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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, 2019 and 2018, 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, 2019 and 2018 and the respective changes in its financial position and, where applicable, cash flows thereof for the years then ended in accordance with U.S. generally accepted accounting principles.



Emphasis of Matter

As discussed in Note 1, the financial statements of the Enterprise are intended to present the financial position, 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 City as of June 30, 2019 and 2018, 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(t) to the financial statements, the 2018 financial statements have been restated to correct a misstatement. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

U.S. generally accepted accounting principles require that the management's discussion and analysis on pages 3 through 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 audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 23, 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 December 23, 2019

Management's Discussion and Analysis (Unaudited)
June 30, 2019 and 2018
(Dollars in thousands, unless otherwise stated)

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, 2019 and 2018. 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, 2019, the Enterprise serves 148,068 residential accounts, which discharge about 16.3 million units of sanitary flow per year (measured in hundreds of cubic feet, or ccf) and 25,897 non-residential accounts, which discharge about 7.6 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

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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 2019

- Total assets of the Enterprise exceeded total liabilities by \$1,218,386.
- Net position increased by \$55,018 or 4.7% during the year.
- Capital assets, net of accumulated depreciation and amortization, increased by \$230,678 or 9.3% to \$2,721,804.
- Operating revenues increased by \$15,985 or 5.1% to \$331,081.
- Operating expenses increased by \$20,907 or 8.8% to \$259,813.

Financial Highlights for Fiscal Year 2018

- Total assets of the Enterprise exceeded total liabilities by \$1,147,750.
- Net position increased by \$27,862 or 2.4% during the year.
- Capital assets, net of accumulated depreciation and amortization, increased by \$239,426 or 10.6% to \$2,491,126.
- Operating revenues increased by \$37,755 or 13.6% to \$315,096.
- Operating expenses decreased by \$5,314 or 2.2% to \$238,906.

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Financial Position

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

Table 1
Comparative Condensed Net Position
June 30, 2019, 2018, and 2017

Total assets:	,
Current and other assets \$ 821,796 268,983 285,444 552,813 (1	6,461)
Capital assets, net of accumulated depreciation and amortization 2,721,804 2,491,126 2,251,700 230,678 23	9,426
Total assets 3,543,600 2,760,109 2,537,144 783,491 22	2,965
Deferred outflows of resources:	
Unamortized loss on refunding of debt 326 500 705 (174)	(205)
	8,208)
Other post-employment benefits 4,669 3,264 - 1,405	3,264
Total deferred outflows of resources 31,881 33,748 48,897 (1,867) (1	5,149)
Liabilities:	
Current liabilities:	
Revenue bonds 22,085 21,010 20,015 1,075	995
Certificates of participation 711 676 643 35	33
Commercial paper 291,498 262,859 111,411 28,639 15	1,448
State revolving fund loans 1,239 296 – 943	296
Other liabilities 101,156 98,185 58,559 2,971 3	9,626
Subtotal current liabilities 416,689 383,026 190,628 33,663 19	2,398
Long-term liabilities:	
Revenue bonds 1,630,524 998,136 1,024,910 632,388 (2	6,774)
Certificates of participation 26,892 27,645 28,370 (753)	(725)
State revolving fund loans 86,793 22,311 – 64,482 2	2,311
Other liabilities 164,316 181,241 190,777 (16,925)	9,536)
Subtotal long-term liabilities 1,908,525 1,229,333 1,244,057 679,192 (1	4,724)
Total liabilities:	
Revenue bonds 1,652,609 1,019,146 1,044,925 633,463 (2	5,779)
Certificates of participation 27,603 28,321 29,013 (718)	(692)
Commercial paper 291,498 262,859 111,411 28,639 15	1,448
State revolving fund loans 88,032 22,607 – 65,425 2	2,607
Other liabilities 265,472 279,426 249,336 (13,954) 3	0,090
Total liabilities 2,325,214 1,612,359 1,434,685 712,855 17	7,674
Deferred inflows of resources:	,
Related to pensions 16,157 7,277 5,093 8,880	2,184
Other post-employment benefits 4,967 96 – 4,871	96
Total deferred inflows of resources 21,124 7,373 5,093 13,751	2,280
Net position:	
Net investment in capital assets 1,133,662 1,172,623 1,095,165 (38,961) 7	7,458
Restricted for debt service 1,279 1,312 977 (33)	335
Restricted for capital projects 18,505 – 1,653 18,505 (1,653)
Unrestricted 75,697 190 48,468 75,507 (4	8,278)
Total net position \$ 1,229,143 1,174,125 1,146,263 55,018 2	7,862

Net Position, Fiscal Year 2019

For the year ended June 30, 2019, the Enterprise's assets and deferred outflows of resources exceeded liabilities and deferred inflows of resources by \$1,229,143. The Enterprise's total net position increased by \$55,018 or 4.7% as a result of increases of \$75,507 in unrestricted net position and \$18,505 in restricted for capital projects, offset by decreases of \$38,961 in net investment in capital assets and \$33 in restricted for debt service (see Table 1).

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During the fiscal year 2019, current and other assets increased by \$552,813 or 205.5%. The increases included \$523,491 in restricted and unrestricted cash and investment mainly due to debt issuance of 2018 Series ABC revenue bonds offset by debt principal and interest repayment and Sewer System Improvement Program (SSIP) related capital projects spending, \$21,795 in grant receivables mainly from the State Water Resources Control Board (SWRCB) consisting \$37,660 for the Southeast Plant (SEP) 521/522 and Disinfection Upgrade Project and \$23 for stormwater flood management projects, offset by \$15,888 in cash receipts from the SWRCB for the North Point and Lake Merced projects, \$4,845 in restricted and unrestricted interest and other receivable due to higher cash balance in pooled cash fund and higher annualized interest rates, \$2,384 in charges for services due to a 7% planned rate increase, \$202 in inventory as there were more purchases than issuances during the year, and \$104 in custom work interfund receivables mainly due from the Department of Public Works (DPW) for the Mission Bay South and Hunters Point Projects. These increases were offset by a decrease of \$8 in prepaid charges.

Capital assets, net of accumulated depreciation and amortization, increased by \$230,678 or 9.3% reflecting an increase in construction and capital improvement activities. The largest portion of the Enterprise's net position of \$1,133,662 or 92.2%, represents net investment in capital assets (see Capital Assets section of the MDA for more information). Deferred outflows of resources decreased by \$1,867 mainly due to decreases of \$3,098 in pensions based on actuarial report and \$174 in unamortized loss on refunding of the 2013 Series A bonds, offset by \$1,405 increase in other post-employment benefits based on actuarial report.

Total liabilities increased by \$712.855 or 44.2%. As of June 30, 2019, total outstanding balance of \$2,059,742 for revenue bonds payable, commercial paper, certificates of participation, and State Revolving Fund (SRF) loans represented 88.6% of total liabilities, an increase of \$726,809 or 54.5%. The increase was mainly due to \$663,103 issuance of revenue bonds Series 2018 ABC, \$66,850 in SRF loans to fund capital project spending, and \$53.639 issuance of commercial paper to fund capital projects, offset by \$48,111 in debt repayments, and \$8,672 in amortization of premium during the year. Other liabilities of \$265,472 such as payables to vendors, contractors, and other government agencies for goods and services under contractual agreements, decreased by \$13,954 or 5.0%, due to decreases of \$15,936 in net pension liability based on actuarial report, \$5,950 in other post-employment benefits obligations based on actuarial report, \$5,737 in restricted and unrestricted payable to vendors and contractors due to more payments than vouchers, \$114 deposit from Pacific Gas & Electric due to expenses incurred for the Cross Bore Project, \$106 to Hetch Hetchy Power due to payment for the 525 Golden Gate Living Machine System, \$34 in prepaid rent from tenants, and \$14 in grant advance recognized to revenue in current year for the Green Infrastructure Leadership. These decreases were offset by increases of \$6,958 in bond and loan interest payable due to higher outstanding debt principal, \$2,797 in pollution remediation liability due to increased estimated cleanup liabilities of \$3,000 for the toxic sediments at Yosemite Creek, offset by \$203 payment for paying surrounding soils due to contamination of hazardous materials at Southeast Plant, \$2,302 in general liability based on actuarial estimates, \$1,250 in employee related benefits including vacation, workers' compensation, and accrued payroll mainly due to actuarial estimate and 3% increase of cost of living adjustment (COLA), and \$630 in customer credit balances. Deferred inflows of resources increased by \$13,751, of which \$8,880 in relation to pensions based on actuarial report and \$4,871 in other post-employment benefits based on actuarial report.

