retail Customers, as well as the Wholesale Water Customers, to voluntarily curtail water consumption by at least 10%. If the drought continues to persist, the SFPUC has the ability to issue shortage allocation reductions in use, both on a voluntary and mandatory basis.

Due to its size and high elevation, the Hetch Hetchy Watershed has certain source of supply advantages during dry years. The average elevation of the upcountry Hetch Hetchy Watershed is approximately 8,000 feet, covering approximately 370,000 acres. Higher elevations are typically cooler, which allows for slower snowmelt and less evaporation. With these factors, the Hetch Hetchy Watershed, the SFPUC's primary source of water, which provides 85% of all water delivered by the SFPUC, may, depending on weather conditions, fare better than other California watersheds located at lower elevations, or those water agencies dependent upon the Bay Delta or State Water Project sources, neither of which the SFPUC relies upon for water.

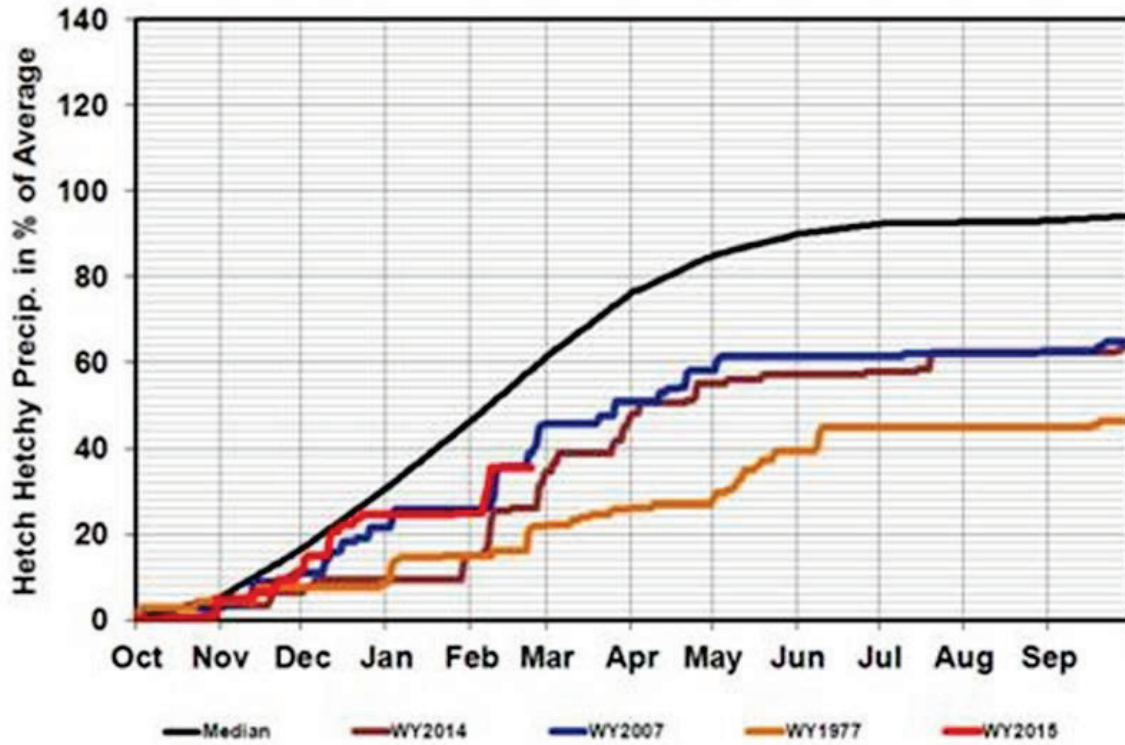
In addition to its Hetch Hetchy Watershed, the SFPUC has approximately 60,000 acres of watersheds in the San Francisco Bay Area which store and collect water in five local reservoirs. This diversification of water supply allows for local, Bay Area rain capture, as well as the aforementioned upcountry rain, snow and snowmelt capture.

A combination of Water Bank drawdowns from the New Don Pedro Reservoir, managing storage and reduced customer demand has contributed towards the SFPUC effectively managing Water Year 2014 (a Water Year is the period of October 1 of the prior year through September 30 of the year in question). Hetch Hetchy Reservoir was filled to up to 99.5% of capacity at the end of the Water Year 2014 snowmelt runoff period (the end of the run-off occurred on approximately July 1, 2014). See "WATER FACILITIES – Water Storage."

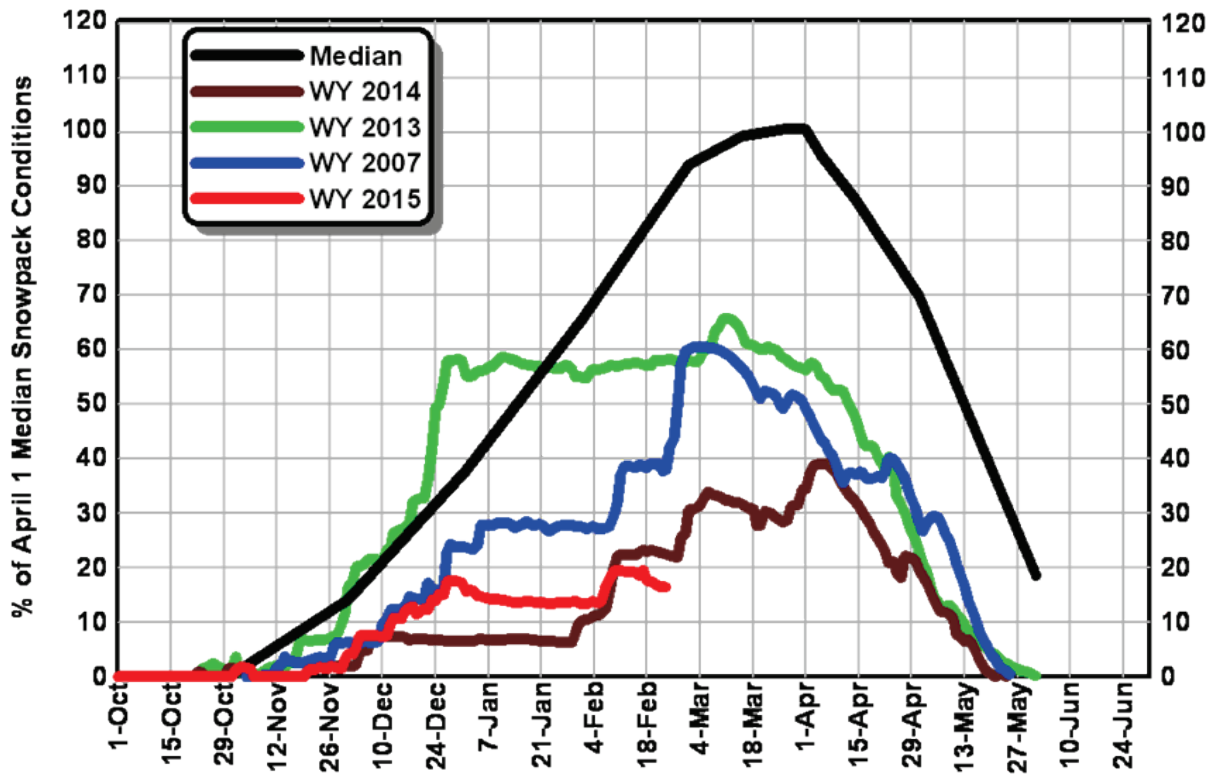
Table 2 herein shows storage levels as of February 22, 2015. Total Water System storage levels would normally be at approximately 75% of Total Water System storage capacity as of the end of December. The level as of February 22, 2015 was approximately 57% of Total Water System storage capacity. The drawdown of the Water Bank during Water Year 2014 primarily accounts for this lower than normal storage level. In addition, the current storage level of Calaveras Reservoir, the largest of the local storage facilities, is very low due to the construction underway as part of the Calaveras Dam Replacement Project. See "WATER FACILITIES – Water Storage – Storage System Capacity" and "CAPITAL IMPROVEMENT PROGRAM – Water System Improvement Program."

As compared to the same period in Water Year 2014, precipitation conditions have improved while snowpack conditions have not in Water Year 2015 through February 18, 2015. In both cases, as shown in the following graphs, precipitation and snowpack conditions still remain below the median. In January 2015 Hetch Hetchy received the least amount of precipitation (0.14") in the 30-year record that is available for Hetch Hetchy. Historically, the greatest amount of precipitation and snowfall occurs in the period of January through March.

Historical and Current Precipitation at Hetch Hetchy



% of Median April 1 Snowpack Conditions



Source: SFPUC.

SFPUC water deliveries currently reflect more than ten years of intentional and ongoing conservation efforts which have resulted in deliveries being reduced from approximately 264 MGD in Water Year 2004 to 218 MGD in Water Year 2014. Over the course of calendar year 2014, Regional Water System customers responded to the call for an additional 10% voluntary reduction in use by reducing water use by more than 10%. On December 29, 2014, a letter was sent by the SFPUC to the Wholesale Customers stating that the 10% system-wide reduction in use is continuing into 2015.

Under the terms of the WSA, the SFPUC will provide water supply availability updates on or around February 1, March 1, and April 15, 2015. As part of the April 15 update, the SFPUC will indicate what, if any, system-wide water use reduction will continue into the future. Based on current system storage, including levels in the Water Bank, the SFPUC believes that it will have sufficient water supply to meet its customer demands through at least another dry year.

The SFPUC has two major drought relief capital projects underway:

- Lower Cherry Aqueduct Emergency Rehabilitation Project
- San Antonio Pump Station and Sunol Valley Water Treatment Plant Emergency Drought Reliability Improvements

See “CAPITAL IMPROVEMENT PROGRAM – Non-WSIP Capital Improvements.” Through these projects, the SFPUC anticipates the ability to access and reliably filter Lake Eleanor and Cherry Lake water supplies for delivery to its water customers during extended drought periods, or when there is insufficient storage in other facilities in the Regional Water System to meet customer demands.

FUTURE WATER DEMAND AND SUPPLY

Projected Demand and Adequacy of Water Supply

Retail Demand. In its 2010 Urban Water Management Plan, the SFPUC projected water use for its Retail Customers using City-developed water end-use models. These models, which were first developed in 2004 and updated in 2010, incorporate economic and demographic forecast data, including projections of population, housing stock and employment, and anticipated market penetration of plumbing code changes. The forecast data were based on the Association of Bay Area Governments (“ABAG”) reports *Projections 2002*, *Projections 2009*, and *Draft Projections 2011* (developed as part of the Bay Area’s Sustainable Communities Strategy). These reports summarize demographic projections for the City at 5-year intervals as well as California Department of Finance estimates and projections at 10-year intervals. These projections were reviewed and refined by the San Francisco Planning Department (“City Planning”) using up-to-date planning information for the City. In 2013, the City updated its demand projections with revised demographic data provided by City Planning. These projections were published in the SFPUC’s 2013 Water Availability Study. For its 2015 Urban Water Management Plan, which will be released in the summer of 2016, the SFPUC is developing new econometric models to project retail demands. The models will still rely on the latest available demographic forecasts from ABAG as refined by City Planning. However, the models will incorporate factors not included in the previous models, such as the price of water, household income, and climatic conditions.

Results of the water demand forecasts show that the SFPUC’s in-City retail water demand will only slightly increase, even though household population in the City is expected to increase by nearly 15% for the same period (from 2012 through 2035). The projected increase in in-City retail water demands is due primarily to estimated growth in business and industry activity, which will translate into a commensurate increase in water use. The expected increase in water use in the non-residential sector, however, is expected to be partially balanced by decreases in water use in the residential sector.

**TABLE 6
PROJECTED RETAIL WATER DEMAND
(IN MGD)**

	2015⁽¹⁾	2020	2025	2030	2035
Residential Demand (Single and Multiple Family)	44.8	43.2	42.4	42.3	42.9
Non Residential (Business/Industrial Demands) ⁽²⁾	26.7	27.9	27.7	27.9	28.9
Subtotal – Residential and Non-Residential	71.5	71.1	70.1	70.2	71.8
Unaccounted for System Losses ⁽³⁾	5.1	5.2	5.2	5.2	5.3
Subtotal – Unaccounted for System Losses	5.1	5.2	5.2	5.2	5.3
Other Retail Demands ⁽⁴⁾	3.7	3.7	3.7	3.7	3.7
Lawrence Livermore Lab & Groveland CSD	1.2	1.2	1.2	1.2	1.2
City Irrigation ⁽⁵⁾	1.5	1.5	1.5	1.5	1.5
Castlewood & Sunol Golf Courses ⁽⁶⁾	0.7	0.7	0.7	0.7	0.7
Subtotal – Other Demand	7.1	7.1	7.1	7.1	7.1
Total – Retail Demand	83.7	83.4	82.4	82.5	84.2

1. Does not include voluntary demand reduction as reflected in the 2015 Urban Water Management Plan currently in development.
2. Includes Builders & Contractors, and Docks & Shipping.
3. Losses in 2015 – 2035 exclude meter under-registration because they are included in the retail demand projections for residential and non-residential sectors. Meter under-registration losses estimated at 2.2% of residential and 2.1% of non-residential sector demands. System losses excluding meter under-registration estimated at 6.86% of sector demand.
4. Includes the San Francisco County Jail, San Francisco International Airport, and other suburban or municipal accounts.
5. Includes irrigation at Golden Gate Park, the Great Highway median, and the San Francisco Zoo.
6. 100% of Castlewood demand (0.4 mgd) is met by groundwater wells in Pleasanton and 75% of Sunol Golf course demand (0.3 mgd) is met by subsurface diversions of surface water at the Sunol Filter Galleries. Projected demands are based on average use from 2000-10 and remain unchanged over the 25 year planning horizon.

Note: Amounts set forth in this table are projections. Actual results may differ materially from these projections. See “FORWARD-LOOKING STATEMENTS” above.

Source: 2013 Water Availability Study

Wholesale Demand. As part of the development of its Long-Term Reliable Water Supply Strategy, BAWSCA has updated demand projections for each of the Wholesale Customers, which BAWSCA published in its Final report entitled “Regional Water Demand and Conservation Projections Final Report,” released in September 2014.

Water supplied by the SFPUC to the Wholesale Customers is metered. The total projected water demands of the Wholesale Customers are shown in Table 7.

In Fiscal Year 2013-14, Wholesale Customers collectively received approximately 67% of their water supply from the Regional Water System. Future projections indicate that between 2015 and 2035 this figure will be in the range of 65% to 67%. For the year 2035, water demands of the Wholesale Customers (regardless of water source) are projected to increase to approximately 276 mgd. Other water supplies available and developed by the Wholesale Customers, which include increased water conservation and recycling, show a net projected increase of about 27 mgd.

**TABLE 7
PROJECTED WHOLESALE CUSTOMER WATER DEMAND AND SUPPLIES
(IN MGD)**

	<u>2015</u>	<u>2020</u>	<u>2025</u>	<u>2030</u>	<u>2035</u>
Wholesale Customer Purchases from the Regional Water System ⁽¹⁾	148.1	157.4	158.9	160.9	163.8
Other Supplies ⁽²⁾	85.2	96.3	102.3	107.2	112.2
Total Wholesale Customer Demand	233.3	253.7	261.2	268.1	276.0

⁽¹⁾ This projected demand includes deliveries to San Jose and Santa Clara.

⁽²⁾ Estimated as the difference between the Total Wholesale Customer Demand and the Wholesale Customer Purchases from the Regional Water System.

Note: Amounts set forth in the table are projections. Actual results may differ materially from these projections. See "FORWARD-LOOKING STATEMENTS" above.

Source: BAWSCA's 2014 Regional Water Demand and Conservation Projections Final Report released September 2014.

Projected Water Demands.

The following table shows projected total Regional Water System demand based on the information presented in Tables 3 and 4 above. It should be noted that the SFPUC plans for meeting its contractual obligation of serving the wholesale customers supply assurance of 184 mgd and providing 81 mgd to the City and County of San Francisco. In addition to the supply assurance, the SFPUC provides 9 mgd to San Jose and Santa Clara as interruptible customers.

**TABLE 8
PROJECTED TOTAL WATER DEMAND
(IN MGD)**

	<u>2015</u>	<u>2020</u>	<u>2025</u>	<u>2030</u>	<u>2035</u>
Retail Customers ⁽¹⁾	83.7	83.4	82.4	82.5	84.2
Wholesale Customers ⁽²⁾	148.1	157.4	158.9	160.9	163.8
Total System	231.8	240.8	241.3	243.4	248.0

⁽¹⁾ Reflects updated projections from the 2013 Water Availability Study. 2015 does not include voluntary demand reduction as reflected in 2015 Urban Water Management Plan currently in development.

⁽²⁾ Based on BAWSCA's Regional Water Demand and Conservation Projections Final Report, released September 2014. This projected demand includes deliveries to San Jose and Santa Clara.

Note: Amounts set forth in the table are projections. Actual results may differ materially from these projections. See "FORWARD-LOOKING STATEMENTS" above.

Source: SFPUC.

Water Supply Initiatives

To ensure that the future water needs and contractual obligations of its Retail and Wholesale Customers will be met in a more reliable and sustainable manner, the SFPUC has undertaken water supply projects in the WSIP to improve dry-year supplies, and is looking to diversify the City's water supply portfolio through the development of local water supplies such as recycled water, groundwater, and water conservation. Projects related to these efforts are described briefly below. The SFPUC is also continuing its efforts to advance the use of greywater and stormwater recapture in San Francisco.

New Drought Supplies. The WSIP water supply program includes development of dry-year supplies for the Regional Water System. The WSIP Program Environmental Impact Report included an analysis of dry-year water supply transfers from the senior water right holders on the Tuolumne River, the Districts; a groundwater conjunctive use project; and a regional desalination project. The latter two projects are described below. The SFPUC has initiated discussions with Oakdale Irrigation District for the dry-year water transfer. The parties continue to discuss possible terms for the transfer.

Groundwater Conjunctive Use. The SFPUC, in conjunction with the City of Daly City, California Water Service Company (South San Francisco District) (“Cal Water”), and the City of San Bruno approved the Groundwater Storage and Recovery Project in August 2014. The Groundwater Storage and Recovery Project, located in the southern portion of the Westside Groundwater Basin in northern San Mateo County, is designed to create a new dry-year groundwater supply that can be utilized at a rate of 8,100 acre-feet per year over the course of the SFPUC “design drought,” which is a combination of the last two most severe historic droughts on record – 1987-91 and 1976-77 – with an additional 18 month dry sequence. During normal and wet years, the SFPUC will deliver supplemental surface water to Daly City, San Bruno, and Cal Water in place of groundwater pumping. Reducing such pumping in normal and wet years thereby creates “in lieu” storage that can be pumped in dry years. The SFPUC adopted the project following CEQA certification in August 2014. Well construction is scheduled to begin early in calendar year 2015.

Desalination. The SFPUC and several other Bay Area water supply agencies are participating in a Bay Area Regional Desalination Study exploring desalination as a means of meeting regional water needs. The Bay Area Regional Desalination Project could consist of one or more desalination facilities, with an ultimate total capacity of up to 65 mgd. The SFPUC and the other partner agencies are focusing on optimizing technologies that minimize power requirements and environmental effects.

Local Groundwater and Recycled Water Projects. The water supply projects being funded as a part of the WSIP include groundwater and recycled water projects that will result in water supply for the Retail customers. The SFPUC approved the local groundwater project, the “San Francisco Groundwater Supply Project, in January 2012. The project includes installation of new groundwater wells to serve San Francisco retail customers with up to an additional four mgd of groundwater from the northern portion of the Westside Basin in San Francisco. The “Westside Recycled Water Project” will provide approximately 2 mgd of recycled water for major irrigation users on the west side of the City, including Golden Gate Park, Lincoln Park and the Presidio of San Francisco. The SFPUC is also undertaking feasibility analyses on four additional recycled water projects: San Francisco Eastside Recycled Water Project, Daly City Expansion Recycled Water Project, South San Francisco Recycled Water Project, and Menlo Country Club Recycled Water Project.

Local Water Conservation. The SFPUC has also increased its water conservation programs in an effort to achieve up to five mgd of new water savings by 2018. New conservation programs include high-efficiency toilet replacement in low-income communities and water efficient irrigation installation in municipal parks.

Potential Impact of Climatic Change

The issue of climate change has become an important factor in water resources planning in the State, and is being considered during planning for the Regional Water System. There is evidence that increasing concentrations of greenhouse gases have caused and will continue to cause a rise in temperatures around the world, which will result in a wide range of changes in climate patterns. Moreover, there is evidence that a warming trend occurred during the latter part of the 20th century and will likely continue through the 21st century. These changes will have a direct effect on water resources in the State, and numerous studies on climate and water in the State have been conducted to determine the potential impacts. Based on these studies, global warming could result in the following types of water resources impacts in the State, including impacts on the Regional Water System and associated watersheds:

- Reductions in the average annual snowpack due to a rise in the snowline and a shallower snowpack in the low- and medium-elevation zones, such as in the Tuolumne River basin, and a shift in snowmelt runoff to earlier in the year,
- Changes in the timing, intensity, and variability of precipitation, and an increased amount of precipitation falling as rain instead of as snow,

- Long-term changes in watershed vegetation and increased incidence of wildfires that could affect water quality,
- Sea level rise and an increase in saltwater intrusion,
- Increased water temperatures with accompanying adverse effects on some fisheries,
- Increases in evaporation and concomitant increased irrigation need, and
- Changes in urban and agricultural water demand.

However, other than the general trends listed above, there is no clear scientific consensus on exactly how global warming will quantitatively affect State water supplies.

The SFPUC staff performed an initial evaluation of the effect on the Regional Water System of a 1.5-degree Celsius (°C) temperature rise between 2000 and 2025. The temperature rise of 1.5°C is based on a consensus among many climatologists that this level of warming is likely to occur by 2025. The evaluation predicts that an increase in temperature of 1.5°C will raise the snowline approximately 500 feet. The elevation of the watershed draining into Hetch Hetchy Reservoir ranges from 3,800 to 12,000 feet above mean sea level, with about 87% of the watershed area above 6,000 feet. In 2000 (a normal hydrologic year in the 82-year period of historical record), the average snowline in this watershed was approximately 6,000 feet during the winter months. Therefore, the SFPUC evaluation indicates that a rise in temperature of 1.5°C between 2000 and 2025 will result in less or no snowpack between 6,000 and 6,500 feet and faster melting of the snowpack above 6,500 feet. Similarly, a temperature rise of 1.5°C between 2025 and 2050 will result in less or no snowpack between 6,500 and 7,000 feet and faster melting of the snowpack above 7,000 feet.

The SFPUC climate change modeling indicates that, on average, about 7% of the runoff currently draining into Hetch Hetchy Reservoir will shift from the spring and summer seasons to the fall and winter seasons in the Hetch Hetchy basin by 2025. This percentage is within the current interannual variation in runoff and is within the range accounted for during normal runoff forecasting and existing reservoir management practices. The additional change between 2025 and 2030 is not expected to be detectible. The predicted shift in runoff timing is similar to the results found by other researchers modeling water resource impacts in the Sierra Nevada due to warming trends associated with climate change.

Based on these preliminary studies and the results of literature reviews, the potential impacts of global warming on the Regional Water System are not expected to affect the water system operations through 2030. SFPUC hydrologists are involved in ongoing monitoring and research regarding climate change trends and will continue to monitor the changes and predictions, particularly as these changes relate to water system operations and management of the Regional Water System. The SFPUC has developed a workplan to further advance its research on the effects of climate change on the Regional Water System.

Proposals to Restore Hetch Hetchy Valley

Some environmental organizations advocate for the removal of the Hetch Hetchy reservoir and the restoration of Hetch Hetchy Valley. For example, an initiative ordinance entitled the “Water Sustainability and Environmental Restoration Planning Act of 2012” qualified for the November 2012 City ballot with support from an organization called “Restore Hetch Hetchy” and would have required the City to identify alternative sources of water and, subject to certain additional conditions, end its use of the Hetch Hetchy Reservoir. This initiative was rejected by San Francisco voters.

There have been previous studies that examined prior proposals to remove the Hetch Hetchy Reservoir. For example, the California Department of Water Resources and the California Department of Parks and Recreation issued a comprehensive report and concluded that it does appear technically feasible to restore Hetch Hetchy valley, but expressed caution about the financial feasibility. The study estimated that the total cost for such a project would range from nearly \$3 billion to \$10 billion. The planning effort alone, they concluded, would take up to ten years to complete and would cost an additional \$65 million dollars.

The SFPUC is unable to predict whether any similar initiatives, or similar federal or state legislation, might be approved by the voters or adopted by legislative bodies in the future, or the potential impact of such efforts on the SFPUC or the Water Enterprise.

CAPITAL IMPROVEMENT PROGRAM

Capital Planning Process

SFPUC's long-term financial planning is performed on an annual rolling ten-year forward basis. The SFPUC prepares a Ten-Year Capital Plan for each of its enterprises as part of the budget deliberations process as required by the Charter. Proposed long-term capital programs, projects and investments, and related costs are included in the Ten-Year Financial Plan. Required rates necessary to pay for both capital and operating costs are also calculated. The Ten-Year Capital Plan is not a budget and is not "appropriated" like a budget. Annual Capital Improvement Programs ("CIPs") can be revised during the development of the budget and final projects, costs and totals for annual CIPs can change. Consequently, even though the annual CIPs are based on the Ten-Year Capital Plan, they may occasionally differ from it.

Consistent with the Charter, updates to the Ten-Year Capital Plan are annually reviewed by the Commission. The Ten-Year Capital Plan provides estimated rate impacts of projected spending and assures compliance with debt service coverage and fund balance reserve policy requirements. The Water Enterprise Ten-Year Capital Plan for Fiscal Year 2015-16 to Fiscal Year 2024-25 totals approximately \$2.1 billion. This includes the projected remaining WSIP cost of \$873.8 million, \$1.23 billion for Non-WSIP capital projects, and \$494.0 million for Hetchy Water capital projects, which the SFPUC expects to fund from a combination of both cash on hand and the proceeds of future issuances of bonds.

Water System Improvement Program

The WSIP is a multi-billion dollar multi-year capital program to upgrade the SFPUC regional and local water systems. The program is delivering capital improvements that enhance the SFPUC's ability to provide reliable, affordable, high-quality drinking water to its Wholesale Customers and Retail Customers in an environmentally sustainable manner. The WSIP is based on two fundamental principles – a clean, unfiltered water source and a gravity-driven system – and is structured to cost-effectively meet water quality requirements, improve seismic and delivery reliability, and meet water supply goals. The WSIP budget is currently authorized at approximately \$4.765 billion, of which \$596 million remains unencumbered as of December 31, 2014. It is expected that an additional \$874 million in revenue bonds will be issued to complete the funding of WSIP. See "FINANCING OF CAPITAL IMPROVEMENTS."

The WSIP presently includes a total of 83 projects (excluding 5 Water Supply Projects which were transferred from WSIP to the Water Enterprise Capital Improvement Program in July 2011). These projects vary in size from a few million dollars to over \$700 million, and they are divided into two sub-programs – Local and Regional.

Local Program. The Local Program includes 35 projects located within City limits that only benefit City residents, and include improvements to existing in-City distribution pipelines, storage reservoirs and tanks, pump stations, and miscellaneous facilities.

Regional Program. The Regional Program includes the remaining 48 projects that benefit both San Francisco residents and the Wholesale Customers, and include a wide variety of improvements such as upgrades to and the addition of new treatment, transmission (pipelines, tunnels, pump stations), and storage (dams and reservoirs) facilities spread over seven counties.

When the program was originally developed in 2003, the overall completion date was projected to be March 2016. Schedule modifications over the years were needed to reflect the various changes in project/program scopes and the various challenges encountered in the field; address difficult environmental and regulatory issues, and system operational constraints; and take into account the actual completion of key work elements and projects.

In March 2014, the Commission adopted a revised budget for WSIP in the amount of \$4.765 billion, representing a net \$125 million, or 2.7%, increase from the previously adopted budget in March 2013. This variance was due, primarily, to forecasted cost increases for five of the WSIP projects. The most significant of these project increases was \$95 million for the Calaveras Dam Replacement Project. This was due to the discovery of a second

ancient landslide and secondary faulting at the site, requiring additional excavation and re-design of the spillway foundation and re-alignment of the outlet conduit.

As of December 31, 2014, WSIP was approximately 85% complete from an expenditure standpoint and approximately 82% complete from a funding standpoint. Currently, the anticipated WSIP completion date is May 2019 excluding approximately \$281 million of local water supply projects funded from WSIP funds but no longer included in WSIP, which have anticipated completion dates after May 2019.

Program Expenditures and Encumbrances. A summary of the WSIP expenditures and encumbrances is shown in the following table.

**TABLE 9
WSIP BUDGET AND EXPENDITURE SUMMARY
AS OF DECEMBER 31, 2014
(IN MILLIONS)**

	<u>Total Approved</u>	<u>Expended/ Encumbered</u>	<u>Remaining Balance</u>
Regional Projects	\$3,675	\$3,295	\$380
Local Projects ⁽¹⁾	619	402	217
Financing Costs	472	472	0
Total †	<u>\$4,765</u>	<u>\$4,169</u>	<u>\$596</u>

† Totals may not add due to independent rounding.

⁽¹⁾ Local projects includes \$281 million in WSIP funding for Water Supply Projects; however, these projects were transferred to the Water Enterprise Capital Improvement Program in July 2011 and have anticipated completion dates later than May 2019.

Note: Certain amounts set forth in the table are projections. Actual results may differ materially from these projections. See “FORWARD-LOOKING STATEMENTS” above.

Source: SFPUC, Financial Services

The following table shows the number of WSIP projects active in each major implementation phase.

**TABLE 10
STATUS OF WSIP PROJECTS THROUGH DECEMBER 31, 2014**

Active Phase	Number of Projects		Value of Projects (in millions)	
	Local Program	Regional Program	Local Program	Regional Program
Planning	0	0	\$ 0	\$ 0
Design	0	1	0	30
Bid & Award	0	1	0	117
Construction	2	12	92	2,400
Close-Out	0	2	0	326
Completed	33	30	246	770
Not Applicable*	<u>0</u>	<u>2</u>	<u>0</u>	<u>32</u>
Total†:	<u>35</u>	<u>48</u>	<u>\$338</u>	<u>\$3,675</u>

† Totals may not add due to independent rounding.

* “Not Applicable” category is for projects that do not include construction, including the Watershed Environmental Improvement Program and the Long-Term Mitigation Endowment.

Source: SFPUC, 2nd quarter Fiscal Year 2014-15 WSIP Quarterly Report.

For detailed information about the WSIP, see “APPENDIX D – WATER SYSTEM IMPROVEMENT PROGRAM.”

Non-WSIP Capital Improvements

The capital plan for Fiscal Years 2015-16 through 2019-20 includes capital project costs for the Water Enterprise (not including WSIP). Non-WSIP capital investments include but are not limited to water conveyance, water storage, meter replacement, facilities maintenance and security.

In general, SFPUC capital projects include either new construction of an asset with a useful life of at least five years, or repair and replacement to improve performance or extend the service life of an existing asset. Repair and replacement projects, which are annual ongoing projects such as replacement of City water distribution pipes, are typically funded by water revenues on a pay-as-you-go basis, but at times may be bond-funded.

In-City Pipe Repair and Replacement Accelerates. In 2013, over 220 miles of existing water pipelines were over 100 years old, and 320 miles were rated as “high priority” for replacement within the potable water distribution system. To address concerns regarding aging infrastructure, funding was approved to increase the pipeline replacement rate over the next three years to a sustainable rate of 15 miles per year for both water and sewer mains.

In fiscal year 2013-14, the Water Enterprise replaced approximately six miles of pipe. In fiscal year 2014-15, it is anticipated that approximately nine miles of water pipe will be replaced, followed by 12 miles in fiscal year 2015-16, and 15 miles in fiscal year 2016-17 and each fiscal year thereafter.

Water Capital Improvement Program (CIP). In addition to the WSIP and in-City pipeline replacement program, the Water Enterprise has both Regional and Local 10-Year CIPs for the replacement, rehabilitation, and repair of transmission mains, valves, treatment facilities, and maintenance yards.

Hetch Hetchy Water Infrastructure Improvements. Upgrades to the aging facilities of Hetch Hetchy Water and Hetchy Power, as part of the Hetchy System Improvement Program, are now being planned to ensure reliability and preparedness for the future. Upcountry water and power facilities being assessed and rehabilitated where needed include three impounding reservoirs, three regulating reservoirs, three large powerhouses, one small powerhouse, two switchyards, three substations, 170 miles of pipeline and tunnels, almost 100 miles of paved road, over 160 miles of transmission lines, watershed land and rights-of-way property. The Water Enterprise will fund all Water assets and the Water portion of jointly-owned Water / Power assets in the Hetch Hetchy Water and Power System.

Mountain Tunnel

As part of the Hetch Hetchy Regional Water System, Mountain Tunnel is a critical water conveyance facility. Built between 1917 and 1925, Mountain Tunnel extends 19.2 miles from the Early Intake Dam to the Priest Reservoir. The lower 12 miles are lined. Recent inspections have shown signs of deterioration in the lining which will likely increase over time. The risk of failure of Mountain Tunnel, defined as a loss of 25% carrying capacity, is currently low but will increase over time. Failure of Mountain Tunnel would have a significant impact on Hetch Hetchy Water operations, and could cause up to six months of water supply disruption. The SFPUC’s current preferred option for remedying the problem is to construct a bypass tunnel, but the SFPUC has engaged an expert Technical Advisory Panel to review alternative analyses and will be recommending further consideration of a focused lining repair project.

In the interim, the SFPUC is developing a plan to restore water supply deliveries through Mountain Tunnel that includes the following components:

1. Improve existing adit access to minimize the length of time to return the Tunnel to service in the event of failure.
2. Implement a monitoring program to assess any changed condition in Mountain Tunnel. This would include improved monitoring of turbidity in the Tunnel flow and pressure monitoring at the adit bulkheads.

3. Develop emergency restoration plans that include preliminary:

- Safety plans;
- Dewatering plan for entrapped water;
- Ventilation plans (including ventilation equipment); and
- Plan for debris removal and deposition (including equipment).

In the event of a total collapse of Mountain Tunnel, it is the SFPUC's best estimate that it may take up to six months to restore water deliveries depending on the exact extent of the failure. The interim high-priority improvements to the Tunnel set forth above can reduce the amount of time needed to restore deliveries. The SFPUC has also developed contingency emergency plans for supplying water. Initially, it would rely on its local resources, just as it would rely upon for any outage of the regional water transmission system. These resources include the SFPUC's local Bay Area storage as well as its emergency interties with the East Bay Municipal Utility District and the Santa Clara Valley Water District. More extreme measures would include requesting emergency support from the Modesto, Turlock and/or Oakdale Irrigation Districts and potentially the State Water Project. An additional measure would also be to request its customers to reduce their consumption.

The SFPUC has included approximately \$627 million to repair Mountain Tunnel in the Ten-Year Capital Plan for fiscal years 2015-16 to 2024-25. Of this amount, approximately 80% of the costs will be incurred in the last five years of the Ten-Year Capital Plan. Mountain Tunnel is classified as a Hetch Hetchy Joint Asset between the Water Enterprise and the Power Enterprise, with the Water Enterprise responsible for 45% of the costs for Mountain Tunnel. See "THE PUBLIC UTILITIES COMMISSION – Hetch Hetchy – Water and Power Operations."

Environmental Considerations

Projects undertaken by the SFPUC are generally subject to CEQA and certain projects involving the participation of federal agencies are also subject to the National Environmental Policy Act of 1969, as amended (42 U.S.C. Section 4321) ("NEPA"). Federal agencies which issued permits for WSIP projects completed the necessary reviews under NEPA prior to issuance of the requested permits or other regulatory approvals.

Under CEQA, a project that may have a significant effect on the environment and is to be carried out or approved by a public agency must comply with a comprehensive environmental review process, including the preparation of an Environmental Impact Report ("EIR"). The EIR reflects not only an independent technical analysis of the project's potential impacts, but also the comments of other agencies with some form of jurisdiction over the project and the comments of interested members of the public. Contents of the EIR include a detailed statement of the project's significant environmental effects; any such effects that cannot be avoided if the project is implemented; mitigation measures proposed to minimize such effects; alternatives to the proposed project; the relationship between local and short-term uses and long-term productivity; any significant irreversible environmental changes that would result from the project; the project's growth-inducing impacts; and a brief statement setting forth the agency's reasons for determining that certain effects are not significant and hence do not require discussion in the EIR.

Before approving a project the SFPUC must make findings on whether or how it can mitigate the significant environmental effects of the project. If the project requires mitigation, the SFPUC must adopt a mitigation monitoring plan to determine whether the mitigation is carried out during project implementation. If the SFPUC determines that the project itself will not have a significant effect on the environment, it may adopt a written statement (called a negative declaration) to that effect and need not prepare an EIR. After deciding to approve or carry out a project, either following the EIR process or after adopting a negative declaration, the SFPUC must file notice of such determination. Any action or proceeding challenging the SFPUC's determination must be brought within 30 days following the filing of such notice. CEQA also contains a number of exemptions, which the SFPUC uses for its projects when appropriate. Were the SFPUC's compliance with CEQA ever successfully challenged, the project in question could be delayed, revised, suspended or canceled. None of the CEQA compliance documents previously issued by the San Francisco Planning Department for WSIP projects, nor any of the exemption determinations issued for WSIP projects, have ever been the subject of appeal or legal challenge.

As part of its regular planning and budgetary process, the SFPUC gives careful attention to environmental considerations. All projects are evaluated under the SFPUC’s environmental impact review procedures, developed in compliance with federal and State laws and regulations.

FINANCING OF CAPITAL IMPROVEMENTS

Commercial Paper Program. The SFPUC utilizes the Water Enterprise’s commercial paper program (the “Water Commercial Paper Notes”) to fund projects through design and into the early construction phase. This approach allows the SFPUC to take advantage of lower interest rates on short-term paper, as well as sizing and timing of financing to projected need. Commercial paper is then refunded and consolidated into larger fixed rate bond issues when reaching the authorized limits on outstanding commercial paper is projected. The Water Commercial Paper Notes are authorized to be issued in an aggregate amount of up to \$500 million, pursuant to voter-approved 2002 Proposition E. See “OBLIGATIONS PAYABLE FROM REVENUES.”

Uncertainties, disruptions or volatility in the financial markets, including but not limited to, credit or liquidity provider credit rating downgrades, availability of credit and/or liquidity facilities at an appropriate price, substantial fund flows into or out of the market for commercial paper, and other factors might affect market rates for the SFPUC’s commercial paper program, which could affect the financing of capital improvements.

Water Revenues and Water Revenue Bonds. The SFPUC has issued multiple series of water revenue bonds, as set forth above under “OBLIGATIONS PAYABLE FROM REVENUES” to finance and refinance WSIP and other Water Enterprise capital improvement projects. The following tables set forth a projected debt financing schedule for both WSIP-Only and Non-WSIP Water Enterprise capital improvements. New bond issues are assumed to be Bonds secured by a parity lien on Revenues. The repayment of principal and interest on these future debt issues has been incorporated into the SFPUC’s approved rates through Fiscal Year 2017-18.

The table below shows projected Water Enterprise Non-WSIP capital improvements through June 30, 2019.

**TABLE 11
NON-WSIP WATER ENTERPRISE CAPITAL IMPROVEMENTS⁽¹⁾
(IN THOUSANDS)**

	Fiscal Years Ending June 30					Total
	2015	2016	2017	2018	2019	
Hetchy Water Capital Improvements	\$ 31,089	\$ 17,957	\$ 26,576	\$ 39,763	\$ 36,938	\$152,324
Regional Water Capital Projects	0	15,237	3,581	(1,475)	12,975	30,318
Local Water Capital Project	0	61,573	77,921	81,091	35,560	256,145
CIP Funded From Revenue Bonds ¹	<u>\$31,089</u>	<u>\$94,767</u>	<u>\$108,078</u>	<u>\$119,379</u>	<u>\$85,473</u>	<u>\$438,787</u>
CIP Funded From Water Revenues	\$ 29,219	\$ 37,484	\$ 18,341	\$ 18,952	\$ 71,804	\$ 175,800
Total Non-WSIP Capital Improvements ²	\$ 60,308	\$ 132,251	\$ 126,419	\$ 138,331	\$ 157,277	\$ 614,587

⁽¹⁾ Reflects amounts budgeted to be funded from proceeds of Additional Series of Bonds per Fiscal Year 2016-2025 Ten Year Capital Plan. The actual schedule of Bond issuances may differ materially from budget.

⁽²⁾ Totals may not add due to independent rounding.

Source: SFPUC, Financial Services

The following table shows projected Non-WSIP and WSIP bond issuance through June 30, 2019.

TABLE 12
TOTAL NON-WSIP AND WSIP PROJECTED BOND ISSUANCE SCHEDULE⁽¹⁾
(IN THOUSANDS)

Fiscal Year	Non-WSIP Bonds	WSIP Bonds	Total Projected Bond Issuance
2014-15	0	0	0
2015-16 ⁽²⁾	\$155,000	\$175,000	\$330,000
2016-17	110,000	150,000	260,000
2017-18	120,000	150,000	270,000
2018-19	0	0	0

(1) The timing and amounts of actual future issuances may differ from the projections set forth and differ from budget. Such projections are only estimates and remain subject to change. See "FORWARD-LOOKING STATEMENTS."

(2) Includes budgeted but unissued bonds from Fiscal Years 2013-14 and 2014-15.

Source: SFPUC, Financial Services

FINANCIAL OPERATIONS

General

The SFPUC is a department of the City and, as such, the financial operations of its three enterprises are included in the Comprehensive Annual Financial Report of the City and shown as enterprise funds.

The following information is provided with respect to the Water Enterprise only and does not purport to reflect the financial position of the SFPUC or the City as a whole.

Basis of Accounting

The accounts of the Water Enterprise are organized on the basis of a proprietary fund type, specifically an enterprise fund. The financial activities of the Water Enterprise are accounted for on a flow of economic resources measurement focus, using the accrual basis of accounting. Under this method, all assets and liabilities associated with its operations are included on the statement of net assets; revenues are recorded when earned, and expenses are recorded when liabilities are incurred.

The Water Enterprise applies all applicable GASB pronouncements, as well as statements and interpretations of the FASB, Accounting Principles Board Opinions, and Accounting Research Bulletins of the Committee on Accounting Procedures issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements.

City Budget Process

The SFPUC budget is a part of the overall budget prepared annually by the City. Each year, the SFPUC's proposed budget is prepared by SFPUC staff and then submitted to the Commission for approval before being submitted to the Mayor. The Mayor's Office reviews and may amend the SFPUC's proposed budget, and then incorporates the proposed budget into the total City budget that is submitted to the Board of Supervisors for approval. Under the Charter, the Board of Supervisors may increase or decrease any proposed expenditure in the Mayor's budget so long as the aggregate changes do not cause the expenditures to exceed the total amount of expenditures proposed by the Mayor. The Charter further provides that the Mayor may reduce or reject any expenditure authorized by the Board of Supervisors except appropriations for bond interest, redemption or other fixed charges, subject to reinstatement of any such expenditure by a two-thirds vote of the Board of Supervisors.

With the passage of Proposition A in 2009, the SFPUC develops and proposes a two-year budget.

Sources of Revenue

The Water Enterprise's principal source of revenue is the sale of water to its Retail Customers and Wholesale Customers, as shown below for Fiscal Year 2013-14.

Fiscal Year 2013-14 Water Enterprise Revenues		
(\$000s)		
Retail water sales	\$177,252	45.36%
Wholesale water sale	177,575	45.44
Other Revenue	35,962	9.20
Total	<u>\$390,789</u>	<u>100.00%</u>

Source: SFPUC, Financial Services

Non-operating Other Revenue shown above includes rental income, interest earnings, capacity fees, and other revenues.

The setting of water rates by the City is not subject to any State or federal regulatory approval. The SFPUC's ability to generate revenue may be limited by certain provisions of the State Constitution and the Charter of the City. See "CONSTITUTIONAL, STATUTORY AND CHARTER LIMITATIONS."

Wholesale Water Sales Revenue

Wholesale Rate-Setting Process. Wholesale Customer rates are determined based upon the Wholesale Customers' collective share of the Water Enterprise's total revenue requirements, known as the "Suburban Revenue Requirement" in the former Master Water Sales Contract and the "Wholesale Revenue Requirement" in the WSA.

The Suburban Revenue Requirement under the former Master Water Sales Contract consisted of the sum of the Wholesale Customers' allocated shares of the following costs of the Water Enterprise in providing water to the Wholesale Customers: operating and maintenance expenses, administrative and general expenses, property taxes, return on rate base, depreciation on the wholesale portion of Water Enterprise facilities and the "Suburban Hetch Hetchy Assessment," the costs of operating the Hetch Hetchy Project allocated exclusively to the Water Enterprise or jointly to the Water Enterprise and the Power Enterprise. These basic categories of cost recovery are continued under the WSA, with the exception of return on rate base and depreciation for new Regional Water System assets, the cost of which are instead recovered under the cash method as needed to cover revenue-funded capital projects and debt service associated with bond-funded capital projects.

Under the WSA, the cost of service for suburban resale is calculated on the same "cash basis" as retail rates. Using the cash basis, the cost of service for Wholesale Customers will include a pro-rata share of operation and maintenance expense plus a pro-rata share of debt service and appropriations for revenue-funded capital improvements of the Regional Water System.

In addition to a pro-rata share of operation and maintenance expense, debt service and revenue funded capital, the Wholesale Customers agreed to pay a fixed annual charge to reimburse the Water Enterprise for a pro rata share of undepreciated investment in facilities capitalized prior to July 1, 2009. The WSA allowed the Wholesale Customers to repay the undepreciated value of existing assets as well as construction work in progress as of June 30, 2009, in equal annual payments over the 25 years of the WSA at an annual interest rate of 5.13%. On January 1, 2013, State legislation authorizing BAWSCA to prepay the remaining value on existing regional assets to achieve cost savings became effective. On February 27, 2013, the Wholesale Customers through BAWSCA made an early repayment of \$356 million to the outstanding balance owed to the Water Enterprise. See "FINANCIAL OPERATIONS – Wholesale Water Sales Revenue – Capital Cost Recovery Prepayment."

The WSA allowed the Wholesale Customers to reimburse the Water Enterprise for any revenue funded project expenditures made in Fiscal Year 2009-10 through Fiscal Year 2011-12 using funds appropriated, but unspent, prior to July 1, 2009 over 10 years with repayment beginning in Fiscal Year 2014-15 at an annual interest rate of 4.00%. The estimated annual payment of \$1.4 million has been incorporated into wholesale rates.

Finally, the WSA contains a rate device known as the balancing account. Any difference between the revenues received and the actual earned revenues associated with the allocated cost of wholesale service is placed in the balancing account and used to adjust the following year's rate recovery up or down depending on whether there is a shortfall or surplus in the balancing account. The projected year-end amount in the balancing account for Fiscal Year 2013-14 is \$27,033,814 owed by the Retail Customers to the Wholesale Customers.

The WSA also provided that a credit for the old Master Water Sales Agreement Balancing Account would be paid in annual installments of not less than \$2 million nor more than \$5 million. In Fiscal Year 2013-14, the Wholesale Customers paid the remaining balance of \$4.17 million leaving no amount outstanding in the balancing account under the old Master Water Sales Agreement.

The operating costs and plant investment for Hetch Hetchy Water and Power are allocated in a similar manner. Costs are first classified as power-specific, water-specific and joint. The water related costs are then allocated between retail and wholesale customers based on their pro-rata share of water delivered.

Statutory and Contractual Limits on Wholesale Water Rates. The sale and delivery of water to the Wholesale Customers under the WSA are subject to the "Rules and Regulations Governing Water Service to Customers" of the Water Enterprise adopted by the Commission, and as they may from time to time be amended, that are (1) applicable to the sale and delivery of water to the Wholesale Customers, (2) reasonable, and (3) not inconsistent with either the WSA or with an Individual Contract.

Wholesale Water Rate Adjustments. Under the WSA, adjustments to the Wholesale Customers' rate schedules, other than emergency rate adjustments and drought pricing, discussed below, are coordinated with the budget development process. If the SFPUC desires to increase Wholesale Customer rates, it is required to provide certain yearly budget information to the Wholesale Customers prior to adoption of any such rate increases. Failure to do so will not prohibit the SFPUC from adoption of such rates, but, in the event of such failure, the Wholesale Customers may either invoke arbitration, or seek injunctive relief to compel the SFPUC to remedy the failure as soon as reasonably practical.

The SFPUC may increase the water rates applicable to the Wholesale Customers without compliance with the above described procedures in the event a drought, earthquake, other act of God, malfunctioning of the Regional Water System or other emergency which requires an increase in rates. Rates may be increased on an emergency basis to cover operating expenses and capital costs. Any such emergency rate increase must be accompanied by a rate increase for Retail Customers of an equal percentage.

Any emergency rate surcharge adopted by the Commission will remain in effect only until the next budget coordinated rate-setting cycle.

Drought pricing for Wholesale Customers, if required, could also be changed under similar terms and conditions set forth for emergency rate increases. Any drought-related pricing or surcharge adopted by the Commission would also remain in effect only until the next budget coordinated rate-setting cycle. See "– Impact of Current California Drought on Rates."

Historical Wholesale Water Rate Adjustments. The following table lists wholesale water rate adjustments since Fiscal Year 2000-01 for the Wholesale Customers.

TABLE 13
HISTORICAL PERCENTAGE INCREASES (DECREASES)
IN WHOLESALE WATER RATES

Date	Change in Wholesale Rates ⁽¹⁾
July 2000	4.4%
July 2001	2.8
July 2002	0.0
July 2003	25.7
July 2004	2.7
July 2005	(9.7) ⁽²⁾
July 2006	18.8
July 2007	6.3
July 2008	10.0
July 2009	15.7
July 2010	15.2
July 2011	38.4
July 2012	11.4 ⁽³⁾
July 2013	(16.4)
July 2014	19.6

⁽¹⁾ Wholesale rates are set prospectively based on an estimate of the Wholesale Revenue Requirement. As such, rates may increase or decrease significantly from year to year.

⁽²⁾ Adjustment effective April 1, 2005.

⁽³⁾ Adjustment effective July 1, 2012.

Source: SFPUC, Audited Financial Statements, and SFPUC Financial Services

Arbitration for Disputes. The Master Water Sales Contract had a binding arbitration provision for disputes related to wholesale rate setting by the SFPUC. The SFPUC and its Wholesale Customers arbitrated one dispute over the 25-year term of the agreement and settled several other disputes short of arbitration. The WSA continues the practice of binding arbitration for rate-related disputes.

Capital Cost Recovery Prepayment. In February 2013, the Wholesale Customers, acting through BAWSCA, and pursuant to the 2009 WSA, exercised its right to prepay the outstanding balance of its capital cost recovery obligation, in the amount of \$356,139,000, to the SFPUC.

Under the WSA, the Wholesale Customers had been making total annual capital cost recovery payments to the SFPUC of approximately \$28.2 million, with such annual payments due through the expiration of the WSA in 2034. Taking advantage of low interest rates in February 2013, the Wholesale Customers, through BAWSCA, issued revenue bonds the proceeds of which were used to make the early repayment to the SFPUC, thereby discharging the obligation in its entirety.

The SFPUC realized the proceeds as Revenues of the Water Enterprise in Fiscal Year 2012-13. Since the Wholesale Customers' obligation was to the Retail Customers of the SFPUC for funding the existing capital assets of the Hetch Hetchy Regional Water System, the SFPUC developed a plan to use the proceeds as follows to benefit the Retail Customers:

- Approximately \$160.5 million of the proceeds were used to fund the Retail Customers' share of the cost of certain regional capital projects and certain local projects which otherwise would have been cash-funded by the Water Enterprise.

- Approximately \$109.0 million of the proceeds were used to partially refund/defeas certain outstanding Water Revenue Bonds, the debt service of which was borne by the Retail Customers. The bonds that were partially refunded/defeased were the 2006 Series A, 2009 Series A, 2009 Series B, 2010 Series A, 2010 Series D, 2010 Series F, 2011 Series B and 2011 Series C Water Revenue Bonds.

- Approximately \$86.5 million of the proceeds were deposited into the Water Enterprise’s Operating Fund to be utilized as unrestricted available fund balance reserves.

As a result of the prepayment being treated as Revenues from the Wholesale Customers in Fiscal Year 2012-13, “Wholesale Water Sales” increased in Fiscal Year 2012-13 to approximately \$531 million from \$131 million in the prior fiscal year. The impact of the higher “Wholesale Water Sales” in Fiscal Year 2012-13 also contributed towards “Debt Service Coverage” increasing to 2.31 times from 1.53 times in the prior fiscal year. In Fiscal Year 2013-14, the Water Enterprise was able to realize “Debt Service Coverage” of 3.42 times as a result of the considerably higher “Funds Available for Debt Service,” the decreased debt service resulting from the defeasance of the aforementioned Water Revenue Bonds, while also factoring in the foregone “Wholesale Water Sales” of approximately \$28.2 million due to the discharge of the Wholesale Customers’ annual capital cost recovery obligation.

Retail Water Sales Revenue

Retail Rate Structure. Retail Customers pay a flat monthly service charge based on the size of the meter plus a volumetric charge for all water delivered based on one-month meter readings. Volumetric charges for single- and multi-family residential customers are based on a two-tiered rate structure, where the first tier is applicable to the first 3 CCF of use per month and the second tier is applicable to all additional use. Volumetric charges for non-residential customers are based on a uniform rate. The table below details retail water rates for Fiscal Year 2013-14.

**TABLE 14
RATES FOR RETAIL WATER SERVICE
IN SAN FRANCISCO
AS OF JULY 1, 2014**

	Single-Family Residential (\$/CCF) ⁽¹⁾	Multi-Family Residential (\$/CCF)	Non-Residential (\$/CCF)
Uniform ⁽²⁾	-	-	5.79
Tier 1 ⁽³⁾ (0-4 or 0-3 CCF)	4.86	4.98	-
Tier 2 (All other usage)	6.52	6.67	-

⁽¹⁾ One “CCF” equals one hundred cubic feet of water (equal to 748 gallons).

⁽²⁾ Different rates applying to builders and contractors, irrigation, municipal, interruptible and docks and ships apply to a small percentage of Non-Residential use.

⁽³⁾ Tier 1 for single-family residential is from 0-4 CCF; tier 1 for multi-family residential is from 0-3 CCF.

Source: SFPUC, Financial Services

The following table shows a comparison of typical monthly charges for representative Retail Customer classes based on average use.

**TABLE 15
MONTHLY CHARGES FOR RETAIL WATER SERVICE
IN SAN FRANCISCO
AS OF JULY 1, 2014**

Customer Type	Average Use (CCF)	Meter Size	Fixed Charge	Volume Charge	Total Monthly Charges (Volume + Fixed)
Average Single Family Residence	6	5/8"	\$ 8.81	\$ 32.48	\$ 41.29
Larger Single Family Residence	15	3/4"	11.09	91.16	102.25
Large Apartment Building	525	4"	118.46	3,039.75	3,158.21
Large Office	983	4"	118.46	5,691.57	5,810.03
Department Store	2,199	4"	118.46	12,732.21	12,850.67
Hotel	7,811	8"	369.76	45,225.69	45,595.45

Source: SFPUC, Financial Services

Retail Rate-Setting Process. The SFPUC is authorized and required under the Charter and Proposition E to set rates, fees and other charges in connection with providing the utility services under its jurisdiction, subject to rejection – within 30 days of submission – by resolution of the Board of Supervisors. If the Board of Supervisors fails to act within 30 days, the rates will become effective without further action.

Under the Charter, in setting retail rates, fees and charges (for water and for the sewer and power utility services it provides) the SFPUC is required to take the following actions:

- (1) Establish rates, fees and charges at levels sufficient to improve or maintain financial condition and bond ratings at or above levels equivalent to highly rated utilities of each enterprise under its jurisdiction, meet requirements and covenants under all bond resolutions and indentures (including, without limitation, increases necessary to pay for the Retail Customers' share of the debt service on bonds and operating expenses of any State financing authority), and provide sufficient resources for the continued financial health (including appropriate reserves), operation, maintenance and repair of each enterprise, consistent with good utility practice.
- (2) Retain an independent rate consultant to conduct rate and cost of service studies for each utility at least every five years, the most recent of which was performed during Fiscal Year 2013-14.
- (3) Set retail rates, fees and charges based on the cost of service.
- (4) Conduct all studies mandated by applicable State and federal law to consider implementing connection fees for water and clean water facilities servicing new development.
- (5) Conduct studies of rate-based conservation incentives and/or lifeline rates and similar rate structures to provide assistance to low income users, and take the results of such studies into account when establishing rates, fees and charges, in accordance with applicable State and federal laws.
- (6) Adopt annually a rolling 5-year forecast of rates, fees and other charges.
- (7) Establish a Rate Fairness Board consisting of seven members: the City Administrator or his or her designee; the Controller or his or her designee; the Director of the Mayor's Office of Public Finance or his or her designee; two residential Retail Customers, consisting of one appointed by the Mayor and one by the Board of Supervisors; and two business Retail Customers, consisting of a large business customer appointed by the Mayor and a small business customer appointed by the Board of Supervisors.

Retail rates and the retail rate-setting process must also comply with the requirements of the State Constitution, including notice, protest and public hearing requirements. See “CONSTITUTIONAL, STATUTORY AND CHARTER LIMITATIONS – Proposition 218.”

Retail Water Rate Adjustments. The SFPUC’s retail rates and charges for delivered water are set to equal the cost of operation, maintenance, replacement, debt service and other costs incurred in gathering, treating and delivering water for consumptive and other uses in the City and other areas receiving retail service from the Water Enterprise. The SFPUC has regularly reviewed and often increased its retail water rates to fund operating and capital costs. In May 2014, the Commission approved retail water rates and charges for the four-year period effective July 1, 2014 through June 30, 2018.

The following table lists retail water rate adjustments since Fiscal Year 2000-01, as well as approved future rate increases through Fiscal Year 2017-18.

**TABLE 16
HISTORICAL AND APPROVED FUTURE PERCENTAGE INCREASES (DECREASES)
IN RETAIL WATER RATES**

Date	Retail Rates
July 2000	0.0% ⁽¹⁾
July 2001	8.7 ⁽¹⁾
July 2002	8.6 ⁽¹⁾
July 2003	0.0 ⁽¹⁾
July 2004	0.0 ⁽¹⁾
July 2005	15.0 ⁽¹⁾
July 2006	15.0 ⁽¹⁾
July 2007	15.0 ⁽²⁾
July 2008	15.0
July 2009	15.0
July 2010	15.0
July 2011	12.5
July 2012	12.5
July 2013	6.5
July 2014	12.0 ⁽³⁾
July 2015	12.0 ⁽³⁾
July 2016	10.0 ⁽³⁾
July 2017	7.0 ⁽³⁾

⁽¹⁾ Proposition H, approved by San Francisco voters on June 2, 1998, froze retail water rates at then-current levels, subject to certain exceptions (including a limited exception to raise rates to pay debt service on voter-approved debt), through July 1, 2006.

⁽²⁾ Adjustment effective July 14, 2007.

⁽³⁾ Based on the four-year rate schedule covering July 1, 2014 to June 30, 2018, approved in May 2014.

Source: SFPUC, Financial Services.

The SFPUC may make adjustments from time to time in such rates, fees and charges and may make such classification of rates, fees and charges as it deems necessary, but will not reduce such rates, fees and charges below those then in effect unless the Revenues resulting after such reduced rates, fees and charges are put into effect will at all times be sufficient to meet the rate covenants set forth in the Indenture. See “SECURITY FOR THE BONDS – Rate Covenants.”

Billing and Collection Procedures. All Retail Customers are billed monthly on the basis of metered water use. In the event of non-payment, the SFPUC has authority and power to discontinue service and, in owner-occupied buildings and master metered apartment buildings, to record liens on property.

Delinquencies. The table below shows the delinquency in collection of water charges from Retail Customers as of November 1, 2014. The SFPUC considers its rates of payment delinquency, service discontinuance for non-payment, and write-offs for uncollectible accounts to be low by water industry standards for urban areas.

**TABLE 17
ACCOUNTS RECEIVABLES AGING REPORT
AS OF NOVEMBER 1, 2014**

Period	Amount ⁽¹⁾	Percent of Total	Percent of Total Projected 2014-15 Revenues
Current	\$ 23,499,520	75.77%	5.78%
31 - 60 Days	1,359,661	4.38	0.33
61 - 90 Days	539,196	1.74	0.13
Over 90 Days	5,616,240	18.11	1.38
Total	<u>\$31,014,617</u>	<u>100.00%</u>	<u>7.62%</u>
Credit Balances	<u>(290,593)</u>		
Total Aged Receivables	30,724,024		
Less Allowance For Doubtful Accounts	<u>1,813,093</u>		
Accounts Receivable, Net of Allowance	\$28,910,931		

⁽¹⁾ Excludes receivables from municipal customers.
Source: SFPUC, Financial Services.

The following table shows a five-year history of write-offs for uncollectible accounts.

**TABLE 18
WRITE-OFFS FOR UNCOLLECTIBLE ACCOUNTS
As of Fiscal Year End, June 30**

	Amount	% of Total Revenues
2010	\$ 10,529	0.004%
2011	17,274	0.006
2012	14,920	0.004
2013	4,081	0.001
2014	16,205	0.004

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Comparative Retail Water Rates. The following table shows a comparison of monthly charges by selected local water purveyors for a typical residential account with a 5/8-inch meter using 6 CCF (600 cubic feet) of water per month, which is the historical average monthly use for SFPUC single-family residential customers.

**TABLE 19
COMPARATIVE MONTHLY RESIDENTIAL WATER CHARGES
AS OF NOVEMBER 2014**

Water Purveyor	Monthly Charge ⁽¹⁾
City of Palo Alto	\$44.61
San Francisco Public Utilities Commission	41.29
City of Hayward	40.50
Contra Costa County Water District	38.28
Alameda County Water District	36.21
East Bay Municipal Utility District	33.52
City of Santa Clara	22.80

⁽¹⁾ Based on monthly usage of 6 CCF.
Source: SFPUC, Financial Services

Impact of Current California Drought on Revenues and Rates

The current California drought has not altered the four-year retail rate package adopted by the Commission on May 13, 2014 that took effect on July 1, 2014. However, in response to regulations adopted by the State Water Resources Control Board (“SWRCB”), on August 26, 2014 the Commission imposed mandatory restrictions, consistent with the SWRCB's Emergency Regulations, on outdoor irrigation by reducing all outdoor irrigation of ornamental landscapes or turf with potable water by retail customers by at least 10%, for the period October 1, 2014 through June 30, 2015. To regulate mandatory restrictions, the Commission adopted Excess Water Use charges applicable to retail potable water irrigation accounts that do not meet the 10% reduction level. For each customer account, an excess use charge for water use above the 90% cumulative allocation for the entire restriction period will be assessed at two times the applicable water rate for that account.

In the event that the drought persists and there are continued declines in water sales, the SFPUC already has in place shortage allocation, drought surcharge and emergency rate increase provisions in the WSA with its Wholesale Water Customers. If implemented, these provisions would affect the approximate two-thirds of all SFPUC water sales and deliveries to the Wholesale Water Customers, as well as the remaining one-third of water sold and delivered to the SFPUC’s Retail Customers.

Capacity Charges

The SFPUC imposes a capacity charge on any Retail Customer requesting a new connection to the water distribution system, or requiring additional capacity as a result of any addition, improvement, modification or change in use of an existing connection to the water distribution system. As of July 1, 2014, the capacity charge is \$1,239 per equivalent 5/8 inch meter. The capacity charge is adjusted on July 1 of each year by the annual change in the 20 City Average Construction Cost Index published by ENR Magazine.

Operating and Maintenance Expenses

“Operating and Maintenance Expenses” cover the general operations expenses of the Water Enterprise. These expenses include labor and fringe benefits, contractual services, materials and supplies, depreciation, general and administrative, services from other departments and other miscellaneous costs. See “HISTORICAL OPERATING RESULTS.” Service from other departments include payment for services from other City departments, such as the City Attorney’s Office, and the General Services Agency. Operating and Maintenance Expenses include payments to Hetch Hetchy Water and Power for services related to water storage and delivery. See “– Inter-Enterprise Transfers” and “SECURITY FOR THE BONDS – Rate Covenants.”

Employee Benefit Plans

SFPUC employees are City employees and are covered by benefit plans offered through the City.

Retirement System Plan Description. The SFPUC participates in the City’s single employer defined benefit retirement plan (the “Plan”) which is administered by the San Francisco City and County Employees’ Retirement System (the “Retirement System” or “SFERS”). The Plan covers substantially all full time employees of the SFPUC along with other employees of the City. The Plan provides basic service retirement, disability, and death benefits based on specified percentages of final average salary, and provides cost-of-living adjustments after retirement. The Plan also provides pension continuation benefits to qualified survivors. The Charter and City Administrative Code are the authorities that establish and amend the benefit provisions and employer obligations of the Plan.

Plan Financial Reports and Funded Status. The Retirement System issues a publicly available financial report that includes financial statements and required supplementary information for the Plan. That report may be obtained by writing to the San Francisco City and County Employees’ Retirement System, 30 Van Ness Avenue, Suite 3000, San Francisco, CA 94102, or by calling (415) 487-7020.

The funded status of the Plan as of June 30, 2014 (the most recent date for which information is available) was as follows:

	(\$000s)
Actuarial Liability	\$ 20,224,776
Actuarial Value of Assets	<u>\$ 16,303,397</u>
Unfunded Actuarial Liability	\$ 3,921,379
Funded Status (assets/liabilities)	80.6%

Source: SFPUC.

Retirement System Funding Policy. Contributions to the basic Plan are made by both the SFPUC and its employees. Employee contributions are mandatory. Employee contribution rates for Fiscal Years 2013-14, 2012-13 and 2011-12 varied from 7.5% to 13.0% as a percentage of covered payroll. Due to certain bargaining agreements, the SFPUC contributed from 0.5% to 8.0% of covered payroll on behalf of some employees.

The contributions made by the Water Enterprise for the prior three Fiscal Years were as follows:

<u>Fiscal Year</u>	<u>Actuarially Determined Rate as a Percentage of Covered Payroll</u>	<u>Contribution (000s)</u>	<u>Percent of Required Contribution</u>
2011-12	18.09%	\$21,090	100%
2012-13	20.70	21,606	100
2013-14	20.80	25,406	100

Source: SFPUC.

Projected Future Contributions and Pension Costs. Employer-share contribution rates increased from 18.1% in Fiscal Year 2011-12 to 20.7% in Fiscal Year 2012-13 for covered City employees, as adopted by the Retirement Board in March 2012. Required employer-share rates included in the City’s projections are based on a projection scenario provided by the Cheiron consulting firm, which assumes that the pension fund achieves a 0% investment return in Fiscal Year 2011-12 and achieves its target investment return in each subsequent year. This projection assumes required employer-share contribution rates of 25.5% in Fiscal Year 2013-14, 28.6% in Fiscal

Year 2014-15, and 27.6% in Fiscal Year 2015-16. These rates are assumed to be reduced by the floating employee contribution rates included in the pension cost sharing provisions of Proposition C, as well as the increased employee contributions included in the amended labor agreements with the Police Officers Association and Firefighters Local 798. Together, these provisions result in \$38.1 million in savings to the City in Fiscal Year 2012-13, growing to \$56.5 million in Fiscal Year 2015-16. Despite these savings, SFERS employer contribution costs are projected to increase by \$10.2 million in Fiscal Year 2012-13, \$47.1 million in Fiscal Year 2013-14, and \$36.6 million in Fiscal Year 2014-15, followed by a decrease of \$12.8 million for Fiscal Year 2015-16.

Health Care Benefits. Health care benefits of the SFPUC employees, retired employees and surviving spouses are financed by beneficiaries and by the City through the City and County of San Francisco Health Service System (the “Health Service System”). Contributions are determined by a San Francisco Charter provision based on similar contributions made by the 10 most populous counties in California.

The Water Enterprise’s annual contribution for both active and retired employees amounted to approximately \$23,986,000 and \$24,482,000 in fiscal years 2014 and 2013, respectively. Included in these amounts are \$8,113,000 and \$7,875,000 for 2014 and 2013, respectively, to provide post-retirement benefits for Water Enterprise retired employees, on a pay-as-you-go basis.

There was no additional City allocation to the SFPUC contribution allocation for payments made from the Health Service System for post-retirement health benefits in 2014 and 2013.

The City has determined a Citywide Annual Required Contribution (“ARC”), interest on net other post-employment benefits other than pensions (“OPEB”) obligation, ARC adjustment, and OPEB cost based upon an actuarial valuation performed in accordance with GASB 45, by the City’s actuaries. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost of each year and any unfunded actuarial liabilities (or funding excess) amortized over 30 years. The City’s allocation of the OPEB related costs to the SFPUC for the year ended June 30, 2014 based upon its percentage of Citywide payroll costs is presented below.

