San Francisco
Water Power Sewer
Services of the San Francisco Public Utilities Commission

Financial Statements June 30, 2018 and 2017
(With Independent Auditors' Report Thereon)

Wastewater Enterprise

Protecting public health and the environment.

SAN FRANCISCO WASTEWATER 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 Wastewater 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, 2018 and 2017, 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 Governmental Auditing Standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the 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 Enterprise as of June 30, 2018 and 2017 and the respective changes in financial position and, where applicable, cash flows thereof for the years then ended in accordance with U.S. generally accepted accounting principles.

KPMG

Emphasis of Matter

As discussed in Note 1, the financial statements of the Enterprise are intended to present the financial position, the changes in financial position and, where applicable, 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, 2018 and 2017, the changes in its financial position, or, where applicable, its cash flows for the years then ended in accordance with U.S. generally accepted accounting principles. Our opinion is not modified with respect to this matter.

As discussed in Note 2(s) to the financial statements, in 2018, the Enterprise adopted Government Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Other Postemployment Benefits Other than Pensions*. The July 1, 2017 beginning net position has been restated for the retrospective application of this new accounting guidance.

Our opinion is not modified with respect to these matters.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 3 through 15 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 audit 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 January 25, 2019 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 solely 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 the effectiveness of the Enterprise's 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
January 25, 2019

This section presents management's analysis of the San Francisco Wastewater Enterprise's (the Enterprise) financial condition and activities as of and for the fiscal years ended June 30, 2018 and 2017. 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
- Debt Administration
- Rates and Charges
- Request for Information

Organization and Business

The San Francisco Public Utilities Commission (SFPUC or the Commission) is a department of the City and County of San Francisco (the City) that is responsible for the maintenance, operation, and development of three utility enterprises: Water, Hetch Hetchy Water and Power and CleanPowerSF, and Wastewater (the Enterprise). The primary responsibility of the Enterprise is to protect the public health and the surrounding bay and ocean receiving waters by collecting, transmitting, treating, and discharging storm and sanitary flows generated in the service area. This includes 993 miles of combined storm and sanitary collection system pipes, sewer mains, transport/storage boxes, other storage structures, and tunnels. San Francisco is the only coastal city in California with a combined sewer system that collects both wastewater and stormwater in the same network of pipes and provides treatment to remove harmful pollutants before discharging into the San Francisco Bay and Pacific Ocean. In addition, the Enterprise serves on a contractual basis certain municipal customers located outside of the City limits, including the North San Mateo County Sanitation District No. 3, Bayshore Sanitary District, and the City of Brisbane. The Enterprise recovers costs of service through user fees based on the volume and strength of sanitary flow. As of June 30, 2018, the Enterprise serves 147,711 residential accounts, which discharge about 16.5 million units of sanitary flow per year (measured in hundreds of cubic feet, or ccf) and 16,257 non-residential accounts, which discharge about 7.8 million ccf per year.

The Enterprise includes the Source Control Program, which includes both Industrial Pretreatment to address point source pollution and a broad Pollution Prevention Program, which uses public education and outreach, legislative strategies, and regional collaboration to prevent non-point pollution from entering the separate and combined sewer systems and to help recover high quality resources such as biosolids, biogas, and biofuel.

Overview of the Financial Statements

The Enterprise's financial statements include the following:

Statements of Net Position present information on the Enterprise's assets, deferred outflows, liabilities, and deferred inflows 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 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 2018

- Total assets of the Enterprise exceeded total liabilities by $1,182,830.
- Net position increased by $62,942 or 5.5% during the year.
- Capital assets, net of accumulated depreciation and amortization, increased by $274,506 or 12.2% to $2,526,206.
- Operating revenues increased by $37,755 or 13.6% to $315,096.
- Operating expenses decreased by $33,627 or 13.8% to $210,593.

Financial Highlights for Fiscal Year 2017

- Total assets of the Enterprise exceeded total liabilities by $1,102,459.
- Net position decreased by $9,677 or 0.8% during the year.
- Capital assets, net of accumulated depreciation and amortization, increased by $192,038 or 9.3% to $2,251,700.
- Operating revenues, excluding interest and investment income, and other non-operating revenues, increased by $15,566 or 5.9% to $277,341.
- Operating expenses, excluding interest expense, amortization of premium, refunding loss, and issuance cost, and non-operating expenses, increased by $22,667 or 10.2% to $244,220.

Financial Position

The following table summarizes the Enterprise's changes in net position.

In fiscal year 2018, the Enterprise adopted the provisions of Governmental Accounting Standards Board Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*. As restatement of all prior periods is not practical, the cumulative effect of applying this statement is reported as a restatement of beginning net position as of July 1, 2017(see New Accounting Standards Adopted in Fiscal Year 2018 in Significant Accounting Policies, Note 2(t)).

Table 1
Comparative Condensed Net Position
June 30, 2018, 2017, and 2016

	2018	2017	2016	2017 Change	2016 Change
Total assets:					
Current and other assets	$ 268,983	285,444	442,019	(16,461)	(156,575)
Capital assets, net of accumulated depreciation and amortization	2,526,206	2,251,700	2,059,662	274,506	192,038
Total assets	2,795,189	2,537,144	2,501,681	258,045	35,463
Deferred outflows of resources:					
Unamortized loss on refunding of debt	500	705	945	(205)	(240)
Pensions	29,984	48,192	14,589	(18,208)	33,603
Other post-employment benefits	3,264	—	—	3,264	—
Total deferred outflows of resources	33,748	48,897	15,534	(15,149)	33,363
Liabilities:					
Current liabilities:					
Revenue bonds	21,010	20,015	20,870	995	(855)
Certificates of participation	676	643	612	33	31
Commercial paper	262,859	111,411	61,000	151,448	50,411
State revolving fund loans	296	—	—	296	—
Other liabilities	98,185	58,559	66,748	39,626	(8,189)
Subtotal current liabilities	383,026	190,628	149,230	192,398	41,398
Long-term liabilities:					
Revenue bonds	998,136	1,024,910	1,051,013	(26,774)	(26,103)
Certificates of participation	27,645	28,370	29,068	(725)	(698)
State revolving fund loans	22,311	—	—	22,311	—
Other liabilities	181,241	190,777	115,663	(9,536)	75,114
Subtotal long-term liabilities	1,229,333	1,244,057	1,195,744	(14,724)	48,313
Total liabilities:					
Revenue bonds	1,019,146	1,044,925	1,071,883	(25,779)	(26,958)
Certificates of participation	28,321	29,013	29,680	(692)	(667)
Commercial paper	262,859	111,411	61,000	151,448	50,411
State revolving fund loans	22,607	—	—	22,607	—
Other liabilities	279,426	249,336	182,411	30,090	66,925
Total liabilities	1,612,359	1,434,685	1,344,974	177,674	89,711
Deferred inflows of resources:					
Related to pensions	7,277	5,093	16,301	2,184	(11,208)
Other post-employment benefits	96	—	—	96	—
Total deferred inflows of resources	7,373	5,093	16,301	2,280	(11,208)
Net position:					
Net investment in capital assets	1,207,703	1,095,165	1,098,723	112,538	(3,558)
Restricted for debt service	1,312	977	981	335	(4)
Restricted for capital projects	—	1,653	18,205	(1,653)	(16,552)
Unrestricted	190	48,468	38,031	(48,278)	10,437
Total net position	$ 1,209,205	1,146,263	1,155,940	62,942	(9,677)

Net Position, Fiscal Year 2018

For the year ended June 30, 2018, the Enterprise's assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by $1,209,205. The Enterprise's total net position increased by $62,942 or 5.5% as a result of increases of $112,538 in net investment in capital assets and $335 in restricted for debt service, offset by decreases of $48,278 in unrestricted net position and $1,653 in restricted for capital projects (see Table 1).

Total assets increased by $258,045 or 10.2%. Current and other assets represent 9.6% of total assets, a decrease of $16,461 or 5.8%. The decrease was mainly due to a decrease of $33,749 in restricted and unrestricted cash and investment attributed to increased spending for the Sewer System Improvement Program (SSIP). Other decreases included $44 due from the Department of Public Works for the Mission Bay South and Hunters View projects, $23 in lease prepayment to the Recreation and Parks Department for the Civic Center Garage, $17 in prepayments for property rents, and $15 in accrued payroll credits. These decreases were offset by increases of $14,997 in receivables from the State, of which $15,889 for expenses incurred for the Lake Merced and North Point Facility Outfall projects, offset by $892 grant collection for the Sunnydale and Valencia Street Low Impact Development stormwater flood management projects, $1,976 in charges for services due to an 11% planned rate increase, $378 in restricted and unrestricted interest and other receivables mainly due to higher annualized interest rates, and $36 in inventory as there were more purchases than issuances during the fiscal year.

Capital assets, net of accumulated depreciation and amortization, increased by $274,506 or 12.2% reflecting an increase in construction and capital improvement activities. The largest portion of the Enterprise's net position of $1,207,703 or 99.9%, represents net investment in capital assets (see Capital Assets section of the MDA for more information). Deferred outflows of resources decreased by $15,149 due to decreases of $18,208 in pensions based on actuarial report and $205 in unamortized loss on refunding of the 2013 Series A bonds, offset by an increase of $3,264 in other post-employment benefits per implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*.

Total liabilities increased by $177,674 or 12.4%. As of June 30, 2018, total outstanding balance of $1,332,933 for revenue bonds payable, commercial paper, certificates of participation, and State revolving fund loans represented 83.1% of total liabilities, an increase of $147,584 or 12.5%. The increase was mainly due to $151,448 issuance of commercial paper and $22,607 in State revolving fund loans to fund capital project spending, offset by $20,658 in debt repayments, and $5,813 in amortization of premium during the year. Other liabilities of $279,426, such as payables to vendors, contractors, and other government agencies for goods and services under contractual agreements, increased by $30,090 or 12.1%, which is comprised largely of $37,806 payable to vendors and contractors attributable to SSIP related projects and prior year activities to close out the legacy system payables, $7,847 in other post-employment benefits due to implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, $1,992 in pollution remediation liability due to increased estimated cleanup liabilities of $2,500 for the toxic sediments at Yosemite Creek and $103 for the hazardous materials at South East Plant, offset by $611 violation penalty payments, of which $380 for the discharge of chlorinated treated wastewater at South East Plant and $231 for the discharge of partially treated wastewater at the Oceanside Plant. The increase in other liabilities also included $470 in employee related benefits including workers' compensation, vacation, and accrued payroll, $236 in customers' prepayments from charges for services, $47 in prepaid rents, $33 in bond and loan interest payable due to issuance of commercial paper during the year, and $14 in grant received in advance from the Green Infrastructure Leadership Exchange for the San Francisco GSI Modeling project. These increases were offset by decreases of $17,934 in net pension liability based on actuarial report, $149 deposit from Pacific Gas & Electric due to expenses incurred for the Cross Bore Project, $105 repayment made to Hetch Hetchy Power for the 525 Golden Gate Living Machine System, $84 in payments to DPW for the street and sewer repairs & maintenance as well as engineering support, and $83 in general liability based on actuarial estimates. Deferred inflows of resources increased by $2,280, of which $2,184 in relation to pensions based on actuarial report and $96 in other post-employment benefits per implementation of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions* .

Net Position, Fiscal Year 2017

For the year ended June 30, 2017, the Enterprise's total net position decreased by $9,677 or 0.8% as a result of decreases of $16,552 in restricted for capital projects, $3,558 in net investment in capital assets and $4 in restricted for debt service, offset by an increase of $10,437 in unrestricted net position (see Table 1).

Total assets increased by $35,463 or 1.4%. Current and other assets represent 11.3% of total assets, a decrease of $156,575 or 35.4%. The decrease was mainly due to a decrease of $158,880 in restricted and unrestricted cash and investment attributed to increased spending for the Sewer System Improvement Program (SSIP). Other decreases included $1,788 in restricted receivables for capacity fees collection policy changes that require full payment of permit fees at the time of issuance coupled with write-offs, $133 in inventory as more issuances than purchases during the fiscal year, $51 in custom work receivables, $21 in lease prepayment to the Recreation and Parks Department for the Civic Center Garage, and $3 in property rental receivables. These decreases were offset by increases of $2,808 in charges for services receivables due to a 7% planned rate increase, $1,219 in State grant receivables as pending reimbursements for the stormwater flood management projects, $109 due from the Department of Public Works for the Mission Bay South and Hunters View projects, $83 in interest receivable due to higher annualized interests rates, $37 in prepayments for property rents, $23 due from Office of Community Investment and Infrastructure (OCII) for the Candlestick Point and Hunters Point Phase II project, and $22 in biofuel receivables.

Capital assets, net of accumulated depreciation and amortization, increased by $192,038 or 9.3% reflecting an increase in construction and capital improvement activities. The largest portion of the Enterprise's net position of $1,095,165, or 95.5%, represents net investment in capital assets (see Capital Assets section of the MDA for more information). Deferred outflows of resources increased by $33,363 due to an increase of $33,603 in pensions based on actuarial report offset by $240 decrease in unamortized loss on refunding of the 2013 Series A bonds.

Total liabilities increased by $89,711 or 6.7%. As of June 30, 2017, total outstanding balance of $1,185,349 for revenue bonds payable, commercial paper, and certificates of participation represented 82.6% of total liabilities, an increase of $22,786 or 2.0%. The increase was due $50,411 issuance of commercial paper, offset by $21,482 in debt repayments, and $6,143 in amortization of premium during the year. Other liabilities of $249,336, such as payables to vendors, contractors, and other government agencies for goods and services under contractual agreements, increased by $66,925 or 36.7%. The increases included $70,730 in net pension liability due to investment losses, the Appeals Court's elimination of the full funding requirement for certain members, and the impact of the revised demographic assumptions and change in discount rate, $5,617 in other post-employment benefit obligations as a result of higher actuarially determined annual required contribution, $1,829 in interest payable due to issuance of revenue bonds 2016 Series A and B and commercial paper, $1,398 increase in custom work liability mainly due to $1,500 deposit from Pacific Gas & Electric for the Cross Bore Project, $391 in customers' prepayments from charges for services, $90 in pollution remediation liability for the Southeast Wastewater Treatment Plant, $84 payable to the Department of Public Works for the street repairs and maintenance of the Southeast Wastewater Treatment Plant and Community Center. These increases were offset by decreases of $10,414 in accounts payable from restricted and unrestricted assets due to less outstanding payables at year end, $2,484 in general liability based on actuarial estimates, $150 in liens released for construction and professional contracts, $104 of repayment made to Hetch Hetchy Power for the 525 Golden Gate Living Machine System, $60 in employee related benefits including workers' compensation, vacation, and accrued payroll, and $2 in payable to San Francisco County Transportation Authority for the

19th Avenue project. Deferred inflows of resources decreased by $11,208 in relation to pensions based on actuarial report.