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 \$1,174,125. The Enterprise's total net position increased by

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\$27,862 or 2.4% as a result of increases of \$77,458 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 \$222,965 or 8.8%. Current and other assets represent 9.7% 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 \$239,426 or 10.6% reflecting an increase in construction and capital improvement activities. The largest portion of the Enterprise's net position of \$1,172,623 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 postemployment 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

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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.

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, 2019, 2018, and 2017

		2019	2018		2017	2019-2018 Change	2018-2017 Change
Revenues:	-						
Charges for services	\$	317,761	303,037		267,601	14,724	35,436
Rents and concessions		702	611		606	91	5
Other operating revenues		12,618	11,448		9,134	1,170	2,314
Interest and investment income		20,701	2,317		2,327	18,384	(10)
Net gain from transfer of assets		619	_		_	619	_
Other non-operating revenues		5,545	5,330		8,633	215	(3,303)
Total revenues	-	357,946	322,743		288,301	35,203	34,442
Expenses:	•						
Operating expenses		259,813	238,906		244,220	20,907	(5,314)
Interest expenses		43,803	24,978		28,474	18,825	(3,496)
Amortization of premium, refunding loss, and issuance cost	t	(5,697)	(5,400)		(5,806)	(297)	406
Non-operating expenses	_	1,013	414_		383	599	31
Total expenses		298,932	258,898		267,271	40,034	(8,373)
Change in net position before transfers		59,014	63,845		21,030	(4,831)	42,815
Transfers from the City and County of San Francisco					40		(40)
Transfers to the City and County of San Francisco	_	(3,996)	(26,960)		(30,747)	22,964	3,787
Net transfers		(3,996)	(26,960)		(30,707)	22,964	3,747
Change in net position		55,018	36,885		(9,677)	18,133	46,562
Net position at beginning of year							
Beginning of year, as previously reported		1,174,125	1,146,263		1,155,940	27,862	(9,677)
Cumulative effect of accounting change due to error		_	(6,767)		_	6,767	(6,767)
Cumulative effect of accounting change			(2,256)	*		2,256	(2,256)
Net position at beginning of year as restated		1,174,125	1,137,240		1,155,940	36,885	(18,700)
Net position at end of year	\$	1,229,143	1,174,125		1,146,263	55,018	27,862

^{*}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 2019

The Enterprise's total revenues were \$357,946, an increase of \$35,203 or 10.9% from prior year (see Table 2). Charges for services increased by \$14,724 or 4.9% due to an average 7% adopted rate increase offset by a sanitary flow decrease of 476,093 ccf or 2% from residential and non-residential customers. Interest and investment income increased significantly by \$18,384 or 793.4% due to increases of \$13,632 in interest earned on cash mainly attributed to higher cash balance coupled with higher annualized interest rate and \$4,752 in unrealized gains due to improved market value. Other operating revenues increased by \$1,170 or 10.2% mainly due to \$1,091 increase in capacity fees resulting from 6% increase in number of permits and 7% increase in average permit price, and \$79 in charges for services to other City departments such as the Laguna Honda Hospital and San Francisco Municipal Transportation Agency. Net gain from transfer of assets was \$619 due to transfer of 1800 Jerrold from General Services Agency (GSA). Other non-

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operating revenues increased by \$215 or 4.0% mainly due to increases of \$305 in miscellaneous revenue such as Stormwater Control Plan review fees, overhead and late payment charges, \$235 State grant received for the stormwater flood management projects, \$29 from the Green Infrastructure Leadership Exchange Grant, \$11 in federal interest subsidy, \$3 net loss from sale of fixed assets in prior year, and \$2 from sale of scrap and waste. These increases were offset by \$228 decrease in biofuel revenue as the SFGreasecycle Program ended in April 2019, \$141 in settlements received in prior year from insurance claim, and \$1 in services to other government agencies. Rents increased by \$91 or 14.9% mainly due to \$68 catch-up billing for a lease at Southeast Water Pollution Control Plant in the current year and \$23 from tenants with 4% consumer price index (CPI) average rate increase.

Total expenses were \$298,932, an increase of \$40,034 or 15.5% due to increases of \$20,907 in operating expenses, \$18,825 in interest expenses mainly due to higher outstanding debt principal, and \$599 in other non-operating expenses mainly due to \$987 net loss on sale of fixed assets due to 1801 Jerrold property exchange with DPW, offset by \$388 decrease in City grants program expenses as there were no expense incurred for community-based organization services in the current year coupled with lower expense incurred for the flood water management program. These increases were offset by \$297 amortization of premium, refunding loss, and issuance cost. The increase of \$20,907 in operating expenses was attributed largely to \$24,108 increase in general and administrative and other operating expenses, mainly due to lower capitalization of capital project spending coupled with higher capital project expenses related to Southeast Plant Improvement Project, \$4,442 in depreciation expense due to more capitalized assets put in service, \$2,979 in contractual services mainly due to higher maintenance services on building structures and higher professional and specialized services, \$407 in materials and supplies, and \$255 in services provided by other departments mainly for light, heat, and power. These increases were offset by a decrease of \$11,284 in personnel services mainly due to decrease in expenses related to pension and other post-employment benefits.

Total transfers out of \$3,996 included \$3,724 to the City Real Estate Division for the Central Shop Relocation Project and the Land Reuse 1800 Jerrold related to the Southeast Plant Improvement Project, \$150 to the Neighborhood Development Fund for the Watershed Stewardship Grants, \$90 to the San Francisco Art Commission for art enrichment, and \$32 to the Office of the City Administrator for the Surety Bond Program.

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.

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Total expenses decreased by \$8,373 or 3.1% due to decreases of \$5,314 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 \$5,314 in operating expenses was mainly attributable to \$23,311 decrease in personnel services mainly from pensions, and \$458 in services provided by other departments mainly for light, heat, and power. These decreases were offset by \$15,359 increase in general and administrative and other operating expenses mainly due to decreased capitalization of capital project spending and \$2,236 increases 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, \$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.

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, 2019, 2018, and 2017

	2019	2018	2017	2019-2018 Change	2018-2017 Change
Facilities, improvements, machinery, and equipment	\$ 1,916,979	1,799,548	1,664,327	117,431	135,221
Intangible assets	3,183	3,320	3,457	(137)	(137)
Land and rights-of-way	36,018	35,737	35,737	281	_
Construction work in progress	765,624	652,521	548,179	113,103	104,342
Total	\$ 2,721,804	2,491,126	2,251,700	230,678	239,426

Capital Assets. Fiscal Year 2019

The Enterprise has capital assets of \$2,721,804, net of accumulated depreciation and amortization, invested in a broad range of utility capital assets as of June 30, 2019 (see Table 3). This amount represents an increase of \$230,678 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. Facilities, improvements, machinery, and equipment increased by \$117,431 or 6.5%, construction work in progress increased by \$113,103 or 17.3%, and land and rights-of-way increased by \$281 or 0.8%, offset by a decrease of \$137 or 4.1%, in intangible assets due to amortization. The \$281 increase in land and rights-of-way is due to jurisdictional transfer of properties between Enterprise with GSA and DPW for 1800 and 1801 Jerrold.