The City issues a publicly available financial report for Citywide level that includes the complete note disclosures and required supplementary information related to the City’s post-retirement health care obligations. The report may be obtained by writing to the City and County of San Francisco, Office of the Controller, 1 Dr. Carlton B. Goodlett Place, Room 316, San Francisco, CA 94102, or by calling (415) 554-7500.

The following table shows the components of the City’s annual OPEB allocations for the Water Enterprise for the years ending June 30, 2014 and 2013, for the amount contributed to the plan, and changes in the City’s net OPEB obligation:

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TABLE 20
ANNUAL OPEB OBLIGATION BY ENTERPRISE
FOR THE FISCAL YEAR ENDING JUNE 30, 2014
(IN THOUSANDS)

	2014				
	<u>Water</u>	<u>Wastewater</u>	<u>Hetch Hetchy Water</u>	<u>Hetch Hetchy Power</u>	<u>SFPUC Total</u>
Annual required contribution	\$16,473	\$7,020	\$1,832	\$2,238	\$27,563
Interest on net OPEB obligation	3,448	1,469	383	469	5,769
Adjustment to ARC	(2,875)	(1,224)	(320)	(390)	(4,809)
Annual OPEB cost (expense)	17,046	7,265	1,895	2,317	28,523
Contribution made	(8,113)	(2,678)	(742)	(906)	(12,439)
Increase in net OPEB obligation	8,933	4,587	1,153	1,411	16,084
Net OPEB obligation – beginning of year	85,829	32,565	6,521	11,038	135,953
Net OPEB obligation – end of year	\$94,762	\$37,152	\$7,674	12,449	\$152,037

	2013				
	<u>Water</u>	<u>Wastewater</u>	<u>Hetch Hetchy Water</u>	<u>Hetch Hetchy Power</u>	<u>SFPUC Total</u>
Annual required contribution	\$20,210	\$8,308	\$2,108	\$2,576	\$33,202
Interest on net OPEB obligation	2,835	1,165	296	361	4,657
Adjustment to ARC	(2,350)	(965)	(245)	(300)	(3,860)
Annual OPEB cost (expense)	20,695	8,508	2,159	2,637	33,999
Contribution made	(7,875)	(2,456)	(693)	(846)	(11,870)
Increase in net OPEB obligation	12,820	6,052	1,466	1,791	22,129
Net OPEB obligation – beginning of year	73,009	26,513	5,055	9,247	113,824
Net OPEB obligation – end of year	\$85,829	32,565	\$6,521	\$11,038	\$135,953

Source: SFPUC Audited Financial Statements for the Water Enterprise, Fiscal Year ending June 30, 2014; SFPUC, Financial Services.

The City OPEB Unfunded Actuarial Accrued Liability (“UAAL”) was \$4.4 billion for Fiscal Year 2013-14. The amount allocable to the SFPUC Water Enterprise is 4.83% or \$213.5 million, which will be amortized over 30 years.

TABLE 21
ESTIMATED OPEB UNFUNDED ACTUARIAL ACCRUED LIABILITY (UAAL)
BY ENTERPRISE
(IN THOUSANDS)

	Percent of Total	UAAL at July 1, 2014
Total City	100.00%	\$4,420,146
Water Enterprise ⁽¹⁾	4.83	213,493
Wastewater Enterprise ⁽¹⁾	2.06	91,055
Hetch Hetchy Water and Power ⁽¹⁾	0.54	23,670

⁽¹⁾ Consistent with the City’s election, the SFPUC will amortize its UAAL over 30 years. The amount of the SFPUC’s UAAL and the amount to be recognized every year may vary as a result of future actuarial assumptions and calculations. See “FORWARD-LOOKING STATEMENTS” above.

Source: SFPUC, Financial Services

Pension and Health Care Cost Reforms. City voters have implemented pension and health care cost reforms in recent years to help mitigate future cost increases. These include the following propositions:

Proposition B. Proposition B was approved by voters in June 2008 and increased the years of service required to qualify for employer-funded retiree health benefits for City employees who retire under SFERS and were hired on or after January 10, 2009. Employees hired before January 10, 2009, became eligible to participate in the retirement health care system after 5 years of service and the employer paid 100% of the contribution. Proposition B also stated that a separate Retiree Health Care Trust Fund would be created to pay for the City's future costs related to retiree health care. This trust fund will be funded by employer and employee contributions for employees hired on or after January 10, 2009. These new employees would contribute up to 2% of their pre-tax pay and employees would contribute 1%.

Proposition C. Proposition C was a Charter amendment approved by voters in November 2011 that changed the way the City and current and future employees share in funding SFERS pension and health benefits.

With regard to pension benefits, the base employee contribution rate remains at 7.5% for most employees when the City contribution rate is between 11% and 12% of City payroll. Employees making at least \$50,000 will pay an additional amount up to 6% of compensation when the City contribution rate is over 12% of City payroll. When the City contribution rate falls below 11%, employee contributions will be decreased proportionately.

Proposition C creates new retirement plans for employees hired on or after January 7, 2012 that: (1) for miscellaneous employees, increased the minimum retirement age to 53 with 20 years of service or 65 with 10 years; (2) for safety employees, kept the minimum retirement age at 50 with five years of service, but increased the age for maximum benefits to 58; (3) for all employees, limited covered compensation, calculated final compensation from three-year average, and changed the multipliers used to calculate pension benefits, and (4) for miscellaneous employees, raised the age of eligibility to receive vesting allowance to 53 and reduced by half the City's contribution to vesting allowances. Proposition C limits cost-of-living adjustments for SFERS retirees.

With regard to health benefits, elected officials and employees hired on or before January 9, 2009, contribute up to 1% of compensation toward their retiree health care, with matching contribution by the City. For employees or elected officials who left the City workforce before June 30, 2001, and retire after January 6, 2012, Proposition C requires that the City contributions toward retiree health benefits remain at the same levels they were when the employee left the City workforce.

Debt Management and Fund Balance Reserve Policies

The SFPUC has established Debt Management Policies and Procedures for debt financing under its jurisdiction. These policies apply to all SFPUC enterprises and are intended to enable the SFPUC to effectively manage its debt issuance and debt management practices. The policies and procedures are reviewed biannually and revised, as necessary, with Commission approval. The most recent revisions were approved on April 9, 2013. The next update to the Commission is planned for March 2015. The Commission may also approve exceptions to adherence to these policies.

The SFPUC also established a Fund Balance Reserve Policy in 2010. This policy is applied to the long-term financial planning of all SFPUC enterprises, including the Water Enterprise. The Fund Balance Reserve Policy states that operating and capital plans, budgets and rates will be projected and proposed for adoption such that all bond indenture requirements are met or exceeded and that Operating Fund Balance Reserves meet one or more of the following: total at least 15% of annual revenues; total at least 15% of annual expenditures; and result in Debt Service Coverage, on a bond indenture basis, including fund balance reserves available to pay debt service, of at least 1.25 times.

The SFPUC makes no representation that these policies will not be revised or amended and, except to the extent required for compliance with the terms of the Indenture, and makes no representation that these policies will be followed by the SFPUC.

Allocation of Costs

The SFPUC allocates various common costs it incurs among the Water Enterprise, Hetch Hetchy Water and Power and the Wastewater Enterprise. Allocations are based on the SFPUC management's best estimate and may change from year to year depending on activities undertaken by each enterprise and information available. The most recent cost allocation review was done in 2009. For the years ended June 30, 2014 and June 30, 2013, the SFPUC allocated \$40.2 million and \$4.8 million, respectively, in administrative costs to the Water Enterprise, which is included in the financial statements under various expense categories.

Inter-Enterprise Transfers

An annual transfer occurs from the Water Enterprise to Hetch Hetchy Water and Power to pay for services related to water storage and delivery. The budgeted transfer amount is \$36.8 million for Fiscal Year 2014-15, and was \$33.3 million for Fiscal Year 2013-14. An additional transfer related to power purchases is budgeted at \$10.0 million for Fiscal Year 2014-15 and was \$8.7 million in Fiscal Year 2013-14. Should Hetch Hetchy Water and Power incur higher capital costs or higher operating costs in the future, the amount of this transfer could increase.

Payments to/from the City

Payments to City for Interdepartmental Services. A variety of City departments provide services such as engineering, purchasing, legal, data processing, telecommunications, and human resources to the Water Enterprise and charge amounts designed to recover those costs. These charges totaled \$12.9 million for Fiscal Year 2013-14 and \$14.2 million for Fiscal Year 2012-13.

Lease Certificate of Participation Financing. On October 7, 2009, the City issued \$167.67 million in fixed-rate Certificates of Participation, Series 2009 C and D, to fund the future headquarters of the SFPUC at 525 Golden Gate Avenue. Pursuant to a Memorandum of Understanding between the City and the SFPUC, the SFPUC will reimburse the City General Fund for all costs in connection with this City financing. This obligation is subordinate to debt service on the Bonds and payments related thereto are allocated among the three SFPUC Enterprises. See "OBLIGATIONS PAYABLE FROM REVENUES – Other Obligations Payable from Revenues."

Water Payments from Other Agencies. The SFPUC receives payments from other agencies of the City for their share of the proportionate cost of the service provided to them. In prior fiscal years, the Water Enterprise delivered water without charge to certain City departments. In Fiscal Year 2007-08, the Water Enterprise began charging all City departments for water (with the exception of itself and Fire Department for water dispensed from fire hydrants). The Water Enterprise collected payments from other City agencies totaling approximately 7.0 million in Fiscal Year 2013-14 and \$6.0 million in Fiscal Year 2012-13.

Investment of SFPUC Funds

The SFPUC's pooled deposits and investments are invested pursuant to State law and the investment policy established by the City Treasurer and overseen by the Treasury Oversight Committee. This policy seeks the preservation of capital, liquidity and yield, in that order of priority. The policy addresses the soundness of the financial institutions that hold City assets and the types of investments permitted by the California Government Code.

The earned income yield for the current fiscal year was 0.70% per annum as of December 1, 2014.

The SFPUC's non-pooled deposits and investments consist primarily of funds related to the SFPUC's outstanding bonds, which are invested pursuant to policy established by the SFPUC, subject to the restrictions contained in the applicable bond documentation.

Risk Management and Insurance

The SFPUC's risk management program encompasses both self-insured and insured coverage. Risk assessments and coverage are coordinated by the SFPUC Enterprise Risk Manager through the City Office of Risk

Management. With certain exceptions, the City and SFPUC’s general approach is to first evaluate self-insurance for the risk of loss to which it is exposed. Based on this analysis, the SFPUC has determined that mitigating risk through a “self-retention” mechanism is more economical as it manages risks internally and administers, adjusts, settles, defends, and pays claims from budgeted resources (i.e., pay-as-you-go). When economically more viable or when required by debt financing covenants, the SFPUC obtains commercial insurance.

At least annually, the City reviews and actuarially determines general liability and workers’ compensation liabilities, which are recorded as “Damages and Claims” and “Accrued Worker’s Compensation” in the financial statements.

The SFPUC does not maintain commercial earthquake coverage for the Water Enterprise, with certain minor exceptions, such as a sub-limit for fire-sprinkler leakage due to earthquake under the Property Insurance program.

The following is a summary of the SFPUC’s coverage approach to risk:

Primary Risks	Typical Coverage Approach
General Liability	Self-Insure
Property	Purchased Insurance & Self-Insured
Electronic Data Processing	Purchased Insurance & Self-Insured
Workers’ Compensation	Self-Insure through City Pool
Other Risks	Typical Coverage Approach
Surety Bonds	Purchased and Contractually Transferred
Errors & Omissions	Combination of Self-Insured and Contractual Risk Transfer
Professional Liability	Combination of Self-Insured and Contractual Risk Transfer
Public Official Liability	Purchased Insurance
Employee Practices Liability	Purchased Insurance
Builders Risk	Contractual Risk Transfer
Crime	Purchased Insurance

The SFPUC’s property risk management approach varies depending on whether the facility is currently under construction, or if the property is part of revenue-generating operations. The majority of purchased insurance program is for revenue-generating facilities, debt-financed facilities, and mandated coverage to meet statutory or contractual requirements.

Additionally, the SFPUC acknowledges the importance of aligning strategic planning to the risk management process and has implemented an Enterprise Risk Management (“ERM”) program to meet this need. The framework provides a strategic approach to managing operational risks. The ERM program has been implemented thus far at the SFPUC Business & Financial Services Bureau and Power Enterprises and plans are in place to continue implementation across the remainder of the SFPUC.

Capital Project Risk Management. For capital construction projects, the SFPUC has utilized traditional contractual risk transfer, owner-controlled insurance programs or other alternative insurance programs. Under the latter two approaches, the insurance program usually provides coverage for the entire construction project, along with multiple risk coverages, such as general liability and workers compensation. When a contractual risk transfer is used for capital construction risks, the SFPUC requires each contractor to provide its own insurance, while ensuring that the full scope of work be covered with satisfactory levels to limit the SFPUC’s risk exposure balanced by that which is commercially available.

Bonds are required, unless Builder’s Risk is purchased, in most phases of the construction contracting process for such phases, as bid, performance, and payment or maintenance. Additionally, bonds may be required in other contracts where goods or services are provided to ensure compliance with applicable terms and conditions such as warranty.

Professional liability policies are either directly purchased insurance on behalf of the SFPUC, transferred through contract to the contracted professional, or retained through self-insurance on a case by case basis depending

on the size, complexity or scope of construction or professional service contracts. Professional liability policies are typically purchased for services provided by engineers, architects, design professionals and other licensed or certified professional service providers.

Builder's Risk policies of insurance are required to be provided either through an owner-controlled insurance program or the contractor on all construction projects for the full value of the construction.

HISTORICAL OPERATING RESULTS

Summary of Historical Operating Results and Debt Service Coverage

The historical results of operations reflected in the following table are based on the tables contained in the Financial Statements entitled "Statements of Revenues, Expenses and Changes in Net Assets" and "Statements of Cash Flows" for the Fiscal Years listed. See "APPENDIX E – SFPUC WATER ENTERPRISE FINANCIAL STATEMENTS." The calculation of debt service coverage includes net operating income and funds not budgeted to be spent in the next twelve months and legally available to pay debt service, as permitted under the Indenture. The audited financial statements of the Water Enterprise for Fiscal Years 2012-13 and 2013-14, prepared by the SFPUC and audited by KPMG LLP, independent certified public accountants, are attached as APPENDIX E to this Official Statement. The following table should be read in conjunction with such financial statements. KPMG LLP has not reviewed the following table.

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TABLE 22
HISTORICAL REVENUES, OPERATING & MAINTENANCE EXPENSES
AND DEBT SERVICE COVERAGE FOR FISCAL YEARS ENDED JUNE 30
(IN THOUSANDS)⁽¹⁾

	2010	2011	2012	2013	2014
OPERATING AND INVESTMENT REVENUES					
Retail Water Sales	\$ 119,166	\$ 129,186	\$ 163,746	\$ 169,651	\$ 177,252
Wholesale Water Sales ⁽²⁾	129,203	142,201	160,423	530,862	177,575
Subtotal - Water Sales	248,369	271,387	324,169	700,513	354,827
Rental Income	8,584	9,388	9,398	9,599	10,675
Other Revenues	7,655	6,751	7,161	9,271	12,007
Investing Activities ⁽³⁾	9,823	17,283	33,450	(281)	10,907
Capacity Fees ⁽⁴⁾	610	869	1,373	2,087	2,373
Total Revenues	\$ 275,041	\$ 305,678	\$ 375,551	\$ 721,189	\$ 390,789
OPERATING AND MAINTENANCE EXPENSE					
Labor and Fringe Benefits	\$ 108,178	\$ 111,363	\$ 114,337	\$ 119,151	\$ 119,849
Contractual Services	13,087	15,586	14,838	12,819	10,921
Materials and Supplies	12,748	13,839	12,140	13,074	12,154
Depreciation	52,571	58,752	64,595	75,448	89,026
General and Administrative and Other Operating ⁽⁵⁾	43,812	16,079	49,257	25,563	46,749
Services of Other Departments	47,574	46,308	49,395	57,684	54,856
Total Expenses	\$ 277,970	\$ 261,927	\$ 304,562	\$ 303,739	\$ 333,555
OPERATING AND INVESTMENT INCOME	\$ (2,929)	\$ 43,751	\$ 70,989	\$ 417,450	\$ 57,234
COVERAGE CALCULATION⁽⁶⁾					
Operating and Investment Income	\$ (2,929)	\$ 43,751	\$ 70,989	\$ 417,450	\$ 57,234
+ Adjustment to Investing Activities ⁽⁷⁾	2,896	325	(784)	258	(2,438)
+ Depreciation & Non-Cash Expenses	60,448	60,619	72,264	78,323	95,355
+ Changes in Working Capital	17,320	21,052	16,714	52,193	46,088
= "Net Revenue per Indenture"	77,735	125,747	159,183	548,224	196,239
+ Other Available Funds ⁽⁸⁾	60,951	44,130	27,473	26,744	287,522
Funds Available for Debt Service	\$ 138,686	\$ 169,877	\$ 186,656	\$ 574,968	\$ 483,761
Debt Service	\$ 69,621	\$ 86,554	\$ 122,289	\$ 248,530	\$ 141,325
Debt Service Coverage (minimum 1.25)⁽⁹⁾	1.99x	1.96x	1.53x	2.31x	3.42x
Sufficiency of Revenues (minimum 1.00)⁽¹⁰⁾	1.12x	1.45x	1.30x	2.21x	1.39x

⁽¹⁾ Operating and Investment Income presented in this table differs from the Change in Net Assets presented in the Statement of Revenues, Expenses and Changes in Net Assets in the Audited Financial Statements. See "APPENDIX E – SFPUC WATER ENTERPRISE FINANCIAL STATEMENTS." This table presents Debt Service Coverage as defined under the Indenture and excludes certain elements of nonoperating revenue and expenses included in the Statements of Revenues, Expenses and Changes in Net Assets. An example of an excluded element is Grant Revenue.

⁽²⁾ Includes a one-time early prepayment of \$356,139,000 from the Wholesale Customers for capital costs recovery in Fiscal Year 2013. See "FINANCIAL OPERATIONS – Wholesale Water Sales Revenue – Capital Cost Recovery Prepayment."

⁽³⁾ Increase in 2012 due to large cash balances held with the City Treasurer. Investment income in 2013 is negative due to unrealized losses of \$18.2M caused by market decline in investment value.

⁽⁴⁾ Capacity Fees reported as nonoperating revenue for the fiscal years presented above; implemented in 2008.

⁽⁵⁾ Other operating expenses includes construction contract expenses net of capitalization and judgment and claims liability, which vary significantly from year to year.

⁽⁶⁾ The Indenture defines "Net Revenue" on a cash basis. See "SECURITY FOR THE BONDS" and "APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE."

⁽⁷⁾ Represents adjustments to show investing activities on a cash basis.

⁽⁸⁾ Under the Indenture, in addition to current year cash flow, the debt service coverage calculation permits the inclusion of certain funds not budgeted to be spent in such twelve months and legally available to pay debt service. See "SECURITY FOR THE BONDS" and "APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE."

⁽⁹⁾ Debt Service Coverage calculated based on Net Revenues and certain available fund balances of the SFPUC or Water Enterprise. See "SECURITY FOR THE BONDS – Rate Covenants – Debt Service Coverage."

⁽¹⁰⁾ Unaudited. See "SECURITY FOR THE BONDS – Rate Covenants."

Source: SFPUC, Financial Services

PROJECTED OPERATING RESULTS

The following table presents projected operating results for the Water Enterprise. These projections are based on an analysis of historic trends, adjusted where appropriate for known or anticipated changes in operations. The projections are also based on the assumptions that all retail water rate increases necessary to finance the WSIP and the Water Enterprise's non-WSIP capital improvement program will be obtained.

THESE PROJECTIONS, ALL OR SOME OF WHICH MAY OR MAY NOT BE REALIZED, ARE BASED ON THE ISSUANCE OF ADDITIONAL BONDS FOR THE REMAINDER OF WSIP, AS WELL AS NON-WSIP. CAPITAL PROJECTS AS CURRENTLY PROPOSED. CHANGES IN THE CIRCUMSTANCES THAT FORM THE BASES FOR THE ASSUMPTIONS USED IN DEVELOPING THESE PROJECTIONS, AS WELL AS UNANTICIPATED EVENTS, MAY OCCUR SUBSEQUENT TO THE DATE OF THE OFFICIAL STATEMENT. THEREFORE, ACTUAL RESULTS MAY DIFFER MATERIALLY FROM THE PROJECTIONS SHOWN.

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TABLE 23
PROJECTED REVENUES, OPERATING & MAINTENANCE EXPENSES
AND DEBT SERVICE COVERAGE
FOR FISCAL YEAR ENDING JUNE 30
(IN THOUSANDS)

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>
REVENUE					
Retail Revenues ⁽¹⁾	\$171,144	\$197,184	\$220,846	\$242,930	\$259,935
Retail Water Sales Rate Adjustments ⁽²⁾	20,537	23,662	22,085	17,005	25,994
Wholesale Revenues ⁽³⁾	151,087	171,448	247,289	240,969	248,929
Wholesale Water Sales Rate Adjustments ⁽⁴⁾	36,813	75,952	(5,086)	15,018	46,954
Other Miscellaneous Income ⁽⁵⁾	27,200	28,421	30,162	31,852	32,609
Total Revenues †	<u>\$406,782</u>	<u>\$496,666</u>	<u>\$515,295</u>	<u>\$547,775</u>	<u>\$614,421</u>
OPERATING AND MAINTENANCE EXPENSE^{(6) (7)}	<u>\$241,897</u>	<u>\$238,375</u>	<u>\$249,521</u>	<u>\$250,219</u>	<u>\$253,620</u>
NET OPERATING REVENUE	<u>\$164,885</u>	<u>\$258,291</u>	<u>\$265,774</u>	<u>\$297,556</u>	<u>\$360,801</u>
plus AVAILABLE FUND BALANCE	<u>\$177,800</u>	<u>\$144,290</u>	<u>\$119,500</u>	<u>\$112,200</u>	<u>\$104,750</u>
FUNDS AVAILABLE FOR DEBT SERVICE^{† (8)}	<u>\$342,685</u>	<u>\$402,581</u>	<u>\$385,274</u>	<u>\$409,756</u>	<u>\$465,551</u>
DEBT SERVICE^{(9) (10) (11)}	\$205,117	\$234,315	\$235,836	\$253,092	\$288,619
DEBT SERVICE COVERAGE (minimum 1.25)⁽¹²⁾	1.67x	1.72x	1.63x	1.62x	1.61x
SUFFICIENCY OF REVENUES (minimum 1.00)^{(13) (14)}	1.03x	1.15x	1.11x	1.16x	1.23x

† Totals may not add due to independent rounding.

(1) Assumes projected average daily billed consumption of 62.3 MGD in Fiscal Year 2014-15 and 64.1 MGD thereafter. See “THE WATER ENTERPRISE – Historic Water Sales and Top Customers.”

(2) Includes average annual rate increases of 12.0%, 12.0%, 10.0%, and 7.0% approved for Fiscal Years 2014-15 through 2017-18, and assumes a projected increase of 10% for Fiscal Year 2018-19. See “FINANCIAL OPERATIONS – Retail Water Sales Revenue.”

(3) Assumes projected average daily billed consumption of 127.7 MGD in Fiscal Year 2014-15 and 130.0 MGD thereafter. See “THE WATER ENTERPRISE – Historic Water Sales and Top Customers.”

(4) Includes approved rate increase of 19.6% in Fiscal Year 2014-15, and assumes projected rate increases of 30.7% in Fiscal Year 2015-16, -2.1% in Fiscal Year 2016-17, 5.9% in Fiscal Year 2017-18, and 15.9% in Fiscal Year 2018-19. See “FINANCIAL OPERATIONS – Wholesale Water Sales Revenue.”

(5) Includes, among other amounts, projected interest income, property rentals, recoveries and service installation charges.

(6) Represents Operating and Maintenance Expense net of depreciation and other non-cash items per Indenture. Excludes prior year budgeted but unspent carry-forward expenses of \$12.5 million in Fiscal Year 2014-15. See “SECURITY FOR THE BONDS” and “APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE.”

(7) Pursuant to the Indenture, the Water Enterprise’s share of lease payments associated with the 2009 Golden Gate COPs relating to the SFPUC’s 525 Golden Gate Avenue Headquarters is excluded from Operating and Maintenance Expense and, therefore, Net Revenues and Debt Service Coverage.

(8) Represents Net Revenues under the Indenture. See “SECURITY FOR THE BONDS.”

(9) Fiscal Year 2014-15 Annual Debt Service offset by release of \$8.3 million of moneys on deposit in excess of the Required Reserve for certain Bond Reserve Accounts; shown on cash basis.

(10) Assumes federal Build America Bonds interest subsidy payments sequester rate of 7.3%.

(11) Assumes future issuance of Additional Series of Bonds of approximately \$330 million in Fiscal Year 2015-16, \$260 million in Fiscal Year 2016-17 and \$270 million in Fiscal Year 2017-18. Includes savings from issuance of 2015 Series A Bonds and refunding of Refunded Bonds.

(12) Pursuant to the Indenture, Debt Service Coverage calculated based on Net Revenues and certain available fund balances of the SFPUC or Water Enterprise. See “SECURITY FOR THE BONDS – Rate Covenants – Debt Service Coverage.”

(13) The Water Enterprise budgeted and appropriated \$50.6 million and \$16.3 million of available fund balances to be used as a source of funds in Fiscal Years 2014-15 and 2015-16, respectively. Such amounts offset Operation and Maintenance Costs in sufficiency of Revenues calculations. See “– Management Discussion of Fiscal Year 2014-15 Projections.”

(14) Adds the Water Enterprise’s share of the lease payments associated with the 2009 Golden Gate COPs back to Operating and Maintenance Expense. Such amounts range from \$3.8 million in Fiscal Year 2014-15 to \$4.6 million in Fiscal Year 2018-19.

Note: Amounts set forth in the table are projections. Actual results may differ materially from these projections. See “FORWARD-LOOKING STATEMENTS” above.

Source: SFPUC, Financial Services.

In the preparation of the projections set forth in Table 23 herein, the SFPUC has made certain assumptions with respect to conditions that may occur in the future. While the SFPUC believes these assumptions are reasonable for the purpose of the projections, they are dependent on future events, and actual conditions are likely to differ, perhaps materially, from those assumed. To the extent actual future conditions differ from those assumed by the SFPUC or provided to the SFPUC by others, actual results will vary from those projected. This projected information has not been compiled, reviewed or examined by the SFPUC's independent accountants.

The assumptions used in the table above are as follows:

Projected Revenue Assumptions. The projected revenues are based on projected water sales and the schedules of rates to be effective in each year. In May 2014, the SFPUC adopted schedules of water rates for Retail Customers to be effective in each of the Fiscal Years 2014-15 through 2017-18. The adopted schedules provide for 12.0% rate increases in Fiscal Year 2014-15 and Fiscal Year 2015-16, a 10.0% rate increase in Fiscal Year 2016-17 and a 7.0% rate increase in Fiscal Year 2017-18. See "FINANCIAL OPERATIONS – Retail Water Sales Revenue." The projections assume a further retail rate increase of 10.0% for Fiscal Year 2018-19.

Revenues from sales of water to the Wholesale Customers are calculated in accordance with the Water Supply Agreement.

Water volume sales to the Wholesale Customers and Retail Customers are projected to be flat from Fiscal Years 2015-16 through 2017-18. These levels are 9.0% and 6.0% lower, respectively, than those projected in Fiscal Year 2013-14 and used to formulate the budget for Fiscal Years 2014-15 and 2015-16.

Interest earnings assume annual yields of 0.75% in Fiscal Year 2014-15, 1.00% in Fiscal Year 2015-16, 1.50% in Fiscal Year 2016-17, and 2.0% thereafter.

Projected Operating Expense Assumptions. Operating and Maintenance Expenses are projected to grow at 3% per year over the projected period.

Projected Debt Service Assumptions. Projected debt service reflects projected Annual Debt Service on Outstanding Bonds and anticipated Additional Series of Bonds (net of capitalized interest and debt service reserve fund earnings). Assumptions include no reserve account and up to three years of capitalized interest for all future issuances of Additional Series of Bonds.

Projected debt service reflects an offset for Refundable Credits to reduce the amount of interest used in calculating Annual Debt Service. See "SECURITY FOR THE BONDS" and "APPENDIX A – SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE".

Issuances of Additional Series of Bonds are at an assumed 5% borrowing rate. Actual issuance dates, borrowing rates and capitalized interest periods for Additional Series of Bonds may vary.

Following the issuance of the 2015 Series A Bonds, the SFPUC anticipates that it will issue the next Additional Series of Bonds to fund the WSIP and other Water Enterprise capital improvement program projects in Fiscal Year 2015-16 in an aggregate principal amount of approximately \$330 million. The SFPUC may also issue refunding bonds from time to time in response to market conditions in order to achieve debt service savings. See "FINANCING OF CAPITAL IMPROVEMENTS."

Management Discussion of Fiscal Year 2014-15 Projections

The SFPUC's water customers have responded to the current California drought with conservation efforts that have exceeded the call for 10% voluntary demand reductions. See "THE WATER ENTERPRISE – Current California Drought." At the end of the second quarter of Fiscal Year 2014-15, combined Retail and Wholesale Customer water sale revenues were lower than budgeted by \$41.6 million (\$16.7 million for Retail Customers and \$24.9 million for Wholesale Customers). The \$24.9 million Wholesale Customer revenue variance will be recaptured in Fiscal Year 2015-16 through the Wholesale Revenue Requirement recovery mechanism set forth in the 2009 Water Supply Agreement. See "FINANCIAL OPERATIONS – Wholesale Water Sales Revenues." In addition, retail water rates are scheduled to increase by 12% on July 1, 2015 for Fiscal Year 2015-16 as part of the

four-year annual rate increase package that has already been approved through Fiscal Year 2017-18. See “FINANCIAL OPERATIONS – Retail Water Rate Adjustments.”

In response to lower-than-projected water sales, the SFPUC is smoothing rate impacts by utilizing available cash balances in compliance with Indenture requirements. See “SECURITY FOR THE BONDS.” As part of the Water Enterprise’s Fiscal Year 2014-15 budget, \$50.6 million of available fund balances have been appropriated to offset Operation and Maintenance Costs of the Water Enterprise, reducing the amount of Revenues necessary to satisfy Indenture covenants relating to the sufficiency of Revenues. See “SECURITY FOR THE BONDS – Rate Covenants – Sufficiency of Revenues.” As of the second quarter of Fiscal Year 2014-15, the SFPUC is forecasting, on a year-end budgetary basis, coverage of all required Water Enterprise expenditures (per the covenants in the Indenture relating to sufficiency of Revenues) at 1.03 times. In addition, the SFPUC is forecasting Bond debt service coverage (per the Indenture) at 1.67 times. See “SECURITY FOR THE BONDS – Rate Covenants – Debt Service Coverage.”

Should the drought persist, resulting in lower-than-forecast demand and sales, the SFPUC will manage revenues and expenditures so as to comply with Indenture-based rate covenants, as well as meet its “Fund Balance Reserve Policy” targets. See “SECURITY FOR THE BONDS – Rate Covenants” and “FINANCIAL OPERATIONS – Debt Management and Fund Balance Reserve Policies.”

RISK FACTORS

This section provides a general overview of certain risk factors which should be considered, in addition to the other matters set forth in this Official Statement, in evaluating an investment in the 2015 Series A Bonds. This section is provided for convenience and is not meant to be a comprehensive or definitive discussion of the risks associated with an investment in the 2015 Series A Bonds, and the order in which this information is presented does not necessarily reflect the relative importance of various risks.

Potential investors in the 2015 Series A Bonds are advised to consider the following factors, among others, and to review this entire Official Statement to obtain information essential to the making of an informed investment decision. Any one or more of the risk factors discussed below, among others, could lead to a decrease in the market value and/or in the marketability of the 2015 Series A Bonds or adversely affect the ability of the SFPUC to make timely payments of principal of or interest on the 2015 Series A Bonds. There can be no assurance that other risk factors not discussed herein will not become material in the future.

General

The ability of the SFPUC to comply with its covenants under the Indenture and to generate Revenues sufficient to pay principal of and interest on the 2015 Series A Bonds may be adversely affected by actions and events outside of the control of the SFPUC and may be adversely affected by actions taken (or not taken) by voters, property owners, taxpayers or persons obligated to pay fees and charges. Among other matters, drought, general and local economic conditions and changes in law and government regulations could adversely affect the amount of Revenues realized by the SFPUC or significantly raise the cost of operating the Water Enterprise.

In addition, the realization of future Revenues is subject to, among other things, the capabilities of management of the SFPUC, the ability of the SFPUC to provide service to its Retail Customers and the Wholesale Customers, the ability of the SFPUC to establish, maintain and collect charges from its Retail Customers and the Wholesale Customers and the ability of the SFPUC to establish, maintain and collect rates and charges sufficient to pay for Operation and Maintenance Costs of the Water Enterprise, the 2015 Series A Bonds and other obligations payable from Revenues. See “FINANCIAL OPERATIONS” and “OBLIGATIONS PAYABLE FROM REVENUES.”

Limited Obligation

If the SFPUC defaults on its obligations to make debt service payments on the Bonds, the Trustee has the right under the Indenture to accelerate the total unpaid principal amount of the Bonds. However, in the event of a default and such acceleration, there can be no assurance that the SFPUC, and correspondingly the Trustee, will have sufficient moneys available for payment of the 2015 Series A Bonds.

The SFPUC is not obligated to pay the principal of, or premium, if any, or interest on the 2015 Series A Bonds except from Revenues of the Water Enterprise. The SFPUC has no taxing power. The General Fund of the City is not liable for the payment of the principal of, or premium, if any, or interest on the 2015 Series A Bonds, and neither the credit nor the taxing power of the City is pledged to the payment of the principal of, or premium, if any, or interest on the 2015 Series A Bonds. The 2015 Series A Bonds are not secured by a legal or equitable pledge of, or charge, lien or encumbrance upon, any property of the City or of the SFPUC or any of its income or receipts, except Revenues.

Risks Related to Water Enterprise Facilities and Operations

The operation of the Water Enterprise, and the physical condition of the Water Enterprise facilities, are subject to a number of risk factors that could adversely affect the reliability of the SFPUC's water supply, or increase the operating expenses of the Water Enterprise. Prolonged damage to the Water Enterprise could interrupt the ability of the SFPUC to realize Revenues sufficient to pay principal of and interest on the 2015 Series A Bonds, or require the SFPUC to increase expenditures for repairs significantly enough to adversely impact the SFPUC's ability to pay the principal of or interest on the 2015 Series A Bonds. These factors could include, among others, the following.

Failure of Water Facilities. Many of the Water Enterprise's facilities have been in service for an extended period and may reach the end of their useful lives. See "WATER FACILITIES – Physical Condition of Facilities", "CAPITAL IMPROVEMENT PROGRAM" and "APPENDIX D – WATER SYSTEM IMPROVEMENT PROGRAM."

Seismic Hazards. The Water Enterprise's distribution and transmission systems and the facilities of the Hetch Hetchy Project (as hereinafter defined) are located in seismically active regions of the State, and cross three major known active fault zones (the San Andreas Fault, the Hayward fault and the Calaveras Fault). See "WATER FACILITIES – Seismic Hazards."

Other Natural and Man-Made Disasters. Other natural disasters, including without limitation wildfires, flooding and landslides, or man-made disasters, including without limitation natural gas pipeline failures or explosions, could interrupt operation of the Hetch Hetchy Project or the Regional Water System. See "WATER FACILITIES – Wildfire Considerations; 2013 Rim Fire".

Casualty Losses. The SFPUC's risk management program includes both self-insured and insured coverages; however, the program does not provide coverage for every conceivable risk of loss. Damage attributable to seismic events and environmental pollution are excluded. In situations where the SFPUC has not purchased commercial coverage, the Water Enterprise has a 'self-retention' program that it administers and retains budgeted resources internally to provide coverage for loss liabilities. See also "FINANCIAL OPERATIONS – Risk Management and Insurance." The SFPUC is not required to either insure against or self-insure against every potential risk of loss, and there is a risk that damage or destruction of property and equipment comprising the Water Enterprise could occur for which no insurance or self-insurance funds will be available. There can be no assurance that insurance providers will pay claims under any policies promptly, or at all, should a claim be made under such policies in connection with property loss or damage. It is possible that an insurance provider will refuse to pay a claim, especially if it is substantial, and force the SFPUC to sue to collect on or settle the insurance claim. Further, there can be no assurances that any insurance proceeds will be sufficient to rebuild or replace any damaged property. The SFPUC is authorized under the WSA to adopt emergency rate increases which helps to mitigate this risk.

Drought. The State is located in a semi-arid region and is subject to periodic drought. An extended drought could adversely affect the ability of the SFPUC to deliver water sufficient to satisfy all of the demands of its customers. If the SFPUC were to deliver less water to its customers, the SFPUC would need to increase the rates payable by customers or Revenues would decline. The SFPUC may also seek to acquire, and would be obligated to pay the cost of, additional water to deliver to its customers. The SFPUC has adopted a drought planning sequence and associated operating procedures respecting the delivery of water during a drought. The SFPUC is authorized under the WSA to adopt drought surcharges if needed.

See “THE WATER ENTERPRISE – Water Supply Reliability and Drought Planning.” For a discussion of the current California droughts, see “WATER ENTERPRISE – Current California Drought”.

Safety and Security. Military conflicts and terrorist activities may adversely impact the operations of the Water System or the finances of the SFPUC. The SFPUC continually plans and prepares for emergency situations and immediately responds to ensure services are maintained. See “WATER FACILITIES – Safety and Security.” However, there can be no assurance that any existing or additional safety and security measures will prove adequate in the event that terrorist activities are directed against the assets of the Water Enterprise or that costs of security measures will not be greater than presently anticipated.

Statutory and Regulatory Compliance. The operation of the Water Enterprise is subject to a variety of federal and State statutory and regulatory requirements concerning matters such as water quality, dam safety, instream fishery flows and endangered species. SFPUC’s failure to comply with applicable laws and regulations could result in significant fines and penalties. In addition to claims by private parties, changes in the scope and standards for public agency water systems such as the Water Enterprise may also lead to administrative orders issued by federal or State regulators. Future compliance with such orders could also impose substantial additional operating expenses on the Water Enterprise. See “REGULATORY MATTERS.”

Endangered Species. Various aquatic species (including native fishes) present in the Tuolumne River and Bay Area streams (e.g., Alameda, San Mateo and Pilarcitos Creeks) are either listed or candidates for listing under the State or federal endangered species acts. New listings and future enforcement actions under the acts, or conditions placed in permits to undertake construction for certain projects, could potentially directly affect water flow and/or water supplies available to the Water Enterprise. See “REGULATORY MATTERS – Endangered Species”.

Labor Actions. The Charter prohibits SFPUC and other City employees from striking. Nonetheless, a work stoppage or other labor action could limit the SFPUC’s ability to operate the Water Facilities and adversely impact Revenues.

Proposals to Dismantle Hetch Hetchy Reservoir. Various environmental advocates have from time to time proposed the dismantling of Hetch Hetchy Dam with the aim of draining Hetch Hetchy reservoir and restoring the river valley, most recently through a ballot initiative ordinance to require a planning process for the restoration of Hetch Hetchy Valley that was rejected by voters November 2012. Any such proposals, if implemented, would impose substantial additional operating and capital expenses on the Water Enterprise. See “FUTURE DEMAND AND SUPPLY – Proposals to Restore Hetch Hetchy Valley.”

Construction Related Risks

Construction projects for the Water Enterprise are subject to ordinary construction risks and delays applicable to projects of their kind, such as (i) inclement weather affecting contractor performance and timeliness of completion, which could affect the costs and availability of, or delivery schedule for, equipment, components, materials, labor or subcontractors; (ii) contractor claims or nonperformance; (iii) failure of contractors to execute within contract price; (iv) work stoppages or slowdowns; (v) failure of contractors to meet schedule terms; (vi) errors or omissions in contract documents requiring change orders; (vii) the occurrence of a major seismic event; or (viii) unanticipated project site conditions, including the discovery of hazardous materials on the site or other issues regarding compliance with applicable environmental standards, and other natural hazards or seismic events encountered during construction. In addition, Water Enterprise construction projects may require scheduling system shutdowns to avoid impacting water deliveries and many shutdown windows are inflexible. Increased construction costs or delays could impact the Water Enterprise’s financial condition in general and the implementation of its capital programs in particular.

Limitations on Rate-Setting

The generation of Revenues sufficient to satisfy the requirements of the Indenture and to pay the principal of and interest on the 2015 Series A Bonds will require the SFPUC to raise the water rates payable by its customers. The increase or maintenance of retail water rates is subject to various substantive and procedural requirements and limitations. See “FINANCIAL OPERATIONS – Retail Water Sales Revenue” and “CONSTITUTIONAL, STATUTORY AND CHARTER LIMITATIONS.”

Water rates payable by the Wholesale Customers are established under the WSA, which will help reduce the risk that Revenues will be insufficient for the purposes described in this section. Rates established pursuant to the WSA are subject to the substantive requirements and the procedures, including procedures for resolving disputes, of applicable law and as set forth in the WSA. The WSA also provides for rate adjustments for drought and non-drought emergencies if needed. See “FINANCIAL OPERATIONS – Wholesale Water Sales Revenue” and “APPENDIX C – SUMMARY OF CERTAIN PROVISIONS OF THE WATER SUPPLY AGREEMENT.”

Initiative, Referendum, Charter Amendments and Future Legislation

Under the State Constitution, the voters of the State have the ability to initiate legislation and require a public vote on legislation passed by the State Legislature through the powers of initiative and referendum, respectively. Under the Charter, the voters of the City have similar powers, and can restrict or revise the powers of the SFPUC through the approval of a Charter amendment, or can exercise the powers of the SFPUC through adoption of an initiative ordinance. In general, the SFPUC is unable to predict whether any such initiatives might be submitted to or approved by the voters, the nature of such initiatives, or their potential impact on the SFPUC or the Water Enterprise. See “CONSTITUTIONAL, STATUTORY AND CHARTER LIMITATIONS.”

For example, a proposed ballot initiative ordinance to require a “Water Sustainability and Environmental Restoration” planning process was submitted to and rejected by San Francisco voters in November 2012. See “FUTURE WATER DEMAND AND SUPPLY – Proposals to Restore Hetch Hetchy Valley.”

In addition, the SFPUC is subject to various laws, rules and regulations adopted by the local, State and federal governments and their agencies. The SFPUC is unable to predict the adoption or amendment of any such laws, rules or regulations, or their effect on the operations or financial condition of the SFPUC.

Increased Operation and Maintenance Expenses

There can be no assurance that the operation and maintenance expenses of the SFPUC, such as wages and salaries, pension and other benefits, and purchased power costs, will not increase, perhaps substantially. See FINANCIAL OPERATIONS – Operation and Maintenance Expenses.

Bankruptcy or Financial Failure of Wholesale Customers

The financial failure or bankruptcy of a Wholesale Customer could adversely affect the ability of such Wholesale Customer to honor its obligation under the WSA (including its obligation to pay the purchase price of water delivered by the SFPUC to such Wholesale Customer).

The SFPUC is not aware of the existing or impending financial failure or bankruptcy of any Wholesale Customer, but there can be no assurance that a financial failure or bankruptcy of a Wholesale Customer will not occur. If a Wholesale Customer were to become bankrupt, the SFPUC may be unable to enforce the terms of the WSA against such Wholesale Customer and the SFPUC’s right to receive payment for water delivered prior to bankruptcy but not invoiced or invoiced but not paid may be limited to the rights of an unsecured creditor of the bankrupt entity. Further, there can be no assurance that the SFPUC will be physically able or legally permitted to cease or interrupt deliveries of water to a non-paying Wholesale Customer.

Although no assurance can be provided, the SFPUC believes that any reduction in Revenues as a result of the inability to collect payment for water delivered to a bankrupt Wholesale Customer or as a result of any temporary interruption or reduction of water deliveries will not be material. The SFPUC further believes that, following such bankruptcy, the amount of water delivered for the service area currently served by such Wholesale

Customer will not be reduced and that the SFPUC will be able to obtain payment for such water on terms comparable to the terms of the WSA.

Bankruptcy of the City

The SFPUC, being an enterprise department of the City, likely cannot itself file for bankruptcy. While an involuntary bankruptcy petition cannot be filed against the City, the City is authorized to file for bankruptcy under certain circumstances. Should the City file for bankruptcy, there could be adverse effects on the holders of the 2015 Series A Bonds.

To the extent that the Revenues are “special revenues” under the Bankruptcy Code, then Revenues collected after the date of the bankruptcy filing should be subject to the lien of the Indenture. If any or all of the Revenues are determined not to be special revenues, then any such amounts collected after the commencement of the bankruptcy case will likely not be subject to the lien of the Indenture. The holders of the 2015 Series A Bonds may not be able to assert a claim against any property of the City other than the Revenues, and if any or all of the Revenues are no longer subject to the lien of the Indenture, then there may be limited, if any, funds from which the holders of the 2015 Series A Bonds are entitled to be paid.

The Bankruptcy Code provides that “special revenues” can be applied to necessary operating expenses of the project or system, before they are applied to other obligations. This rule applies regardless of the provisions of the transaction documents. It is not clear precisely which expenses would constitute necessary operating expenses and any definition in the transaction documents may not be applicable.

If the City is in bankruptcy, the parties (including the Trustee and the holders of the 2015 Series A Bonds) may be prohibited from taking any action to collect any amount from the City or to enforce any obligation of the City, unless the permission of the bankruptcy court is obtained. These restrictions may also prevent the Trustee from making payments to the holders of the 2015 Series A Bonds from funds in the Trustee’s possession. The rate covenants (see “SECURITY FOR THE BONDS – Rate Covenants”) may not be enforceable in bankruptcy by the Trustee or the holders of the 2015 Series A Bonds.

Revenues are deposited with and held by the Treasurer and may be commingled with other City funds. See “SECURITY FOR THE BONDS – Revenue Fund.” If the City goes into bankruptcy, the City may not be required to turn over to the Trustee any Revenues that are in its possession at the time of the bankruptcy filing. In addition, if the City has possession of Revenues (whether collected before or after commencement of the bankruptcy) and if the City does not voluntarily turn over such Revenues to the Trustee, it is not entirely clear what procedures the Trustee and the holders of the 2015 Series A Bonds would have to follow to attempt to obtain possession of such Revenues, how much time it would take for such procedures to be completed, or whether such procedures would ultimately be successful.

The City may be able to borrow additional money that is secured by a lien on any of its property (including the Revenues), which lien could have priority over the lien of the Indenture, or to cause some of the Revenues to be released to it, free and clear of lien of the Indenture, in each case as long as the bankruptcy court determines that the rights of the Trustee and the holders of the 2015 Series A Bonds will be adequately protected.

If the City is in bankruptcy it may be able, without the consent and over the objection of the Trustee and the holders of the 2015 Series A Bonds, to alter the priority, interest rate, principal amount, payment terms, collateral, maturity dates, payment sources, covenants (including tax-related covenants), and other terms or provisions of the Indenture and the 2015 Series A Bonds, as long as the bankruptcy court determines that the alterations are fair and equitable.

There may be delays in payments on the 2015 Series A Bonds while the court considers any of these issues. There may be other possible effects of a bankruptcy of the City that could result in delays or reductions in payments on the 2015 Series A Bonds, or result in losses to the holders of the 2015 Series A Bonds. Regardless of any specific adverse determinations in a City bankruptcy proceeding, the fact of a City bankruptcy proceeding could have an adverse effect on the liquidity and value of the 2015 Series A Bonds.

The City may invest the Revenues in the City's Pooled Investment Fund. Should those investments suffer any losses, Revenues may be lower than expected, and there may be delays or reductions in payments on the 2015 Series A Bonds.

Limitations on Remedies

The remedies available to the owners of the 2015 Series A Bonds upon the occurrence of an event of default under the Indenture in many respects depend upon judicial actions which are themselves often subject to discretion and delay and could prove both expensive and time consuming to obtain. In addition to the limitations on remedies contained in the Indenture, the rights and obligations under the 2015 Series A Bonds and the Indenture may be subject to bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium and other laws relating to or affecting creditors' rights, to the application of equitable principles, to the exercise of judicial discretion in appropriate cases and to limitations on legal remedies against charter cities and counties in the State.

The opinions to be delivered by Co-Bond Counsel, concurrently with the issuance of the 2015 Series A Bonds, that the 2015 Series A Bonds constitute valid and binding limited obligations of the SFPUC and the Indenture constitutes a valid and binding obligation of the SFPUC will be subject to such limitations and the various other legal opinions to be delivered concurrently with the issuance of the Bonds will be similarly qualified. See "APPENDIX F – PROPOSED FORM OF OPINION OF CO-BOND COUNSEL."

If the SFPUC fails to comply with its covenants under the Indenture or to pay principal of or interest on the 2015 Series A Bonds, there can be no assurance of the availability of remedies adequate to protect the interests of the holders of the 2015 Series A Bonds.

Loss of Tax Exemption/Risk of Tax Audit of Municipal Issuers

As discussed under "TAX MATTERS," interest on the 2015 Series A Bonds could fail to be excluded from the gross income of the owners thereof for purposes of federal income taxation retroactive to the date of the issuance of the 2015 Series A Bonds as a result of future acts or omissions of the SFPUC in violation of its covenants to comply with requirements of the Internal Revenue Code of 1986, as amended. Should such an event of taxability occur, the 2015 Series A Bonds are not subject to special redemption or any increase in interest rate and will remain outstanding until maturity or until redeemed under one of the redemption provisions contained in the Indenture.

The Internal Revenue Service (the "IRS") has initiated an expanded program for the auditing of tax-exempt securities issues, including both random and target audits. It is possible that the 2015 Series A Bonds will be selected for audit by the Internal Revenue Service. It is also possible that the market value of the 2015 Series A Bonds might be affected as a result of such an audit of the 2015 Series A Bonds (or by an audit of similar securities).

Change in Tax Law

As discussed under "TAX MATTERS", current and future legislative proposals, if enacted into law, clarification of the Code or court decisions may cause interest on the 2015 Series A Bonds to be subject, directly or indirectly, in whole or in part, to federal income taxation or to be subject to or exempted from state income taxation, or otherwise prevent beneficial owners from realizing the full current benefit of the tax status of such interest.

Failure to Maintain Credit Ratings

Certain rating agencies have assigned ratings to the 2015 Series A Bonds. The ratings issued reflect only the views of such rating agencies. Any explanation of the significance of these ratings should be obtained from the respective rating agencies. The SFPUC undertakes no responsibility to maintain its current credit ratings on the 2015 Series A Bonds or to oppose any downward revision, suspension or withdrawal of such rating. See "RATINGS." There is no assurance current ratings will continue for any given period or that such ratings will not be revised downward or withdrawn entirely by the rating agencies if, in the respective judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings could be expected to have an adverse effect on the market price of the 2015 Series A Bonds.

Secondary Market

There can be no guarantee that there will be a secondary market for the 2015 Series A Bonds or, if a secondary market exists, that the 2015 Series A Bonds can be sold for any particular price. Occasionally, because of general market conditions or because of adverse history or economic prospects connected with a particular issue, secondary marketing practices in connection with a particular issue are suspended or terminated. Additionally, prices of issues for which a market is being made will depend upon then prevailing circumstances. Such prices could be substantially different from the original purchase price.

Uncertainties of Projections, Forecasts and Assumptions

Compliance with certain of the covenants contained in the Indenture is based upon assumptions and projections. Projections and assumptions are inherently subject to significant uncertainties. Inevitably, some assumptions will not be realized and unanticipated events and circumstances may occur and actual results are likely to differ, perhaps materially, from those projected. Accordingly, such projections are not necessarily indicative of future performance, and the SFPUC assumes no responsibility for the accuracy of such projections. See “FORWARD-LOOKING STATEMENTS” above.

Other Risks

The discussion in this section, “RISK FACTORS”, is not meant to be a comprehensive or definitive list of the risks associated with an investment in the 2015 Series A Bonds. There may be other risks inherent in ownership of the 2015 Series A Bonds in addition to those described in this section. Investors are advised to read the entire Official Statement in order to obtain information necessary to make an investment in the 2015 Series A Bonds.

REGULATORY MATTERS

General

Public water supply systems in the State, such as the Regional Water System and In-City Distribution System operated by the Water Enterprise, are primarily regulated by the California State Water Resources Control Board (“SWRCB”) Division of Drinking Water and Environmental Management (“DDWEM”), formerly under the California Department of Public Health, or (“CaDPH”) and, in some limited instances, by the EPA and California Regional Water Quality Control Boards (“RWQCBs”).

Drinking water delivered to Retail Customers must comply with statutory and regulatory water quality standards designed to protect public health and safety that are now administered by DDWEB. The CaDPH reissued a drinking water supply permit in 2004 prescribing conditions and requirements for the Water Enterprise to operate the Regional Water System. The CaDPH has also issued drinking water supply permits to the In-City Distribution System, the Wholesale Customer public water supply systems and several small water systems owned and operated by the Water Enterprise. In accordance with the drinking water standards and permit requirements, the Water Enterprise operates and maintains water storage, treatment and conveyance facilities, implements watershed management and protection activities, performs inspections, monitors drinking water quality, conducts applied research, and submits monthly and annual compliance reports. The Water Enterprise is currently operating in compliance with all State and federal drinking water regulations and permit requirements. The Regional Water System and the City of San Francisco drinking water supply permits will be updated around 2015 to reflect new facilities and operations.

In addition, public water system discharges to State and federal waters are regulated under general and facility-specific National Pollutant Discharge Elimination System (“NPDES”) permits. The San Francisco Bay and Central Valley RWQCBs issued these NPDES permits to the SFPUC which contain numerical effluent limitations, monitoring, reporting, and notification requirements for water discharges from the facilities and pipelines of the Regional Water System. The SFPUC is generally operating and maintaining the water treatment and transmission facilities in compliance with the NPDES permit requirements.

A number of water resource management and regulatory initiatives may affect the availability of water to the Regional Water System in the future. Also, alternate water supplies used by Wholesale Customers of the Water

Enterprise may be reduced, increasing the customers' reliance on the Regional Water System. In addition to those raised below, these initiatives include the Sacramento-San Joaquin Delta Reform Act of 2009, the federal or California Endangered Species Acts, the SWRCB Bay Delta Proceedings, the Federal Energy Regulatory Commission ("FERC") proceeding to relicense the Districts' Don Pedro Dam and Reservoir and others. The effects of any of these activities, or of these activities cumulatively, are unknown.

Drinking Water Requirements

Division of Drinking Water and Environmental Management. The Water Enterprise currently operates its systems in compliance with public water supply permits issued by the CaDPH under the California Health and Safety Code. The Water Enterprise has received compliance orders from the CaDPH for noncompliance with some standards and such orders have been addressed. DDWEM is the successor to CaDPH.

Surface Water Treatment. The EPA Surface Water Treatment Rule ("SWTR") requires filtration of all surface water supplies unless the water supply can meet very stringent requirements. As discussed above under "WATER FACILITIES – Water Treatment," the high quality of water provided from Hetch Hetchy Reservoir has been sufficient to meet SWTR drinking water requirements without installation and operation of filtration facilities. In 1998, the CaDPH adopted its own version of the SWTR and determined that the Hetch Hetchy source complies with all state drinking water criteria, without installation and operation of filtration facilities. New filtration facilities could be required in the future if SWTR criteria are not consistently met.

Local water from the Alameda and Peninsula Watersheds requires filtration to meet drinking water quality requirements. The filtered and treated water from the local watersheds is blended with disinfected Hetch Hetchy water, and most customers receive water from a blended source. System water quality, including both raw water and treated water, is continuously monitored and tested to assure that water delivered to customers meets or exceeds federal and State drinking water/public health requirements.

Long Term 2 Enhanced Surface Water Treatment Rule. The EPA Long Term 2 Enhanced Surface Water Treatment Rule specifies Cryptosporidium reduction requirements for filtered and unfiltered water systems to improve public health protection through the control of this microbial contaminant. Published in January 2006, the EPA Long Term 2 Enhanced Surface Water Treatment Rule ("LT2ESWTR") requires large water systems such as the Water Enterprise's Regional Water System to provide Cryptosporidium inactivation treatment by April 1, 2012.

In response to this regulation and consistent with the overall goals of the WSIP, the Water Enterprise has included a project in the WSIP which provides for planning, design and construction of a new advanced disinfection facility that utilizes ultraviolet light technology to inactivate target organisms in the Hetch Hetchy water supply. This project began operation more than 9 months prior to the compliance date. See "WATER FACILITIES – Water Treatment."

LT2ESWTR sets treatment levels based on the source water quality, with poorer source water quality requiring more treatment. Initial monitoring conducted several years ago placed SFPUC's sources in the best water quality 'bin'. The mandated second round of source water quality monitoring started in 2015. No changes in source water quality bins are anticipated.

Stage 2 Disinfectants and Disinfection Byproduct Rule. The EPA promulgated the Stage 2 Disinfectants and Disinfection Byproducts Rule ("Stage 2 DBPR") to reduce public health risk associated with disinfection byproducts ("DBPs"). Published in January 2006, the Stage 2 DBPR requires water utilities including the Regional Water System and In-City Distribution System to conduct a special study known as Initial Distribution System Evaluation ("IDSE") to identify potentially high DBP locations in their distribution systems. The Stage 2 DBPR also specifies future DBP monitoring requirements based on the IDSE results, and revises the compliance determination method. The monitoring compliance date is April 1, 2012. The Water Enterprise completed the IDSE studies and submitted the reports to DDWEM, and has demonstrated compliance with the Stage 2 DBPR by the continued use of the chloramination treatment process.

Groundwater Rule. The EPA promulgated the Groundwater Rule to address waterborne disease and microbial contamination related to groundwater. Published in November 2006, the Groundwater Rule requires that a system putting new groundwater sources in service after November 30, 2009 should conduct assessment source

water monitoring if directed by the State. The Groundwater Rule also requires a groundwater system to conduct triggered source water monitoring if it does not provide 4-log virus treatment and the results of bacteriological monitoring are fecal-coliform positive. This rule may affect the treatment and operation of the groundwater projects in the Regional Water System and the In-City Distribution System, depending on the operational management and water quality of these alternate water supplies. New disinfection facilities may be required if blending of these alternate water supplies with the existing treated waters is recommended. New treatment facilities may also be required to reduce certain mineral content of the groundwater to comply with the corresponding drinking water standards.

Total Coliform Rule and Distribution System Rule. The EPA has revised the Total Coliform Rule, and may consider the adoption of a new Distribution System Rule in the future to more closely regulate distribution system operations and related facilities. The Revised Total Coliform Rule will go into effect in April 2016, with minimal operational impact of the SFPUC. It is too early at this time to identify what new treatment facilities or operational activities will be required to meet any future federal drinking water standards.

Lead and Copper Rule. The EPA is considering the possibility of developing long-term revisions to the existing Lead and Copper Rule (“LCR”), which specifies monitoring, reporting, public education, notification, and treatment requirements for public water systems. The DDWEM has similar regulatory requirements codified in Chapter 17.5 of Title 22, California Code of Regulations.

The SFPUC has proactively addressed lead concerns for several decades, well before the EPA published the LCR in June 1991. In the 1980’s, the SFPUC removed all known lead service lines from the In-City Distribution System. In the late 1990’s, the SFPUC started distributing non-lead faucets to daycare centers and schools. The distribution program for non-lead faucets was then expanded to the general public. In the 2000’s, the SFPUC initiated a program to replace service meters with non-lead versions in the In-City Distribution System and eliminated large, leaded, compound meters. In 2006, the SFPUC submitted a report to the CaDPH documenting that its existing corrosion control treatment using pH adjustment was optimized. The SFPUC also piloted use of other non-lead plumbing components and sponsored a new lead-free law, Assembly Bill 1953 (“AB 1953”), that was enacted by the California Legislature in 2006. AB 1953, which requires new lead-free plumbing components containing no more than 0.25% lead that has been in effect since January 1, 2010. The SFPUC’s latest LCR monitoring results in 2009 demonstrate continued compliance with the existing LCR.

Fluoridation. Assembly Bill 733, signed into law in October 1995, authorizes the DDWEM to require large water systems to fluoridate their public water supply. It also directs the DDWEM to seek funding for fluoridation.

The CaDPH adopted its fluoridation regulations in April 1998. These regulations, as codified in Section 64433 through 64434 of Title 22, California Code of Regulations, apply to large water systems with at least 10,000 service connections. The regulations require that:

- Large systems with existing fluoridation practices continue fluoridating under more stringent regulatory requirements (i.e., concentration, control, monitoring, reporting and notification requirements)
- Large non-fluoridated systems start fluoridating when funding is made available.

The Water Enterprise has been fluoridating its water supply since the early 1950s, and meets all the requirements of these regulations.

The optimal fluoride levels and associated control ranges specified in the fluoridation regulations are based on the annual average of maximum daily air temperatures recorded during the previous five years. In the case of the Regional Water System, the annual average temperature falls in the 58.5° F to 63.8° F range. Because of the large geographic spread of the Regional Water System and its Wholesale Customers, the CaDPH specified an optimal fluoride level of 1.0 mg/L and a control range of 0.8 to 1.5 mg/L for the Regional Water System. The SFPUC is in compliance with the operational and monitoring requirements of the State fluoridation regulations.

Chloramination. Chloramine is a disinfectant added to water for public health protection. It is a combination of chlorine and ammonia that is currently considered the best technology for controlling the formation of certain regulated disinfectant by-products (“DBPs”). Chloramine was used as a disinfectant in the entire Regional Water System for ten years between 1935 and 1944 when the Hetch Hetchy water supply was first brought to the San Francisco from the Sierra Nevada Mountains. Many utilities used chloramination at that time, including 34 other drinking water supplies in the State. Chloramination was discontinued in 1944 by the Water Enterprise and many other utilities due to shortages of ammonia during World War II.

The SFPUC started using chloramine as a distribution system disinfectant again in February 2004 to better comply with the Stage 2 DBPR, which require more stringent control of chlorination DBPs. There is a significant amount of on-going research by many agencies worldwide regarding best disinfection practices for control of microorganisms in drinking water and simultaneous minimization of DBPs. The SFPUC continually monitors that research and the latest information on water disinfection practices.

Since 2004, chloramine has been very effective as a distribution system disinfectant in the Regional Water and the In-City Distribution Systems. It has lowered microbial densities (including coliform bacteria, heterotrophic bacteria, *Legionella* bacteria), at the same time minimizing the formation of regulated DBPs. Future adjustments (up or down) of the target chloramine level may occur when operational conditions warrant. A small group of customers believe that various health problems have been caused by chloramine but the SFPUC believes that no scientific proof exists to support these assertions. The SFPUC has worked with local health departments, regulatory agencies, research organizations, professional associations, water quality and health experts, other utilities, and elected officials to address these concerns.

Environmental Discharges

As part of routine operations and maintenance activities, the SFPUC transfers treated water between storage facilities and discharges water to the environment. These transfers and discharges are regulated under the federal Clean Water Act through general and facility-specific National Pollutant Discharge Elimination System (“NPDES”) permits issued by the appropriate RWQCB.

The SFPUC currently has several NPDES permits. These permits generally impose discharge limitations, monitoring, reporting, and notification requirements. These permits require the Water Enterprise to control various water quality parameters (such as pH, chlorine residual, turbidity, etc.) and implement best management practices to minimize any adverse environmental effects caused by the discharges from the Regional Water System. Over the past few years, the Water Enterprise has occasionally violated its permit requirements, which has resulted in fines and settlement payments totaling approximately \$700,000. The Water Enterprise is implementing several millions of dollars of capital improvements, as well as operational controls, to more reliably meet permit requirements. See “WATER SYSTEM IMPROVEMENT PROGRAM.”

In December 2011, Hetch Hetchy Water and Power drained Priest Reservoir for maintenance purposes. The Central Valley RWQCB filed a complaint against the SFPUC, alleging that a permit was required for the resulting discharge of sediment downstream under Section 404 of the Clean Water Act. Without conceding liability or the alleged need for a permit for discharge of water from the reservoir, the SFPUC settled the complaint in December 2012 by paying a fine of \$1 million and agreeing to adopt best management practices for future operations to avoid sediment discharges.

Bay-Delta Water Quality Standards

The Water Enterprise obtains the majority of its water supply from the Hetch Hetchy Reservoir, located on the main branch of the Tuolumne River, which is an upstream tributary to the San Joaquin River and the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (the “Bay-Delta”). In 1995, the SWRCB, which oversees the allocation of water for consumptive and environmental needs, adopted a Water Quality Control Plan (the “Plan”) for the Bay-Delta pursuant to State and federal obligations to protect water quality in the Bay-Delta ecosystem. The Plan called for certain flow objectives on the San Joaquin River where it enters the Delta and certain Delta outflows. Because the City is an upstream tributary water right holder, the SWRCB notified 500 parties, including the City, in 1997 that they may be required to implement the Plan by providing water to the Bay-Delta ecosystem.

In 2000, the SWRCB issued an order implementing the Plan. The order requires the United States Bureau of Reclamation and the California Department of Water Resources to provide flows and restrict export pumping to implement the San Joaquin River portion of the Plan until the SWRCB otherwise assigns responsibility to provide flow. The order does not in any way condition the City's rights to divert water from the Tuolumne River, nor does it require the City to release water to implement the Plan.

In 2006, the SWRCB amended the Plan (the "2006 Plan") and identified San Joaquin River flows as an issue of emerging concern because various fish species in the Delta and San Joaquin River basin had not shown significant signs of recovery under the 1995 Plan. In 2008, in light of continued decline in anadromous and pelagic (open water) fish species, the SWRCB adopted a Strategic Workplan for Activities in the San Francisco Bay/Sacramento-San Joaquin Delta Estuary. The Strategic Workplan calls for review and implementation of the Plan's San Joaquin River flow objectives.

In February 2009, the SWRCB noticed its intent to review and update water quality objectives of the 2006 Plan and the program of implementation, which could result in changes to water rights and water quality regulation consistent with the program of implementation. In a letter dated December 19, 2011, the SWRCB stated it would complete its review of the 2006 Plan's San Joaquin River flow objectives by September 2012.

In 2012, the SWRCB issued a supplemental environmental document ("SED") in support of amendments to the 2006 Plan, that examined several alternative San Joaquin River flow objectives and implementation strategies. The SED was the subject of extensive public comment, and the SWRCB stated it would revise the SED and reissue it for public comment in Spring 2015. The analysis considered the environmental impacts of changes to the Lower San Joaquin River flows to support and maintain the natural production of viable native San Joaquin River watershed fish populations migrating through the Sacramento-San Joaquin River Delta. The range of flows analyzed included springtime releases totaling from 20% to 60% of natural unimpaired flows (i.e. flow without dams in place) on the Stanislaus, Tuolumne and Merced Rivers, with a preferred alternative of 35% of unimpaired flows. Should the SWRCB decide to implement this proposal, any necessary changes to upstream water rights would be considered in a separate proceeding. If that occurs, the SWRCB may require the SFPUC to release water from its system, and, depending upon the quantity, there could be an increase in the degree of rationing required by the City's water customers during times of extended drought.

FERC Proceeding to Increase Flows in the Lower Tuolumne River

The Federal Energy Regulatory Commission ("FERC") licenses the Don Pedro Project, owned and operated by the Districts. The City helped fund the original construction of Don Pedro Project in exchange for a water bank account allowing the SFPUC to receive water credits for advanced releases from the Hetch Hetchy Project to the Don Pedro Reservoir.

The current FERC license for the Don Pedro Project expires in 2016, subject to the issuance of annual licenses if necessary to complete the relicensing process. The Districts initiated the process to relicense the Project using FERC's Integrated Licensing Process in 2010. Relicensing is a lengthy process, stretching over a number of years and open to public participation. It is estimated the process may cost up to \$50 million to complete, which costs are split for certain studies between the Districts and the SFPUC pursuant to an existing agreement. The Districts are in the process of working through a Study Plan related to the relicensing that was issued and subsequently supplemented by FERC. The Districts have reports that, as of July 1, 2014, the Study Plan described a total of 35 studies to be completed and a total of 24 had been completed by the end of 2013. TID has further reported that two more studies were to be performed in 2014, but the California Department of Fish and Wildlife did not issue permits timely and TID filed an extension letter with FERC to perform the studies in 2015. After all of the studies are complete, California Environmental Quality Act ("CEQA") and National Environmental Policy Act efforts must be undertaken before the license may be finalized. The Districts may operate under the existing license until the new license is finalized subject to the issuance of annual licenses by FERC.

A 1995 Don Pedro Project Settlement Agreement ("Settlement Agreement") and a 1996 Order by FERC ("1996 Order") established increased water flows on the Tuolumne River to protect fisheries and riparian resources. A restoration plan ("Restoration Plan") adopted in 2000 guides planning, funding and implementation efforts. The Restoration Plan calls for a series of projects with a combined estimated cost of \$25 million to improve river channel, riparian and fisheries conditions within a 27 mile stretch of the Tuolumne River corridor below La Grange

Dam. Four of the ten priority projects have been completed. However, no additional projects are in the planning or construction phases due to the limited availability of federal and State grant funds.