Results of Operations

The following table summarizes 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, 2018, 2017, and 2016

	2018	2017	2016	2018-2017 Change	2017-2016 Change
Revenues:					
Charges for services	$ 303,037	267,601	249,203	35,436	18,398
Rents and concessions	611	606	753	5	(147)
Other operating revenues	11,448	9,134	11,819	2,314	(2,685)
Interest and investment income	2,317	2,327	1,185	(10)	1,142
Other non-operating revenues	5,330	8,633	8,263	(3,303)	370
Total revenues	322,743	288,301	271,223	34,442	17,078
Expenses:					
Operating expenses	210,593	244,220	221,553	(33,627)	22,667
Interest expenses	24,978	28,474	22,251	(3,496)	6,223
Amortization of premium, refunding loss, and issuance cost	(5,400)	(5,806)	(2,979)	406	(2,827)
Non-operating expenses	414	383	485	31	(102)
Total expenses	230,585	267,271	241,310	(36,686)	25,961
Change in net position before transfers	92,158	21,030	29,913	71,128	(8,883)
Transfers from the City and County of San Francisco	—	40	460	(40)	(420)
Transfers to the City and County of San Francisco	(26,960)	(30,747)	(16,485)	3,787	(14,262)
Net transfers	(26,960)	(30,707)	(16,025)	3,747	(14,682)
Change in net position	65,198	(9,677)	13,888	74,875	(23,565)
Net position at beginning of year					
Beginning of year, as previously reported	1,146,263	1,155,940	1,142,052	(9,677)	13,888
Cumulative effect of accounting change	(2,256) *	—	—	(2,256)	—
Net position at beginning of year as restated	1,144,007	1,155,940	1,142,052	(11,933)	13,888
Net position at end of year	$ 1,209,205	1,146,263	1,155,940	62,942	(9,677)

* Cumulative effect of accounting change per GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions.*

Results of Operations, Fiscal Year 2018

The Enterprise's total revenues were $322,743, an increase of $34,442 or 11.9% from prior year (see Table 2). Charges for services increased by $35,436 or 13.2% due to an average 11% adopted rate increase and a sanitary flow increase of 509,865 ccf or 2% from residential and non-residential customers. Other operating revenues increased by $2,314 or 25.3% mainly due to $1,441 increase in capacity fees resulting from an increase in average permit price coupled with the collection of previously written-off capacity fee receivables and $873 in charges for services to other City departments such as the Recreation & Park and Zuckerberg San Francisco General Hospital and Trauma Center due to an 11% average rate increase coupled with a 3.9% increased sanitary flow. Rents increased slightly by $5 or 0.8%. Other non-operating revenues decreased by $3,303 or 38.3% mainly attributed to $3,274 State grant received in prior year for the stormwater flood management projects, $116 decrease in penalty charges, $109 in custom

work services for the Hunters View and Mission Bay South projects from the Department of Public Works, and $40 from sale of assets. These decreases were offset by $141 in settlements received from insurance claim, $82 in biofuel revenue, and $13 in federal interest subsidy. Interest and investment income decreased by $10 due to an increase in unrealized losses of $853 attributed to decline in market value, offset by $843 increase in interest earned on cash due to higher annualized interest rates.

Total expenses decreased by $36,686 or 13.7% due to decreases of $33,627 in operating expenses, and $3,496 in interest expenses mainly attributed to increased capitalized bond interest, offset by $406 amortization of premium, refunding loss, and issuance cost and $31 in other non-operating expenses due to lower expense incurred for the flood water management program. The decrease of $33,627 in operating expenses was mainly attributable to $23,311 decrease in personnel services mainly from pensions, $12,954 decrease in general and administrative and other operating expenses mainly due to increased capitalization of capital project spending, and $458 in services provided by other departments mainly for light, heat, and power. These decreases were offset by increases of $2,236 in contractual services mainly due to higher professional and specialized services particularly on engineering services, management, and system consulting services and maintenance services on building structures particularly on sludge removal, pest control, and security services, $710 in materials and supplies, and $150 in depreciation expense due to increased capitalized assets.

Total transfers of $26,960 included $26,738 to the City Real Estate Division for the Central Shop Relocation Project, Land Reuse 1800 Jerrold related to Southeast Plant improvement project, $150 to the Neighborhood Development Fund for the Watershed Stewardship Grants, $40 to Art Commission for art enrichment, and $32 to the Office of the City Administrator for the Surety Bond Program.

Results of Operations, Fiscal Year 2017

The Enterprise's total revenues were $288,301, an increase of $17,078 or 6.3% from prior year (see Table 2). Charges for services increased by $18,398 or 7.4% due to an average 7% adopted rate increase and a sanitary flow increase of 38,788 ccf or 0.2% from residential and non-residential customers. Interest and investment income increased by $1,142 or 96.4% due to higher annualized interest rates and prior year's declines in fair value. Other non-operating revenues increased by $370 or 4.5% mainly due to $3,274 in State assistance for the stormwater flood management projects such as the Cesar Chavez Storm Flood Management and Sunnydale Storm Water Flood Management, $347 from projects overhead charges, penalty and late payment charges, $166 from custom work projects such as the Mission Bay South and Hunters View projects, and $68 in biofuel revenue and sale of assets. The increases in non-operating revenues were offset by a decrease of $3,485 attributed to prior year's settlement from the Pacific Gas and Electric. Other operating revenues decreased by $2,685 or 22.7% mainly due to $2,898 decrease in capacity fees resulting from a 20% decline in permit sales and write-offs of capacity fee receivables, offset by an increase of $213 from other City Departments such as the San Francisco General Hospital and the Laguna Honda Hospital due to increased sanitary flow. Rents decreased by $147 or 19.6% due to termination of three leases.

Total expenses increased by $25,961 or 10.8% due to increases of $22,667 in operating expenses, $6,223 in interest expense mainly attributed to higher outstanding principal and commercial paper issued, offset by an increase of $2,827 in amortization of premium, refunding loss and issuance cost, and $102 decrease in other non-operating expenses due to lower expenses for the Garden Project and Friends of the Urban Project. The increase of $22,667 in operating expenses was mainly attributable to $55,266 increased capital projects spending, largely in SSIP and repair and replacement projects, $36,200 in personnel services due to pension costs, $4,642 in depreciation expense due to increased capitalized

assets, and $675 in services provided by other departments mainly for light, heat and power. These increases were offset by decreases of $66,499 in other operating expenses mainly due to increased capitalization of fixed assets, $4,917 in general and administrative expenses mainly due to lower judgments and claims liability based on actuarial estimate, $1,456 in materials and supplies for various projects, and $1,244 in contractual services mainly due to lower buildings and structures maintenance services.

Net transfers of $30,707 included $30,100 transfers to City Real Estate Division for the Phase 1 construction work for the Central Shops Relocation Project, Land Reuse 1800 Jerrold, $615 to Art Commission for art enrichment and $32 to the Office of the City Administrator for the Surety Bond Program, offset by $40 transfer from General Fund for community projects.

Capital Assets

The following table summarizes changes in the Enterprise's capital assets.

Table 3
Capital Assets, Net of Accumulated Depreciation and Amortization
As of June 30, 2018, 2017, and 2016

		2018	2017	2016	2018-2017 Change	2017-2016 Change
Facilities, improvements, machinery, and equipment	$	1,799,548	1,664,327	1,657,373	135,221	6,954
Intangible assets		3,320	3,457	3,594	(137)	(137)
Land and rights-of-way		35,737	35,737	35,737	—	—
Construction work in progress		687,601	548,179	362,958	139,422	185,221
Total	$	2,526,206	2,251,700	2,059,662	274,506	192,038

Capital Assets, Fiscal Year 2018

The Enterprise has capital assets of $2,526,206, net of accumulated depreciation and amortization, invested in a broad range of utility capital assets as of June 30, 2018 (see Table 3). This amount represents an increase of $274,506 or 12.2% from prior fiscal year. The investment in capital assets includes land, buildings, improvements, wastewater treatment plants, sewer pipes and mains, underground transport and storage boxes, pump stations, machinery, and equipment. Construction work in progress increased by $139,422 or 25.4%, and facilities, improvements, machinery, and equipment increased by $135,221, or 8.1%, offset by a decrease of $137, or 4.0%, in intangible assets due to amortization.

Major additions to construction work in progress during the year ended June 30, 2018 include the following:

Southeast Plant Biosolids and Digester Facilities Project	$ 42,997
Land Reuse 1800 Jerrold Avenue	28,313
Southeast Plant New Headworks Grit Removal and Influent Pump Station	20,323
Program Management - Land Reuse 1800 and 1801 Jerrold Avenue	17,832
Southeast Plant Building 521/522 and Disinfection Upgrades	16,428
North Point Outfall Refurbishment	11,036
Southeast Plant Existing Digester Gas Handling Improvements	10,572
Collection Division Consolidation	10,426
Wastewater As-Needed Spot Sewer Replacement #36	9,820
Channel Tunnel/Bayside Drainage	8,770
Southeast Plant Primary and Secondary Clarifier	8,500
Oceanside Plant Condition Assessment Repairs	6,319
Wastewater As-Needed Spot Sewer Replacement #35	5,868
Wastewater Crocker Amazon/Excelsior/Ingleside Districts Sewer Replacement	5,570
Various Locations Sewer Replacement #2	5,141
Griffith Pump Station Improvements	4,990
Various Sewer Replacement (Sunset)	4,066
Westside Pump Station Reliability Improvements	4,022
Other project additions individually below $4,000	113,416
Total	$ 334,409

Major depreciable 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, 2018 include the following:

Southeast Plant Primary and Secondary Clarifier	$ 32,667
Southeast Water Pollution Control Plant Chemical System Relocation and Facility Upgrades	21,101
Collection Division Consolidation	19,746
North Point Outfall Refurbishment	17,126
Wastewater As-Needed Spot Sewer Replacement #36	9,823
Wastewater As-Needed Spot Sewer Replacement #35	9,391
Various Sewer Replacement (Sunset)	9,161
Lake Merced Early Implementation Project	6,634
Public Works Haight Street Topography Survey	6,154
Oceanside Water Pollution Control Flare Stack and Control Upgrades	5,697
South of Market/Bernal Heights/Excelsior	5,294
Marin Street Sewer Replacement	4,558
Public Works Urbano Drive Infrastructure Improvements	4,507
Public Works Irving Street Phase 1 Infrastructure Improvements	4,306
Public Works Guerrero and Other Street Infrastructure Improvements	3,388
Masonic Avenue Sewer Improvements	3,000
Other project additions individually below $3,000	28,146
Total	$ 190,699

See Note 4 for additional information about capital assets.

Sewer System Improvement Program

The Sewer System Improvement Program (SSIP) includes three phases over 20 years to improve the existing wastewater system. In March 2016, the refined program scope and budget increased from $6.9 billion to $7.0 billion endorsed by the Commission along with the baseline for scope, schedule and budget for phase I, II, and III projects.

As of June 30, 2018, 17 projects or 24.3% totaling $95 million were completed, with 32 projects in pre-construction phase, 18 projects in construction phase, and 3 projects in close-out phase. The Lake Merced Green Infrastructure Project was completed on April 24, 2018 with reported project expenditures of $6.1 million. The project is designed to manage stormwater runoff from 2.1 acres, starting at Ashton Avenue intersection and extends along eight blocks to the Lee Avenue intersection, removing 1.0 million gallons of stormwater in a typical year. The Oceanside Plant and Westside Pump Station Improvements are on-going construction with reported completion in October 2018. Program expenditures as of June 30, 2018 totaled $712.4 million. Additional details regarding the SSIP are available at www.sfwater.org.

Capital Assets, Fiscal Year 2017

The Enterprise has capital assets of $2,251,700, net of accumulated depreciation and amortization, invested in a broad range of utility capital assets as of June 30, 2017 (see Table 3). This amount represents an increase of $192,038 or 9.3% from prior fiscal year. The investment in capital assets includes land, buildings, improvements, wastewater treatment plants, sewer pipes and mains, underground transport and storage boxes, pump stations, machinery, and equipment. Construction work in progress increased by $185,221 or 51.0%, and facilities, improvements, machinery, and equipment increased by $6,954, or 0.4%, offset by a decrease of $137, or 3.8%, in intangible assets due to amortization.

Major additions to construction work in progress during the year ended June 30, 2017 include the following:

Biosolids and Digester Project	$ 35,666
SEP Primary and Secondary Clarifier	19,809
Water System Improvement	14,862
SSIP Program Management	14,793
New Grit Removal and Influent Pump Station	13,543
Spot Sewer Replacement	9,482
Channel Tunnel/Bayside Drainage	6,874
Collection Division Consolidation	6,095
Sunset Sewer Replacement	4,962
Westside Pump Station Reliability Improvements	4,721
Land Reuse 1800 Jerrold	4,700
SOMA, Bernal Heights & Excelsior	4,606
32nd, France, Peru Avenues and Lisbon & Vienna	4,315
Other project additions individually below $4,000	104,225
Total	$ 248,653

Major depreciable 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, 2017 include the following:

As-Needed Spot Sewer Replacement	$	9,934
As-Needed Main Sewer Replacement		7,863
Naples Street Sewer Replacement		5,749
17th, 33rd, 37th Julian and Revere Avenues Sewer		4,318
Various Locations Sewer Replacement		4,302
Other project additions individually below $3,000		30,184
Total	$	62,350

See Note 4 for additional information about capital assets.

Sewer System Improvement Program

The Sewer System Improvement Program (SSIP) includes three phases over 20 years to improve the existing wastewater system. In March 2016, the refined program scope and budget increased from $6.9 billion to $7.0 billion endorsed by the Commission along with the baseline for scope, schedule and budget for phase I, II, and III projects.

As of June 30, 2017, 13 projects or 18.6% totaling $97 million were completed, with 39 projects in pre-construction phase, 18 projects in construction phase, and no project in close-out phase. The North Shore to Channel Force Main Drainage Improvement (NSCFM) which was completed in June 2017 is now in service and combined sewage flows are diverted to the NSCFM. One of the SSIP projects, the rehabilitation of the North Point Facility (NPF) outfall system is on-going with expected completion date in February 2018. Program expenditures as of June 30, 2017 totaled $523.2 million. Additional details regarding the SSIP are available at www.sfwater.org.