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(Dollars in thousands, unless otherwise stated)

Major additions to construction work in progress during the year ended June 30, 2019 include the following:

Southeast Plant Biosolids and Digester Facilities Project	\$	84,770
Southeast Plant New Headworks Grit Removal and Influent Pump Station		58,369
Southeast Plant Building 521/522 and Disinfection Upgrades		14,262
As-Needed Spot Sewer Replacement No. 37		11,134
Griffith Pump Station Improvements		10,986
Channel Tunnel/Bayside Drainage		9,989
Seismic Reliability - Phase 1		9,146
Van Ness Bus Rapid Transit Sewer Improvements		8,065
Northshore to Channel Force Main		7,983
Southeast Plant Primary and Secondary Clarifier		7,173
Mariposa Pump Station & Force Main		5,800
Southeast Plant Existing Digester Gas Handling Improvements		5,741
As-Needed Main Sewer Replacement #6		5,294
Southeast Community Center		5,187
Southeast Plant Oxygen Generation Plant 01		4,964
Various Locations Sewer Replacement #1		4,917
Oceanside Plant Condition Assessment Repairs		4,915
Westside Pump Station Reliability Improvements		4,836
Southeast 740 Digestor Gas Upgrade		4,810
Drumm & Jackson St Sewer Improvement		4,773
Various Locations Sewer Replacement #3		4,681
Public Works Filbert St and Leavenworth St Infrastructure Improvements		4,531
Public Works Various Locations No. 28 Infrastructure Improvements		4,341
Various Locations Sewer Replacement #5		4,191
Oceanside Plant Digester Gas Handling Utilization		4,157
Other project additions individually below \$4,000	_	1,957
Total	\$_	296,972

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, 2019 include the following:

As-Needed Spot Sewer Replacement No. 37 Southeast Plant Oxygen Generation Plant 01 9,457 Northshore to Channel Force Main Wastewater Crocker Amazon/Excelsior/Ingleside Districts Sewer Replacement 8,688 Southeast Plant Primary and Secondary Clarifier Upgrade Various Locations Sewer Replacement and Pavement Renovation No. 1 7,935 Drumm & Jackson Street Sewer Improvement 7,720 Various Locations Sewer Replacement and Pavement Renovation No. 2 7,100 Sunnydale Early Implementation Project 6,262 Public Works Various Locations No. 22 Infrastructure Improvement 9,582 Public Works Various Locations No. 27 Infrastructure Improvement 5,582 Public Works Various Locations No. 27 Infrastructure Improvement 4,510 Hydraulic & Drainage Sewer Improvement 4,674 As-Needed Main Sewer Replacement #6 5,294 Haight-Ashbury/Tenderloin/Diamond 5,234 Various Locations Sewer Replacement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement 4,678 Public Works 25th Ave and Lowell Street Sewer Replacement Collection Division Consolidation 3,140 Other project additions individually below \$3,000	Southeast Plant Existing Digester Gas Handling Improvement	\$	19.683
Southeast Plant Oxygen Generation Plant 01 Northshore to Channel Force Main Wastewater Crocker Amazon/Excelsior/Ingleside Districts Sewer Replacement Southeast Plant Primary and Secondary Clarifier Upgrade Various Locations Sewer Replacement and Pavement Renovation No. 1 Typ35 Drumm & Jackson Street Sewer Improvement Various Locations Sewer Replacement and Pavement Renovation No. 2 Typ35 Sunnydale Early Implementation Project Public Works Various Locations No. 22 Infrastructure Improvement 5,582 Public Works Various Locations No. 27 Infrastructure Improvement 5,582 Public Works Various Locations No. 27 Infrastructure Improvement 5,510 Hydraulic & Drainage Sewer Improvement 4,678 As-Needed Main Sewer Replacement #6 Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement 4,908 Public Works Various Locations No. 24 Infrastructure Improvement 5,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement Collection Division Consolidation 3,710 Other project additions individually below \$3,000		•	- ,
Northshore to Channel Force Main Wastewater Crocker Amazon/Excelsior/Ingleside Districts Sewer Replacement Southeast Plant Primary and Secondary Clarifier Upgrade Various Locations Sewer Replacement and Pavement Renovation No. 1 7,935 Drumm & Jackson Street Sewer Improvement 7,720 Various Locations Sewer Replacement and Pavement Renovation No. 2 7,100 Sunnydale Early Implementation Project Public Works Various Locations No. 22 Infrastructure Improvement 9,012 Public Works Polk St Infrastructure Improvement 9,582 Public Works Various Locations No. 27 Infrastructure Improvement 5,545 Hydraulic & Drainage Sewer Improvement 4s-Needed Main Sewer Replacement #6 Haight-Ashbury/Tenderloin/Diamond Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement 4,678 Public Works 25th Ave and Lowell Street Sewer Replacement Collection Division Consolidation 3,140 Other project additions individually below \$3,000	·		
Wastewater Crocker Amazon/Excelsior/Ingleside Districts Sewer Replacement Southeast Plant Primary and Secondary Clarifier Upgrade Various Locations Sewer Replacement and Pavement Renovation No. 1 7,935 Drumm & Jackson Street Sewer Improvement 7,720 Various Locations Sewer Replacement and Pavement Renovation No. 2 7,100 Sunnydale Early Implementation Project Public Works Various Locations No. 22 Infrastructure Improvement Public Works Polk St Infrastructure Improvement 9,582 Public Works Various Locations No. 27 Infrastructure Improvement Hydraulic & Drainage Sewer Improvement 5,545 As-Needed Main Sewer Replacement #6 Haight-Ashbury/Tenderloin/Diamond Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement 4,678 Public Works 25th Ave and Lowell Street Sewer Replacement Collection Division Consolidation 3,140 Other project additions individually below \$3,000			
Southeast Plant Primary and Secondary Clarifier Upgrade Various Locations Sewer Replacement and Pavement Renovation No. 1 7,935 Drumm & Jackson Street Sewer Improvement 7,720 Various Locations Sewer Replacement and Pavement Renovation No. 2 7,100 Sunnydale Early Implementation Project 6,262 Public Works Various Locations No. 22 Infrastructure Improvement Public Works Polk St Infrastructure Improvement 9,582 Public Works Various Locations No. 27 Infrastructure Improvement 15,510 Hydraulic & Drainage Sewer Improvement 4,5,345 As-Needed Main Sewer Replacement #6 5,294 Haight-Ashbury/Tenderloin/Diamond 5,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement 4,678 Public Works 25th Ave and Lowell Street Sewer Replacement Collection Division Consolidation 3,140 Other project additions individually below \$3,000	Wastewater Crocker Amazon/Excelsior/Ingleside Districts Sewer Replacement		- ,
Various Locations Sewer Replacement and Pavement Renovation No. 1 Drumm & Jackson Street Sewer Improvement 7,720 Various Locations Sewer Replacement and Pavement Renovation No. 2 7,100 Sunnydale Early Implementation Project 6,262 Public Works Various Locations No. 22 Infrastructure Improvement Public Works Polk St Infrastructure Improvement 9,582 Public Works Various Locations No. 27 Infrastructure Improvement 15,510 Hydraulic & Drainage Sewer Improvement 5,345 As-Needed Main Sewer Replacement #6 15,294 Haight-Ashbury/Tenderloin/Diamond 5,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement 4,678 Public Works 25th Ave and Lowell Street Sewer Replacement Collection Division Consolidation 3,140 Other project additions individually below \$3,000	, , ,		
Drumm & Jackson Street Sewer Improvement 7,720 Various Locations Sewer Replacement and Pavement Renovation No. 2 7,100 Sunnydale Early Implementation Project 6,262 Public Works Various Locations No. 22 Infrastructure Improvement 7,582 Public Works Polk St Infrastructure Improvement 7,582 Public Works Various Locations No. 27 Infrastructure Improvement 7,510 Hydraulic & Drainage Sewer Improvement 7,345 As-Needed Main Sewer Replacement #6 7,294 Haight-Ashbury/Tenderloin/Diamond 7,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement 7,720 Public Works 25th Ave and Lowell Street Sewer Replacement 7,700 3,140 Other project additions individually below \$3,000	·		
Various Locations Sewer Replacement and Pavement Renovation No. 2 Sunnydale Early Implementation Project 6,262 Public Works Various Locations No. 22 Infrastructure Improvement 6,012 Public Works Polk St Infrastructure Improvement 5,582 Public Works Various Locations No. 27 Infrastructure Improvement 5,510 Hydraulic & Drainage Sewer Improvement 5,345 As-Needed Main Sewer Replacement #6 5,294 Haight-Ashbury/Tenderloin/Diamond 5,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement 4,678 Public Works 25th Ave and Lowell Street Sewer Replacement 3,710 Collection Division Consolidation 3,140 Other project additions individually below \$3,000 33,387	·		
Sunnydale Early Implementation Project Public Works Various Locations No. 22 Infrastructure Improvement Public Works Polk St Infrastructure Improvement Public Works Various Locations No. 27 Infrastructure Improvement S,582 Public Works Various Locations No. 27 Infrastructure Improvement Hydraulic & Drainage Sewer Improvement 5,345 As-Needed Main Sewer Replacement #6 5,294 Haight-Ashbury/Tenderloin/Diamond 5,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement Public Works 25th Ave and Lowell Street Sewer Replacement Collection Division Consolidation 3,140 Other project additions individually below \$3,000	·		
Public Works Various Locations No. 22 Infrastructure Improvement Public Works Polk St Infrastructure Improvement Public Works Various Locations No. 27 Infrastructure Improvement S,582 Public Works Various Locations No. 27 Infrastructure Improvement Hydraulic & Drainage Sewer Improvement S,345 As-Needed Main Sewer Replacement #6 S,294 Haight-Ashbury/Tenderloin/Diamond Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement Public Works 25th Ave and Lowell Street Sewer Replacement Collection Division Consolidation Other project additions individually below \$3,000 33,387	·		
Public Works Polk St Infrastructure Improvement 5,582 Public Works Various Locations No. 27 Infrastructure Improvement 5,510 Hydraulic & Drainage Sewer Improvement 5,345 As-Needed Main Sewer Replacement #6 5,294 Haight-Ashbury/Tenderloin/Diamond 5,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 4,908 Public Works Various Locations No. 24 Infrastructure Improvement 4,678 Public Works 25th Ave and Lowell Street Sewer Replacement 3,710 Collection Division Consolidation 3,140 Other project additions individually below \$3,000 33,387			
Public Works Various Locations No. 27 Infrastructure Improvement Hydraulic & Drainage Sewer Improvement 5,345 As-Needed Main Sewer Replacement #6 5,294 Haight-Ashbury/Tenderloin/Diamond 5,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 Public Works Various Locations No. 24 Infrastructure Improvement Public Works 25th Ave and Lowell Street Sewer Replacement Collection Division Consolidation 3,140 Other project additions individually below \$3,000	·		
Hydraulic & Drainage Sewer Improvement 5,345 As-Needed Main Sewer Replacement #6 5,294 Haight-Ashbury/Tenderloin/Diamond 5,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 4,908 Public Works Various Locations No. 24 Infrastructure Improvement 4,678 Public Works 25th Ave and Lowell Street Sewer Replacement 3,710 Collection Division Consolidation 3,140 Other project additions individually below \$3,000 33,387	Public Works Various Locations No. 27 Infrastructure Improvement		5,510
As-Needed Main Sewer Replacement #6 5,294 Haight-Ashbury/Tenderloin/Diamond 5,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 4,908 Public Works Various Locations No. 24 Infrastructure Improvement 4,678 Public Works 25th Ave and Lowell Street Sewer Replacement 3,710 Collection Division Consolidation 3,140 Other project additions individually below \$3,000 33,387	·		5.345
Haight-Ashbury/Tenderloin/Diamond 5,234 Various Locations Sewer Replacement and Pavement Renovation No. 4 4,908 Public Works Various Locations No. 24 Infrastructure Improvement 4,678 Public Works 25th Ave and Lowell Street Sewer Replacement 3,710 Collection Division Consolidation 3,140 Other project additions individually below \$3,000 33,387	,		5,294
Public Works Various Locations No. 24 Infrastructure Improvement4,678Public Works 25th Ave and Lowell Street Sewer Replacement3,710Collection Division Consolidation3,140Other project additions individually below \$3,00033,387	·		5,234
Public Works Various Locations No. 24 Infrastructure Improvement4,678Public Works 25th Ave and Lowell Street Sewer Replacement3,710Collection Division Consolidation3,140Other project additions individually below \$3,00033,387	Various Locations Sewer Replacement and Pavement Renovation No. 4		4,908
Public Works 25th Ave and Lowell Street Sewer Replacement3,710Collection Division Consolidation3,140Other project additions individually below \$3,00033,387	·		4,678
Other project additions individually below \$3,000 33,387	Public Works 25th Ave and Lowell Street Sewer Replacement		3,710
	Collection Division Consolidation		3,140
Total \$ 178.401	Other project additions individually below \$3,000		33,387
	Total	\$	178,401