Pursuant to a then-existing agreement between the City and the Districts, the City might have been liable to provide a portion of the increased flows mandated under the 1995 Settlement Agreement. Instead, the City and the Districts entered into a new agreement whereby the Districts agreed to provide all flows ordered by FERC to implement the Settlement Agreement for the term of the current license for the Don Pedro Project (2016), in exchange for which the City pays to the Districts on a monthly basis an amount aggregating \$3.5 million per year, subject to an escalation clause applied to keep pace with inflation. Pursuant to the terms of its agreement with the Districts, the City may withdraw from the agreement upon one year's notice.

The term of the Settlement Agreement runs until expiration of the current FERC license. License conditions, such as release requirements, could change under a new license. Changed release requirements could adversely affect the availability of Tuolumne River water to the SFPUC and incidental hydroelectric generation.

Dam Licensing and Safety Issues

In 1929, the California Legislature enacted legislation providing for supervision over non-federal dams in the State. The statutes place the supervision of the safety of non-federal dams and reservoirs under the jurisdiction of the DSOD. Dams under jurisdiction are artificial barriers, together with appurtenant work, including outlet towers, which are twenty-five feet or more in height or have an impounding capacity of fifty acre-feet or more. Any artificial barrier not in excess of six feet in height, regardless of storage, or that has a capacity not in excess of fifteen acre-feet, regardless of height, is not considered jurisdictional.

The DSOD reviews plans and specifications for the construction of new dams or for the enlargement, alteration, repair or removal of existing dams, under applications, and must grant written approval before the owner can proceed with construction. The DSOD routinely inspects operating dams to assure that they are adequately maintained. The DSOD also conducts investigations of selected dams and directs the owners to additional investigations and detailed safety evaluations when necessary.

The SFPUC has eighteen dams under the jurisdiction of the DSOD. The Crystal Springs Reservoir and the Calaveras Dam are currently the subject of orders by the DSOD.

Crystal Springs Reservoir System. An order imposed by DSOD prohibited use of stop logs in the reservoir spillway due to seismic concerns and resulted in a loss of historic storage capacity at Lower Crystal Springs Reservoir. The SFPUC has restored the historical maximum of 69,400 acre-feet, as part of the WSIP. The recovered storage will be available to the Regional Water System over time as the Fountain Thistle, an endangered plant species which populates the land that will be inundated by restores capacity, is relocated.

Calaveras Dam. Due to seismic stability concerns regarding the Calaveras Dam, the DSOD has restricted the amount of water stored in Calaveras Reservoir to a target maximum of 38,000 acre feet, a reduction in storage capacity of approximately 60%. Under DSOD direction, the SFPUC has committed to an aggressive schedule to alleviate the seismic safety concerns. The replacement dam and reservoir will store 96,800 acre-feet of water, the historical maximum capacity. It is expected that the recovered storage will be available to the Regional Water System by 2019.

Pilarcitos Dam. Pilarcitos Dam, with a capacity of approximately 3,000 acre feet, was originally constructed in 1862 by the Spring Valley Water Works. In August 2013, DSOD requested the SFPUC to perform geotechnical sampling and testing of the Pilarcitos dam foundation for a dam safety evaluation, a seismic stability evaluation of the outlet tower, and a review of dam instrumentation. On December 9, 2014, the SFPUC awarded a contract for this work to satisfy the 2013 DSOD request and provide engineering and geotechnical services for potential seismic rehabilitation at Pilarcitos Dam.

Hazardous Material Management

The handling of hazardous materials is subject to a variety of federal and State regulations. The SFPUC complies with current regulations regarding hazardous material safety with regards to both hazardous material

disposal and employee safety. While the SFPUC works with regulatory agencies to keep compliant with revisions to hazardous material safety codes, the SFPUC does not currently envision revisions to these codes that would significantly alter the cost of code compliance.

Endangered Species

Various aquatic species (including native fishes) present in the Tuolumne River and Bay Area streams (e.g., Alameda, San Mateo and Pilarcitos Creeks) are either listed or candidates for listing under the State or federal endangered species acts. New listings and future enforcement actions under the acts, or conditions placed in permits to undertake construction for certain WSIP projects, could potentially directly affect water supplies available to the Regional Water System. The SFPUC is working with the responsible State and federal agencies to obtain permits under the acts, which would avoid regulatory uncertainty and ensure water supply reliability for the Regional Water System. In addition, future enforcement actions involving the Bay Delta or Bay Delta tributaries could further affect the availability of supplies to the State Water Project and the Central Valley Project, reducing SFPUC customers' alternate water supplies and increasing their need for additional Regional Water System deliveries.

On August 18, 2014, the Center for Environmental Science, Accuracy, & Reliability ("CESAR") and Jean Sagogupe, a member of CESAR and an owner of farmland in California's Central Valley that receives its water from the CVP (the "Plaintiffs"), filed a complaint against the National Park Service ("NPS") and named federal officials (collectively the "Federal Defendants") in Federal District Court in the District of Columbia. The Complaint alleges that NPS annually approves instream flow releases from the "Hetch-Hetchy Project," and further alleges that the Federal Defendants have failed to comply with the Endangered Species Act ("ESA") and NEPA in connection with such alleged annual approvals. The City has requested to intervene in the case and, along with the Federal Defendants, has requested to transfer venue to the Eastern District of California. The DC District court granted the motion to transfer venue, and the City's motion to intervene was granted by the Eastern District. The City and the Federal Defendants view the Plaintiffs' claims as frivolous and without any merit. Nevertheless, as the Plaintiffs request that the Court enjoin the City's diversions from the Tuolumne River and enjoin operation of the "Hetch Hetchy Project" until the Federal Defendants comply with the ESA and NEPA in connection with the alleged annual approvals, were such injunctive relief to be granted, in whole or in part, the regional water supply would necessarily be significantly reduced.

Increased Local Reservoir Water Releases for Fishery Flows

In order to comply with permit requirements in connection with dam and reservoir improvements to be carried out as part of the WSIP, the SFPUC has implemented schedules of instream flow releases from Crystal Springs Reservoir into San Mateo Creek, and from Calaveras Reservoir into Alameda and Calaveras Creeks, to enhance habitat for native fish. The SFPUC currently anticipates that the flow schedule for San Mateo Creek would be implemented in approximately 2015, and that the flow schedules for Alameda and Calaveras Creeks would be implemented in approximately 2018 (in each case after the related dam improvement projects are completed).

The SFPUC has estimated that implementation of these proposed water releases could result in a potential average annual decrease in available water supply captured from the local watersheds of approximately 7.4 mgd from what was assumed under the adopted WSIP.

CONSTITUTIONAL, STATUTORY AND CHARTER LIMITATIONS

Tax and Spending Limitations

The taxing powers of public agencies in the State are limited by Article XIII A of the California Constitution, added by an initiative amendment approved by the voters on June 6, 1978, and commonly known as Proposition 13.

Article XIII A limits the maximum ad valorem tax on real property to 1% of "full cash value," which is defined as "the County Assessor's valuation of real property as shown on the Fiscal Year 1975-76 tax bill under 'full cash value' or, thereafter, the appraised value of real property when purchased, newly constructed, or a change in ownership has occurred after the 1975 assessment." The full cash value may be adjusted annually to reflect inflation

at a rate not to exceed 2% per year, or reduction in the consumer price index or comparable local data, or declining property value caused by damage, destruction, or other factors.

The tax rate limitation referred to above does not apply to ad valorem taxes to pay the debt service on any indebtedness approved by the voters before July 1, 1978, or on any bonded indebtedness for the acquisition or improvement of real property approved by two-thirds of the votes cast by the voters voting on the proposition.

Under the terms of Article XIII A and pursuant to an allocation system created by implementing legislation, each county is required to levy the maximum ad valorem tax permitted by Article XIII A and to distribute the proceeds to local agencies.

Assessed valuation growth allowed under Article XIII A (new construction, change of ownership and up to 2% annual value growth) is allocated among the jurisdictions that serve the tax rate area within which the growth occurs. Local agencies and schools share the growth of base revenues from the tax rate area. Each year's growth allocation becomes part of each agency's allocation in the following year. The availability of revenues from tax bases to such entities may be affected by the establishment of redevelopment agencies that, under certain circumstances, may be entitled to such revenues resulting from the upgrading of certain property values.

Under State law, any fee that exceeds the reasonable cost of providing the service for which the fee is charged may be considered a "special tax" that must be authorized by a two-thirds vote of the electorate. Accordingly, if a portion of the SFPUC's water user rates or capacity charges were determined by a court to exceed the reasonable cost of providing service, the SFPUC would not be permitted to continue to collect that portion unless it were authorized to do so by a two-thirds majority of the votes cast in an election to authorize the collection of that portion of the rates or fees. If the SFPUC were unable to obtain such a two-thirds majority vote and were unable to reduce costs, such failure could adversely affect the SFPUC's ability to pay the debt service on the 2015 Series A Bonds. However, the reasonable cost of providing water services has been determined by the State Controller to include depreciation and allowance for the cost of capital improvements. In addition, State courts have determined that fees such as capacity charges will not be special taxes if they approximate the reasonable cost of constructing the water system improvements contemplated by the local agency imposing the fee.

The United States Supreme Court has upheld Article XIII A against a challenge alleging violation of equal protection under the Fourteenth Amendment to the United States Constitution.

Proposition 218

Proposition 218, a State ballot initiative known as the "Right to Vote on Taxes Act," was approved by the voters on November 5, 1996. The initiative added Articles XIII C and XIII D to the California Constitution, creating additional requirements for the imposition by most local governments of "general taxes," "special taxes," "assessments," "fees," and "charges." Articles XIII C and XIII D became effective, pursuant to their terms, as of November 6, 1996, although compliance with some of the provisions was deferred until July 1, 1997, and certain of the provisions purport to apply to any tax imposed for general governmental purposes (i.e., "general taxes") imposed, extended or increased on or after January 1, 1995 and prior to November 6, 1996.

Article XIII D imposes substantive and procedural requirements on the imposition, extension or increase of any "fee" or "charge" subject to its provisions. A "fee" or "charge" subject to Article XIII D includes any levy, other than an ad valorem tax, special tax or assessment, imposed by an agency upon a parcel or upon a person as an incident of property ownership. Article XIII D prohibits, among other things, the imposition of any proposed fee or charge, and, possibly, the increase of any existing fee or charge, in the event written protests against the proposed fee or charge are presented at a required public hearing on the fee or charge by a majority of owners of the parcels upon which the fee or charge is to be imposed. Except for fees and charges for water, sewer and refuse collection services, the approval of a majority of the property owners subject to the fee or charge, or at the option of the agency, by a two-thirds vote of the electorate residing in the affected area, is required not less than 45 days following the public hearing on any such proposed new or increased fee or charge. In the view of the SFPUC, rates for water usage charged by the SFPUC to the Wholesale Customers are not fees or charges under Article XIII D, although no assurance may be given by the SFPUC that a court would not determine otherwise.

The California Supreme Court decisions in *Richmond v. Shasta Community Services District*, 32 Cal. 4th 409 (2004) (“Richmond”), and *Bighorn-Desert View Water Agency vs. Verjil*, 39 Cal. 4th 206 (2006) (“Bighorn”) have clarified uncertainty surrounding the applicability of Section 6 of Article XIID to service fees and charges. In *Richmond*, the Shasta Community Services District charged a water connection fee, which included a capacity charge for capital improvements to the water system and a fire suppression charge. The Court held that both the capacity charge and the fire suppression charge were not subject to Article XIID because a water connection fee is not a property-related fee or charge because it results from the property owner’s voluntary decision to apply for the connection. In both *Richmond* and *Bighorn*, however, the Court stated that a fee for ongoing water service through an existing connection is imposed “as an incident of property ownership” within the meaning of Article XIID, rejecting, in *Bighorn*, the water agency’s argument that consumption-based water charges are not imposed “as an incident of property ownership” but as a result of the voluntary decisions of customers as to how much water to use.

The SFPUC provides public notice of proposed water rate increases in accordance with the requirements of Article XIID through means that include, among others, holding informational presentations at community group meetings, mailings to residential and commercial customers of public hearings on rate increases, and press releases and media campaigns regarding rate increases, followed by public hearings conducted by the SFPUC’s Rate Fairness Board and by the SFPUC itself. The SFPUC also develops and adopts retail utility user rates and fees in accordance with the requirements of Article XIID(6)(b) that limit property-related fees and charges. Article XIIC extends the people’s initiative power to reduce or repeal previously authorized local taxes, assessments, fees and charges. This extension of the initiative power is not limited by the terms of Article XIIC to fees, taxes, assessment fees and charges imposed after November 6, 1996 and absent other authority could result in retroactive reduction in any existing taxes, assessments, fees or charges. In *Bighorn*, the Court concluded that under Article XIIC local voters by initiative may reduce a public agency’s water rates and delivery charges. The Court noted, however, that it was not holding that the authorized initiative power is free of all limitations, stating that it was not determining whether the electorate’s initiative power is subject to the public agency’s statutory obligation to set water service charges at a level that will “pay the operating expenses of the agency, ... provide for repairs and depreciation of works, provide a reasonable surplus for improvements, extensions, and enlargements, pay the interest on any bonded debt, and provide a sinking or other fund for the payment of the principal of such debt as it may become due.”

The courts have not fully interpreted the provisions of Proposition 218. The SFPUC is unable to predict how courts will further interpret Article XIIC and Article XIID, and what, if any, further implementing legislation will be enacted. Under the *Bighorn* case, City voters could adopt an initiative measure that reduces or repeals the SFPUC’s water rates and charges, though it is not clear whether (and courts have not decided whether) any such reduction or repeal by initiative would be enforceable in a situation in which such rates and charges are pledged to the repayment of bonded indebtedness. There can be no assurance that the courts will not further interpret, or the voters will not amend, Article XIIC and Article XIID to limit the ability of the SFPUC to impose, levy, charge and collect increased fees and charges for the Water Enterprise, or to call into question water rate increases previously adopted by the SFPUC. No assurance may be given that Articles XIIC and XIID will not have a material adverse impact on Revenues.

Charter Limitations

The Charter requires that bonds (such as the Bonds) secured by revenues, other than refunding bonds, may be issued only with the assent of a majority of voters. However, under the Charter amendments enacted by the voters in November 2002 (Proposition E), the SFPUC may issue revenue bonds, including notes, commercial paper or other forms of indebtedness, when authorized by ordinance approved by a two-thirds vote of the Board of Supervisors, for the purpose of reconstructing, replacing, expanding, repairing or improving water facilities or clean water facilities or combinations of water and clean water facilities under the jurisdiction of the SFPUC (and subject to the further conditions contained in Proposition E). See “OBLIGATIONS PAYABLE FROM REVENUES – Authority for Issuance of Revenue Bonds and Other Obligations Payable from Revenues.”

In June 1998 the electorate of the City approved Proposition H which, subject to certain exceptions, including a limited exception to raise rates to pay debt service on voter-approved debt, froze the SFPUC’s water rates through July 1, 2006. The SFPUC can give no assurance that the electorate will not seek in the future to freeze or limit rate increases.

Initiative, Referendum and Charter Amendments

General. Article XIII A and Articles XIII C and XIII D of the California Constitution were adopted pursuant to the State's constitutional initiative process. From time to time other initiative measures could be adopted by State voters, or by voters of the City, placing additional limitations on the ability of the SFPUC to increase revenues.

Proposition 26. Proposition 26 was approved by the electorate at the November 2, 2010 election. Proposition 26 imposes a two-thirds voter approval requirement for the imposition of fees and charges by the State. It also imposes a majority voter approval requirement on local governments with respect to fees and charges for general purposes, and a two-thirds voter approval requirement with respect to fees and charges for special purposes. The initiative was designed to prevent the circumvention of tax limitations imposed by the voters pursuant to Proposition 13, approved in 1978, and other measures through the use of non-tax fees and charges.

Proposition 26 expressly excludes "a charge imposed for a specific government service or product provided directly to the payor that is not provided to those not charged, and which does not exceed the reasonable cost to the [governmental entity] of providing the service or product to the payor" and "assessments and property-related fees imposed in accordance with the provisions of Article XIII D." The California Supreme Court has held that a fee for ongoing water service through an existing connection is imposed "as an incident of property ownership" within the meaning of Article XIII D. See "– Proposition 218." The SFPUC believes that the initiative is not intended to and would not apply to fees for water deliveries and service charged by the SFPUC. The SFPUC, however, is unable to predict how Proposition 26 will be interpreted by the courts to apply to the provision of water utility services by local governments such as the SFPUC.

Future Charter Amendments. The voters could adopt additional Charter amendments in the future that could limit the ability of the SFPUC to issue debt, affect the operation of the Water Enterprise, limit the ability of the SFPUC to enact rate increases, or implement other changes affecting the SFPUC and the Water Enterprise.

LITIGATION

The SFPUC is not aware of any litigation pending or threatened questioning the political existence of the City or the SFPUC or contesting the SFPUC's power to fix water rates and charges, or in any way questioning or affecting:

- (i) the proceedings under which the 2015 Series A Bonds are to be issued,
- (ii) the validity of any provision of the 2015 Series A Bonds or the Indenture,
- (iii) the pledge of Revenues by the SFPUC under the Indenture, or
- (iv) the titles to office of the present members of the Board of Supervisors and the Commission.

There are a number of suits and claims pending against the City and the SFPUC, which may include personal injury, wrongful death and other suits and claims against which the City may self-insure. The aggregate amount of the self-insured liabilities of the City and the SFPUC which may result from such suits and claims will not, in the opinion of the City Attorney, materially impair the ability of the SFPUC to pay principal of or interest on the 2015 Series A Bonds as they become due. There is no litigation pending, with service of process having been accomplished, against the City or the SFPUC which if determined adversely to the City or the SFPUC would, in the opinion of the City Attorney, materially impair the ability of the SFPUC to pay principal of and interest on the 2015 Series A Bonds as they become due. There is however, a complaint that was filed, on August 18, 2014, requesting injunctive relief that if granted, in whole or in part, would result in a significant reduction in the regional water supply. See "REGULATORY MATTERS- Endangered Species."

TAX MATTERS

General

In the opinion of Sidley Austin LLP, San Francisco, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel to the SFPUC, based on existing statutes, regulations, rulings and judicial decisions, and assuming compliance by the SFPUC with certain covenants in the Indenture and other documents pertaining to the 2015 Series A Bonds and requirements of the Internal Revenue Code of 1986, as amended (the “Code”), regarding the use, expenditure and investment of proceeds of the 2015 Series A Bonds and the timely payment of certain investment earnings to the United States, interest on the 2015 Series A Bonds is not includable in the gross income of the owners of the 2015 Series A Bonds for federal income tax purposes. Failure to comply with such covenants and requirements may cause interest on the 2015 Series A Bonds to be included in gross income retroactive to the date of issuance of the 2015 Series A Bonds.

In the further opinion of Co-Bond Counsel, interest on the 2015 Series A Bonds is not treated as an item of tax preference in calculating the federal alternative minimum taxable income of individuals and corporations. Interest on the 2015 Series A Bonds, however, is included as an adjustment in the calculation of federal corporate alternative minimum taxable income and may therefore affect a corporation’s alternative minimum tax liability.

Ownership of, or the receipt of interest on, tax-exempt obligations may result in collateral tax consequences to certain taxpayers, including, without limitation, financial institutions, property and casualty insurance companies, certain foreign corporations doing business in the United States, certain S corporations with excess passive income, individual recipients of Social Security or Railroad Retirement benefits, taxpayers that may be deemed to have incurred or continued indebtedness to purchase or carry tax-exempt obligations and taxpayers who may be eligible for the earned income tax credit. Co-Bond Counsel express no opinion with respect to any collateral tax consequences and, accordingly, prospective purchasers of the 2015 Series A Bonds should consult their tax advisors as to the applicability of any collateral tax consequences.

Certain requirements and procedures contained or referred to in the Indenture or in other documents pertaining to the 2015 Series A Bonds may be changed, and certain actions may be taken or not taken, under the circumstances and subject to the terms and conditions set forth in such documents, upon the advice or with the approving opinion of counsel nationally recognized in the area of tax-exempt obligations. Co-Bond Counsel express no opinion as to the effect of any change to any document pertaining to the 2015 Series A Bonds or of any action taken or not taken where such change is made or action is taken or not taken without the approval of Sidley Austin LLP and Curls Bartling P.C., or in reliance upon the advice of counsel other than Sidley Austin LLP and Curls Bartling P.C., with respect to the exclusion from gross income of the interest on the 2015 Series A Bonds for federal income tax purposes.

Original Issue Discount

The initial public offering price of certain of the 2015 Series A Bonds (the “Discount 2015 Series A Bonds”) is less than the principal amount of the Discount 2015 Series A Bonds. The difference between the principal amount of a Discount 2015 Series A Bond and its initial public offering price is original issue discount. Original issue discount on a Discount 2015 Series A Bond accrues over the term of such Discount 2015 Series A Bond at a constant interest rate. To the extent it has accrued, original issue discount on a Discount 2015 Series A Bond is treated as interest excludable from gross income for federal income tax purposes under the conditions and limitations described above. The amount of original issue discount that accrues on a Discount 2015 Series A Bond in each year is not an item of tax preference for purposes of calculating federal alternative minimum taxable income, but is included as an adjustment in the calculation of federal corporate alternative minimum taxable income and may therefore affect a corporation’s alternative minimum tax liability. Additionally, such accrued original issue discount is taken into account in determining the distribution requirements of certain regulated investment companies. Consequently, owners of Discount 2015 Series A Bonds should be aware that the accrual of original issue discount in each year may result in an alternative minimum tax liability, additional distribution requirements or other collateral federal income tax consequences although the owner may not have received cash in such year.

The accrual of original issue discount on a Discount 2015 Series A Bond will increase the owner’s adjusted basis in such Discount 2015 Series A Bond. This will affect the amount of taxable gain or loss realized by the

owner of the Discount 2015 Series A Bond upon the redemption, prepayment, sale or other disposition of such Discount 2015 Series A Bond. The effect of the accrual of original issue discount on the federal income tax consequences of a redemption, prepayment, sale or other disposition of a Discount 2015 Series A Bond that is not purchased at the initial public offering price may be determined according to rules that differ from those described above. Owners of Discount 2015 Series A Bonds should consult their tax advisors with respect to the precise determination for federal income tax purposes of the amount of original issue discount that properly accrues with respect to the Discount 2015 Series A Bonds, other federal income tax consequences of owning and disposing of the Discount 2015 Series A Bonds and any state and local tax consequences of owning and disposing of the Discount 2015 Series A Bonds.

Original Issue Premium

The excess, if any, of the tax adjusted basis of 2015 Series A Bonds purchased as part of the initial public offering to a purchaser (other than a purchaser who holds such 2015 Series A Bonds as inventory, stock in trade or for sale to customers in the ordinary course of business) over the amount payable at maturity is “bond premium.” Bond premium is amortized over the term of such 2015 Series A Bonds for federal income tax purposes (or, in the case of a 2015 Series A Bond with bond premium callable prior to its stated maturity, 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 2015 Series A Bond). Owners of 2015 Series A Bonds with bond premium are required to decrease their adjusted basis in such 2015 Series A Bonds by the amount of amortizable bond premium attributable to each taxable year such 2015 Series A Bonds are held. The amortizable bond premium on such 2015 Series A Bonds attributable to a taxable year is not deductible for federal income tax purposes. Owners of 2015 Series A Bonds sold with bond premium should consult their tax advisors with respect to the determination for federal income tax purposes of the treatment of bond premium upon sale or other disposition of such 2015 Series A Bonds and with respect to the state and local tax consequences of owning and disposing of such 2015 Series A Bonds.

Information Reporting and Backup Withholding

Interest paid on the 2015 Series A Bonds will be subject to information reporting in a manner similar to interest paid on taxable obligations. Although such reporting requirement does not, in and of itself, affect the excludability of such interest from gross income for federal income tax purposes, such reporting requirement causes the payment of interest on the 2015 Series A Bonds to be subject to backup withholding if such interest is paid to beneficial owners who (a) are not “exempt recipients,” and (b) either fail to provide certain identifying information (such as the beneficial owner’s taxpayer identification number) in the required manner or have been identified by the IRS as having failed to report all interest and dividends required to be shown on their income tax returns. Generally, individuals are not exempt recipients, whereas corporations and certain other entities are exempt recipients. Amounts withheld under the backup withholding rules from a payment to a beneficial owner are allowed as a refund or credit against such beneficial owner’s federal income tax liability so long as the required information is furnished to the IRS.

State Tax Exemption

In the further opinion of Co-Bond Counsel, interest on the 2015 Series A Bond is exempt from personal income taxes imposed by the State of California.

Future Developments

Future or pending legislative proposals, if enacted, regulations, rulings or court decisions may cause interest on the 2015 Series A Bonds to be subject, directly or indirectly, to federal income taxation or to state or local income taxation, or may otherwise prevent beneficial owners from realizing the full current benefit of the tax status of such interest. Legislation or regulatory actions and future or pending proposals may also affect the economic value of the federal or state tax exemption or the market value of the 2015 Series A Bonds. Prospective purchasers of the 2015 Series A Bonds should consult their tax advisors regarding any future, pending or proposed federal or state tax legislation, regulations, rulings or litigation as to which Co-Bond Counsel expresses no opinion.

For example, various proposals have been made in Congress and by the President (the “Proposed Legislation”), which, if enacted, would subject interest on bonds that is otherwise excludable from gross income for

federal income tax purposes, including interest on the 2015 Series A Bonds, to a tax payable by certain bondholders with adjusted gross income in excess of thresholds specified in the Proposed Legislation. It is unclear if the Proposed Legislation will be enacted, whether in its current or an amended form, or if other legislation that would subject interest on the 2015 Series A Bonds to a tax or cause interest on the 2015 Series A Bonds to be included in the computation of a tax, will be introduced or enacted. Prospective purchasers should consult their tax advisors as to the effect of the Proposed Legislation, if enacted, in its current form or as it may be amended, or such other legislation on their individual situations.

CERTAIN LEGAL MATTERS

Certain legal matters incident to the authorization, sale and delivery of the 2015 Series A Bonds are subject to the approval of Sidley Austin LLP, San Francisco, California, and Curls Bartling P.C., Oakland, California, Co-Bond Counsel to the SFPUC. Certain legal matters are being passed upon for the SFPUC by the City Attorney and by Orrick, Herrington & Sutcliffe LLP, San Francisco, California, Disclosure Counsel. Certain legal matters are being passed upon for the Underwriters by Stradling Yocca Carlson & Rauth, a Professional Corporation, Sacramento, California. Co-Bond Counsel and Disclosure Counsel will receive compensation that is contingent upon the sale and delivery of the 2015 Series A Bonds.

The form of approving opinion of Co-Bond Counsel is set forth in Appendix F, and will be available at the time of delivery of the 2015 Series A Bonds. Co-Bond Counsel is not passing upon and undertakes no responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement.

Orrick, Herrington & Sutcliffe LLP has served as Disclosure Counsel to the SFPUC and in such capacity has advised the SFPUC with respect to the requirements of applicable securities laws and participated with responsible SFPUC officials and staff in conferences and meetings where information contained in this Official Statement was reviewed for accuracy and completeness. Disclosure Counsel is not responsible for the accuracy or completeness of the information presented in this Official Statement and has not undertaken to independently verify any of such information. Rather, the SFPUC is solely responsible for the accuracy and completeness of the information contained in this Official Statement. Upon the issuance of the 2015 Series A Bonds, Orrick, Herrington & Sutcliffe LLP will deliver a letter to the SFPUC concerning certain matters with respect to the Official Statement. No purchaser or holder of the 2015 Series A Bonds, or other person or party other than the SFPUC, will be entitled to rely on such letter or on the fact that Orrick, Herrington & Sutcliffe LLP has acted as Disclosure Counsel to the SFPUC.

RATINGS

Moody's Investors Service ("Moody's") has assigned its municipal bond rating of "Aa3" to the 2015 Series A Bonds, and Standard & Poor's Services, a Standard & Poor's Financial Services LLC business ("S&P"), has assigned its municipal bond rating of "AA-" to the 2015 Series A Bonds.

The ratings assigned by Moody's and S&P express only the views of the respective rating agencies. The explanation of the significance of these ratings, and any outlook associated with these ratings, may be obtained from Moody's and Standard & Poor's, respectively. Each rating agency generally bases its rating on its own investigations, studies, and assumptions. The SFPUC has provided certain additional information and materials to the rating agencies (some of which does not appear in this Official Statement).

A securities rating is not a recommendation to buy, sell or hold securities and may be subject to revision or withdrawal at any time. 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 2015 Series A Bonds. The SFPUC undertakes no responsibility to maintain its current ratings on the 2015 Series A Bonds or to oppose any such downward revision, suspension or withdrawal.

UNDERWRITING

General. The 2015 Series A Bonds are being purchased by J.P.Morgan Securities LLC, on behalf of itself and RBC Capital Markets, LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated, Citigroup Global Markets Inc., Siebert, Brandford Shank & Co., L.L.C., and U.S. Bancorp Investments, Inc. (collectively, the “Underwriters”). The Underwriters have agreed to purchase the 2015 Series A Bonds from the SFPUC at a purchase price of \$494,868,731.86 (consisting of \$429,600,000 aggregate principal amount of the 2015 Series A Bonds, plus a net original issue premium of \$65,914,527.65, less an underwriter’s discount of \$645,795.79). Under the bond purchase contract to be entered into in connection with the purchase of the bonds, the Underwriters will be obligated to purchase all of the 2015 Series A Bonds if any are purchased, the obligation to make such purchase being subject to certain terms and conditions to be satisfied by the SFPUC.

The Underwriters have certified the reoffering prices or yields set forth on the inside cover of this Official Statement. The SFPUC takes no responsibility for the accuracy of these prices or yields. The Underwriters may offer and sell the 2015 Series A Bonds to certain dealers and others at prices lower than the offering prices stated on the inside cover page. The offering prices may be changed from time to time by the Underwriters.

J.P. Morgan Securities LLC (“JPMS”), one of the Underwriters of the 2015 Series A Bonds, has entered into negotiated dealer agreements (each, a “Dealer Agreement”) with each of Charles Schwab & Co., Inc. (“CS&Co.”) and LPL Financial LLC (“LPL”) for the retail distribution of certain securities offerings at the original issue prices. Pursuant to each Dealer Agreement, each of CS&Co. and LPL will purchase 2015 Series A Bonds from JPMS at the original issue price less a negotiated portion of the selling concession applicable to any 2015 Series A Bonds that such firm sells.

Citigroup Global Markets Inc., one of the Underwriters of the 2015 Series A Bonds, has entered into a retail distribution agreement with each of TMC Bonds L.L.C. (“TMC”) and UBS Financial Services Inc. (“UBSFS”). Under these distribution agreements, Citigroup Global Markets Inc. may distribute multiple securities to retail investors through the financial advisor network of UBSFS and the electronic primary offering platform of TMC. As part of this arrangement, Citigroup Global Markets Inc. may compensate TMC (and TMC may compensate its electronic platform member firms) and UBSFS for their selling efforts with respect to the 2015 Series A Bonds.

Siebert Brandford Shank & Co., L.L.C., one of the Underwriters of the 2015 Series A Bonds, has entered into an agreement with Credit Suisse Securities (USA) (the “Agreement”) for the retail distribution of certain securities offerings, at the original issue prices. Pursuant to the Agreement (if applicable to the 2015 Series A Bonds) Credit Suisse Securities (USA) will purchase 2015 Series A Bonds from Siebert Brandford Shank & Co., L.L.C. at the original issue price less a portion of the selling concession with respect to any 2015 Series A Bonds that Credit Suisse Securities USA LLC sells.

“US Bancorp” is the marketing name of U.S. Bancorp and its subsidiaries, including U.S. Bancorp Investments, Inc., which is serving as an Underwriter of the 2015 Series A Bonds, and U.S. Bank National Association, which is serving as Trustee for the 2015 Series A Bonds.

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

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

FINANCIAL STATEMENTS

Attached as Appendix E are the audited financial statements of the Water Enterprise (the “Financial Statements”) for Fiscal Years 2012-13 and 2013-14, prepared by the SFPUC and audited by KPMG LLP, independent certified public accountants, San Francisco, California (the “Auditor”). The financial statements are included for convenience.

The SFPUC has not requested nor did the SFPUC obtain permission from the Auditor to include the audited financial statements as an Appendix to this Official Statement. Accordingly, the Auditor has made no representation in connection with inclusion of the audits herein that there has been no material change in the financial condition of the SFPUC since the most recent audit was concluded. The Auditor has not been engaged to perform and has not performed, since the date of its report included herein, any procedures on the financial statements addressed in that report. The Auditor also has not performed any procedures relating to this Official Statement.

CONTINUING DISCLOSURE

The SFPUC has covenanted for the benefit of the owners and beneficial owners of the 2015 Series A Bonds, under a Continuing Disclosure Certificate dated as of the Closing Date, to provide certain financial information and operating data (an “Annual Report”) not later than nine months following the end of its Fiscal Year (presently June 30), beginning on March 31, 2016, with the report for Fiscal Year 2014-15, and to promptly provide notices of the occurrence of certain enumerated events set forth in the Continuing Disclosure Certificate (“Listed Events”).

The SFPUC will file the Annual Report and any notice of Listed Events as described in the Continuing Disclosure Certificate. The specific nature of the information to be contained in the Annual Report or the notices of Listed Events is set forth in the Continuing Disclosure Certificate. These covenants have been made in order to assist the Underwriters in complying with Rule 15c2-12(b)(5) of the Securities and Exchange Commission (the “Rule”). The form of the Continuing Disclosure Certificate is attached to this Official Statement as Appendix G.

Although the SFPUC filed on EMMA materials describing the effectiveness of certain amendments to the indenture pursuant to which the SFPUC’s wastewater revenue bonds have been issued (payable from revenues of a separate enterprise fund—see “THE PUBLIC UTILITIES COMMISSION – Organization, Purposes and Powers”), it failed to file timely a simultaneous and duplicative notice of material event.

The SFPUC has, at least twice in the last five years, failed to file in a timely manner notice of a change in the rating of SFPUC bonds resulting from a change in the rating of a bond insurer. The current ratings of the SFPUC's insured bonds are correct on EMMA.

CO-FINANCIAL ADVISORS

Montague DeRose and Associates, LLC, Walnut Creek, California, and Backstrom McCarley Berry & Co., LLC, San Francisco, California (the “Co-Financial Advisors”), have served as Co-Financial Advisors to the SFPUC in connection with the structuring and delivery of the 2015 Series A Bonds. The Co-Financial Advisors are not obligated to undertake, and have not undertaken to make, an independent verification or to assume responsibility for the accuracy, completeness or fairness of the information contained in this Official Statement. The Co-Financial Advisors will receive compensation that is contingent upon the sale and delivery of the 2015 Series A Bonds.

VERIFICATION OF MATHEMATICAL ACCURACY

Upon delivery of the 2015 Series A Bonds, Causey Demgen & Moore P.C., Denver, Colorado, will deliver a report on the mathematical accuracy of certain computations, contained in schedules provided to them on behalf of the SFPUC, relating to (a) the sufficiency of the anticipated receipts from the cash deposited in the Escrow Fund to prepay the Refunded Bonds in full, and (b) the “yield” on the investments deposited in the Escrow Fund and on the Refunded Bonds considered by Bond Counsel in connection with the opinion rendered by such firm that the Refunded Bonds are not “arbitrage bonds” within the meaning of Section 148 of the Internal Revenue Code of 1986, as amended.

MISCELLANEOUS

References made in this Official Statement to certain documents and reports are brief summaries thereof that do not purport to be complete or definitive, and reference is made to such documents and reports for full and complete statements of the contents thereof.

The appendices to this Official Statement are integral parts of this Official Statement. Investors must read the entire Official Statement, including the appendices, to obtain information essential to making an informed investment decision.

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APPROVAL AND EXECUTION

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

PUBLIC UTILITIES COMMISSION OF THE
CITY AND COUNTY OF SAN FRANCISCO

By: /s/ Harlan L. Kelly, Jr.
Harlan L. Kelly, Jr.
General Manager

APPENDIX A

SUMMARY OF CERTAIN PROVISIONS OF THE INDENTURE

This Appendix contains summaries of certain provisions of the Indenture, which are in addition and complementary to the summaries found in the Official Statement under the captions "INTRODUCTION" "THE 2015 SERIES A BONDS" and "SECURITY FOR THE BONDS." The following summaries are qualified in their entirety by reference to the complete Indenture, a copy of which can be obtained from the Commission.

DEFINITIONS

Accreted Value

The term "Accreted Value" means, with respect to any Capital Appreciation Bond, the principal amount thereof plus the interest accrued thereon from its date, compounded at the approximate interest rate thereof on each May 1 and November 1. The Accreted Values at any date to which reference is made will be the amounts set forth in the Accreted Value Table.

Accreted Value Table

The term "Accreted Value Table" means, with respect to any Capital Appreciation Bonds, the corresponding table attached as an Exhibit to the Indenture or to a Supplemental Indenture pursuant to which Additional Bonds constituting Capital Appreciation Bonds are issued.

Additional Bonds

The term "Additional Bonds" means bonds, notes or other obligations of the Commission payable from Revenues and ranking on a parity with the Bonds and authorized to be issued under and pursuant to the Indenture.

Balloon Indebtedness

The term "Balloon Indebtedness" means a Series of Bonds 25% or more of the principal of which matures on the same date and which amount is not required by the documents governing such Bonds to be amortized by payment or redemption prior to such date. For purposes of this definition, an optional or mandatory tender of Bonds for purchase as described within the definition of Tender Indebtedness will not be treated as a maturity. If any Series of Bonds consists partially of Variable Rate Indebtedness and partially of indebtedness bearing interest at a fixed rate, the portion constituting Variable Rate Indebtedness and the portion bearing interest at a fixed rate will be treated as separate issues for purposes of determining whether any such indebtedness constitutes Balloon Indebtedness.

Board of Supervisors

The term "Board of Supervisors" means the Board of Supervisors of the City from time to time or any other governing board of the City hereafter provided for pursuant to law.

Bond Obligation

The term "Bond Obligation" means, as of any given date of calculation, (1) with respect to any Outstanding Current Interest Bond, the principal amount of such Bond, and (2) with respect to any Outstanding Capital Appreciation Bond, the Accreted Value thereof as of the May 1 or November 1 next preceding such date of calculation (unless such date of calculation is a May 1 or November 1 in which case as of such date).

Bondowner, Owner

The term “Bondowner” or “Owner” means any person who is the registered owner of any Outstanding Bond, or, if such Outstanding Bond has a maturity of one year or less and is issued in bearer form, the bearer of such Bond.

Bond Reserve Fund

The term “Bond Reserve Fund” means the fund by that name established under the Indenture.

Bond Reserve Fund Policy

The term “Bond Reserve Fund Policy” means a policy of insurance or surety bond issued by a Municipal Bond Insurer, obligations insured by which have a rating by Moody’s and S&P which is the highest rating then issued by said rating agency, or a Letter of Credit issued by a Qualified Bank, to satisfy all or a portion of the Required Reserve.

Bonds, Capital Appreciation Bonds, Current Interest Bonds, Serial Bonds, Term Bonds

The term “Bonds” means the San Francisco Water Revenue Bonds authorized by, and at any time Outstanding pursuant to, the Indenture or any Supplemental Indenture, including any Additional Bonds authorized by, and at any time Outstanding pursuant to, the Indenture and any Supplemental Indenture, and includes bonds, notes or other evidences of indebtedness payable from Revenues on a parity with the Outstanding Bonds.

The term “Current Interest Bonds” means all or any portion of a Series of Bonds designated as Current Interest Bonds and which pay interest at least semiannually to the Owners thereof excluding the first payment of interest thereon.

The term “Capital Appreciation Bonds” means all or any portion of a Series of Bonds designated as Capital Appreciation Bonds and on which interest is compounded and paid at maturity or on prior redemption.

The term “Serial Bonds” means all or any portion of a Series of Bonds designated as Serial Bonds and for which no Minimum Sinking Fund Account Payments are provided.

The term “Term Bonds” means all or any portion of a Series of Bonds designated as Term Bonds and which are payable at or before their specified maturity date or dates from Minimum Sinking Fund Account Payments established for that purpose and calculated to retire such Bonds on or before their specified maturity date or dates.

Build America Bonds

The term “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 Commission, a substantially similar direct-pay subsidy program that provides comparable security for the Owners of the Bonds.

Business Day

The term “Business Day” means any day other than (1) a Saturday, Sunday or day upon which commercial banks in San Francisco, California, or New York, New York are authorized or required to be closed and (2) for purposes of payments and other actions relating to Bonds secured by a Letter of Credit, a day upon which commercial banks in the city in which is located the office of the Qualified Bank at which demands for payment under the Letter of Credit are to be presented are authorized to be closed.

Certificate of the Commission

The term “Certificate of the Commission” means an instrument in writing signed by the President or by the General Manager or by any other officer of the Commission or of the City duly authorized by the Commission for that purpose, and by the Secretary. Any such instrument and supporting opinions or representations, if any, may, but need not, be combined in a single instrument with any other instrument, opinion or representation, and the two or more so combined will be read and construed as a single instrument. If and to the extent required by the provisions of the Indenture, each Certificate of the Commission will include the statements provided for in the Indenture.

Charter

The term “Charter” means (i) with respect to the 1991 Series A Bonds, (as such term is defined in the preambles to the Indenture), the Charter of the City in effect at the time of issuance of such Series of Bonds, as thereafter amended, including by the Charter of the City as it now exists, and (ii) with respect to the 2006 Series A Bonds, the 2006 Refunding Series B Bonds, the 2006 Refunding Series C Bonds, the 2009 Series A Bonds, the 2009 Series B Bonds, the 2010 Series ABC Bonds, the 2010 Series DE Bonds, the 2010 Series FG Bonds, the 2011 Series ABCD Bonds, the 2012 Series ABC Bonds, the 2012 Series D Bonds, the 2015 Series A Bonds and any Additional Bonds, the Charter of the City as it now exists or as it may hereafter be amended, and any new or successor Charter.

City

The term “City” means the existing political subdivision known as the City and County of San Francisco, in the State of California, as the same is organized and existing under and by virtue of the Constitution and laws of the State of California and the Charter and any public body hereafter created which will be a successor thereto.

Code

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

Commission

The term “Commission” means the Public Utilities Commission of the City duly constituted under the Charter, and all commissions, agencies or public bodies hereafter created which succeed to or take over the powers and duties of the Commission with respect to the Enterprise.

Consulting Engineers

The term “Consulting Engineers” means any engineer or firm of engineers retained by the Commission having a wide and favorable reputation for skill and experience in evaluating the construction and operation of public utilities, including public water supply, storage and distribution systems, or in other revenue producing publicly owned enterprises, to perform the acts and carry out the duties provided for such consulting engineers in the Indenture.

Controller

The term “Controller” means the Controller of the City from time to time and includes any deputy acting for the Controller.

Credit Provider

The term “Credit Provider” refers to a Municipal Bond Insurer that has issued an outstanding policy of municipal bond insurance or a Qualified Bank that is the issuer of an outstanding Letter of Credit which, in each case, secures payment of principal of, and interest on, or tender price of, all or a portion of a Series of Bonds; provided that this term will not refer to a Reserve Provider.

Effective Date

The term “Effective Date” means each date on which one or more of the respective provisions of the Fifth Supplemental Indenture becomes effective, being such time as the written consents of the Owners of a majority in aggregate amount of the Bond Obligation of the Bonds then Outstanding and of each Credit Provider have been filed with the Trustee, and the other requirements contained in the Section entitled “Modification or Amendment of the Indenture” of the Indenture have been satisfied.

Eighteenth Supplemental Indenture

The term “Eighteenth Supplemental Indenture” means the Eighteenth Supplemental Indenture, dated as of June 1, 2012, by and between the Commission and the Trustee.

Enterprise or Water Enterprise

The term “Enterprise” or “Water Enterprise” means the whole and each and every part of the municipal water supply, storage and distribution system of the Commission, as located partially within and partially without the City, including all of said presently existing municipal water system of the City and all additions, betterments, and extensions to said water system or any part thereof thereafter made, but excluding any water supply, storage or distribution facilities under the jurisdiction of the Hetch Hetchy Project, a department of the City under the jurisdiction of the Commission.

Escrow Agreement

The term “Escrow Agreement” means the Escrow Agreement, dated as of April 1, 2015, by and between the Commission and U.S. Bank National Association, as escrow agent.

Event of Default

The term “Event of Default” means an event of that name described in the Indenture.

Federal Securities

The term “Federal Securities” means United States treasury notes, bonds, bills or certificates of indebtedness, or obligations for which the faith and credit of the United States of America are pledged for the payment of principal and interest (including obligations issued or held in book-entry form and securities which represent an undivided interest in such direct obligations), and also any securities now or hereafter authorized, both the principal of and interest on which is guaranteed directly by the full faith and credit of the United States of America, and including interest strips held in book-entry form by the Federal Reserve Bank of New York of bonds issued by the Resolution Funding Corporation. For all Additional Bonds issued subsequent to the 2002 Series A Bonds and the 2002 Refunding Series B Bonds, the term “Federal Securities” will also include bonds, debentures, notes or other evidence of indebtedness issued or guaranteed by any of the following federal agencies and provided such obligations are backed by the full faith and credit of the United States of America (stripped securities are only permitted if they have been stripped by the agency itself): (i) direct obligations or fully guaranteed certificates of beneficial ownership of the U.S. Export-Import Bank; (ii) certificates of beneficial ownership of the Rural Economic Community Development Administration (formerly the Farmers Home Administration); (iii) obligations of the Federal Financing Bank; (iv) debentures of the Federal Housing Administration; (v) participation certificates of the General Services Administration; (vi) guaranteed Title XI financings of the U.S. Maritime Administration; and (vii) project notes, local authority bonds, new communities debentures and U.S. public housing notes and bonds of the U.S. Department of Housing and Urban Development.

Fifth Supplemental Indenture

The term “Fifth Supplemental Indenture” means the Fifth Supplemental Indenture, dated as of June 1, 2010, by and between the Commission and the Trustee.

Financial Newspaper or Journal

The term “Financial Newspaper or Journal” means *The Wall Street Journal* or *The Bond Buyer*, or any other newspaper or journal publishing financial news and selected by the Trustee, whose decision will be final and conclusive, printed in the English language, customarily published on each business day and circulated in San Francisco, California.

Fiscal Year

The term “Fiscal Year” means the period beginning on July 1 of each year and ending on the next succeeding June 30, or such other fiscal year as may be adopted by the Commission for its general accounting purposes or the then current accounting period of the City if the Commission has no separate accounting period.

Fourteenth Supplemental Indenture

The term “Fourteenth Supplemental Indenture” means the Fourteenth Supplemental Indenture, dated as of August 1, 2011, by and between the Commission and the Trustee.

General Manager

The term “General Manager” means the manager of utilities appointed by the Commission from time to time pursuant to the Charter or any other applicable provision of law.

Improvement Fund

The term “Improvement Fund” means the fund by that name established pursuant to the Indenture.

Indenture

The term “Indenture” means the Amended and Restated Indenture, dated as of August 1, 2002, by and between the Commission and the Trustee, as originally executed or as it may from time to time be supplemented or amended by any Supplemental Indenture delivered pursuant to the provisions of the Indenture.

Independent Certified Public Accountant

The term “Independent Certified Public Accountant” means any certified public accountant or firm of such accountants appointed and paid by the City or the Commission, and who, or each of whom –

- (i) is in fact independent and not under domination of the City or the Commission;
 - (ii) does not have any substantial interest, direct or indirect, with the City or the Commission;
- and
- (iii) is not connected with the City or the Commission as an officer or employee of the City or the Commission, but who may be regularly retained to make annual or other audits of the books of or reports to the City or the Commission.

Law

The term “Law” means the Charter, the San Francisco Administrative Code, and all laws of the State of California supplemental thereto, including the Revenue Bond Law of 1941 to the extent made applicable by the Charter or by the San Francisco Administrative Code. Whenever reference is made in the Indenture to the Law, reference is made to the Law as in force on the date of the Indenture or any Supplemental Indenture, unless the context otherwise requires.

Legal Investments

The term “Legal Investments” means bonds, notes, certificates of indebtedness, bills, acceptances or other securities in which funds of the Commission may now or hereafter be legally invested as provided by the law in effect at the time of such investment.

Letter of Credit

The term “Letter of Credit” means an irrevocable and unconditional letter of credit, a standby purchase agreement, a line of credit or other similar credit arrangement issued by a Qualified Bank to secure payment of Balloon Indebtedness, Variable Rate Indebtedness, Tender Indebtedness or a Series of Bonds or to satisfy all or a portion of the Required Reserve.

Letter of Credit Agreement

The term “Letter of Credit Agreement” means an agreement between the Commission and a Qualified Bank pursuant to which the Qualified Bank agrees to issue a Letter of Credit and which sets forth the repayment obligation of the Commission to the Qualified Bank on account of any payment under the Letter of Credit.

Letter of Representations

The term “Letter of Representations” means the letter or letters of representation of the Commission delivered to and accepted by The Depository Trust Company setting forth the basis on which The Depository Trust Company serves as depository for the Bonds, as originally executed or as it may be supplemented or revised or replaced by a letter to a substitute depository.

Maximum Annual Debt Service, Annual Debt Service, Debt Service, Average Annual Debt Service

The term “Maximum Annual Debt Service” 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 Commission as provided in this definition. For purposes of calculating Maximum Annual Debt Service, the following assumptions are to 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 will (unless 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 Minimum Sinking Fund Account Payments or any scheduled redemption or payment of Bonds on the basis of Accreted Value, and for such purpose, the redemption payment or payment of Accreted Value will be deemed a principal payment and interest that is compounded and paid as Accreted Value will be deemed due on the scheduled redemption or payment date of such Capital Appreciation Bond;

(ii) if any of the Outstanding Series of Bonds constitute Balloon Indebtedness or Balloon Indebtedness and Variable Rate Indebtedness or if Bonds then proposed to be issued would constitute Balloon Indebtedness or Balloon Indebtedness and Variable Rate Indebtedness, then, for purposes of determining Maximum Annual Debt Service, such amounts as constitute Balloon Indebtedness will be treated as if the principal amount of such Bonds were to be amortized from the date of their original issuance in substantially equal annual installments of principal and interest over a term of 25 years; the interest rate used for such computation will be the rate quoted in *The Bond Buyer –25 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 Commission, or if the Commission 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 Bonds on the date of issuance, or if there are no such Treasury bonds having equivalent maturities, 80% of the lowest prevailing prime rate of any of the five largest commercial banks in the United States ranked by assets;

(iii) if any Outstanding Bonds constitute Tender Indebtedness or if Bonds then proposed to be issued would constitute Tender Indebtedness, then for purposes of determining the amounts of principal and interest due in any Fiscal Year on such Bonds, the options or obligations of the owners of such Bonds to tender the same for purchase or payment prior to their stated maturity or maturities will be treated as a principal maturity occurring on the first date on which owners of such Bonds may or are required to tender such Bonds except that any such option or obligation to tender Bonds will be ignored and not treated as a principal maturity, if (1) such Bonds are rated in one of the two highest long-term rating categories (without reference to gradations such as “plus” or “minus”) by Moody’s and by S&P or such Bonds are rated in the highest short-term, note or commercial paper rating categories by Moody’s and by S&P and (2) the obligation, if any, the Commission may have under a Letter of Credit Agreement with respect to such Bonds, other than its obligations on such Bonds, will either be subordinated to the obligation of the Commission on the Bonds or be incurred under the conditions and meeting the tests for the issuance of Additional Bonds set forth in the Indenture;

(iv) if any Outstanding Bonds constitute Variable Rate Indebtedness, the interest rate on such Bonds will 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 have been Outstanding, or (b) the rate of interest on such Bonds on the date of calculation;

(v) if Bonds proposed to be issued will be Variable Rate Indebtedness, then such Bonds will be assumed to bear interest at the rate quoted in *The Bond Buyer –25 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 Commission, or if the Commission 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, 80% of the lowest prevailing prime rate of the five largest commercial banks in the United States ranked by assets:

(vi) if moneys or Federal Securities or general obligation bonds of the State of California have been deposited with and are held by the Trustee or another fiduciary to be used to pay principal and/or interest on specified Bonds, then the principal and/or interest to be paid from such moneys or Federal Securities or general obligation bonds of the State of California or from the earnings thereon will be disregarded and not included in calculating Maximum Annual Debt Service.

The term “Annual Debt Service” means the sum of such principal and interest as computed for the twelve-month period ending June 30 to which reference is made.

The term “Debt Service” means the sum of all such principal and interest.

The term “Average Annual Debt Service” means total Debt Service, divided by the number of twelve-month periods ending on June 30 (including any fractional periods) remaining until the last maturity date of any Outstanding Bond.

For the purpose of calculating Maximum Annual Debt Service, Annual Debt Service, Debt Service, and Average Annual Debt Service, 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 Build America Bonds, such amount will be reduced by an amount equal to the Refundable Credits the Commission is scheduled to receive during each such twelve-month period ending June 30. If the amount of Refundable Credits received by the Commission for any Series of Bonds that were issued as Build America Bonds is reduced or not received during any twelve-month period ending June 30, the Commission will calculate the amount of interest coming due for the subsequent twelve-month period ending June 30 without deducting an amount equal to the Refundable Credits for the purpose of calculating Maximum Annual Debt Service, Annual Debt Service, Debt Service, and Average Annual Debt Service until the receipt of such Refundable Credits resumes and all prior deficiencies are cured.

Mayor

The term “Mayor” means the Mayor of the City from time to time.

Minimum Sinking Fund Account Payments

The term “Minimum Sinking Fund Account Payments” means the aggregate amounts required by the Indenture and any subsequent Supplemental Indenture or Supplemental Indentures to be deposited in Sinking Fund Accounts for the payment of Term Bonds.

Moody’s

The term “Moody’s” means Moody’s Investors Service, Inc., a corporation duly organized and existing under and by virtue of the laws of the State of Delaware, and its successors and assigns, except that if such corporation will be dissolved or liquidated or will no longer perform the functions of a securities rating agency, then the term “Moody’s” will be deemed to refer to any other nationally recognized securities rating agency selected by the Commission and approved by the Trustee.

Municipal Bond Insurer

The term “Municipal Bond Insurer” means any insurance company or companies which has or have issued a policy of municipal bond insurance insuring payment of the principal of and interest on any of the Bonds of any Series or a Bond Reserve Fund Policy and are so designated as such in the Indenture or a Supplemental Indenture.

Net Revenues

The term “Net Revenues” means all of the Revenues (but not including interest on investment of funds required to be deposited in said funds or investment earnings required to be deposited in the Improvement Fund) less all Operation and Maintenance Costs of the Enterprise (but not including such Operation and Maintenance Costs as are scheduled to be paid by the Commission from moneys other than Revenues, such moneys to be clearly available for such purpose).

1985 Resolution

The term “1985 Resolution” means Resolution No. 85-0413, adopted October 1, 1985 by the Commission, as supplemented and amended, which resolution authorized the issuance of the Series of 1985 Bonds.

1991 Series A Bonds

The term “1991 Series A Bonds” has the meaning set forth in the preambles to the Indenture.

Nineteenth Supplemental Indenture

The term “Nineteenth Supplemental Indenture” means the Nineteenth Supplemental Indenture, dated as of August 1, 2012, by and between the Commission and the Trustee.

Operation and Maintenance Costs of the Enterprise

The term “Operation and Maintenance Costs of the Enterprise” means the reasonable and necessary costs of operating and maintaining the Enterprise, calculated on sound accounting principles, including (among other things) salaries and wages, fees for services, costs of materials, supplies and fuel, reasonable expenses of management, legal fees, accounting fees, repairs and other expenses necessary to maintain and preserve the Enterprise in good repair and working order, and reasonable amounts for administration, overhead, insurance, taxes (if any), other similar costs, and the payment of pension charges and proportionate payments to such compensation and other insurance or outside reserve funds as the Commission may establish or the Board of Supervisors may

require with respect to employees of the Commission, as provided in the Charter, but excluding in all cases (i) depreciation and obsolescence charges or reserves therefor, (ii) amortization of intangibles or other bookkeeping entries of a similar nature, (iii) costs of capital additions, replacements, betterments, extensions or improvements to the Enterprise, which under generally accepted accounting principles are chargeable to a capital account or to a reserve for depreciation, and (iv) charges for the payment of principal and interest on any general obligation bonds, revenue bonds or other indebtedness heretofore or hereafter issued for Enterprise purposes.

Opinion of Counsel

The term “Opinion of Counsel” means a written opinion of counsel (who may be counsel for the City or the Commission) retained by the Commission and who is acceptable to the Trustee. If and to the extent required by the provisions of the Indenture, each Opinion of Counsel will include the statements provided for in the Indenture.

Outstanding

The term “Outstanding,” when used as of any particular time with reference to Bonds, means (subject to the provisions of the Indenture) all Bonds theretofore executed, issued and delivered by the Commission under the Indenture except –

- (1) Bonds cancelled by the Trustee or surrendered to the Trustee for cancellation;
- (2) Bonds for the payment or redemption of which funds or securities in the necessary amount (as set forth in the Indenture) will have theretofore been deposited with a fiduciary (whether upon or prior to the maturity or redemption date of such Bonds), provided that, if such Bonds are to be redeemed prior to the maturity thereof, notice of such redemption will have been given as in the Indenture provided or provision satisfactory to the Trustee will have been made for the giving of such notice; and
- (3) Bonds in lieu of or in substitution for which other Bonds have been executed, issued and delivered by the Commission pursuant to the Indenture.

For purposes of this definition and within the meaning of the Indenture, Bonds the principal of or interest on which has been paid by a Municipal Bond Insurer will not be deemed paid by or on behalf of the Commission, will not be defeased and will remain Outstanding under the Indenture until paid by the Commission.

Payment Date

The term “Payment Date” means any interest, or interest and principal, payment date on which payment of the principal of or interest on the Bonds is due or on which any Term Bonds are required to be redeemed from any Minimum Sinking Fund Account Payments.

Permitted Investments

The term “Permitted Investments” means any of the following:

- (1) United States Treasury notes, bonds, bills, or certificates of indebtedness, or obligations for which the faith and credit of the United States of America are pledged for the payment of principal and interest (including obligations issued or held in book-entry form on the books of the Department of the Treasury of the United States of America and securities which represent an undivided interest in such direct obligations), and also any securities now or hereafter authorized, both the principal of and interest on which is guaranteed directly by the full faith and credit of the United States of America;
- (2) Bonds, consolidated bonds, collateral trust debentures, consolidated debentures or other obligations issued by federal land banks or federal intermediate credit banks established under the Federal Farm Loan Act, as amended; debentures and consolidated debentures issued by the Central Bank for Cooperatives and banks for cooperatives established under the Farm Credit Act of 1933, as amended;

bonds or debentures of the Federal Home Loan Bank Board established under the Federal Home Loan Bank Act and bonds of any federal home loan bank established under said act; bonds, debentures, participation certificates or other obligations of the Government National Mortgage Association or the Federal National Mortgage Association established under the National Housing Act, as amended; and also any securities now or hereafter authorized, both the principal of and interest on which is guaranteed indirectly by the full faith and credit of the United States of America;

(3) Time certificates of deposit or negotiable certificates of deposit issued by a state or nationally chartered bank or trust company, including the Trustee, or a state or federal savings and loan association, provided that such certificates of deposit will be (i) continuously and fully insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation or (ii) issued by any bank or trust company organized under the laws of any state of the United States, or any national banking association (including the Trustee), having a combined capital and surplus of at least \$100,000,000, and such certificates will have maturities of six months or less, or (iii) continuously and fully secured by such securities as are described in clauses (1) or (2) above, which securities will have a market value (exclusive of accrued interest) at all times at least equal to the principal amount of such certificates of deposit;

(4) Bankers' acceptances which are issued by a bank or trust company organized under the laws of any state of the United States or any national banking association (including the Trustee) rated "A" or higher by Moody's and S&P; provided, that such banker's acceptances may not exceed 270 days' maturity;

(5) Any repurchase agreement with any bank or trust company organized under the laws of any state of the United States or any national banking association (including the Trustee) 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 any one or more of the securities described in clauses (1) or (2) above, provided 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 the securities are continuously maintained at a market value of not less than the amount so invested;

(6) Commercial paper of "prime" quality of the highest ranking or of the highest letter and numerical rating as provided by Moody's and S&P, which commercial paper is limited to issuing corporations that are organized and operating within the United States of America and that have total assets in excess of five hundred million (\$500,000,000) and that have an "A" or higher rating for the issuer's debentures, other than commercial paper, as provided by Moody's and S&P; provided that purchases of eligible commercial paper may not exceed one hundred eighty (180) days' maturity nor represent more than ten percent (10%) of the outstanding commercial paper of an issuer corporation;

(7) Bonds, notes, warrants or other evidence of indebtedness of any of the states of the United States or of any political subdivision or public agency thereof which are rated in one of the two highest short-term or long-term rating categories by Moody's and S&P;

(8) Any investment agreement with (i) any bank or trust company organized under the laws of any state of the United States of America or any national banking association (including the Trustee) 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 (ii) any corporation, limited liability company or other entity that is organized and operating within the United States of America and that has total assets in excess of five hundred million dollars (\$500,000,000) and (A) at the time the investment agreement is entered into, has an "A" or higher rating for its debt, other than commercial paper, as provided by Moody's and S&P, or (B) at the time the investment agreement is entered into, the investment agreement or the provider's obligations under the investment agreement are guaranteed by any entity with an "A" or higher rating for its debt, other than commercial paper, or for its financial strength, as provided by Moody's and S&P; and

(9) 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 of America, which portfolios, unless held by the Trustee for 5 business days or less, have a rating at least equal to the lowest then existing rating on the Bonds given by S&P and Moody's.

Policy Costs

The term "Policy Costs" means the amounts owing to a Reserve Provider, including the principal amount of any draw on a Bond Reserve Fund Policy, interest thereon and reasonable expenses incurred by the Reserve Provider in enforcing payment of Policy Costs, as more fully set forth in the agreement pursuant to which such Bond Reserve Fund Policy is issued.

President

The term "President" means the President of the Commission from time to time.

Project

The term "Project" means any additions, enlargements, betterments, extensions and other improvements to or benefiting, and the equipping of, the Enterprise, including, without limitation, the acquisition of land therefor.

Project Fund

The term "Project Fund" means each fund by the name established within the Improvement Fund.

Proportionate Basis

The term "Proportionate Basis" when used with respect to the redemption of Bonds, means that the amount of Bonds of each maturity to be redeemed will be determined as nearly as practicable by multiplying the total amount of funds available for redemption by the ratio which the amount of Bond Obligation of Bonds of such maturity bears to the amount of all Bond Obligation of Bonds to be redeemed, provided that if the amount available for redemption of Bonds of any maturity is insufficient to redeem a multiple of \$5,000 principal amount or Accreted Value payable at maturity, such amount will be applied to the redemption of the highest possible integral multiple (if any) of \$5,000 principal amount or Accreted Value payable at maturity. For purposes of the foregoing, Term Bonds will be deemed to mature in the years and in the amounts of the Minimum Sinking Fund Account Payments and Capital Appreciation Bonds and Current Interest Bonds maturing or subject to Minimum Sinking Fund Account Payments in the same year will be treated as separate maturities. When used with respect to the payment or purchase of Bonds, "Proportionate Basis" will have the same meaning set forth above except that "pay" or "purchase" will be substituted for "redeem" or "redemption" and "paid" or "purchased" will be substituted for "redeemed."

Proposition A of 2002, Proposition A

The term "Proposition A of 2002" or "Proposition A" means a measure approved by a majority of voters voting thereon at a duly called and held revenue bond election on November 5, 2002, authorizing the issuance by the Commission of its revenue bonds or other forms of revenue financing in a principal amount not to exceed \$1,628,000,000 to finance the acquisition and construction of improvements to the Enterprise.

Proposition E of 2002, Proposition E

The term "Proposition E of 2002" or "Proposition E" means a measure approved by a majority of voters voting thereon at a duly called and held revenue bond election on November 5, 2002 authorizing the issuance by the Commission of its revenue bonds or other forms of revenue financing for the purpose of reconstructing, replacing, expanding, repairing or improving water facilities or clean water facilities or combinations of water and clean water facilities under the jurisdiction of the Commission

Qualified Bank

The term “Qualified Bank” means a state or national bank or trust company or savings and loan association or a foreign bank with a domestic branch or agency which is organized and in good standing under the laws of the United States or any state thereof or any foreign country, which has a capital and surplus of \$25,000,000 or more and which has a short term debt rating of the highest ranking or of the highest letter and numerical rating as provided by Moody’s or by S&P.

Qualified Independent Consultant

The term “Qualified Independent Consultant” means a person or a firm who or which engages in the business of advising the management of public agencies concerning the operation and financing of public utilities, including public water supply, storage and distribution systems, and also including advice and consultation generally concerning the use and operation of public utilities, including public water supply, storage and distribution systems, and which person or firm, by reason of his or its knowledge and experience, has acquired a reputation as a recognized consultant. Such Qualified Independent Consultant may include a person or firm rendering professional engineering or accounting services in addition to his or its occupation as a public utility consultant and may include any person or firm regularly employed by the City or the Commission as a consultant to the City or the Commission.

Rebate Certificate

The term “Rebate Certificate” means the Rebate Certificate or similar tax certificate delivered or to be delivered by the Commission at the time of issuance and delivery of a Series of Bonds, as the same may be amended or supplemented in accordance with its terms.

Rebate Fund

The term “Rebate Fund” means the fund established and so designated for a Series of Bonds.

Refundable Credits

The term “Refundable Credits” means (a) with respect to a Series of Bonds issued as Build America Bonds under Section 54AA of the Code, the amounts which are payable by the Federal government under Section 6431 of the Code, which the Commission has elected to receive under Section 54AA(g)(1) of the Code, and (b) with respect to a Series of Bonds issued as Build America Bonds under any other provisions of the Code that creates, in the determination of the Commission, a substantially similar direct-pay subsidy program, the amounts which are payable by the Federal government under the applicable provisions of the Code, which the Commission has elected to receive under the applicable provisions of the Code.

Required Reserve

The term “Required Reserve” means,

(1) with respect to a Series of Bonds issued prior to the Effective Date, the aggregate amount which is equal to the sum of fifty percent (50%) of the Maximum Annual Debt Service on such Series of Bonds then Outstanding; provided, however, that such Required Reserve or a portion thereof may be provided by one or more Bond Reserve Fund Policies; provided further that in no event will the Commission, in connection with issuance of a Series of Additional Bonds, be obligated to deposit an amount in the Bond Reserve Fund which is in excess of the amount permitted by the applicable provisions of the Code to be so deposited from the proceeds of tax-exempt bonds without having to restrict the yield of any investment purchased with any portion of such deposit.

(2) with respect to a Series of Bonds issued on or after the Effective Date, as of any date of calculation, the amount, if any, required to be deposited into a Reserve Account for that Series of Bonds, as defined in and provided by the Supplemental Indenture pursuant to which such Series of Bonds is issued; provided, however, that in no event will the Commission, in connection with issuance of a Series of Additional Bonds, be

obligated to deposit an amount in the Bond Reserve Fund which is in excess of the amount permitted by the applicable provisions of the Code to be so deposited from the proceeds of tax-exempt bonds without having to restrict the yield of any investment purchased with any portion of such deposit.

Reserve Account

The term “Reserve Account” means each account established in the Bond Reserve Fund with respect to each Series of Bonds issued under the Indenture.

Reserve Provider

The term “Reserve Provider” means the issuer of a Bond Reserve Fund Policy.

Revenue Fund

The term “Revenue Fund” means the fund by that name established pursuant to the Indenture.

Revenues

The term “Revenues” means all gross revenues of the Enterprise, including all charges received for and all other income and receipts derived by the Commission or the City from the operation of the Enterprise, or arising from the Enterprise, including connection and installation charges, but excluding –

- (1) any money received by or for the account of the City or the Commission from the levy or collection of taxes,
- (2) moneys received from the State of California and the United States of America and required to be deposited in restricted funds,
- (3) refundable deposits made to establish credit,
- (4) advances and contributions made to the Commission or the City to be applied to construction,
- (5) moneys required to be paid to the State of California and the United States of America pursuant to agreements with the City or the Commission,
- (6) moneys received from insurance proceeds or the sale of or upon the taking by or under the threat of eminent domain of all or any part of the Enterprise (which moneys will be received and disposed of pursuant to the Indenture),
- (7) proceeds from Bonds issued by the Commission or proceeds from loans obtained by the Commission,
- (8) moneys or securities received by the City or the Commission as gifts or grants, the use of which is restricted by the donor or grantor,
- (9) sewer service fees or charges, and
- (10) any surcharge imposed by or upon the direction of any joint powers agency or other governmental entity, other than the Commission, the City or any department or agency of the City, whether or not collected by the Commission, the City or any department or agency of the City, for the purpose of financing improvements to the facilities comprising the Enterprise.