Debt Administration

As of June 30, 2018, 2017 and 2016, the Enterprise's debt from revenue bonds, commercial paper, certificates of participation, and State revolving fund loans were $1,332,933, $1,185,349, and $1,162,563, respectively, as shown 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, 2018, 2017, and 2016

	2018	2017	2016	2018-2017 Change	2017-2016 Change
Revenue bonds	$ 1,019,146	1,044,925	1,071,883	(25,779)	(26,958)
Commercial paper	262,859	111,411	61,000	151,448	50,411
Certificates of participation	28,321	29,013	29,680	(692)	(667)
State revolving fund loans	22,607	—	—	22,607	—
Total	$ 1,332,933	1,185,349	1,162,563	147,584	22,786

The increase of $147,584 was mainly due to $151,448 issuance of commercial paper coupled with $22,607 State revolving fund loans for the North Point Facility Outfall and Lake Merced Projects offset by $20,658 repayment of outstanding debt and $5,813 of premium amortizations.

Credit Ratings and Bond Insurance – As of June 30, 2018, the Enterprise carried underlying ratings of "Aa3" and "AA" from Moody's and Standard & Poor's (S&P), respectively. As of June 30, 2017, the Enterprise carried underlying ratings of "Aa3" and "AA" from Moody's and S&P, respectively.

Debt Service Coverage – Pursuant to the Indenture for the Wastewater bonds, the Enterprise covenants to collect sufficient net revenues each fiscal year, together with any Enterprise funds (except Bond Reserve Funds) that 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 2018 and 2017, 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 Indenture (see Note 8).

Debt Authorization – Pursuant to the Charter Section 8B.124, the Enterprise can incur indebtedness upon two-thirds vote of the Board of Supervisors. As of June 30, 2018, the Enterprise had $2,426,577 in combined debt issuance authorization from the Board of Supervisors under Proposition E, with $639,985 issued against this authorization. The Enterprise has a $750,000 authorized commercial paper program, with $262,859 in tax-exempt commercial paper outstanding as of June 30, 2018 and $111,411 in tax-exempt commercial paper outstanding as of June 30, 2017.

Cost of Debt Capital – The interest rates on the Enterprise's outstanding revenue bonds ranged from 1.0% to 5.8%, with a blended true interest cost of 3.0%, after factoring in federal interest subsidy receipts on Build America Bonds at June 30, 2018. The 2009 Series C certificates of participation carried interest rates ranging from 2.0% to 5.0% and 2009 Series D certificates of participation carried interest rates from 6.4% 6.5% in fiscal years 2018 and 2017, respectively. The interest rates on short-term debt ranged from 0.84% to 1.65% as of end of fiscal year 2018. The State revolving fund loans (CWSRF loans) carried interest rates ranging from 1.6% to 1.8% as of end of fiscal year 2018.

Rates and Charges

Rate Setting Process

Proposition E, as approved by the voters in November 2002, amended the City Charter by adding the new Article VIIIB, entitled "Public Utilities," which established the Commission's authority to issue new revenue bonds and set wastewater rates. 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.

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. In compliance with City Charter section 8B.125, a water and wastewater rate study was completed in April 2014 and resulted in four-year wastewater rate increases from July 1, 2014 through June 30, 2018.

In April of 2018, a subsequent retail water and wastewater rate study was completed. The 2018 rate study resulted in the Commission's approval and adoption of four years of wastewater rate increases effective from July 1, 2018 through June 30, 2022. The SFPUC Rates Schedules and Fees is available at http://sfwater.org/modules/showdocument.aspx?documentid=7743.

The following table is the Enterprise's ten-year approved average rate adjustments:

Ten-year Average Rate Adjustments

Effective Date	Rate
July 1, 2012	5.0 [1] %
July 1, 2013	5.0 [1]
July 1, 2014	5.0 [2]
July 1, 2015	5.0 [2]
July 1, 2016	7.0 [2]
July 1, 2017	11.0 [2]
July 1, 2018	7.0 [3]
July 1, 2019	7.0 [3]
July 1, 2020	8.0 [3]
July 1, 2021	8.0 [3]

[1] Four-year rate increases adopted and effective July 1, 2009.
[2] Four-year rate increases adopted and effective July 1, 2014.
[3] Four-year rate increases adopted and effective July 1, 2018.

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, Financial Services, 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 WASTEWATER ENTERPRISE
Statements of Net Position
June 30, 2018 and 2017
(In thousands)

Assets	2018	2017
Current assets:		
Cash and investments with City Treasury	$ 164,107	195,559
Cash and investments outside City Treasury	262	—
Receivables:		
Charges for services (net of allowance for doubtful accounts of $2,585 in 2018 and $2,854 in 2017)	30,915	28,874
Due from other City departments	116	160
Due from other governments	17,248	2,251
Interest	1,051	255
Restricted interest and other receivable (net of allowance for doubtful accounts of $191 in 2018 and $170 in 2017)	731	1,149
Total current receivables	50,061	32,689
Prepaid charges, advances, and other receivables, current portion	116	147
Inventory	2,082	2,046
Restricted cash and investments outside City Treasury	14,282	28,128
Total current assets	230,910	258,569
Non-current assets:		
Restricted cash and investments with City Treasury	36,054	24,767
Charges for services, less current portion	810	875
Prepaid charges, advances, and other receivables, less current portion	1,209	1,233
Capital assets, not being depreciated and amortized	726,384	586,962
Capital assets, net of accumulated depreciation and amortization	1,799,822	1,664,738
Total non-current assets	2,564,279	2,278,575
Total assets	2,795,189	2,537,144
Deferred outflows of resources		
Unamortized loss on refunding of debt	500	705
Pensions	29,984	48,192
Other post-employment benefits	3,264	—
Total deferred outflows of resources	33,748	48,897
Liabilities		
Current liabilities:		
Accounts payable	18,080	5,517
Accrued payroll	4,394	4,594
Accrued vacation and sick leave, current portion	3,766	3,429
Accrued workers' compensation, current portion	1,027	1,031
Due to other City departments, current portion	109	189
Damage claims liability, current portion	6,376	4,790
Unearned revenues, refunds, and other	4,185	4,037
Bond and loan interest payable	11,528	11,495
Revenue bonds, current portion	21,010	20,015
Certificates of participation, current portion	676	643
Commercial paper	262,859	111,411
State revolving fund loans payable, current portion	296	—
Current liabilities payable from restricted assets	48,720	23,477
Total current liabilities	383,026	190,628
Long-term liabilities:		
Other post-employment benefits obligations	59,517	51,670
Net pension liability	100,973	118,907
Accrued vacation and sick leave, less current portion	2,649	2,520
Accrued workers' compensation, less current portion	4,757	4,549
Due to other City departments, less current portion	952	1,061
Damage claims liability, less current portion	7,690	9,359
Revenue bonds, less current portion	998,136	1,024,910
Certificates of participation, less current portion	27,645	28,370
State revolving fund loans payable, less current portion	22,311	—
Pollution remediation obligation	4,703	2,711
Total long-term liabilities	1,229,333	1,244,057
Total liabilities	1,612,359	1,434,685
Deferred inflows of resources		
Related to pensions	7,277	5,093
Other post-employment benefits	96	-
Total deferred inflows of resources	7,373	5,093
Net position		
Net investment in capital assets	1,207,703	1,095,165
Restricted for debt service	1,312	977
Restricted for capital projects	—	1,653
Unrestricted	190	48,468
Total net position	$ 1,209,205	1,146,263

See accompanying notes to financial statements.

SAN FRANCISCO WASTEWATER ENTERPRISE

Statements of Revenues, Expenses, and Changes in Net Position
Years ended June 30, 2018 and 2017
(In thousands)

	2018	2017
Operating revenues:		
Charges for services	$ 303,037	267,601
Rents and concessions	611	606
Capacity fees	5,786	4,345
Other revenues	5,662	4,789
Total operating revenues	315,096	277,341
Operating expenses:		
Personnel services	91,977	115,288
Contractual services	16,061	13,825
Materials and supplies	9,446	8,736
Depreciation and amortization	55,591	55,441
Services provided by other departments	36,374	36,832
General and administrative and other	1,144	14,098
Total operating expenses	210,593	244,220
Operating income	104,503	33,121
Non-operating revenues (expenses):		
Federal and state grants	—	3,274
Interest and investment income	2,317	2,327
Interest expenses	(24,978)	(28,474)
Amortization of premium, refunding loss, and issuance costs	5,400	5,806
Net gain (loss) from sale of assets	(3)	37
Other non-operating revenues	5,333	5,322
Other non-operating expenses	(414)	(383)
Net non-operating expenses	(12,345)	(12,091)
Change in net position before transfers	92,158	21,030
Transfers from the City and County of San Francisco	—	40
Transfers to the City and County of San Francisco	(26,960)	(30,747)
Net transfers	(26,960)	(30,707)
Change in net position	65,198	(9,677)
Net position at beginning of year	1,146,263	1,155,940
Cumulative effect of accounting change	(2,256)	—
Beginning of year as restated	1,144,007	1,155,940
Net position at end of year	$ 1,209,205	1,146,263

See accompanying notes to financial statements.

SAN FRANCISCO WASTEWATER ENTERPRISE
Statements of Cash Flows
Years ended June 30, 2018 and 2017
(In thousands)

	2018	2017
Cash flows from operating activities:		
Cash received from customers, including cash deposits	$ 312,769	277,219
Cash received from tenants for rent	657	606
Cash paid to employees for services	(85,045)	(82,623)
Cash paid to suppliers for goods and services	(43,346)	(75,478)
Cash paid for judgments and claims	(2,124)	(2,313)
Net cash provided by operating activities	182,911	117,411
Cash flows from non-capital financing activities:		
Cash received from grants	891	2,055
Cash received from settlements	141	—
Cash received from miscellaneous revenues	1,181	1,325
Cash paid for rebates and program incentives	(414)	(383)
Transfers from the City and County of San Francisco	—	40
Transfers to the City and County of San Francisco	(26,960)	(30,747)
Net cash (used in) non-capital financing activities	(25,161)	(27,710)
Cash flows from capital and related financing activities:		
Proceeds from sale of capital assets	21	37
Proceeds from commercial paper borrowings	151,448	50,411
Proceeds from State revolving fund loans	6,719	—
Principal paid on long-term debt	(20,658)	(21,482)
Interest paid on long-term debt	(45,924)	(44,850)
Interest paid on commercial paper	(1,436)	(402)
Issuance cost paid on long-term debt	(208)	(97)
Acquisition and construction of capital assets	(287,297)	(238,625)
Federal interest income subsidy for Build America Bonds	4,008	3,998
Net cash (used in) capital and related financing activities	(193,327)	(251,010)
Cash flows from investing activities:		
Interest income received	1,828	2,578
Proceeds from sale of investments outside City Treasury	85,012	84,957
Purchase of investments outside City Treasury	(77,977)	(92,976)
Net cash provided by (used in) investing activities	8,863	(5,441)
Decrease in cash and cash equivalents	(26,714)	(166,750)
Cash and cash equivalents:		
Beginning of year	240,531	407,281
End of year	$ 213,817	240,531
Reconciliation of cash and cash equivalents to the statements of net position:		
Cash and investments with City Treasury:		
Unrestricted	$ 164,107	195,559
Restricted	36,054	24,767
Cash and investments outside City Treasury:		
Unrestricted	262	—
Restricted	14,282	28,128
Less: Restricted (with maturity more than 90 days - see table in Note 3)	(2,016)	(8,019)
Less: Unrealized loss on investments	1,128	96
Cash and cash equivalents at the end of year on statements of cash flows	$ 213,817	240,531

(Continued)

SAN FRANCISCO WASTEWATER ENTERPRISE
Statements of Cash Flows
Years ended June 30, 2018 and 2017
(In thousands)

	2018	2017
Reconciliation of operating income to net cash provided by operating activities:		
Operating income	$ 104,503	33,121
Adjustment to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	55,591	55,441
Provision for uncollectible accounts	(248)	597
Write-off of capital assets	4,729	1,960
Changes in operating assets and liabilities:		
Receivables:		
Charges for services	(1,707)	(3,235)
Prepaid charges, advances, and other	132	1,447
Due from other City departments	44	(132)
Inventory	(36)	133
Accounts payable	12,563	(2,725)
Accrued payroll	(184)	613
Other post-employment benefits obligations	2,423	5,617
Pension obligations	2,458	25,919
Accrued vacation and sick leave	466	(596)
Accrued workers' compensation	204	(78)
Due to other City departments	(84)	84
Pollution remediation obligation	1,992	90
Damage claims liability	(83)	(2,484)
Unearned revenues, refunds, and other liabilities	148	1,639
Total adjustments	78,408	84,290
Net cash provided by operating activities	$ 182,911	117,411
Noncash transactions:		
Accrued capital asset costs	$ 48,720	23,477
Interfund payable	1,061	1,250
Unrealized loss on investments	1,128	96

See accompanying notes to financial statements.

(1) Description of Reporting Entity

The San Francisco Wastewater Enterprise (the Enterprise), formerly known as the San Francisco Clean Water Program (the Program), was established in 1977 following the transfer of all sewage system-related assets and liabilities of the City and County of San Francisco (the City) to the Program.

In 1976, the electorate of the City approved a proposition authorizing the City to issue $240,000 in revenue bonds pursuant to the Revenue Bond Law of 1941 of the State of California for the purpose of acquiring, constructing, improving, and financing improvements to the City's municipal sewage treatment and disposal system. Since then, the City's Board of Supervisors has adopted resolutions (Wastewater Resolutions) providing for the issuance of various sewer revenue and refunding bond series. The Wastewater Resolutions require the City to keep separate books of records and accounts of the Enterprise.

The Enterprise was placed under the jurisdiction of the San Francisco Public Utilities Commission (the Commission) in 1996. The Commission, established in 1932, is responsible for providing operational oversight of the public utility enterprises of the City, which includes the Enterprise along with the City's power and water utilities (i.e., Hetch Hetchy Water and Power and CleanPowerSF, of which the Power Enterprise is a component, and the San Francisco Water 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 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 SFPUC is a department of the City, and as such, the financial operations of the Enterprise, Hetch Hetchy Water and Power and CleanPowerSF, and the Water Enterprises are included in the Comprehensive Annual Financial Report 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, 2018 and 2017, 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).