See Note 4 for additional information about capital assets.

Management's Discussion and Analysis (Unaudited)
June 30, 2019 and 2018
(Dollars in thousands, unless otherwise stated)

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, 2019, 25 projects or 35.7% totaling \$176 million were completed, with 21 projects in preconstruction phase, 13 projects in construction phase, and 11 projects in close-out phase. The SEP Primary and Secondary Clarifier Upgrades Project was completed on January 21, 2019 with reported project expenditures of \$32.6 million. The project is intended to upgrade the mechanical, structural, and electrical components at the primary and secondary sedimentation tanks (clarifiers) at SEP to address operational reliability and compliance with regulatory requirements for liquid treatment. The SEP 521/522 and Disinfection Upgrades (SEP Building 521 Replacement) are on-going construction. The project is reported at 96.0% completed and forecasted completion in October 2019. Program expenditures as of June 30, 2019 totaled \$913.4 million. Additional details regarding the SSIP are available at www.sfwater.org.

Capital Assets, Fiscal Year 2018

The Enterprise has capital assets of \$2,491,126, 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 \$239,426 or 10.6% 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. Facilities, improvements, machinery, and equipment increased by \$135,221, or 8.1% and construction work in progress increased by \$104,342 or 19.0%, 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
Southeast Plant New Headworks Grit Removal and Influent Pump Station	20,323
Program Management - Land Reuse 1800 and 1801 Jerrod 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	\$ 306,096

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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 preconstruction 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.

Management's Discussion and Analysis (Unaudited)
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(Dollars in thousands, unless otherwise stated)

Debt Administration

As of June 30, 2019, 2018, and 2017, the Enterprise's debt from revenue bonds, commercial paper, certificates of participation, and State revolving fund loans were \$2,059,742, \$1,332,933, and \$1,185,349, 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, 2019, 2018, and 2017

					2019-2018	2018-2017
	_	2019	2018	2017	Change	Change
Revenue bonds	\$	1,652,609	1,019,146	1,044,925	633,463	(25,779)
Commercial paper		291,498	262,859	111,411	28,639	151,448
Certificates of participation		27,603	28,321	29,013	(718)	(692)
State revolving fund loans		88,032	22,607	_	65,425	22,607
Total	\$	2,059,742	1,332,933	1,185,349	726,809	147,584

The increase of \$726,809 was mainly due to issuance of \$663,103 revenue bonds Series 2018 ABC, which consisted of \$594,145 par amount and \$68,958 issue premium, \$53,639 of commercial paper, and \$66,850 State revolving fund loans for the SEP Clarifier Upgrade and SEP 521/522 and Disinfection Upgrade Projects offset by \$48,111 repayment of outstanding debt and \$8,672 of premium amortizations.

Credit Ratings and Bond Insurance – As of June 30, 2019 and 2018, the Enterprise carried underlying ratings of "Aa3" and "AA" from Moody's and Standard & Poor's (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 2019 and 2018, 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, 2019, the Enterprise had \$3,048,289 in combined debt issuance authorization from the Board of Supervisors under Proposition E, with \$2,035,459 issued against this authorization. The Enterprise has a \$750,000 authorized commercial paper program, with \$291,498 in tax-exempt commercial paper outstanding as of June 30, 2019 and \$262,859 in tax-exempt commercial paper outstanding as of June 30, 2018.