The term “Revenues” also includes (i) all interest, profits or other income derived from the deposit or investment of any moneys in any fund or account established under the Indenture (excluding any Rebate Fund and

any escrow fund pledged for the payment of defeased bonds) or in any fund or account of the Enterprise and legally available to pay Debt Service on the Bonds, and (ii) any other moneys, proceeds and other amounts that the Commission determines should be “Revenues” under the Indenture.

Secretary

The term “Secretary” means the Secretary of the Commission from time to time.

Series

The term “Series” means any series of Bonds executed, authenticated and delivered pursuant to the Indenture and identified as a separate Series of Bonds, including any Additional Bonds issued pursuant to a Supplemental Indenture and the Indenture.

Series of 1985 Bonds

The term “Series of 1985 Bonds” has the meaning set forth in the preambles to the Indenture.

Series of 1987 Bonds

The term “Series of 1987 Bonds” has the meaning set forth in the preambles to the Indenture.

Seventeenth Supplemental Indenture

The term “Seventeenth Supplemental Indenture” means the Seventeenth Supplemental Indenture, dated as of June 1, 2012, by and between the Commission and the Trustee.

Sinking Fund Accounts

The term “Sinking Fund Accounts” means any special account or accounts established by the Indenture or any Supplemental Indenture or Indentures in the Principal Fund for the payment of Term Bonds.

Sixteenth Supplemental Indenture

The term “Sixteenth Supplemental Indenture” means the Sixteenth Supplemental Indenture, dated as of June 1, 2012, by and between the Commission and the Trustee.

S&P

The term “S&P” means Standard & Poor’s Ratings Services, a corporation duly organized and existing under and by virtue of the laws of the State of New York, and its successors and assigns, except that if such corporation is dissolved or liquidated or will no longer performs the functions of a securities rating agency, then the term “S&P” will be deemed to refer to any other nationally recognized securities rating agency selected by the Commission and approved by the Trustee.

Supplemental Indenture

The term “Supplemental Indenture” means any indenture or resolution amendatory of or supplemental to the Indenture; but only if and to the extent that such Supplemental Indenture is specifically authorized under the Indenture.

Tender Indebtedness

The term “Tender Indebtedness” means any Bonds or portions of Bonds a feature of which is an option, on the part of the Bondowners, or an obligation, under the terms of such Bonds, to tender all or a portion of such Bonds

to the Commission, the Trustee or other fiduciary or agent for payment or purchase and requiring that such Bonds or portions of Bonds be purchased if properly presented.

Thirteenth Supplemental Indenture

The term “Thirteenth Supplemental Indenture” means the Thirteenth Supplemental Indenture, dated as of August 1, 2011, by and between the Commission and the Trustee.

Treasurer

The term “Treasurer” means the Treasurer of the City and includes any deputy acting for the Treasurer.

Trustee

The term “Trustee” means U.S. Bank National Association, acting as an independent trustee with the duties and powers provided in the Indenture, its successors and assigns, and any other corporation or association which may at any time be substituted in its place, as provided in the Indenture.

Twelfth Supplemental Indenture

The term “Twelfth Supplemental Indenture” means the Twelfth Supplemental Indenture, dated as of August 1, 2011, by and between the Commission and the Trustee.

Twentieth Supplemental Indenture

The term “Twentieth Supplemental Indenture” means the Twentieth Supplemental Indenture, dated as of April 1, 2015, by and between the Commission and the Trustee.

2002 Series A Bonds

The term “2002 Series A Bonds” has the meaning set forth in the preamble to the Indenture.

2002 Series B Bonds

The term “2002 Series B Bonds” has the meaning set forth in the preamble to the Indenture.

2011 Series ABCD Bonds

The term “2011 Series ABCD Bonds” has the meaning set forth in the Twelfth, Thirteenth, Fourteenth and Fifteenth Supplemental Indentures.

2012 Series ABC Bonds

The term “2012 Series ABC Bonds” has the meaning set forth in the Sixteenth, Seventeenth and Eighteenth Supplemental Indentures.

2012 Series ABC Reserve Account

The term “2012 Series ABC Reserve Account” has the meaning set forth in the Sixteenth and Seventeenth Supplemental Indenture.

2012 Series D Bonds

The term “2012 Series D Bonds” has the meaning set forth in the Nineteenth Supplemental Indenture.

2015 Series A Bonds

The term “2015 Series A Bonds” has the meaning set forth in the Twentieth Supplemental Indenture.

2015 Series A Rebate Fund

The term “2015 Series A Rebate Fund” has the meaning set forth in the Twentieth Supplemental Indenture.

Variable Rate Indebtedness

The term “Variable Rate Indebtedness” means any portion of indebtedness the interest rate on which is not fixed at the time of incurrence of such indebtedness, and has not at some subsequent date been fixed, at a single numerical rate for the entire term of the indebtedness.

Written Request of the Commission, Written Requisition of the Commission, Written Statement of the Commission

The terms “Written Request of the Commission,” “Written Requisition of the Commission” and “Written Statement of the Commission” mean, respectively, a written request, requisition or statement signed by or on behalf of the Commission by the President or the General Manager or the Secretary or by any person (whether or not an officer of the Commission) who is specifically authorized by resolution of the Commission (which resolution will be provided to the Trustee) to sign or execute such a document on its behalf.

USE OF DEPOSITORY

(a) The 2015 Series A Bonds will be initially registered in the name of “Cede & Co.,” as nominee of The Depository Trust Company, New York, New York (the “Depository Trust Company”). Registered ownership of the 2015 Series A Bonds, or any portions thereof, may not thereafter be transferred except:

(i) to any successor of The Depository Trust Company or its nominee, or of any substitute depository designated pursuant to clause (ii) of this subsection (a) (a “Substitute Depository”); provided that any successor of The Depository Trust Company or Substitute Depository will be qualified under any applicable laws to provide the service proposed to be provided by it;

(ii) to any Substitute Depository not objected to by the Trustee, upon (1) the resignation of The Depository Trust Company or its successor (or any Substitute Depository or its successor) from its functions as depository, or (2) a determination by the Commission that The Depository Trust Company (or its successor) is no longer able to carry out its functions as depository; provided that any such Substitute Depository will be qualified under any applicable laws to provide the services proposed to be provided by it; or

(iii) to any person as provided below, upon (1) the resignation of The Depository Trust Company or its successor (or any Substitute Depository or its successor) from its functions as depository, or (2) a determination by the Commission to remove The Depository Trust Company or its successor (or Substitute Depository or its successor) from its functions as depository.

(b) In the case of any transfer pursuant to clause (i) or clause (ii) of subsection (a) above, upon receipt of all Outstanding 2015 Series A Bonds by the Trustee, together with a Written Request of the Commission to the Trustee designating the Substitute Depository, one new bond for each 2015 Series A Bond (as the case may be), which the Commission will prepare or cause to be prepared, will be executed and delivered for each maturity of 2015 Series A Bonds then Outstanding, registered in the name of such successor or such Substitute Depository, or their nominees, as the case may be, all as specified in such Written Request of the Commission. In the case of any

transfer pursuant to clause (iii) of subsection (a) above, upon receipt of all Outstanding 2015 Series A Bonds by the Trustee, together with a Written Request of the Commission to the Trustee, new bonds for 2015 Series A Bonds, which the Commission will prepare or cause to be prepared in definitive form, will be executed and delivered in such denominations and registered in the names of such persons as are requested in such Written Request of the Commission, subject to the limitations of the Indenture, provided that the Trustee will not be required to deliver such new bonds for 2015 Series A Bonds within a period less than 60 days from the date of receipt of such Written Request from the Commission.

(c) In the case of a partial redemption or an advance refunding of any 2015 Series A Bonds evidencing a portion of the principal maturing in a particular year, The Depository Trust Company or its successor (or any Substitute Depository or its successor) will make an appropriate notation on such 2015 Series A Bonds indicating the date and amounts of such reduction in principal, in form acceptable to the Trustee. The Trustee will not be liable for such depository's failure to make such notations or errors in making such notations.

(d) The Commission and the Trustee will be entitled to treat the person in whose name any 2015 Series A Bonds is registered as the Owner thereof for all purposes of the Indenture and any applicable laws, notwithstanding any notice to the contrary received by the Trustee or the Commission; and the Commission and the Trustee will not have responsibility for transmitting payments to, communicating with, notifying, or otherwise dealing with any beneficial owners of the 2015 Series A Bonds. Neither the Commission nor the Trustee will have any responsibility or obligation, legal or otherwise, to any such beneficial owners or to any other party, including The Depository Trust Company or its successor (or Substitute Depository or its successor), except to the Owner of any 2015 Series A Bonds, and the Trustee may rely conclusively on its records as to the identity of the Owners of the 2015 Series A Bonds.

(e) Notwithstanding any other provisions of the Indenture and so long as all Outstanding 2015 Series A Bonds are registered in the name of Cede & Co. or its registered assigns, the Commission and the Trustee will cooperate with Cede & Co., as sole registered Bondowner, and its registered assigns in effecting payment of the principal of and redemption premium, if any, and interest on the 2015 Series A Bonds by arranging for payment in such manner that funds for such payments are properly identified and are made available on the date they are due all in accordance with the letter of representations delivered by the Commission and the Trustee to The Depository Trust Company with respect to the 2015 Series A Bonds, the provisions of which the Trustee may rely upon to implement the foregoing procedures notwithstanding any inconsistent provisions set out in the Indenture.

BOND PROCEEDS FUNDS; ADDITIONAL SERIES OF BONDS

Improvement Fund. The Commission covenanted and agreed, upon the discharge of the 1985 Resolution, to maintain under the Indenture the separate fund known as the "1985 Water Revenue Bond Improvement Fund" (the "Improvement Fund") created pursuant to the 1985 Resolution. The Treasurer holds the amounts on deposit in the Improvement Fund. The Improvement Fund will be maintained and accounted for by the Controller so long as any moneys are on deposit in such Improvement Fund. The Commission may direct the Trustee to establish, within the Improvement Fund, separate Project Funds relating to separate Series of bonds. Upon completion of the acquisition and construction of the Project, the Commission may direct the transfer of any remaining balance in the Improvement Fund to any other fund or account of the Commission.

The moneys in the Improvement Fund will to be held by the Treasurer in trust and applied to the costs of acquisition, construction, expansion, improvement, financing and refinancing of the Project and the expenses incident thereto or connected therewith including, if necessary, interest to the extent permitted by law, reimbursement to the Commission for expenses incurred prior to the issuance of the Series of 1985 Bonds and subsequent to the date of the election referred to in the preambles to the Indenture or in connection with the Enterprise, architectural, engineering and inspection fees and expenses, apparatus, equipment and furnishings for the Enterprise, testing and inspection, surveys, insurance premiums, losses during construction not insured against because of deductible amounts, the fees and expenses of the Trustee, including fees and expenses as fiscal agent for the Series of 1985 Bonds, expenses in connection with the preparation, issuance, sale and delivery of the Bonds, legal, accounting and consultant fees and expenses, and similar expenses.

The Treasurer will pay out moneys from the Improvement Fund only upon warrants drawn by the Controller in the manner provided by law. No withdrawals will be made from the Improvement Fund for any purpose not authorized by law.

2015 Series A Costs of Issuance Fund. The Trustee will deposit a portion of the proceeds of the 2015 Series A Bonds in a separate fund to be known as the “2015 Series A Costs of Issuance Fund” which the Trustee agrees to establish and maintain. The money in the 2015 Series A Costs of Issuance Fund will be used and disbursed in the manner provided in such Indenture for the purpose of paying all costs of issuance incidental to or connected with the issuance of the 2015 Series A Bonds (or for making reimbursements to the Commission or any other person, firm or corporation for such costs theretofore paid by such person or it). Any balance of money remaining in the 2015 Series A Costs of Issuance Fund after the payment of all costs incidental to or connected with the issuance of the 2015 Series A Bonds or on the dates set forth in the Twentieth Supplemental Indenture, whichever is earlier, will be transferred by the Trustee in accordance with the Twentieth Supplemental Indenture, and the 2015 Series A Costs of Issuance Fund will be closed.

Issuance of Additional Series of Bonds; General. In addition to the 2015 Series A Bonds and the Outstanding Bonds, the Commission may, subject to the requirements of the Law, by Supplemental Indenture establish one or more other Series of Bonds payable from Revenues on a parity with the Bonds and secured by a lien upon and pledge of Revenues equal to the lien and pledge securing the Bonds, and the Commission may issue and the Trustee may authenticate and deliver Bonds of any Series so established, in such principal amount and for such lawful purpose or purposes (including refunding of any Bonds issued under the Indenture and then Outstanding) as will be determined by the Commission in said Supplemental Indenture, but only upon compliance by the Commission with the provisions of the Indenture and subject to the following specific conditions, which are made conditions precedent to the issuance of any such additional Series of Bonds:

(a) The Commission will not be in default under the Indenture or any Supplemental Indenture.

(b) The Supplemental Indenture providing for the issuance of such additional Series of Bonds will require that the Bond Reserve Fund to be established pursuant to the Indenture be increased, if and to the extent necessary, forthwith upon the receipt of the proceeds of the sale of such additional Series of Bonds to an amount at least equal to the Required Reserve. Said deposit may be made from such proceeds or any other source, as provided in the Supplemental Indenture.

(c) The Bonds of such additional Series will be payable as to principal either semiannually on May 1 and November 1 of each year in which principal falls due or annually on November 1 of each year in which principal falls due, provided that Term Bonds of any Series will have a principal maturity date of November 1. The Bonds of such additional Series that are Current Interest Bonds will be payable as to interest semiannually on May 1 and November 1 of each year excepting the first year, provided that the first installment of interest may be payable on either May 1 or November 1 and will be for a period of not longer than twelve months and that the interest will be payable thereafter semiannually on May 1 and November 1, and further provided that interest on any Bonds constituting Variable Rate Indebtedness or Tender Indebtedness may be payable on such Payment Dates as will be specified in the Supplemental Indenture providing for the issuance of such Bonds.

(d) Fixed serial maturities or mandatory Minimum Sinking Fund Account Payments, or any combination thereof, will be established in amounts sufficient to provide for the retirement of all of the Bonds of such additional Series on or before their respective maturity dates, unless such Bonds are Balloon Indebtedness.

(e) The aggregate principal amount of Bonds issued under the Indenture will not exceed any limitation imposed by law or by any Supplemental Indenture.

(f) The representations and estimates set forth in the certificates and written reports required by the Indenture can be made by the parties required to give such certificates and written reports.

(g) If then required by law, the issuance of such additional Series of Bonds must be approved by the qualified voters voting on a proposition to authorize the issuance of said Series of Bonds.

Issuance of Additional Series of Bonds for Refunding. In addition to the 2015 Series A Bonds, the Commission may, subject to the requirements of the Law (including the provisions of any resolution or ordinance of the Board of Supervisors), by Supplemental Indenture establish one or more other Series of Bonds payable from Revenues on a parity with the 2015 Series A Bonds and secured by a lien upon and pledge of Revenues equal to the lien and pledge securing the 2015 Series A Bonds, and the Commission may issue, and the Trustee may authenticate and deliver Bonds of any Series so established, for the purpose of refunding any Bonds issued under the Indenture and then Outstanding, but only upon compliance by the Commission with the provisions of the Indenture, and subject to the following specific conditions, which are made conditions precedent to the issuance of any such additional Series of Bonds:

(a) The Supplemental Indenture providing for the issuance of such additional Series of Bonds will require that the Bond Reserve Fund to be established pursuant to the Indenture be increased, if necessary, forthwith upon the receipt of the proceeds of the sale of such additional Series of Bonds to an amount at least equal to the Required Reserve. Said deposit may be made from such proceeds or any other source, as provided in said Supplemental Indenture.

(b) The Bonds of such additional Series will be payable as to principal either semiannually on May 1 and November 1 of each year in which principal falls due or annually on November 1 of each year in which principal falls due, provided that Term Bonds of any Series will have a principal maturity date of November 1. The Bonds of such additional Series that are Current Interest Bonds will be payable as to interest semiannually on May 1 and November 1 of each year excepting the first year, provided that the first installment of interest may be payable on either May 1 or November 1 and will be for a period of not longer than twelve months and that the interest will be payable thereafter semiannually on May 1 and November 1, and further provided that interest on any Bonds constituting Variable Rate Indebtedness or Tender Indebtedness may be payable on such Payment Dates as will be specified in the Supplemental Indenture providing for the issuance of such Bonds.

(c) Fixed serial maturities or mandatory Minimum Sinking Fund Account Payments, or any combination thereof, will be established in amounts sufficient to provide for the retirement of all of the Bonds of such additional Series on or before their respective maturity dates, unless such Bonds are Balloon Indebtedness.

(d) The aggregate principal amount of Bonds issued under the Indenture will not exceed any limitation imposed by law or by any Supplemental Indenture.

(e) The proceeds of the Bonds of such additional Series will be used, together with any other available moneys, to refund (by defeasance, current refunding or crossover refunding) all or a portion of the Bonds then Outstanding, and the Average Annual Debt Service for the Bonds of such additional Series (during the period from their issuance to their last maturity date) will be equal to or less than the Average Annual Debt Service on the Bonds to be refunded (during the period from the issuance of the additional Series to the last maturity date of the Bonds to be refunded.)

(f) The statements set forth in the certificate required by the Indenture can be made by the party required to give such certificate.

(g) If then required by law, the issuance of such additional Series of Bonds will have been approved by the qualified voters voting on a proposition to authorize the issuance of said Series of Bonds.

Proceedings for the Issuance of Additional Series of Bonds. Whenever the Commission will determine to issue an additional Series of Bonds pursuant to the Indenture, the Commission will execute or adopt a Supplemental Indenture providing for the issuance of such additional Series of Bonds, specifying the maximum principal amount of Bonds of such Series and prescribing the terms and conditions of such additional Series of

Bonds, including the terms and conditions of any Letter of Credit Agreement with respect to the Letter of Credit securing such additional Series of Bonds, if any.

Such Supplemental Indenture will prescribe the form or forms of Bonds of such additional Series and, subject to the provisions of the Indenture, will provide for the distinctive designation, denominations, methods of execution and numbering, dating, maturity dates, interest rates, interest payment dates, provisions for redemption prior to maturity and methods and places of payment of principal and interest.

The Commission may by such Supplemental Indenture prescribe any other provisions respecting the Bonds of such Series not inconsistent with the terms of the Indenture, including registration, transfer and exchange provisions, provisions for the payment of principal and interest and sinking fund provisions.

Before such additional Series of Bonds will be issued and delivered, the Commission will file the following documents with the Trustee:

(a) An Opinion of Counsel setting forth (1) that such counsel has examined the Supplemental Indenture and found it to be in compliance with the requirements of the Indenture; (2) that the execution and delivery of the additional Series of Bonds have been sufficiently and duly authorized by the Commission; and (3) that said additional Series of Bonds, when duly executed by the Commission and, if required, authenticated and delivered by the Trustee, will be valid and binding special obligations of the Commission, payable from Revenues as provided in the Indenture.

(b) If such additional Series of Bonds are being issued pursuant to the Indenture, a Certificate of the Commission that the requirement of (a) under “Issuance of Additional Series of Bonds; General” has been met.

(c) The required certificates and reports under subparagraph (1) or (2) below:

(1) If the additional Series of Bonds are being issued pursuant to the requirements set forth under “Issuance of Additional Series of Bonds; General” (see above), the following certificates:

(A) A Certificate of the Commission setting forth (i) for any period of 12 consecutive calendar months out of the 18 calendar months next preceding the authentication and delivery of such Series of Bonds, the Net Revenues for such 12-month period, and (ii) the Debt Service for such 12-month period, and demonstrating that for such 12-month period Net Revenues equaled at least 1.25 times Debt Service;

(B) If any portion of the proceeds of such Series of Bonds is to be used to finance construction, a certificate of the Consulting Engineers setting forth (i) the estimated date of completion for the portion of the Project for which such Series of Bonds is being issued and for any other uncompleted portion of the Project, and (ii) an estimate of the cost of construction of such portion of the Project and of any other uncompleted portion of the Project;

(C) A written report of a Qualified Independent Consultant setting forth for each of the next three Fiscal Years, or if any portion of the proceeds of such Series of Bonds is to be used to finance construction, the three Fiscal Years following the Fiscal Year in which the Consulting Engineers estimate such portion of the Project will be completed, estimates of (i) Revenues, (ii) Operation and Maintenance Costs of the Enterprise and (iii) Net Revenues; and

(D) A Certificate of the Commission setting forth (i) the estimates of Net Revenues, as set forth in the written report of the Qualified Independent Consultant pursuant to paragraph (C) above, for each of such three Fiscal Years, (ii) the Annual Debt

Service for each of such three Fiscal Years, including Annual Debt Service as estimated in such Certificate of the Commission with respect to future Series of Bonds, if any, which such Certificate of the Commission will estimate (based on the estimate of the Consulting Engineers of the cost of construction of such portion of the Project and other uncompleted portions of the Project) will be required to complete payment of the cost of construction of such portion of the Project and any other uncompleted portion of the Project, and demonstrating that the estimated Net Revenues in each of the Fiscal Years set forth in (i) above is at least equal to 1.25 times the Annual Debt Service for the corresponding Fiscal Year as set forth in (ii) above.

Said certificate or certificates or written report will be filed after the sale of the additional Series of Bonds proposed to be issued (but prior to the delivery thereof and receipt of payment therefor), and will, with respect to such additional Series of Bonds, be based upon the actual interest rate or rates determined at the time of sale thereof.

(2) If the additional Series of Bonds are being issued pursuant to the requirements set forth under “Issuance of Additional Series of Bonds for Refunding” (see above), a certificate of an Independent Certified Public Accountant that the requirements stated under (e) under such caption have been met. Said certificate will be filed after the sale of the additional Series of Bonds proposed to be issued (but prior to the delivery thereof and receipt of payment therefor), and will, with respect to such additional Series of Bonds, be based upon the actual interest rate or rates determined at the time of sale thereof.

(d) The Supplemental Indenture, duly executed or certified and approved by the Trustee.

Upon the delivery to the Trustee of the foregoing instruments, the Trustee will authenticate and deliver the additional Series of Bonds, in the aggregate principal amount specified in such Supplemental Indenture, to, or upon the Written Request of the Commission, when such additional Series of Bonds will have been presented to it for that purpose.

None of the limitations or restrictions on the issuance of additional Series of Bonds set forth under “Proceedings for the Issuance of Additional Series of Bonds” will be applicable to any additional Series of Bonds which are to be issued solely for the purpose of refunding and retiring all of the Bonds issued pursuant to the Indenture and then Outstanding, and nothing contained in the Indenture will limit the issuance of any additional Series of Bonds if, after the issuance and delivery of such additional Series of Bonds, none of the Bonds theretofore authorized pursuant to the Indenture will be Outstanding or the Commission will have discharged the entire indebtedness on all Bonds Outstanding pursuant to the defeasance provisions of the Indenture.

Consent Required for Issuance of Additional Bonds. So long as any of the Bonds remain Outstanding, the Commission will not issue any Additional Bonds or obligations payable from Revenues on a parity with the Bonds except pursuant to the provisions of the Indenture described above under the caption Proceedings for the Issuance of Additional Series of Bonds unless the Owners of a majority in aggregate amount of the Bond Obligation and any Credit Provider will have consented in writing to the issuance of such Additional Bonds or obligations.

REVENUES AND FUNDS

Pledge and Assignment of Revenues; Revenue Fund. (a) In accordance with the Charter, but subject to the budget and fiscal provisions of the Charter, whenever revenue bonds issued by the Commission pursuant to the Charter or refunding bonds of such revenue bonds are Outstanding, the entire gross revenue of the Enterprise will be set aside and deposited into a fund in the City treasury heretofore established and known as the “Enterprise Revenue Fund” (the “Revenue Fund”). All amounts paid into such fund will be maintained by the Treasurer separate and apart from all other City funds and will be secured by the Treasurer’s official bond or bonds.

(b) Moneys in the Revenue Fund, including earnings thereon, will be appropriated, transferred, expended or used for the following purposes pertaining to the financing, maintenance and operation of the Enterprise and related facilities owned, operated or controlled by the Commission and only in accordance with the following priority:

- (1) the payment of operation and maintenance expenses for such utility and related facilities;
- (2) the payment of pension charges and proportionate payments to such compensation and other insurance or outside reserve funds as the Commission may establish or the Board of Supervisors may require with respect to employees of the Commission;
- (3) the payment of principal, interest, reserve, sinking fund, and other mandatory funds created to secure revenue bonds issued by the Commission for the acquisition, construction or extension of the Enterprise or related facilities owned, operated or controlled by the Commission as provided in the Indenture;
- (4) the payment of principal and interest on general obligation bonds issued by the City for Enterprise purposes;
- (5) reconstruction and replacement as determined by the Commission or as required by any Enterprise revenue bond ordinance duly adopted and approved;
- (6) the acquisition of land, real property or interest in real property for, and the acquisition, construction, enlargement and improvement of, new and existing buildings, structures, facilities, equipment, appliances and other property necessary or convenient to the development or improvement of such utility owned, controlled or operated by the Commission; and for any other lawful purpose of the Commission including the transfer of surplus funds pursuant to the Charter.

(c) Subject to the provisions of subsection (a) and (b) above, all of the Revenues (except amounts on deposit in the Rebate Fund) are irrevocably pledged to the punctual payment of the principal of and interest and redemption premium, if any, on the Bonds and the Policy Costs, and the Revenues will not be used for any other purpose while any of the Bonds remain Outstanding or Policy Costs remain unpaid; except that the Revenues may be used for such purposes as are expressly permitted in the Charter and in the Indenture. Pursuant to Section 5451 of the California Government Code, such pledge will constitute a lien on and security interest in the Revenues for the payment of the Bonds and the Policy Costs in accordance with the terms thereof and of the Indenture, and will immediately attach to the collateral and be effective, binding, and enforceable against the Commission, its successors, purchasers of the Revenues, creditors and all others asserting any rights thereto, irrespective of whether such parties have notice of such pledge and without the need for any physical delivery, recordation, filing or further act.

(d) The Commission covenants and confirms that the Revenues in the Revenue Fund shall be appropriated, transferred, expended and used as set forth in paragraph (b) of the section above in “—Pledge and Assignment of Revenues; Revenue Fund” and in the order of priority set forth subparagraphs (1), (2), and (3) of such section, notwithstanding any amendment to the Charter. The Commission further confirms that all Revenues (except amounts on deposit in the various Rebate Funds) are irrevocably pledged to the punctual payment of the principal of and interest and redemption premium, if any, on the Bonds and the Policy Costs, and the Revenues shall not be used for any other purpose while any of the Bonds remain outstanding or Policy Costs remain unpaid; except that the Revenues may be used for such purposes as are expressly set forth in paragraph (b) of “—Pledge and Assignment of Revenues; Revenue Fund” and, as long as the Commission is in compliance with its rate covenant under the Indenture and the deposits described in “—Pledge and Assignment of Revenues; Revenue Fund”, as otherwise set forth in the Charter and in the Indenture. Amendments to the Charter shall not alter the pledge of Revenues or the order of priority of payment of the Revenues used for the payment of principal of and interest on the Bonds.

Establishment and Maintenance of Funds for Revenues; Use and Withdrawal of Revenues. All moneys in the Revenue Fund, after the making of the payments described by (b)(1) and (2) in “—Pledge and Assignment of Revenues; Revenue Fund” above, shall be paid over to the Trustee to the extent necessary and

deposited in one or more of the following respective special funds at the times therein specified. The Trustee shall establish and maintain, in trust, so long as any Bonds are Outstanding the Interest Fund, Principal Fund, and Bond Reserve Fund.

All Revenues in each of said funds shall be held in trust by the Trustee and shall be applied, used and withdrawn only for the purposes authorized in the Indenture. Such amounts shall be so transferred to and deposited in the following respective funds in the following order of priority, the requirements of each such fund at the time of deposit to be satisfied before any transfer is made to any fund subsequent in priority:

(a) Interest Fund, Refundable Credits. Following the Effective Date, deposits into the Interest Fund will continue to be made pursuant to the prior provisions of the Indenture until the next succeeding Interest Payment Date. Following such Interest Payment Date, the monthly deposits required with respect to fixed rate indebtedness will cease, and instead, on or before the fifth Business Day prior to each subsequent Interest Payment Date, the Treasurer will pay to the Trustee for deposit in the Interest Fund in an amount equal to the sum of the following: (i) the amount of interest becoming due and payable on the Outstanding Bonds of such Series that are Current Interest Bonds (except for Bonds constituting Variable Rate Indebtedness) on such Interest Payment Date (less any amounts on deposit in such Fund, including, but not limited to, Refundable Credits available to pay such interest, but excluding amounts on deposit which are reserved as capitalized interest to pay interest during any subsequent period), and (ii) one hundred ten percent (110%) of the estimated aggregate amount of interest due on such Interest Payment Date on the Outstanding Bonds of such Series that are Variable Rate Indebtedness (provided, however, that (A) the amount of such deposit into the Interest Fund for any period may be reduced by the amount by which the deposit in the prior period for interest estimated to accrue on Outstanding Variable Rate Indebtedness exceeded the actual amount of interest accrued during that period on said Outstanding Variable Rate Indebtedness, (B) the amount of such deposit into the Interest Fund for any period will be increased by the amount by which the deposit in the prior period for interest estimated to accrue on Outstanding Variable Rate Indebtedness was less than the actual amount of interest accruing during that period on said Outstanding Variable Rate Indebtedness, and (C) the amount of such deposit will be reduced by any Refundable Credits on deposit in the Interest Fund and available to pay interest for such period). No deposit need be made into the Interest Fund if the amount contained therein is at least equal to the interest to become due and payable on the next Interest Payment Date upon all of the Bonds issued under the Indenture and then Outstanding (but excluding any moneys on deposit in the Interest Fund from the proceeds of any Series of Bonds or other source and reserved as capitalized interest to pay interest on any future Interest Payment Dates following said next Interest Payment Date). Moneys in the Interest Fund will be used and withdrawn by the Trustee solely for the purpose of paying the interest on the Bonds as it will become due and payable (including accrued interest on any Bonds purchased or redeemed prior to maturity pursuant to the Indenture).

All of the Refundable Credits received by the Commission will be deposited promptly upon receipt in the Interest Fund, and such Refundable Credits are irrevocably pledged to the punctual payment of principal of, interest and redemption premium, if any, on the related Series of Bonds, and, unless an Event of Default shall occur under the Indenture and the provisions of the Indenture relating to the application of funds upon acceleration shall apply, the Refundable Credits will not be used for any other purpose while any of such Series of Bonds issued as Build America Bonds remain Outstanding. Pursuant to Section 5451 of the California Government Code, the pledge of the Indenture constitutes a lien on and security interest in the Refundable Credits for the payment of interest on the related Series of Bonds in accordance with the terms thereof and the terms of the Indenture, and will immediately attach and be effective, binding, and enforceable against the Commission, its successors, purchasers of the Refundable Credits, creditors and all others asserting any rights thereto, irrespective of whether such parties have notice of such pledge and without the need for any physical delivery, recordation, filing or further act. Notwithstanding the foregoing deposit and pledge, the Refundable Credits will not be included in the calculation of Revenues for any purpose under the Indenture. Additionally, in calculating the amount that the Treasurer pays to the Trustee for deposit in the Interest Fund, the Treasurer may reduce the payment by the amount of any Refundable Credits on deposit with the Trustee as provided in the paragraph above.

(b) Principal Fund; Sinking Fund Accounts. Following the Effective Date, deposits into the Principal Fund will continue to be made pursuant to the prior provisions of the Indenture until the next succeeding Principal Payment Date. Following such Principal Payment Date, the monthly deposits required with respect to fixed rate indebtedness will cease, and instead, on or before the fifth Business Day prior to each subsequent Principal Payment

Date, the Treasurer will pay to the Trustee for deposit in the Principal Fund in an amount equal to the sum of the following: (i) the aggregate amount of Bond Obligation of such Series (less any amounts on deposit in such Fund) becoming due and payable on such Principal Payment Date, plus (ii) the Minimum Sinking Fund Account Payments required to be made with respect to any Term Bonds of such Series on such Principal Payment Date, plus (iii) if any Letter of Credit Agreement has been entered into on a parity with the Bonds, sufficient amounts to pay the obligations of the Commission under such Letter of Credit Agreement due on such Principal Payment Date. If the amounts on deposit in the Principal Fund will be insufficient to make all deposits which are required to be made with respect to any Principal Payment Date, such amounts shall be applied on a Proportionate Basis and in such proportion as said Serial Bonds, said Minimum Sinking Fund Payments for Term Bonds, and said Letter of Credit Agreement obligations shall bear to each other.

(c) Bond Reserve Fund; Reserve Accounts.

(1) Following the Effective Date, in the event of a withdrawal from any Reserve Account, the Treasurer will pay to the Trustee for deposit in such Reserve Account, on a pari passu basis with transfers to any Reserve Account, on or before the fifth Business Day prior to each Interest Payment Date following such withdrawal, (i) if such Reserve Account is established with respect to fixed rate Bonds only, an amount which if made in two semi-annual installments, and (ii) if such Reserve Account is established with respect to any Variable Rate Bonds, an amount which if made in equal installments over a 12-month period, is sufficient to replenish any prior withdrawal from such Reserve Account so that the balance in such Reserve Account is equal to the Required Reserve with respect to the applicable Series of Bonds (or such larger balance as may be required by any Supplemental Indenture) at the end of such 12-month period.

(2) No deposit need be made into any Reserve Account so long as there will be in such Reserve Account an amount equal to the Required Reserve with respect to such Series of Bonds, or when and if the sum of the amounts contained (excluding all Bond Reserve Fund Policies) therein and in the Interest Fund and in the Principal Fund is at least equal to the sum of the aggregate principal amount of all of the Bonds then Outstanding and all of the interest then due or thereafter to become due on all such Bonds.

(3) The Trustee will establish and hold within the Bond Reserve Fund a Series of 1987 Reserve Account with respect to the Series of 1987 Bonds and a similar account for each additional Series of Bonds issued under the Indenture. With respect to the Series of Bonds (the "Prior Series of Bonds") issued prior to the effective date of the Fifth Supplemental Indenture, each Reserve Account will be funded in an amount equal to fifty percent (50%) of the Maximum Annual Debt Service on the Outstanding Bonds of the Series to which it relates. With respect to the Series of Bonds issued on or after the effective date of the Fifth Supplemental Indenture, the Trustee will establish and hold a Reserve Account for each Series of Additional Bonds issued under the Indenture, if and to the extent required by the Supplemental Indenture pursuant to which that Series of Bonds is issued. Upon the issuance of a Series of Additional Bonds, there will be deposited into the Reserve Account for that Series an amount equal to the Required Reserve, if any, established for that Series of Bonds under the Supplemental Indenture pursuant to which that Series of Bonds is issued. Upon the issuance of a Series of Additional Bonds, the Commission will advise the Trustee of the Required Reserve to be maintained in the Reserve Account for that Series. Unless otherwise provided in the Supplemental Indenture pursuant to which a Series of Bonds is issued, the Reserve Account established with respect to a Series of Bonds will be available only to pay Debt Service on such Series of Bonds, and will not be available to pay Debt Service on any other Series of Bonds.

(4) Subject to paragraph (12) below, moneys in the respective Reserve Accounts within the Bond Reserve Fund will be used and withdrawn by the Trustee solely for the purpose of paying the principal of, Minimum Sinking Fund Account Payments with respect to, and interest on the corresponding Series of Bonds to which such Reserve Account relates (unless otherwise provided in the Supplemental Indenture pursuant to which a Series of Bonds was issued) in the event that no other moneys are available therefor, or for payment or redemption of all of the Bonds of such Series then Outstanding.

(5) Following application of all other funds held in any Reserve Account relating to a Series of Bonds, the Trustee will draw under any Bond Reserve Fund Policy issued with respect to such Series of

Bonds, in a timely manner and pursuant to the terms of such Bond Reserve Fund Policy, to the extent necessary in order to obtain sufficient funds on or prior to the date such funds are needed to pay the Bond Obligation of, Minimum Sinking Fund Account Payments with respect to, and interest on such Series of Bonds when due.

(6) If a Bond Reserve Fund Policy satisfies all or a portion of the Required Reserve for any Series of Bonds and a drawing is made on the Bond Reserve Fund Policy, on or before the fifth Business Day prior to each Interest Payment Date following such drawing, the Treasurer will pay to the Trustee or to the Reserve Provider, with notice to the Trustee, (i) if such Bond Reserve Fund Policy is established with respect to fixed rate Bonds only, an amount which if made in two semi-annual installments, and (ii) if such Bond Reserve Fund Policy is established with respect to any Variable Rate Bonds, an amount which if made in equal installments over a 12-month period, is sufficient to repay the aggregate amount of Policy Costs owing with respect to such drawing by the end of such 12-month period. If the Trustee receives such payment, it shall immediately remit the same to the Reserve Provider.

(7) In the event that the Trustee has notice that any payment of principal of or interest on a Bond has been recovered from its Bondowner pursuant to the United States Bankruptcy Code by a trustee in bankruptcy in accordance with the final, nonappealable order of a court having competent jurisdiction, the Trustee, pursuant to the terms of the Bond Reserve Fund Policy, if any, securing the Series of Bonds of which such Bond is a part, will so notify the Reserve Provider and draw on such policy to the lesser of the extent required or the maximum amount of such policy in order to pay to such Bondowners the principal of and interest so recovered.

(8) If and to the extent that more than one Bond Reserve Fund Policy satisfies the portion of the Required Reserve relating to a Series of Bonds, drawings under such Bond Reserve Fund Policies and payment of Policy Costs with respect to such Bond Reserve Fund Policies shall be made on a pro rata basis (calculated by reference to the maximum amounts of such Bond Reserve Fund Policies).

(9) If a Bond Reserve Fund Policy is deposited in a Reserve Account in which cash has been previously deposited in satisfaction of the Required Reserve for the applicable Series of Bonds, the trustee shall release cash from that Reserve Account in an amount equal to the Bond Reserve Fund Policy being deposited, and shall transfer the cash so released to the Commission to be used for any lawful purpose, provided, however, that the Commission shall ensure that the use of any cash so released will not adversely affect the exclusion from gross income of the interest on the Bonds under Section 103 of the Code.

(10) If deposits are insufficient to fully satisfy the requirements of paragraph (e) above, deposits to the Bond Reserve Fund shall be applied on a pro rata basis to the respective Reserve Accounts, calculated by reference to the amounts required to be maintained in each Reserve Account, and within any Reserve Account first to the pro rata payment of Policy Costs and upon satisfaction of such Policy Costs to satisfying any portion of the Required Reserve to be maintained within such Reserve Account not covered by a Bond Reserve Fund Policy.

(11) So long as the Commission is not in default under the Indenture, and in each Reserve Account there is a balance equal to the Required Reserve for the Series of Bonds for which such Reserve Account was established, any amount in the Bond Reserve Fund in excess of the Required Reserve will be withdrawn semiannually, on May 1 and November 1 of each year, by the Trustee from the Bond Reserve Fund and transferred to the Treasurer for deposit in the Revenue Fund or, during the period of construction of the Project or any portion thereof, the Improvement Fund. Notwithstanding the foregoing, the Commission will have the right to withdraw excess amounts on deposit in the Bond Reserve Fund at any time upon request to the Trustee.

(12) On and after the Effective Date, any Reserve Requirement established with respect to any Series of Bonds which are issued as Build America Bonds prior to such date may, at the option of the Commission, be recalculated in accordance with the provisions of the Fifth Supplemental Indenture.

(13) Nothing under the Indenture shall preclude the creation of a Reserve Account to secure one or more Series of Bonds issued subsequent to the Effective Date.

All moneys remaining in the Revenue Fund on the tenth day of each month (or on such earlier day of each month as the transfers required to the Interest Fund, Principal Fund, Sinking Fund Accounts and the Bond Reserve Fund will have been completed) and attributable to the preceding calendar month, after the setting aside and transferring of all of the amounts required to be set aside or transferred by the Treasurer by the provisions in the Indenture as required to the Interest Fund, Principal Fund, Sinking Fund Accounts and the Bond Reserve Fund, will be deposited by the Treasurer in accordance with the Charter. The inability of the Treasurer to make any deposit for any of the purposes provided for in paragraph (4), (5), or (6) of subsection (b) above by reason of a lack of Revenues available therefor will not constitute an Event of Default under the Indenture. If at any time any moneys so deposited are needed to pay the interest on or principal of the Bonds, or to pay Operation and Maintenance Costs of the Enterprise for the then current Fiscal Year for which no adequate budgeted amount was provided by the Commission, the Treasurer may transfer such moneys for such purpose. Any such transfer will be replenished from Revenues when moneys are available for deposit in the particular fund from which the transfer was made, after all required transfers to funds having a higher priority have been made.

The Treasurer shall not expend any moneys for any of the purposes specified in said paragraphs (4), (5) or (6) if and when the Commission is in default in making any payment or deposit under the Indenture.

Deposit and Investment of Moneys in Funds; Interest Rate Swaps. All moneys held by the Treasurer in the Revenue Fund or the Improvement Fund, or for certain purposes set forth in the Indenture may be invested in Legal Investments maturing not later than the date on which such moneys are required for payment by the Treasurer. All moneys held by the Trustee and allocated to any of the funds held by it, subject to the restrictions set forth in the Rebate Certificate, will be held in time or demand deposits (including certificates of deposit) in any bank or trust company (including the Trustee) authorized to accept deposits of public funds, and will be secured at all times by such obligations, and to the fullest extent, as is required by law, and may be invested in Permitted Investments, maturing not later than the date on which such moneys are required for payment by the Trustee, except that moneys in the Bond Reserve Fund may be deposited or invested in deposits or Permitted Investments which mature not more than seven years from the date of investment or the final date of maturity of the Outstanding Bonds, whichever is earlier. If at any time any of the investments stated to be Permitted Investments under the Indenture cease to be a legal investment for funds held under the Indenture, the Commission will so advise the Trustee by a Written Statement of the Commission. The Trustee will not be responsible for making any investment which is not a legal investment if the Commission will not have previously delivered a Written Request or Written Statement of the Commission correctly advising the Trustee that such investment was no longer a legal investment. For the purpose of determining the amount of money in the Bond Reserve Fund, all investments of moneys therein will be valued annually on October 31 at the market value of such investments. All interest received on any moneys so invested by the Treasurer or the Trustee will be deposited in and for the purpose of the Revenue Fund, except that all interest received on any moneys so invested in the Principal Fund or Interest Fund will remain in such fund, and further except that prior to receipt by the Trustee of notice of completion of construction of the Project or any portion thereof all interest received on any moneys so invested in the Improvement Fund or in the Bond Reserve Fund will remain in, or be transferred to and deposited in, the Improvement Fund held by the Treasurer. Upon completion of construction of the Project or any such portion thereof, the Commission will file with the Trustee a Certificate or Written Statement of the Commission stating the fact and date of such completion of construction.

The Trustee may sell or present for redemption any obligations so purchased by it whenever it is necessary in order to provide moneys to meet any payment, and the Trustee will not be liable or responsible for any loss resulting from such investment.

The Trustee may act as principal or agent in the acquisition or disposition of any investment.

The Trustee may commingle any of the moneys held by it pursuant to the Indenture for investment purposes only; provided, however, that the Trustee will account separately for the moneys belonging to each fund or account established pursuant to the Indenture and held by it.

The Commission may and the Trustee will, upon the Written Request or Written Statement of the Commission, and provided that the Trustee is supplied with an Opinion of Counsel to the effect that such action is permitted under the laws of the State of California, enter into an interest rate swap agreement corresponding to the interest rate or rates payable on a Series of Bonds or any portion thereof and the amounts received by the Commission or the Trustee, if any, pursuant to such a swap agreement may be applied to the deposits required under the Indenture. The entity with which the Commission or the Trustee may contract for an interest rate swap is limited to entities that are rated in one of the two highest short-term or long-term debt rating categories by Moody's and S&P. If the Commission so designates, amounts payable under the interest rate swap agreement will be made on a parity basis with payments on the Bonds and, in such event, the Commission will pay to the Trustee for deposit in the Interest Fund, at the times and in the manner provided in the Indenture, the amounts to be paid under such interest rate swap agreement, as if such amounts were additional interest due on the Bonds to which such interest rate swap relates.

SELECTED COVENANTS OF THE COMMISSION

Payment of Principal and Interest. The Commission will punctually pay or cause to be paid the principal and interest (and premium, if any) to become due in respect of every Bond issued under the Indenture at the times and places and in the manner provided in the Indenture and in the Bonds, in strict conformity with the terms of the Bonds and of the Indenture, but solely from Revenues as provided in the Indenture.

Against Encumbrances. Subject to any rights of the United States of America or the State of California, the Commission will not mortgage or otherwise encumber, pledge or place any charge upon the Enterprise or any part thereof, or upon any of the Revenues, prior to or on a parity with the Bonds, provided that Letter of Credit Agreements entered into in connection with Balloon Indebtedness, Variable Rate Indebtedness or Tender Indebtedness may be payable on a parity with the Bonds.

So long as any Bonds are Outstanding, the Commission will not issue any bonds or obligations payable from Revenues or secured by a pledge, lien or charge upon Revenues prior to or on a parity with the Bonds, other than the Bonds, provided that Letter of Credit Agreements entered into in connection with Balloon Indebtedness, Variable Rate Indebtedness or Tender Indebtedness may be payable on a parity with the Bonds.

Nothing in the Indenture, and particularly nothing in the preceding two paragraphs, will prevent the Commission from authorizing and issuing bonds, notes, warrants, certificates or other obligations or evidences of indebtedness which as to principal or interest, or both, (1) are payable from Revenues after and subordinate to the payment from Revenues of the principal of and interest on the Bonds, or (2) are payable from moneys which are not Revenues as such term is defined in the Indenture.

Sale or Other Disposition of Property. The Commission will not sell or otherwise dispose of the Enterprise or any part thereof essential to the proper operation of the Enterprise or to the maintenance of the Revenues except as expressly permitted in the Indenture. The Commission will not enter into any lease or agreement which impairs the operation of the Enterprise or impedes the rights of the Owners of the Bonds with respect to the Revenues or the operation of the Enterprise, but the Commission may enter into any lease or agreement concerning all or any part of the Enterprise if such lease or agreement will not impair the operation of the Enterprise or impede the rights of the Owners of the Bonds with respect to the Revenues or the operation of the Enterprise.

Any real or personal property which has become nonoperative or which is not needed for the efficient and proper operation of the Enterprise, or any material or equipment which has worn out, may be sold if all of the net proceeds of such sale (less any amounts payable to the United States of America or the State of California or required by the United States of America or the State of California to be deposited in a restricted fund) are deposited in the Revenue Fund.

The Commission reserves the right to sell all or a portion of the Enterprise, and to enter into and execute agreements for and to complete such sale, but subject to the following specific conditions, which are made conditions precedent to such sale:

(1) The Commission will be in compliance with all covenants set forth in the Indenture, and in all Supplemental Indentures theretofore adopted by the Commission, and a Certificate of the Commission to that effect will have been filed with the Trustee.

(2) The Commission will have determined by resolution whether the net proceeds of the sale (less any amounts payable to the United States of America or the State of California or required to be deposited in a restricted fund) are to be used for the redemption of Bonds or for the making of additions or improvements to or extensions of the Enterprise.

(3) If the Commission will have determined that the net proceeds of the sale (less any amounts payable to the United States of America or the State of California or required to be deposited in a restricted fund) are to be used for the redemption of Bonds, such proceeds of the sale will be deposited with the Trustee, and the following conditions will have been satisfied:

(i) The Commission will have adopted a resolution providing for the redemption of the maximum principal amount of Bonds which can be redeemed from such proceeds of such sale, or, in the event that no Bonds are subject to redemption on the next succeeding interest payment date, directing the Trustee (A) to hold such proceeds in trust, (B) to invest such proceeds in the investments permitted by the Indenture until any Bonds become redeemable, subject to any restrictions imposed by the Indenture, (C) to deposit the interest and income on such proceeds in the Revenue Fund as such interest and income is received, and (D) to use such proceeds to redeem Bonds in the amount and manner specified in the Indenture and any Supplemental Indenture on the first interest payment date on which the Bonds can be redeemed; and a certified copy of such resolution will have been filed with the Trustee, along with a Written Request or Certificate of the Commission containing such direction.

(ii) If such proceeds are not to be immediately used for the redemption of Bonds but instead are to be held by the Trustee until Bonds become redeemable, the Commission will have filed with the Trustee a written report of an Independent Certified Public Accountant stating (A) the amount of proceeds to be deposited with the Trustee from such sale, (B) an estimate of the total amount of Bond Obligation and the amount of Bonds of each maturity which could be redeemed from such proceeds on the first interest payment date on which Bonds are redeemable, and (C) the estimated annual interest and income to be earned on such proceeds while held and invested by the Trustee. Such interest and income on such proceeds upon receipt by the Trustee will be deposited in the Revenue Fund and will be treated as Revenues for all purposes of the Indenture, including determining whether the Commission is in compliance with the rate covenant contained in the Indenture.

(iii) If such proceeds of such sale are to be immediately used to redeem Bonds, the Net Revenues for the last Fiscal Year or last recorded twelve-month period preceding the date of the adoption by the Commission of the resolution authorizing such sale, less a deduction for the portion of such Net Revenues attributable to the portion of the Enterprise to be sold, all as shown by a certificate or opinion of an Independent Certified Public Accountant or a written report of a Qualified Independent Consultant, will have produced a sum equal to at least 1.25 times Maximum Annual Debt Service on the Bonds to be Outstanding following the redemption of Bonds from the proceeds of such sale.

(iv) If such proceeds are not to be immediately used for the redemption of Bonds but instead are to be held by the Trustee until Bonds become redeemable, the Net Revenues for the last Fiscal Year or last recorded twelve-month period preceding the date of adoption by the Commission of the resolution authorizing such sale, less a deduction for the portion of such Net Revenues attributable to the portion of the Enterprise to be sold, plus an allowance for the estimated annual interest or income to be earned on the invested proceeds of such sale while held and invested by the Trustee, all as shown by a certificate or opinion of an Independent Certified Public Accountant or a written report of a Qualified Independent Consultant, will have produced a sum equal to at least 1.25 times Maximum Annual Debt Service.

(4) If the Commission, will have determined that the net proceeds of the sale (less any amounts payable to the United States of America or the State of California or required to be deposited in a restricted fund) are to be used for the making of additions or improvements to or extensions of the Enterprise, such proceeds of the sale will be deposited by the Treasurer in a special fund in trust to be held by the Treasurer to be used for the making of additions or improvements to or extensions of the Enterprise, and the condition set forth in the following sentence will have been satisfied. The Net Revenues for the last Fiscal Year or last recorded twelve-month period preceding the date of the adoption by the Commission of the resolution authorizing such sale, less a deduction for the portion of such Net Revenues attributable to the portion of the Enterprise to be sold, all as shown by a written report of an Independent Certified Public Accountant, plus

(i) An allowance for Net Revenues from any additions or improvements to or extensions of the Enterprise to be made with the proceeds of such sale or with the proceeds of Bonds previously issued, and also for Net Revenues from any such additions, improvements or extensions which have been made from moneys from any source but which, during all or any part of such Fiscal Year or recorded twelve-month period, were not in service, all in an amount equal to one hundred percent (100%) of the estimated additional average annual Net Revenues to be derived from such additions, improvements and extensions for the first twenty-four months in which each addition, improvement or extension is respectively to be in operation, all as shown by the certificate or opinion of a Qualified Independent Consultant; and

(ii) An allowance for earnings arising from any increase in the charges made for the use of the Enterprise which has become effective prior to such sale, but which, during all or any part of such Fiscal Year or recorded twelve-month period, was not in effect, in an amount equal to one hundred percent (100%) of the amount by which the Net Revenues would have been increased if such increase in charges had been in effect during the whole of such Fiscal Year or recorded twelve-month period, as shown by the certificate or opinion of a Qualified Independent Consultant;

will have produced a sum equal to at least 1.25 times the Maximum Annual Debt Service on the Bonds then Outstanding. Any balance of such proceeds from any such sale not required by the Commission for the purposes aforesaid will be deposited in the Revenue Fund established pursuant to the Indenture and applied as provided in the Indenture.

Operation and Maintenance of Enterprise. The Commission will maintain and preserve the Enterprise in good repair and working order at all times from the Revenues available for such purposes, in conformity with standards customarily followed for municipal water supply, storage and distribution systems of like size and character. The Commission will from time to time make all necessary and proper repairs, renewals, replacements and substitutions to the properties of the Enterprise, so that at all times business carried on in connection with the Enterprise will and can be properly and advantageously conducted in an efficient manner and at reasonable cost, and will operate the Enterprise in an efficient and economical manner, consistent with the protection of the Owners of the Bonds, and will not commit or allow any waste with respect to the Enterprise.

Liens and Claims. Subject to any rights of the United States of America or the State of California, the Commission will keep the Enterprise and all parts thereof free from judgments, from mechanics' and materialmen's liens and from all liens and claims of whatsoever nature or character, to the end that the security provided pursuant to the Indenture may at all times be maintained and preserved, and the Commission will keep the Enterprise and the Revenues free from any liability which might hamper the Commission in conducting its business or operating the Enterprise. Subject to the provisions of the Indenture, the Trustee at its option (after first giving the Commission thirty days' written notice to comply therewith and failure of the Commission to so comply within said thirty-day period) may defend against any and all actions or proceedings in which the validity of the Indenture is or might be questioned, or may pay or compromise any claim or demand asserted in any such actions or proceedings; provided, however, that, in defending against such actions or proceedings or in paying or compromising such claims or demands, the Trustee will not in any event be deemed to have waived or released the Commission from liability for or on account of any of its covenants and warranties contained in the Indenture, or from its liability under the

Indenture to defend the validity of the Indenture and the pledge made in the Indenture and to perform such covenants and warranties.

Insurance. The Commission will procure, and maintain at all times while any of the Bonds will be Outstanding, adequate fidelity insurance or bonds on all officers and employees handling or responsible for any Revenues or funds of the Enterprise, such insurance or bonds to be in an aggregate amount at least equal to the maximum amount of such Revenues or funds at any one time in the custody of all such officers and employees or in the amount of one million dollars (\$1,000,000), whichever is less.

The insurance described above may be provided as a part of any comprehensive fidelity and other insurance and not separately for the Enterprise.

The Commission may purchase, on all or any of the Bonds of any Series, insurance assuring the Bondowners that the principal of and interest on the insured Bonds will be paid when due and payable. The purchase of any such insurance will not constitute a preference or priority of the insured Bonds over any Bonds not so insured, and all Bonds Outstanding, irrespective of the providing of such insurance on some of the Bonds, will be equally and proportionately secured.

Books and Accounts; Financial Statements. The Commission will keep proper books of record and accounts of the Enterprise, separate from all other records and accounts of the Commission, in which complete and correct entries will be made of all transactions relating to the Enterprise. Such books of record and accounts will at all times during business hours be subject to the inspection of the Trustee or of any Owner of Bonds then Outstanding or their representatives authorized in writing, at reasonable hours and under reasonable conditions.

The Commission further will prepare and file with the Trustee annually, within five months after the close of each Fiscal Year so long as any of the Bonds are Outstanding, financial statements of the Enterprise for the preceding Fiscal Year, prepared in accordance with generally accepted accounting principles applied on a consistent basis from year to year (which financial statements will include a statement showing the balances in each fund required to be established under the provisions of the Indenture), including a balance sheet, statement of income, statement of retained earnings and contributed capital, and statement of changes in financial position, which financial statements will be examined by and include the certificate or opinion of an Independent Certified Public Accountant. Such financial statements will be accompanied by a Certificate of the Commission stating that no Event of Default has occurred or is continuing as of the end of each Fiscal Year, or specifying the nature of the Events of Default, if any, which have occurred and are continuing.

The Commission will furnish a copy of these financial statements to any Bondowner upon request, and will furnish to the Trustee such reasonable number of copies thereof (not exceeding 100 copies) as may be required by the Trustee for distribution to investment bankers, security dealers and others interested in the Bonds and to the Owners of Bonds requesting copies thereof. The Trustee will not be required to incur any nonreimbursable expenses in making such distribution.

The Commission will cause to be published a summary statement showing the amount of Revenues and the amount of all other funds collected which are required to be pledged or otherwise made available as security for payment of the principal of and interest on the Bonds, the disbursements from such Revenues and other funds in reasonable detail, and a general statement of the financial and physical condition of the Enterprise. The statement will be published annually, not more than 120 days after the close of each Fiscal Year. The Commission will furnish a copy of the statement to any Bondowner upon request.

Enterprise Budgets. The Commission will prepare and submit to the Mayor for review and submission to the Board of Supervisors for approval an annual budget for the Enterprise for each Fiscal Year. Such budget will set forth in reasonable detail the Revenues anticipated to be derived in such Fiscal Year and the expenditures anticipated to be paid or provided for therefrom in such Fiscal Year including, without limitation, the amounts required to provide for the payment of the principal of and interest and redemption premium, if any, on the Bonds during such Fiscal Year, to pay or provide for Operation and Maintenance Costs of the Enterprise for such Fiscal Year, to make up any deficiencies in any fund or account anticipated for the then current Fiscal Year, and to pay or provide for the payment of all other claims or obligations required to be paid from Revenues in such Fiscal Year, and will show that

Net Revenues will be at least adequate to satisfy the provisions of the Section 6.13 entitled “Covenants of the Commission – Amounts of Rate and Charges” in the Indenture. Such budget will comply with any conditions or restrictions set forth in any agreements between the Commission and users of the Enterprise. The Commission will take all action available and necessary to obtain approval or acceptance of the budget by the Mayor and the Board of Supervisors. The Commission will supply to the Trustee and to any Bondowner who will so request in writing a copy of the annual budget for the Fiscal Year covered by such budget. Such budget will be open for inspection by any Owner at the principal corporate trust office of the Trustee during normal business hours. If at any time a revised annual budget for the Enterprise will be adopted which will involve an increase or decrease in the Revenues or in said expenditures of ten percent (10%) or more, the Commission will supply a copy to the Trustee and to any Bondowner who will so requests in writing.

Maintenance of Revenues; Merger with Hetch Hetchy Project. The City will not acquire, construct, operate or maintain, and will not within the scope of its powers permit any other public or private corporation, political subdivision, district or agency or any person whatsoever to acquire, construct, operate or maintain, within the City or any part thereof, any system or utility competitive with the Enterprise. The Commission will have in effect, or cause to have in effect, at all times an ordinance or resolution requiring all customers of the Enterprise to pay the fees, rates and charges applicable to the water, services and facilities furnished by the Enterprise. The Commission will not provide any water service of the Enterprise free of charge to any person, firm or corporation, or to any public agency (including the United States of America, the State of California, and any public corporation, political subdivision, city, county, district or agency of any thereof), except (i) for free use by the City and its agencies, (ii) to the extent that any such free use is required by the terms of any existing contract or agreement and (iii) for incidental insignificant free use so long as such free use does not prevent the Commission from satisfying the other covenants of the Indenture.

The Commission will not take any action pursuant to the Charter to accomplish a merger of the Enterprise with the Hetch Hetchy Project, a department of the City under the jurisdiction of the Commission, unless and until the Commission will have provided a method for segregating the Revenues from the revenues of the Hetch Hetchy Project so as to preserve the lien of the Indenture upon the Revenues, and will have obtained an opinion of counsel from a firm nationally recognized in the practice of tax-exempt financing that such merger will not, in and of itself, affect the exclusion from gross income of the interest on the Bonds under Section 103 of the Code.

Eminent Domain Proceeds. If all or any part of the Enterprise will be taken by or under threat of eminent domain proceedings, the net proceeds realized by the Commission or the City therefrom (excluding any portion thereof payable to the United States of America or the State of California or required by the United States of America or the State of California to be deposited in a restricted fund) will be deposited by the Treasurer in a special fund in trust and applied and disbursed by the Treasurer subject to the following conditions:

(a) If such eminent domain proceedings have had a material adverse effect upon the Revenues and the security of the Bonds, the Commission will by resolution determine to apply such proceeds for one of the following purposes:

(1) The Commission may determine to apply such proceeds to the purchase, defeasance or redemption of Bonds then Outstanding. In that event, the Treasurer will transfer such proceeds to the Trustee who will apply such proceeds on a Proportionate Basis to the redemption, defeasance or purchase of Bonds of each Series then Outstanding in the proportion which the Bond Obligation amount of each Series bears to the aggregate Bond Obligation amount of all Bonds then Outstanding.

(2) The Commission may determine to apply such proceeds to the cost of additions or improvements to or extensions of the Enterprise if (A) the Commission first secures and files with the Trustee a written report of a Qualified Independent Consultant showing (i) the loss in annual Revenues, if any, suffered, or to be suffered, by the Commission by reason of such eminent domain proceedings, (ii) a general description of the additions, improvements or extensions then proposed to be acquired by the Commission from such proceeds, and (iii) an estimate of the additional Revenues to be derived from such additions, improvements or extensions; and (B) such written report states that such additional Revenues will sufficiently offset the loss of Revenues

resulting from such eminent domain proceedings so that the ability of the Commission to meet its obligations under the Indenture will not be substantially impaired. The Commission will then promptly proceed with the construction of the additions, improvements or extensions substantially in accordance with such written report. Payments for such construction will be made by the Commission from such proceeds. Any balance of such proceeds not required by the Commission for the purposes aforesaid will be deposited in the Revenue Fund and applied as provided in the Indenture.

(b) If such eminent domain proceedings have had no effect, or at the most a relatively immaterial effect, upon the Revenues and the security of the Bonds, and a Qualified Independent Consultant so concludes in a written report filed with the Trustee, the Commission may determine to apply such proceeds to the costs of additions or improvements to or extensions of the Enterprise or may deposit such proceeds in the Revenue Fund, to be applied as provided in the Indenture.

Rebate and Tax Covenants.

Rebate Fund. The Trustee will establish and maintain funds separate from any other fund established and maintained under the applicable Indenture designated as the “2015 Series A Rebate Fund” (the “Rebate Fund”). Within the Rebate Fund, the Trustee will maintain such accounts as it is instructed by the Commission as are necessary in order to comply with the terms and requirements of the Tax Certificate with respect to the Rebate Fund (the “Tax Certificate”). Subject to the transfer provisions provided in the applicable Indenture, all money at any time deposited in the Rebate Fund will be held by the Trustee for the account of the Commission in trust, to the extent required to satisfy the requirements for rebate, as set forth in the Tax Certificate, for payment to the federal government of the United States of America, and no other person will have any rights in or claim to such money. All amounts deposited into or on deposit in the Rebate Fund will be governed by the Twentieth Supplemental Indenture and by the Tax Certificate. The Trustee will be deemed conclusively to have complied with such provisions and fulfilled its obligation with respect to rebate as long as it follows the written directions of the Commission including supplying all necessary information in the manner provided in the Tax Certificate. The Trustee will not be required to take any actions under the Twentieth Supplemental Indenture or the Tax Certificate in the absence of written directions by the Commission, and will have no liability or responsibility to enforce compliance by the Commission with the terms of the Tax Certificate nor make computations in connection therewith.

Tax Covenants for the 2015 Series A Bonds. The Commission covenants that it will not take any action, or fail to take any action, if any such action or failure to take action would adversely affect the exclusion from gross income of the interest on the 2015 Series A Bonds under Section 103 of the Code. The Commission will not directly or indirectly use or permit the use of any proceeds of the 2015 Series A Bonds or any other funds of the Commission, or take or omit to take any action that would cause the 2015 Series A Bonds to be “arbitrage bonds” within the meaning of Section 148(a) of the Code. To that end, the Commission will comply with all requirements of Section 148 of the Code to the extent applicable to the 2015 Series A Bonds. If at any time the Commission is of the opinion that for purposes of the provisions of the Indenture summarized under the caption “Tax Covenants” herein it is necessary to restrict or limit the yield on the investment of any moneys held by the Trustee under the Indenture or otherwise, the Commission will so instruct the Trustee in writing, and the Trustee will take such action as required by such instructions.

Without limiting the generality of the foregoing, the Commission agrees that there will be paid from time to time all amounts required to be rebated to the United States of America pursuant to Section 148(f) of the Code and any temporary, proposed or final Treasury Regulations as may be applied to the 2015 Series A Bonds from time to time. This covenant will survive payment in full or defeasance of the 2015 Series A Bonds. The Commission specifically covenants to pay or cause to be paid to the United States of America at the times and in the amounts determined under the Indenture the Rebate Requirement. The Trustee agrees to comply with all written instructions of the Commission given in accordance with the Rebate Certificate.

Notwithstanding any provision of the Indenture summarized under this caption, if the Commission provides to the Trustee an opinion of nationally recognized bond counsel to the effect that any action required under the Indenture or under the Tax Certificate is no longer required, or to the effect that some further action is required, to

maintain the exclusion from gross income of the interest on the 2015 Series A Bonds under Section 103 of the Code, the Commission and the Trustee may rely conclusively on such opinion in complying with such provisions of the Indenture, and the covenants under the Indenture will be deemed to be modified to that extent.

The Commission will assure that the proceeds of the 2015 Series A Bonds are not so used as to cause the 2015 Series A Bonds to satisfy the private business tests of section 141(b) of the Code or the private loan financing test of section 141(c) of the Code. The Commission will not take any action or permit or suffer any action to be taken if the result of the same would be to cause any of the 2015 Series A Bonds to be “federally guaranteed” within the meaning of section 149(b) of the Code.

Continuing Disclosure. The Commission covenants and agrees that it will comply with and carry out all of the provisions of the Continuing Disclosure Certificate, dated as of the date of issuance of the 2015 Series A Bonds (the “Continuing Disclosure Certificate”), executed and delivered by the Commission in connection with the issuance of the 2015 Series A Bonds, as it may be supplemented and amended in accordance with its terms. Notwithstanding any other provision of the Indenture, failure of the Commission to comply with the 2015 Series A Continuing Disclosure Certificate will not be considered an Event of Default; however, any Participating Underwriter (as such term is defined in the 2015 Series A Continuing Disclosure Certificate) or any Bondowner or beneficial owner may take such actions as may be necessary and appropriate, including seeking specific performance by court order, to cause the Commission to comply with its obligations under this Section, and the sole remedy in the event of any failure of the Commission to comply with the 2015 Series A Continuing Disclosure Certificate will be an action to compel performance.

EVENTS OF DEFAULT AND REMEDIES OF BONDOWNERS

Events of Default; Acceleration. If one or more of the following events (“Events of Default”) shall happen:

(1) if default shall be made in the due and punctual payment of the principal of, or the premium (if any) on, any Bond when and as the same shall become due and payable, whether at maturity as therein expressed, by proceedings for redemption, by declaration or otherwise, or if default shall be made in the redemption from any Sinking Fund Account of any Term Bonds in the amounts and at the times provided therefor;

(2) if default shall be made in the due and punctual payment of any installment of the interest on any Bond when and as such interest installment shall become due and payable;

(3) if default shall be made by the Commission in the observance of any of the other covenants, agreements or conditions on its part in the Indenture or in the Bonds contained, and such default continues for a period of sixty days after written notice of such failure, specifying such default and requiring the same to be remedied, shall have been given to the Commission by the Trustee or by a Credit Provider, or to the Commission and the Trustee by the Owners of not less than twenty-five percent (25%) of the Bond Obligation; or

(4) if the Commission or the City shall file a petition or answer seeking reorganization or arrangement under the federal bankruptcy laws or any other applicable law of the United States of America, or if a court of competent jurisdiction shall approve a petition, filed with or without the consent of the Commission or the City, as the case may be, seeking reorganization under the federal bankruptcy laws or any other applicable law of the United States of America, or if, under the provisions of any other law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of the Commission or the City or of the whole or any substantial part of the property of the Commission or the City.

Remedy of Acceleration. During the continuance of such Event of Default, the Trustee may, and, upon the written request of the Owners of not less than a majority in aggregate amount of the Bond Obligation or of a Credit Provider shall, upon notice in writing to the Commission, declare the principal of all of the Current Interest

Bonds then Outstanding, and the interest accrued thereon, and of all Capital Appreciation Bonds then Outstanding, in the amount of the Accreted Value thereof, to be due and payable immediately, and upon any such declaration the same shall become and shall be immediately due and payable, anything in the Indenture or in the Bonds contained to the contrary notwithstanding.

Bondholder Suits. In case one or more of the Events of Default shall happen, then and in every such case the Owner of any Bond at the time Outstanding shall be entitled to proceed to protect and enforce the rights vested in such Owner by the Indenture by such appropriate judicial proceeding as such Owner shall deem most effectual to protect and enforce any such right, either by suit in equity or by action at law, whether for the specific performance of any covenant or agreement contained in the Indenture, or in aid of the exercise of any power granted in the Indenture, or to enforce any other legal or equitable right vested in the Owners of Bonds by the Indenture or by law; provided, however, that no such Bondowner shall have the right to institute any such judicial proceeding pursuant to this Section unless (a) such Owner shall have previously given to the Trustee written notice of the occurrence of an Event of Default under the Indenture; (b) the Owners of at least ten percent (10%) in aggregate amount of the Bond Obligation of the Bonds then Outstanding shall have made written request to the Trustee to exercise the powers granted in the Indenture or to institute such action, suit or proceeding in its own name; (c) such Owner or said Owners shall have tendered to the Trustee reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such request; (d) the Trustee shall have refused or omitted to comply with such request for a period of sixty (60) days after such written request shall have been received by, and said tender of indemnity shall have been made to, the Trustee; and (e) the Trustee shall not have received contrary directions from the Owners of a majority in aggregate amount of Bond Obligation of the Bonds Outstanding. The provisions of the Indenture shall constitute a contract with the Owners of the Bonds, and such contract and duties of the Commission and of the Commission members and of the officers and employees of the Commission and of the City shall be enforceable by any Bondowner by mandamus or other appropriate suit, action or proceeding in any court of competent jurisdiction.