(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, specifically 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, deferred inflows, 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 the U.S. GAAP. Under this method, all assets and liabilities associated with operations are included on the statements 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 deposits 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 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 upon 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 acquisition 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 100 years for equipment and 1 to 200 years for building, 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 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 construction projects that are discontinued 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 on assets that require a period of time for construction 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 11(c)).

(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 11(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. No arbitrage liability is due as of June 30, 2018 or 2017.

(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 department of a government agency, the Enterprise is exempt from both federal income taxes and California State franchise taxes.

(p) Revenue Recognition

Sewer service charges are based on water usage as determined by the San Francisco Water Enterprise. Effective July 1, 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) 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 12(d)).

(s) Other Post-Employment Benefits Other Than Pensions (OPEB)

As prescribed under GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other than Pensions*, net OPEB liability, deferred outflows/inflows of resources related to OPEB, and OPEB expense are actuarially determined on a citywide basis. Net OPEB liability is measured as the portion of the present value of projected benefit payments to be provided to current active and inactive employees attributed to those employees' past service, less the amount of the Retiree Healthcare Trust Fund investments measured at fair value.

The provisions of GASB 75 are effective for the Enterprise's year ended June 30, 2018. While restatement of all prior periods was not practical because the actuarial information was not available, the cumulative effect of applying this Statement is reported as a restatement of beginning net position as of July 1, 2017 as follows:

Record Beginning Net OPEB Liability	$	(56,870)
Record Beginning Deferred Outflows of Resources – OPEB Items		2,944
Remove Net OPEB Obligation (Change from GASB 45)		51,670
Total Cumulative Effect of Change in Accounting Principle	$	(2,256)

(t) New Accounting Standard Adopted in Fiscal Year 2018

1) In June 2015, the GASB issued Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefit Other Than Pension Plans.* GASB Statement No. 75 revises and establishes new accounting and financial reporting requirements for governments that provides their employees with other postemployment benefits other than pensions (OPEB). The new standard is effective for periods beginning after June 15, 2017. The Enterprise adopted the provisions of this Statement. Refer to Note 9(b) for details.

2) In March 2016, the GASB issued Statement No. 81, *Irrevocable Split-Interest Agreements*. GASB Statement No. 81 establishes accounting and financial reporting standards for irrevocable split-interest agreement created through trusts in which a donor irrevocably transfers resources to an intermediary. The new standard is effective for periods beginning after December 15, 2016. The Enterprise adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

3) In March 2017, the GASB issued Statement No. 85, *Omnibus 2017*. GASB Statement No. 85 addresses practice issues identified during the implementation and application of certain GASB Statements. The new standard is effective for periods beginning after June 15, 2017. The Enterprise adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

4) In May 2017, the GASB issued Statement No. 86, *Certain Debt Extinguishment Issues*. GASB Statement No. 86 improves accounting and financial reporting for in-substance defeasance of debt using existing resources other than proceeds of refunding debt. The new standard is effective for periods beginning after June 15, 2017. The Enterprise adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

(u) GASB Statements Implemented in Fiscal Year 2017

1) In June 2015, the GASB issued Statement No. 73, *Accounting and Financial Reporting for Pensions and Related Assets That are Not within the Scope of GASB Statement 68, and Amendments to Certain Provisions of GASB Statements 67 and 68*. GASB Statement No. 73 addresses accounting and financial reporting for pensions provided by governments that are not within the scope of GASB 68. The new standard is effective for periods beginning after June 15, 2016. The Enterprise adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

2) In August 2015, the GASB issued Statement No. 77, *Tax Abatement Disclosures*. GASB Statement No. 77 establishes financial reporting standards for tax abatement agreements entered into by state and local governments. The new standard is effective for periods beginning after December 15, 2015. The Enterprise adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

3) In December 2015, the GASB issued Statement No. 78, *Pensions Provided through Certain Multiple-Employer Defined Benefit Pension Plans*. GASB Statement No. 78 establishes accounting and financial reporting standards for defined benefit pensions provided by state or local governments through a cost-sharing plan that meets the criteria of Statement No. 68 and is not a state or local governmental pension plan. The new standard is effective for periods

beginning after December 15, 2015. The Enterprise adopted the provisions of this Statement, which did not have a significant impact on its financial statements.

(v) Future Implementation of New Accounting Standards

1) In November 2016, the GASB issued Statement No. 83, *Certain Asset Retirement Obligations.* GASB Statements No. 83 establishes accounting and financial reporting standards for certain asset retirement obligations (AROS). The new standard is effective for periods beginning after June 15, 2018. The Enterprise will implement the provisions of Statement No. 83 in fiscal year 2019.

2) In January 2017, the GASB issued Statement No. 84, *Fiduciary Activities*. GASB Statement No. 84 establishes criteria for state and local governments to identify fiduciary activities and how those activities should be reported. The new standard is effective for periods beginning after December 15, 2018. The Enterprise will implement the provisions of Statement No. 84 in fiscal year 2020.

3) In June 2017, the GASB issued Statement No. 87, *Leases*. GASB Statement No. 87 establishes a single model for lease accounting and requires reporting of certain lease liabilities that currently are not reported. The new standard is effective for periods beginning after December 15, 2019. The Enterprise will implement the provisions of Statement No. 87 in fiscal year 2021.

4) In March 2018, the GASB issued Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*. GASB Statement No. 88 establishes additional financial statement note disclosure requirements related to debt obligations of governments, including direct borrowings and direct placements. The new standard is effective for periods beginning after June 15, 2018. The Enterprise will implement the provisions of Statement No. 88 in fiscal year 2019.

5) In June 2018, the GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. GASB Statement No. 89 establishes accounting requirements for interest cost incurred before the end of a construction period. The new standard is effective for periods beginning December 15, 2019. The Enterprise will implement the provisions of Statement No. 89 in fiscal year 2021.

6) In August 2018, the GASB issued Statement No. 90, *Accounting and Financial Reporting for Majority Equity Interests.* GASB Statement No. 90 provides clarification when a government should report a majority equity interest in a legally separate organization as either a component unit or an investment. The new standard is effective for periods beginning after December 15, 2018. The Enterprise will implement the provisions of Statement No. 90 in fiscal year 2020.

(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.

The restricted cash for bond reserves is held by an independent trustee outside the City investment pool. The balances as of June 30, 2018 and 2017 were $14,282 and $28,128 , respectively. Funds held by the trustee established under the 2003 Indenture are invested in "Permitted Investments" as defined in the Indenture. "Permitted Investments" include money market funds registered under the Federal Investment Company Act of 1940 and whose shares are 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 Enterprise categorizes its fair value measurements within the fair value hierarchy established by GAAP. The hierarchy is based on the valuation inputs used to measure fair value of the assets. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs. The inputs and techniques used for valuing securities are not necessarily an indication of risk associated with investing in those securities.

The following is a summary of the restricted and unrestricted cash and investments outside City Treasury and the fair value hierarchy as of June 30, 2018 and 2017.

Cash and Investments outside City Treasury

		June 30, 2018			Fair Value Measurements Using		
Investments	Credit Ratings (S&P/Moody's)	Maturities	Fair Value	Investments exempt from fair value	Quoted prices in active markets for identical assets (Level 1)	Significant other observable Inputs (Level 2)	Unobservable Inputs (Level 3)
U.S Agencies	AA+/Aaa	March 20, 2020	$ 2,016	—	—	2,016	—
Commercial Paper	A-1+/P-1	< 90 days	8,143	8,143	—	—	—
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	4,102	4,102	—	—	—
Money Market Funds	A-1+/P-1	< 90 days	14	14	—	—	—
Cash and Cash Equivalents	N/A		7	7	—	—	—
Total Restricted Cash and Investments outside City Treasury			$ 14,282	12,266	—	2,016	—
Cash and Cash Equivalents	N/A		262	262	—	—	—
Total Cash and Investments outside City Treasury			$ 262	262	—	—	—

Cash and Investments outside City Treasury

Investments	Credit Ratings (S&P/Moody's)	June 30, 2017 Maturities	June 30, 2017 Fair Value	Investments exempt from fair value	Fair Value Measurements Using: Quoted prices in active markets for identical assets (Level 1)	Fair Value Measurements Using: Significant other observable inputs (Level 2)	Fair Value Measurements Using: Unobservable inputs (Level 3)
Commercial Paper	A-1+/P-1	October 31, 2017	$ 8,019	8,019	—	—	—
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days	20,100	20,100	—	—	—
Money Market Funds	A-1+/P-1	< 90 days	5	5	—	—	—
Cash and Cash Equivalents	N/A		4	4	—	—	—
Total Restricted Cash and Investments outside City Treasury			$ 28,128	28,128	—	—	—

Commercial paper is valued using a variety of techniques such as matrix pricing; market corroborated pricing inputs such as yield curve, indices, and other market related data. Commercial paper, money market investments, and cash and cash equivalents are exempt from fair value treatment under GASB Statement No. 72.

The restricted cash and investments outside City Treasury as of June 30, 2018 and 2017 included a $70 and $21 unrealized gain due to changes in fair values on Commercial Paper.

The Enterprise's cash, cash equivalents, and investments are shown on the accompanying statements of net position as follows:

	2018	2017
Current assets:		
Cash and investments with City Treasury	$ 164,107	195,559
Cash and investments outside City Treasury	262	—
Restricted cash and investments outside City Treasury	14,282	28,128
Non-current assets:		
Restricted cash and investments with City Treasury	36,054	24,767
Total cash, cash equivalents, and investments	$ 214,705	248,454

The following table shows the percentage distribution of the City's pooled investments by maturity:

Fiscal years ended June 30	Investment maturities (in months): Under 1	1 to less than 6	6 to less than 12	12 to 60
2018	14.3%	22.1%	18.5%	45.1%
2017	20.1%	21.2%	18.0%	40.7%

(4) Capital Assets

Capital assets with a useful life of 50 years or greater include buildings and structures, sewers, wastewater treatment plants, pump stations, and other pipelines.

Capital assets as of June 30, 2018 and 2017 consisted of the following:

	2017	Increases	Decreases	2018
Capital assets not being depreciated and amortized:				
Land and rights-of-way	$ 35,737	—	—	35,737
Intangible assets	3,046	—	—	3,046
Construction work in progress	548,179	334,409	(194,987) *	687,601
Total capital assets not being depreciated and amortized	586,962	334,409	(194,987)	726,384
Capital assets being depreciated and amortized:				
Facilities and improvements	2,806,674	189,974	—	2,996,648
Intangible assets	4,615	—	—	4,615
Machinery and equipment	97,825	725	(327)	98,223
Total capital assets being depreciated and amortized:	2,909,114	190,699 *	(327)	3,099,486
Less accumulated depreciation and amortization for:				
Facilities and improvements	(1,181,236)	(50,562)	—	(1,231,798)
Intangible assets	(4,204)	(137)	—	(4,341)
Machinery and equipment	(58,936)	(4,892)	303	(63,525)
Total accumulated depreciation and amortization	(1,244,376)	(55,591)	303	(1,299,664)
Total capital assets being depreciated and amortized, net	1,664,738	135,108	(24)	1,799,822
Total capital assets, net	$ 2,251,700	469,517	(195,011)	2,526,206

* Decrease in construction work in progress is greater than increase in capital assets being depreciated is explained by $4,729 in capital project write-offs, mainly related to the Primary Sludge Handling Improvement Project, Collection System Assessment Project, OSP Condpition Assessment Repair Project, and the As-Needed Sewer Joint Sealing Project.

	2016	Increases	Decreases	2017
Capital assets not being depreciated and amortized:				
Land and rights-of-way	$ 35,737	—	—	35,737
Intangible assets	3,046	—	—	3,046
Construction work in progress	362,958	248,653	(63,432) *	548,179
Total capital assets not being depreciated and amortized	401,741	248,653	(63,432)	586,962
Capital assets being depreciated and amortized:				
Facilities and improvements	2,749,916	56,758	—	2,806,674
Intangible assets	4,615	—	—	4,615
Machinery and equipment	92,732	5,592	(499)	97,825
Total capital assets being depreciated and amortized:	2,847,263	62,350 *	(499)	2,909,114
Less accumulated depreciation and amortization for:				
Facilities and improvements	(1,131,048)	(50,188)	—	(1,181,236)
Intangible assets	(4,067)	(137)	—	(4,204)
Machinery and equipment	(54,227)	(5,116)	407	(58,936)
Total accumulated depreciation and amortization	(1,189,342)	(55,441)	407	(1,244,376)
Total capital assets being depreciated and amortized, net	1,657,921	6,909	(92)	1,664,738
Total capital assets, net	$ 2,059,662	255,562	(63,524)	2,251,700

* Decrease in construction work in progress is greater than increase in capital assets being depreciated is explained by $1,960 in capital project write-offs, mainly related to the Combined Sewer Discharge Improvements Project, Oceanside Plant Aeration System Upgrade Project, 1260J-Cesar Chavez PH-2 Project, and the Westside Plant Site Reliability Improvements Project.

GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 Financial Accounting Standards Board (FASB) and American Institute of Certified Public Accountants (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, 2018 and 2017 are as follows:

		2018	2017
Interest expensed	$	24,978	28,474
Interest included in construction work in progress		22,415	18,607
Total interest incurred	$	47,393	47,081

During fiscal years ended 2018 and 2017, the Enterprise expensed $4,729 and $1,960 respectively, related to demolition, maintenance, and planning costs on certain projects. The amounts of the write-offs were recognized as other operating expenses in the accompanying statements of revenues, expenses, and changes in net position.

(5) Restricted Assets

The Master Bond Resolution was discharged upon the issuance of the 2003 Series A Refunding Bonds. Pursuant to the Indenture, which became effective with the issuance of the 2003 Series A Refunding Bonds, all net revenues of the Enterprise (except amounts on deposit in the rebate fund) are irrevocably pledged to the punctual payment of debt service on the Wastewater revenue bonds. Accordingly, the net revenues of the Enterprise shall not be used for any other purpose while any of its revenue bonds are outstanding except as expressly permitted by the Indenture. Further, all net revenues shall be deposited by the City Treasurer, by instruction of the Enterprise, in special funds designated as the Revenue Fund, which must be maintained in the City Treasury. These funds, held at the City Treasury, are recorded in the statements of net position of the Enterprise as cash and investments. Deposits in the Revenue Fund, including earnings thereon, shall be appropriated, transferred, expended, or used for the following purposes and only in accordance with the following priority:

1. The payment of operation and maintenance costs of the Enterprise;
2. The payment of State revolving fund loans;
3. The payment of bonds, parity State revolving fund loans, policy costs, and amounts due as reimbursement under any letter of credit agreement; and
4. Any other lawful purpose of the Enterprise.