Cost of Debt Capital – The coupon interest rates on the Enterprise's outstanding revenue bonds ranged from 1.0% to 5.8%, with a blended true interest cost of 3.4%, after factoring in federal interest subsidy receipts on Build America Bonds at June 30, 2019. 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% to 6.5% in fiscal years 2019 and 2018, respectively. The interest rates on short-term debt ranged from 0.9% to 1.8% as of end of fiscal year 2019. The State revolving fund loans (CWSRF loans) carried interest rates ranging from 1.6% to 1.8% as of end of fiscal year 2019.

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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 2018 and resulted in four-year wastewater rate increases 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 R	ate 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	¹ Four-year rate increases adopted and effective July 1, 2009.
July 1, 2018	7.0 ³	² Four-year rate increases adopted and effective July 1, 2014.
July 1, 2019	7.0 ³	³ Four-year rate increases adopted and effective July 1, 2018.
July 1, 2020	8.0 ³	
July 1, 2021	8.0 ³	

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.

Statements of Net Position June 30, 2019 and 2018 (In thousands)

Assets	2019	2018
Current assets:	# 000.400	464407
Cash and investments with City Treasury Cash and investments outside City Treasury	\$ 209,109 274	164,107 262
Receivables:		202
Charges for services (net of allowance for doubtful accounts of \$2,308 in 2019		
and \$2,585 in 2018)	33,781 220	30,915 116
Due from other City departments Due from other governments	39,043	17,248
Interest	1,454	1,051
Restricted interest, other receivable, and prepaid (net of allowance for doubtful accounts of \$19		
in 2019 and \$191 in 2018)	4,720	731
Total current receivables	79,218	50,061
Prepaid charges, advances, and other receivables, current portion	128	116
Inventory Restricted cash and investments outside City Treasury	2,284 44.928	2,082 14,282
Total current assets	335,941	230,910
Non-current assets:		
Restricted cash and investments with City Treasury	483,885	36,054
Restricted interest, other receivable, and prepaid (net of allowance for doubtful accounts of \$31 in 2019 and \$0 in 2018)	453	_
Charges for services, less current portion (net of allowance for doubtful accounts of \$567 in 2019		
and \$0 in 2018)	328	810
Prepaid charges, advances, and other receivables, less current portion Capital assets, not being depreciated and amortized	1,189 804,688	1,209
Capital assets, net of accumulated depreciation and amortization	1,917,116	691,304 1,799,822
Total non-current assets	3,207,659	2,529,199
Total assets	3,543,600	2,760,109
Deferred outflows of resources		
Unamortized loss on refunding of debt	326	500
Pensions Other and applications to applications.	26,886	29,984
Other post-employment benefits Total deferred outflows of resources	4,669 31,881	3,264 33,748
Liabilities	31,881	33,748
Current liabilities:		
Accounts payable	18,132	18,080
Accrued payroll	4,652	4,394
Accrued vacation and sick leave, current portion	4,151	3,766
Accrued workers' compensation, current portion Due to other City departments, current portion	1,031 107	1,027 109
Damage claims liability, current portion	7,013	6,376
Unearned revenues, refunds, and other	4,653	4,185
Bond and loan interest payable	18,486	11,528
Revenue bonds, current portion	22,085	21,010
Certificates of participation, current portion Commercial paper	711 291,498	676 262,859
State revolving fund loans payable, current portion	1,239	296
Current liabilities payable from restricted assets	42,931	48,720
Total current liabilities	416,689	383,026
Long-term liabilities:		
Other post-employment benefits obligations	53,567	59,517
Net pension liability	85,037	100,973 2,649
Accrued vacation and sick leave, less current portion Accrued workers' compensation, less current portion	3,126 4,883	2,649 4,757
Due to other City departments, less current portion	848	952
Damage claims liability, less current portion	9,355	7,690
Revenue bonds, less current portion	1,630,524	998,136
Certificates of participation, less current portion State revolving fund loans payable, less current portion	26,892 86,793	27,645 22,311
Pollution remediation obligation	7,500	4,703
Total long-term liabilities	1,908,525	1,229,333
Total liabilities	2,325,214	1,612,359
Deferred inflows of resources		
Related to pensions	16,157	7,277
Other post-employment benefits	4,967	96
Total deferred inflows of resources	21,124	7,373
Net position Net investment in capital assets	1,133,662	1 170 602
Restricted for debt service	1,133,662	1,172,623 1,312
Restricted for capital projects	18,505	-,512
Unrestricted	75,697	190
Total net position	\$ 1,229,143	1,174,125
·	· <u> </u>	

See accompanying notes to financial statements.

Statements of Revenues, Expenses, and Changes in Net Position Years ended June 30, 2019 and 2018 (In thousands)

Operating revenues:	 2019	2018
Operating revenues:		
Charges for services	\$ 317,761	303,037
Rents and concessions	702	611
Capacity fees	6,877	5,786
Other revenues	5,741	5,662
Total operating revenues	331,081	315,096
Operating expenses:	 	
Personnel services	80,693	91,977
Contractual services	19,040	16,061
Materials and supplies	9,853	9,446
Depreciation and amortization	60,033	55,591
Services provided by other departments	36,629	36,374
General and administrative and other	 53,565	29,457
Total operating expenses	259,813	238,906
Operating income	 71,268	76,190
Non-operating revenues (expenses):		
Federal and state grants	235	_
Interest and investment income	20,701	2,317
Interest expenses	(43,803)	(24,978)
Amortization of premium, refunding loss, and issuance costs	5,697	5,400
Net (loss) from sale of assets	(987)	(3)
Net gain/(loss) from transfer of assets	619	_
Other non-operating revenues	5,310	5,333
Other non-operating expenses	 (26)	(414)
Net non-operating expenses	(12,254)	(12,345)
Change in net position before transfers	59,014	63,845
Transfers to the City and County of San Francisco	(3,996)	(26,960)
Change in net position	55,018	36,885
Net position at beginning of year	 1,174,125	1,146,263
Cumulative effect of accounting change due to error	_	(6,767)
Cumulative effect of accounting change	_	(2,256)
Beginning of year as restated	1,174,125	1,137,240
Net position at end of year	\$ 1,229,143	1,174,125

See accompanying notes to financial statements.

Statements of Cash Flows Years ended June 30, 2019 and 2018 (In thousands)

	2019	2018
Cash flows from operating activities:	 	
Cash received from customers, including cash deposits	\$ 328,729	312,769
Cash received from tenants for rent	653	657
Cash paid to employees for services	(84,071)	(85,045)
Cash paid to suppliers for goods and services	(107,233)	(71,659)
Cash paid for judgments and claims	 (367)	(2,124)
Net cash provided by operating activities	 137,711	154,598
Cash flows from non-capital financing activities: Cash received from grants	212	891
Cash received from settlements	_	141
Cash received from miscellaneous revenues	897	1,181
Cash paid for rebates and program incentives	(26)	(414)
Transfers to the City and County of San Francisco	 (4,510)	(26,960)
Net cash (used in) non-capital financing activities	(3,427)	(25,161)
Cash flows from capital and related financing activities:	 	21
Proceeds from sale of capital assets	_	21
Proceeds from bond issuance, net of premium	663,103	454.440
Proceeds from Commercial paper borrowings	53,639	151,448
Proceeds from State revolving fund loans	45,078	6,719
Principal paid on long-term debt Principal paid on commercial paper	(21,686)	(20,658)
	(25,000)	_
Principal paid on State revolving fund loans	(1,425)	(45.024)
Interest paid on long-term debt	(60,309)	(45,924) (1,436)
Interest paid on State revelving fund leans	(3,646) (232)	(1,430)
Interest paid on State revolving fund loans	(2,801)	(208)
Issuance cost paid on long-term debt	(278,006)	(258,984)
Acquisition and construction of capital assets Federal interest income subsidy for Build America Bonds	4,018	4,008
•	 	
Net cash provided by (used in) capital and related financing activities	 372,733	(165,014)
Cash flows from investing activities: Interest income received	12,654	1,828
Proceeds from sale of investments outside City Treasury	166,729	85,012
Purchase of investments outside City Treasury	 (173,033)	(77,977)
Net cash provided by investing activities	 6,350	8,863
Increase (decrease) in cash and cash equivalents Cash and cash equivalents:	 513,367	(26,714)
Beginning of year	213,817	240,531
End of year	\$ 727,184	213,817
Reconciliation of cash and cash equivalents to the statements of net position:		
Cash and investments with City Treasury:		
Unrestricted	\$ 209,109	164,107
Restricted	483,885	36,054
Cash and investments outside City Treasury:		
Unrestricted	274	262
Restricted	44,928	14,282
Less: Restricted (with maturity more than 90 days - see table in Note 3)	(8,320)	(2,016)
Less: Unrealized (gain) loss on investments	(2,692)	1,128
Cash and cash equivalents at the end of year on	\$ 727,184	213,817
statements of cash flows	 <u> </u>	<u> </u>