Application of Funds Upon Acceleration. All of the Revenues, including all sums in all of the funds provided for in the Indenture upon the date of declaration of acceleration as provided for in the Section above entitled "Events of Default; Acceleration" and all sums thereafter received by the Commission or the Trustee under the Indenture, shall, if received by the Commission, be transmitted to the Trustee and be applied by the Trustee in the following order, upon presentation of the several Bonds--

First, to the payment of the costs and expenses of the Bondowners in declaring such Event of Default, including reasonable compensation to their agents, attorneys and counsel; and to the payment of the costs and expenses of the Trustee, including but not limited to reasonable compensation to its agents, attorneys and counsel;

Second, to the payment of the whole amount of the Bond Obligation then owing and unpaid upon the Bonds, with interest on, with respect to the Current Interest Bonds, the overdue principal and installments of interest, and, with respect to the Capital Appreciation Bonds, the Accreted Value thereof, at the rate or rates of interest borne by the respective Bonds, and in case such moneys shall be insufficient to pay in full the whole amount so owing and unpaid upon the Bonds, then to the payment of such principal and interest and Accreted Value without preference or priority of principal over interest, or of interest over principal, or of any installment of interest over any other installment of interest, ratably to the aggregate of such principal and interest and Accreted Value; and

Third, to the payment of all Policy Costs, and in case such moneys shall be insufficient to pay in full all Policy Costs owing and unpaid, then to the payment of such Policy Costs pro rata (calculated by reference to the maximum amounts available under the respective Bond Reserve Fund Policies).

Remedies of Reserve Provider. If the Commission fails to pay Policy Costs to a Reserve Provider to the extent and at the times required by the provisions of the Indenture and such failure continues for 30 days after written notice of such default is received by the Commission and the Trustee from such Reserve Provider or if an Event of Default concerning bankruptcy of the Commission or the City (as described in subsection (4) under the caption "Events of Default; Acceleration" above) shall occur and be continuing, then the Reserve Provider may exercise any remedy provided under the Indenture to the Trustee or available at law or in equity to protect and enforce its right to receive payment of Policy Costs; *provided, that*, in no event, will the Reserve Provider be able to declare the principal and Accreted Value of the Bonds and the interest accrued thereon to be due and payable

immediately or to exercise any remedy that the Trustee, in its sole discretion, determines would adversely affect the Bondowners.

Rights of Credit Provider. Each Credit Provider, during any period in which an Event of Default has occurred and is continuing, will be recognized as the Owner of each Bond which it guarantees or insures for the purposes of exercising all rights and privileges available to Bondowners. Any acceleration of principal payments with respect to Bonds guaranteed or insured by a Credit Provider are subject to such Credit Provider's prior written consent (but only if such Credit Provider is not in default under its guaranty or insurance policy).

MODIFICATION OR AMENDMENT OF THE INDENTURE

Modification with Consent of Bondowners and Credit Providers. The Indenture may be modified or amended at any time by a Supplemental Indenture which will become binding when the written consents of the Owners of a majority in the aggregate amount of the Bond Obligation of the Bonds (or, if such Supplemental Indenture is only applicable to a Series of Bonds, such Series of Bonds) then Outstanding (exclusive of Bonds owned or held by or for the account of the City or the Commission (but excluding Bonds held in any pension or retirement fund) as provided in the Indenture)) and of each Credit Provider (so long as such Credit Provider is not in default under the policy of municipal bond insurance or Letter of Credit issued by it in connection with any Series of Bonds) will have been filed with the Trustee, provided such Credit Provider's consent will not be unreasonably withheld. The Indenture may also be amended or supplemented by a Supplemental Indenture upon written consent of each Credit Provider, provided that at the time of the amendment or supplement the payment of the principal and interest on all Outstanding Bonds is insured by a policy or policies of municipal bond insurance or payable under a Letter of Credit issued by a Credit Provider.

No such modification or amendment may:

- (1) extend the fixed maturities of the Bonds, or extend the time for making any Minimum Sinking Fund Account Payments, or reduce the rate of interest thereon, or extend the time of payment of interest, or reduce the amount of principal thereof, or reduce any premium payable on the redemption thereof, without the consent of the Owner of each Bond so affected, or
- (2) reduce the aforesaid percentage of the Bond Obligation the consent of the Owners of which is required for the execution of any amendment or modification of the Indenture, or
- (3) modify any of the rights or obligations of the Trustee without its written consent thereto.

Modification without Consent of Bondowners or Credit Providers. The Indenture and the rights and obligations of the Commission and of the Owners of the Bonds may also be modified or amended at any time by a Supplemental Indenture which will become binding upon adoption, without the consent of any Bondowners or any Credit Provider (but with notice to each Credit Provider), but only to the extent permitted by law and only if the Trustee determines, which determination may be based upon a good faith reliance upon an Opinion of Counsel, that the provisions of such Supplemental Indenture will not materially adversely affect the interests of the Owners, including, without limitation, for any one or more of the following purposes-

- (1) to add to the covenants and agreements of the Commission in the Indenture other covenants and agreements thereafter to be observed or to surrender any right or power reserved to or conferred upon the Commission by the Indenture;
- (2) to cure, correct or supplement any ambiguous or defective provision or omission or mistake contained in the Indenture, or in regard to questions arising under the Indenture, as the Commission may deem necessary or desirable;
- (3) to provide for the issuance of additional Series of Bonds, and to provide the terms and conditions under which such additional Series of Bonds may be issued, subject to and in accordance with the provisions of the Indenture; and

(4) to amend the provisions in the Indenture specifying the purposes, in order of priority, for which expenditures can be made from the Revenue Fund for purposes lower in priority than expenditures on the Bonds.

DEFEASANCE

Discharge of Indenture. If the Commission shall pay and discharge the entire indebtedness on all Bonds Outstanding in any one or more of the following ways-

(a) by well and truly paying or causing to be paid the principal of (including redemption premiums, if any) and interest on all Bonds Outstanding, as and when the same become due and payable (but this clause shall not include Bonds the principal of or interest on which has been paid by a Municipal Bond Insurer until said principal and interest shall have been paid by the Commission); or

(b) by depositing with the Trustee, an escrow agent or other fiduciary, in trust, at or before maturity, money which, together with the amounts then on deposit in the Principal Fund, the Interest Fund and the Bond Reserve Fund, is fully sufficient to pay or redeem all Bonds Outstanding, including all principal, interest and redemption premiums, if any; or

(c) by delivering to the Trustee, for cancellation by it, all Bonds Outstanding; or

(d) by depositing with the Trustee, an escrow agent or other fiduciary, in trust, Federal Securities or general obligation bonds of the State of California in such amount which, in the determination of an Independent Certified Public Accountant, who will certify such determination to the Trustee, shall, together with the income or increment to accrue thereon and any other moneys of the Commission made available for such purpose, be fully sufficient to pay and discharge the indebtedness on all Bonds (including all principal, interest and redemption premiums, if any) at or before their respective maturity dates;

and if the Commission shall also pay or causes to be paid all other sums payable under the Indenture by the Commission, including all Policy Costs, then and in that case, at the election of the Commission (evidenced by a Certificate of the Commission signifying its intention to pay and discharge all such indebtedness, which shall be filed with the Trustee), and notwithstanding that any Bonds shall not have been surrendered for payment, the pledge of the Revenues and other funds provided for in the Indenture and all other obligations of the Commission under the Indenture shall cease, terminate and be completely discharged, except only as described below under "Discharge of Liability on Bonds," and the Owners of the Bonds not so surrendered and paid shall thereafter be entitled to payment only out of the money or Federal Securities or general obligation bonds of the State of California deposited with the Trustee, escrow agent or other fiduciary as aforesaid for their payment, subject, however, to the provisions of the Indenture described below under "Payment of Bonds after Discharge of Indenture." The discharge of the obligations of the Commission under the Indenture shall be without prejudice to the rights of the Trustee to charge for and be reimbursed by the Commission for any expenditures which it may thereafter incur in connection therewith.

Discharge of Liability on Bonds. Upon the deposit with the Trustee, an escrow agent or other fiduciary, in trust, at or before maturity, of money or Federal Securities or general obligation bonds of the State of California in the necessary amount to pay or redeem Outstanding Bonds (whether upon or prior to their maturity or the redemption date of such Bonds), provided that if such Bonds are to be redeemed prior to the maturity thereof, notice of such redemption shall have been given as in the Indenture provided or provision satisfactory to the Trustee shall have been made for the giving of such notice, then all liability of the Commission in respect of such Bonds shall cease, determine and be completely discharged, except only that thereafter the Owners thereof shall be entitled to payment of the principal of and interest on such Bonds by the Commission, and the Commission shall remain liable for such payment, but only out of the money or Federal Securities or general obligation bonds of the State of California deposited in an escrow fund established for this purpose and held by the Trustee, an escrow agent, or other fiduciary, as aforesaid for their payment, subject, however, to the provisions of the Indenture described below under "Payment of Bonds after Discharge of Indenture."

Payment of Bonds after Discharge of Indenture. Notwithstanding any provisions of the Indenture, any moneys deposited in trust for the payment of the principal of, or interest or premium on, any Bonds and remaining unclaimed for two years after the principal of all the Outstanding Bonds has become due and payable (whether at maturity or upon call for redemption or by declaration as provided in the Indenture) shall then be repaid to the Commission upon its Written Request, and the Owners of such Bonds shall thereafter be entitled to look only to the Commission for payment thereof, and all liability of the Trustee or any other fiduciary with respect to such moneys will thereupon cease; provided, however, that before the repayment of such moneys to the Commission, as aforesaid, the Trustee may (at the cost of the Commission) first publish at least once in a Financial Newspaper or Journal a notice, in such form as may be deemed appropriate by the Trustee, with respect to the Bonds so payable and not presented and with respect to the provisions relating to the repayment to the Commission of the moneys held for the payment thereof. In the event of the repayment of any such moneys to the Commission, as aforesaid, the Owners of the Bonds in respect of which such moneys were deposited shall thereafter be deemed to be general creditors of the Commission for amounts equivalent to the respective amounts deposited for the payment of such Bonds and so repaid to the Commission (without interest thereon).

TRUSTEE PROVISIONS

The Trustee will, prior to an Event of Default, and after the curing of all Events of Default which may have occurred, perform such duties and only such duties as are specifically set forth in the Indenture. The Trustee will, during the existence of any Event of Default (which has not been cured), exercise such of the rights and powers vested in it by the Indenture, and use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.

So long as there is no Event of Default under the Indenture, the Commission may remove the Trustee, by giving written notice to such Trustee and by giving Bondowners notice by mail, first class postage prepaid, of such removal, and any successor thereto, and may appoint a successor or successors thereto; provided that any such successor will be a bank or trust company doing business and having an office in San Francisco, California, having a combined capital and surplus of at least \$100,000,000, and subject to supervision or examination by federal or state authority. If such bank or trust company publishes a report of condition at least annually, pursuant to law or to the requirements of any supervising or examining authority above referred to, then for the purpose of this Section the combined capital and surplus of such bank or trust company will be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published.

The Trustee may at any time resign by giving written notice to the Commission and by giving the Bondowners notice by mail, first class postage prepaid, of such resignation. Upon receiving such notice of resignation, the Commission will promptly appoint a successor Trustee by an instrument in writing. Any resignation or removal of the Trustee and appointment of a successor Trustee will become effective upon acceptance of appointment by the successor Trustee. If no successor Trustee is appointed and accepts appointment within 45 days of giving notice of removal or notice of resignation, the resigning Trustee or any Bondowner (on behalf of himself and all other Bondowners) may petition any court of competent jurisdiction for the appointment of a successor Trustee, and such court may thereupon, after such notice (if any) as it may deem proper, appoint such successor Trustee.

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APPENDIX B

SUMMARIES OF CERTAIN LOCAL INITIATIVES (PROPOSITIONS A, E AND P)

Proposition A – Issuance of \$1.6 Billion in Revenue Bonds for Capital Improvements to the City’s Water System. November 5, 2002

On November 5, 2002, voters of the City approved the issuance of revenue bonds pursuant to Charter Section 9.107, without voter approval, in a principal amount not to exceed \$1,628,000,000, to finance the acquisition and construction of improvements to the City’s water system.

Proposition E – Alternative Method for Issuing Revenue Bonds/Establishment of Rate Fairness Board

Authority to Issue Revenue Bonds. Proposition E, approved by San Francisco voters on November 5, 2002, which has been incorporated into the San Francisco Charter as Sections 8B.120 – 8B.127, provides for additional authority for the SFPUC to issue revenue bonds, including notes, commercial paper or other forms of indebtedness, when authorized by ordinance approved by a two-thirds vote of the Board of Supervisors of the City, for the purpose of reconstructing, replacing, expanding, repairing or improving water facilities or clean water facilities or combinations of water and clean water facilities under the jurisdiction of the SFPUC. Proposition E authorizes the Board of Supervisors to take any and all actions necessary to authorize, issue and repay such revenue bonds, including, but not limited to, modifying schedules of rates and charges to provide for the payment and retirement of such bonds. Issuance of such revenue bonds is subject to the following additional conditions set forth in Proposition E:

Notwithstanding any other provision of the Charter or of any ordinance of the City and County, the Board of Supervisors may take any and all actions necessary to authorize, issue and repay such bonds, including, but not limited to, modifying schedules of rates and charges to provide for the payment and retirement of such bonds, subject to the following conditions:

(a) Certification by an independent engineer retained by the SFPUC that:

(1) the projects to be financed by the bonds, including the prioritization, cost estimates and scheduling, meet utility standards; and

(2) estimated net revenue after payment of operating and maintenance expenses will be sufficient to meet debt service coverage and other indenture or resolution requirements, including debt service on the bonds to be issued, and estimated repair and replacement costs.

(b) Certification by the San Francisco Planning Department that facilities under the jurisdiction of the SFPUC funded with such bonds will comply with applicable requirements of the California Environmental Quality Act.

Setting Water Rates. The SFPUC is required under Proposition E to set rates, fees and other charges in connection with providing the utility services under its jurisdiction, subject to rejection — within thirty days of submission — by resolution of the Board of Supervisors. If the Board of Supervisors fails to act within thirty days the rates will become effective without further action.

Under Proposition E, in setting retail rates, fees and charges (for water and for the sewer and power utility services it provides) the SFPUC is required to take the following actions:

1. Establish rates, fees and charges at levels sufficient to improve or maintain financial condition and bond ratings at or above levels equivalent to highly rated utilities of each enterprise under its jurisdiction, meet requirements and covenants under all bond resolutions and indentures, (including, without limitation, increases necessary to pay for the Retail Customers’ share of the debt service on bonds and operating expenses of any state financing authority such as the Regional Water System Financing Authority), and provide sufficient resources for

the continued financial health (including appropriate reserves), operation, maintenance and repair of each enterprise, consistent with good utility practice;

2. Retain an independent rate consultant to conduct rate and cost of service studies for each utility at least every five years;

3. Set retail rates, fees and charges based on the cost of service;

4. Conduct all studies mandated by applicable state and federal law to consider implementing connection fees for water and clean water facilities servicing new development;

5. Conduct studies of rate-based conservation incentives and/or lifeline rates and similar rate structures to provide assistance to low income users, and take the results of such studies into account when establishing rates, fees and charges, in accordance with applicable state and federal laws;

6. Adopt annually a rolling 5-year forecast of rates, fees and other charges; and

7. Establish a Rate Fairness Board.

Rate Fairness Board. Proposition E also directed the establishment of a Rate Fairness Board to advise the SFPUC on water and sewer rate matters. These provisions went into effect on July 1, 2006, with respect to water rates. Specific duties for the Rate Fairness Board include:

- annual review of a five-year rate forecast;
- hold one or more public hearings on annual rate recommendations before the SFPUC adopts rates;
- provide a report and recommendations to the SFPUC on the rate proposal; and,
- in connection with periodic rate studies, submit to the SFPUC rate policy recommendations for the SFPUC's consideration, including recommendations to reallocate costs among various retail utility customer classifications, subject to any outstanding bond requirements.

Effective Date. Proposition E was effective as of July 2, 2006 with respect to the Water Enterprise, following the expiration of Proposition H, which the electorate of the City approved in June 1998 and which, subject to certain exceptions (including a limited exception to raise rates to pay debt service on voter-approved debt), froze the SFPUC's water rates through July 1, 2006.

Proposition P – Revenue Bond Oversight Committee

On November 5, 2002, the voters of San Francisco adopted Proposition P, an ordinance that established the "Public Utilities Revenue Bond Oversight Committee" ("RBOC"). The ordinance, which has been incorporated into the San Francisco Administrative Code as Chapter 5, Article V, Sections 5A.30 – 5A.36, set forth the authority, duties and responsibilities of the RBOC, and established qualifications for Rate Fairness Board membership and related provisions.

Under Proposition P, the RBOC initially sunset in 2013. The Board of Supervisors subsequently extended the RBOC sunset date to January 1, 2016.

In accordance with the provisions of Proposition P, to the extent permitted by law, one-twentieth of one percent of the gross proceeds of the SFPUC's Water Revenue Bonds (the "Bonds") shall be deposited in a fund established by the Controller's Office and appropriated by the Board at the direction of the RBOC established by Proposition P to cover the costs of said committee; provided that any amounts so paid from the proceeds of Bonds that have not been spent by the RBOC in connection with such Bonds (as contemplated by Article 5A.31(c) of the Administrative Code) within 36 months of the date of issuance of such Bonds shall be returned to the SFPUC for deposit into the Improvement Fund (as such term is defined in the Indenture) and expended by the SFPUC to acquire and construct improvements.

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE WATER SUPPLY AGREEMENT

The following brief summary of certain provisions of the Water Supply Agreement is subject in all respects to all of the provisions of such document. This brief summary does not purport to be a complete statement of said provisions and prospective purchasers of the 2015 Series A Bonds are referred to the complete text of said document.

Definitions

“**1984 Agreement**” refers to the 1984 Settlement Agreement and Master Water Sales Contract between the City and County of San Francisco and certain Suburban Purchasers in San Mateo County, Santa Clara County and Alameda County, which expired on June 30, 2009.

“**Act**” refers to the Raker Act, 38 Stat. 242, the Act of Congress, enacted in 1913, that authorized the construction of the Hetch Hetchy system on federal lands.

“**Adjusted Proportional Annual Use**” means the respective percentages of annual water use, as adjusted to reflect deliveries of water by the Hetch Hetchy Water & Power Project to outside City Retail Customers.

“**Agreement**” refers to the Water Supply Agreement, by and among San Francisco and the Wholesale Customers who approve the Agreement.

“**BAWSCA**” refers to the Bay Area Water Supply and Conservation Agency established pursuant to Division 31 of the California Water Code (Water Code §§81300-81461) or its successor and permitted assigns.

“**CEQA**” refers to the California Environmental Quality Act found at §§21000 et seq. of the Public Resources Code and the Guidelines for the California Environmental Quality Act found at §§15000 et seq. of Title 14 of the California Code of Regulations, as amended from time to time.

“**Commission**” means the governing board of the SFPUC.

“**Debt Service**” means principal and interest paid during a fiscal year on Indebtedness incurred by the SFPUC for the 2006 Revenue Bonds, Series A, and subsequently issued Indebtedness (exclusive of 2006 Revenue Bonds, Series B and C), the proceeds of which are used or are scheduled to be used for the acquisition or construction of New Regional Assets or to refund such Indebtedness.

“**Direct Retail**” refers to Regional Water System capital or operating expenditures that are incurred to provide water service solely to Retail Customers.

“**Direct Wholesale**” refers to Regional Water System capital or operating expenditures that are incurred to provide water service solely to one or more Wholesale Customers.

“**Drought**” means a water shortage caused by lack of precipitation, as reflected in resolutions of the Commission calling for voluntary or mandatory water rationing based on evaluation of water stored or otherwise available to the Regional Water System, whether or not the Commission declares a water shortage emergency pursuant to Water Code §§ 350 et seq., as amended from time to time.

“**Emergency**” means a sudden, non-drought event, such as an earthquake, failure of Regional Water System infrastructure or other catastrophic event or natural disaster that results in an insufficient supply of water available to the Retail or Wholesale Service Areas for basic human consumption, firefighting, sanitation, and fire protection.

“**Encumbrance**” or “**Encumber**” refers to the process by which the City Controller certifies the availability of amounts previously appropriated by the Commission for specifically identified SFPUC capital projects performed either by third parties or through work orders to other San Francisco departments.

“**Environmental Enhancement Surcharge**” means the surcharge to be imposed by the SFPUC on individual parties to the Agreement whose use exceeds their Interim Supply Allocation when the collective use of water by all parties to the Agreement is in excess of the Interim Supply Limitation.

“**Excess Use Charges**” are monthly charges set by the SFPUC, in the form of multipliers, that are applied to the Wholesale Customer water rates during times of mandatory rationing if a Wholesale Customer’s water usage is greater than its shortage allocation.

“**Fundamental Rights**” of Wholesale Customers are their status as parties to the Agreement, their allocation of water recognized in the Agreement, their protection against arbitrary, unreasonable, or unjustly discriminatory rates and any other specific rights described in the Agreement.

“**Hetch Hetchy Enterprise**” refers to Hetch Hetchy Water and Power Enterprise, a SFPUC operating department.

“**Indebtedness**” includes revenue bonds, bond anticipation notes, certificates of participation (excluding certificates of participation towards which SFPUC contributes debt service as an operating expense), and commercial paper.

“**Individual Water Sales Contract**” refers to the contracts between each Wholesale Customer and San Francisco that details customer-specific matters such as location of service connections, service area maps and other matters specific to that customer.

“**Individual Supply Guarantee**” refers to each Wholesale Customer’s share of the Supply Assurance.

“**Interim Supply Allocation**” refers to each Wholesale Customer’s share, to be established by the SFPUC of the Interim Supply Limitation.

“**Interim Supply Limitation**” refers to the 265 MGD annual average limitation on water deliveries until December 31, 2018 from Regional Water System watersheds imposed by the SFPUC in its approval of the WSIP in Resolution Number 08-0200 dated October 30, 2008.

“**Joint**,” when used in connection with Hetch Hetchy Enterprise assets or expenses, refers to assets used or expenses incurred in providing both water supply (“Water-Related”) and in the generation and transmission of electrical energy (“Power-Related”).

“**Local System Water**” refers to Regional Water System water supplies developed in San Mateo, Alameda and Santa Clara Counties or otherwise not produced by the Hetch Hetchy Enterprise under rights of way granted by the Act.

“**MGD**” refers to an average flow rate of one million gallons per day over a specific time period, often a year. For example, one MGD is equal to 365 million gallons per year or 1,120 acre feet per year.

“**Net Annual Debt Service**” refers to debt service less payments made from proceeds of Indebtedness (e.g., capitalized interest), earnings on bond proceeds (e.g., reserve fund earnings) used to pay Debt Service, and interest paid from renewed commercial paper, or from reserve fund liquidation.

“**New Assets**” refers to Regional and Hetch Hetchy Water-Only and Water-Related capital assets added to Regional Water System plant in service after June 30, 2009.

“**New Regional Assets**” refers to New Assets placed in service on or after July 1, 2009 that are used and useful in delivering water to Wholesale Customers. The following four categories comprise New Regional Assets:

1. Water Enterprise Regional Assets

2. Water Enterprise Direct Wholesale Assets
3. Hetch Hetchy Water Only Assets
4. Water-Related portion (45 percent) of Hetch Hetchy Joint Assets

“**Power-Only**,” when used with reference to Hetch Hetchy Enterprise capital costs and operating and maintenance expenses, means capital costs and expenses that are incurred solely for the construction and operation of assets used to generate and transmit electrical energy.

“**Power-Related**” refers to the power related portion (55%) of Joint Hetch Hetchy Enterprise assets or expenses.

“**Proportional Annual Use**” means the shares of deliveries from the Regional Water System used by City Retail Customers and by the Wholesale Customers in a fiscal year, expressed as a percentage.

“**Proportional Water Use**” refers the general principle of allocating Regional Water System costs based on the relative purchases of water by Retail and Wholesale Customers.

“**Regional**,” when used with reference to Water Enterprise capital assets and operating expenses, refers to assets and expenses that benefit Wholesale and Regional Customers.

“**Regional Water System**” means the water storage, transmission and treatment system operated by the SFPUC in Tuolumne, Stanislaus, San Joaquin, Alameda, Santa Clara, San Mateo and San Francisco counties, including projects constructed under the WSIP, but excluding Direct Retail and Direct Wholesale assets.

“**Retail Customers**” means any customer that purchases water from San Francisco that is not a Wholesale Customer, whether located inside or outside of San Francisco.

“**Retail Service Area**” means the areas where SFPUC sells water to Retail Customers.

“**Retail Water**” means water sold by the SFPUC to its Retail Customers within and outside San Francisco.

“**San Francisco**” refers to the City and County of San Francisco.

“**SFPUC**” refers to the San Francisco Public Utilities Commission as an operating department of San Francisco, the General Manager of which reports to the Commission.

“**Substantially Expended**,” when used with respect to a specific bond issue, means 98% of the proceeds from that bond issue and investment earnings contributed to the project fund have been expended.

“**Supply Assurance**” means the 184 MGD maximum annual average metered supply of water dedicated by San Francisco to public use in the Wholesale Service Area (not including San Jose and Santa Clara).

“**Term**” means the 25-year term of the Agreement commencing July 1, 2009, including one or both 5-year extensions authorized by the Agreement.

“**Tier 1 Shortage Plan**” refers to the Water Shortage Allocation Plan, adopted by the SFPUC and the Wholesale Customers in conjunction with the Agreement describing the method for allocating water between the SFPUC and the Wholesale Customers collectively for shortages of up to 20% of deliveries from the Regional Water System, as amended from time-to-time.

“**Water Enterprise**” refers to the San Francisco Water Department (SFWD), an SFPUC Operating Department.

“**Water Management Charge**” refers to the charge collected by San Francisco on behalf of BAWSCA for local water resource development in the Wholesale Service Area.

“Water-Only,” when used with reference to Hetch Hetchy Enterprise capital costs and operating and maintenance expenses, means capital costs and expenses that are incurred solely for the construction and operation of assets used to protect water quality or to provide for the delivery of water for consumptive purposes.

“Water-Related” refers to the water related portion (45%) of Joint Hetch Hetchy Enterprise assets or expenses.

“Wheeling Statute” refers to Article 4 of Chapter 11 of the California Water Code, as amended from time to time.

“Wholesale Capital Fund” is the account established by the SFPUC for deposit of Wholesale Customer revenue that is used to fund the wholesale share of revenue-funded New Regional Assets.

“Wholesale Customer” or **“Customers”** means one or more of the 27 water customers that are contracting for purchase of water from San Francisco pursuant to the Agreement.

“Wholesale Revenue Coverage” refers to the additional dollar amount included in wholesale rates each fiscal year that is charged to Wholesale Customers by the SFPUC for their proportionate share of Debt Service coverage.

“Wholesale Revenue Coverage Reserve” refers to the account established by the SFPUC for deposit of Wholesale Revenue Coverage.

“Wholesale Revenue Requirement” means the calculated Wholesale Customer portion of SFPUC Regional Water System capital and operating costs.

“Wholesale Service Area” means the combined service areas of the Wholesale Customers, as delineated on the service area maps attached to each Individual Water Sales Contract.

“WSIP” refers to the Water System Improvement Program approved by the Commission in Resolution No. 08-0200 on October 30, 2008, as amended from time to time.

Term

The Term of the Agreement shall be twenty five (25) years. The Term shall begin on July 1, 2009 and shall end on June 30, 2034.

In December 2031, the SFPUC may provide written notice to the Wholesale Customers that it is willing to extend the Term of the Agreement. Between January 1, 2032 and June 30, 2032, any Wholesale Customer may accept the SFPUC’s offer to extend the Term by providing a written notice of extension to the SFPUC. If such notices of extension are received from Wholesale Customers representing at least two-thirds in number as of June 30, 2032 and seventy five percent (75%) of the quantity of water delivered by the SFPUC to all Wholesale Customers during fiscal year 2030-31, the Term shall be extended for another five (5) years (“First Extension Term”), through June 30, 2039. No party to the Agreement which does not wish to remain a party during the Extension Term shall be compelled to do so by the actions of other parties.

In December 2036, the SFPUC may provide written notice to the Wholesale Customers that it is willing to extend the Term of the Agreement. Between January 1, 2037 and June 30, 2037, any Wholesale Customer may accept the SFPUC’s offer to extend the Term by providing a written notice of extension to the SFPUC. If such notices of extension are received from Wholesale Customers representing at least two-thirds in number as of June 30, 2037 and seventy five percent (75%) of the quantity of water delivered by the SFPUC to all Wholesale Customers during fiscal year 2035-36, the Term shall be extended for another five (5) years (“Second Extension Term”), through June 30, 2044. No party to the Agreement which does not wish to remain a party during the Extension Term shall be compelled to do so by the actions of other parties.

Amendments to Agreement

The Agreement may be amended with the written consent of San Francisco and of Wholesale Customers representing at least two-thirds in number and seventy five percent (75%) of the quantity of water delivered by San Francisco to all Wholesale Customers during the fiscal year immediately preceding the amendment.

No amendment which adversely affects a Fundamental Right of a Wholesale Customer may be made without the written consent of that customer.

Supply Assurance

San Francisco agrees to deliver water to the Wholesale Customers up to the amount of the Supply Assurance. Water delivered by San Francisco to Retail Customers shall not be included in the Supply Assurance. Until December 31, 2018, such commitment is subject to the Interim Supply Limitation provisions in the Agreement.

Both the Supply Assurance and the Individual Supply Guarantees identified are expressed in terms of daily deliveries on an annual average basis and do not themselves constitute a guarantee by San Francisco to meet peak daily or hourly demands of the Wholesale Customers, irrespective of what those peak demands may be. The parties acknowledge, however, that the Regional Water System has been designed and constructed to meet peak daily and hourly demands and that its capacity to do so has not yet been reached. San Francisco agrees to operate the Regional Water System to meet peak requirements of the Wholesale Customers to the extent possible without adversely affecting its ability to meet peak demands of Retail Customers. The Agreement shall not preclude San Francisco from undertaking to meet specific peak demand requirements of individual Wholesale Customers in their Individual Water Sales Contracts.

The Supply Assurance is perpetual and shall survive the expiration or earlier termination of the Agreement. Similarly, the Individual Supply Guarantees and/or the Individual Water Sales Contracts are perpetual and shall survive the expiration or earlier termination of the Agreement or the Individual Water Sales Contracts.

The amount of water made available by San Francisco to the Wholesale Customers is subject to reduction, to the extent and for the period made necessary by reason of water shortage, Drought, Emergencies, or by malfunctioning or rehabilitation of facilities in the Regional Water System. The amount of water made available to the Wholesale Customers may not be reduced, however, merely because the water recycling and groundwater projects which WSIP envisions to be constructed within San Francisco, or the conservation programs intended to reduce water use by Retail Customers that are included in the WSIP, do not generate the yield or savings (10 MGD combined) anticipated by San Francisco.

Allocation of Supply Assurance

A portion of the Supply Assurance has been allocated among 24 of the 27 Wholesale Customers. Three Wholesale Customers do not have Individual Supply Guarantees. The cities of San Jose and Santa Clara do not have an Individual Supply Guarantee because San Francisco has provided water to them on a temporary and interruptible basis. The City of Hayward does not have an Individual Supply Guarantee because of the terms of the 1962 contract between it and San Francisco.

If the total amount of water delivered by San Francisco to Hayward and to the Wholesale Customers with Individual Supply Guarantees exceeds 184 MGD over a period of three consecutive fiscal years (i.e., July 1 through June 30), then the Individual Supply Guarantees of those Wholesale Customers shall be reduced pro rata so that their combined entitlement and the sustained use by Hayward does not exceed 184 MGD.

It shall be the responsibility of each Wholesale Customer to limit its purchases of water from San Francisco so as to remain within its Individual Supply Guarantee. San Francisco shall not be liable to any Wholesale Customer or be obligated to supply more water to any Wholesale Customer individually or to the Wholesale Customers collectively than the amount to which it or they are otherwise entitled under the Agreement due to the use by any Wholesale Customer of more water than the amount to which it is entitled under the Agreement.

San Francisco shall install such new connections between the Regional Water System and the distribution system of any Wholesale Customer that are necessary to deliver the quantities of water to which the Wholesale Customer is entitled under the Agreement. San Francisco shall have the right to determine the location of such connections, in light of the need to maintain the structural integrity of the Regional Water System and, where applicable, the need to limit peaking directly off of Regional Water System pipelines by a Wholesale Customer's individual retail customers, the need to ensure that a Wholesale Customer's individual retail customers have access to alternative sources of water in the event of a reduction in San Francisco's ability to provide them with water, and other factors which may affect the desirability or undesirability of a particular location.

Wholesale Customer Service Areas

A Wholesale Customer may not deliver water furnished to it by San Francisco outside the boundary of its service area without the prior written consent of San Francisco, except for deliveries to another Wholesale Customer on an emergency and temporary basis. San Francisco may refuse a Wholesale Customer's request to expand its service area on any reasonable basis.

If two or more Wholesale Customers agree to adjust the boundaries of their respective service areas so that one assumes an obligation to serve customers in an area that was previously within the service area of another Wholesale Customer, they may also correspondingly adjust their respective Individual Supply Guarantees.

San Francisco acknowledges that it has heretofore consented in writing to deliveries of water by individual Wholesale Customers outside their service area boundaries and agrees that nothing in the Agreement is intended to affect such prior authorizations, which remain in full force and effect according to their terms.

Permanent Transfers of Individual Supply Guarantees

A Wholesale Customer that has an Individual Supply Guarantee may transfer a portion of it to one or more other Wholesale Customers; transfers of a portion of an Individual Supply Guarantee must be permanent; and transfers of portions of Individual Supply Guarantees are subject to approval by the SFPUC. SFPUC review is limited to (1) whether a proposed transfer complies with the Act, and (2) whether the affected facilities in the Regional Water System have sufficient capacity to accommodate delivery of the increased amount of water to the proposed transferee.

Restrictions on Resale

Each Wholesale Customer agrees that it will not sell any water purchased from San Francisco to a private party for resale by such private party to others in violation of the Act.

Each Wholesale Customer also agrees that it will not sell water purchased from San Francisco to another Wholesale Customer without prior written approval of the SFPUC, except on a temporary and emergency basis. The SFPUC agrees that it will not unreasonably withhold its consent to a request by a Wholesale Customer to deliver water to another Wholesale Customer for resale.

Conservation; Use of Local Sources

Each Wholesale Customer shall take all actions within its legal authority related to water conservation that are necessary to insure that the SFPUC (a) remains eligible for (i) state and federal grants and (ii) access to the Drought Water Bank operated by the California Department of Water Resources, as well as other Drought-related water purchase or transfer programs, and (b) complies with future legal requirements imposed on the Regional Water System by the federal government, the State, or any other third party as conditions for receiving funding or water supply.

San Francisco and each Wholesale Customer agree that they will diligently apply their best efforts to use both surface water and groundwater sources located within their respective service areas and available recycled water to the maximum feasible extent, taking into account the environmental impacts, the public health effects and the effects on supply reliability of such use, as well as the cost of developing such sources.

Restrictions on Purchases of Water from Others; Minimum Annual Purchases

Each Wholesale Customer (except for Alameda County Water District and the cities of Milpitas, Mountain View and Sunnyvale) agrees that it will not contract for, purchase or receive, with or without compensation, directly or indirectly, from any person, corporation, governmental agency or other entity, any water for delivery or use within its service area without the prior written consent of San Francisco.

The prohibition in the preceding sentence does not apply to:

1. recycled water;
2. water necessary on an emergency and temporary basis, provided that the Wholesale Customer promptly gives San Francisco notice of the nature of the emergency, the amount of water that has been or is to be purchased, and the expected duration of the emergency; or
3. water in excess of a Wholesale Customer's Individual Supply Guarantee.

Alameda County Water District and the cities of Milpitas, Mountain View and Sunnyvale may purchase water from sources other than San Francisco, provided that San Francisco shall require that each purchase a minimum annual quantity of water from San Francisco.

Water Quality

San Francisco shall deliver treated water to Wholesale Customers (except Coastside County Water District, which receives untreated water from Crystal Springs and Pilarcitos Reservoirs) that complies with primary maximum contaminant level and treatment technique standards at the regulatory entry points designated in the San Francisco Regional Water System Domestic Water Supply Permit (currently Permit No. 02-04-04P3810001) issued by the California Department of Public Health.

Completion of WSIP

San Francisco will complete construction of the physical facilities in the WSIP by November 2018. The SFPUC agrees to provide for full public review and comment by local and state interests of any proposed changes that delay previously adopted project completion dates or that delete projects. The SFPUC shall meet and consult with BAWSCA before proposing to the Commission any changes in the scope of WSIP projects which reduce their capacity or ability to achieve adopted levels of service goals. The SFPUC retains discretion to determine whether to approve the physical facilities in the WSIP until after it completes the CEQA process.

Regional Water System Repair, Maintenance and Operation

San Francisco will keep the Regional Water System in good working order and repair consistent with prudent utility practice.

San Francisco will continue to operate its reservoirs in a manner that assigns higher priority to the delivery of water to the Bay Area and the environment than to the generation of electric power. The SFPUC, as the Regional Water System operator, is solely responsible for making day-to-day operational decisions.

Shortages

Notwithstanding San Francisco's obligations to deliver the Supply Assurance to the Wholesale Customers collectively and the Individual Supply Guarantees to Wholesale Customers individually, San Francisco may reduce the amount of water available or interrupt water deliveries to specific geographical areas within the Regional Water System service area to the extent that such reductions are necessary due to Emergencies, or in order to install, repair, rehabilitate, replace, investigate or inspect equipment in, or perform other maintenance work on, the Regional Water System. Such reductions or interruptions may be imposed by San Francisco without corresponding reductions or interruptions in the amount of water available to SFPUC water users outside the specific geographical area where reductions or interruptions are necessary, if the system's ability to supply water outside the specific geographical

area has not been impaired. In the event of such a reduction or interruption, San Francisco will restore the supply of water to the specific geographical area as soon as is possible.

Following a major system emergency event, the SFPUC will work closely with its Wholesale Customers to monitor customer demand, including the demand source. In the event that any individual Wholesale Service Area or Retail Service Area customer's uncontrolled distribution system leaks could result in major water waste and endanger the supply provided by the Regional Water System as a whole, flow through some customer connections may need to be temporarily reduced or terminated. SFPUC will work closely with customers to assess the nature of the demand (e.g. fire-fighting versus leakage), so that public health and safety protection can be given top priority.

1. All emergencies that require use of non-potable source water will require use of chlorine, or other suitable disinfectant, if feasible.

2. San Francisco will use its best efforts to meet the seismic reliability and delivery reliability level of service goals adopted by the Commission in conjunction with the WSIP. San Francisco will distribute water on an equitable basis throughout the Regional Water System service area following a regional Emergency, subject to physical limitations caused by damage to the Regional Water System.

Notwithstanding San Francisco's obligations to deliver the Supply Assurance to the Wholesale Customers collectively and the Individual Supply Guarantees to Wholesale Customers individually, San Francisco may reduce the amount of water available to the Wholesale Customers in response to Drought.

1. The Tier 1 Shortage Plan set forth in the Agreement will continue to be used to allocate water from the Regional Water System between Retail and Wholesale Customers during system-wide shortages of 20% or less.

2. San Francisco and the Wholesale Customers may negotiate in good faith revisions to the Tier 1 Shortage Plan to adjust for and accommodate anticipated changes due to demand hardening in the SFPUC's Wholesale and Retail Service Areas. Until agreement is reached, the current Tier 1 Shortage Plan will remain in effect.

3. The SFPUC will honor allocations of water among the Wholesale Customers ("Tier 2 Allocations") provided by BAWSCA or if unanimously agreed to by all Wholesale Customers. If BAWSCA or all Wholesale Customers do not provide the SFPUC with Tier 2 Allocations, then the SFPUC may make a final allocation decision after first meeting and discussing allocations with BAWSCA and the Wholesale Customers. For Regional Water System shortages in excess of 20%, San Francisco shall (a) follow the Tier 1 Shortage Plan allocations up to the 20% reduction, (b) meet and discuss how to implement incremental reductions above 20% with the Wholesale Customers, and (c) make a final determination of allocations above the 20% reduction. After the SFPUC has made the final allocation decision, the Wholesale Customers shall be free to challenge the allocation on any applicable legal or equitable basis.

4. San Francisco will use its best efforts to identify potential sources of dry year water supplies and establish the contractual and other means to access and deliver those supplies in sufficient quantity to meet a goal of not more than 20% system-wide shortage in any year of the design drought.

Wheeling of Water from Outside SFPUC System

Subject to the Wheeling Statute, the SFPUC will not deny use of Regional Water System unused capacity for wheeling when such capacity is available for wheeling purposes during periods when the SFPUC has declared a water shortage emergency under Water Code Section 350 if the following conditions are met:

A. The transferor pays reasonable charges incurred by the SFPUC as a result of the wheeling, including capital, operation, maintenance, administrative and replacement costs (as such are defined in the Wheeling Statute).

B. Wheeled water that is stored in the Regional Water System spills first.

C. Wheeled water will not unreasonably: (1) impact fish and wildlife resources in Regional Water System reservoirs; (2) diminish the quality of water delivered for consumptive uses; or (3) increase the risk of exotic species impairing Regional Water System operations. The transferor may at its own expense provide for treatment to mitigate these effects.

D. Priority will be given to wheeling by Wholesale Customers or BAWSCA over arrangements for third-party public entities.

Limits on New Customers

Until December 31, 2018, San Francisco will not enter into contracts to supply water to any entity other than a Wholesale Customer (whether permanent or temporary, firm or interruptible) unless:

1. It completes any necessary environmental review under CEQA of the proposed new wholesale water service obligations;

2. It concurrently completes any necessary environmental review under CEQA and commits to make both San Jose and Santa Clara permanent customers with Individual Supply Guarantees equal to at least 9 MGD; and

3. The Agreement is amended to incorporate any commitments to proposed new wholesale customers and to San Jose and Santa Clara, and to address the effects, if any, of the new customer(s) on water supply reliability, water quality and cost to existing customers of the Regional Water System.

As of January 1, 2019, San Francisco will not enter into contracts to supply water to any entity other than a Wholesale Customer (whether permanent or temporary, firm or interruptible) unless:

1. It completes any necessary environmental review under CEQA of the proposed new wholesale water service obligations;

2. It concurrently completes any necessary environmental review under CEQA and commits to make both San Jose and Santa Clara permanent customers with Individual Supply Guarantees equal to at least 9 MGD;

3. Doing so increases the reliability of the Regional Water System; and

4. The Agreement is concurrently amended (a) to reflect that increased reliability by means of an increased commitment by San Francisco to deliver water during Droughts and (b) to address the effects, if any, of the new customer(s) on water supply, water quality and cost to existing customers of the Regional Water System.

San Francisco may enter into new retail water service obligations outside of the City and County of San Francisco:

1. Only in Alameda, San Mateo, Santa Clara, San Joaquin and Tuolumne Counties;

2. That are within or immediately adjacent to areas in which it currently serves other Retail Customers; and

3. Until the aggregate additional demand represented by the new retail customers reaches 0.5 MGD.

The limitations on serving new Retail Customers described in this subsection do not apply to historical obligations to supply water that may be contained in prior agreements between the SFPUC or its predecessor the Spring Valley Water Company, and individual users or property owners located adjacent to Regional Water System transmission pipelines.

Subject to completion of necessary environmental review under CEQA, San Francisco may at any time enter into water exchanges or cost sharing agreements with other water suppliers to enhance dry year or normal year water deliveries, provided that San Francisco cannot incur new water service obligations to such other water suppliers unless the requirements for taking on new wholesale customers are met.

New Sources of Water Supply to Maintain Supply Assurance

Sudden and unanticipated events may require San Francisco to act promptly to protect the health, safety and economic well-being of its Retail and Wholesale Customers. Such sudden events include, but are not limited to drought, earthquakes, terrorist acts, catastrophic failures of facilities owned and operated by San Francisco, and other natural or man-made events. If such events diminish San Francisco's ability to maintain the Supply Assurance, San Francisco may increase the Wholesale Revenue Requirement to pay for planning, evaluation and implementation of replacement sources of supply when such needs arise and without the prior approval of the Wholesale Customers.

Climate change, regulatory actions and other events may impact San Francisco's ability to maintain the Supply Assurance from its existing surface water supplies, but on timescales long enough to permit San Francisco to collaborate with its Wholesale Customers on how best to address possible impacts to water supply. If such events diminish San Francisco's ability to maintain the Supply Assurance, San Francisco may increase the Wholesale Revenue Requirement to pay for planning, evaluation and implementation of replacement sources of supply when such needs arise and without the prior approval of the Wholesale Customers.

New Sources of Water Supply to Increase Supply Assurance

The Commission action in SFPUC Resolution Number 08-0200, adopted October 30, 2008 requires certain decisions by San Francisco regarding whether to supply more than 265 MGD from its watersheds following 2018. Such decisions are to be made by December 31, 2018, subject to the exercise of San Francisco's retained CEQA discretion. San Francisco's future decisions may include an offer to increase the Supply Assurance at the request of some or all of its Wholesale Customers. Costs associated with providing additional water from its existing water supplies in San Mateo, Santa Clara, Alameda, Tuolumne, and Stanislaus Counties shall be allocated to Wholesale and Retail Customers as described in the Agreement.

If San Francisco seeks to develop additional water supplies from new sources to increase the Supply Assurance available to Wholesale Customers, studies and resulting water supply projects will be conducted jointly with BAWSCA under separate agreement(s) specifying the purpose of the projects, the anticipated regional benefits and how costs of studies and implementation will be allocated and charged. Nothing in the Agreement shall serve as precedent for the allocation of such new supply capital costs between Retail and Wholesale Customers or associated operational expenses, which shall only occur following approval of both parties and amendment of the Agreement, if necessary.

Interim Supply Limitation Imposed by SFPUC

In adopting the WSIP in Res. No. 08-0200, the Commission included full implementation of all proposed WSIP capital improvement projects to achieve level of service goals relating to public health, seismic safety, and delivery reliability, but decided to adopt a water supply element that includes the Interim Supply Limitation. Between the effective date of the Agreement and December 31, 2018, the Interim Supply Limitation is allocated as follows between Retail and Wholesale Customers:

Retail Customers' allocation:	81 MGD
Wholesale Customers' allocation:	184 MGD

The Wholesale Customers' collective allocation of 184 MGD under the Interim Supply Limitation includes the demand of the cities of San Jose and Santa Clara, whose demand is not included in the Supply Assurance.

Transfers of Interim Supply Allocations

Any Wholesale Customer, including Hayward, may transfer a portion of its Interim Supply Allocation to one or more other Wholesale Customers. All Wholesale Customers are also eligible transferees, including California Water Service Company up to its Individual Supply Guarantee. Transfers of a portion of an Interim Supply Allocation must be prospective. The duration of a transfer cannot be less than the balance of the fiscal year. Transfers of portions of Interim Supply Allocations are subject to approval by the SFPUC. SFPUC review is limited to determining (1) whether a proposed transfer complies with the Act, and (2) whether the affected facilities in the Regional Water System have sufficient capacity to accommodate delivery of the increased amount of water to the proposed transferee. The SFPUC will not unreasonably withhold or delay its approval. Transfers of Interim Supply Allocations shall continue in effect until the earlier of (1) delivery of written notice to the SFPUC by the transfer participants that the transfer has been rescinded or (2) December 31, 2018.

Environmental Enhancement Surcharge

Beginning with wholesale water rates for fiscal year 2011-12, and continuing for the duration of the Interim Supply Limitation, the Commission will establish the Environmental Enhancement Surcharge concurrently with the budget-coordinated rate process set forth in the Agreement. The monetary amount of the Environmental Enhancement Surcharge per volume of water, such as dollars per acre-foot, will be equivalent for Retail Customer use in excess of 81 MGD and Wholesale Customer use in excess of 184 MGD.

Beginning in fiscal year 2011-12, the Environmental Enhancement Surcharge will be levied only if and when combined Retail Customer and Wholesale Customer purchases exceed the Interim Supply Limitation of 265 MGD and if the fund described below has been established by the San Francisco Board of Supervisors. In that event, the Environmental Enhancement Surcharge will apply to Retail Customers for use in excess of 81 MGD and to individual Wholesale Customers for use in excess of their Interim Supply Allocations established by the Commission.

1. Environmental Enhancement Surcharges related to the Retail Customers' use in excess of their 81 MGD Retail Customer Allocation will be paid by the SFPUC, and no portion of such surcharges may be allocated to Wholesale Customers. The method of recovering the Environmental Enhancement Surcharges imposed upon Retail Customers shall be within the sole discretion of the SFPUC.

2. Environmental Enhancement Surcharges related to the individual Wholesale Customers' use in excess of their respective Interim Supply Allocations will be paid to the SFPUC by individual Wholesale Customers.

Environmental Enhancement Surcharges paid by the SFPUC and by Wholesale Customers will be placed into a restricted reserve fund. The SFPUC will request the San Francisco Board of Supervisors to establish this fund by ordinance and, if adopted, the fund will be subject to the following restrictions:

1. Interest earnings will stay in the reserve fund.

2. The reserve fund shall (a) be subject to automatic appropriation; (b) require unexpended and unencumbered fund balances to be carried forward from year to year; and (c) not be transferred to the San Francisco General Fund.

3. The reserve fund may be used only for specific environmental restoration and enhancement measures for the Sierra and local watersheds, such as those included in the Watershed Environmental Improvement Program.

4. Environmental Enhancement Surcharge proceeds shall be expended in an expeditious manner. Any Environmental Enhancement Surcharge proceeds that remain in the reserve fund as of December 31, 2018 shall be used to complete projects previously approved. Upon completion of the identified projects, the balance of any unexpended sums in the reserve fund shall be distributed to BAWSCA and the SFPUC in proportion to the total amount of surcharges assessed to the Wholesale and Retail Customers, respectively.

Specific uses of Environmental Enhancement Surcharges will be decided by the SFPUC and BAWSCA General Managers following input from environmental stakeholders and other interested members of the public. If parties are unable to agree, then they will jointly select a third person to participate in making the decision.

San Jose/ Santa Clara Interim Supply Allocation and Process for Reduction/ Termination.

San Francisco will supply a combined annual average of 9 MGD to the cities of San Jose and Santa Clara through 2018. Water supplied by San Francisco may only be used in the existing defined service areas in the northern portions of San Jose and Santa Clara. San Francisco may reduce the quantity of water specified in this section when it establishes the Interim Supply Allocations for Wholesale Customers. The establishment of Interim Supply Allocations for San Jose and Santa Clara shall not be considered a reduction of supply, provided that the Interim Supply Allocations assigned to San Jose and Santa Clara do not effect a reduction greater than the aggregate average reduction in Individual Supply Guarantees for Wholesale Customers that have such guarantees.

San Francisco Decisions in 2018 Regarding Future Water Supply

By December 31, 2018, San Francisco will have completed any necessary CEQA review that is relevant to making San Jose and Santa Clara permanent customers of the Regional Water System and will decide whether or not to make San Jose and Santa Clara permanent customers of the Regional Water System. San Francisco will make San Jose and Santa Clara permanent customers only if, and to the extent that, San Francisco determines that Regional Water System long term water supplies are available. In the event that San Francisco decides to afford permanent status to San Jose and Santa Clara, the Agreement will be amended.

By December 31, 2018, San Francisco will have completed any necessary CEQA review and will decide how much water if any, in excess of the Supply Assurance it will supply to Wholesale Customers from the Regional Water System to meet their projected future water demands until the year 2030, and whether to offer a corresponding increase in the Supply Assurance as a result of its determination.

Retained Discretion of SFPUC and Wholesale Customers

The Agreement contemplates discretionary actions that the SFPUC and the Wholesale Customers may choose to take in the future that could result in physical changes to the environment (“Discretionary Actions”). The Discretionary Actions include decisions to:

1. Develop additional or alternate water resources by the SFPUC or one or more Wholesale Customers;
2. Implement the physical facilities comprising the WSIP by December 31, 2015;
3. Approve wheeling proposals by Wholesale Customers;
4. Approve new wholesale customers and water exchange or cost sharing agreements with other water suppliers;
5. Provide additional water to San Jose and/or Santa Clara;
6. Offer permanent status to San Jose and/or Santa Clara;
7. Reduce or terminate supply to San Jose and/or Santa Clara;
8. Provide additional water to Wholesale Customers in excess of the Supply Assurance to meet their projected future water demands; and
9. Offer a corresponding volumetric increase in the Supply Assurance.

Wholesale Revenue Requirement

The Agreement shall be applicable only to the water rates charged by San Francisco to the Wholesale Customers. Nothing contained in the Agreement shall limit, constrain, or in any way affect the rates which San Francisco may charge for water sold to Retail Customers or the methodology by which such rates are determined.

The Agreement sets forth the method by which the Wholesale Customers' collective share of expenses incurred by the SFPUC in delivering water to them will be determined.

The Agreement implements two general principles as follows: (1) the Wholesale Customers should not pay for expenses of SFPUC operations from which they receive no benefit and (2) the Wholesale Customers should pay their share of expenses incurred by the SFPUC in delivering water to them on the basis of Proportional Annual Use unless otherwise explicitly provided in the Agreement.

To implement these general principles, the Wholesale Revenue Requirement will consist of, and be limited to the Wholesale Customers' shares of the following categories of expense:

1. Contribution to the capital cost of Water Enterprise New Regional Assets.
2. Water Enterprise operation and maintenance expenses, including power purchased from the Hetch Hetchy Enterprise that is used in the operation of the Water Enterprise.
3. Water Enterprise administrative and general expenses.
4. Water Enterprise property taxes.
5. The Water Enterprise's share of the Hetch Hetchy Enterprise's operation and maintenance, administrative and general, and property tax expenses.
6. The Water Enterprise's share of the Hetch Hetchy Enterprise's capital cost of New Assets classified as Water-Only and the Water-Related portion of Joint Assets.

In each of these cost categories, Direct Retail Expenses will be allocated entirely to Retail Customers. Direct Wholesale Expenses will be allocated entirely to the Wholesale Customers. Regional Expenses will be allocated between Retail Customers and Wholesale Customers.

For purposes of establishing the rates to be charged Wholesale Customers, expenses will be based on the budget for, and estimates of water purchases in, the following fiscal year. For purposes of accounting, the Wholesale Revenue Requirement will be determined on the basis of actual expenses incurred and actual water use.

In addition, rates charged to Wholesale Customers may include the Wholesale Customers' contribution to a Wholesale Revenue Coverage Reserve, which is not included in the Wholesale Revenue Requirement itself.

Capital Cost Contribution – New Regional Assets

The Wholesale Customers shall pay the wholesale share of Net Annual Debt Service for new Regional Assets.

1. The amount of Net Annual Debt Service for New Regional Assets will be determined for each series of Indebtedness issued. Until the proceeds of a particular series are Substantially Expended, the amount attributable to specific projects will be based on the expected use of proceeds shown in the "Certificate Regarding Use of Proceeds" executed by the SFPUC General Manager on behalf of the Commission in connection with the sale of the Indebtedness.
2. After the proceeds of a series are Substantially Expended, the SFPUC General Manager will prepare and execute a certificate showing the actual expenditure of proceeds at an

allocation of Net Debt Service to New Regional Assets for a series of bonds will be used in the fiscal year in which the proceeds have been Substantially Expended and thereafter.

3. The Wholesale Customers' share of Net Annual Debt Service for the New Regional Assets that are categorized as Direct Wholesale will be 100 percent. (None of the projects in the WSIP are categorized as Direct Wholesale.) The Wholesale Customers' share of Net Annual Debt Service for all other New Regional Assets will be determined each year and will be equal to the Wholesale Customers' Proportional Annual Use.
4. If Indebtedness is issued by the SFPUC to refund the 2006 Revenue Bonds, Series A or to refund any other long-term Indebtedness issued after July 1, 2009, the Net Annual Debt Service attributable to proceeds used for refunding will be allocated on the same basis as the Indebtedness being refunded.
5. In addition to Net Debt Service, Wholesale Customers will pay a proportionate share of annual administrative costs associated with Indebtedness, such as bond trustee fees, credit rating agency fees, letter of credit issuer fees, San Francisco Revenue Bond Oversight Committee fees, etc., but only to the extent such fees are neither paid from proceeds of Indebtedness nor included in SFPUC operation and maintenance or administrative and general expenses.

The Wholesale Customers shall pay the wholesale share of the appropriation contained in the SFPUC annual budget for each year to be used to acquire or construct New Regional Assets.

The Wholesale Customers' share of the annual appropriation for revenue-funded New Regional Assets that are categorized as Direct Wholesale will be 100 percent. The Wholesale Customers' share of the annual appropriation for all other revenue-funded New Regional Assets will be determined each year and will be equal to the Wholesale Customers' Proportional Annual Use in each fiscal year. The amount appropriated in each fiscal year for the wholesale share of New Regional Assets shall be contributed to the Wholesale Capital Fund.

Hetch Hetchy Enterprise Expenses

There are two steps involved in determining the amount of the Wholesale Customers' share of Hetch Hetchy Enterprise expenses.

1. The first step is to determine the Water Enterprise's share of Hetch Hetchy Enterprise operation expenses, maintenance expenses, administrative and general expenses, and property taxes.
2. The second step is to determine the Wholesale Customers' share of expenses allocable to the Water Enterprise.

The Water Enterprise's share of Hetch Hetchy Enterprise expenses consist of 100 percent of Water-Only expenses and the Water-Related portion (45%) of Joint expenses.

The Wholesale Customers' share of the sum of the Water Enterprise's share of Hetch Hetchy Enterprise expenses shall be calculated by multiplying that dollar amount by Adjusted Proportional Annual Use.

Wholesale Customers are also allocated a share of Hetch Hetchy Enterprise capital costs. The components of Hetch Hetchy Enterprise capital costs are as follows:

1. The Water Enterprise will be assigned 100 percent of Net Annual Debt Service attributable to acquisition and construction of New Hetch Hetchy Enterprise assets that are Water-Only and the Water-Related portion (45 percent) of Net Annual Debt Service on New Hetch Hetchy Enterprise Joint assets.

2. The Water Enterprise will be assigned 100 percent of capital expenditures from revenues for New Hetch Hetchy Enterprise assets that are Water-Only and the Water-Related portion (45 percent) of such expenditures for new Hetch Hetchy Enterprise Joint assets.

The Wholesale Customers' share of the Net Annual Debt Service and revenue funded capital expenditures shall be calculated by multiplying that dollar amount by Adjusted Proportional Annual Use.

Additional Agreements Related to Financial Issues

The Wholesale Customers have no entitlement to any of the following sources of revenue to the SFPUC.

1. Revenues from leases or sales of SFPUC real property.
2. Revenues from other utility services such as the sale of electric power, natural gas and steam.
3. Revenues from the sale of water to customers and entities other than the Wholesale Customers.
4. Revenues earned from the investment of SFPUC funds other than funds contributed by the Wholesale Customers to the Wholesale Revenue Coverage Reserve or the Wholesale Capital Fund. Wholesale Customers are also entitled to the benefit of earnings on proceeds of Indebtedness (through expenditure on New Regional Assets and /or application to Debt Service) and to interest on the Balancing Account.
5. Revenues not related to the sale of water.

The Wholesale Customers will not be charged with any of the following expenses:

1. Capital costs for assets constructed or acquired prior to July 1, 1984.
2. Expenses incurred by the SFPUC for generation and distribution of electric power, including Hetch Hetchy Enterprise Power-Only expenses and the Power-Related share of Hetch Hetchy Enterprise Joint expenses. An exception to this is Regional energy costs incurred by the Water Enterprise, for which Wholesale Customers are charged on the basis of Proportional Annual Use.
3. Expenses incurred by SFPUC in providing water to Retail Customers.
4. Expenses associated with the SFPUC's accruals or allocations for uncollectible Retail Water accounts.
5. Attorneys' fees and costs incurred by the Wholesale Customers that a court of competent jurisdiction orders San Francisco to pay as part of a final, binding judgment against San Francisco.
6. Any expenses associated with funding any reserves (other than the required Wholesale Revenue Coverage Reserve) accrued and not anticipated to be paid within one year unless such reserve is established by mutual agreement of the SFPUC and BAWSCA.
7. Any expenses accrued in respect to pending or threatened litigation, damage or personal injury claims or other loss contingencies unless projected to be paid within one year. Otherwise, such expenses will be charged to the Wholesale Customers when actually paid.

8. Any expenses associated with installing, relocating, enlarging, removing or modifying meters and service connections at the request of an individual Wholesale Customer.
9. The Retail Customers' portion of any Environmental Enhancement Surcharges imposed to enforce the Interim Supply Limitation.

The following payments by Wholesale Customers, individually or collectively, are not credited as Wholesale revenues.

1. Payments by individual Wholesale Customers of the Environmental Enhancement Surcharge imposed to enforce the Interim Supply Limitation.
2. Payments of attorneys' fees and costs incurred by San Francisco that a court of competent jurisdiction orders the Wholesale Customers to pay as part of a final, binding judgment against the Wholesale Customers.
3. Payments by individual Wholesale Customers for installation, relocation, enlargement, removal or modification of meters and service connections requested by, and charged to, a Wholesale Customer.
4. Payments applied to the amortization of the ending balance in the balancing account under the 1984 Agreement.
5. Payments of the Water Management Charge which are delivered to BAWSCA.
6. Payments directed to the Wholesale Revenue Coverage Reserve.
7. Prepayments of certain capital and revenues payment.

The Wholesale Customers will receive a proportional benefit from funds received by the SFPUC from (a) governmental grants, rebates, reimbursements or other subventions, (b) private-sector grants for Regional capital or operating purposes of the Water Enterprise and the Water-Only and Water-related portion of Joint Hetch Hetchy Water Enterprise expenses, or (c) a SFPUC use of taxable bonds.

The Wholesale Customers will receive a proportionate benefit from recovery of damages, including liquidated damages, by SFPUC from judgments against or settlements with contractors, suppliers, sureties, etc., related to Regional Water System projects and the Water-Only and Water-Related portion of Joint Hetch Hetchy Enterprise projects.

The SFPUC will continue to charge Wholesale Customers for assets acquired or constructed with proceeds of Indebtedness on which Wholesale Customers paid Debt Service during the Term of the Agreement on the "cash" basis (as opposed to the "utility" basis) after the expiration or earlier termination of the Agreement.

Rate Adjustments

Adjustments to the rates applicable to the Wholesale Customers, other than emergency rate increases and drought rate increases, shall be coordinated with the budget development process described in the Agreement.

The Commission may adjust the Wholesale Customers' rates in response to an Emergency that damages the Regional Water System and disrupts San Francisco's ability to maintain normal deliveries of water to Retail and Wholesale Customers. In such an Emergency, the Commission may adopt an emergency rate surcharge applicable to Wholesale Customers without following the budgeting procedures set forth in the Agreement, provided that any such rates surcharge imposed by the Commission shall be applicable to both Retail and Wholesale Customers and incorporate the same percentage increase for all customers. Any emergency rate surcharge adopted by the Commission shall remain in effect only until the next-budget coordinated rate-setting cycle.

If the Commission declares a water shortage emergency under Water Code Section 350, implements the Tier 1 Shortage Plan and imposes drought rates on Retail Customers, it may concurrently adjust wholesale rates independently of coordination with the annual budget process. Those adjustments may be designed to encourage water conservation and may constitute changes to the structure of the rates. Drought Rate payments and payments of excess use charges levied in accordance with the Tier 1 Shortage Plan constitute Wholesale Customer Revenue and count towards the Wholesale Revenue Requirement. The SFPUC may use these revenues to purchase additional water for the Wholesale Customers from the State Drought Water Bank or other willing seller.

Rate Structure

The Agreement is not intended and shall not be construed to limit the Commission's right (a) to adjust the structure of the rate schedule applicable to the Wholesale Customers (i.e., the relationship among the several charges set out therein) or (b) to add, delete, or change the various charges which make up the rate schedule, provided that neither such charges nor the structure of the rate schedule(s) applicable to the Wholesale Customers shall be arbitrary, unreasonable, or unjustly discriminatory as among said customers. The SFPUC will give careful consideration to proposals for changes in the rate schedule made jointly by the Wholesale Customers but, subject to the limitations set out above, shall retain the sole and exclusive right to determine the structure of the rate schedule.

The SFPUC may recommend, and the Commission may adopt, changes in the structure of wholesale rates at any time. However, the new rate schedule implementing these changes will become effective at the beginning of the following fiscal year.

Balancing Account

After the close of each fiscal year, the SFPUC will compute the costs allocable to the Wholesale Customers for that fiscal year based on actual costs incurred by the SFPUC and actual amounts of water used by the Wholesale Customers and the Retail Customers. That amount will be compared to the amounts billed to the Wholesale Customers for that fiscal year (including any Excess Use Charges, but excluding revenues not credited to the Wholesale Revenue Requirement). The difference will be posted to a "balancing account" as a credit to, or charge against, the Wholesale Customers. Interest shall also be posted to the balancing account calculated by multiplying the amount of the opening balance by the average net interest rate, certified by the Controller as earned in the San Francisco Treasury for the previous fiscal year on the San Francisco County Pooled Investment Account. Interest, when posted, will carry the same mathematical sign (whether positive or negative) as carried by the opening balance. The amount posted to the balancing account in each year shall be added to, or subtracted from, the balance in the account from previous years.

If the amount in the balancing account is owed to the Wholesale Customers (a positive balance), the SFPUC shall take it into consideration in establishing wholesale rates. However, the SFPUC need not apply the entire amount to reduce wholesale rates for the immediately ensuing year. Instead, the SFPUC may prorate a positive ending balance over a period of up to three successive years in order to avoid fluctuating decreases and increases in wholesale rates.

If the amount in the balancing account is owed to the SFPUC (a negative balance), the SFPUC shall not be obligated to apply all or any part of the negative balance in establishing wholesale rates for the immediately ensuing year. Instead, the SFPUC may prorate the negative balance in whole or in part over multiple years in order to avoid fluctuating increases and decreases in wholesale rates. As of June 30, 2014, the amount of the credit due to the Wholesale Customers for the balancing account was \$27,033,814.

Wholesale Revenue Coverage Reserve

The SFPUC may include in wholesale rates for any fiscal year an additional dollar amount ("Wholesale Revenue Coverage"), which for any fiscal year shall equal the following:

1. The lesser of (i) 25% of the Wholesale Customers' share of Net Annual Debt Service for that fiscal year, or (ii) the amount necessary to meet the Wholesale Customers' proportionate share of Debt Service coverage required by then-current Indebtedness for that fiscal year, minus

2. A credit for (i) the actual amount previously deposited in the “Wholesale Revenue Coverage Reserve,” (ii) accrued interest on the amounts on deposit in the Wholesale Revenue Coverage Reserve, and (iii) an amount equal to any additional interest that would have accrued on the actual amounts previously deposited in the Wholesale Revenue Coverage Reserve assuming no withdrawals had been made therefrom.

During each fiscal year, the SFPUC will set aside and deposit that portion of revenue equal to Wholesale Revenue Coverage into a separate account that the SFPUC will establish and maintain, to be known as the “Wholesale Revenue Coverage Reserve.” Deposits into the Wholesale Revenue Coverage Reserve shall be made no less frequently than monthly. The Wholesale Revenue Coverage Reserve shall be credited with interest. The SFPUC may use amounts in the Wholesale Revenue Coverage Reserve for any lawful purpose. Any balance in the Wholesale Revenue Coverage Reserve in excess of the Wholesale Revenue Coverage amount as of the end of any fiscal year shall be applied as a credit against wholesale rates in the immediately following fiscal year unless otherwise directed by BAWSCA.

Conditions in the municipal bond market may change from those prevailing in 2009. If, prior to expiration of the Term, the SFPUC determines that it would be in the best financial interest of both Retail Customers and Wholesale Customers of the Regional Water System for the Debt Service coverage requirement to be increased in one or more series of proposed new Indebtedness above 1.25%, or for the coverage covenant to be strengthened in other ways, it will provide a written report to BAWSCA. The report will contain (1) a description of proposed covenant(s) in the bond indenture; (2) an explanation of how savings are expected to be achieved (e.g., increase in the SFPUC’s credit rating over the then-current level; ability to obtain credit enhancement, etc.); (3) the estimated all-in true interest cost savings; (4) a comparison of the Wholesale Revenue Requirements using the Debt Service coverage limitation and under the proposed methodology; and (5) a comparison of the respective monetary benefits expected to be received by both Retail and Wholesale Customers. The SFPUC and BAWSCA agree to meet and confer in good faith about the proposed changes.