In accordance with the Indenture, the Enterprise maintains certain restricted cash and investment balances in trust. Restricted assets held in trust consisted of the following as of June 30, 2018 and 2017:

	2018	2017
Cash and investments with City Treasury:		
Wastewater revenue bond construction fund	$ 36,054	24,767
Cash and investments outside City Treasury:		
2009 Series C Certificates of Participation - 525 Golden Gate	461	459
2009 Series D Certificates of Participation - 525 Golden Gate	1,826	1,817
2010 Series A Wastewater revenue bond fund	3,531	3,542
2010 Series B Wastewater revenue bond fund	6,366	6,595
2013 Series B Wastewater revenue bond fund	1	–
2016 Series A Wastewater revenue bond fund	1,619	12,251
2016 Series B Wastewater revenue bond fund	457	3,455
Commercial Paper - Tax Exempt	21	9
Total cash and investments outside City Treasury	14,282	28,128
Interest and other receivables:		
Wastewater revenue bond construction fund including capacity fee receivables	731	1,149
Total restricted assets	$ 51,067	54,044

Restricted assets listed above as cash and investments with City Treasury are held in subfund accounts within the Sewer Revenue Fund of the City Treasury.

(6) Short-Term Debt

Under the voter-approved 2002 Proposition E, in fiscal year 2017 the Commission and Board of Supervisors authorized an increase in the commercial paper authorization to $750,000 from $500,000, which authorizes the issuance of up to $750,000 in commercial paper for the purpose of reconstructing, expanding, repairing, or improving the Enterprise's facilities. The Enterprise had $262,859 and $111,411 in commercial paper outstanding as of June 30, 2018 and 2017, respectively.

(7) Changes in Long-Term Liabilities

Long-term liability activities for the years ended June 30, 2018 and 2017 are as follows:

	Interest rate	Maturity (Calendar Year)	2017	Additions	Reductions	2018	Due within one year
Revenue Bonds:							
2010 Series A	4.00% - 5.00%	2021	$ 40,115	–	(7,295)	32,820	7,630
2010 Series B (Build America)	4.65 - 5.82	2040	192,515	–	–	192,515	–
2013 Series A	1.00 - 5.00	2025	84,650	–	(12,720)	71,930	13,380
2013 Series B	4.00 - 5.00	2042	331,585	–	–	331,585	–
2016 Series A	4.00 - 5.00	2046	240,580	–	–	240,580	–
2016 Series B	4.00 - 5.00	2046	67,820	–	–	67,820	–
For issuance premiums			87,660	–	(5,764)	81,896	–
Total revenue bonds payable			1,044,925	–	(25,779)	1,019,146	21,010
2009 Series C Certificates of Participation (COPs)	2.00 - 5.00	2022	4,388	–	(643)	3,745	676
2009 Series C COPs issuance premiums			167	–	(49)	118	–
2009 Series D COPs (Build America)	6.36 - 6.49	2041	24,458	–	–	24,458	–
State Revolving Fund Loans (CWSRF loans)	1.60 - 1.80	2050	–	22,607	–	22,607	296
Other post-employment benefits obligations			51,670	10,270	(2,423)	59,517	–
Net pension liability			118,907	18,832	(36,766)	100,973	–
Accrued vacation and sick leave			5,949	4,081	(3,615)	6,415	3,766
Accrued workers' compensation			5,580	1,769	(1,565)	5,784	1,027
Damage claims liability			14,149	3,936	(4,019)	14,066	6,376
Pollution remediation obligation			2,711	2,603	(611)	4,703	–
Total			$ 1,272,904	64,098	(75,470)	1,261,532	33,151

	Interest rate	Maturity (Calendar Year)	2016	Additions	Reductions	2017	Due within one year
Revenue Bonds:							
2010 Series A	4.00% - 5.00%	2021	$ 47,050	–	(6,935)	40,115	7,295
2010 Series B (Build America)	4.65 - 5.82	2040	192,515	–	–	192,515	–
2013 Series A	1.00 - 5.00	2025	98,585	–	(13,935)	84,650	12,720
2013 Series B	4.00 - 5.00	2042	331,585	–	–	331,585	–
2016 Series A	4.00 - 5.00	2046	240,580	–	–	240,580	–
2016 Series B	4.00 - 5.00	2046	67,820	–	–	67,820	–
For issuance premiums			93,748	–	(6,088)	87,660	–
Total revenue bonds payable			1,071,883	–	(26,958)	1,044,925	20,015
2009 Series C Certificates of Participation (COPs)	2.00 - 5.00	2022	5,000	–	(612)	4,388	643
2009 Series C COPs issuance premiums			222	–	(55)	167	–
2009 Series D COPs (Build America)	6.36 - 6.49	2041	24,458	–	–	24,458	–
Other post-employment benefits obligations			46,053	8,594	(2,977)	51,670	–
Net pension liability			48,177	82,872	(12,142)	118,907	–
Accrued vacation and sick leave			6,545	2,996	(3,592)	5,949	3,429
Accrued workers' compensation			5,658	1,112	(1,190)	5,580	1,031
Damage claims liability			16,633	365	(2,849)	14,149	4,790
Pollution remediation obligation			2,621	90	–	2,711	–
Total			$ 1,227,250	96,029	(50,375)	1,272,904	29,908

The payments of principal and interest amounts on various bonds are secured by net revenues of the Enterprise.

(a) Wastewater Revenue Bonds 2010 Series A

During fiscal year 2010, the Enterprise issued revenue bonds 2010 Series A in the amount of $47,050 with interest rates ranging from 4.0% to 5.0%. Proceeds from the bonds were used to redeem $50,000 in outstanding commercial paper notes, fund a cash debt service reserve fund, and pay the costs of issuing the bonds. The bonds were rated "Aa3" and "AA-" by Moody's and S&P, respectively. Bonds mature through October 1, 2021. The true interest cost is 2.9%. As of June 30, 2018 and 2017, the 2010 Series A bonds' principal amount outstanding was $32,820 and $40,115, respectively.

(b) Wastewater Revenue Bonds 2010 Series B

During fiscal year 2010, the Enterprise issued revenue bonds 2010 Series B (Federally Taxable – Build America Bonds – Direct Payment) in the amount of $192,515 with interest rates ranging from 4.7% to 5.8%. Proceeds from the bonds were used to redeem $53,500 in outstanding commercial paper notes, provide funding for capital projects in the amount of $112,429, fund a cash debt service reserve fund, and pay financing costs for the bonds. The bonds were rated "Aa3" and "AA-" by Moody's and S&P, respectively. Bonds mature through October 1, 2040. The true interest cost is 3.7%. As of June 30, 2018 and 2017, the 2010 Series B bonds' principal amount outstanding was $192,515.

(c) Wastewater Revenue Bonds 2013 Series A

In January 2013, the Enterprise issued tax-exempt revenue bonds 2013 Series A in the amount of $193,400 for the purpose of refunding the remaining portion of the outstanding 2003 Series A bonds maturing on and after October 1, 2013. The bonds carried "Aa3" and "AA-" ratings from Moody's and S&P, respectively. The 2013 Series A refunding bonds include serial bonds with interest rates varying from 1.0% to 5.0% and have a final maturity in October 2025. The Series A bonds have a true interest cost of 1.2%. The 2013 Series A bonds also refunded the remaining portion of the outstanding state revolving fund loans. The refunding resulted in the recognition of a deferred accounting loss of $2,986, gross debt service savings of $35,107 over the next 13 years, and an economic gain of $32,783 or 15.4% of the refunded principal. As of June 30, 2018 and 2017, the principal amount outstanding of the 2013 Series A bonds was $71,930 and $84,650, respectively.

(d) Wastewater Revenue Bonds 2013 Series B

In February 2013, the Enterprise issued revenue bonds 2013 Series B in the amount of $331,585 with interest rates ranging from 4.0% to 5.0%. Proceeds from the bonds were used for Wastewater capital projects, pay off all outstanding Wastewater commercial paper notes, and pay the costs of issuing the bonds. The bonds were rated "Aa3" and "AA-" by Moody's and S&P, respectively. Bonds mature through October 1, 2042. The true interest cost is 3.6%. As of June 30, 2018 and 2017, the principal amount outstanding of the 2013 Series B bonds was $331,585.

(e) Wastewater Revenue Bonds 2016 Series A

In May 2016, the Enterprise issued tax-exempt revenue bonds 2016 Series A (Green Bonds) in the amount of $240,580 with interest rates ranging from 4.0% to 5.0%. Proceeds from the bonds were used for Wastewater capital projects, to pay off $53,439 of outstanding commercial paper notes, to fund capitalized interest, and pay the costs of issuing the bonds. The bonds carried ratings of "AA" and "Aa3" from S&P and Moody's, respectively. Bonds mature through October 1, 2046. The bonds have a true interest cost of 3.2%. As of June 30, 2018 and 2017, the principal amount outstanding of the 2016 Series A bonds was $240,580.

(f) Wastewater Revenue Bonds 2016 Series B

In May 2016, the Enterprise issued tax-exempt revenue bonds 2016 Series B in the amount of $67,820 with interest rates ranging from 4.0% to 5.0%. Proceeds from the bonds were used for Wastewater capital projects, to pay off $20,560 of outstanding commercial paper notes, to fund capitalized interest, and pay the costs of issuing the bonds. The bonds carried ratings of "AA" and "Aa3" from S&P and Moody's, respectively. Bonds mature through October 1, 2046. The bonds have a true interest cost of 3.2%. As of June 30, 2018 and 2017, the principal amount outstanding of the 2016 Series B bonds was $67,820.

(g) Future Annual Debt Services of Revenue and Refunding Bonds

The following table presents the future annual debt service relating to the revenue and refunding bonds outstanding as of June 30, 2018. The interest before subsidy amounts include the interest for 2010 Series A and B, 2013 Series A and B, and 2016 Series A and B bonds. The federal interest subsidy amounts represent 35% of the interest, excluding sequestration, for the 2010 Series B revenue bonds.

	Principal	Interest before subsidy	Federal interest subsidy*	Interest net of subsidy
Fiscal years ending June 30:				
2019	$ 21,010	43,191	(3,508)	39,683
2020	22,085	42,201	(3,508)	38,693
2021	23,240	41,118	(3,508)	37,610
2022	22,880	40,015	(3,508)	36,507
2023	20,370	38,997	(3,452)	35,545
2024-2028	131,060	177,138	(15,404)	161,734
2029-2033	164,455	139,832	(11,562)	128,270
2034-2038	205,115	93,940	(6,639)	87,301
2039-2043	250,990	42,215	(1,167)	41,048
2044-2047	76,045	6,235	–	6,235
	937,250	664,882	(52,256)	612,626
Less: Current portion	(21,010)			
Add: Unamortized bond premiums	81,896			
Long-term portion as of June 30, 2018	$ 998,136			

* The SFPUC received IRS notice dated June 21, 2018 that the federal interest subsidy on the 2010 Series B bonds is reduced by 6.2%, or a total reduction of $3,454, due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

As defined in the Indenture, the principal and interest of the Enterprise's refunding bonds are payable from its corresponding revenue as well as monies deposited in certain funds and accounts pledged thereto (see Note 5).

(h) 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 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 and Series 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.

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%).

The future annual debt services relating to the certificates of participation 2009 Series C outstanding as of June 30, 2018 are as follows:

Certificates of Participation 2009 Series C (Tax Exempt)	Principal	Interest	Total
Fiscal years ending June 30:			
2019	$ 676	170	846
2020	711	136	847
2021	747	99	846
2022	785	61	846
2023	826	21	847
	3,745	487	4,232
Less: Current portion	(676)		
Add: Unamortized bond premiums	118		
Long-term portion as of June 30, 2018	$ 3,187		

The future annual debt services relating to the certificates of participation 2009 Series D outstanding as of June 30, 2018 are as follows:

Certificates of Participation 2009 Series D (Taxable)	Principal	Interest before subsidy	Federal interest subsidy*	Interest net of subsidy
Fiscal years ending June 30:				
2019	$ —	1,578	(518)	1,060
2020	—	1,578	(518)	1,060
2021	—	1,578	(518)	1,060
2022	—	1,578	(518)	1,060
2023	—	1,578	(518)	1,060
2024-2028	4,696	7,168	(2,353)	4,815
2029-2033	5,773	5,502	(1,806)	3,696
2034-2038	7,118	3,422	(1,123)	2,299
2039-2042	6,871	915	(300)	615
Total		24,897	(8,172)	16,725
Long-term portion as of June 30, 2018	$ 24,458			

* The SFPUC received IRS notice dated June 21, 2018 that the federal interest subsidy on the 2009 Series D bonds is reduced by 6.2%, or a total reduction of $540, due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

(I) Lake Merced Green Infrastructure Project CWSRF Loan

In January 2016, then amended in May 2016, the SFPUC entered into an Installment Sale Agreement with the State Water Resources Control Board for a Clean Water State Revolving Fund ("CWSRF") Loan to fund the Lake Merced Green Infrastructure Project of the Sewer System Improvement Program. The aggregate amount of the CWSRF loans is $7,435. The loan bears an interest rate of 1.6% which was equal to one-half of the State of California's most recent 30-year General Obligation Bond true interest cost at the time the agreement was executed. The CWSRF loan will have a 30-year term, with loan repayment beginning one year after substantial completion of each project's construction; substantial completion is expected by July 2020. The CWSRF loan is secured on a parity lien basis with the Enterprise's outstanding revenue bonds. The SFPUC has received loan disbursements to date totaling $1,998. As of June 30, 2018, the principal amount outstanding of the loan was $4,893.

(j) Southeast Plant (SEP) 521/522 and Disinfection Upgrade Project CWSRF Loan

In September 2017, then amended in December 2017 and May 2018, the SFPUC entered into an Installment Sale Agreement with the State Water Resources Control Board for a Clean Water State Revolving Fund ("CWSRF") Loan to fund the SEP 521/522 and Disinfection Upgrade Project of the Sewer System Improvement Program. The aggregate amount of the CWSRF loans is $40,007. The loan bears an interest rate of 1.8% which was equal to one-half of the State of California's most recent 30-year General Obligation Bond true interest cost at the time the agreement was executed. The CWRSF loan will have a 30-year term, with loan repayment beginning one year after substantial completion of each project's construction; substantial completion is expected by July 2019. The CWSRF loan is secured on a parity lien basis with the Enterprise's outstanding revenue bonds. The

SFPUC has not submitted any requests for loan disbursements to date and there is no outstanding loan principal as of June 30, 2018.