Statements of Cash Flows Years ended June 30, 2019 and 2018 (In thousands)

	 2019	2018		
Reconciliation of operating income to net cash provided by				
operating activities:				
Operating income	\$ 71,268	76,190		
Adjustment to reconcile operating income to net cash	 			
provided by operating activities:				
Depreciation and amortization	60,033	55,591		
Provision for uncollectible accounts	149	(248)		
Write-off of capital assets	8,386	4,729		
Receivables:				
Charges for services	(2,674)	(1,707)		
Prepaid charges, advances, and other	508	132		
Due from other City departments	(184)	44		
Inventory	(202)	(36)		
Accounts payable	52	12,563		
Accrued payroll	258	(184)		
Other post-employment benefits obligations	(2,484)	2,423		
Pension obligations	(3,958)	2,458		
Accrued vacation and sick leave	862	466		
Accrued workers' compensation	130	204		
Due to other City departments	_	(84)		
Pollution remediation obligation	2,797	1,992		
Damage claims liability	2,302	(83)		
Unearned revenues, refunds, and other liabilities	468	148		
Total adjustments	 66,443	78,408		
Net cash provided by operating activities	\$ 137,711	154,598		
Noncash transactions:				
Accrued capital asset costs	\$ 42,931	48,720		
Interfund payable	955	1,061		
Unrealized (gain) loss on investments	(2,692)	1,128		

See accompanying notes to financial statements.

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(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, 2019 and 2018, the

Notes to Financial Statements
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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

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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.

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(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)).

(I) 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, 2019 or 2018.

(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 bimonthly basis. Revenues earned but unbilled are accrued as charges for services and reflected as a receivable on the statements of net position. The unbilled amount for the fiscal years ending June 30, 2019 and 2018 were \$13,991 and \$12,095, respectively.

(a) 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.

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(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 Statement No. 75 are effective for the Enterprise's year ended June 30, 2019 and 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)

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(t) Immaterial Correction of 2018 Financial Statement Amounts

The Enterprise recorded certain immaterial corrections to the 2018 financial statement to eliminate the recognition of certain capital assets that are recorded by another fund. The impact of the change was to decrease beginning position as of July 2017 by \$6,767 and increase fiscal year 2018 expenses by \$28,313.

(u) New Accounting Standard Adopted in Fiscal Year 2019

- 1) In November 2016, the GASB issued Statement No. 83, Certain Asset Retirement Obligations. GASB Statement 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 adopted the provisions of this Statement, which did not have a significant impact on its financial statements.
- 2) 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 adopted the provisions of this Statement. Refer to Notes 6 and 7 for details.

(v) GASB Statements Implemented 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.

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(w) Future Implementation of New Accounting Standards

- 1) 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.
- 2) 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.
- 3) 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 after December 15, 2019. The Enterprise will implement the provisions of Statement No. 89 in fiscal year 2021.
- 4) 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.
- 5) In May 2019, the GASB Issued Statement No. 91, *Conduit Debt Obligations*. GASB Statement No. 91 enhances the compatibility and consistency of conduit debt obligation reporting and reporting of related transactions by State and local government issuers. The new standard is effective for periods beginning after December 15, 2020. The Enterprise will implement the provisions of Statement No. 91 in fiscal year 2022.

(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, 2019 and 2018 were \$44,928 and \$14,282, 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

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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, 2019 and 2018.

Cash and Investments outside City Treasury

						Fair Value Measurements Using				
		June 30, 2019				Quoted prices in active markets for	Significant other			
Investments	Credit Ratings (S&P/Moody's)	Maturities		Fair Value	Investments exempt from fair value	identical assets (Level 1)	observable inputs (Level 2)	Unobservable Inputs (Level 3)		
Commercial Paper	A-1/P-1	October 31, 2019	\$	8,320	8,320					
U.S. Treasury Money Market Funds	AAAm/Aaa-mf	< 90 days		36,578	36,578	_	_	_		
Money Market Funds	A-1+/P-1	< 90 days		23	23	_	_	_		
Cash and Cash Equivalents	N/A			7	7	_	_	_		
Total Restricted Cash and In	vestments outside	City Treasury	\$	44,928	44,928					
Cash and Cash Equivalents	N/A		-	274	274			_		
Total Cash and Investments	outside City Treasu	ry	\$	274	274			_		

Cash and Investments outside City Treasury

						Fair Valu	e Measuremer	nts Using
		June 30,	, 201	8		Quoted prices in active markets for	Significant other	
Investments	Credit Ratings (S&P/Moody's)	Maturities		Fair Value	Investments exempt from fair value	identical assets (Level 1)	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 In	vestments outside	City Treasury	\$	14,282	12,266		2,016	
Cash and Cash Equivalents	N/A		-	262	262			
Total Cash and Investments o	outside City Treasu	ту	\$	262	262			

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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, 2019 and 2018 included a \$21 and \$70 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:

	2019	2018
Current assets:		
Cash and investments with City Treasury	\$ 209,109	164,107
Cash and investments outside City Treasury	274	262
Restricted cash and investments outside City Treasury	44,928	14,282
Non-current assets:		
Restricted cash and investments with City Treasury	483,885	36,054
Total cash, cash equivalents, and investments	\$ 738,196	214,705

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

	Investment maturities (in months)							
Fiscal years ended June 30	Under 1	1 to less than 6	6 to less than 12	12 to 60				
2019	17.4%	22.2%	16.3%	44.1%				
2018	14.3%	22.1%	18.5%	45.1%				

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(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, 2019 and 2018 consisted of the following:

	2018	Increases	Decreases	2019
Capital assets not being depreciated and amortized:				
Land and rights-of-way	\$ 35,737	291	(10)	36,018
Intangible assets	3,046	_	_	3,046
Construction work in progress	652,521	296,972	(183,869)	765,624
Total capital assets not being depreciated and amortized	691,304	297,263	(183,879)	804,688
Capital assets being depreciated and amortized:				
Facilities and improvements	2,996,648	176,608	(2,029)	3,171,227
Intangible assets	4,615	_	_	4,615
Machinery and equipment	98,223	1,793	(55)	99,961
Total capital assets being depreciated and amortized:	3,099,486	178,401 *	(2,084)	3,275,803
Less accumulated depreciation and amortization for:				
Facilities and improvements	(1,231,798)	(55,422)	1,010	(1,286,210)
Intangible assets	(4,341)	(137)	_	(4,478)
Machinery and equipment	(63,525)	(4,474)	_	(67,999)
Total accumulated depreciation and amortization	(1,299,664)	(60,033)	1,010	(1,358,687)
Total capital assets being depreciated and amortized, net	1,799,822	118,368	(1,074)	1,917,116
Total capital assets, net	\$ 2,491,126	415,631	(184,953)	2,721,804

^{*} Decrease in construction work in progress is greater than increase in capital assets being depreciated is explained by \$8,386 in capital project write-offs, mainly related to the Biofuel Alternative Energy Program, Advanced Rainfall Prediction Project, and the Flood Resilience Early Projects

	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	306,096	(201,754) *	652,521
Total capital assets not being depreciated and amortized	586,962	306,096	(201,754)	691,304
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	441,204	(201,778)	2,491,126

^{*} Decrease in construction work in progress is greater than increase in capital assets being depreciated is explained by \$11,496 in capital project write-offs, mainly related to the Land Reuse 1800 Jerrold Project, Primary Sludge Handling Improvement Project, Collection System Condition Assessment Project, and the OSP Condition Assessment Repair Project.