Any increase in Debt Service coverage proposed by the SFPUC shall be commensurate with Proportional Water Use by Retail and Wholesale Customers. If the SFPUC demonstrates that an increase in Debt Service coverage will result in equivalent percentage reductions in total Wholesale and Retail Debt Service payments over the life of the proposed new Indebtedness, based on Proportional Water Use, BAWSCA may agree to a modification of the Wholesale Revenue Coverage requirement. If BAWSCA does not agree to a proposed modification in coverage requirements in the covenants for new Indebtedness, SFPUC may nevertheless proceed with the modification and the issuance of new Indebtedness. Any Wholesale Customer, or BAWSCA, may challenge an increase in the Wholesale Revenue Requirement resulting from the modification in Debt Service coverage through arbitration. If the arbitrator finds that the increase in Debt Service coverage (1) did not and will not result in equivalent percentage reductions in total Wholesale and Retail Debt Service payments over the life of the proposed new Indebtedness, based on Proportional Water Use, or (2) was not commensurate with Proportional Water Use, the arbitrator may order the Wholesale Revenue Requirement to be recalculated both retrospectively and prospectively to eliminate the differential impact to Wholesale or Retail Customers.

Working Capital Requirement

The SFPUC maintains working capital in the form of unappropriated reserves for the purpose of bridging the gap between when the SFPUC incurs operating expenses required to provide service and when it receives revenues from its Retail and Wholesale Customers. The Wholesale Customers shall fund their share of working capital as part of the annual Wholesale Revenue Requirement calculation. The amount of wholesale working capital for which the Wholesale Customers will be responsible will be determined using the 60-day standard formula approach.

Applying this approach, annual wholesale working capital equals one-sixth of the wholesale allocation of operation and maintenance, administrative and general, and property tax expenses for the Water and Hetch Hetchy Enterprises. Wholesale working capital shall be calculated separately for the Water and Hetch Hetchy Enterprises.

Wholesale Capital Fund

The SFPUC shall establish a comparable Wholesale Revenue-Funded Capital Fund (Wholesale Capital Fund) to enable the Wholesale Customers to fund the wholesale share of revenue-funded New Regional Assets. The SFPUC may include in wholesale rates for any fiscal year an amount equal to the wholesale share of the SFPUC's appropriation for revenue funded New Regional Assets for that year, which sum will be credited to the Wholesale Capital Fund. The wholesale share of other sources of funding, where legally permitted and appropriately accounted for under GAAP, will also be credited to the Wholesale Capital Fund, together with interest earnings on the Wholesale Capital Fund balance.

The SFPUC will expend revenues appropriated and transferred to the Wholesale Capital Fund only on New Regional Assets.

In order to prevent the accumulation of an excessive unexpended and unencumbered surplus in the Wholesale Capital Fund, any excess fund balance (i.e., an accumulated unexpended, unencumbered amount in excess of 10% of the wholesale share of total capital appropriations for New Regional Assets during the five preceding years) will be transferred for the credit of the Wholesale Customers to the Balancing Account.

Arbitration and Judicial Review

All questions or disputes arising under the following subject areas shall be subject to mandatory, binding arbitration and shall not be subject to judicial determination:

1. the determination of the Wholesale Revenue Requirement, which shall include both the calculations used in the determination and the variables used in those calculations;
2. the SFPUC's adherence to accounting practices and conduct of the compliance audit; and
3. the SFPUC's classification of new assets for purposes of determining the Wholesale Revenue Requirement.

All other questions or disputes arising under this Agreement shall be subject to judicial determination. Disputes about the scope of arbitrability shall be resolved by the courts.

Preservation of Water Rights; Notice of Water Rights Proceedings

It is the intention of San Francisco to preserve all of its water rights, irrespective of whether the water held under such water rights is allocated under the Agreement. Nothing in the Agreement shall be construed as an abandonment, or evidence of an intent to abandon, any of the water rights that San Francisco presently possesses.

Reservations of, and Limitations on, Claims

The 1984 Agreement resolved a civil action brought against San Francisco by certain of the Wholesale Customers. Plaintiffs in that action contended that they, and other Wholesale Customers that are municipalities or special districts, were "co-grantees" within the meaning of Section 8 of the Act and were entitled to certain rights, benefits and privileges by virtue of that status. San Francisco disputed those claims.

Nothing in the Agreement, or in the Individual Water Sales Contracts, shall be construed or interpreted in any way to affect the ultimate resolution of the controversy between the Parties concerning whether any of the Wholesale Customers are "co-grantees" under the Act and, if so, what rights, benefits and privileges accrue to them by reason of that claimed status.

The following claims, which San Francisco disputes, are reserved but may not be asserted during the Term (or portions thereof, as indicated):

1. The Wholesale Customers' claim that the Act entitles them to water at cost.

2. The Wholesale Customers' claim that San Francisco is obligated under the Act or state law to supply them with additional water in excess of the Supply Assurance. This claim may not be asserted unless and until San Francisco decides not to meet projected water demands of Wholesale Customers in excess of the Supply Assurance.
3. The claim by San Jose and Santa Clara that they are entitled under the Act, or any other federal or state law, to permanent, non-interruptible status and to be charged rates identical to those charged other Wholesale Customers. This claim may not be asserted unless and until San Francisco notifies San Jose or Santa Clara that it intends to interrupt or terminate water deliveries.
4. The Wholesale Customers' claim that the SFPUC is not entitled to impose a surcharge for lost power generation revenues attributable to furnishing water in excess of the Supply Assurance. This claim may not be asserted unless and until SFPUC furnishes water in excess of the Supply Assurance during the Term and also includes such a surcharge in the price of such water.
5. Claims by Wholesale Customers (other than San Jose and Santa Clara, whose service areas are fixed) that SFPUC is obligated under the Act or state law to furnish water, within their Individual Supply Guarantee, for delivery to customers outside their existing service area and that Wholesale Customers are entitled to enlarge their service areas to supply those customers. Such claims may be asserted only after SFPUC's denial of, or failure for six months to act on, a written request by a Wholesale Customer to expand its service area.

The Wholesale Customers (and the SFPUC, where specified) will refrain from the following activities during the Term (or portions thereof, as specified):

1. The Wholesale Customers and the SFPUC will not contend before any court, administrative agency or legislative body or committee that the methodology for determining the Wholesale Revenue Requirement (or the requirements for (a) amortization of the ending balance under the 1984 Agreement, or (b) contribution to the Wholesale Revenue Coverage) determined in accordance with the Agreement violates the Act or any other provision of federal law, state law, or San Francisco's City Charter, or is unfair, unreasonable or unlawful.
2. The Wholesale Customers will not challenge the transfer of funds by the SFPUC to any other San Francisco City department or fund, provided such transfer complies with the San Francisco City Charter. The transfer of its funds, whether or not permitted by the City Charter, will not excuse the SFPUC from its failure to perform any obligation imposed by the Agreement.
3. The Wholesale Customers and the SFPUC will not assert monetary claims against one another based on the 1984 Agreement other than otherwise arbitral claims arising from the three fiscal years immediately preceding the start of the Term (i.e., Fiscal Years 2006-07, 2007-08 and 2008-09).

The Wholesale Customers do not, by executing the Agreement, concede the legality of the SFPUC's establishing Interim Supply Allocations or imposing Environmental Enhancement Surcharges on water use in excess of such allocations. Any Wholesale Customer may challenge such allocation when imposed and/or such surcharges if and when levied, in any court of competent jurisdiction.

The furnishing of water in excess of the Supply Assurance by San Francisco to the Wholesale Customers shall not be deemed or construed to be a waiver by San Francisco of its claim that it has no obligation under any provision of law to supply such water to the Wholesale Customers, nor shall it constitute a dedication by San Francisco to the Wholesale Customers of such water.

Prohibition of Assignment

The Agreement shall be binding on, and shall inure to the benefit of, the Wholesale Customers and San Francisco, and their respective successors and permitted assigns. Each Wholesale Customer agrees that it will not

transfer or assign any rights or privileges under the Agreement, either in whole or in part, or make any transfer of all or any part of its water system or allow the use thereof in any manner whereby any provision of the Agreement will not continue to be binding on it, its assignee or transferee, or such use of the system. Any assignment or transfer in violation of this covenant, and any assignment or transfer that would result in the supply of water in violation of the Act, shall be void.

Nothing shall prevent any Wholesale Customer (except the California Water Service Company and Stanford) from entering into a joint powers agreement or a municipal or multi-party water district with any other Wholesale Customer (except the two listed above) to exercise the rights and obligations granted to and imposed upon the Wholesale Customers hereunder, nor shall this section prevent any Wholesale Customer (except the two listed above) from succeeding to the rights and obligations of another Wholesale Customer hereunder as long as the Wholesale Service Area served by the Wholesale Customers involved in the succession is not thereby enlarged.

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APPENDIX D

WATER SYSTEM IMPROVEMENT PROGRAM

Program Development and Chronology

The SFPUC began development of the Capital Improvement Program (“CIP”) in the late 1990s through a series of studies, reports, and authorizations. The SFPUC initiated a water supply planning effort that culminated in the Water Supply Master Plan, issued in April 2000. Concurrent with the Water Supply Master Plan efforts, reliability studies of the water system facilities were conducted to assess their vulnerability to earthquakes, landslides, fire, flood, and power outages.

On May 28, 2002, the Commission approved the *Long-Term Strategic Plan for Capital Improvements*, the *Long-Range Financial Plan* and the *Capital Improvement Program and Appendices* (Resolution No. 02-0101). These reports establish the original framework of the SFPUC CIP.

On November 5, 2002, San Francisco residents voted to approve Proposition A, a \$1.628 billion revenue bond measure to fund the CIP and undertake the most extensive upgrade of the local and regional water delivery systems in the City’s history. The original program contained a total of seventy-seven water infrastructure projects designed to replace or repair key facilities, improve the system’s seismic robustness, enhance water quality, and improve water supply reliability.

On November 5, 2002 the voters also approved Proposition E, which authorizes the SFPUC, subject to the referendum process, to issue revenue bonds, notes and other forms of indebtedness when authorized by ordinance approved by a two-thirds vote of the Board of Supervisors, for the purpose of reconstructing, replacing, expanding, preparing or improving water facilities or wastewater facilities or combinations of water and wastewater facilities under the jurisdiction of the SFPUC. Board action to authorize or issue bonds under this provision is subject to certain additional conditions, requiring certification by an independent engineer and certification by the San Francisco Planning Department. Proposition E also established the Public Utilities Rate Fairness Board.

In August 2003, the SFPUC submitted its first annual status report and update to the State on the implementation of the CIP as required by State Assembly Bill 1823, Wholesale Regional Water System Security and Reliability Act (“AB 1823”). The status report documented the changes made to the May 2002 version of the CIP. Pursuant to the reporting requirements of AB 1823, annual reports describing the progress made on the implementation of the program have been submitted to the State on or before September 1 of each year.

In October 2004, the SFPUC General Manager ordered a thorough review of the CIP with a focus on ensuring system-wide integration of the projects within the program. This undertaking resulted in the development of program-specific goals and objectives, the refinement of project scopes and renaming of the CIP to the WSIP. The scope, schedule, and budget of the program were refined based on the newly adopted goals and objectives.

In February 2005, the SFPUC published its refined program, entitled *Water System Improvement Program Prepared for the Programmatic Environmental Impact Report*, which documented the Levels of Services (“LOS”) goals used to define the WSIP for the Program Environmental Impact Report (the “PEIR”). The February 2005 program description presented water system improvements recommended to meet LOS goals for water quality, seismic and delivery reliability, and water supply.

In August 2005, the SFPUC retained the services of Parsons Water & Infrastructure (“Parsons”) with CH2M Hill as a major sub-consultant to provide program, project, and preconstruction management services on the WSIP. The consultant team’s first assignment was to review the program for adequacy in meeting LOS goals; determine whether any additional projects were needed to fulfill the goals; and review individual project scopes, budgets, and schedule requirements. Parsons and CH2M Hill provided the results of their assessment and their recommendations in the *Water System Improvement Program Assessment Report* (“Assessment”), published on October 21, 2005. The Assessment supported and confirmed that the overall program met the established LOS goals, and the necessity and scope of individual projects in the WSIP. The Assessment also identified some specific recommendations for changes in the overall program and individual projects.

In addition to this independent review, a Seismic Safety Task Force was convened to provide guidance on the seismic design requirements of the program. This group, comprised of five experts in the fields of structural and seismic engineering, was tasked to assess potential system vulnerabilities and propose seismic design criteria for WSIP projects.

The revised program and the recommendations, upon which SFPUC management, staff, the Assessment Team, Bay Area Water Stewards and BAWSCA agreed, were adopted by the Commission on November 29, 2005. The revised program is described in the *Water System Improvement Program* (SFPUC, January 2006). The refined scopes, schedules, and budgets documented in that report are considered the “Original or Baseline Scopes, Schedules and Budget” for the WSIP, and are referred to as the “December 2005 Approved Scopes, Schedules and Budget.”

On January 19, 2006, pursuant to the reporting requirements of AB 1823, the SFPUC submitted a change notice report, *AB1823: Notice of Changes to Water System Improvement Program (“Change Notice”)* (SFPUC, January 2006), to the State, along with the January 2006 program description document. This Change Notice described in detail changes between the program adopted in November 2005 and the previously adopted program in May 2002, including development of the LOS goals and subsequent project descriptions. The report was amended to respond to questions from the California Seismic Safety Commission and resubmitted to the State on March 8, 2006.

As projects developed during 2006 and 2007, more information became available about project design details, environmental compliance and permitting needs, right-of-way challenges, and facility shutdown and construction sequencing requirements. In 2007, the WSIP Management Team (the “WSIP Team”) initiated a number of initiatives to assess various conditions and aspects of the WSIP that may impact the SFPUC’s ability to deliver the program as planned. These comprehensive programmatic efforts, which included a WSIP Risk Assessment and a WSIP Re-alignment Initiative, resulted in the formulation of a comprehensive risk management strategy and the identification of project scope, schedule and budget adjustments necessary to best deliver the program while continuing to meet all underlying WSIP LOS goals.

On July 28, 2009, in compliance with AB 1823 and AB 2437, the Commission adopted the June 2009 Revised WSIP, which established new approved scopes, schedules and budgets for the program. This is referred to herein as the “June 2009 Approved Scopes, Schedules and Budget.” The variance between these two budgets is summarized in the “*Program Budget*” section of this document. This report described in detail the schedule and major scope changes made to the previously adopted program (i.e., program approved by the Commission on February 20, 2008 and described in the AB 1823 Change Notice report dated March 31, 2008). The September 1, 2009 Change Notice Report included the latest regional project schedules (June 2009 Approved Schedules) and regional project descriptions (June 2009 Approved Scopes) approved for the WSIP.

On July 12, 2011, in compliance with AB 1823 and AB 2437, the Commission adopted the June 2011 Revised WSIP, which established scope, schedule and budget revisions for the program. This is referred to herein as the “June 2011 Approved Scopes, Schedules and Budget.” The September 1, 2011 Change Notice Report included the latest regional project schedules and regional project descriptions (June 2011 Approved Scopes) approved for the WSIP.

On June 12, 2012, the Commission adopted budget and schedule changes for three individual WSIP projects: New Irvington Tunnel, Bay Division Pipeline (BDPL) Reliability Upgrade – Pipeline, and Pulgas Balancing – Modification of the Existing Dechloramination Facility. A Change Notice Report documenting these project-specific revisions was submitted to the State on July 12, 2012.

On October 9, 2012, the Commission approved budget changes for four individual WSIP projects: San Joaquin Pipeline (SJPL) System, Tesla Treatment Facility, Vegetation Restoration of WSIP Construction Sites and Program Management.

On January 22, 2013, the Commission approved budget and schedule changes for one individual project: Calaveras Dam Replacement. A Change Notice Report documenting these project-specific revisions was submitted to the State on February 20, 2013.

On April 23, 2013, in compliance with AB 1823 and AB 2437, the Commission adopted the March 2013 Revised WSIP, which established scope, schedule and budget revisions for the program. This is referred to herein as the “March Approved Scopes, Schedules and Budget.” The June 28, 2013 Change Notice Report included the latest approved program-wide revisions.

On April 22, 2014, in compliance with AB 1823, the Commission adopted revisions to the WSIP project scopes, schedules and budgets which were last approved in 2013.

On June 20, 2014, the SFPUC submitted its latest AB 1823: Notice of Changes to Water System Improvement Program Report to the State. This report describes in detail the schedule and major scope changes made to the previously adopted program (i.e., program approved by the Commission on April 23, 2013). The June 20, 2014 Change Notice Report includes the latest regional project schedules (March 2014 Approved Schedules) and regional project descriptions (March 2014 Approved Scopes) approved for the WSIP. Since AB 1823 does not require the reporting of budget changes, updated budget figures were not included in any of the Notice of Changes reports submitted to the State.

The March 2014 Revised WSIP enacted a limited number of changes from the March 2013 WSIP, which include modification of the scope of five projects: (Alameda Creek Recapture Project; Calaveras Dam Replacement Project; New Irvington Tunnel Project; BDPL Reliability Upgrade - Tunnel Project; and Bioregional Habitat Restoration, and the extension of the overall program completion date from April 2019 to May 2019, excluding approximately \$281 million of local water supply projects funded from WSIP funds but no longer included in WSIP, which have anticipated completion dates after May 2019.

Program Objectives

The WSIP is based on two fundamental principles - a clean, unfiltered water source and a gravity-driven system. Projects within the WSIP are developed based on these principles as well as key policies of the SFPUC, including sustainability and environmental stewardship.

The following program objectives were defined for the program:

- Furnish system improvements to provide high quality water that reliably meets current and foreseeable local, State, and federal requirements.
- Reduce vulnerability of the water system to damage from earthquakes.
- Increase reliability of the system to deliver water by improving redundancy needed to accommodate planned outages for maintenance and unplanned outages resulting from facility failure.
- Provide near-term improvement of water supply/drought protection.
- Set forth long-term water supply/drought management options for technical evaluation, cost analysis, and environmental review.
- Enhance sustainability through improvements that optimize protection of the natural and human environment.
- Provide improvements resulting in a cost-effective fully operational water system.

Levels of Service Goals

In order to address the program objectives and consequently derive design criteria and develop project-specific scopes for the program, the SFPUC provided direction on Levels of Service (“LOS”) goals for water quality, seismic reliability, delivery reliability, and water supply, listed in order of priority. These LOS goals were developed to provide a quantifiable means of setting project-specific design criteria and project scopes for addressing the program objectives. The LOS goals for the program are summarized below:

I. Water Quality (maintain high water quality)

- Design improvements to meet current and foreseeable future federal and State water quality requirements.
- Provide clean, unfiltered water originating from Hetch Hetchy Reservoir and filtered water from local watersheds.
- Continue to implement watershed protection measures.

II. Seismic Reliability (reduce vulnerability to earthquakes)

- Design improvements to meet current seismic standards.
- Deliver basic service to the three regions in the service area (East/South Bay, Peninsula, and San Francisco) within 24 hours after a major earthquake. Basic service is defined as average winter-month usage, and the performance objective for design of the Regional Water System is 229 mgd. The performance objective is to provide delivery to at least 70 percent of the turnouts in each region, with 104, 44, and 81 mgd delivered to the East/South Bay, Peninsula, and San Francisco, respectively.
- Restore facilities to meet average-day demand of up to 300 mgd within thirty (30) days after a major earthquake.

III. Delivery Reliability (increase delivery reliability and improve ability to maintain the system)

- Provide operational flexibility to allow planned maintenance shutdown of individual facilities without interrupting customer service.
- Provide operational flexibility to minimize the risk of service interruption due to unplanned facility upsets or outages.
- Provide operational flexibility and system capacity to replenish local reservoirs as needed.
- Meet the estimated average annual demand of up to 300 mgd under the conditions of one planned shutdown of a major facility for maintenance concurrent with one unplanned facility outage due to a natural disaster, emergency or facility failure/upset.

IV. Water Supply (meet customer water needs in non-drought and drought periods)

- Meet average annual water demand of 265 mgd from the SFPUC watersheds for retail and wholesale customers during non-drought years for system demands through 2018.
- Meet dry-year delivery needs through 2018 while limiting rationing to a maximum 20 percent system-wide reduction in water service during extended droughts.
- Diversify water supply options during non-drought and drought periods.
- Improve use of new water sources and drought management, including groundwater, recycled water, conservation and transfers.

V. Sustainability (enhance sustainability in all system activities)

- Manage natural resources and physical systems to protect watershed ecosystems.

- Meet, at a minimum, all current and anticipated legal requirements for protection of fish and wildlife habitat.
- Manage natural resources and physical systems to protect public health and safety.

VI. *Cost-effectiveness (achieve a cost-effective, fully operational system)*

- Ensure cost-effective use of funds.
- Maintain gravity-driven system.
- Implement regular inspection and maintenance program for all facilities.

The first four goals, Water Quality, Seismic Reliability, Delivery Reliability, and Water Supply are used to determine project design criteria. The last two goals, Sustainability and Cost-Effectiveness, are overarching program goals that are not applied to specific criteria at the project level and thus are only infrequently described in project and program documents.

Management Approach

The implementation of the WSIP is led by SFPUC staff in the Infrastructure Division of the SFPUC. The delivery of the program is ultimately the responsibility of the SFPUC General Manager and the SFPUC Assistant General Manager – Infrastructure. Day to day management responsibility is under the direction of the WSIP Director, who reports to the SFPUC Assistant General Manager - Infrastructure.

Consultants, however, play a key role in the implementation of the program. Consultants support the WSIP Team on a number of programmatic functions such as strategic program development, risk assessment and mitigation, program controls, various independent technical reviews, construction planning and management, supplier quality surveillance and labor and community relations. The services of consultants are also used on an as-needed or project-specific basis to assist SFPUC staff with functions such as engineering design, environmental review, right-of-way engineering and surveying, and construction management.

The WSIP is divided into two major phases – pre-construction and construction. The Pre-Construction Deputy Director is responsible for overseeing the program through the bid and award phase, which includes all planning, design, environmental review, right-of-way and bidding activities. The Construction Deputy Director is responsible for the program during the construction phase, project close-out phase and for some activities during the design and bid and award phases (e.g., constructability reviews and preparation of contract specifications).

The implementation of the program is managed at three different levels – program, regional and project levels. Specific decision-making authorities are designated for each level. At the program level, the Program Director manages and directs all aspects of the implementation and delivery of the WSIP, including strategic direction of the program, policy, systems and procedures to support execution. At the regional level, Regional Project Managers manage the delivery of all projects assigned to a region during all project phases. At the project level, the Project Manager oversees the delivery of a project through all phases up to the bid and award phase and the Project Construction Manager oversees delivery during the construction and close-out phases.

The management approach during construction is thoroughly documented in the WSIP Construction Management Plan. The latest version of the Construction Management Plan and the Safety Approach associated with the plan, as well as other important information on the WSIP Construction Management (“CM”) Program is available on the SFPUC Website.

Program Scope

The WSIP presently includes a total of 83 projects (excluding five Water Supply Projects), which vary in size from a few million dollars to over \$700 million. The projects are divided into two sub-programs – Local and Regional.

The Local Program includes the remaining 35 projects (excluding 5 Water Supply Projects) that are located within the city limits of San Francisco and only benefit city residents. (As of July 1, 2011, management and implementation of the Water Supply Projects were transferred from the WSIP Local Program to the Water Enterprise Capital Improvement Program.) These projects, which are typically smaller in size, include improvements to existing in-City distribution pipelines, storage reservoirs/tanks, pump stations, and miscellaneous facilities. They are referred to as “Local Projects” and they are reported in Table D-1 below as part of the project category titled “San Francisco Local Projects.” The cost of the Local Projects is absorbed in the retail rates of San Francisco customers. Under the WSIP, recycled water projects and some groundwater projects will be classified as Local Projects for rate setting purposes. See “FUTURE WATER DEMAND AND SUPPLY – Water Supply Initiatives.”

The Regional Program includes the remaining 48 projects that benefit both San Francisco residents and the 27 Wholesale Customers. These projects, which are typically much larger and located mostly outside San Francisco limits, are referred to as “Regional Projects.” They include a wide variety of improvements such as upgrades to and the addition of new treatment, transmission (pipelines, tunnels, pump stations), and storage (dams and reservoirs) facilities spread over seven different counties (Tuolumne, Stanislaus, San Joaquin, Alameda, Santa Clara, San Mateo, and San Francisco). The cost of the Regional Projects is incorporated in the rates paid by both Retail Customers and Wholesale Customers.

The WSIP is further divided into the following categories of projects:

San Francisco Local Projects. The WSIP includes 35 local projects that will enhance the reliability of the In-City Distribution System by replacing aging and seismically vulnerable infrastructures, and will diversify the SFPUC’s water supply portfolio. Local projects include improvements to existing and construction of new reservoirs, tanks, pump stations, pipelines and water supply infrastructure.

San Joaquin Regional Projects. These projects are designed to improve water delivery reliability by augmenting three existing transmission pipelines that transmit the Hetch Hetchy water supply across the San Joaquin Valley, and enhance water quality by building the Tesla Disinfection Facility, a new advanced disinfection/treatment facility for the SFPUC’s largest source of supply.

Sunol Valley Regional Projects. The projects within this region are designed to address delivery and seismic vulnerabilities associated with the delivery of Hetch Hetchy water through the Sunol Valley and water originating from the Alameda Watershed. Projects include the construction of a new Calaveras Dam, a fourth Alameda Siphon, a new Irvington Tunnel and other connecting large-diameter pipelines, as well as upgrades to the existing Sunol Valley Water Treatment Plant and San Antonio Pump Station. All of these facilities are within or in close proximity to the Calaveras Fault influence zone.

Bay Division Regional Projects. The projects within this region address the seismic vulnerability of the four Bay Division Pipelines, which transmit the blend of Hetch Hetchy and Sunol Valley water across the San Francisco Bay to the Peninsula and serve a large number of Wholesale Customers. The projects in this region address the crossing of the Hayward Fault and system vulnerability associated with the close proximity of the San Andreas Fault; and add system redundancy and operational flexibility.

Peninsula Regional Projects. The projects within this region are generally designed to address facility seismic vulnerabilities, and meet water quality and delivery goals for the Crystal Springs, San Andreas and Pilarcitos Reservoirs. Projects include the construction of a new Crystal Springs Bypass Tunnel and large-diameter pipelines, as well as upgrades to the existing Harry Tracy Water Treatment Plant, the Pulgas Balancing Reservoir, and the Lower Crystal Springs Dam. All these facilities are located within the San Andreas Fault influence zone.

San Francisco Regional Projects. The projects within this region include the seismic retrofit of the Sunset and University Mound Terminal Reservoirs, and a groundwater storage and

recovery project. The two reservoir projects are located within the City but can be used to supply water back to the Northern Peninsula, which can benefit the Wholesale Customers. The groundwater project includes improvements in both San Mateo and San Francisco counties.

Support Projects (formally System Wide Region). In July 2011, the System Wide Region was re-named as Support Projects. These projects include (1) system security upgrades, which involves the development and integration of security components at critical water system facilities, (2) the PEIR, which was prepared in compliance with CEQA to identify and analyze potential programmatic environmental impacts of the proposed system improvements, (3) the Watershed Environmental Improvement Program, which consists of conservation easements and/or fee title purchase of property from willing landowners to permanently protect Alameda Creek Watershed lands, (4) the Bioregional Habitat Restoration project (formerly Habitat Reserve Program), which is intended to provide a coordinated and consolidated approach to compensate for habitat impacts that would result from the implementation of the WSIP projects in the San Joaquin, Sunol Valley, Bay Division and Peninsula Regions of the Regional Water System, (5) Vegetation Restoration of WSIP Construction Sites, which was added to the Program in March 2014 to provide maintenance, monitoring and reporting of onsite habitat restoration installed at the various WSIP construction sites, and (6) Regional Program management.

The latest program scope, the March 2014 scope, was approved by the Commission on April 22, 2014, and is documented in the *AB 1823: Notice of Changes to Water System Improvement Program Report* submitted to the State on June 20, 2014.

2005 , 2007 , 2009 , 2011 , 2013 and 2014 WSIP Program Schedules and Budgets

The project schedules and budgets first developed when an infrastructure program is created are based on the limited information available at the time. Costs and schedule contingencies are typically added to account for the various levels of certainty and unforeseen circumstances. As projects become better defined through the planning, environmental and design phases, new information becomes available that allows for refinement of project schedules and budgets. It is therefore typical for large infrastructure programs like the WSIP to adopt revised schedules and budgets as part of program implementation.

In the case of the WSIP, major schedule and cost revisions were approved by the Commission in the December 2005 Approved Scopes, Schedules and Budget; the December 2007 Approved Scopes, Schedules and Budget; the June 2009 Approved Scopes, Schedules and Budget, the June 21011 Approved Scopes, Schedules and Budget; the March 2013 Approved Scopes, Schedules and Budget; and the March 2014 Approved Scopes, Schedules, and Budget. The SFPUC also updates projections of each WSIP's project's completion date and cost at completion on a monthly basis. These projections are published every three months in the WSIP Quarterly Reports, available on the SFPUC Website.

Program Schedule. The overall program completion date adopted as part of the Approved December 2005 Schedule was June 2014. That schedule was based on the extent of project and program definition available at the time. The last project to be completed under that Original Schedule was the San Joaquin Pipeline ("SJPL") System Project. That WSIP completion date was pushed back six months to December 2014 when the December 2007 Approved Scopes, Schedules, and Budget was adopted by the Commission. In this case, the program's completion date was affected by the Seismic Improvements of Bay Division Pipelines Nos. 3 & 4 Project. The WSIP completion date was pushed back twelve months to December 2015 when the June 2009 Approved Scopes, Schedules, and Budget was adopted by the Commission on July 28, 2009. In this case, the program's completion date was affected by the Calaveras Dam Replacement Project. In July 2011, the Commission approved to extend WSIP's completion date to July 2016.

The additional eight months forecasted in the program's overall completion date was due to the Calaveras Dam Replacement Project, which was forecasted to be the last project to be completed.

The WSIP completion date was pushed back thirty-two months to April 2019 when the March 2013 Approved Scopes, Schedules, and Budget was adopted by the Commission in April 2013. This was mainly due to the extension of the project schedule for the Alameda Creek Recapture Project.

Finally, the last revision to program schedule and budget was approved in April 2014. The overall program completion date adopted as a part of the March 2014 Revised WSIP is May 2019, which represents a 1-month extension to the last schedule approved by the Commission as part of the March 2013 Program. In this case, the program's completion date was affected by the Calaveras Dam Replacement Project.

2014 Program Budget, Budget Comparisons and Spending Summary. The following table summarizes the Approved Budgets for the December 2005 WSIP, the December 2007 Revised WSIP, the June 2009 Revised WSIP, and the July 2011 Revised WSIP, the June 2011 Approved Scopes, Schedules and Budget; the March 2013 Approved Scopes, Schedule and Budget; the March 2013 Revised WSIP and the March 2014 Revised WSIP all of which were approved by the Commission.

TABLE D-1
2014 WSIP BUDGET AND PROJECTED COSTS
(IN MILLIONS)

Project Category	Dec-05 Approved Budget ⁽¹⁾	Dec-07 Approved Budget ⁽²⁾	Jun-09 Approved Budget ⁽³⁾	Jun-11 Approved Budget ⁽⁶⁾	Mar-13 Approved Budget ⁽⁷⁾	Mar-14 Approved Budget ⁽⁸⁾
San Joaquin Regional Projects	\$ 559.3	\$ 486.2	\$ 430.1	\$ 337	\$ 349	\$ 347
Sunol Valley Regional Projects	870.9	957.8	1,054.0	1,063	1,263	1,374
Bay Division Regional Projects	749.7	796.2	785.1	706	665	666
Peninsula Regional Projects	700.5	712.4	894.8	774	808	809
San Francisco Regional Projects	164.9	138.2	160.3	194	208	221
San Francisco Local Projects	383.2	383.2	599.8	642	620	619
Water Supply Projects ⁽⁴⁾	280.6	265	0	0	0	0
Support Projects	81.4	190.8	189.8	254	255	257
Program Reserve	0	0	0	144	0	0
Net Financing ⁽⁵⁾	552.4	462.4	471.7	472	472	472
Program Total[†]	\$4,342.3	\$4,392.1	\$4,585.6	\$4,586	\$4,640	\$4,765

† Totals may not add due to independent rounding.

(1) The Commission approved what is referred to as the “December 2005 Approved Budget” on November 29, 2005. This is also referred to in publicly available materials as the “Baseline Budget.”

(2) The Commission approved what is referred to as the “December 2007 Approved Budget” on February 18, 2008.

(3) The Commission approved what is referred to as the “June 2009 Approved Budget” on July 28, 2009. This is also referred to in publicly available materials as the “Approved Budget.”

(4) Water Supply projects were transferred to the San Francisco Regional and San Francisco Local categories as part of the June 2009 Approved Scopes, Schedules and Budget.

(5) Does not include \$107 million of realized bond premium to date.

(6) The Commission approved what is referred to as the “July 2011 Approved Budget” in June 2011.

(7) The Commission approved what is referred to as the “March 2013 Approved Budget” in April 2013.

(8) The Commission approved what is referred to as the “March 2014 Approved Budget” in April 2014.

Source: SFPUC, Financial Planning

The program level cost variance between the December 2005 Approved Budget and the December 2007 Approved Budget was relatively small (an additional \$49.16 million, or 1.1% increase). In general, the need to compensate for the additional resources needed to address real estate requirements (land acquisition and encroachment removal) and complete delivery activities (program management, project management and environmental review/permitting/mitigation) accounts for this variance.

The variance between the December 2007 Approved Budget and the June 2009 Approved Budget is approximately \$194 million or a 4.4% increase. Significant cost increases in two projects account to a great extent for this projected overall increase in the program cost. The Calaveras Dam Replacement Project and the Harry Tracy Water Treatment Plant Long-Term Improvements Project currently carry an approximate projected variance (June 2009 Approved Budget minus December 2007 Approved Budget) of an additional \$102 million and \$183 million, respectively. The NOA and fisheries issues described above are the main factors increasing the cost of the Calaveras Dam Replacement Project. In the case of the Harry Tracy Water Treatment Plant Long-Term Improvements Project, the cost increase is due to the recent discovery of a new strand of the Sierra Fault at the project site, which is necessitating the relocation of two large treated water reservoirs – work that was not in the original project scope.

There is no variance between the June 2009 Approved Budget and the July 2011 Approved Budget.

The variance between the July 2011 Approved Budget and the March 2013 Approved Budget is approximately \$54 million or a 1.2% increase. The only project with significant cost increase the Calaveras Dam Replacement Project due to discovery of an ancient landslide uncovered during construction, resulting in an additional 3 million cubic yards of excavation on this project.

The variance between the March 2013 Approved Budget and the March 2014 Approved Budget is approximately \$125 million or a 2.7% increase. The forecasted cost increases in the following five projects account to a great extent for this projected overall increase in the program cost: 1) Calaveras Dam Replacement Project (\$95 million) due to discovery of a second ancient landslide and secondary faulting, requiring additional excavation and re-design of spillway foundation and re-alignment of the outlet conduit, 2) New Irvington Tunnel (\$15 million) due to highly variable tunneling conditions; including squeezing ground, hard rock, and gassy tunneling conditions, 3) Regional Groundwater Storage and Recovery (\$13 million) to allow for additional right-of-way costs and higher construction cost estimates, 4) Crystal Springs/San Andreas Transmission Upgrade (\$7 million) due to differing site conditions for underwater construction, and 5) Alameda Creek Recapture project (\$5 million) due to the need to incorporate additional operational scenarios to recapture the required water yield on this project. Some forecasted decreases on other WSIP projects allowed for a net of \$125 million overall forecasted cost increase.

A summary of the WSIP budget and appropriations is provided in the following table.

**TABLE D-2
WSIP BUDGET AND SPENDING SUMMARY
AS OF DECEMBER 31, 2014
(IN MILLIONS)**

	2014 Total Approved	Expended/ Encumbered	Unencumbered Remaining Balance
Regional Projects	\$3,675	\$3,295	\$ 380
Local Projects ⁽¹⁾	619	402	217
Financing Costs ⁽²⁾	472	472	0
Total †	\$4,765	\$4,169	\$596

† Totals may not add due to independent rounding.

(1) Local projects include \$281 million in WSIP funding to Water Supply Projects; however, these projects were transferred to the Water Enterprise Capital Improvements Program in July 2011 and have anticipated completion dates later than May 2019.

Note: Certain amounts set forth in the table are projections. Actual results may differ from these projections. See “FORWARD-LOOKING STATEMENTS” above.

Source: SFPUC, Financial Services

Program Changes. The list of projects to be built in the WSIP has not changed significantly since the program was initiated in 2002. Some projects have been combined, some have been split, some have been renamed and only a few have been eliminated or added. These changes, as well as major project scope modifications, are thoroughly documented in the Change of Notice reports submitted to the State (see “– Program Development and Chronology” above). The latest program scope, the March 2014 scope, approved by the Commission on April 22, 2014 is documented in the *AB 1823: Notice of Changes to Water System Improvement Program Report* submitted to the State on June 20, 2014.

Program Status and Performance

Work Breakdown Structure. The WSIP, like most other large infrastructure programs, is managed based on a standardized work breakdown structure (“WBS”). The performance and status of the WSIP is often reported at the phase level of the WBS.

The WSIP WBS includes 9 different phases – Project Management, Planning, Environmental, Right-of-Way, Design, Bid & Award, Construction, Construction Management, and Close-Out. A very brief summary of the work involved in each phase is provided below.

The Project Management Phase involves project-specific oversight and management functions that extend from project initiation to construction completion and start up of new facilities. They include project controls, change and risk management, cost estimating and scheduling, value engineering, document control, communications and project team oversight.

The Planning Phase involves the definition of performance objectives and general design requirements based on the input provided by the client, field investigations and preliminary engineering work. Planning deliverables typically include a Needs Assessment Report, an Alternative Analysis Report and a Conceptual Engineering Report.

The Environmental Phase involves the analyses and review required to comply with CEQA and the work needed to obtain all required permits from local, State and federal resources agencies.

The Right-of-Way Phase involves all real estate activities (e.g., land surveys, property appraisals, legal descriptions, easement agreements, etc.) needed to secure the temporary and permanent property and access rights needed to build, maintain and operate the facilities and improvements included in the program.

The Design Phase involves the various engineering tasks needed to prepare the construction contract documents (drawings and specifications).

The Bid & Award Phase involves the advertisement of construction contracts, the administration of the bidding process and the selection of the lowest, qualified, responsible and responsive bidder for each contract.

The Construction Phase involves all the fieldwork required to build the improvements specified in the construction contract documents. Key construction milestones include: contractor mobilization, testing and start-up, substantial completion, client acceptance of improvements and final completion.

The Construction Management Phase involves a number of oversight functions to monitor and verify the work of construction contractors in the field. Key functions include field inspections and testing, quality assurance, schedule and cost control, claims analysis, contract administration and safety monitoring.

The Close-Out Phase involves the post-construction, administrative tasks needed to complete construction contracts. This often includes negotiating and reaching final agreements on outstanding contract items and verifying that all contract terms have been met.

Status of WSIP Projects. Very significant progress has been made on the WSIP in recent years, and the overall program is now approximately 85 percent complete. One can assess the overall status of a capital program comprised of multiple projects by looking at the number of projects and the value of these projects in each of the major implementation phases of the program. Table D-3 shows the number of WSIP projects active in each of these phases. The Local Program is approximately 99 percent complete with only 2 active projects remaining in construction, whereas the Regional Program is approximately 85 percent complete. The Local Program is further along because the projects in that program are smaller and less complex and require minimal environmental review.

**TABLE D-3
STATUS OF WSIP PROJECTS THROUGH DECEMBER 31, 2014**

Active Phase	Number of Projects		Value of Projects (in millions)	
	Local Program	Regional Program	Local Program	
Planning	0	0	\$ 0	\$ 0
Design	0	1	0	30
Bid & Award	0	1	0	117
Construction	2	12	92	2,400
Close-Out	0	2	0	326
Completed	33	30	246	770
Not Applicable*	<u>0</u>	<u>2</u>	<u>0</u>	<u>32</u>
Total†:	35	48	\$338	\$3,675

† Totals may not add due to independent rounding.

* “Not Applicable” category is for projects that do not include construction, including the Watershed Environmental Improvement Program and the Long-Term Mitigation Endowment.

Source: SFPUC, 2nd quarter Fiscal Year 2014-15 WSIP Quarterly Report

Performance of WSIP Projects. The performance of a program can be assessed by comparing planned expenditures against the value of the work completed. Such a comparison is provided in Table D-4. In general, actual performance on the Local and Regional Programs tracks planned performance well. Some delays, however, have occurred in the environmental review of some large water supply projects. These delays have had an impact

on the performance of the Environmental Phases and, to some extent, the performance of subsequent phases (Design and Construction). A number of measures are being implemented to mitigate these environmental delays.

**TABLE D-4
PERFORMANCE OF WSIP PROJECTS THROUGH DECEMBER 31, 2014
COMPARED TO 2014 APPROVED BUDGET PLAN**

Phase	Local Program ⁽²⁾		Regional Program ⁽³⁾	
	% Planned	% Completed	% Planned	% Completed
All Phases	99.0%	98.8%	85.2%	85.9%
Project Management	99.0	99.2	89.1	88.4
Planning	100.0	100.0	100.0	100.0
Environmental	100.0	100.0	96.6	96.8
Right-of-Way	--	--	93.4	91.7
Design	100.0	100.0	98.3	97.8
Bid and Award	100.0	100.0	95.7	95.1
Construction Management	98.9	98.8	81.6	82.0
Construction	99.2	98.8	83.8	84.7
Close-Out	82.7	78.2	54.3	49.1
Program Management ⁽¹⁾	--	--	--	--

(1) The WSIP Regional Program tracks an additional Program Management phase.

(2) Local Program percentages do not include Local Water Supply projects.

(3) Regional Program percentages do not include Support (formerly System-Wide) projects.

Source: SFPUC, 2nd quarter Fiscal Year 2014-15 WSIP Quarterly Supplemental Report.

Program Risk Management

2007 Risk Assessment. In 2007, the SFPUC commissioned a comprehensive programmatic risk assessment (the “2007 Risk Assessment”) to identify risk factors and exposures that could lead to schedule delays and cost escalation as the WSIP moves forward from planning and design into construction.

The Risk Assessment concluded that the risks representing the greatest potential cost liabilities for the WSIP were: (1) general inflation of material and labor costs; (2) contracting (i.e., ability to attract enough contractors to bid on WSIP projects); (3) potential delays in the environmental review process; and (4) the lack of a well established construction management organization.

Subsequent Developments and Mitigation Measures. Since 2007, the risk factors identified by the 2007 Risk Assessment have been mitigated by certain developments, and by actions taken by the SFPUC, including the following:

- The SFPUC experienced significantly lower than anticipated construction bids due to a highly competitive bidding environment for construction projects that were bid between 2007 and 2012. This benefit has been offset by construction cost increases due to differing site conditions experienced during construction.
- The scheduling risks associated with the environmental review of projects were significantly reduced following certification of the WSIP Preliminary Environmental Impact Report in October 2008 (as no appeals to the San Francisco Board of Supervisors or legal actions were filed during the challenge period). Furthermore, all but 2 of the project-specific environmental documents have been certified to date.
- The SFPUC implemented a new construction management approach, organization structure, contracting strategy, operations plan, business processes, procedures and customized Management Information System.

- The SFPUC formulated a WSIP Risk Mitigation Action Plan, which provides comprehensive step-by-step actions to address each of the risks described in the 2007 Risk Assessment. Progress made on implementation of the plan is reported in the WSIP Quarterly Reports.

- The SFPUC developed a risk management program that focuses on the WSIP construction phase, and involves the identification, assessment, analysis and management of risks associated with construction activities.

- The SFPUC adopted an enterprise risk management software tool to evaluate the effects of risk systematically across the WSIP program and track and monitor mitigation actions more effectively and efficiently.

APPENDIX E

SFPUC WATER ENTERPRISE FINANCIAL STATEMENTS

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SAN FRANCISCO WATER ENTERPRISE

Financial Statements

June 30, 2014 and 2013

(With Independent Auditors' Report Thereon)

SAN FRANCISCO WATER ENTERPRISE

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KPMG LLP
Suite 1400
55 Second Street
San Francisco, CA 94105

Independent Auditors' Report

The Honorable Mayor and Board of Supervisors
City and County of San Francisco:

Report on the Financial Statements

We have audited the accompanying financial statements of the San Francisco Water Enterprise (the Enterprise), an enterprise fund of the City and County of San Francisco, California (the City), as of and for the years ended June 30, 2014 and 2013, and the related notes to the financial statements, which collectively comprise the Enterprise's basic 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 U.S. generally accepted accounting principles; 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.

Auditors' 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 audits 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 auditors' 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 San Francisco Water Enterprise, an enterprise fund of the City and County of San Francisco, California as of June 30, 2014 and 2013, and the respective changes in financial position, and its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles.

Emphasis of Matter

As discussed in Note 1, the financial statements of the Enterprise are intended to present the financial position, and the changes in the financial position of only that portion of the City that is attributable to the transactions of the Enterprise. They do not purport to, and do not, present fairly the financial position of the City as of June 30, 2014 and 2013, the changes in its financial position, or where applicable, its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

As discussed in Note 2(t) to the financial statements, in 2014, the Enterprise adopted Governmental Accounting Standards Board (GASB) Statement No. 65, *Items Previously Reported as Assets and Liabilities*. The July 1, 2012 beginning net position has been restated for the retrospective application of this new accounting guidance. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 3 through 17 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated October 17, 2014 on our consideration of the Enterprise'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 to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Enterprise's internal control over financial reporting and compliance.

KPMG LLP

San Francisco, California
October 17, 2014

SAN FRANCISCO WATER ENTERPRISE
Management's Discussion and Analysis (Unaudited)
June 30, 2014 and 2013
(Dollars in thousands, unless otherwise stated)

This section presents management's analysis of the San Francisco Water Enterprise's (the Enterprise) financial condition and activities as of the fiscal years ended June 30, 2014 and 2013. Management's Discussion and Analysis (MDA) is intended to serve as an introduction to the Enterprise's financial statements. This information should be read in conjunction with the audited financial statements that follow this section. All dollar amounts, unless otherwise noted, are expressed in thousands of dollars.

The information in this MDA is presented under the following headings:

- Organization and Business
- Overview of the Financial Statements
- Financial Analysis
- Capital Assets and Debt Administration
- Next Year's Rates
- Request for Information

Organization and Business

The San Francisco Public Utilities Commission (SFPUC or the Commission) is an agency of the City and County of San Francisco (the City) that is responsible for the maintenance, operation, and development of three utility enterprises: Wastewater, Hetch Hetchy Water and Power, and Water (the Enterprise). The Enterprise collects, transmits, treats, and distributes high-quality drinking water to a total population of approximately 2.6 million people, including retail customers in the City and wholesale customers located in San Mateo, Santa Clara, and Alameda Counties. The Enterprise sold approximately 217 million gallons of water per day in the year ended June 30, 2014. Approximately two-thirds of the water delivered by the Enterprise is to wholesale customers. Retail customers used the remaining one-third and are primarily San Francisco consumers, including residential, commercial, industrial, and governmental users. The Enterprise recovers costs of service through user fees. Wholesale customers include cities, water districts, one private utility, and one non-profit university. Service to these customers is provided pursuant to the 25-year Water Supply Agreement (WSA), commenced on July 1, 2009, which established the basis for determining the costs of wholesale service.

The Enterprise, like all the SFPUC and its enterprises, strives to promote diversity and the health, safety and professional development of its employees.

Overview of the Financial Statements

The Enterprise's financial statements include:

Statements of Net Position present information on the Enterprise's assets, deferred outflows, and liabilities as of year-end, with the difference reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Enterprise is improving or worsening.

While the *Statements of Net Position* provide information about the nature and amount of resources and obligations at year-end, the *Statements of Revenues, Expenses, and Changes in Net Position* present the results of the Enterprise's operations over the course of the fiscal year and information as to how the net position changed during the year. These statements can be used as an indicator of the extent to which the Enterprise has successfully recovered its costs through user fees and other charges. All changes in net position are reported

SAN FRANCISCO WATER ENTERPRISE
Management's Discussion and Analysis (Unaudited)
June 30, 2014 and 2013
(Dollars in thousands, unless otherwise stated)

during the period in which the underlying event giving rise to the change occurs, regardless of the timing of the related cash flows. Thus, revenues and expenses are reported in these statements from some items that will result in cash flows in future fiscal periods, such as delayed collection of operating revenues and the expenses of employee earned but unused vacation leave.

The *Statements of Cash Flows* present changes in cash and cash equivalents resulting from operational, capital, non-capital, and investing activities. These statements summarize the annual flow of cash receipts and cash payments, without consideration of the timing of the event giving rise to the obligation or receipt and exclude non-cash accounting measures of depreciation or amortization of assets.

The *Notes to Financial Statements* provide information that is essential to a full understanding of the financial statements that is not displayed on the face of the financial statements.

Financial Analysis

Financial Highlights for Fiscal Year 2014

- Total assets exceeded total liabilities by \$636,707.
- Net position decreased by \$45,419 or 6.5% during the fiscal year.
- Capital assets, net of accumulated depreciation, increased by \$468,622 or 12.1% to \$4,327,550.
- Current and other assets decreased by \$549,754 or 30.2% mainly due to capital project spending for Water System Improvement Program (WSIP) projects and debt principal and interest repayments.
- During the fiscal year, charges for services, excluding interest and investment income, rental income, and other operating and non-operating revenues, decreased by \$345,686 or 49.3% to \$354,827. Of the prior year charges for services of \$700,513, \$356,139 was a one-time early repayment from the Bay Area Water Supply and Conservation Agency (BAWSCA) for prior period costs incurred.
- Operating expenses, excluding interest expense and non-operating expenses, increased by \$29,816 or 9.8% to \$333,555.

Financial Highlights for Fiscal Year 2013

- Total assets exceeded total liabilities by \$680,826.
- Net position increased by \$373,789 or 114.7% during the fiscal year.
- Capital assets, net of accumulated depreciation, increased by \$624,762 or 19.3% to \$3,858,928.
- During the fiscal year, charges for services, excluding interest and investment loss, rental income, and other operating and non-operating revenues, increased by \$376,344 or 116.1% to \$700,513. Of the \$376,344, \$356,139 was a one-time early repayment.
- Operating expenses, excluding interest expense and non-operating expenses, decreased by \$823 or 0.3% to \$303,739.

SAN FRANCISCO WATER ENTERPRISE
Management's Discussion and Analysis (Unaudited)
June 30, 2014 and 2013
(Dollars in thousands, unless otherwise stated)

Financial Position

In conformance with the Governmental Accounting Standards Board (GASB) Statement No. 65, *Items Previously Reported as Assets and Liabilities*, bond issuance costs are expensed instead of amortized over the life of the bonds, net position of fiscal years 2012 and 2013 have been restated, and the remaining unamortized bond issuance costs have been completely written off in fiscal year 2014 except for bond insurance costs.

The following table summarizes the Enterprise's changes in net position.

Table 1
Comparative Condensed Net Position
June 30, 2014, 2013, and 2012

	2014	2013 (Restated)	2012 (Restated)	2014-2013 Change	2013-2012 Change
Total assets:					
Current and other assets	\$ 1,271,461	1,821,215	2,206,261	(549,754)	(385,046)
Capital assets, net of accumulated depreciation	4,327,550	3,858,928	3,234,166	468,622	624,762
Total assets	5,599,011	5,680,143	5,440,427	(81,132)	239,716
Deferred outflows of resources:					
Unamortized loss on refunding of debt	17,505	18,805	12,796	(1,300)	6,009
Total deferred outflows of resources	17,505	18,805	12,796	(1,300)	6,009
Liabilities:					
Current liabilities:					
Revenue and capital appreciation bonds	25,850	20,825	45,965	5,025	(25,140)
Certificates of participation	2,106	2,035	1,971	71	64
Commercial paper	186,000	174,000	174,000	12,000	—
Other liabilities	180,143	219,027	218,491	(38,884)	536
Subtotal current liabilities	394,099	415,887	440,427	(21,788)	(24,540)
Long-term liabilities:					
Revenue and capital appreciation bonds	4,301,970	4,335,552	4,463,781	(33,582)	(128,229)
Certificates of participation	114,943	117,360	119,755	(2,417)	(2,395)
Other liabilities	151,292	130,518	103,418	20,774	27,100
Subtotal long-term liabilities	4,568,205	4,583,430	4,686,954	(15,225)	(103,524)
Total liabilities:					
Revenue and capital appreciation bonds	4,327,820	4,356,377	4,509,746	(28,557)	(153,369)
Certificates of participation	117,049	119,395	121,726	(2,346)	(2,331)
Commercial paper	186,000	174,000	174,000	12,000	—
Other liabilities	331,435	349,545	321,909	(18,110)	27,636
Total liabilities	4,962,304	4,999,317	5,127,381	(37,013)	(128,064)
Net position:					
Net investment in capital assets	366,799	364,863	268,614	1,936	96,249
Restricted for debt service	25,356	32,723	27,213	(7,367)	5,510
Restricted for capital projects	103,154	103,616	13,665	(462)	89,951
Unrestricted	158,903	198,429	16,350	(39,526)	182,079
Total net position	\$ 654,212	699,631	325,842	(45,419)	373,789

SAN FRANCISCO WATER ENTERPRISE
Management's Discussion and Analysis (Unaudited)
June 30, 2014 and 2013
(Dollars in thousands, unless otherwise stated)

Net Position, Fiscal Year 2014

For the year ended June 30, 2014, the Enterprise's assets and deferred outflows of resources exceeded liabilities by \$654,212. Total net position decreased from prior year by \$45,419 or 6.5% (see Table 1). The decrease in net position was the result of an \$82,432 decrease in total assets and deferred outflows of resources, offset by a \$37,013 decrease in total liabilities. Net investment in capital assets increased from the prior year's \$364,863 to \$366,799 by \$1,936 or 0.5% as explained by a \$468,622 increase in capital assets in buildings, structures, and improvements, offset by a \$466,686 increase in liabilities related to capital assets due to additional spending in the WSIP projects.

Current and other assets are primarily comprised of restricted and unrestricted balances of cash, receivables for water deliveries and services, interfund receivables due from other governmental agencies, and inventory. This also includes receivables which represent cumulative amounts due from the wholesale customers to match revenues with the Enterprise's costs of providing service (the Balancing Account) in accordance with the provisions set forth in the WSA effective July 1, 2009. Balances due are recovered by future year rate increases. In fiscal year 2014, wholesale customers paid the Enterprise the \$4,172 receivable per the 1984 agreement. The Enterprise owed the wholesale customers \$29,351, which was recorded as a liability per the 2009 agreement. Balances owed are offsets to future year rates. See Note 9(a), Water Supply Agreement, for additional details.

During fiscal year 2014, current and other assets decreased by \$549,754 or 30.2%. The decreases included \$538,641 in unrestricted and restricted cash and investments mainly due to capital project spending for WSIP projects and debt principal and interest repayments, \$5,699 in receivables for charges for services resulting from more collections due to increased rates and one-time effort of transition from bi-monthly to monthly billing effective July 1, 2013, \$4,172 in wholesale receivables due to the receipt of payments, and \$2,168 in grant receivables for the Harding Park Recycled Water project, the High Efficiency Toilet Program and the Southern Skyline Ridge Trail state grant as cash was received. Other decreases included \$914 in prepaid bond insurance costs due to amortization, and \$8 in due from Department of Public Works for the Mission Bay and Hunters Point projects. These decreases were offset by increases of \$805 advances paid to the San Francisco Recreation and Parks Department for the Civic Center Garage lease, \$385 in property rental receivables due to rate increases and additional tenants, \$367 in interest receivables as explained by \$678 higher interest earnings than interest distribution offset by lower federal subsidy receivable of \$311 due to sequestration, \$171 in inventory due to more purchases than issuances during the fiscal year, and \$120 in capacity fee receivables due to increased permit applications.

Capital assets, net of accumulated depreciation, increased by \$468,622 or 12.1%, reflecting an increase in construction and capital improvement activities. The largest portion of the Enterprise's net position (\$366,799 or 56.1%) represents net investment in capital assets. (See Capital Assets section of the MDA for more information.) Deferred outflows of resources decreased by \$1,300 due to amortization of refunding loss.

Total liabilities decreased by \$37,013 or 0.7%. The decreases included \$51,194 in restricted and unrestricted payables mainly due to reduced WSIP project activities, \$30,903 principal repayments in revenue bonds and certificates of participation, \$612 in arbitrage rebate for the 2006 Series A bond per consultant's computation, \$247 in accrued vacation and sick leave, \$208 in bond interest payable due to lower outstanding principal, and \$31 in interfund payables due to payments made to the Mayor's office for federal lobbying. These decreases were offset by increases of \$12,000 in commercial paper issuance for the Habitat Reserve Endowment project, \$8,933 in other post-employment benefit obligations for health care and pensions as explained by higher actuarially determined annual required contribution, \$7,979 in general liability based on actuarial estimates, \$7,058 in pollution remediation liability for the Lake Merced site leased to Pacific Rod & Gun Club (see Note 13(d) for details), \$5,828 in the Wholesale Balancing Account (see Note 9(a) for details), \$3,177 in unearned

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revenues mainly due to the BAWSCA bond surcharge collections, \$971 in accrued payroll, and \$236 in workers' compensation.

Net Position, Fiscal Year 2013

For the year ended June 30, 2013, the Enterprise's assets exceeded liabilities by \$699,631. Total net position increased from prior year by \$373,789 or 114.7% (see Table 1). The increase in net position was the result of a \$245,725 increase in total assets coupled with a \$128,064 decrease in total liabilities. Unrestricted net position increased by \$182,079 mainly due to Wholesale Water Customers early repayment, which will largely be used to fund capital projects. Net investment in capital assets increased from the prior year's \$268,614 to \$364,863 by \$96,249 or 35.8% primarily due to a \$624,762 increase in capital assets in buildings, structures, and improvements, offset by a \$528,513 increase in liabilities related to capital assets due to additional spending in the Water System Improvement Program (WSIP) projects. Current and other assets are primarily comprised of restricted and unrestricted balances of cash, receivables for water deliveries and services, interfund receivables due from other governmental agencies, and inventory. This also includes receivables which represent cumulative amounts due from the wholesale customers to match revenues with the Enterprise's costs of providing service (the Balancing Account) in accordance with the provisions set forth in the WSA effective July 1, 2009. Balances due are recovered by future year rate increases. As of June 30, 2013, wholesale customers owed the City \$4,172 which was recorded as a receivable per the 1984 agreement. The City owed the wholesale customers \$23,523, which was recorded as a liability per the 2009 agreement. See Note 9(a), Wholesale Balancing Account, for additional details.

During the fiscal year 2013, current and other assets decreased by \$385,046 or 17.5%. The decreases included \$614,908 in restricted cash and investments, mainly due to capital project spending and debt repayments during the year, \$14,611 in wholesale receivables due to repayment, adjustments and collections consistent with the WSA terms, \$1,464 in receivables for charges for services resulting from higher collections, \$1,560 in bond issuance costs due to \$1,498 amortization and refunding of \$62, as well as \$461 in inventory and interest receivables. These decreases were partially offset by increases of \$243,106 in unrestricted cash and investments as a result of \$356,139 for the Bay Area Water Supply and Conservation Agency (BAWSCA) early repayment (see Note 9(b) for details), \$2,468 in advances mainly due to the Civic Center Garage prepayment to the San Francisco Recreation and Parks Department, \$2,077 in grant receivables for the High Efficiency Toilet Program and the Harding Park Recycled Water projects, and \$307 in restricted capacity fee receivables.

Capital assets, net of accumulated depreciation, increased by \$624,762 or 19.3%, reflecting an increase in construction and capital improvement activities. The largest portion of the Enterprise's net position (\$364,863 or 52.2%) represents net investment in capital assets.

In accordance with the GASB Statement No. 65, *Items Previously Reported as Assets and Liabilities*, refunding loss net of accumulated amortization is reclassified to deferred outflows of resources beginning in fiscal year 2012. Previously, refunding loss net of accumulated amortization was part of revenue bonds and capital appreciation bonds under long-term liabilities (See table 1). Refunding loss net of accumulated amortization increased by \$6,009 mainly due to BAWSCA early repayment of revenue bonds. In addition, bond issuance costs, net of accumulated amortization are expensed except for bond-related prepaid insurance which remains as a prepaid asset and is amortized over the life of the bonds.

Total liabilities decreased by \$128,064 or 2.5% primarily due to \$155,700 principal repayments in revenue bonds and certificates of participation partially with funds from the BAWSCA early repayment. Other decreases included \$12,299 in restricted and unrestricted payables mainly due to the completion of the 525 Golden Gate Headquarters Project, \$3,655 in interfund payables due to payments made to the Arts Commission and Hetchy Power for the 525 Golden Gate Headquarters Project, and \$826 in accrued vacation and sick leave. These

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decreases were offset by increases of \$23,523 in the Wholesale Balancing Account (see Note 9(a) for details), \$12,820 in other post-employment benefit obligations as a result of higher actuarially determined annual required contribution, \$2,850 in pollution remediation obligations, inclusive of an increase of \$1,650 for excavation of the Lake Merced site, a new \$1,200 obligation for a site on 17th and Folsom Streets, \$2,087 in bond interest payable due to issuance of the 2012 Series ABCD bonds, \$1,790 in general liability based on actuarial estimates, \$724 in customers deposits, \$601 in workers' compensation and accrued payroll, and \$21 in arbitrage rebate for the 2006 Series A bond.

Results of Operations

The following tables summarize the Enterprise's revenues, expenses, and changes in net position.

Table 2
Comparative Condensed Revenues, Expenses, and Changes in Net Position
Years ended June 30, 2014, 2013, and 2012

	2014	2013 (Restated)	2012 (Restated)	2014-2013 Change	2013-2012 Change
Revenues:					
Charges for services	\$ 354,827	700,513	324,169	(345,686)	376,344
Rents and concessions	10,675	9,599	9,398	1,076	201
Other operating revenues	14,380	11,358	8,534	3,022	2,824
Interest and investment income (loss)	10,907	(281)	33,450	11,188	(33,731)
Other non-operating revenues	29,197	37,921	34,180	(8,724)	3,741
Total revenues	<u>419,986</u>	<u>759,110</u>	<u>409,731</u>	<u>(339,124)</u>	<u>349,379</u>
Expenses:					
Operating expenses	333,555	303,739	304,562	29,816	(823)
Interest expenses	136,645	147,741	131,334	(11,096)	16,407
Amortization of premium, refunding loss, and issuance costs	(6,169)	(5,002)	9,363	(1,167)	(14,365)
Non-operating expenses	2,089	2,327	2,661	(238)	(334)
Total expenses	<u>466,120</u>	<u>448,805</u>	<u>447,920</u>	<u>17,315</u>	<u>885</u>
Change in net position before capital contributions and transfers	<u>(46,134)</u>	<u>310,305</u>	<u>(38,189)</u>	<u>(356,439)</u>	<u>348,494</u>
Capital contributions	310	—	—	310	—
Transfers from City and County of San Francisco	1,704	66,375	1,500	(64,671)	64,875
Transfers to City and County of San Francisco	(1,299)	(2,891)	(15,085)	1,592	12,194
Change in net position	<u>(45,419)</u>	<u>373,789</u>	<u>(51,774)</u>	<u>(419,208)</u>	<u>425,563</u>
Net position at beginning of year					
Beginning of year, as previously reported	699,631	358,495	396,258	341,136	(37,763)
Cumulative effect of accounting change	—	(32,653)	(18,642)	32,653	(14,011)
Beginning of year as restated	<u>699,631</u>	<u>325,842</u>	<u>377,616</u>	<u>373,789</u>	<u>(51,774)</u>
Net position at end of year	<u>\$ 654,212</u>	<u>699,631</u>	<u>325,842</u>	<u>(45,419)</u>	<u>373,789</u>

Results of Operations, Fiscal Year 2014

The Enterprise's total revenues of \$419,986 for the year represented a decrease of \$339,124 or 44.7% compared to the prior year (see Table 2). Decreases included \$345,686 from charges for services, and \$8,724 from other non-operating revenues, offset by increases of \$11,188 from interest and investment income, \$3,022 from other operating revenues such as capacity fees revenues and water sales to other City departments, and \$1,076 from rents and concessions.

Charges for services decreased by \$345,686 or 49.3% as explained by prior year's one-time BAWSCA repayment of \$356,139. Retail water sales increased due to the average adopted rate increase of 6.5%, and increased water consumption of 1.0% compared to prior year's actuals. Wholesale water revenues decreased

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primarily resulting from the prior year's one-time \$356,139 early repayment and an adopted wholesale rate reduction of 16.4%, whereas actual deliveries were up 1.2%.

Non-operating revenues decreased by \$8,724 to \$29,197 or 23.0% compared to prior year and is due to a one-time prior year \$3,229 gain from the sale of a parking lot in San Bruno, \$2,335 decrease in grant revenue corresponding to the level of spending for the Environmental Protection Agency (EPA) Contamination Warning Systems project and the Southern Skyline Ridge Trail state grant, \$2,226 reduction in IRS subsidies due to the federal sequestration, \$2,114 for the Harding Park Recycled Water state grant due to the completion of the grant, offset by increases of \$609 in miscellaneous revenues from the sale of inventory items and \$571 for the High Efficiency Toilet Program state grant.

Interest and investment income increased by \$11,188, due to a decrease of \$17,880 in unrealized loss as explained by the increase in market value in cash and investments with City Treasury and outside City Treasury, and offset by a \$6,692 decrease in interest income due to lower interest rates and lower average cash balance. Other operating revenues increased by \$3,022 or 26.7%, which included \$2,736 in installation fees and water sales to other City departments such as irrigation accounts at Recreation and Parks and San Francisco General Hospital, and \$286 in capacity fee revenues. Rents and concessions increased by \$1,076 from rate increases and additional tenants.

The Enterprise's total expenses increased by \$17,315 or 3.9% to \$466,120 over the prior year (see Table 2), due to an increase of \$29,816 in operating expenses, offset by decreases of \$12,263 in interest expenses net of amortization of premium, refunding loss and insurance costs due to lower bond principal outstanding, and \$238 in the Water Conservation Rebates program. Operating expenses increase of \$29,816 or 9.8% included \$13,578 in depreciation expenses due to increased capitalized assets, \$11,122 from project expenses such as local water conveyance and distribution projects, \$10,064 in higher judgment and claims liability based on actuarial estimate, and \$698 higher personnel and fringe benefits such as health and retirements costs, offset by decreases of \$1,898 in professional services due to decreased expenses for High Efficiency Toilet Program and building lease payments, \$1,745 water assessment fees paid to Hetch Hetchy Water, \$1,083 in services provided by other departments for legal and risk management services, and \$920 in material and supplies for building, construction, and equipment supplies.

Results of Operations, Fiscal Year 2013

The Enterprise's total revenues of \$759,110 for the year represented an increase of \$349,379 or 85.3% compared to the prior year (see Table 2). Charges for services increased by \$376,344 due to a \$356,139 early repayment from BAWSCA (see Note 9(b) for details) and \$20,205 mainly resulting from a planned rate increase of 12.5% for retail accounts and 11.4% for wholesale accounts. Beginning July 1, 2013, bills for water service for residential and most commercial customers will be rendered after service has been delivered at regular monthly intervals, which is a change from the previous bi-monthly billing.

The increase of \$3,741 in other non-operating revenues is attributed to \$3,253 in gain from the sale of land to the Bay Area Rapid Transit District, \$1,273 higher grant revenue from the EPA for the Contamination Warning Systems project, and \$1,121 for the new Harding Park Recycled Water State grant, offset by a \$1,906 decrease in miscellaneous revenues mainly from a \$1,700 settlement received from Mitchell Engineering in the prior year.

Other operating revenues increased by \$2,824, which included \$2,110 in installation fees and water sales to other city departments such as Real Estate and San Francisco General Hospital, and \$714 in capacity fee revenues due to a rate increase and a higher number of permit applications. Rents and concessions increased by \$201 from rate increases. Interest income and investment income decreased by \$33,731, which included \$30,446 in unrealized loss as explained by the decline in market value in cash and investments with City Treasury and outside City Treasury, and \$3,285 in interest income due to lower interest rates and lower average cash balance.