(k) North Point Facility Outfall Rehabilitation Project CWSRF Loan

In September 2017 the SFPUC entered into an Installment Sale Agreement with the State Water Resources Control Board for a Clean Water State Revolving Fund ("CWSRF") Loan to fund the North Point Facility Outfall Rehabilitation Project of the Sewer System Improvement Program. The aggregate amount of the CWSRF loans is $20,199. The loan bears an interest rate of 1.8% which was equal to one-half of the State of California's most recent 30-year General Obligation Bond true interest cost at the time the agreement was executed. The CWRSF loan will have a 30-year term, with loan repayment beginning one year after substantial completion of each project's construction; substantial completion occurred in February 2018. The CWSRF loans is secured on a parity lien basis with the Enterprise's outstanding revenue bonds. The SFPUC has received loan disbursements to date totaling $4,720. As of June 30, 2018, the principal amount outstanding of the loan was $17,714.

(l) SEP Primary/Secondary Clarifier Upgrade Project CWSRF Loan

In September 2017 the SFPUC entered into an Installment Sale Agreement with the State Water Resources Control Board for a Clean Water State Revolving Fund ("CWSRF") Loan to fund the SEP Primary/Secondary Clarifier Upgrade Project of the Sewer System Improvement Program. The aggregate amount of the CWSRF loans is $34,446. The loan bears an interest rate of 1.8% which was equal to one-half of the State of California's most recent 30-year General Obligation Bond true interest cost at the time the agreement was executed. The CWRSF loan will have a 30-year term, with loan repayment beginning one year after substantial completion of each project's construction; substantial completion occurred in June 2018. The CWSRF loan is secured on a parity lien basis with the Enterprise's outstanding revenue bonds. The SFPUC has not submitted any requests for loan disbursements to date and there is no outstanding loan principal as of June 30, 2018.

(m) Future Annual Debt Services of State Revolving Fund Loans (CWSRF Loans)

The future annual debt services relating to the State Revolving Fund Loan to fund the Lake Merced Green Infrastructure Project and the North Point Facility Outfall Rehabilitation Project outstanding as of June 30, 2018 are as follows:

Lake Merced Green Infrastructure Project		Principal	Interest	Total
Fiscal years ending June 30:				
2022	$	128	78	206
2023		130	76	206
2024		133	74	207
2025		135	72	207
2026		137	70	207
2027-2031		717	316	1,033
2032-2036		777	257	1,034
2037-2041		841	192	1,033
2042-2046		910	123	1,033
2047-2051		985	48	1,033
		4,893	1,306	6,199
Less: Current portion		–		
Long-term portion as of June 30, 2018	$	4,893		

North Point Facility Outfall Rehabilitation Project		Principal	Interest	Total
Fiscal years ending June 30:				
2019	$	296	113	409
2020		423	207	630
2021		487	291	778
2022		480	297	777
2023		489	288	777
2024-2028		2,580	1,307	3,887
2029-2033		2,820	1,067	3,887
2034-2038		3,083	804	3,887
2039-2043		3,371	516	3,887
2044-2048		3,685	201	3,886
		17,714	5,091	22,805
Less: Current portion		(296)		
Long-term portion as of June 30, 2018	$	17,418		

(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 through fiscal year 2047 and are solely from revenues of the Enterprise.

The original amount of revenue bonds issued, total principal and interest remaining, principal and interest paid during fiscal years 2018 and 2017, applicable net revenues, and funds available for debt service are as follows:

	2018	2017
Bonds issued with revenue pledge	$ 1,072,950	1,072,950
Principal and interest remaining due at the end of the year	1,602,132	1,666,275
Principal and interest paid during the year	47,003	60,407
Net revenues for the year ended June 30	184,739	119,989
Funds available for debt service	338,335	251,543

(9) Employee Benefits

(a) Pension Plan

The Enterprise participates in a cost-sharing multiple-employer defined benefit pension plan (the Plan). The Plan is administered by the San Francisco City and County Employees' Retirement System (SFERS). For purposes of measuring the net pension liability, deferred outflows/inflows of resources related to pensions, pension expense, information about the fiduciary net position of the SFERS plans, and additions to/deductions from the Plan's fiduciary net position have been determined on the same basis as they are reported by Cheiron, the consulting actuary for the Plan. Benefit payments (including refunds of employee contributions) are recognized when currently due and payable in accordance with the benefit terms. Investments are reported at fair value.

GASB Statement No. 68 requires that the reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used:

San Francisco Employees's Retirement System - Cost Sharing

Fiscal year 2018	
Valuation Date (VD)	June 30, 2016 updated to June 30, 2017
Measurement Date (MD)	June 30, 2017
Measurement Period (MP)	July 1, 2016 to June 30, 2017

Fiscal year 2017	
Valuation Date (VD)	June 30, 2015 updated to June 30, 2016
Measurement Date (MD)	June 30, 2016
Measurement Period (MP)	July 1, 2015 to June 30, 2016

The City is an employer of the plan with a proportionate share of 94.07% as of June 30, 2017 (measurement date), and 94.22% as of June 30, 2016 (measurement date). The Enterprise's allocation percentage was determined based on the Enterprise's employer contributions divided by the City's total employer contributions for fiscal years 2017 and 2016. The Enterprise's net pension liability, deferred outflows/inflows of resources related to pensions, amortization of deferred outflows/inflows, and pension expense to each department are based on its allocated percentage. The Enterprise's allocation of the City's proportionate share was 2.15% as of June 30, 2017 and 2.17% as of June 30, 2016 (measurement date).

Plan Description – The Plan provides basic service retirement, disability, and death benefits based on specified percentages of defined final average monthly salary and provides annual cost of living adjustments (COLA) after retirement. The Plan also provides pension continuation benefits to qualified survivors. The City Charter and the Administrative Code are the authorities, which establish and amend the benefit provisions and employer obligations of the Plan. 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 Employees' Retirement System, 1145 Market Street, 5th Floor, San Francisco, CA 94103, or by calling (415) 487-7000.

Benefits – The Retirement System provides service retirement, disability, and death benefits based on specified percentages of defined final average monthly salary and annual COLA after retirement. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan. The Retirement System pays benefits according to the category of employment and the type of benefit coverage provided by the City. The four main categories of plan members are:

a) Miscellaneous Non-Safety Members – staff, operational, supervisory, and all other eligible employees who are not in special membership categories.

b) Sheriff's Department and Miscellaneous Safety Members – Sheriffs assuming office on and after January 7, 2012, and undersheriffs, deputized personnel of the Sheriff's Department, and miscellaneous safety employees hired on and after January 7, 2012.

c) Firefighter Members – firefighters and other employees whose principal duties are in fire prevention and suppression work or who occupy positions designated by law as firefighter member positions.

d) Police Members – police officers and other employees whose principal duties are in active law enforcement or who occupy positions designated by law as police member positions.

The membership groups and the related service retirement benefits are included in the Notes to the Basic Financial Statements of San Francisco Employees' Retirement System.

All members are eligible to apply for a disability retirement benefit, regardless of age, when they have 10 or more years of credited service and they sustain an injury or illness that prevents them from performing their duties. Safety members are eligible to apply for an industrial disability retirement benefit from their first day on the job if their disability is caused by an illness or injury that they receive while performing their duties.

All retired members receive a benefit adjustment each July 1, which is the Basic COLA. The majority of adjustments are determined by changes in Consumer Price Index with increases capped at 2%. The Plan provides for a Supplemental COLA in years when there are sufficient "excess" investment earnings in the Plan. The maximum benefit adjustment each July 1 is 3.5% including the Basic COLA. Effective July 1, 2012, voters approved changes in the criteria for payment of the Supplemental COLA benefit, so that Supplemental COLAs would only be paid when the Plan is also fully funded on a market value of assets basis. Certain provision of this voter-approved proposition were challenged in the Courts. A decision by the California Courts modified the interpretation of the proposition. Effective July 1, 2012, members who retired before November 6, 1996 will receive a Supplemental COLA only when the Plan is also fully funded on a market value of assets basis. However, the "full funding" requirement does not apply to members who retired on or after November 6, 1996 and

were hired before January 7, 2012. For all members hired before January 7, 2012, all Supplemental COLAs paid to them in retirement benefits will continue into the future even where an additional Supplemental COLA is not payable in any given year. For members hired on and after January 7, 2012, a Supplemental COLA will only be paid to retirees when the Plan is fully funded on a market value of asset basis and in addition for these members, Supplemental COLAs will not be permanent adjustments to retirement benefits. That is, in years when a Supplemental COLA is not paid, all previously paid Supplemental COLAs will expire.

Funding & Contribution Policy – Contributions are made to the basic plan by both the City and the participating employees. Employee contributions are mandatory as required by the Charter. Employee contribution rates for fiscal year 2018 varied from 7.5% to 13.0% as a percentage of gross covered salary, and from 7.5% to 12.0% as a percentage of gross covered salary for fiscal year 2017. Most employee groups agreed through collective bargaining for employees to contribute the full amount of the employee contributions on a pretax basis. The Enterprise is required to contribute at an actuarially determined rate. Based on the July 1, 2016 actuarial valuation report, the required employer contribution rate for fiscal year 2018 was 18.96% to 23.46%. Based on the July 1, 2015 actuarial report, the required employer contribution rate for fiscal year 2017 was 17.90% to 21.40%.

Employer contributions and employee contributions made by the employer to the Plan are recognized when due and the employer has made a formal commitment to provide the contributions. The City's proportionate share of employer contributions recognized by the Retirement System in fiscal year ended June 30, 2017 and 2016 (measurement periods) were $519,073 and $496,343, respectively. The Enterprise's allocation of employer contributions for fiscal year 2017 and 2016 (measurement periods) were $11,270 and $10,930, respectively.

Pension Liabilities, Pension Expenses, Deferred Outflows, and Inflows of Resources Related to Pensions

Fiscal Year 2018

The City reported net pension liabilities for its proportionate share of the pension liability of the Plan of $4,697,129, as of June 30, 2018. The City's net pension liability for the Plan is measured as the proportionate share of the net pension liability. The net pension liability of the Plan is measured as of June 30, 2017 (measurement date), and the total pension liability for the Plan used to calculate the net pension liability was determined by an actuarial valuation as of June 30, 2016 rolled forward to June 30, 2017 using standard update procedures. The City's proportion of the net pension liability was based on a projection of the City's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. The Enterprise's allocation of the City's proportionate share of the net pension liability for the Plan as of June 30, 2018 and 2017 (reporting years) was $100,973 and $118,907, respectively. During the measurement year 2017, the actual investment earnings decreased total pension liability. This was partially offset by an increase in service costs and interest costs, resulting in an overall decrease in net pension liability.

For the year ended June 30, 2018, the City's recognized pension expenses was $732,895, including amortization of deferred outflow/inflow related pension items. The Enterprise's allocation of pension expense including amortization of deferred outflow/inflow related pension items was $15,005.

Pension expense decreased from the prior year, largely due to the impact of actual investment earnings.

As of June 30, 2018, the Enterprise's reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

Fiscal Year 2018 Schedule of Deferred Outflows and Inflows of Resources

	Deferred Outflows of Resources	Deferred Inflows of Resources
Pension contribution subsequent to measurement date	$ 12,523	—
Differences between expected and actual experience	937	3,048
Changes in assumptions	16,373	297
Net difference between projected and actual earnings on pension plan investments	—	3,767
Change in employer's proportion	151	165
Total	$ 29,984	7,277

Amounts reported as deferred outflows, exclusive of contributions made after the measurement date, and deferred inflows of resources will be amortized annually and recognized in pension expense as follows:

Fiscal years	Deferred Outflows/(Inflows) of Resources
2019	$ 468
2020	8,487
2021	5,391
2022	(4,162)
	$ 10,184

Fiscal Year 2017

The City reported net pension liabilities for its proportionate share of the pension liability of the Plan of $5,476,653, as of June 30, 2017. The City's net pension liability for the Plan is measured as the proportionate share of the net pension liability. The net pension liability of the Plan is measured as of June 30, 2016 (measurement date), and the total pension liability for the Plan used to calculate the net pension liability was determined by an actuarial valuation as of June 30, 2015 rolled forward to June 30, 2016 using standard update procedures. The City's proportion of the net pension liability was based on a projection of the City's long-term share of contributions to the pension plan relative to the projected contributions of all participating employers, actuarially determined. The Enterprise's allocation of the City's proportionate share of the net pension liability for each Plan as of June 30, 2017 and 2016 (reporting years) was $118,907 and $48,177, respectively. During the measurement year 2016, the increase in service costs, interest costs, change in benefits, change in assumptions, and difference between projected and actual investment earnings increased total pension liability. This was only partially offset by an increase in the discount rate, contributions,

investment income, and actuarial experience gains, resulting in an overall increase in net pension liability.

For the year ended June 30, 2017, the City's recognized pension expenses was $1,808,992 including amortization of deferred outflow/inflow related pension items. The Enterprise's allocation of pension expense including amortization of deferred outflow/inflow related pension items was $37,189. Pension expense increased significantly, largely due to the impact of changes in benefits, namely the updated Supplemental COLA assumptions and amortization of deferred inflows/outflows.

As of June 30, 2017, the Enterprise's reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

Fiscal Year 2017 Schedule of Deferred Outflows and Inflows of Resources

		Deferred Outflows of Resources	Deferred Inflows of Resources
Pension contribution subsequent to measurement date	$	11,270	—
Differences between expected and actual experience		—	4,382
Changes in assumptions		20,455	600
Net difference between projected and actual earnings on pension plan investments		16,258	—
Change in employer's proportion		209	111
Total	$	48,192	5,093

Amounts reported as deferred outflows, exclusive of contributions made after the measurement date, and deferred inflows of resources will be amortized annually and recognized in pension expense as follows:

Fiscal years		Deferred Outflows/(Inflows) of Resources
2018	$	4,684
2019		4,684
2020		12,797
2021		9,664
	$	31,829

Actuarial Assumptions

Fiscal Year 2018

A summary of the actuarial assumptions and methods used to calculate the Total Pension Liability as of June 30, 2017 (measurement period) is provided below, including any assumptions that differ from those used in the July 1, 2016 actuarial valuation. Refer to the July 1, 2016 actuarial valuation report for a complete description of all other assumptions, which can be found on the Retirement System's website http://mysfers.org.