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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, 2019 and 2018 are as follows:

		2019	2018
Interest expensed	\$	43,803	24,978
Interest included in construction work in progress	_	27,354	22,415
Total interest incurred	\$	71,157	47,393

(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.

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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, 2019 and 2018:

		2019	2018
Cash and investments with City Treasury:	_		
Wastewater revenue bond construction fund	\$_	483,885	36,054
Cash and investments outside City Treasury:			
2009 Series C Certificates of Participation - 525 Golden Gate		475	461
2009 Series D Certificates of Participation - 525 Golden Gate		1,873	1,826
2010 Series A Wastewater revenue bond fund		3,609	3,531
2010 Series B Wastewater revenue bond fund		6,480	6,366
2013 Series B Wastewater revenue bond fund		2	1
2016 Series A Wastewater revenue bond fund		2	1,619
2016 Series B Wastewater revenue bond fund		_	457
2018 Series A Wastewater revenue bond fund		14,617	_
2018 Series B Wastewater revenue bond fund		12,648	_
2018 Series C Wastewater revenue bond fund		5,192	_
Commercial Paper - Tax Exempt		30	21
Total cash and investments outside City Treasury	_	44,928	14,282
Interest and other receivables:	_		
Wastewater revenue bond construction fund including capacity fee receivables		5,173	731
Total restricted assets	\$	533,986	51,067
	-		

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.

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(6) Short-Term Debt

Under the voter approved 2002 Proposition E, the Commission and Board of Supervisors has authorized 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 \$291,498 and \$262,859 in commercial paper outstanding as of June 30, 2019 and 2018, respectively.

In accordance with GASB Statement No. 88, Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements, the Enterprise had \$458,502 and \$487,141 in unused authorization as of June 30, 2019 and 2018, respectively. Significant Events of default as specified in the Reimbursement Agreements, Revolving Credit and Term Loan Agreements, or Revolving Credit Agreements include 1) payment defaults 2) material breach of warranty, representation, or other non-remedied breach of covenants as specified in the respective agreements (not cured within applicable grace periods), and 3) bankruptcy and insolvency events, which may result in all outstanding obligations to be immediately due and payable (unless waived by the respective Bank, if applicable); or issuance of a No-Issuance Notice, reduction in credit to outstanding amount plus interest coverage, and/or termination of the respective agreement. As of June 30, 2019, there were no such events described herein.

(7) Changes in Long-Term Liabilities

Long-term liability activities for the years ended June 30, 2019 and 2018 are as follows:

		Maturity						Due
		(Calenda	r	0040	A	Dadwatiana	0040	within
	rate	Year)	_	2018	Additions	Reductions	2019	one year
Revenue Bonds:								
2010 Series A	4.00% - 5.00%	2021	\$	32,820	_	(7,630)	25,190	7,980
2010 Series B (Build America)	4.65 - 5.82	2040		192,515	_	_	192,515	_
2013 Series A	1.00 - 5.00	2025		71,930	_	(13,380)	58,550	14,105
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	_
2018 Series A	4.00 - 5.00	2043		_	229,050	_	229,050	_
2018 Series B	5.00	2043		_	185,950	_	185,950	_
2018 Series C	2.13	2048		_	179,145	_	179,145	_
For issuance premiums			_	81,896	68,958	(8,630)	142,224	
Total revenue bonds payable			:	1,019,146	663,103	(29,640)	1,652,609	22,085
2009 Series C Certificates of Participation (COPs)	2.00 - 5.00	2022		3,745	_	(676)	3,069	711
2009 Series C COPs issuance premiums				118	_	(42)	76	_
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	66,850	(1,425)	88,032	1,239
Other post-employment benefits obligations				59,517	2,833	(8,783)	53,567	_
Net pension liability				100,973	12,620	(28,556)	85,037	_
Accrued vacation and sick leave				6,415	3,953	(3,091)	7,277	4,151
Accrued workers' compensation				5,784	1,944	(1,814)	5,914	1,031
Damage claims liability				14,066	4,699	(2,397)	16,368	7,013
Pollution remediation obligation			_	4,703	3,000	(203)	7,500	
Total			\$ =	1,261,532	759,002	(76,627)	1,943,907	36,230

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		Maturity	y					Due
	Interest (Calenda	ar					within
	rate	Year)		2017	Additions	Reductions	2018	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

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, 2019 and 2018, the 2010 Series A bonds' principal amount outstanding was \$25,190 and \$32,820, 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, 2019 and 2018, 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

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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, 2019 and 2018, the principal amount outstanding of the 2013 Series A bonds was \$58,550 and \$71,930, 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, 2019 and 2018, 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, 2019 and 2018, 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, 2019 and 2018, the principal amount outstanding of the 2016 Series B bonds was \$67,820.

(g) Wastewater Revenue Bonds 2018 Series A

In August 2018, the Enterprise issued tax-exempt revenue bonds 2018 Series A (SSIP) (Green Bonds) in the amount of \$229,050 with interest rates ranging from 4.0% to 5.0%. Proceeds from the bonds were used for Wastewater capital projects in furtherance of the SFPUC's Sewer System Improvement Program ("SSIP"), to pay off \$25,000 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, 2043. The bonds have a true interest cost of 3.4%. As of June 30, 2019, the principal amount outstanding of the 2018 Series A bonds was \$229,050.

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(h) Wastewater Revenue Bonds 2018 Series B

In August 2018, the Enterprise issued tax-exempt revenue bonds 2018 Series B (Non-SSIP) in the amount of \$185,950 with 5.0% interest rate. Proceeds from the bonds were used for Wastewater capital projects, 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, 2043. The bonds have a true interest cost of 3.5%. As of June 30, 2019, the principal amount outstanding of the 2018 Series B bonds was \$185,950.

(i) Wastewater Revenue Bonds 2018 Series C

In August 2018, the Enterprise issued tax-exempt revenue bonds 2018 Series C (SSIP) (Green Bonds) in the amount of \$179,145 with 2.1% interest rate. Proceeds from the bonds were used for Wastewater capital projects, 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, 2048. The Initial Mandatory Tender date of the 2018 Series C bonds is October 1, 2023. The bonds have a true interest cost of 2.2%. As of June 30, 2019, the principal amount outstanding of the 2018 Series C bonds was \$179,145.

(j) 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, 2019. The interest before subsidy amounts include the interest for 2010 Series A and B, 2013 Series A and B, 2016 Series A and B, and 2018 Series A, B, and C bonds. The federal interest subsidy amounts represent 35% of the interest, excluding sequestration, for the 2010 Series B revenue bonds.

			Interest before	Federal interest	Interest net
		Principal	subsidy	subsidy*	of subsidy
Fiscal years ending June 30:					
2020	\$	22,085	66,050	(3,519)	62,531
2021		23,240	64,966	(3,519)	61,447
2022		22,880	63,863	(3,519)	60,344
2023		34,345	62,496	(3,464)	59,032
2024		36,905	62,441	(3,349)	59,092
2025-2029		203,075	291,863	(14,767)	277,096
2030-2034		256,905	233,808	(10,696)	223,112
2035-2039		322,630	162,620	(5,545)	157,075
2040-2044		360,305	81,777	(526)	81,251
2045-2049	_	228,015	21,080		21,080
		1,510,385	1,110,964	(48,904)	1,062,060
Less: Current portion		(22,085)			
Add: Unamortized bond premiums		142,224			
Long-term portion as of June 30, 2019	\$	1,630,524			

^{*} The SFPUC received IRS notice dated July 9, 2019 that the federal interest subsidy on the 2010 Series B bonds is reduced by 5.9%, or a total reduction of \$3,066, due to sequestration over the remaining life of the bonds assuming the sequestration rate will remain the same.