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The Enterprise's total expenses increased by \$885 or 0.2% to \$448,805 over the prior year (see Table 2), due to an increase of \$16,407 in interest expenses resulting from issuance of the 2012 Series ABCD bonds, offset by decreases of \$14,365 in debt amortization resulting from prior year expense of \$12,710 in unamortized bond issue costs in accordance with GASB Statement No. 65, \$823 in operating expenses mainly due to the completion of the 525 Golden Gate Headquarters Project in the prior year, and \$334 in the summer youth program payment to the Garden project and the Water Conservation Rebates program. The Enterprise's total operating expenses decreased by \$823 due to decreases of \$42,490 in project costs related to the 525 Golden Gate Headquarters Project, \$2,019 in professional services and building lease payments, offset by increases of \$18,796 in judgment and claims due to prior year settlement with Mitchell Engineering, \$10,853 in depreciation expenses due to higher capitalized assets, \$8,289 in services provided by other departments mainly for water assessment fees paid to Hetch Hetchy Water, as well as lights, heat, and power charges, \$4,814 in personnel services primarily for higher personnel and fringe benefit such as health and retirement costs, and \$934 in material and supplies for building, construction, and equipment supplies.

The Enterprise received \$66,375 from transfers in, which included \$63,075 in general obligation bond proceeds for the improvement of the Auxiliary Water Supply System Earthquake Safety and Emergency Response project, \$2,500 from the City's General Fund for the second payment of the 17th and Folsom property, (the remaining balance of \$2,272 will be paid over a period of five years), and \$800 from the San Francisco Recreation and Parks Department for the Lake Merced boat house renovation.

The Enterprise transferred \$2,891 to other City departments, including \$395 to the Recreation and Parks Department for a landscape and irrigation project, \$2,465 to the Arts Commission for art work at 525 Golden Gate Headquarters, and \$31 to the special revenue fund for the City Surety Bond Program.

Capital Assets

The following table summarizes changes in the Enterprise's capital assets.

Table 3
Capital Assets, Net of Accumulated Depreciation
As of June 30, 2014, 2013, and 2012

	2014	2013	2012	2014-2013 Change	2013-2012 Change
Facilities, improvements, machinery, and equipment	\$ 2,631,549	2,300,902	1,813,763	330,647	487,139
Intangible assets	6,896	8,030	9,832	(1,134)	(1,802)
Land	26,811	24,307	24,711	2,504	(404)
Construction work in progress	1,662,294	1,525,689	1,385,860	136,605	139,829
Total	<u>\$ 4,327,550</u>	<u>3,858,928</u>	<u>3,234,166</u>	<u>468,622</u>	<u>624,762</u>

Capital Assets, Fiscal Year 2014

The Enterprise has net capital assets of \$4,327,550 invested in a broad range of utility capital assets as of June 30, 2014 (see Table 3). The investment in capital assets includes land, facilities, improvements, water treatment plants, aqueducts, water transmission, distribution mains, water storage facilities, pump stations, water reclamation facilities, machinery, and equipment. The Enterprise's net revenue and long-term debt are used to finance capital investments. Capital assets, net of accumulated depreciation and amortization, increased by \$468,622 from prior year. Facilities, improvements, machinery, and equipment increased by \$330,647 mainly attributable to Crystal Springs Pump Station and Sunol Valley Water Treatment Plant Expansion projects. Major additions to construction work in progress increased by \$136,605 primarily due to the Calaveras Dam Replacement and the Irvington Tunnel Alternatives projects. Intangible assets decreased by \$1,134 due to

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amortization. Land increased by \$2,504 as a result of acquisition of eighty-four acres of land at Sheridan Road, Sunol, California in fiscal year 2014.

With the adoption of GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*, the Enterprise recorded an additional \$1,288 in intangible assets for the SOLIS Software System, offset by \$2,422 in intangible assets related amortization for a net total of \$6,896 in intangible assets in fiscal year 2014. The Enterprise recorded a total of \$8,030, an additional \$524 in intangible assets for Supervisory Control and Data Acquisition (SCADA) project, offset by \$2,326 in intangible assets related amortization in fiscal year 2013.

Major additions to construction work in progress during the year ended June 30, 2014 include:

Calaveras Dam Replacement	\$	138,359
Harry Tracy Water Treatment Plant Long-Term Improvements		88,317
Irvington Tunnel Alternatives		65,572
Crystal Springs/San Andreas Transmission Upgrade		47,434
Bay Division Pipeline Hydraulic Capacity Upgrade Tunnel		43,769
San Antonio Backup Pipeline		29,890
Seismic Bay Division Pipeline at Hayward Fault Phase 2		26,761
Sutro Reservoir - Rehab/Seismic Upgrade		15,689
Environmental Impact Project - Habitat Reserve Program		11,727
Auxiliary Water Supply System-New Cisterns		8,986
San Joaquin Pipeline System		5,677
Groundwater Project - Regional Groundwater Storage and Recovery		5,445
Sunol Valley Water Treatment Plant Expansion and Treated Water Reservoir		5,178
Other project additions individually below \$5,000		64,926
Total	\$	<u>557,730</u>

Major facilities, improvements, intangible assets, machinery and equipment placed in service, including transfers of completed projects from construction work in progress, during the year ended June 30, 2014 include:

Crystal Springs Pump Station and Crystal Springs-San Andreas Pipeline - multiple structures	\$	189,871
Sunol Valley Water Treatment Plant Expansion and Treated Water Reservoir - multiple structures		160,662
Sunol Bridge, Guardrails, Culvert and Headwalls		6,441
Other items individually below \$5,000		61,565
Total	\$	<u>418,539</u>

See Note 4 for additional information about Capital Assets.

Water System Improvement Program

The WSIP is a \$4.8 billion dollar, multi-year capital program to upgrade the City of San Francisco's regional and local drinking water systems. The program will deliver improvements that enhance the City's ability to provide reliable, affordable, high quality drinking water to its 27 wholesale customers and regional retail customers in Alameda, Santa Clara, and San Mateo Counties, and to 800,000 retail customers in San Francisco, in an environmentally sustainable manner. The WSIP is structured to cost-effectively meet water quality requirements, improve seismic and delivery reliability, and achieve water supply goals.

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Overall, \$3.7 billion of project appropriations have been expended through fiscal year ended June 30, 2014, which represents 81% project completion. The program consists of 35 local projects located within San Francisco and 48 regional projects spread over seven different counties from the Sierra Foothills to San Francisco. As of June 30, 2014, 32 or 91% of local projects are completed and the target completion date is September, 2015. For regional projects, 27 or 56% are completed and the expected completion date is May 2019. Additional details regarding the WSIP are available at www.sfwater.org.

Capital Assets, Fiscal Year 2013

The Enterprise has net capital assets of \$3,858,928 invested in a broad range of utility capital assets as of June 30, 2013 (see Table 3). The investment in capital assets includes land, facilities, improvements, water treatment plants, aqueducts, water transmission, distribution mains, water storage facilities, pump stations, water reclamation facilities, machinery, and equipment. The Enterprise's net revenue and long-term debt are used to finance capital investments. Capital assets, net of accumulated depreciation, increased by \$624,762 from prior year. Facilities, improvements, machinery, and equipment increased by \$487,139 mainly attributable to the Bay Division Pipeline project and the San Joaquin Pipeline project. Major additions to construction work in progress increased by \$139,829 primarily due to the Calaveras Dam Replacement project and the Irvington Tunnel Alternatives project. Intangible assets decreased by \$1,802 primarily due to amortization. A decrease of \$404 in land is a result of sale of land to the Bay Area Rapid Transit District.

With the adoption of GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*, the Enterprise recorded an additional \$524 in intangible assets for SCADA project, offset by \$2,326 in intangible assets related amortization for a net total of \$8,030 in intangible assets in fiscal year 2013. The Enterprise recorded a total of \$9,832, an additional \$641 in intangible assets which is comprised of \$2,349 in Customer Care & Billing computer software enhancement, offset by \$1,708 in intangible assets related amortization in fiscal year 2012.

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Major additions to construction work in progress during the year ended June 30, 2013 include:

Calaveras Dam Replacement	\$ 147,077
Irvington Tunnel Alternatives	90,202
Harry Tracy Water Treatment Plant Long-Term Improvements	74,145
Bay Division Pipeline Hydraulic Capacity Upgrade Tunnel	67,207
San Joaquin Pipeline System	53,258
Crystal Springs/San Andreas Transmission Upgrade	43,110
Environmental Impact Project - Habitat Reserve Program	28,138
Automated Meter Reading System	25,096
Sunol Valley Water Treatment Plant Expansion and Treated Water Reservoir	23,474
Seismic Bay Division Pipeline at Hayward Fault Phase 2	15,024
Bay Division Pipeline Hydraulic Capacity Upgrade	14,745
Crystal Springs Pipeline No. 2 Replace	13,598
Sutro Reservoir - Rehab/Seismic Upgrade	11,796
San Antonio Backup Pipeline	6,314
Groundwater Project - Regional Groundwater Storage and Recovery	5,347
Other project additions individually below \$5,000	79,013
Total	<u>\$ 697,544</u>

Major facilities, improvements, intangible assets, machinery and equipment placed in service, including transfers of completed projects from construction work in progress, during the year ended June 30, 2013 include:

Bay Division Pipeline No. 5 - Peninsula Reaches Pipeline	\$ 99,598
San Joaquin Pipeline - Western Segment - Pipeline	77,391
San Joaquin Pipeline - Eastern Segment - Pipeline	60,720
Crystal Springs Pipeline No. 2 - Pipeline	58,645
Automated Water Meters - Installed in FY 2013	25,096
Lake Merced Pump Station Upgrade - Mechanical System	19,869
Lake Merced Pump Station Upgrade - Electrical System	16,506
Lower Crystal Springs Dam Improvements	10,339
Lake Merced Pump Station Upgrade - Building	10,086
Bay Division Pipeline No. 5 Upgrade East Bay - Pipeline With Steel Casing	9,054
San Joaquin Pipeline - Eastern Segment - Mechanical Equipment/Valves/Vault	8,738
Bay Division Pipeline No. 5 - Cordilleras Micro-Tunnel	8,309
San Joaquin Pipeline - Eastern Segment	7,756
San Joaquin Pipeline - Western Segment - Exposed Pipeline	6,306
Bay Division Pipeline No. 3 and 4 Crossover - Barron Creek - Valves and Piping	5,676
Bay Division Pipeline No. 3 and 4 Crossover - Bear Gulch - Valves and Piping	5,613
Other items individually below \$5,000	131,086
Total	<u>\$ 560,788</u>

See Note 4 for additional information about Capital Assets.

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Water System Improvement Program

The WSIP delivers capital improvements that enhance the Enterprise's ability to provide reliable, affordable, high quality drinking water to its 27 wholesale customers and regional retail customers in Alameda, Santa Clara, and San Mateo Counties, collectively serving some 1.8 million people outside of San Francisco, as well as another 800,000 retail customers in San Francisco, in an environmentally sustainable manner. The program is structured to cost effectively meet water quality requirements and long-term water supply objectives, as well as improve seismic and delivery reliability.

As of June 30, 2013, the Enterprise is approximately 72% complete with its \$4.6 billion, multi-year program to upgrade the Hetch Hetchy Regional and Local Water Systems. The entire amount is fully appropriated, of which approximately \$3.2 billion of project appropriations have been expended through fiscal year ended June 30, 2013. The program consists of 35 local projects located within San Francisco and 47 regional projects spread over seven different counties from the Sierra Foothills to San Francisco. Based on the latest Commission approval dated on April 23, 2013, the program's revised target completion dates are June 2015 for local projects and April 2019 for regional projects. As of June 30, 2013, 31 or 89% of local projects are completed, and 24 or 51% of regional projects are completed. Additional details regarding the WSIP are available on the Enterprise's web site at www.sfwater.org.

525 Golden Gate Avenue Headquarters Project

The Headquarters Project was completed as of July 2012. The 13-story Class A office building at 525 Golden Gate Avenue in San Francisco received the prestigious LEED Platinum office building award in 2013. The Enterprise's share of the construction costs of the new headquarters was approximately \$138,023. Over the 100-year building lifespan, the total asset ownership will realize future ratepayers approximately \$3.7 billion in savings and insulates ratepayers from the expensive and unpredictable San Francisco office-space rental market. The building's carbon footprint is 50% lower and consumes 32% less energy and 60% less water than similarly sized office buildings.

Automated Water Meter Program

The SFPUC Advanced Meter Infrastructure System (AMI) eliminates regular manual meter reading field visits, improves customer service by providing more accurate and frequent meter reading information, facilitates the timely detection of leaks, and provides revenue protection for the utility and SFPUC customers. The estimated capital cost of this project is \$64,100. In addition to nearly a full meter replacement program, the cost includes the AMI system implementation. About 5% of meters are being AMI retrofitted. As of June 30, 2013, a total of 170,025 automated water meters were deployed encompassing over 95% of the SFPUC's total meter population. Almost 90% of the SFPUC customers are already receiving bills based on reads from AMI system. The projected substantial completion date was August 23, 2013, after which the program transitioned into final system testing with the SFPUC's contractor. The deployment of the remaining approximately 5% of meters will be installed by SFPUC staff through early 2015. Another benefit of the AMI program is the ability to share water use data with SFPUC's customers. The SFPUC is currently developing a web portal for viewing and paying bills online and accessing daily consumption information captured through the AMI system. This web portal was scheduled for a preliminary launch in January 2014.

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Debt Administration

As of June 30, 2014, the Enterprise has \$4,630,869 total debt outstanding, a decrease of \$18,903 over the prior year, as shown below in Table 4. More detailed information about the Enterprise's debt activity is presented in Notes 6, 7, and 8 to the financial statements.

Table 4
Outstanding Debt, Net of Unamortized Costs
As of June 30, 2014, 2013, and 2012

	2014	2013 (Restated)	2012 (Restated)	2014-2013 Change	2013-2012 Change
Revenue bonds	\$ 4,322,713	4,351,610	4,505,296	(28,897)	(153,686)
Capital appreciation bonds	5,107	4,767	4,450	340	317
Commercial paper	186,000	174,000	174,000	12,000	—
Certificates of participation	117,049	119,395	121,726	(2,346)	(2,331)
Total	<u>\$ 4,630,869</u>	<u>4,649,772</u>	<u>4,805,472</u>	<u>(18,903)</u>	<u>(155,700)</u>

Total debt outstanding at June 30, 2014 consisted of \$4,322,713 in fixed-rate, long-term revenue bonds, \$186,000 in commercial paper, \$117,049 in certificates of participation, and \$5,107 (accrued value) in capital appreciation bonds. The decrease in revenue bonds and certificates of participation is due to \$22,860 bond repayment plus \$8,383 amortization of premium. The Enterprise had \$186,000 in taxable commercial paper outstanding as of June 30, 2014 and \$174,000 as of June 30, 2013. In August, 2013, \$12,000 of commercial paper was issued to fund the Habitat Reserve Endowment project.

Credit Ratings and Bond Insurance – The Enterprise carried underlying ratings of “Aa3” and “AA-” from Moody's and Standard & Poor's (S&P) at June 30, 2014, and 2013, respectively.

Debt Service Coverage – Pursuant to the Amended and Restated Indenture, the Enterprise is required to collect sufficient net revenues each fiscal year, together with any Enterprise funds (except Bond Reserve Funds) which are available for payment of debt service and are not budgeted to be expended, at least equal to 1.25 times annual debt service for said fiscal year. During fiscal years 2014 and 2013, the Enterprise's net revenues, together with fund balances available to pay debt service and not budgeted to be expended, were sufficient to meet the rate covenant requirements under the Enterprise's Amended and Restated Indenture (see Note 8).

Debt Authorization – Pursuant to the Charter, the Enterprise can incur indebtedness upon two-thirds vote of the Board of Supervisors, as approved by voters in Proposition E in November 2002. As of June 30, 2014, the Board of Supervisors has authorized the issuance of \$3,260,531 in revenue bonds under Proposition E, with \$2,679,550 issued against this authorization. The Enterprise can also incur indebtedness of up to \$1,628,000 for improvements to the water system pursuant to Proposition A that was approved by the voters in November 2002. As of June 30, 2014, \$1,348,335 of the \$1,628,000 Proposition A authorized bonds were issued. The Enterprise is also authorized to issue up to \$500,000 in commercial paper. In May 2012, the Board of Supervisors authorized the Enterprise to refund up to \$500,000 in Water bonds without returning to the Board for additional authorization through June 30, 2017. In August 2012, the Enterprise issued refunding bonds Water 2012 Series D, and utilized \$24,040 of the authorization, leaving \$475,960 in remaining refunding authorization.

Cost of Debt Capital – The Enterprise's outstanding long-term debt has coupon interest rates ranging from 1.8% to 6.9% as of June 30, 2014 and 2013. The Enterprise's short-term debt has interest rates ranging from 0.1% to 0.2% during fiscal years 2014 and 2013. More information about the Enterprise's debt activities is presented in notes 6, 7, and 8 to the financial statements.

SAN FRANCISCO WATER ENTERPRISE
Management's Discussion and Analysis (Unaudited)
June 30, 2014 and 2013
(Dollars in thousands, unless otherwise stated)

Next Year's Rates

Average retail water rate increases of 6.5% and 12.0% have been approved for fiscal years ending June 30, 2014 and 2015, respectively. Wholesale water rates are adopted annually, and the Commission approved a 16.4% decrease for the fiscal year ended June 30, 2014 and a 19.6% increase for the fiscal year ending June 30, 2015.

Rate Setting Process

Proposition E, as approved by the voters in November 2002, amended the City Charter by adding the new Article VIII B, entitled "Public Utilities," which changed the Commission's ability to issue new revenue bonds and set retail water rates. For the retail water rate-setting, the Commission is required to:

- Establish rates, fees, and charges based on cost of service;
- Retain an independent rate consultant to conduct cost of service studies at least every five years;
- Consider establishing new connection fees;
- Consider conservation incentives and lifeline rates;
- Adopt a rolling five-year forecast annually; and
- Establish a Rate Fairness Board.

In the Spring of 2009, the SFPUC successfully negotiated a new WSA with our Wholesale Water Customers. The new contract took effect on July 1, 2009 and changed the rate basis by which the wholesale rates and revenues are determined from a "utility basis" to a "cash basis," resulting in the repayment of the cost of capital over the life of the debt funding of those assets rather than the life of the asset. The WSA requires the rate be calculated and set annually and include a reconciliation between prior-year revenues and expenses. The WSA has a 25-year term, beginning on July 1, 2009, with two 5-year extension options.

Pursuant to the City and County of San Francisco Charter Section 8B.125, an independent rate study is performed at least once every five years. A rate study was completed in April 2014 and proposed a four-year retail rate increased for the Enterprise. The four-year retail rate schedule was approved by the SFPUC Commission effective July 1, 2014 through fiscal year 2018.

SAN FRANCISCO WATER ENTERPRISE
Management's Discussion and Analysis (Unaudited)
June 30, 2014 and 2013
(Dollars in thousands, unless otherwise stated)

The following table is the Enterprise's average rate adjustments since July 1, 2004:

Effective date:	<u>Approved average rate adjustments</u>	
	<u>Retail</u>	<u>Wholesale</u>
July 1, 2004	0.0 %	2.7 %
July 1, 2005	15.0	(9.7) ¹
July 1, 2006	15.0	18.8
July 1, 2007	15.0 ²	6.3
July 1, 2008	15.0	10.0
July 1, 2009 ³	15.0 ⁴	15.7
July 1, 2010	15.0 ⁴	15.2
July 1, 2011	12.5 ⁴	38.4
July 1, 2012	12.5 ⁴	11.4
July 1, 2013	6.5 ⁴	(16.4)
July 1, 2014	12.0 ⁵	19.6 ⁶
July 1, 2015	12.0 ⁵	17.7 ⁷
July 1, 2016	10.0 ⁵	0.3 ⁷
July 1, 2017	7.0 ⁵	5.8 ⁷

¹ Adjustment effective April 1, 2005

² Adjustment effective July 14, 2007

³ July 1, 2009 was the first year of the WSA

⁴ Adjustment effective July 1, 2009 through July 1, 2013

⁵ Four-year rate increases for retail customers adopted effective July 1, 2014 through June 30, 2018

⁶ Wholesale rates are adopted annually, a one-year rate increase for wholesale customers was adopted effective July 1, 2014

⁷ Projected rate for wholesale customers

Request for Information

This report is designed to provide our citizens, customers, investors, and creditors with an overview of the Enterprise's finances and to demonstrate the Enterprise's accountability for the money it receives. Questions regarding any of the information provided in this report or requests for additional financial information should be addressed to San Francisco Public Utilities Commission, Chief Financial Officer, 525 Golden Gate Avenue, 13th Floor, San Francisco, CA 94102.

This report is available at <http://www.sfwater.org/index.aspx?page=347>.

SAN FRANCISCO WATER ENTERPRISE

Statements of Net Position

June 30, 2014 and 2013

(In thousands)

	2014	2013 (Restated)
Assets:		
Current assets:		
Cash and investments with City Treasury	\$ 328,798	322,090
Cash and investments outside City Treasury	106	138
Receivables:		
Charges for services (net of allowance for doubtful accounts of \$1,912 as of June 30, 2014 and \$2,188 as of June 30, 2013)	44,018	49,717
Wholesale balancing account	—	4,172
Due from other City departments	260	268
Due from other governments	177	2,345
Interest	391	165
Total current receivables	44,846	56,667
Prepaid charges, advances, and other	6,017	4,827
Inventories	7,735	7,564
Restricted cash and investments outside City Treasury, current portion	64,999	60,111
Total current assets	452,501	451,397
Non-current assets:		
Restricted cash and investments with City Treasury	597,887	1,090,566
Restricted cash and investments outside City Treasury	213,183	270,709
Restricted interest and other receivable	6,224	5,963
Capital assets not being depreciated	1,689,784	1,550,675
Capital assets, net of accumulated depreciation	2,637,766	2,308,253
Prepaid bond insurance costs, net of accumulated amortization	1,666	2,580
Total non-current assets	5,146,510	5,228,746
Total assets	5,599,011	5,680,143
Deferred outflows of resources:		
Unamortized loss on refunding of debt	17,505	18,805
Total deferred outflows of resources	17,505	18,805
Liabilities:		
Current liabilities:		
Accounts payable	9,724	6,214
Accrued payroll	10,392	9,421
Accrued vacation and sick leave, current portion	5,932	6,044
Accrued workers' compensation, current portion	1,419	1,364
Due to other City departments	9	40
Damage claims liability, current portion	6,263	2,976
Unearned revenues, refunds, and other	11,297	8,120
Bond and loan interest payable	37,043	37,251
Revenue bonds, current portion	25,850	20,825
Certificates of participation, current portion	2,106	2,035
Commercial paper	186,000	174,000
Wholesale balancing account	18,884	13,713
Current liabilities payable from restricted assets	79,180	133,884
Total current liabilities	394,099	415,887
Long-term liabilities:		
Arbitrage rebate	—	612
Other post-employment benefits obligations	94,762	85,829
Accrued vacation and sick leave, less current portion	5,538	5,673
Accrued workers' compensation, less current portion	7,316	7,135
Damage claims liability, less current portion	12,601	7,909
Revenue bonds, less current portion	4,296,863	4,330,785
Capital appreciation bonds	5,107	4,767
Certificates of participation, less current portion	114,943	117,360
Wholesale balancing account	10,467	9,810
Pollution remediation obligation	20,608	13,550
Total long-term liabilities	4,568,205	4,583,430
Total liabilities	4,962,304	4,999,317
Net position:		
Net investment in capital assets	366,799	364,863
Restricted for debt service	25,356	32,723
Restricted for capital projects	103,154	103,616
Unrestricted	158,903	198,429
Total net position	\$ 654,212	699,631

See accompanying notes to financial statements.

SAN FRANCISCO WATER ENTERPRISE
Statements of Revenues, Expenses, and Changes in Net Position
Years ended June 30, 2014 and 2013
(In thousands)

	2014	2013
	<u>2014</u>	<u>(Restated)</u>
Operating revenues:		
Charges for services	\$ 354,827	700,513
Rents and concessions	10,675	9,599
Capacity fees	2,373	2,087
Other revenues	12,007	9,271
Total operating revenues	<u>379,882</u>	<u>721,470</u>
Operating expenses:		
Personnel services	119,849	119,151
Contractual services	10,921	12,819
Materials and supplies	12,154	13,074
Depreciation	89,026	75,448
Services provided by other departments	54,856	57,684
General and administrative and other	46,749	25,563
Total operating expenses	<u>333,555</u>	<u>303,739</u>
Operating income	<u>46,327</u>	<u>417,731</u>
Non-operating revenues (expenses):		
Federal and state grants	715	4,593
Interest and investment income (loss)	10,907	(281)
Interest expenses	(136,645)	(147,741)
Amortization of premium, refunding loss, and issuance costs	6,169	5,002
Net gain from sale of assets	30	3,259
Other non-operating revenues	28,452	30,069
Other non-operating expenses	(2,089)	(2,327)
Net non-operating expenses	<u>(92,461)</u>	<u>(107,426)</u>
Change in net position before capital contributions and transfers	<u>(46,134)</u>	<u>310,305</u>
Capital contributions	310	—
Transfers from the City and County of San Francisco	1,704	66,375
Transfers to the City and County of San Francisco	(1,299)	(2,891)
Total capital contributions and transfers	<u>715</u>	<u>63,484</u>
Change in net position	<u>(45,419)</u>	<u>373,789</u>
Net position at beginning of year		
Beginning of year, as previously reported	699,631	358,495
Cumulative effect of accounting change	—	(32,653)
Beginning of year as restated	<u>699,631</u>	<u>325,842</u>
Net position at end of year	<u>\$ 654,212</u>	<u>699,631</u>

See accompanying notes to financial statements.

SAN FRANCISCO WATER ENTERPRISE

Statements of Cash Flows Years ended June 30, 2014 and 2013 (In thousands)

	2014	2013
Cash flows from operating activities:		
Cash received from customers, including cash deposits	\$ 387,830	749,456
Cash received from tenants for rent	10,325	9,153
Cash paid to employees for services	(107,380)	(104,394)
Cash paid to suppliers for goods and services	(95,614)	(102,542)
Cash paid for judgments and claims	(7,391)	(3,426)
Cash paid for rebates and program incentives	(845)	(1,177)
Cash received from miscellaneous revenue	4,315	4,018
Cash paid for miscellaneous expenses	(1,244)	(1,150)
Net cash provided by operating activities	189,996	549,938
Cash flows from non-capital financing activities:		
Transfers in (out)	(895)	60,984
Cash received from grants	2,883	2,590
Net cash provided by non-capital financing activities	1,988	63,574
Cash flows from capital and related financing activities:		
Proceeds from sale of capital assets	30	3,259
Proceeds from bond issuance	—	26,295
Proceeds from commercial paper borrowings	12,000	—
Principal paid on long-term debt	(22,860)	(168,271)
Interest paid on long-term debt	(222,724)	(235,931)
Interest paid on commercial paper	(340)	(338)
Issuance cost paid on long-term debt	—	(667)
Transfers in	1,300	2,500
Acquisition and construction of capital assets	(532,708)	(638,189)
Federal interest income subsidy from Build America Bonds	24,137	26,051
Net cash used in capital and related financing activities	(741,165)	(985,291)
Cash flows from investing activities:		
Interest income received	8,469	1,480
Proceeds from sale of investments outside City Treasury	401,272	321,321
Purchase of investments outside City Treasury	(350,617)	(228,368)
Net cash provided by investing activities	59,124	94,433
Decrease in cash and cash equivalents	(490,057)	(277,346)
Cash and cash equivalents:		
Beginning of year	1,574,192	1,851,538
End of year	\$ 1,084,135	1,574,192
Reconciliation of cash and cash equivalents to the statement of net position:		
Cash and investments with City Treasury:		
Unrestricted	\$ 328,798	322,090
Restricted	597,887	1,090,566
Cash and investments outside City Treasury:		
Unrestricted	106	138
Restricted	278,182	330,820
Less: Restricted (with maturity more than 90 days - see table in Note 3)	(120,270)	(170,925)
Less: Unrealized (gain) loss on investments	(568)	1,503
Cash and cash equivalents at end of year on statements of cash flows	\$ 1,084,135	1,574,192

SAN FRANCISCO WATER ENTERPRISE

Statements of Cash Flows

Years ended June 30, 2014 and 2013

(In thousands)

	<u>2014</u>	<u>2013</u>
Reconciliation of operating income to net cash provided by operating activities:		
Operating income	\$ 46,327	417,731
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	89,026	75,448
Provision for uncollectible accounts	(276)	483
Write-off of capital assets and other non-cash items	6,605	2,392
Rebates and program incentives	(845)	(1,177)
Miscellaneous revenue	3,071	2,868
Changes in operating assets and liabilities:		
Receivables:		
Charges for services	5,975	982
Wholesale balancing account	10,000	38,134
Interest and other	(1,310)	(2,890)
Inventories	(171)	318
Accounts payable	3,510	(2,276)
Due from other City departments	(23)	(34)
Accrued payroll	971	66
Accrued other post-employment benefits obligation	8,933	12,820
Accrued vacation and sick leave	(247)	(826)
Accrued workers' compensation	236	535
Pollution remediation obligation	7,058	2,850
Damage claims liability	7,979	1,790
Unearned revenues, refunds, and other liabilities	3,177	724
Total adjustments	<u>143,669</u>	<u>132,207</u>
Net cash provided by operating activities	\$ <u>189,996</u>	<u>549,938</u>
Noncash transactions:		
Accrued capital asset costs	\$ 79,180	133,884
Interfund loans payable	9	40
Capital contribution	310	—

See accompanying notes to financial statements.

SAN FRANCISCO WATER ENTERPRISE

Notes to Financial Statements

June 30, 2014 and 2013

(Dollars in thousands, unless otherwise stated)

(1) Description of Reporting Entity

The San Francisco Water Enterprise (the Enterprise) was established in 1930 under the provisions of the Charter of the City and County of San Francisco. The Enterprise acquired the fully developed, mature water works for San Francisco on March 3, 1930. Since then, the City and County of San Francisco (the City) has operated and maintained the water works as the San Francisco Water Enterprise. The Board of Supervisors of the City has adopted resolutions (the Water Resolutions) providing for the issuance of various water revenue and refunding bond series. The Enterprise, which consists of a system of reservoirs, storage tanks, water treatment plants, pump stations, and pipelines, is engaged in the distribution of water to San Francisco and certain suburban areas. In fiscal year 2014, the Enterprise sold approximately 79,205 million gallons, i.e. about 217 million gallons per day of water, to nearly 2.6 million people within San Francisco and certain suburban areas.

The San Francisco Public Utilities Commission (the Commission), established in 1932, is responsible for providing operational oversight of the public utility enterprises of the City, which include the Enterprise along with the City's power and sewer utilities (i.e. Hetch Hetchy Water and Power, of which the Power Enterprise is a component, and the San Francisco Wastewater Enterprise). The Commission is responsible for determining such matters as the rates and charges for services, approval of contracts, and organizational policy.

Until August 1, 2008, the Commission consisted of five members, all appointed by the Mayor. Proposition E, a City and County of San Francisco Charter amendment approved by the voters in the June 3, 2008 election, terminated the terms of all five existing members of the Commission, changed the process for appointing new members, and set qualifications for all members. Under the amended Charter, the Mayor continues to nominate candidates to the Commission, but nominees do not take office until the Board of Supervisors votes to approve their appointments by a majority (at least six members). The amended Charter provides for staggered four-year terms for the Commission members and requires them to meet the following qualifications:

- Seat 1 must have experience in environmental policy and an understanding of environmental justice issues.
- Seat 2 must have experience in ratepayer or consumer advocacy.
- Seat 3 must have experience in project finance.
- Seat 4 must have expertise in water systems, power systems, or public utility management.
- Seat 5 is an at-large member.

The Commission is a department of the City, and as such, the financial operations of the Enterprise, Hetch Hetchy Water and Power, and the Wastewater Enterprises are included in the Comprehensive Annual Financial Report (CAFR) of the City as enterprise funds. These financial statements are intended to present only the financial position, and the changes in financial position and cash flows of only that portion of the City that is attributable to the transactions of the Enterprise. They do not purport to, and do not, present fairly the financial position of the City as of June 30, 2014 and 2013, the changes in its financial position, or, where applicable, the cash flows for the years then ended in conformity with U.S. generally accepted accounting principles (GAAP).

SAN FRANCISCO WATER ENTERPRISE

Notes to Financial Statements

June 30, 2014 and 2013

(Dollars in thousands, unless otherwise stated)

(2) Significant Accounting Policies

(a) *Basis of Accounting and Measurement Focus*

The accounts of the Enterprise are organized on the basis of a proprietary fund type and are included as an enterprise fund of the City. The activities of this Enterprise are accounted for with a separate set of self-balancing accounts that comprise the Enterprise's assets, deferred outflows, liabilities, net position, revenues, and expenses. Enterprise funds account for activities (i) that are financed with debt that is secured solely by a pledge of the net revenues from fees and charges of the activity; or (ii) that are required by laws or regulations that the activity's costs of providing services, including capital costs (such as depreciation or debt service), be recovered with fees and charges, rather than with taxes or similar revenues; or (iii) that the pricing policies of the activity establish fees and charges designed to recover its costs, including capital costs (such as depreciation or debt service).

The financial activities of the Enterprise are accounted for on a flow of economic resources measurement focus, using the accrual basis of accounting in accordance with U.S. GAAP. Under this method, all assets and liabilities associated with its operations are included on the statement of net position; revenues are recognized when earned, and expenses are recognized when liabilities are incurred. Operating revenues are defined as charges to customers, rental income, and capacity fees.

The Enterprise applies all applicable Governmental Accounting Standards Board (GASB) pronouncements.

(b) *Cash and Cash Equivalents*

The Enterprise considers its pooled cash and investments held with the City Treasury to be demand deposits and, therefore, cash and cash equivalents for financial reporting. The City Treasury also holds non-pooled cash and investments for the Enterprise. Non-pooled restricted deposits and investments held outside the City Treasury with original maturities of three months or less are also considered to be cash equivalents.

(c) *Investments*

Money market funds are carried at cost, which approximates fair value. All other investments are stated at fair value based on quoted market prices. Changes in fair value are recognized as investment gains or losses and are recorded as a component of non-operating revenues.

(d) *Inventory*

Inventory consists primarily of construction materials and maintenance supplies and is valued at average cost. Inventory is expensed as it is consumed.

(e) *Capital Assets*

Capital assets are defined as assets with an initial individual cost of more than \$5 and an estimated useful life in excess of one year. Capital assets with an original acquisition date prior to July 1, 1977 are recorded in the financial statements at estimated cost, as determined by an independent professional appraisal, or at cost, if known. All subsequent acquisitions have been recorded at cost. All donated capital assets are valued at estimated fair value at the time of donation. Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the related assets, which range from 1 to 75 years for equipment and 1

SAN FRANCISCO WATER ENTERPRISE

Notes to Financial Statements

June 30, 2014 and 2013

(Dollars in thousands, unless otherwise stated)

to 200 years for buildings, structures, and improvements. No depreciation or amortization is recorded in the year of acquisition, and depreciation or amortization is recorded in the year of disposal.

(f) *Intangible Assets*

Under GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*, intangible assets are defined as identifiable, non-financial assets capable of being separated, sold, transferred, or licensed, and include contractual or legal rights. Examples of intangible assets include rights-of-way easements, land use rights, water rights, licenses, and permits. The accounting pronouncement also provides guidance on the capitalization of internally generated intangible assets, such as the development and installation of computer software by or on behalf of the reporting entity.

According to the standard, the Enterprise is required to capitalize intangible assets with a useful life extending beyond one reporting period. The Enterprise has established a capitalization threshold of \$100. GASB Statement No. 51, *Accounting and Financial Reporting for Intangible Assets*, also requires amortization of intangible assets over the benefit period, except for certain assets having an indefinite useful life. Assets with an indefinite useful life generally provide a benefit that is not constrained by legal or contractual limitations or any other external factor, and therefore, are not amortized (see Note 4).

(g) *Construction Work in Progress*

The cost of acquisition and construction of major plant and equipment is recorded as construction work in progress. Costs of discontinued construction projects are recorded as an expense in the year in which the decision is made to discontinue such projects.

(h) *Capitalization of Interest*

A portion of the interest cost incurred on capital projects is capitalized for assets that require a period of time to construct or to otherwise prepare them for their intended use. Such amounts are amortized over the useful lives of the assets (see Note 4).

(i) *Bond Discount, Premium, and Issuance Costs*

Bond issuance costs related to prepaid insurance costs are capitalized and amortized using the effective interest method. Other bond issuance costs are expensed when incurred. Original issue bond discount or premium are offset against the related debt and are also amortized using the effective interest method.

(j) *Accrued Vacation and Sick Leave*

Accrued vacation pay, which may be accumulated up to 10 weeks per employee, is charged to expense as earned. Sick leave earned subsequent to December 6, 1978 is non-vesting and may be accumulated up to six months per employee.

(k) *Workers' Compensation*

The Enterprise is self-insured for workers' compensation claims and accrues the estimated cost of those claims, including the estimated cost of incurred but not reported claims (see Note 12(c)).

SAN FRANCISCO WATER ENTERPRISE

Notes to Financial Statements

June 30, 2014 and 2013

(Dollars in thousands, unless otherwise stated)

(l) General Liability

The Enterprise is self-insured for general liability and uninsurable property damage claims. Commercially uninsurable property includes assets that are underground or provide transmission and distribution. Maintained commercial coverage does not cover claims attributed to loss from earthquake, contamination, pollution remediation efforts, and other specific naturally occurring contaminants such as mold. The liability represents an estimate of the cost of all outstanding claims, including adverse loss development and estimated incurred but not reported claims (see Note 12(a)).

(m) Arbitrage Rebate Payable

Certain bonds are subject to arbitrage rebate requirements in accordance with regulations issued by the U.S. Treasury Department. The requirements generally stipulate that earnings from the investment of the tax-exempt bond proceeds that exceed related interest costs on the bonds must be remitted to the federal government on every fifth anniversary of each bond issue. The arbitrage rebate liability was \$0 and \$612 at June 30, 2014 and 2013, respectively (see Note 7).

(n) Refunding of Debt

Gains or losses occurring from refunding of debt prior to maturity are reported as deferred outflows and deferred inflows of resources from refunding of debt. Deferred outflows and deferred inflows of resources are recognized as a component of interest expense using the effective interest method over the remaining life of the old debt or the life of the new debt, whichever is shorter.

(o) Income Taxes

As a government agency, the Enterprise is exempt from both federal income taxes and California state franchise taxes.

(p) Revenue Recognition

Water service charges are based on water usage as determined by the Enterprise. Effective July 2013, the majority of residential and non-residential customers are billed on a monthly basis except for building and contractor customers which are billed on a bi-monthly basis. Revenues earned but unbilled are accrued as charges for services and reflected as a receivable on the statements of net position.

(q) Use of Estimates

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

(r) Reclassifications

Certain reclassifications have been made to prior year amounts to conform to current year presentation.

SAN FRANCISCO WATER ENTERPRISE

Notes to Financial Statements

June 30, 2014 and 2013

(Dollars in thousands, unless otherwise stated)

(s) *Accounting and Financial Reporting for Pollution Remediation Obligations*

According to GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, a government would have to estimate its expected outlays for pollution remediation if it knows a site is polluted, and any of the following recognition triggers occur:

- Pollution poses an imminent danger to the public or environment and a government has little or no discretion to avoid fixing the problem;
- A government has violated a pollution prevention-related permit or license;
- A regulator has identified (or evidence indicates it will identify) a government as responsible (or potentially responsible) for cleaning up pollution, or for paying all or some of the cost of the cleanup;
- A government is named (or evidence indicates that it will be named) in a lawsuit to compel it to address the pollution; or
- A government begins or legally obligates itself to begin cleanup or post-cleanup activities (limited to amounts the government is legally required to complete).

As a part of ongoing operations, situations may occur requiring the removal of pollution or other hazardous material. These situations typically arise in the process of acquiring an asset, preparing an asset for its intended use, or during the design phase of projects under review by the project managers. Other times, pollution may arise during the implementation and construction of a major or minor capital project. Examples of pollution may include, but are not limited to: asbestos or lead paint removal, leaking of sewage in underground pipes or neighboring areas, chemical spills, removal and disposal of known toxic waste, harmful biological and chemical pollution of water, or contamination of surrounding soils by underground storage tanks (see Note 13(d)).

(t) *New Accounting Standard Adopted*

In March 2012, GASB issued Statement No. 65, *Items Previously Reported as Assets and Liabilities*. This Statement is a related or companion standard to GASB Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources, and Net Position*. GASB Statement No. 65 establishes accounting and financial reporting standards that reclassify, as deferred outflows of resources or deferred inflows of resources, certain items that were previously reported as assets and liabilities and recognizes, as outflows of resources or inflows of resources. The requirements of this Statement will improve financial reporting by clarifying the appropriate use of the financial statement elements, deferred outflows of resources and deferred inflows of resources, to ensure consistency in financial reporting. The provisions of the Statement No. 65 are effective for financial statements for periods beginning after December 15, 2012. The Enterprise adopted the requirements of this Statement for fiscal year ended June 30, 2014, therefore restating the financial statements for the earliest period presented as of July 1, 2012.

As a result, the requirements of this Statement restated the beginning net position effective July 1, 2012 in the amount of \$32,653 to write off unamortized bond issuance costs previously classified as assets. The requirements have also written off \$3,942 of bond issuance costs

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included in the calculation of refunding losses, and reclassified the remaining \$18,805 of unamortized loss on refunding of debt from a contra liability to a deferred outflow of resources.

(u) Future Implementation of New Accounting Standards

- 1) In June 2012, the GASB issued Statement No. 68 – *Accounting and Financial Reporting for Pensions*. GASB Statement No. 68 revises and establishes new accounting and financial reporting requirements for most governments that provide their employees with pension benefits. The new standard is effective for periods beginning after June 15, 2014. The Enterprise will implement the provisions of Statement No. 68 in fiscal year 2015.
- 2) In January 2013, the GASB issued Statement No. 69 – *Government Combinations and of Government Operations*. GASB Statement No. 69 establishes accounting and financial reporting standards for governments that combine or dispose of their operations. The new standard is effective for periods beginning after December 15, 2013. The Enterprise will implement the provisions of Statement No. 69 in fiscal year 2015.
- 3) In April 2013, the GASB issued Statement No. 70 – *Accounting and Financial Reporting Nonexchange Financial Guarantees*. GASB Statement No. 70 establishes accounting and financial reporting standards for governments that offer or receive financial guarantees that are nonexchange transactions. The new standard is effective for periods beginning after June 15, 2013. As of July 1, 2014, the Enterprise adopted the provisions of this statement, which did not have a significant impact on its financial statements.
- 4) In November 2013, the GASB issued Statement No. 71 – *Pension Transition for Contributions Subsequent to the Measurement Date*. GASB Statement No. 71 modifies the transition guidance provided in GASB Statement No. 68. The new standard is to be applied simultaneously with the provisions of GASB Statement No. 68. The Enterprise will implement the provisions of Statement No. 71 in fiscal year 2015.

(3) Cash, Cash Equivalents, and Investments

The Enterprise's cash, cash equivalents and investments with the City Treasury are invested in an unrated City pool pursuant to investment policy guidelines established by the City Treasurer. The objectives of the policy guidelines are, in order of priority, preservation of capital, liquidity, and yield. The policy addresses soundness of financial institutions in which the City will deposit funds, types of investment instruments as permitted by the California Government Code, and the percentage of the portfolio that may be invested in certain instruments with longer terms to maturity. The City Treasurer allocates income from the investment of pooled cash at month-end in proportion to the Enterprise's average daily cash balances. The primary objectives of the Enterprise's investment policy are consistent with the City's policy.

Restricted assets are held by an independent trustee outside the City's investment pool. The assets are held for the purpose of paying future interest and principal on the bonds and for eligible capital project expenditures. The balances as of June 30, 2014 and 2013 were \$278,182 and \$330,820, respectively. The Enterprise held all investments in guaranteed investment contracts, treasury and government obligations, commercial paper, corporate bonds, and notes, as well as money market mutual funds consisting of Treasury and Government Obligations.

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The following tables present the restricted cash and investments outside City Treasury as of June 30, 2014 and 2013.

Restricted Cash and Investments outside City Treasury			
Investments	Credit Ratings (S&P/Moody's)	June 30, 2014	
		Maturities	Fair Value
U.S. Treasury Notes	AA+/Aaa	August 31, 2016	\$ 28,489
U.S. Agencies	AA+/Aaa	April 18, 2016	58,827
U.S. Agencies	AA+/Aaa	August 20, 2015	7,066
U.S. Treasury Notes	AA+/Aaa	October 15, 2014	901
Commercial Paper	P-1/A-1+	October 1, 2014	12,974
Commercial Paper	P-1/A-1+	July 23, 2014	12,013
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	118,121
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	2,345
Money Market Funds	Not Applicable	< 90 days	37,446
Total			<u>\$ 278,182</u>

Restricted Cash and Investments outside City Treasury			
Investments	Credit Ratings (S&P/Moody's)	June 30, 2013	
		Maturities	Fair Value
U.S. Treasury Notes	AA+/Aaa	August 31, 2016	\$ 28,963
U.S. Agencies	AA+/Aaa	April 18, 2016	61,012
U.S. Agencies	AA+/Aaa	August 20, 2015	7,066
U.S. Treasury Notes	AA+/Aaa	October 15, 2014	903
U.S. Agencies	AA+/Aaa	May 19, 2014	28,565
U.S. Treasury Notes	AA+/Aaa	April 15, 2014	14,320
U.S. Agencies	AA+/Aaa	April 2, 2014	3,270
U.S. Agencies	AA+/Aaa	October 28, 2013	12,510
U.S. Treasury Notes	AA+/Aaa	October 15, 2013	14,316
U.S. Treasury Money Market Funds	AAA/Aaa	< 90 days	155,000
Money Market Funds	AAA/Aaa	< 90 days	3,257
Money Market Funds	AAA/Aaa	< 90 days	1,638
Total			<u>\$ 330,820</u>

The restricted cash and investments outside City Treasury as of June 30, 2014 and 2013 included a \$1,433 unrealized loss and \$988 unrealized gain due to changes in fair values on U.S. Treasury Notes and U.S. Agencies, respectively.

Funds held by the trustee established under the 2002 Amended and Restated Indentures agreements are invested in "Permitted Investments," as defined in the agreement, which includes money market funds and investment agreements. The agreement permits investment in money market funds registered under the Federal Investment Company Act of 1940 and whose shares are also registered under the Federal Securities Act of 1933 and having a rating by S&P of "AAAm-G," "AAAm" or "AAm", and a rating by Moody's of "Aaa," "Aa1", or "Aa2." The credit ratings of the money market funds invested in as of June 30, 2014 and June 30, 2013 were "Aaa" by Moody's and "AAA" by S&P. Investment agreements must be with a U.S. bank or trust company having a rating by Moody's

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and S&P of “A” or higher, or are guaranteed by any entity with a rating of “A” or higher, at the time the agreement is entered.

Additional cash outside of the investment pool included revolving fund and cash in transit. The revolving fund has a balance of \$33 at June 30, 2014 and 2013, which is held in a commercial bank in non-interest bearing checking accounts covered by Federal Deposit Insurance Corporation depository insurance. These accounts were established as provided by the City’s Administrative Code for revolving fund needs. The cash in transit was \$73 and \$105 at June 30, 2014 and 2013, respectively.

The Enterprise’s cash, cash equivalents, and investments are shown on the accompanying statements of net position as follows:

	<u>2014</u>	<u>2013</u>
Current assets:		
Cash and investments with City Treasury	\$ 328,798	322,090
Cash and investments outside City Treasury	106	138
Restricted cash and investments outside City Treasury	64,999	60,111
Non-current assets:		
Restricted cash and investments with City Treasury	597,887	1,090,566
Restricted cash and investments outside City Treasury	213,183	270,709
Total cash, cash equivalents, and investments	\$ <u>1,204,973</u>	<u>1,743,614</u>

The following table shows the percentage distribution of the City’s pooled investments by maturity as of June 30, 2014:

<u>Investment maturities (in months)</u>			
<u>Under 1</u>	<u>1 to less than 6</u>	<u>6 to less than 12</u>	<u>12 to 60</u>
3.4%	9.6%	15.6%	71.4%

The following table shows the percentage distribution of the City’s pooled investments by maturity as of June 30, 2013:

<u>Investment maturities (in months)</u>			
<u>Under 1</u>	<u>1 to less than 6</u>	<u>6 to less than 12</u>	<u>12 to 60</u>
9.1%	4.9%	9.4%	76.6%

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(4) Capital Assets

Capital assets as of June 30, 2014 and 2013 consist of the following:

	<u>Balance June 30, 2013</u>	<u>Increases</u>	<u>Decreases</u>	<u>Balance June 30, 2014</u>
Capital assets not being depreciated:				
Land	\$ 24,307	2,504	—	26,811
Intangible assets	679	—	—	679
Construction work in progress	1,525,689	557,730	(421,125) *	1,662,294
Total capital assets not being depreciated	<u>1,550,675</u>	<u>560,234</u>	<u>(421,125)</u>	<u>1,689,784</u>
Capital assets being depreciated:				
Facilities and improvements	2,915,004	411,437	—	3,326,441
Intangible assets	12,358	1,288	—	13,646
Machinery and equipment	262,870	5,814	(713)	267,971
Total capital assets being depreciated	<u>3,190,232</u>	<u>418,539</u> *	<u>(713)</u>	<u>3,608,058</u>
Less accumulated depreciation for:				
Facilities and improvements	(741,800)	(72,329)	—	(814,129)
Intangible assets	(5,007)	(2,422)	—	(7,429)
Machinery and equipment	(135,172)	(14,275)	713	(148,734)
Total accumulated depreciation	<u>(881,979)</u>	<u>(89,026)</u>	<u>713</u>	<u>(970,292)</u>
Total capital assets being depreciated, net	<u>2,308,253</u>	<u>329,513</u>	<u>—</u>	<u>2,637,766</u>
Total capital assets, net	<u>\$ 3,858,928</u>	<u>889,747</u>	<u>(421,125)</u>	<u>4,327,550</u>

* Decrease in construction work in progress is greater than increase in capital assets being depreciated is explained by \$6,605 in capital project write-offs, mainly relating to the Local Water Repair and Replacement Project, the Regional Repair and Replacement-Conveyance Transmission Project, the Tesla Treatment Facility Project, the Water Transmission Project, and the Water Main Replacement/Retrofit Project.

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	<u>Balance</u> <u>June 30, 2012</u>	<u>Increases</u>	<u>Decreases</u>	<u>Balance</u> <u>June 30, 2013</u>
Capital assets not being depreciated:				
Land	\$ 24,711	96	(500)	24,307
Intangible assets	679	—	—	679
Construction work in progress	1,385,860	697,544	(557,715) *	1,525,689
Total capital assets not being depreciated	<u>1,411,250</u>	<u>697,640</u>	<u>(558,215)</u>	<u>1,550,675</u>
Capital assets being depreciated:				
Facilities and improvements	2,374,579	540,425	—	2,915,004
Intangible assets	11,834	524	—	12,358
Machinery and equipment	243,561	19,839	(530)	262,870
Total capital assets being depreciated	<u>2,629,974</u>	<u>560,788</u>	<u>(530)</u>	<u>3,190,232</u>
Less accumulated depreciation for:				
Facilities and improvements	(681,704)	(60,096)	—	(741,800)
Intangible assets	(2,681)	(2,326)	—	(5,007)
Machinery and equipment	(122,673)	(13,026)	527	(135,172)
Total accumulated depreciation	<u>(807,058)</u>	<u>(75,448)</u>	<u>527</u>	<u>(881,979)</u>
Total capital assets being depreciated, net	<u>1,822,916</u>	<u>485,340</u>	<u>(3)</u>	<u>2,308,253</u>
Total capital assets, net	<u>\$ 3,234,166</u>	<u>1,182,980</u>	<u>(558,218)</u>	<u>3,858,928</u>

* Includes \$2,392 in capital project write-offs mainly relating to Facilities Maintenance and Repairs and Watershed Environmental Improvement Program.

Capital assets with a useful life of 50 years or greater include buildings and structures, reservoirs, dams, treatment plants, pump stations, certain water mains and pipelines, sewer systems, tunnels, and bridges.

GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, requires that interest expense incurred during construction of assets be capitalized. Interest included in the construction work in progress and total interest expense incurred during the years ended June 30, 2014 and 2013 are as follows:

	<u>2014</u>	<u>2013</u> <u>(Restated)</u>
Interest expensed	\$ 136,645	147,741
Interest included in construction work in progress	85,940	78,131
Total interest incurred	<u>\$ 222,585</u>	<u>225,872</u>

During fiscal years ended in 2014 and 2013, the Enterprise expensed \$6,605 and \$2,392, respectively, related to design and planning costs on certain projects. The amounts of the write-offs were recognized as other operating expenses in the accompanying statement of revenues, expenses, and changes in net position.

(5) Restricted Assets

Pursuant to the Indentures, all revenues of the Enterprise (except amounts on deposit in the rebate fund) are irrevocably pledged to the punctual payment of debt service on the Water Revenue and

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Refunding Bonds. Accordingly, the revenues of the Enterprise shall not be used for any other purpose while any of its Water Revenue and Refunding Bonds are outstanding, except as expressly permitted by the Indentures. Further, all revenues shall be deposited by the City Treasurer, by instruction of the Enterprise, in special funds designated as the Water Enterprise Revenue Fund (the Water Revenue Fund), which must be maintained in the City Treasury. These funds, held at the City Treasury, are recorded in the statement of net position of the Enterprise as cash and investments. Deposits in the Water Revenue Fund, including earnings thereon, shall be appropriated, transferred, expended, or used for the following purposes pertaining to the financing, maintenance, and operation of the Enterprise in accordance with the following priority:

1. The payment of operation and maintenance expenses for such utility and related facilities;
2. The payment of pension charges and proportionate payments to such compensation and other insurance or outside reserve funds as the Enterprise may establish or the Board of Supervisors may require with respect to employees of the Enterprise;
3. The payment of principal, interest, reserve, sinking fund, and other mandatory funds created to secure Revenue Bonds issued by the Enterprise for the acquisition, construction, or extension of facilities owned, operated, or controlled by the Enterprise;
4. The payment of principal and interest on General Obligation Bonds issued by the City for the Enterprise's purposes;
5. Reconstruction and replacement as determined by the Enterprise or as required by any of the Enterprise's Revenue Bond ordinances duly adopted and approved; and
6. The acquisition of land, real property, or interest in real property for, and the acquisition, construction, enlargement, and improvement of, new and existing buildings, structures, facilities, equipment, appliances, and other property necessary or convenient to the development or improvement of such utility owned, controlled, or operated by the Enterprise; and for any other lawful purpose of the Enterprise, including the transfer of surplus funds pursuant to Section 6.407(e) of the City's Charter.

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In accordance with the Indenture, the bond financing program maintains that certain restricted cash and investment balances be held in trust. Restricted assets held in trust consisted of the following as of June 30, 2014 and 2013:

	<u>2014</u>	<u>2013</u>
Cash and investments with City Treasury:		
Water revenue bond construction fund	\$ 597,887	1,090,566
Cash and investments outside City Treasury:		
1991 Capital Appreciation Bond	2,515	2,515
2006A Water revenue bond fund	21,928	23,164
2006B Water revenue bond fund	3,622	3,433
2006C Water revenue bond fund	2,178	1,873
2009A Water revenue bond fund	20,788	21,441
2009B Water revenue bond fund	21,775	22,039
2010ABC Water revenue bond fund	31,027	31,178
2010D Water revenue bond fund	5,594	5,548
2010E Water revenue bond fund	21,914	21,890
2010F Water revenue bond fund	10,486	14,954
2010G Water revenue bond fund	26,714	35,441
2011A Water revenue bond fund	29,954	53,976
2011B Water revenue bond fund	1,400	1,398
2011C Water revenue bond fund	1,605	1,603
2011D Water revenue bond fund	5,389	2,765
2012A Water revenue bond fund	41,234	68,641
2012B Water revenue bond fund	897	897
2012C Water revenue bond fund	5,175	5,176
2012D Water revenue bond fund	2,564	2,564
2009C Certificates of participation - 525 Golden Gate	1,699	3,861
2009D Certificates of participation - 525 Golden Gate	7,712	6,463
Habitat reserve endowment fund	12,012	—
Total cash and investments outside City Treasury	<u>278,182</u>	<u>330,820</u>
Interest and other receivables:		
Water bond construction fund including capacity fee receivables	<u>6,224</u>	<u>5,963</u>
Total restricted assets	<u>\$ 882,293</u>	<u>1,427,349</u>

Restricted assets listed above as cash and investments with City Treasury are held in subfunds accounts within the Water Revenue Fund.

(6) Short-Term Debt

The Commission and the Board of Supervisors have authorized the issuance of up to \$500,000 in commercial paper pursuant to the voter-approved 2002 Proposition E. (Prior to June 2014, the \$500,000 commercial paper authorization was comprised of \$250,000 pursuant to the voter-approved 2002 Proposition A, and \$250,000 pursuant to the voter-approved Proposition E). As of June 30, 2014 and 2013, no commercial paper was outstanding under Proposition A and \$186,000 in commercial paper was outstanding under Proposition E. Commercial paper interest rates ranged from 0.1% to 0.2%.

With maturities up to 270 days, the Enterprise intends to maintain the program by remarketing the commercial paper upon maturity over the near-to-medium term, at which time outstanding

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commercial paper will likely be refunded with revenue bonds. This is being done to take advantage of the continued low interest rate environment. If the commercial paper interest rates rise to a level that exceeds these benefits, the Enterprise will refinance the commercial paper with the long-term, fixed-rate debt.

(7) Changes in Long-Term Liabilities

Long-term liability activities for the years ended June 30, 2014 and 2013 are as follows:

	Interest rate *	Maturity (Calendar Year)	July 1, 2013 [#]	Additions	Reductions	June 30, 2014	Due within one year
Revenue Bonds:							
2006A revenue bonds	4.00 – 5.00%	2036	\$ 439,290	—	(3,625)	435,665	3,805
2006B revenue refunding bonds	4.00 – 5.00	2026	90,690	—	(3,825)	86,865	4,015
2006C revenue refunding bonds	4.00 – 5.00	2026	33,420	—	(2,810)	30,610	2,925
2009A revenue bonds	4.00 – 5.30	2039	372,400	—	(2,720)	369,680	2,860
2009B revenue bonds	4.00 – 5.00	2039	377,705	—	(4,170)	373,535	4,340
2010A revenue bonds	2.00 – 5.00	2030	43,210	—	(400)	42,810	410
2010B revenue bonds (Build America)	4.00 – 6.00	2040	417,720	—	—	417,720	—
2010C revenue refunding bonds	5.00	2015	10,915	—	(3,275)	7,640	3,450
2010D revenue refunding bonds	3.00 – 5.00	2021	92,100	—	—	92,100	—
2010E revenue bonds (Build America)	4.90 – 6.00	2040	344,200	—	—	344,200	—
2010F revenue bonds	3.00 – 5.50	2030	177,665	—	—	177,665	—
2010G revenue bonds (Build America)	6.90	2050	351,470	—	—	351,470	—
2011A revenue bonds	4.30 – 5.00	2041	602,715	—	—	602,715	—
2011B revenue bonds	3.50 – 5.00	2041	28,525	—	—	28,525	—
2011C revenue bonds	3.00 – 5.00	2041	30,140	—	—	30,140	—
2011D revenue refunding bonds	4.00 – 5.00	2028	55,465	—	—	55,465	4,045
2012A revenue bonds	4.00 – 5.00	2043	591,610	—	—	591,610	—
2012B revenue bonds	4.00 – 5.00	2043	16,520	—	—	16,520	—
2012C1 revenue refunding bonds	4.00 – 5.00	2031	24,180	—	—	24,180	—
2012C2 revenue refunding bonds	4.00 – 5.00	2032	69,570	—	—	69,570	—
2012D revenue refunding bonds	1.80 – 5.00	2019	24,040	—	—	24,040	—
For issuance premiums			158,060	—	(8,072)	149,988	—
Total revenue bonds payable			4,351,610	—	(28,897)	4,322,713	25,850
1991 capital appreciation bonds	0.00	2019	4,767	340	—	5,107	—
2009C certificates of participation (COPs)	2.00 – 5.00	2022	25,247	—	(2,035)	23,212	2,106
2009C COPs issuance premiums			1,649	—	(311)	1,338	—
2009D COPs (Build America)	6.36 – 6.49	2041	92,499	—	—	92,499	—
Other post-employment benefits obligation			85,829	17,046	(8,113)	94,762	—
Arbitrage rebate payable			612	—	(612)	—	—
Accrued vacation and sick leave			11,717	8,913	(9,160)	11,470	5,932
Accrued workers' compensation			8,499	3,049	(2,813)	8,735	1,419
Damage claims liability			10,885	17,690	(9,711)	18,864	6,263
Wholesale balancing account			23,523	5,828	—	29,351	18,884
Pollution remediation obligation			13,550	7,058	—	20,608	—
Total			\$ 4,630,387	59,924	(61,652)	4,628,659	60,454

* After adjusting for the federal interest subsidy, the true interest costs for revenue bonds 2010 Series B, E, and G, all issued as Build America Bonds, are 3.9%, 3.8%, and 4.5%, respectively. After adjusting for the federal interest subsidy, the true interest cost for the certificates of participation 2009 Series D, also issued as Build America Bonds, is 4.3%.

The June 30, 2013 balance was restated to reflect the impact of GASB Statement No. 65 implementation. For fiscal year 2013, the unamortized loss on refunding of debt of \$18,805 was reclassified to deferred outflows of resources.

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	Interest rate *	Maturity (Calendar Year)	July 1, 2012 [#]	Additions	Reductions	June 30, 2013 [#]	Due within one year
Revenue Bonds:							
2002A revenue bonds	2.50 – 5.00%	2013	\$ 3,785	—	(3,785)	—	—
2002B revenue refunding bonds	3.00 – 5.00	2013	31,425	—	(31,425)	—	—
2006A revenue bonds	4.00 – 5.00	2036	470,310	—	(31,020)	439,290	3,625
2006B revenue refunding bonds	4.00 – 5.00	2026	94,335	—	(3,645)	90,690	3,825
2006C revenue refunding bonds	4.00 – 5.00	2026	36,125	—	(2,705)	33,420	2,810
2009A revenue bonds	4.00 – 5.30	2039	405,540	—	(33,140)	372,400	2,720
2009B revenue bonds	4.00 – 5.00	2039	405,390	—	(27,685)	377,705	4,170
2010A revenue bonds	2.00 – 5.00	2030	55,155	—	(11,945)	43,210	400
2010B revenue bonds (Build America)	4.00 – 6.00	2040	417,720	—	—	417,720	—
2010C revenue refunding bonds	5.00	2015	14,040	—	(3,125)	10,915	3,275
2010D revenue refunding bonds	3.00 – 5.00	2021	102,725	—	(10,625)	92,100	—
2010E revenue bonds (Build America)	4.90 – 6.00	2040	344,200	—	—	344,200	—
2010F revenue bonds	3.00 – 5.50	2030	180,960	—	(3,295)	177,665	—
2010G revenue bonds (Build America)	6.90	2050	351,470	—	—	351,470	—
2011A revenue bonds	4.30 – 5.00	2041	602,715	—	—	602,715	—
2011B revenue bonds	3.50 – 5.00	2041	28,975	—	(450)	28,525	—
2011C revenue bonds	3.00 – 5.00	2041	33,595	—	(3,455)	30,140	—
2011D revenue refunding bonds	4.00 – 5.00	2028	55,465	—	—	55,465	—
2012A revenue bonds	4.00 – 5.00	2043	591,610	—	—	591,610	—
2012B revenue bonds	4.00 – 5.00	2043	16,520	—	—	16,520	—
2012C1 revenue refunding bonds	4.00 – 5.00	2031	24,180	—	—	24,180	—
2012C2 revenue refunding bonds	4.00 – 5.00	2032	69,570	—	—	69,570	—
2012D revenue refunding bonds	1.80 – 5.00	2019	—	24,040	—	24,040	—
For issuance premiums			169,486	3,036	(14,462)	158,060	—
Total revenue bonds payable			4,505,296	27,076	(180,762)	4,351,610	20,825
1991 capital appreciation bonds	0.00	2019	4,450	317	—	4,767	—
2009C certificates of participation (COPs)	2.00 – 5.00	2022	27,218	—	(1,971)	25,247	2,035
2009C COPs issuance premiums			2,009	—	(360)	1,649	—
2009D COPs (Build America)	6.36 – 6.49	2041	92,499	—	—	92,499	—
Other post-employment benefits obligation			73,009	20,695	(7,875)	85,829	—
Arbitrage rebate payable			591	21	—	612	—
Accrued vacation and sick leave			12,543	7,945	(8,771)	11,717	6,044
Accrued workers' compensation			7,964	3,232	(2,697)	8,499	1,364
Damage claims liability			9,095	5,812	(4,022)	10,885	2,976
Wholesale balancing account			—	23,523	—	23,523	13,713
Pollution remediation obligation			10,700	2,850	—	13,550	—
Total			\$ 4,745,374	91,471	(206,458)	4,630,387	46,957

* After adjusting for the federal interest subsidy, the true interest costs for revenue bonds 2010 Series B, E, and G, all issued as Build America Bonds, are 3.9%, 3.8%, and 4.5%, respectively. After adjusting for the federal interest subsidy, the true interest cost for the certificates of participation 2009 Series D, also issued as Build America Bonds, is 4.3%.

The June 30, 2013 balance was restated to reflect the impact of GASB Statement No. 65 implementation. For fiscal years 2013 and 2012, the unamortized loss on refunding of debt of \$18,805 and \$12,796 were reclassified to deferred outflows of resources.

The payments of principal and interest amounts on various bonds are secured by net revenues of the Enterprise.

(a) Capital Appreciation Bonds

The capital appreciation bonds mature from November 1, 2018 and November 1, 2019. The bonds were insured by MBIA and carried “Aaa” and “AAA” ratings from Moody’s and S&P, respectively. In February 2009, the bonds were further reinsured by National Public Finance Guarantees Corp. (NPFGC) and carried “Baa1” and “A” ratings from Moody’s and S&P,

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respectively. On May 29, 2013, the SFPUC transferred \$2,500 to U.S. Bank, trustee of the 1991 Series A San Francisco Water Revenue Bonds (the Bonds), for the purpose of replacing the debt service reserve surety policy that had been satisfying the reserve requirement of the bonds. The surety policy had been provided by NPFGC. With this transfer, the surety policy is effectively terminated. The amount deposited with the U.S. Bank will continue to satisfy the reserve requirement on the bonds. Interest on the capital appreciation bonds is due upon maturity and is recognized as annual interest expense over the life of the bonds using the interest method. The Enterprise has recognized \$5,107 and \$4,767 of unpaid principal and interest on the capital appreciation bonds as of June 30, 2014 and 2013, respectively, and has reported it as capital appreciation bonds in the accompanying statements of net position.

(b) *Water Revenue Bonds 2002 Series A*

In August 2010, the Enterprise issued \$102,725 of the 2010 Series D revenue bonds for the purpose of refunding \$31,570 of then-outstanding 2002 Series A revenue bonds, providing \$72,243 in new money for WSIP implementation, funding the debt service reserve and capitalized interest funds, and paying the costs of issuing the bonds. The 2010 bonds bear coupon rates of 3.0% to 5.0% and mature serially from 2015 to 2021. The refunded 2002 Series A bonds carried a coupon rate of 5.0% and will mature between 2016 and 2021. Unamortized 2002 Series A bond issuance costs were \$208 at the date of the refunding. Although the refunding resulted in the recognition of a deferred accounting loss of \$3,405, the economic gain was \$2,703 or 8.6% of the refunded principal.

A portion of the proceeds of the 2010 Series D revenue bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated August 1, 2010, to refund and legally defease a portion of the outstanding 2002 Series A bonds. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities-State and Local Government Series (SLGS). The principal and interest on monies held by the escrow agent will be sufficient to redeem the refunded 2002 Series A bonds on August 1, 2012 by optional redemption.

On August 4, 2011, the Enterprise issued \$55,465 of the 2011 Series D revenue bonds for the purpose of refunding \$28,295 of then-outstanding 2002 Series A revenue bonds and a portion of 2001 Series A revenue bonds. The 2011 bonds bear coupon rates of 4.0% and 5.0% and mature serially from 2014 to 2015 and from 2022 to 2028. The refunded 2002 Series A bonds carried coupon rates of 4.0% to 5.0% and matured serially between 2014 and 2015 and between 2022 and 2024. Unamortized 2002 Series A bond issuance costs were \$177 at the date of the refunding. Although the refunding resulted in the recognition of a deferred accounting loss of \$1,912, the economic gain was \$3,311 or 5.8% of the refunded 2001A and 2002A principal.

On June 7, 2012, the Enterprise issued \$93,750 of the 2012 Series C revenue bonds for the purpose of refunding \$73,580 of then-outstanding 2002 Series A revenue bonds and a portion of the 2001 Series A revenue bonds. The 2012 bonds bear coupon rates of 4.0% and 5.0% and mature serially from 2025 to 2032. The refunded 2002 Series A bonds carried coupon rates of 4.0% to 5.0% and matured on 2013 and between 2025 and 2032. Unamortized 2002 Series A bond issuance costs were \$463 at the date of the refunding. Although the refunding resulted in the recognition of a deferred accounting loss of \$1,554, the economic gain was \$8,322 or 11.3% of the refunded principal.