Key Actuarial Assumptions	
Valuation Date	June 30, 2016 updated to June 30, 2017
Measurement Date	June 30, 2017
Actuarial Cost Method	Entry - Age Normal Cost Method
Expected Rate of Return	7.50%
Municipal Bond Yield	2.85% as of June 30, 2016
	3.58% as of June 30, 2017
	Bond Buyer 20 - Bond GO Index, June 30, 2016 and June 29, 2017
Inflation	3.25%
Salary Increases	3.75% plus merit component based on employee classification and years of service
Discount Rate	7.50% as of June 30, 2016
	7.50% as of June 30, 2017
Administrative Expenses	0.60% of payroll as of June 30, 2016
	0.60% of payroll as of June 30, 2017

Basic COLA		Old Miscellaneous and All New Plans	Old Police & Fire, pre 7/1/75	Old Police & Fire, Charters A8.595 and A8.596	Old Police & Fire, Charters A8.559 and A8.585
	June 30, 2016	2.00%	2.70%	3.30%	4.40%
	June 30, 2017	2.00%	2.70%	3.30%	4.40%

Mortality rates for active members and healthy annuitants were based upon adjusted Employee and Healthy Annuitant CalPERS mortality tables projected generationally from the 2009 base year using a modified version of the MP-2015 projection scale.

Fiscal Year 2017

A summary of the actuarial assumptions and methods used to calculate the Total Pension Liability as of June 30, 2016 (measurement period) is provided below, including any assumptions that differ from those used in the July 1, 2015 actuarial valuation. Refer to the July 1, 2015 actuarial valuation report for a complete description of all other assumptions, which can be found on the Retirement System's website http://mysfers.org.

Key Actuarial Assumptions	
Valuation Date	June 30, 2015 updated to June 30, 2016
Measurement Date	June 30, 2016
Actuarial Cost Method	Entry - Age Normal Cost Method
Expected Rate of Return	7.50%
Municipal Bond Yield	3.85% as of June 30, 2015
	2.85% as of June 30, 2016
	Bond Buyer 20 - Bond GO Index, July 2, 2015 and June 30, 2016
Inflation	3.25%
Salary Increases	3.75% plus merit component based on employee classification and years of service
Discount Rate	7.46% as of June 30, 2015
	7.50% as of June 30, 2016
Administrative Expenses	0.45% of payroll as of June 30, 2015
	0.60% of payroll as of June 30, 2016

Basic COLA		Old Miscellaneous and All New Plans	Old Police & Fire, pre 7/1/75	Old Police & Fire, Charters A8.595 and A8.596	Old Police & Fire, Charters A8.559 and A8.585
	June 30, 2015	2.00%	3.00%	4.00%	5.00%
	June 30, 2016	2.00%	2.70%	3.30%	4.40%

Mortality rates for active members and healthy annuitants were based upon adjusted Employee and Healthy Annuitant CalPERS mortality tables projected generationally from the 2009 base year using a modified version of the MP-2015 projection scale.

Discount Rate

Fiscal Year 2018

The beginning and end of year measurements are based on different assumptions and contribution methods that result in different discount rates. The discount rate was 7.50% as of the June 30, 2017 (measurement date) and June 30, 2016 (measurement date).

The discount rate used to measure the total pension liability as of June 30, 2017 was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will continue to be made at the rates specified in the Charter. Employer contributions were assumed to be made in accordance with the contribution policy in effect for July 1, 2016 actuarial valuation. That policy includes contributions equal to the employer portion of the Entry Age normal costs for members as of the valuation date, a payment for the expected administrative expenses, and an amortization payment on the unfunded actuarial liability.

The amortization payment is based on closed periods that vary in length depending on the source. Charter amendments prior to July 1, 2014 are amortized over 20 years. After July 1, 2014, any Charter changes to active member benefits are amortized over 15 years and changes to inactive member benefits, including Supplemental COLAs, are amortized over 5 years. The remaining unfunded actuarial liability not attributable to Charter amendments as of July 1, 2013 is amortized over a 19-year period commencing July 1, 2014. Experience gains and losses and assumption or method changes on or after July 1, 2014 are amortized over 20 years. For the July 1, 2016 valuation, the increase in the unfunded actuarial liability attributable to the Supplemental COLAs granted on July 1, 2013 and July 1, 2014 are amortized over 17-years and 5-years, respectively. All amortization schedules are established as a level percentage of payroll so payments increase 3.75% each year. The unfunded actuarial liability is based on an actuarial value of assets that smooths investment gains and losses over five years and a measurement of the actuarial liability that excludes the value of any future Supplemental COLAs.

While the contributions and measure of actuarial liability in the valuation do not anticipate any future Supplemental COLAs, the projected contributions for the determination of the discount rate include the anticipated future amortization payments on future Supplemental COLA's for current members when they are expected to be granted. For members who worked after November 6, 1996 and before Proposition C passed, a Supplemental COLA is granted if the actual investment earnings during the year exceed the expected investment earnings on the actuarial value of assets. For members who did not work after November 6, 1996 and before Proposition C passed, the market value of assets must also exceed the actuarial liability at the beginning of the year for a Supplemental COLA to be granted. When a Supplemental COLA is granted, the amount depends on the amount of excess earnings and the basic COLA amount for each membership group. The large majority of members receive a 1.50% Supplemental COLA when granted.

Because the probability of a Supplemental COLA depends on the current funded level of the System for certain members, Cheiron developed an assumption as of the June 30, 2017 measurement date for the probability and amount of Supplemental COLA for each future year. The table below shows the net assumed Supplemental COLA for members with a 2.00% basic COLAs for sample years.

Assumed Supplemental COLA for Members with a 2.00% Basic COLA

Fiscal years	96 - Prop C	Before 11/6/96 or After Prop C
2018	0.750 %	0.000 %
2023	0.750	0.290
2028	0.750	0.350
2033	0.750	0.380
2038+	0.750	0.380

The projection of benefit payments to current members for determining the discount rate includes the payment of anticipated future Supplemental COLAs.

Based on these assumptions, the System's fiduciary net position was projected to be available to make projected future benefit payments for current members until fiscal year end 2096 when only a portion of the projected benefit payments can be made from the projected fiduciary net position. Projected benefit payments are discounted at the long-term expected return on assets of 7.50% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 3.58% to the extent they are not available. The single equivalent rate used to determine the total pension liability as of the June 30, 2017 measurement date was 7.50%.

The long-term expected rate of return on pension plan investments was 7.50%. It was set by the Retirement Board after consideration of both expected future returns and historical returns experienced by the Retirement System. Expected future returns were determined by using a building-block method in which best-estimate ranges of expected future real rates of return were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Target allocation and best estimates of geometric long-term expected real rates of return (net of pension plan investment expense and inflation) for each major asset class are summarized in the following table.

Long-Term Expected Real Rates of Return

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	40.0 %	5.3 %
Fixed Income	20.0	1.6
Private Equity	18.0	6.5
Real Assets	17.0	4.6
Hedge Funds/Absolute Returns	5.0	3.6
Total	100.0	

Fiscal Year 2017

The beginning and end of year measurements are based on different assumptions and contribution methods that result in different discount rates. The discount rate was 7.50% as of the June 30, 2016 measurement date and 7.46% as of June 30, 2015 measurement date.

The discount rate used to measure the total pension liability as of the June 30, 2016 measurement date was 7.50%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will continue to be made at the rates specified in the Charter. Employer contributions were assumed to be made in accordance with the contribution policy in effect for July 1, 2015 actuarial valuation. That policy includes contributions equal to the employer portion of the Entry Age normal costs for members as of the valuation date, a payment for the expected administrative expenses, and an amortization payment on the unfunded actuarial liability.

The amortization payment is based on closed periods that vary in length depending on the source. Charter amendments prior to July 1, 2014 are amortized over 20 years. After July 1, 2014, any Charter changes to active member benefits are amortized over 15 years and changes to inactive member benefits, including Supplemental COLAs, are amortized over 5 years. The remaining unfunded actuarial liability not attributable to Charter amendments as of July 1, 2013 is amortized over a 19-year period commencing July 1, 2014. Experience gains and losses and assumption or method changes on or after July 1, 2014 are amortized over 20 years. For the July 1, 2016 valuation, the increase in the unfunded actuarial liability attributable to the Supplemental COLAs granted on July 1, 2013 and July 1, 2014 are amortized over 17-years and 5-years, respectively. All amortization schedules are established as a level percentage of payroll so payments increase 3.75% each year. The unfunded actuarial liability is based on an actuarial value of assets that smooths investment gains and losses over five years and a measurement of the actuarial liability that excludes the value of any future Supplemental COLAs.

While the contributions and measure of actuarial liability in the valuation do not anticipate any Supplemental COLAs, the projected contributions for the determination of the discount rate include the anticipated future amortization payments on future Supplemental COLA's for current members when they are expected to be granted. For members who worked after November 6, 1996 and before Proposition C passed, a Supplemental COLA is granted if the actual investment earnings during the year exceed the expected investment earnings on the actuarial value of assets. For members who did not work after November 6, 1996 and before Proposition C passed, the market value of assets must also exceed the actuarial liability at the beginning of the year for the Supplemental COLA to be granted. When a Supplemental COLA is granted, the amount depends on the amount of excess earnings and the basic COLA amount for each membership group. The large majority of members receive a 1.50% Supplemental COLA when granted.

Because the probability of a Supplemental COLA depends on the current funded level of the System for certain members, Cheiron developed an assumption as of the June 30, 2016 measurement date for the probability and amount of Supplemental COLA for each future year. The table below shows the net assumed Supplemental COLA for member with a 2.00% basic COLAs for sample years.

Assumed Supplemental COLA for Members with a 2.00% Basic COLA

Fiscal years	96 - Prop C	Before 11/6/96 or After Prop C
2018	0.750 %	0.000 %
2023	0.750	0.220
2028	0.750	0.322
2033	0.750	0.370
2038+	0.750	0.375

The projection of benefit payments to current members for determining the discount rate includes the payment of anticipated future Supplemental COLAs.

Based on these assumptions, the Retirement System's fiduciary net position was projected to be available to make projected future benefit payments for current members until fiscal year end 2093 when only a portion of the projected benefit payments can be made from the projected fiduciary net position. Projected benefit payments are discounted at the long-term expected return on assets of 7.50% to the extent the fiduciary net position is available to make the payments and at the municipal bond rate of 2.85% to the extent they are not available. The single equivalent rate used to determine the total pension liability as of the June 30, 2016 measurement date was 7.50%.

The long-term expected rate of return on pension plan investments was 7.50%. It was set by the Retirement Board after consideration of both expected future returns and historical returns experienced by the Retirement System. Expected future returns were determined by using a building-block method in which best-estimate ranges of expected future real rates of return were developed for each major asset class. These ranges were combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Target allocation and best estimates of geometric long-term expected real rates of return (net of pension plan investment expense and inflation) for each major asset class are summarized in the following table.

Long-Term Expected Real Rates of Return

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Global Equity	40.0 %	5.1 %
Fixed Income	20.0	1.1
Private Equity	18.0	6.3
Real Assets	17.0	4.3
Hedge Funds/Absolute Returns	5.0	3.3
Total	100.0	

Sensitivity of Proportionate Share of the Net Pension Liability to Changes in the Discount Rate – The following presents the Enterprise's allocation of the employer's proportionate share of the net pension liability for the Plan, calculated using the discount rate, as well as what the Enterprise's

allocation of the employer's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate.

Fiscal Year 2018

Employer	1% Decrease Share of NPL @ 6.50%	Share of NPL @ 7.50%	1% Increase Share of NPL @ 8.50%
Wastewater	$ 172,984	100,973	41,390

Fiscal Year 2017

Employer	1% Decrease Share of NPL @ 6.50%	Share of NPL @ 7.50%	1% Increase Share of NPL @ 8.50%
Wastewater	$ 188,430	118,907	61,403

(b) Other Post-Employment Benefits

The Enterprise participates in the City's agent multiple employer defined benefit plan, which operates as a cost-sharing multiple employer defined benefit plan for the Enterprise (the Plan). The Plan is maintained by the City and is administered through the City's Health Service System and provides postemployment medical, dental and vision insurance benefits to eligible employees, retired employees, and surviving spouses. Health benefit provisions are established and may be amended through negotiations between the City and the respective bargaining units. The City does not issue a separate report on its other post-employment benefit plan.

GASB Statement No. 75 requires that reported results must pertain to liability and asset information within certain defined timeframes. For this report, the following timeframes are used.

San Francisco Health Service System Retiree Plan	
Valuation Date (VD)	June 30, 2016 updated to June 30, 2017
Measurement Date (MD)	June 30, 2017
Measurement Period (MP)	July 1, 2016 to June 30, 2017

The Enterprise's proportionate share percentage of the Plan was determined based on its percentage of citywide "pay-as-you-go" contributions for the year ended June 30, 2017. The Enterprise's net OPEB liability, deferred outflows/inflows of resources related to OPEB, amortization of deferred outflows/inflows and OPEB expense to each department is based on the Enterprise's allocated percentage. The Enterprise's proportionate share of the City's OPEB elements was 1.60% as of the measurement date.

Benefits

Permanent full-time and elected employees are eligible to retire and receive postretirement health insurance benefits when they are eligible for retirement benefits from the City and County of San Francisco's Retirement System. The eligibility requirements are as follows:

Normal Retirement	Miscellaneous	Age 50 with 20 years of credited service[1]
		Age 60 with 10 years of credited service
	Safety	Age 50 with 5 years of credited service
Disabled Retirement[2]	Any age with 10 years of credited service	
Terminated Vested[3]	Age 50 with 5 years of credited service at separation	
Active Death[2]	Any age with 10 years of credited service	

[1] Age 53 with 20 years of credited service, age 60 with 10 years of credited service, or age 60 for Miscellaneous members hired on or after January 7, 2012.

[2] No service requirement for Safety members retiring under the industrial disability benefit or for surviving spouses / domestic partners of those killed in the line of duty.

[3] Effective with Proposition B, passed June 3, 2008, participants hired on or after January 10, 2009 must retire within 180 days of separation in order to be eligible for retiree healthcare benefits.

Retiree healthcare benefits are administered by the San Francisco Health Service System and include the following:

Medical:	PPO – City Health Plan (self-insured)
	HMO – Kaiser (fully-insured) and Blue Shield (flex-funded)
Dental:	Delta Dental & DeltaCare USA
Vision:	Vision benefits are provided under the medical insurance plans and are administered by Vision Service Plan.

Projections of the sharing of benefit related costs are based on an established pattern of practice.