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A portion of the proceeds of the 2012 Series C revenue bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated June 1, 2012, to refund and legally defease a portion of the outstanding 2002 Series A bonds. This deposit, together with certain other available monies was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to redeem the refunded 2002 Series A bonds on November 1, 2012 by optional redemption on that date. As of June 30, 2012, the 2002 Series A bonds outstanding was \$3,785. As of June 30, 2013, all previously outstanding 2002 Series A bonds have been fully refunded.

(c) *Water Revenue Refunding Bonds 2002 Series B*

On August 8, 2012, the Enterprise issued \$24,040 of the 2012 Series D revenue bonds for the purpose of refunding \$24,120 of then-outstanding 2002 Series B revenue bonds. The 2012 Series D bonds bear coupon rates of 1.75% to 5.0% and mature serially in 2018 and 2019. The refunded 2002 Series B bonds carried a coupon rate of 5.0% and mature between November 1, 2013 and November 1, 2015.

A portion of the proceeds of the 2012 Series D revenue bonds was deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated August 1, 2012, to refund and legally defease a portion of the outstanding 2002 Series B bonds. This deposit, together with certain other available monies, was held by escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities – SLGS. The principal and interest on monies held by the escrow agent will be sufficient to redeem the refunded 2002 Series B bonds on November 1, 2012 by optional redemption on that date. As of June 30, 2012, the 2002 Series B bonds outstanding was \$31,425. As of June 30, 2013, all previously outstanding 2002 Series B bonds have been fully refunded.

(d) *Water Revenue Bonds 2006 Series A*

During fiscal year 2006, the Enterprise issued revenue bonds, 2006 Series A in the amount of \$507,815. The purpose of the bonds is to finance improvements to the City's water systems pursuant to Proposition A and to retire commercial paper outstanding. The bonds were insured by Assured (formerly FSA) and carried "Aaa" and "AAA" ratings from Moody's and S&P, respectively. As of June 30, 2014, Assured was rated "A2" and "AA" by Moody's and S&P, respectively. The 2006 Series A bonds include current interest serial and term bonds with interest rates ranging from 4.0% to 5.0%. The current interest serial bonds mature through November 1, 2027 and the current interest term bonds mature on November 1, 2031, 2033, and 2036.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of \$356,139 to the Enterprise. \$23,244 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2006 Series A bonds. This deposit, together with certain other available monies, is held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2006 Series A bonds maturing November 1, 2013 through 2015. As of June 30, 2013, the principal amount of 2006 Series A bonds

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outstanding was \$439,290 and as of June 30, 2014, the principal amount outstanding was \$435,665, respectively.

(e) Water Revenue Refunding Bonds 2006 Series B

During fiscal year 2006, the Enterprise issued revenue refunding bonds, 2006 Series B in the amount of \$110,065. The purpose of the bonds is to refund a portion of the 1996 Series A bonds and the 2001 Series A bonds. The bonds were insured by Syncora (formerly XL) and carried "Aaa" and "AAA" ratings from Moody's and S&P, respectively. As of June 30, 2014, Syncora was rated "Ca" and "NR" by Moody's and S&P, respectively. The 2006 Series B refunding bonds include serial bonds with interest rates varying from 4.0% to 5.0%. The current interest serial bonds mature through November 1, 2026. As of June 30, 2014, the principal amount of 2006 Series B bonds outstanding was \$86,865.

(f) Water Revenue Refunding Bonds 2006 Series C

During fiscal year 2007, the Enterprise issued revenue refunding bonds, 2006 Series C in the amount of \$48,730 for the purpose of refunding the remaining portion of the outstanding 1996 Series A bonds maturing on and after November 1, 2007 (the Refunded 1996 Series A bonds). The bonds were insured by Syncora (formerly XL) and carried "Aaa" and "AAA" ratings from Moody's and S&P, respectively. As of June 30, 2014, Syncora was rated "Ca" and "NR" by Moody's and S&P, respectively. The 2006 Series C refunding bonds include serial bonds with interest rates varying from 4.0% to 5.0%. The current interest serial bonds mature through November 1, 2026. As of June 30, 2014, the principal amount of 2006 Series C bonds outstanding was \$30,610.

(g) Water Revenue Bonds 2009 Series A

During fiscal year 2010, the Enterprise issued revenue bonds, 2009 Series A in the amount of \$412,000. The purpose of the bonds is to refund \$229,600 of outstanding Proposition A commercial paper notes and to provide \$139,218 in new money for WSIP capital projects, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated "AA-" and "A1" from S&P and Moody's, respectively. The bonds include serial and term bonds with interest rates varying from 4.0% to 5.3%. The bonds mature through November 1, 2039. The 2009 Series A bonds have a true interest cost of 4.8%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of \$356,139 to the Enterprise. \$29,713 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2009 Series A bonds. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2009 Series A bonds maturing November 1, 2013 through 2018. As of June 30, 2013, the principal amount of 2009 Series A bonds outstanding was \$372,400, and as of June 30, 2014, the principal amount outstanding was \$369,680, respectively.

(h) Water Revenue Bonds 2009 Series B

During fiscal year 2010, the Enterprise issued revenue bonds, 2009 Series B in the amount of \$412,000. The purpose of the bonds is to provide \$377,778 in new money for WSIP capital

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projects, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated “AA-” and “A1” from S&P and Moody’s, respectively. The bonds include serial and term bonds with interest rates varying from 4.0% to 5.0%. The bonds mature through November 1, 2039. The 2009 Series B bonds have a true interest cost of 4.5%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of \$356,139 to the Enterprise. \$24,014 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2009 Series B bonds. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2009 Series B bonds maturing November 1, 2013 through 2018. As of June 30, 2013, the principal amount of 2009 Series B bonds outstanding was \$377,705, and as of June 30, 2014, the principal amount outstanding was \$373,535.

(i) ***Water Revenue Bonds 2010 Series ABC***

During fiscal year 2010, the Enterprise issued its revenue bonds, 2010 Series ABC in the combined principal amount of \$488,705. The purpose of the bonds is to refund \$14,400 of outstanding 2001 Series A revenue bonds, to provide \$58,748 in proceeds for the AMI Project and to provide \$364,757 in new money for WSIP capital projects, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated “AA-” and “Aa2” from S&P and Moody’s, respectively. The bonds included serial and term bonds with interest rates varying from 2.0% to 6.0%.

The \$56,945 Series A bonds were issued as tax-exempt bonds to provide funds for the AMI Project as well as financing costs. The Series A bonds were issued as serial bonds with coupons ranging from 2.0% to 5.0% and have a final maturity of 2030. The Series A bonds have a true interest cost of 3.8%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of \$356,139 to the Enterprise. \$11,681 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2010 Series A bonds. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2010 Series A bonds maturing November 1, 2013 through 2018. As of June 30, 2013, the principal amount of 2010 Series A bonds outstanding was \$43,210, and as of June 30, 2014, the principal amount outstanding was \$42,810, respectively.

The \$417,720 Series B bonds were issued as taxable Build America Bonds (with Direct Pay Subsidy) to provide \$364,757 in new money for WSIP capital projects as well as to pay financing costs. The Series B bonds were issued as serial and term bonds with coupons ranging from 4.0% to 6.0% and have a final maturity of 2040. The Series B bonds have a true interest cost (net of federal subsidy) of 3.9%.

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The \$14,040 Series C bonds were issued to advance refund \$14,400 of outstanding revenue bonds, 2001 Series A and to pay financing costs. The Series C bonds were issued as serial bonds with 5.0% coupons and a final maturity of 2015, and have a true interest cost of 1.6%. As of June 30, 2014, the principal amount outstanding was \$7,640.

(j) *Water Revenue Bonds 2010 Series DE*

In July 2010, the Enterprise issued revenue bonds 2010 Series DE in the combined principal amount of \$446,925. The purpose of the bonds is to advance refund \$31,570 of outstanding 2002 Series A revenue bonds and to provide \$372,689 in new money for WSIP capital projects, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated "AA-" and "Aa2" from S&P and Moody's, respectively. The bonds included serial and term bonds with interest rates varying from 3.0% to 6.0%.

The \$102,725 Series D bonds were issued as tax-exempt bonds to provide \$72,243 in new money for WSIP capital projects and \$35,080 to advance refund a portion of outstanding 2002 Series A revenue bonds. The Series D bonds were issued as serial bonds with coupons ranging from 3.0% to 5.0% and have a final maturity of 2021. The Series D bonds have a true interest cost of 2.5%. (Refer to Note 7(b) Water Revenue Bond 2002 Series A in relation to the refunding).

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of \$356,139 to the Enterprise. \$12,360 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2010 Series D bonds. BAWSCA repayment funds were combined with \$165 from the 2010 Series D Capitalized Interest Account. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2010 Series D bonds maturing November 1, 2015 through 2017. As of June 30, 2014, the principal amount of 2010 Series D bonds outstanding was \$92,100.

The \$344,200 Series E bonds were issued as taxable Build America Bonds (with Direct Pay Subsidy) to provide \$300,446 in new money for WSIP capital projects. The Series E bonds were issued as serial and term bonds with coupons ranging from 4.9% to 6.0% and have a final maturity of 2040. The Series E bonds have a true interest cost (net of federal subsidy) of 3.8%.

(k) *Water Revenue Bonds 2010 Series FG*

In December 2010, the Enterprise issued revenue bonds 2010 Series FG in the combined principal amount of \$532,430. The purpose of the bonds is to provide \$437,980 in new money for WSIP capital projects, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated "AA-" and "Aa2" from S&P and Moody's, respectively. The bonds included serial and term bonds with interest rates varying from 3.0% to 7.0%.

The \$180,960 Series F bonds were issued as tax-exempt bonds to provide \$149,728 in new money for WSIP capital projects. The Series F bonds were issued as serial and term bonds with coupons ranging from 3.0% to 5.5% and have a final maturity of 2030. The Series F bonds have a true interest cost of 4.8%.

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On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of \$356,139 to the Enterprise. \$3,646 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2010 Series F bonds. BAWSCA repayment funds were combined with \$131 from the 2010 Series F Capitalized Interest Account. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2010 Series F bonds maturing November 1, 2017 and 2018. As of June 30, 2014, the principal amount of 2010 Series F bonds outstanding was \$177,665.

The \$351,470 Series G bonds were issued as taxable Build America Bonds (with Direct Pay Subsidy) to provide \$288,252 in new money for WSIP capital projects. The Series G bonds were issued as term bonds with a coupon of 6.9% and have a final maturity of 2050. The Series G bonds have a true interest cost (net of federal subsidy) of 4.5%.

(l) Water Revenue Bonds 2011 Series ABCD

In August 2011, the Enterprise issued revenue bonds, 2011 Series ABCD in the combined principal amount of \$720,750. The purpose of the bonds is to provide new money for WSIP capital projects, to finance Hetch Hetchy Water Improvements, and to finance the Local Water Main Replacement Projects, as well as refund \$56,670 of outstanding 2001 Series A and 2002 Series A revenue bonds, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated "AA-" and "Aa3" from S&P and Moody's, respectively. The bonds included serial and term bonds with interest rates varying from 3.0% to 5.0%.

The \$602,715 Series A bonds were issued as tax-exempt bonds to provide \$525,000 in new money for WSIP capital projects. The Series A bonds were issued as serial and term bonds with coupons ranging from 4.3% to 5.0% and have a final maturity of 2041. The Series A bonds have a true interest cost of 4.6%.

The \$28,975 Series B bonds were issued as tax-exempt bonds to provide \$27,710 to finance improvements to certain up-country water storage and transmission facilities under the jurisdiction of Hetch Hetchy Water and Power. The Series B bonds were issued as serial and term bonds with coupons ranging from 3.5% to 5.0% and have a final maturity of 2041. The Series B bonds have a true interest cost of 4.5%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of \$356,139 to the Enterprise. \$515 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2011 Series B bonds. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2011 Series B bonds maturing November 1, 2017 through 2018. As of June 30, 2014, the principal amount of 2011 Series B bonds outstanding was \$28,525.

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The \$33,595 Series C bonds were issued as tax-exempt bonds to provide \$33,772 to finance certain water main replacement projects within the City. The Series C bonds were issued as serial and term bonds with coupons ranging from 3.0% to 5.0% and have a final maturity of 2041. The Series C bonds have a true interest cost of 4.4%.

On February 27, 2013, the Wholesale Water Customers BAWSCA made an early repayment of \$356,139 to the Enterprise. \$3,824 of the repayment proceeds were deposited with the trustee, acting as escrow agent under the irrevocable Escrow Agreement, dated February 27, 2013, to refund and legally defease a portion of the outstanding 2011 Series C bonds. This deposit, together with certain other available monies, was held by the escrow agent under the Escrow Agreement and invested in non-callable Federal Securities consisting of United States Treasury Securities - SLGS. The principal and interest on monies held by the escrow agent will be sufficient to partially defease a portion of the 2011 Series C bonds maturing November 1, 2014 through 2018. As of June 30, 2014, the principal amount of 2011 Series C bonds outstanding was \$30,140.

The \$55,465 Series D bonds were issued as tax-exempt bonds to provide \$59,381 to refund, on a current basis, a portion of the 2001 Series A bonds as well as refund, on an advance basis, a portion of the 2002 Series A bonds. The Series D bonds were issued as serial bonds with coupons ranging from 4.0% to 5.0% and have a final maturity of 2028. The Series D bonds have a true interest cost of 3.8%.

(m) Water Revenue Bonds 2012 Series ABC

In June 2012, the Enterprise issued revenue bonds, 2012 Series ABC in the combined principal amount of \$701,880. The purpose of the bonds was to provide \$530,000 of new money for WSIP capital projects, \$15,750 to reimburse the Enterprise for costs to settle litigation arising out of certain capital projects of benefit to the Enterprise, and to refund \$99,180 of outstanding 2001 Series A and 2002 Series A revenue bonds, with the balance applied to financing costs and a cash-funded debt service reserve. The bonds were rated "AA-" and "Aa3" from S&P and Moody's, respectively. The bonds included serial and term bonds with interest rates varying from 4.0% to 5.0%.

The \$591,610 Series A bonds were issued as tax-exempt bonds to provide \$530,000 in new money for WSIP capital projects. The Series A bonds were issued as serial and term bonds with coupons ranging from 4.0% to 5.0% and have a final maturity of 2043. The Series A bonds have a true interest cost of 4.3%.

The \$16,520 Series B bonds were issued as tax-exempt bonds to reimburse the Enterprise \$15,750 for costs to settle litigation arising out of certain capital projects of benefit to the Enterprise. The Series B bonds were issued as serial and term bonds with coupons ranging from 4.0% to 5.0% and have a final maturity of 2043. The Series B bonds have a true interest cost of 4.1%.

The \$93,750 Series C bonds were issued as tax-exempt bonds to provide \$101,147 to refund, on a current basis, a portion of the 2001 Series A bonds as well as refund, on an advance basis, a portion of the 2002 Series A bonds. The Series C bonds were issued as serial bonds with coupons ranging from 4.0% to 5.0% and have a final maturity of 2032. The Series C bonds have a true interest cost of 3.7%.

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(n) Water Revenue Refunding Bonds 2012 Series D

In August 2012, the Enterprise issued tax-exempt revenue bonds, 2012 Series D in the amount of \$24,040 for the purpose of refunding the remaining portion of the outstanding 2002 Series B bonds maturing on and after November 1, 2013. The bonds carried “Aa3” and “AA-” ratings from Moody’s and S&P, respectively. The 2012 Series D refunding bonds include serial bonds with interest rates varying from 1.8% to 5.0% and have a final maturity in 2019. The Series D bonds have a true interest cost of 1.34%. Unamortized 2002 Series B bond issuance costs were \$258 at the date of the refunding. The refunding resulted in the recognition of a deferred accounting loss of \$582, \$108 gross debt service savings over the next seven-year terms, and an economic gain of \$1,397 or 5.8% of the refunded principal.

(o) Future Annual Debt Service of Revenue Bonds

The following table presents the future annual debt service relating to the revenue and refunding bonds outstanding as of June 30, 2014. The federal interest subsidy amounts represent 32% of the interest for the revenue bond 2010 Series B, E, and G.

	<u>Principal</u>	<u>Interest before subsidy</u>	<u>Federal interest subsidy*</u>	<u>Interest net of subsidy</u>
Fiscal years ending June 30:				
2015	\$ 25,850	214,508	(22,198)	192,310
2016	33,700	213,068	(22,198)	190,870
2017	53,625	210,954	(22,129)	188,825
2018	59,715	208,346	(21,988)	186,358
2019	76,790	205,340	(21,834)	183,506
2020–2024	536,725	957,550	(105,882)	851,668
2025–2029	679,850	806,874	(94,991)	711,883
2030–2034	856,540	610,574	(78,263)	532,311
2035–2039	1,019,370	361,616	(52,528)	309,088
2040–2044	670,375	124,637	(25,124)	99,513
2045–2049	109,140	37,386	(12,144)	25,242
2050–2051	51,045	3,588	(1,165)	2,423
	<u>4,172,725</u>	<u>3,954,441</u>	<u>(480,444)</u>	<u>3,473,997</u>
Less: Current portion	(25,850)			
Add: Unamortized bond premiums	<u>149,988</u>			
Long-term portion as of June 30, 2014	\$ <u>4,296,863</u>			

* The SFPUC received IRS notice dated February 24, 2014 that the federal interest subsidies on the 2010 Series B bonds, 2010 Series E bonds, and 2010 Series G bonds are reduced by 7.2% or a total reduction of \$37,275 due to sequestration over the remaining life of the bonds.

As defined in the Indentures, the principal and interest of the Enterprise’s revenue and refunding bonds are payable from its revenues, as well as monies deposited in certain funds and accounts pledged thereto (See Note 5).

(p) Proposition A

On November 5, 2002, the San Francisco voters passed Proposition A, which provides for the issuance of revenue bonds and/or other forms of indebtedness by the Commission in a principal amount not to exceed \$1,628,000 to finance the acquisition and construction of improvements to the City’s Water System. As of June 30, 2014, there was no commercial

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paper outstanding pursuant to this authorization and \$1,348,335 of bonds had been issued in fiscal years 2006, 2010, and 2012 against this authorization.

(q) Proposition E

On November 5, 2002, the San Francisco voters passed Proposition E, which authorizes the Board of Supervisors' approval of the issuance of revenue bonds and/or other forms of indebtedness by the Commission to finance costs for the Commission's capital programs, including WSIP. As of June 30, 2014, the Board of Supervisors has authorized the issuance of \$3,260,531 in revenue bonds with \$2,679,550 issued against this authorization. Additionally, \$186,000 in commercial paper was outstanding pursuant to this authorization as of June 30, 2014.

(r) Certificates of Participation Issued for the 525 Golden Gate Avenue Headquarters Building

In October 2009, the City issued \$167,670 in certificates of participation to fund the future headquarters building of the SFPUC at 525 Golden Gate Avenue. The 2009 Series C were issued for \$38,120 and 2009 Series D for \$129,550 as "Build America Bonds" on a taxable basis under the 2009 American Recovery and Reinvestment Act. The 2009 Series C certificates carry interest rates ranging from 2.0% to 5.0% and mature on November 1, 2022. The 2009 Series D certificates carry interest rates ranging from 6.4% to 6.5% and mature on November 1, 2041, after adjusting for the federal interest subsidy, the true interest cost averages 3.4% and 4.3% for Series C & D, respectively.

Under the terms of a memorandum of understanding (MOU) between the City and the SFPUC dated October 1, 2009, the City conveyed the real property to the Trustee, the Bank of New York Mellon Trust Company, N.A., which was replaced by U.S. Bank in March 2014 under a property lease in exchange for the proceeds of the sale of the certificates. The Trustee has leased the property back to the City for the City's use under a Project Lease. The City is obligated under the Project Lease to pay base rental payments and other payments to the Trustee each year during the 32 year term of the Project Lease. The Commission makes annual base rental payments to the City for the building equal to annual debt service on the certificates. It is anticipated these lease costs will be offset with reductions in costs associated with current office rental expense.

Each of the three Enterprises has an ownership interest in the building equal to their projected usage of space as follows: Water (73%), Wastewater (15%), and Power (12%). Similarly, each Enterprise is responsible for a portion of the annual Base Rental Payment based on their ownership percentages less contributed equity. The percentage share of Base Rental Payments for the Enterprises is as follows: Water (71.4%), Wastewater (18.9%), and Power (9.7%).

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The future annual debt services relating to the certificates of participation 2009 Series C and D outstanding as of June 30, 2014 are as follows:

<u>Certificates of Participation 2009 Series C (Tax-Exempt)</u>	<u>Principal</u>	<u>Interest</u>
Fiscal years ending June 30:		
2015	\$ 2,106	1,092
2016	2,199	1,000
2017	2,313	888
2018	2,431	769
2019	2,556	644
2020-2023	11,607	1,197
	<u>23,212</u>	<u>5,590</u>
Less: Current portion	(2,106)	
Add: Unamortized bond premiums	1,338	
Long-term portion as of June 30, 2014	<u>\$ 22,444</u>	

<u>Certificates of Participation 2009 Series D (Taxable)</u>	<u>Principal</u>	<u>Interest before subsidy</u>	<u>Federal interest subsidy*</u>	<u>Interest net of subsidy</u>
Fiscal years ending June 30:				
2015	\$ —	5,968	(1,938)	4,030
2016	—	5,968	(1,938)	4,030
2017	—	5,968	(1,938)	4,030
2018	—	5,968	(1,938)	4,030
2019	—	5,968	(1,938)	4,030
2020-2024	3,267	29,736	(9,658)	20,078
2025-2029	18,507	25,954	(8,430)	17,524
2030-2034	22,762	19,369	(6,291)	13,078
2035-2039	28,071	11,157	(3,624)	7,533
2040-2042	19,892	1,972	(641)	1,331
Total		<u>118,028</u>	<u>(38,334)</u>	<u>79,694</u>
Long-term portion as of June 30, 2014	<u>\$ 92,499</u>			

* The SFPUC received IRS notice dated February 24, 2014 that the federal interest subsidy on the 2009 Series D bonds is reduced by 7.2% or a total reduction of \$2,976 due to sequestration over the remaining life of the bonds.

(8) Revenue Pledge

The Enterprise has pledged future revenues to repay various revenue bonds. Proceeds from the revenue bonds provided financing for various capital construction projects, and to refund previously issued bonds. The bonds are payable solely from revenues of the Enterprise through the fiscal year ending 2051.

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The original amount of revenue bonds issued, total principal and interest remaining, principal and interest paid during fiscal 2014 and 2013, applicable net revenues and funds available for debt service for 2014 and 2013 are as follows:

	<u>2014</u>	<u>2013</u>
Bonds issued with revenue pledge	\$ 4,457,970	4,457,970
Principal and interest remaining due at the end of the year	8,127,166	8,363,585
Principal and interest paid during the year	236,419	248,530
Net revenue for the year ended June 30	196,239	548,224
Funds available for revenue bond debt service	483,761	574,968

(9) Wholesale Balancing Account

(a) Water Supply Agreement

From 1984-2009, the Enterprise provided water service pursuant to the terms of the 1984 Water Settlement Agreement (WSA) and Master Water Sales Contract, which established the basis for water rates to be charged to those customers (Wholesale Customers). The Master Water Sales Contract expired on June 30, 2009. The Commission and the Wholesale Customers approved a WSA of a 25-year term with two options for five-year extensions. The existing 184 millions of gallons per day (mgd) Supply Assurance continues under the WSA and no increase in the Supply Assurance will be considered before December 31, 2018. During the period from 2009 to 2018, the WSA limits the quantity of water delivered to Retail Customers and Wholesale Customers from the watersheds to 265 mgd. Under the WSA, annual operating expenses, including debt service on bonds sold to finance regional system improvements and regional capital projects funded from revenues, will be allocated between Retail Customers and Wholesale Customers on the basis of proportionate annual water use. The Wholesale Customers' share of net book value of existing regional assets as of June 30, 2009 will be recovered on level annual payment over the 25-year term of the WSA at an interest rate of 5.13%. In February 2013, the Wholesale Customers made an early repayment to the Enterprise of the outstanding balance of \$356,139 as discussed further in the "BAWSCA Early Repayment" Section Note 9(b), of this report. The WSA continues much of the rate setting, accounting, and dispute resolution provisions contained in the expired Contract, and has emergency and drought-pricing adjustment provisions.

Pursuant to the terms of the WSA, the Enterprise is required to establish water rates applicable to the Wholesale Customers annually. The wholesale water rates are based on an estimate of the level of revenues necessary to recoup the cost of distributing water to the Wholesale Customers in accordance with the methodology outlined in Article V of the WSA (the Wholesale Revenue Requirement (WRR), previously known as the Suburban Revenue Requirement). During fiscal years ending in 2014 and 2013, the WRR, net of adjustments, charged to such wholesale customers was \$177,575 and \$174,723, respectively. Such amounts are subject to final review by the Wholesale Customers, along with a trailing wholesale balancing account compliance audit of the WRR calculation.

Pursuant to Article VII, Section 7.02 of the WSA, the Enterprise is required to re-compute the WRR after the close of each fiscal year based on the actual costs incurred in the delivery of water to the Wholesale Customers. The difference between the wholesale revenues earned during the year and the "actual" WRR is recorded in a separate account (the Balancing

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Account) and represents the cumulative amount that is either owed to the Wholesale Customers (if the wholesale revenues exceed the WRR) or owed to the City (if the WRR exceeds the wholesale revenues paid). In accordance with Article VI of the WSA, the amount recorded in the Balancing Account shall earn interest at a rate equal to the average rate received by the City during the year on the invested pooled funds of the City Treasury, and shall be taken into consideration in the determination of subsequent wholesale water rates. The Enterprise owed the Wholesale Customers \$29,351 and \$23,523 for the years ended June 30, 2014 and 2013, respectively, an increase of \$5,828.

Pursuant to Section 5.03 of the WSA, the Wholesale Customers agree that the Enterprise previously advanced funds to acquire or construct existing assets used and useful in the delivery of water to both Wholesale Customers and Retail Customers. As of the expiration of the 1984 Agreement on June 30, 2009, the Wholesale Customers collectively owed the Enterprise \$397,023 for the pre-2009, water-related capital costs that have been and will be used to deliver water services to the Wholesale Customers. The WSA requires a 25-year repayment term, with level annual payments of \$28,214 which includes both principal and interest calculated at 5.13% annually. Pursuant to Section 5.03(F) of the WSA, the Wholesale Customers had the option to prepay the entire amount owed or make partial repayments of at least equal to \$10,000 or greater at any time during the 25-year term. The Enterprise has previously appropriated funds, advanced through rates charged to Retail Customers, for construction of capital projects that were not yet placed into service as of June 30, 2009. The Wholesale Customers' share of these construction work in progress costs will be calculated in accordance with the provisions in the WSA, including a 10-year repayment term, which is required to begin in fiscal year 2015. The WSA also requires level annual principal and annual interest calculated at 4.0% for these latter assets. As of June 30, 2013, the balance owed by the Wholesale Customers for the pre-2009 assets is zero due to the Wholesale Water Customers Early Repayment through BAWSCA in February 2013. Refer to "BAWSCA Early Repayment" Section Note 9(b), of this report for more information.

(b) BAWSCA Early Repayment

On January 1, 2013, State legislation authorizing BAWSCA to repay the principal balance of \$371,635 on existing regional assets became effective. The repayment is permitted under Article V, Section 5.03 of the WSA between the Enterprise and Wholesale Customers, as shown in schedules K-3 and K-4 of the WSA. On February 27, 2013, the Wholesale Customers, through BAWSCA, made an early repayment to the Commission of capital cost recovery payments in the amount of \$356,139.

Of this repayment amount, \$247,143 was deposited with the City Treasury for Retail Fund Balance accounts and regional and local capital projects to be spent in fiscal years ending 2013, 2014, and 2015; \$108,996 was deposited to the Escrow Account (U.S. Bank National Association) for advance refunding/defeasance of a portion of water revenue bonds 2006 Series A, 2009 Series A and B, 2010 Series A, D, and F, and 2011 Series B and C. The Escrow Agent shall apply interest payments on the refunded bonds when they become due and to the principal amounts of the refunded bonds on their respective maturity dates, based on the Escrow Agreement. The defeasance of the refunded bonds and the deposit of monies with the escrow agent pursuant to the escrow agreement are authorized by and comply with the conditions and terms of the Enterprise Prepayment and Collection Agreement entered into between BAWSCA and the Enterprise, as well as the Enterprise Indenture.

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(10) Employee Benefits

(a) Retirement Plan

Plan Description – The Enterprise participates in the City’s single-employer defined benefit retirement plan (the Plan) which is administered by the San Francisco City and County Employees’ Retirement System (the Retirement System). The Plan covers substantially all full-time employees of the Enterprise along with other employees of the City. The Plan provides basic service retirement, disability, and death benefits based on specified percentages of final average salary, and provides cost-of-living adjustments (COLA) after retirement. The Plan also provides pension continuation benefits to qualified survivors. The San Francisco City and County Charter and Administrative Code are the authorities that establish and amend the benefit provisions and employer obligations of the Plan.

Funding Policy – Contributions to the basic Plan are made by both the Enterprise and its employees. Employee contributions are mandatory. Employee contribution rates for fiscal years 2014, 2013 and 2012 varied from 7.5% to 13.0% as a percentage of covered payroll. In addition, the Enterprise was required to contribute for the fiscal years ended June 30, 2014, 2013, and 2012 at an actuarially determined contribution rate as a percentage of covered payroll of 24.8%, 20.7% and 18.1%, respectively. The Enterprise’s required and actual contributions were approximately \$25,406 in 2014, \$21,606 in 2013 and \$21,090 in 2012.

Proposition B, a City Charter Amendment Changing Qualifications for Retiree Health and Pension Benefits and Establishing a Retiree Health Care Trust Fund (RHCTF) was passed by voters on June 3, 2008, and increased the years of service required to qualify for employer-funded retiree health benefits for City employees who retire under the San Francisco Employees Retirement System (the Retirement System) and were hired on or after January 10, 2009. Employees hired before January 10, 2009, became eligible to participate in the retirement health care system after 5 years of service and the employer paid 100% of the contribution. Proposition B also stated that a separate RHCTF would be created to pay for the City’s future costs related to retiree health care. This trust fund will be funded by employer and employee contributions for employees hired on or after January 10, 2009. These new employees would contribute up to 2% of their pre-tax pay, and employers would contribute 1%.

Proposition C, a City Charter Amendment Changing Qualifications for Retiree Health and Pension Benefits and Establishing a RHCTF, was passed by voters on November 8, 2011, and created new Retirement System benefit plans for Miscellaneous and Miscellaneous Safety employees commencing employment on or after January 7, 2012. Proposition C raised the minimum service retirement age for Miscellaneous members from 50 to 53; limited covered compensation to 85% of the IRC §401(a)(17) limits for Miscellaneous members and 75% of the IRC §401(a)(17) limits for Miscellaneous Safety members; calculated final compensation using highest three-year average compensation; decreased vesting allowances for Miscellaneous members by lowering the City’s funding for a portion of the vesting allowance from 100% to 50%; and provided that employees commencing employment on or after January 7, 2012, otherwise eligible for membership in CalPERS may become members of the Retirement System.

Effective July 1, 2012, Proposition C provides for an increase or decrease of employee contributions to the Retirement System for certain Retirement System members based on the

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employer contribution rate set by the Retirement Board for that year. (e.g. Miscellaneous employees who earn less than \$50 per year would pay the minimum Charter-mandated employee contribution rate; Miscellaneous employees who earn between \$50 and \$100 per year would pay a fluctuating contribution rate in the range of +4% to -4% of the Charter-mandated employee contribution rate; and Miscellaneous employees who earn \$100 or more per year would pay a fluctuating contribution rate in the range of +5% to -5% of the Charter-mandated employee contribution rate. Similar fluctuating employee contributions are required from Miscellaneous Safety employees also); and provides that, effective July 1, 2012, no Supplemental COLA will be paid unless the Retirement System is fully funded on a market value of assets basis and, for employees hired on or after January 7, 2012, Supplemental COLA benefits will not be permanent adjustments to retirement benefits - in any year when a Supplemental COLA is not paid, all previously paid Supplemental COLAs will expire.

The San Francisco RHCTF was established in December 2010 by the Retiree Health Trust Fund Board of the City. The RHCTF was established to receive employer and employee contributions prescribed by the Charter for the purpose of pre-funding certain postretirement health benefits. Proposition B requires employees hired on or after January 10, 2009 to contribute 2% of pay and the employer to contribute 1% of pay. Between January 10, 2009 and the establishment of the RHCTF, contributions were set aside and deposited into the RHCTF when it was established. Proposition C also requires all employees hired on or before January 9, 2009 to contribute 0.25% of pay to the RHCTF commencing July 1, 2016, increasing annually by 0.25% to a maximum of 1.0% of pay. The employer is required to contribute an equal amount. The RHCTF is currently invested in short-term fixed income securities. The RHCTF may not pay benefits from the Trust before January 1, 2020.

The Retirement System issues a publicly available financial report at a citywide level that includes financial statements and required supplementary information for the Plan. That report may be obtained by writing to the San Francisco City and County Employees Retirement System, 30 Van Ness Avenue, Suite 3000, San Francisco, CA 94102, or by calling (415) 487-7020.

(b) Health Care Benefits

Health care benefits for the Enterprise employees, retired employees, and surviving spouses are financed by beneficiaries and by the City through the City and County of San Francisco Health Service System (the Health Service System). The Enterprise's annual contribution for both active and retired employees was \$23,986 and \$24,482 in fiscal years 2014 and 2013, respectively. Included in these amounts are \$8,113 and \$7,875 for 2014 and 2013, respectively, to provide post-retirement benefits for retired employees, on a pay-as-you-go basis. There was no additional City allocation to the Enterprise's contribution allocation for payments made from the Health Service System for post-retirement health benefits in 2014 and 2013, respectively.

The City has determined a citywide Annual Required Contribution (ARC), interest on net other post-employment benefits (OPEB) other than pensions obligation, ARC adjustment, and OPEB cost based upon an actuarial valuation performed in accordance with GASB Statement No. 45 by the City's actuaries. The ARC represents a level of funding that, if paid on an ongoing basis, is projected to cover the normal cost of each year and any unfunded actuarial liabilities (or funding excess) amortized over 30 years.

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The following table shows the components of the City's annual OPEB allocations for the Enterprise for the years ended June 30, 2014 and 2013, for the amount contributed to the plan, and changes in the City's net OPEB obligation:

	2014	2013
Annual required contribution	\$ 16,473	20,210
Interest on net OPEB Obligation	3,448	2,835
Adjustment to ARC	<u>(2,875)</u>	<u>(2,350)</u>
Annual OPEB cost	17,046	20,695
Contribution made	<u>(8,113)</u>	<u>(7,875)</u>
Increase in net OPEB obligation	8,933	12,820
Net OPEB obligation – beginning of year	<u>85,829</u>	<u>73,009</u>
Net OPEB obligation – end of year	<u>\$ 94,762</u>	<u>85,829</u>

The City issues a publicly available financial report at a citywide level that includes the complete note disclosures and required supplementary information related to the City's post-retirement health care obligations. The report may be obtained by writing to the City and County of San Francisco, Office of the Controller, 1 Dr. Carlton B. Goodlett Place, Room 316, San Francisco, CA 94102, or by calling (415) 554-7500.

(11) Related Parties

Various common costs incurred by the Commission are allocated proratably between the Enterprise, Hetch Hetchy Water and Power Enterprise, and the Wastewater Enterprise. The allocations are based on the Commission management's best estimate and may change from year to year depending on the activities incurred by each Enterprise and the information available. The administrative costs of \$40,169 or 52.3% and \$40,779 or 52.7% are allocated to the Enterprise for the years ended June 30, 2014 and 2013, respectively.

The City performs certain administrative services such as maintenance of accounting records and investment of cash for all fund groups within the City. The various funds are charged for these services based on the City's indirect cost allocation plan. The overhead allocation paid to the General Fund of the City by the Enterprise was \$305 and \$2,071 for the years ended June 30, 2014 and 2013, respectively, and is included in other operating expenses in the accompanying financial statements. The fiscal year 2014 payment of \$305 reflects the true-up adjustment between projection and actual.

The Enterprise purchases water from Hetch Hetchy Water. The amounts, totaling \$33,309 and \$35,072 for the year ended June 30, 2014 and 2013, respectively, have been included in the services provided by other departments in the accompanying financial statements.

The Enterprise purchases electricity from Hetch Hetchy Power at market rates. The amounts, totaling \$8,653 and \$8,419 for the years ended June 30, 2014 and 2013, respectively, have been included in services provided by other departments in the accompanying financial statements.

Since fiscal year 2008, the Enterprise has charged City departments for water usage with the exception of fire hydrants which are used for general public safety. In fiscal years 2014 and 2013, the Enterprise delivered water for fire hydrant purposes totaling \$7 and \$6, respectively, based on metered usage and applicable water rates, and the amount has been excluded from operating revenues in the accompanying financial statements.

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A variety of City departments provide services such as engineering, purchasing, legal, data processing, telecommunications, and human resources to the Enterprise and charge amounts designed to recover those departments' costs. These charges, totaling \$12,893 and \$14,193 for the years ended June 30, 2014 and 2013, respectively, have been included in services provided by other departments in the accompanying financial statements.

During the fiscal year ending June 30, 2014, the Enterprise received \$1,300 from the General Fund for the third installment of the total \$6,272 purchase price by the City's General Fund for the 17th and Folsom property. The remaining balance of \$972 will be paid off by fiscal year 2018. The Enterprise also received a \$400 transfer from the San Francisco Recreation and Parks Department (SFRPD) for the Lake Merced boat house renovation, and \$4 from General Fund for water bottles to hand out at community events.

During fiscal year ending June 30, 2014, the enterprise transferred \$791 to the Arts Commission for art work at 525 Golden Gate headquarters, \$250 to the SFRPD for an irrigation retrofit for Sharp Park golf course, \$225 to Laguna Honda Hospital for landscape program, and \$32 transferred to the special revenue fund for the City Surety Bond Program.

SFPUC's 75-year lease agreement with the SFRPD, for the use of parking spaces for its fleet of vehicles at the Civic Center Garage, commenced on February 1, 2011. The total payment under this agreement is \$6,274, with one more prepayment of \$274 due in fiscal year 2015. The expenses and prepayments among the three SFPUC Enterprises are based on 525 Golden Gate occupancy. As of fiscal year ended June 30, 2014, the Enterprise's allocable shares of expenses and prepayment were \$47 and \$3,481, respectively, and at June 30, 2013 were \$50 and \$2,676, respectively.

(12) Risk Management

The Enterprise's Risk Management program includes both self-insured (i.e. self-retention) and insured exposures at risk. Risk assessments and purchasing of insurance coverage are collaboratively coordinated by SFPUC Enterprise Risk Management and the City's Office of Risk Management. With certain exceptions, the City and the Enterprise's general approach is to first evaluate the exposure at risk for self-insurance. Based on this analysis, internal mitigation strategies and financing through a self-retention mechanism is generally more economical as the SFPUC in coordination with the City Attorney's Office administers, adjusts, settles, defends, and pays claims from budgeted resources (i.e. pay-as-you-go fund). When economically more viable or when required by debt financing covenants, the Enterprise obtains commercial insurance. At least annually, the City actuarially determines general liability and workers' compensation risk exposures. The Enterprise does not maintain commercial earthquake coverage, with certain minor exceptions, such as a sub-limit for fire-sprinkler leakage due to earthquake under the Property Insurance program.

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<u>Primary Risks</u>	<u>Typical Coverage Approach</u>
General liability	Self-Insured
Property	Purchased Insurance and Self-Insured
Electronic data processing	Purchased Insurance and Self-Insured
Workers' compensation	Self-Insured through Citywide Pool
<u>Other Risks</u>	<u>Typical Coverage Approach</u>
Surety bonds	Purchased and Contractually Transferred
Errors and omissions	Combination of Self-Insured and Contractual Risk Transfer
Professional liability	Combination of Self-Insured and Contractual Risk Transfer
Public officials liability	Purchased Insurance
Employment practices liability	Purchased Insurance
Builders' risk	Contractually Transferred
Crime	Purchased Insurance

(a) General Liability

Through coordination with the Controller and the City Attorney's Office, the general liability risk exposure is actuarially determined and is addressed through pay-as-you-go funding as part of the budgetary process. Associated costs and estimates are booked as expenses as required under GAAP for financial statement purposes for both the Enterprise and the City and County of San Francisco's CAFR. The claim expense allocations are determined based on actuarially determined anticipated claim payments and the projected timing of disbursement.

The changes for the general liabilities for the years ended June 30, 2014 and 2013 are as follows:

<u>Fiscal year</u>	<u>Beginning of year</u>	<u>Claims and changes in estimates</u>	<u>Claims paid</u>	<u>End of year</u>
2013	\$ 9,095	5,812	(4,022)	10,885
2014	10,885	17,690	(9,711)	18,864

(b) Property and Electronic Data Processing

The Enterprise's property risk management approach varies depending on whether the facility is currently under construction, the property is part of revenue-generating operations, the property is of high-value, or is mission-critical in nature. During the course of construction, the Enterprise requires each contractor to provide its own insurance, while ensuring the full scope of work is covered with satisfactory levels to limit the Enterprise's risk exposure. Once construction is complete, the Enterprise performs an assessment to determine whether liability/loss coverage will be obtained through the commercial property policy or self-insurance. The majority of property scheduled in the insurance program is for either: 1) revenue-generating facilities, 2) debt-financed facilities, 3) mandated coverage to meet statutory requirements for bonding of various public officials, or 4) high-value, mission-critical property or equipment. The Electronic Data Processing policy protects selected high-value electronic property in case of damage or loss.

(c) Workers' Compensation

The City actuarially determines and allocates workers' compensation costs to the Enterprise according to a formula based on the following: (i) the dollar amount of claims; (ii) yearly projections of payments based on historical experience; and (iii) the size of the Enterprise's payroll. The administration of workers' compensation claims and payouts are handled by the

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Workers' Compensation Division of the City's Department of Human Resources. Statewide workers' compensation reforms have resulted in budgetary savings in recent years. The City continues to develop and implement improved programs, such as return-to-work programs, to lower or mitigate the growth of workers' compensation costs. Programs include accident prevention, investigation, and duty modification for injured employees with medical restrictions so return to work can occur as soon as possible.

The changes in the liabilities for workers' compensation for the years ended June 30, 2014 and 2013 are as follows:

<u>Fiscal year</u>	<u>Beginning of year</u>	<u>Claims and changes in estimates</u>	<u>Claims paid</u>	<u>End of year</u>
2013	\$ 7,964	3,232	(2,697)	8,499
2014	8,499	3,049	(2,813)	8,735

(d) Surety Bonds

Bonds are required in most phases of the public utilities construction contracting process for such phases as bid, performance, and payment or maintenance. Additionally, bonds may be required in other contracts where goods or services are provided to ensure compliance with applicable terms and conditions such as warranty.

(e) Errors and Omissions, Professional Liability

Errors and omissions and professional liability are commonly transferred through contract to the contracted professional, or retained through self-insurance on a case-by-case basis depending on the size, complexity, or scope of construction or professional service contracts. Examples of such contracts are inclusive of services provided by engineers, architects, design professionals, and other licensed or certified professional service providers.

(f) Public Officials Liability, Employment Practices Liability

All Enterprise public officials with financial oversight responsibilities are provided coverage through a commercial Public Officials Liability policy. An Employment Practices Liability policy is retained to protect against employment-related claims and liabilities.

(g) Builders' Risk

Builders' Risk policies of insurance are required to be provided by the contractor on all construction projects for the full value of construction.

(h) Crime

The Enterprise also retains a commercial crime policy, in lieu of bonding its employees, to provide coverage against liabilities or losses due to third-party crime or employee fraud.

(13) Commitments and Litigation

(a) Commitments

As of June 30, 2014 and 2013, the Enterprise has outstanding commitments with third parties of \$433,641 and \$712,726, respectively, for various capital projects and other purchase agreements for materials and services.

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(b) Grants

Grants that the Enterprise receives are subject to audit and final acceptance by the granting agency. Current and prior year costs of such grants are subject to adjustment upon audit.

(c) Litigation

The Enterprise is a defendant in various legal actions and claims that arise during the normal course of business. The final disposition of those legal actions and claims is not determinable. However, in the opinion of management, the outcome of any litigation of these matters will not have a material effect on the financial position or changes in net position of the Enterprise.

(d) Environmental Issue

As of June 30, 2014 and 2013, the Enterprise recorded \$20,608 and \$13,550 in pollution remediation liability, respectively. The Enterprise recorded an additional \$7,058 of pollution remediation liability in fiscal year 2014 for the excavation of contaminated soil that contained polycyclic aromatic hydrocarbons from the Pacific Rod & Gun Club site in the Lake Merced area. As of June 30, 2014, the total pollution remediation liability was \$20,608, consisting of \$19,408 for the Pacific Rod & Gun Club and \$1,200 for the 17th and Folsom site. As of June 30, 2013, the Enterprise recorded \$13,550 of pollution remediation liability, which consisted of a \$12,350 of liability for the Lake Merced area, and \$1,200 for pollution remediation for the 17th and Folsom site.

(14) Subsequent Events

(a) Jurisdictional Transfer of the Francisco Reservoir Tract to the San Francisco Recreation and Parks

On July 22, 2014, Board of Supervisors approved the jurisdictional transfer of the Francisco Reservoir Tract located in San Francisco at fair market value of \$9,900 from the SFPUC to the SFRPD. The Francisco Reservoir Tract is included in property that the City purchased from the Spring Valley Water Company in 1930 for the Enterprise. The MOU provides that SFRPD shall pay the appraised fair market value of \$9,900 to the SFPUC in installments over 12 years, together with interest on the unpaid principal balance. SFRPD shall take possession of the Francisco Reservoir Tract upon full approval of the MOU by the Board of Supervisors and the Mayor and after the initial installment payment to the SFPUC. However, SFPUC shall not transfer jurisdiction over the Francisco Reservoir Tract until after SFRPD makes its final principal payment and all outstanding interest. Commencement date is September 30, 2014, or within 30 days after the Board of Supervisors and the Mayor approve the MOU, whichever is later. Initial installment payment plus accrued interest of \$219 was received on September 29, 2014.

(b) Mandatory Restrictions on Retail Outdoor Irrigation as Required by the State Water Resources Control Board

On July 15, 2014, the State Water Resources Control Board adopted drought emergency regulations, which require urban water utilities to impose mandatory restrictions on irrigation of ornamental landscapes and turf with potable water. It further provided for fines of up to five hundred dollars for certain water waste activity and required that agencies implement plans to reduce wasteful outdoor water use. On August 12, 2014, SFPUC approved the 10 percent mandatory outdoor irrigation reduction for turf and ornamental plants for the period October 1, 2014 through June 30, 2015. Excess use charges were adopted and the procedures

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for administering those charges applied to approximately 1,600 customers with dedicated irrigation accounts using potable water - about half of which are municipal agencies retail potable water irrigation accounts. This action represents the first charges for excess water use in the City since 1988.



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San Francisco, CA 94105

Independent Auditors' 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*

The Honorable Mayor and Board of Supervisors
City and County of San Francisco:

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 San Francisco Water Enterprise (the Enterprise), an enterprise fund of the City and County of San Francisco, California (the City), which comprise the statement of financial position as of June 30, 2014, and the related statements of revenues, expenses, and changes in net position, and cash flows for the year then ended, and the related notes to the financial statements, and have issued our report thereon dated October 17, 2014.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Enterprise's internal control over 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 Enterprise's internal control. Accordingly, we do not express an opinion on the effectiveness of the Enterprise's internal control.

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 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 Enterprise'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 Enterprise's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Enterprise's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

KPMG LLP

San Francisco, California
October 17, 2014

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APPENDIX F

PROPOSED FORM OF OPINION OF CO-BOND COUNSEL

[Closing Date]

City and County of San Francisco
San Francisco, California

\$429,600,000
Public Utilities Commission
of the City and County of San Francisco
San Francisco Water Revenue Bonds,
2015 Series A
(Refunding)

Ladies and Gentlemen:

We have acted as co-bond counsel to Public Utilities Commission of the City and County of San Francisco (the “Commission”), a Commission duly constituted under the Charter (the “Charter”) of the City and County of San Francisco (the “City”), in connection with the issuance of its San Francisco Water Revenue Bonds, 2015 Series A (Refunding), in the aggregate principal amount of \$429,600,000 (the “Bonds”). The Bonds are being issued pursuant to authority granted by the Charter of the City and an Amended and Restated Indenture, dated as of August 1, 2002, by and between the Commission and U.S. Bank National Association, as trustee (the “Trustee”), as amended and supplemented (the “Original Indenture”), and as further supplemented by a Twentieth Supplemental Indenture, dated as of April 1, 2015 (the “Twentieth Supplemental Indenture” and together with the Original Indenture, the “Indenture”) by and between the Commission and the Trustee. Capitalized terms not otherwise defined herein shall have the respective meanings ascribed thereto in the Indenture.

In our capacity as co-bond counsel, we have reviewed the Indenture, certifications of the Commission, the Trustee and others, opinions of counsel to the Commission and the Trustee, and such other documents, opinions and instruments as we have deemed necessary to render the opinions set forth herein. We have assumed, but have not verified, that the signatures on all documents, certificates and opinions that we have reviewed are genuine. In our examination, we have assumed, but have not verified, the legal capacity of all natural persons, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies or by facsimile or other means of electronic transmission or which we obtained from sites on the internet, and the authenticity of the originals of such latter documents. As to facts and certain other matters and the consequences thereof relevant to the opinions expressed herein and the other statements made herein, we have relied without investigation or verification upon, and have assumed the accuracy and completeness of, certificates and letters (including opinion letters), and oral and written statements and representations of public officials, officers and other representatives of the Commission and the City, counsel for the City and others.

Our services as co-bond counsel were limited to such examination and to rendering the opinions set forth below. Furthermore, we have assumed compliance with all covenants and agreements compliance with which is necessary to assure that future actions, omissions or events will not cause the interest on the Bonds to be included in gross income for federal tax purposes. With respect to the opinions expressed herein, we call attention to the fact that the enforceability of the rights and obligations under the Bonds and the Indenture are subject to bankruptcy, insolvency, reorganization, arrangement, moratorium and other similar laws affecting creditors' rights, to the application of equitable principles, to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against cities and counties in the State of California. In addition, the imposition of certain fees and charges by the Commission relating to the Enterprise is subject to the provisions of Articles XIII C and XIII D of the California Constitution.

Based upon the foregoing and subject to the limitations and qualifications herein specified, as of the date hereof, we are of the opinion, under existing law, that:

(1) The Bonds have been duly authorized, executed and delivered by, and constitute the valid and binding special limited obligations of, the Commission.

(2) The Indenture has been duly authorized, executed and delivered by, and constitutes the valid and binding obligation of, the Commission. The Indenture creates a valid pledge of the Revenues of the Enterprise and certain other amounts held by the Trustee under the Indenture (including, with respect to the Bonds, amounts held in the 2015 Series A Bond Reserve Account) to secure the payment of the principal of and interest on the Bonds, as and to the extent set forth in the Indenture and subject to the provisions of the Indenture permitting the application thereof for the purposes and on the terms and conditions set forth therein.

(3) The Bonds are special limited obligations of the Commission and are payable exclusively from and are secured by a pledge of the Revenues of the Enterprise and certain amounts held under the Indenture. 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 Bonds or the interest thereon. The Commission has no taxing power. The Bonds are not secured by a legal or equitable pledge of, or charge, lien or encumbrance upon, any of the property of the City or of the Commission or any of its income or receipts, except the Revenues.

(4) Bonds and other parity debt of the Commission have been and from time to time hereafter may be issued under the Indenture which are payable from Revenues of the Enterprise on a parity basis with the Bonds.

(5) Assuming continuing compliance by the Commission with certain covenants in the Indenture and other documents pertaining to the Bonds and requirements of the Internal Revenue Code of 1986, as amended, regarding the use, expenditure and investment of proceeds of the Bonds and the timely payment of certain investment earnings to the United States, interest on the Bonds is not includable in the gross income of the owners of the Bonds for purposes of federal income taxation. Interest on the Bonds is not treated as an item of tax preference in calculating the federal alternative minimum taxable income of individuals or corporations. Interest on the Bonds, however, is included as an adjustment in the calculation of federal corporate alternative minimum taxable income and may therefore affect a corporation's alternative minimum tax liability. We express no opinion as to any other federal income tax consequences caused by the ownership of, or receipt or accrual of interest on, the Bonds.

(6) Interest on the Bonds is exempt from personal income tax imposed by the State of California.

Other than as described herein, we have not addressed, and are not opining on, the tax consequences to any person of the investment in, or of the receipt or accrual of interest on, the Bonds. Further, certain requirements and procedures contained or referred to in the Indenture or in other documents pertaining to the Bonds may be changed, and certain actions may be taken, under the circumstances and subject to the terms and conditions set forth in such documents, upon the advice or with the approving opinion of counsel nationally recognized in the area of tax-exempt obligations. We express no opinion as to the effect of any change to any document pertaining to the Bonds or of any action taken or not taken where such change is made or action is taken or not taken without our approval or in reliance upon the advice of counsel other than ourselves with respect to the exclusion from gross income of the interest on the Bonds for federal income tax purposes.

The opinions expressed and the statements made herein are based on an analysis of existing laws, regulations, rulings and court decisions. Such opinions and statements may be adversely affected by actions taken or events occurring, including a change in law, regulation or ruling (or in the application or official interpretation of any law, regulation or ruling) after the date hereof. We have not undertaken to determine, or to inform any person, whether such actions are taken or such events occur, and we have no obligation to update this letter in light of such actions or events or for any other reason.

No opinion is expressed herein on the accuracy, completeness or sufficiency of the Official Statement or other offering material relating to the Bonds.

This opinion is limited to the laws of the State of California and the federal laws of the United States. The opinions in this letter are expressed solely as of the date hereof for your benefit and may not be relied upon in any manner for any purposes by any other person.

Respectfully submitted,

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APPENDIX G

FORM OF CONTINUING DISCLOSURE CERTIFICATE

\$429,600,000
Public Utilities Commission
of the
City and County of San Francisco
San Francisco Water Revenue Bonds,
2015 Series A
(Refunding)

This Continuing Disclosure Certificate (the “Disclosure Certificate”) is executed and delivered by the Public Utilities Commission of the City and County of San Francisco (the “SFPUC”) in connection with the issuance of the water revenue bonds captioned above (the “2015 Series A Bonds”). The 2015 Series A Bonds are being issued pursuant to an Amended and Restated Indenture, dated as of August 1, 2002, between the SFPUC and U.S. Bank National Association, as trustee (the “Trustee”), as amended and supplemented, including as amended and supplemented by a Twentieth Supplemental Indenture, dated as of April 1, 2015, by and between the SFPUC and the Trustee (collectively, the “Indenture”).

The SFPUC covenants and agrees as follows:

SECTION 1. Purpose of the Disclosure Certificate. This Disclosure Certificate is being executed and delivered by the SFPUC for the benefit of the Holders and Beneficial Owners of the 2015 Series A Bonds and in order to assist the Participating Underwriters in complying with Securities and Exchange Commission (the “S.E.C.”) Rule 15c2-12(b)(5).

SECTION 2. Definitions. In addition to the definitions set forth in the Indenture, which apply to any capitalized term used in this Disclosure Certificate unless otherwise defined in this Section 2, the following capitalized terms shall have the following meanings:

“Annual Report” shall mean any Annual Report provided by the SFPUC pursuant to, and as described in, Sections 3 and 4 of this Disclosure Certificate.

“Beneficial Owner” shall mean any person that: (a) has or shares the power, directly or indirectly, to make investment decisions concerning ownership of any 2015 Series A Bonds (including persons holding 2015 Series A Bonds through nominees, depositories or other intermediaries) including, but not limited to, the power to vote or consent with respect to any 2015 Series A Bonds or to dispose of ownership of any 2015 Series A Bonds; or (b) is treated as the owner of any 2015 Series A Bonds for federal income tax purposes.

“Dissemination Agent” shall mean the SFPUC, acting in its capacity as Dissemination Agent under this Disclosure Certificate, or any successor Dissemination Agent designated in writing by the SFPUC and which has filed with the SFPUC a written acceptance of such designation.

“Holder” shall mean either the registered owners of the 2015 Series A Bonds, or, if the 2015 Series A Bonds are registered in the name of The Depository Trust Company or another recognized depository, any applicable participant in such depository system.

“Listed Events” shall mean any of the events listed in Section 5(a) of this Disclosure Certificate.

“MSRB” shall mean the Municipal Securities Rulemaking Board or any other entity designated or authorized by the Securities and Exchange Commission to receive continuing disclosure filings 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 final Official Statement, dated March 11, 2015, prepared in connection with the sale and offering of the 2015 Series A Bonds.

“Participating Underwriter” shall mean any of the original underwriters or purchasers of the 2015 Series A Bonds required to comply with the Rule in connection with the offering of the 2015 Series A Bonds.

“Rule” shall mean Rule 15c2-12(b)(5) adopted by the S.E.C. under the Securities Exchange Act of 1934, as the same may be amended from time to time.

SECTION 3. Provision of Annual Reports.

(a) The SFPUC shall, or shall cause the Dissemination Agent to, not later than 9 months after the end of the SFPUC’s fiscal year (which currently ends June 30), commencing March 31, 2016, with the report for the 2014-15 Fiscal Year, provide to the MSRB an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Certificate. If the Dissemination Agent is not the SFPUC, the SFPUC shall provide the Annual Report to the Dissemination Agent not later than 15 days prior to said date. The Annual Report must be submitted in electronic format and accompanied by such identifying information as is prescribed by the MSRB, and may cross-reference other information as provided in Section 4 of this Disclosure Certificate. However, if the audited financial statements of the SFPUC are not available by the date required above for the filing of the Annual Report, the SFPUC shall submit unaudited financial statements and submit the audited financial statements as soon as they are available. If the SFPUC’s Fiscal Year changes, it shall give notice of such change in the same manner as for a Listed Event under Section 5(c).

(b) If the SFPUC is unable to provide to the MSRB an Annual Report by the date required in subsection (a), the SFPUC shall send a notice to the MSRB in substantially the form attached as Exhibit A.

(c) The Dissemination Agent shall (if the Dissemination Agent is other than the SFPUC), file a report with the SFPUC certifying the date that the Annual Report was provided to the MSRB pursuant to this Disclosure Certificate.

SECTION 4. Content of Annual Reports. SFPUC’s Annual Report shall contain or incorporate by reference the following information:

(a) Audited Financial Statements of the municipal water supply, storage and distribution system of the SFPUC for the prior fiscal year, prepared in accordance with generally accepted accounting principles applicable to the SFPUC from time to time. If the SFPUC’s audited financial statements are not available by the date the Annual Report is required to be filed, the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained in the final Official Statements, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available;

(b) An update for the prior fiscal year of the table in the Official Statement entitled “TABLE 4, HISTORIC WHOLESALE AND RETAIL WATER SALES”;

(c) Until the later of May 31, 2019 or the completion date of the SFPUC’s Water System Improvement Program, an update for the prior fiscal year of the table in the Official Statement entitled “TABLE 9, WSIP BUDGET AND EXPENDITURE SUMMARY”;

(d) Until the later of May 31, 2019 or the completion date of the SFPUC’s Water System Improvement Program, an update for the prior fiscal year of the table in the Official Statement entitled “TABLE 10, STATUS OF WSIP PROJECTS”;

(e) An update for the prior fiscal year of the table in the Official Statement entitled “TABLE 13, HISTORICAL PERCENTAGE INCREASES (DECREASES) IN WHOLESALE WATER

RATES,” provided that such update need include rate increases (decreases) through the end of the prior fiscal year;

(f) An update for the prior fiscal year of the table in the Official Statement entitled “TABLE 16, HISTORICAL AND APPROVED FUTURE PERCENTAGE INCREASES (DECREASES) IN RETAIL WATER RATES,” provided that such update need include rate increases (decreases) through the end of the prior fiscal year;

(g) An update for the prior fiscal year of the table in the Official Statement in the section entitled “OBLIGATIONS PAYABLE FROM REVENUES – Outstanding Parity Revenue Bonds” showing all bonds of the SFPUC secured by Revenues; and

(h) An update for the prior fiscal year of the table in the Official Statement entitled “TABLE 22, HISTORICAL REVENUES, OPERATING & MAINTENANCE EXPENSES AND DEBT SERVICE COVERAGE.”

Any or all of the items listed above may be set forth in a document or set of documents, or may be included by specific reference to other documents, including official statements of debt issues of the SFPUC or related public entities, which are available to the public on the MSRB website. If the document included by reference is a final official statement, it must be available from the MSRB. The SFPUC shall clearly identify each such other document so included by reference.

SECTION 5. Reporting of Significant Events.

(a) The SFPUC shall give, or cause to be given, notice of the occurrence of any of the following Listed Events with respect to the 2015 Series A Bonds:

1. Principal and interest payment delinquencies.
2. Non payment related defaults, if material.
3. Unscheduled draws on debt service reserves reflecting financial difficulties.
4. Unscheduled draws on credit enhancements reflecting financial difficulties.
5. Substitution of credit or liquidity providers, or their failure to perform.
6. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the 2015 Series A Bonds, or other material events affecting the tax exempt status of the 2015 Series A Bonds.
7. Modifications to rights of security holders, if material.
8. Bond calls, if material, and tender offers.
9. Defeasances.
10. Release, substitution, or sale of property securing repayment of the 2015 Series A Bonds, if material.
11. Rating changes.
12. Bankruptcy, insolvency, receivership or similar event of the SFPUC.

13. The consummation of a merger, consolidation, or acquisition involving the SFPUC or the sale of all or substantially all of the assets of the SFPUC, 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.
14. Appointment of a successor or additional trustee or the change of name of a trustee, if material.

(b) Whenever the SFPUC obtains knowledge of the occurrence of a Listed Event, and, if the Listed Event is described in subsections (a)(2), (a)(6) (other than an adverse tax opinion, the issuance by the IRS of a proposed or final determination of taxability, or a Notice of Proposed Issue (IRS Form 5701-TEB)), (a)(7), (a)(8) (if the event is a bond call), (a)(10), (a)(13) or (a)(14) above, the SFPUC determines that knowledge of the occurrence of that Listed Event would be material under applicable federal securities law, the SFPUC shall, or shall cause the Dissemination Agent (if not the SFPUC) to, file a notice of such occurrence with the MSRB, in an electronic format as prescribed by the MSRB, in a timely manner not in excess of 10 business days after the occurrence of the Listed Event. Notwithstanding the foregoing, notice of Listed Events described in subsections (a)(8) and (9) above need not be given under this subsection any earlier than the notice (if any) of the underlying event is given to holders of affected 2015 Series A Bonds under the Indenture.

(c) For purposes of this Certificate, any event described in paragraph (a)(12) above is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent, or similar officer for the SFPUC in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the SFPUC, 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 said party.

SECTION 6. Termination of Reporting Obligation. The SFPUC's obligations under this Disclosure Certificate shall terminate upon the legal defeasance, prior redemption or payment in full of all of the 2015 Series A Bonds. If such termination occurs prior to the final maturity of the 2015 Series A Bonds, the SFPUC shall give notice of such termination in the same manner as for a Listed Event under Section 5(c).

SECTION 7. Dissemination Agent. The SFPUC may, from time to time, appoint or engage a 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 have only such duties as are specifically set forth in this Disclosure Certificate.

SECTION 8. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Certificate, the SFPUC may amend or waive this Disclosure Certificate or any provision of this Disclosure Certificate, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions of Sections 3(a), 3(b), 4 or 5(a), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the 2015 Series A Bonds or the type of business conducted;

(b) The undertaking, as amended or taking into account such waiver, would, in the opinion of the City Attorney or nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the 2015 Series A Bonds, 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 owners of a majority in aggregate principal amount of the 2015 Series A Bonds or (ii) does not, in the opinion of the City Attorney or nationally recognized bond counsel, materially impair the interests of the Holders.

In the event of any amendment or waiver of a provision of this Disclosure Certificate, the SFPUC 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 presentation) of financial information or operating data being presented by the SFPUC. In addition, if the amendment relates to 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; 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 SFPUC 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 SFPUC 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 SFPUC 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 of the SFPUC to comply with any provision of this Disclosure Certificate, any Participating Underwriter, Holder or Beneficial Owner of the 2015 Series A Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the SFPUC to comply with its obligations under this Disclosure Certificate; provided that any such action may be instituted only in a federal or State court located in the City and County of San Francisco, State of California. Failure by the SFPUC to comply with any provision of this Disclosure Certificate shall not be deemed an Event of Default under the Indenture and the sole remedy under this Disclosure Certificate in the event of any failure of the SFPUC to comply with this Disclosure Certificate shall be an action to compel performance.

SECTION 11. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the SFPUC, the Dissemination Agent, the Participating Underwriters and Holders and Beneficial Owners from time to time of the 2015 Series A Bonds, and shall create no rights in any other person or entity.

Date: April 16, 2015.

PUBLIC UTILITIES COMMISSION OF THE
CITY AND COUNTY OF SAN FRANCISCO

By _____
Harlan Kelly, Jr.
General Manager

Approved as to Form:

DENNIS J. HERRERA
CITY ATTORNEY

By: _____
Deputy City Attorney

CONTINUING DISCLOSURE CERTIFICATE EXHIBIT A

FORM OF NOTICE TO THE
MUNICIPAL SECURITIES RULEMAKING BOARD
OF FAILURE TO FILE ANNUAL REPORT

Name of Issuer: PUBLIC UTILITIES COMMISSION OF THE
CITY AND COUNTY OF SAN FRANCISCO

Name of Issue: PUBLIC UTILITIES COMMISSION OF THE
CITY AND COUNTY OF SAN FRANCISCO
SAN FRANCISCO WATER REVENUE BONDS,
2015 SERIES A (REFUNDING)

Date of Issuance: April 16, 2015

NOTICE IS HEREBY GIVEN that the SFPUC has not provided an Annual Report with respect to the above-named Bonds as required by Section 3 of the Continuing Disclosure Certificate of the Public Utilities Commission of the City and County of San Francisco, dated April 16, 2015. The SFPUC anticipates that the Annual Report will be filed by _____.

Dated: _____

PUBLIC UTILITIES COMMISSION OF THE CITY
AND COUNTY OF SAN FRANCISCO

By: _____ [to be signed only if filed]
Title _____

APPENDIX H

SECURITIES DEPOSITORY AND BOOK-ENTRY SYSTEM

The information in this Appendix has been provided by DTC for use in securities offering documents, and the SFPUC takes no responsibility for the accuracy or completeness thereof. The SFPUC cannot and does not give any assurances that DTC, DTC Participants or Indirect Participants will distribute to the beneficial owners either (a) payments of interest, principal or premium, if any, with respect to the Bonds or (b) certificates representing ownership interest in or other confirmation of ownership interest in the Bonds, or that they will so do on a timely basis or that DTC, DTC Participants or DTC Indirect Participants will act in the manner described in this Official Statement. 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.

As used in this Appendix, "Securities" means the 2015 Series A Bonds, "Issuer" means the SFPUC, and "Agent" means the Trustee.

1. The Depository Trust Company ("DTC"), New York, NY, will act as securities depository for the securities (the "Securities"). The Securities 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 Security certificate will be issued for each issue of the Securities, each in the aggregate principal amount of such issue, and will be deposited with DTC. If, however, the aggregate principal amount of any issue exceeds \$500 million, one certificate will be issued with respect to each \$500 million of principal amount, and an additional certificate will be issued with respect to any remaining principal amount of such issue.

2. DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to 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 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. The information contained on this Internet site is not incorporated herein by reference.

3. Purchases of Securities under the DTC system must be made by or through Direct Participants, which will receive a credit for the Securities 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 Securities 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 Securities, except in the event that use of the book-entry system for the Securities is discontinued.

4. To facilitate subsequent transfers, all Securities 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 Securities 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 Securities; DTC's records reflect only the identity of the Direct Participants to whose accounts such Securities 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 Securities may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Securities, such as redemptions, tenders, defaults, and proposed amendments to the Security documents. For example, Beneficial Owners of Securities may wish to ascertain that the nominee holding the Securities 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 Securities 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 Securities unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to Issuer 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 Securities are credited on the record date (identified in a listing attached to the Omnibus Proxy).

8. Redemption proceeds, distributions, and dividend payments on the Securities 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 Issuer or Agent, 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, Agent, or Issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of Issuer or Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

9. DTC may discontinue providing its services as depository with respect to the Securities at any time by giving reasonable notice to Issuer or Agent. Under such circumstances, in the event that a successor depository is not obtained, Security certificates are required to be printed and delivered.

10. Issuer may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Security certificates will be printed and delivered to DTC.

11. The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that Issuer believes to be reliable, but Issuer takes no responsibility for the accuracy thereof.



FOR ADDITIONAL BOOKS: ELABRA.COM OR (888) 935-2272