Contributions

Benefits provided under the Plan are currently paid through "pay-as-you-go" funding. Additionally, under the City Charter, active officers and employees of the City who commenced employment on or after January 10, 2009, shall contribute to the Retiree Health Care Trust Fund (Trust Fund) a percentage of compensation not to exceed 2% of pre-tax compensation. The City shall contribute 1% of compensation for officers and employees who commenced employment on or after January 10, 2009 until the City's GASB Actuary (Cherion) has determined that the City's portion of the Trust Fund is fully funded. At that time, the City's 1% contribution shall cease, and officers and employees will each contribute 50% of the maximum 2% of pre-tax compensation.

Starting July 1, 2016, active officers and employees of the City who commenced employment on or before January 9, 2009, shall contribute 0.25% of pre-tax compensation into the Trust Fund. Beginning on July 1st of each subsequent year, the active officers and employees of the City who commenced employment on or before January 9, 2009, shall contribute an additional 0.25% of pre-tax compensation up to a maximum of 1%. Starting July 1, 2016, the City shall contribute 0.25% of compensation into the Trust Fund for each officer and employee who commenced

employment on or before January 9, 2009. Beginning on July 1st of each subsequent year, the City shall contribute an additional 0.25% of compensation, up to a maximum of 1% for each officer and employee who commenced employment on or before January 9, 2009. When Cherion has determined that the City's portion of the Trust Fund is fully funded, the City's 1% contribution shall cease, and officers and employees will each contribute 50% of the maximum 1% of pre-tax compensation.

Additional or existing contribution requirements may be established or modified by amendment to the City's Charter.

For the fiscal year ending June 30, 2018, funding was based on "pay-as-you-go" plus a contribution of $25,839 to the Retiree Healthcare Trust Fund. The "pay-as-you-go" portion paid by the City was $178,019 for a total contribution of $203,858 for the fiscal year ending June 30, 2018. The Enterprise's proportionate share of the City's contributions for fiscal year 2018 was $3,264.

OPEB Liabilities, OPEB Expenses and Deferred Outflows/Inflows of Resources Related to OPEB

As of June 30, 2018, the City reported net OPEB liabilities related to the Plan of $3.7 billion. The Enterprise's proportionate share of the City's net OPEB liability as of June 30, 2018 was $59,517.

For the year ended June 30, 2018, the City's recognized OPEB expense was $355,186. Amortization of the City's deferred inflow is included as a component of pension expense. The Enterprise's proportionate share of the City's OPEB expense was $5,687.

As of June 30, 2018, the Enterprise reported its proportionate share of the City's deferred outflows/inflows of resources related to OPEB from the following sources:

Wastewater	Deferred Outflows of Resources	Deferred Inflows of Resources
Contributions subsequent to measurement date	$ 3,264	$ -
Net difference between projected and actual earnings on plan investments	-	96
Total	$ 3,264	$ 96

Amounts reported as deferred outflows, exclusive of contributions made after the measurement date, and deferred inflows of resources will be amortized annually and recognized in OPEB expense as follows:

Year ended June 30:	
2019	$ (24)
2020	(24)
2021	(24)
2022	(24)
2023	-
Thereafter	-

Actuarial Assumptions

A summary of the actuarial assumptions and methods used to calculate the Total OPEB Liability as of June 30, 2017 (measurement year) is provided below:

Key Actuarial Assumptions

Valuation Date	June 30, 2016 updated to June 30, 2017
Measurement Date	June 30, 2017
Actuarial Cost Method	The Entry Age Actuarial Cost Method is used to measure the Plan's Total OPEB Liability
Healthcare Cost Trend Rates	Pre-Medicare trend starts at 7.25% and trends down to ultimate rate of 4.5% Medicare trend starts at 7.0% and trends down to ultimate rate of 4.5% 10-County average trend starts at 6.0% and trends down to ultimate rate of 4.5%
Expected Rate of Return on Plan Asse	7.50%
Discount Rate	7.50%
Salary increase Rate	Wage Inflation Component: 3.50% Additional Merit Component (dependent on years of service): Police: 0.00% - 8.00% Fire: 0.00% - 15.00% Muni Drivers: 0.00% - 15.00% Craft: 0.00% - 3.50% Misc: 0.00% - 5.25%
Inflation Rate	Wage Inflation: 3.50% compounded annually Consumer Price Inflation: 3.00% compounded annually
Mortality Tables	Base mortality tables are developed by multiplying a published table by an adjustment factor developed in SFERS experience study for the period ending June 30, 2014.

Non-Annuitant - CalPERS employee mortality tables without scale BB projection

Gender	Adjustment Factor	Base Year
Female	0.918	2009
Male	0.948	2009

Healthy Annuitants - CalPERS healthy annuitant mortality table without scale BB projection

Gender	Adjustment Factor	Base Year
Female	1.014	2009
Male	0.909	2009

Miscellaneous Disable Annuitants - RP-2014 Disabled Retiree Tables without MP-2014 projection

Gender	Adjustment Factor	Base Year
Female	1.066	2006
Male	0.942	2006

Safety Disables Annuitants - CalPERS industrial disability mortality table without scale BB projection

Gender	Adjustment Factor	Base Year
Female	0.983	2009
Male	0.909	2009

Sensitivity of Liabilities to Changes in the Healthcare Cost Trend Rate and Discount Rate

The following presents the Enterprise's proportionate share of the City's net OPEB liability calculated using the healthcare cost trend rate, as well as what the Enterprise's allocation of the City's net OPEB liability would be if it were calculated using a healthcare cost trend rate that is 1% lower or 1% higher than the current rate:

-1.00%	Baseline	1.00%
$ 51,941	$ 59,517	$ 68,883

Discount Rate

The discount rate used to measure the Total OPEB Liability as of June 30, 2017 was 7.5%. Based on the assumption that plan member contributions will continue to be made at the rates specified in the Charter, it was determined that the Plan's projected fiduciary net position will be greater than or equal to the benefit payments projected for each future period. As such, the long-term expected rate of return on plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

The long-term expected rate of return on OPEB plan investments was 7.5% based on expected future returns and historical returns experienced by the Trust Fund. Expected future returns were determined based on 10-year and 20-year capital market assumptions for the Trust Fund's asset allocation. Target allocation for each major asset class are summarized in the following table:

Asset Class	Target Allocation	20-year Expected Return
U.S. Equities	41.0%	7.3%
Developed Market Equity (non-U.S.)	20.0%	7.1%
Emerging Market Equity	16.0%	9.4%
High Yield Bonds	3.0%	5.4%
Bank Loans	3.0%	5.0%
Emerging Market Bonds	3.0%	5.4%
Treasury Inflation Protected Securities	5.0%	3.3%
Investment Grade Bonds	9.0%	3.6%
Total	100.0%	

The asset allocation targets summarized above have a 20-year return estimate of 7.75%, which was weighted against a 10-year model estimating a 6.59% return, resulting in the ultimate long-term expected rate of return of 7.5%.

The following presents the Enterprise's proportionate share of the City's net OPEB liability calculated using the discount rate, as well as what the Enterprise's proportionate share of the City's net OPEB liability would be if it were calculated using a discount rate that is 1% lower or 1% higher than the current rate:

1% Decrease Share of NOL @ 6.50%	Share of NOL @ 7.50%	1% Increase Share of NOL @ 8.50%
$ 68,181	$ 59,517	$ 52,412

(10) Related Parties

Various common costs incurred by the Commission are allocated among the Enterprise, Hetch Hetchy Water and Power and CleanPowerSF, and the Water 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 $26,473 or 31.6% and $26,253 or 31.8% were allocated to the Enterprise for the years ended June 30, 2018 and 2017, 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 Enterprise purchases electricity from Hetch Hetchy Power at market rates. This amount, totaling $10,195 and $10,738 for the years ended June 30, 2018 and 2017, respectively, has been included in services provided by other departments in the accompanying financial statements.

The Enterprise provides sewer services to other City departments at non-residential rates established by the Commission, and through the Customer Services Department, bills and collects sewer service charges on behalf of the Enterprise.

The City's Department of Public Works provides certain engineering and other services to the Enterprise and charges amounts designed to recover its costs. These services are primarily related to street cleaning, engineering, building repair, and sewer repair. These amounts totaling approximately $14,417 and $13,586 for the years ended June 30, 2018 and 2017, respectively, have been included in services provided by other departments in the accompanying financial statements.

A variety of other City departments provide services such as purchasing, legal, data processing, telecommunications, and human resources to the Enterprise and charge amounts designed to recover those departments' costs. These charges totaling approximately $11,762 and $12,508 for the years ended June 30, 2018 and 2017, respectively, have been included in services provided by other departments in the accompanying financial statements.

As of June 30, 2018, the Enterprise has payables in the amount of $1,061, which is associated with the SFPUC Headquarters Living Machine system.

SFPUC's 75-year lease agreement with the San Francisco Recreation and Parks Department, for the use of parking spaces for its fleet of vehicles at the Civic Center Garage, commenced on February 1, 2011. Total payment under this agreement is $6,274, which was fully made as of fiscal year 2015. The expenses and prepayments among the three SFPUC Enterprises are based on 525 Golden Gate occupancy. As of June 30, 2018, the Enterprise's allocable shares of expenses and prepayment were $23 and $1,231, respectively, and as of June 30, 2017 were $21 and $1,254, respectively.

(11) 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 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 SFPUC Property Insurance program.

Primary Risks	Typical Coverage Approach
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

Other Risks	Typical Coverage Approach
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 Comprehensive Annual Financial Report. The claim expense allocations are determined based on actuarially determined anticipated claim payments and the projected timing of disbursement.

The changes for the general liability (damage claims) for the years ended June 30, 2018 and 2017 were as follows:

Fiscal years	Beginning of year	Claims and changes in estimates	Claims paid	End of year
2018	$ 14,149	3,936	(4,019)	14,066
2017	16,633	365	(2,849)	14,149

(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 be 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 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, 2018 and 2017 were as follows:

Fiscal years	Beginning of year	Claims and changes in estimates	Claims paid	End of year
2018	$ 5,580	1,769	(1,565)	5,784
2017	5,658	1,112	(1,190)	5,580

(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.

(12) Commitments and Litigation

(a) Commitments

As of June 30, 2018 and 2017, the Enterprise has outstanding commitments with third parties of $226,025 and $229,714, respectively, for various capital projects and other purchase agreements for materials and services.

(b) Grants

Grants that the Enterprise received 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 these 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, 2018 and 2017, the Enterprise recorded $4,703 and $2,711 in pollution remediation liability, respectively. This increase of $1,992 in pollution remediation liability in fiscal year 2018 is due to increases in cleanup cost estimates of $2,500 for the toxic sediments at Yosemite Creek and $103 for the hazardous materials at the Southeast Wastewater Treatment Plant, offset by violation penalty payments of $380 for the discharge of chlorinated treated wastewater at South East Plant and $231 for the discharge of treated wastewater at Oceanside Plant. As of June 30, 2018, the pollution remediation liability of $4,703 consisted of $4,500 for the Yosemite Creek toxic sediments and $203 for the Southeast Wastewater Treatment Plant hazardous materials. As of June 30, 2017, the pollution remediation liability of $2,711 consisted of $2,000 for the Yosemite Creek, $611 penalties and fines to the State of California Regional Water Board, and $100 for the Southeast Wastewater Treatment Plant hazard materials.

(13) Subsequent Event

(a) WIFIA Loan Agreement Approval

On July 27, 2018, the San Francisco Public Utilities Commission ("SFPUC") entered into a "Water Infrastructure Finance and Innovation Act (WIFIA)" Loan Agreement ("WIFIA Loan") with the United States Environmental Protection Agency in the amount of $699,242. The WIFIA Loan was entered into pursuant to the WIFIA authorized by Congress in 2014. The WIFIA Loan will fund 49% of the costs of the Wastewater Enterprise's Biosolids Digester Facility Project plus certain eligible expenses. Payment of the WIFIA Loan will be secured by a senior lien pledge of the Wastewater Enterprise's net revenues and is on a parity lien basis with the SFPUC's outstanding Wastewater Revenue Bonds and Clean Water State Revolving Fund ("SRF") Loans entered into with the California State Water Resources Control Board. The loan will bear a fixed interest rate of 3.09% for a 35-year term, with loan repayment expected to begin in fiscal year 2026, after substantial completion of project construction. There is no outstanding loan principal as of the date of this report.

(b) Wastewater Revenue Bonds, Series 2018 ABC Issuance

On August 9, 2018 the SFPUC issued its San Francisco Wastewater Revenue Bonds, 2018 Sub-Series A (SSIP) (Green Bonds), Sub-Series B (Non-SSIP) and Sub-Series C (SSIP) (Green Bonds) (the "Bonds") in an aggregate principal amount of $594,145. The Bonds were issued to (i) refund approximately $25,000 aggregate principal amount of commercial paper notes issued pursuant to the Wastewater Enterprise's Interim Project Funding Program, ii) finance and refinance a portion of the design, acquisition and construction of various capital projects in furtherance of the SFPUC's Sewer System Improvement Program ("SSIP"), and iii) finance and refinance a portion of the design, acquisition and construction of various capital non-SSIP projects of benefit to the SFPUC's Wastewater Enterprise. Payment for the Bonds is secured by a senior lien pledge of Wastewater Enterprise net revenues and are on a parity lien basis with the outstanding Wastewater Revenue Bonds, Clean Water State Revolving Fund ("SRF") loans, and the federal WIFIA Loan.

(c) Jurisdictional exchange of Asphalt Plant Property from the Department of Public Works for Wastewater Enterprise's Napoleon Site

The jurisdictional exchange of the Napoleon Site and Asphalt Plant Site occurred on July 1, 2018. The SFPUC took possession of the Asphalt Plant Site while the Department of Public Works (DPW) took possession of the Napoleon Site along with the trailers and site improvements. The jurisdictional transfer is an intra-entity transfer of the assets and is treated as an even exchange with no financial impact on the financial statements. The Asphalt Plant Site is located directly across from the SFPUC's Southeast Water Pollution Control Plant (SEP) facilities.

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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 San Francisco Wastewater 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, 2018, 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 January 25, 2019. Our report also includes an emphasis of matter paragraph related to the Enterprise's adoption of Governmental Accounting Standards Board (GASB) Statement No. 75, *Accounting and Financial Reporting for Other Postemployment Benefits Other Than Pensions*. The July 1, 2017 beginning net position was restated for the retrospective application of this new accounting guidance.

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
January 25, 2019

San Francisco Public Utilities Commission
A Department of the City and County of
San Francisco, California

Photos by Robin Scheswohl

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Our Mission

To provide our customers with high-quality, efficient and reliable water, power and sewer services in a manner that values environmental and community interests and sustains the resources entrusted to our care.