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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).

(k) 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. There are no events of default stated in this MOU.

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, 2019 are as follows:

Certificates of Participation 2009

Series C (Tax Exempt)	_	Principal	Interest	Total
Fiscal years ending June 30:				
2020	\$	711	136	847
2021		747	99	846
2022		785	61	846
2023		826	21	847
		3,069	317	3,386
Less: Current portion		(711)		
Add: Unamortized bond premiums		76		
Long-term portion as of June 30, 2019	\$	2,434		

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The future annual debt services relating to the certificates of participation 2009 Series D outstanding as of June 30, 2019 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:					
2020	\$	_	1,578	(520)	1,058
2021		_	1,578	(520)	1,058
2022		_	1,578	(520)	1,058
2023		_	1,578	(520)	1,058
2024		864	1,551	(510)	1,041
2025-2029		4,893	6,863	(2,260)	4,603
2030-2034		6,019	5,121	(1,687)	3,434
2035-2039		7,422	2,950	(971)	1,979
2040-2042		5,260	521	(172)	349
Total			23,318	(7,680)	15,638
Long-term portion as of June 30, 2019	\$_	24,458			

^{*}The SFPUC received IRS notice dated July 9, 2019 that the federal interest subsidy on the 2009 Series D bonds is reduced by 5.9%, or a total reduction of \$482, 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 \$4,893. As of June 30, 2019 and 2018, the principal amount outstanding of the loan was \$4,893.

(m) 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 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 2019. The CWSRF loan is secured on a parity lien basis with the Enterprise's outstanding revenue bonds. The

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SFPUC has submitted requests for loan disbursements to date totaling \$37,661. As of June 30, 2019, the principal amount outstanding of the loan was \$37,661.

(n) 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 CWSRF 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 \$17,706. As of June 30, 2019 and 2018 the principal amount outstanding of the loan was \$17,098 and \$17,714, respectively.

(o) 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 CWSRF 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 received proceeds from loan disbursements to date totaling \$29,197. As of June 30, 2019 and 2018, the principal amount outstanding of the loan was \$28,380 and \$0.

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(p) 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, the North Point Facility Outfall Rehabilitation Project, the SEP Primary/Secondary Clarifier Upgrade Project, and the SEP 521/522 and Disinfection Upgrade Project outstanding as of June 30, 2019 are as follows:

California Clean Water State Revolving Fund Loan		Principal	Interest	Total
Fiscal years ending June 30:				
2020	\$	1,239	787	2,026
2021		2,187	1,474	3,661
2022		2,355	1,513	3,868
2023		2,397	1,471	3,868
2024		2,439	1,428	3,867
2025-2029		12,868	6,470	19,338
2030-2034		14,061	5,277	19,338
2035-2039		15,365	3,973	19,338
2040-2044		16,790	2,548	19,338
2045-2049		16,321	991	17,312
2050-2051		2,010	39	2,049
		88,032	25,971	114,003
Less: Current portion		(1,239)		
Long-term portion as of June 30, 2019	\$_	86,793		

(q) WIFIA Loan Agreement-Biosolids Digester Facility Project

In July 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 statute 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. The SFPUC has not submitted any requests for loan disbursements to date and there is no outstanding loan principal as of June 30, 2019.

(r) Events of Default and Remedies

In accordance with GASB Statement No. 88, Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements, significant events of default as specified in the Wastewater Enterprise Indenture (applicable to Wastewater Revenue Bonds, SRF Loans, and WIFIA Loan include 1) Non-payment 2) material breach of warranty, representation, or indenture covenants (not cured within applicable grace periods), and 3) bankruptcy and insolvency events, which may result in the Trustee (upon written request by the majority of the owners (by aggregate amount of the bond

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obligations or of a credit provider), declaring the principal and the interest accrued thereon, to be due and payable immediately. As of June 30, 2019, there were no such events described herein.

(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 2049 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 2019 and 2018, applicable net revenues, and funds available for debt service are as follows:

	2019	2018
Bonds issued with revenue pledge	\$ 1,667,095	1,072,950
Clean Water State Revolving Fund (CWSRF) loans with revenue pledge	89,456	_
Principal and interest remaining due at the end of the year	2,735,352	1,602,132
Principal and interest paid during the year	60,347	47,003
Net revenues for the year ended June 30	150,365	156,426
Funds available for debt service	253,646	310,022

(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' Retirement System - Cost Sharing

Fiscal year 2019					
Valuation Date (VD)	June 30, 2017 updated to June 30, 2018				
Measurement Date (MD)	June 30, 2018				
Measurement Period (MP)	July 1, 2017 to June 30, 2018				
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				

Notes to Financial Statements
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The City is an employer of the Plan with a proportionate share of 94.10% as of June 30, 2018 (measurement date), and 94.07% as of June 30, 2017 (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 2018 and 2017. The Enterprise's net pension liability, deferred outflows/inflows of resources related to pensions, amortization of deferred outflows/inflows, and pension expense is based on its allocated percentage. The Enterprise's allocation of the City's proportionate share was 2.11% as of June 30, 2018 and 2.15% as of June 30, 2017 (measurement dates).

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 San Francisco City and County 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 City and County 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 and County. 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%.

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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 varied from 7.5% to 13.0% as a percentage of gross covered salary in fiscal years 2019 and 2018. 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, 2017 actuarial report, the required employer contribution rate for fiscal year 2019 was 18.81% to 23.31%. Based on the July 1, 2016 actuarial report, the required employer contribution rate for fiscal year 2018 was 18.96% to 23.46%.

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 years ended June 30, 2018 and 2017 (measurement periods) were \$582,568 and \$519,073, respectively. The Enterprise's allocation of employer contributions for fiscal year 2018 and 2017 was \$12,523 and \$11,270.

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

Fiscal Year 2019

The City reported net pension liabilities for its proportionate share of the pension liability of the Plan of \$4,030,207 as of June 30, 2019. 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, 2018 (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, 2017 rolled forward to June 30, 2018 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

Notes to Financial Statements
June 30, 2019 and 2018
(Dollars in thousands, unless otherwise stated)

Enterprise's allocation of the City's proportionate share of the net pension liability for the Plan as of June 30, 2019 was \$85,037.

For the year ended June 30, 2019, the City's recognized pension expense was \$488,255 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 \$8,858. Pension expense decreased from the prior year, largely due to the impact of actual investment earnings.

As of June 30, 2019, the Enterprise's reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

Fiscal Year 2019 Schedule of Deferred Outflows and Inflows of Resources

	I	Deferred Outflows	Deferred Inflows
		of Resources	of Resources
Pension contributions subsequent to measurement date	\$	12,816	_
Differences between expected and actual experience		690	2,407
Changes in assumptions		13,259	_
Net difference between projected and actual earnings on			
pension plan investments		_	13,669
Change in employer's proportion		121	81
Tota	\$_	26,886	16,157

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:

	Deferred		
	Outflows/(Inflows)		
Fiscal years	 of Resources		
2020	\$ 5,427		
2021	2,387		
2022	(6,994)		
2023	 (2,907)		
Total	\$ (2,087)		

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

Notes to Financial Statements
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Enterprise's allocation of the City's proportionate share of the net pension liability for the Plan as of June 30, 2018 was \$100,973.

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

	ı	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
Tota	I \$ _	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:

Deferred
Outflows/(Inflows)

Fiscal years	_	of Resources
2019	\$	468
2020		8,487
2021		5,391
2022		(4,162)
Total	\$	10,184

Actuarial Assumptions

Fiscal Year 2019

A summary of the actuarial assumptions and methods used to calculate the Total Pension Liability as of June 30, 2018 (measurement period) is provided below, including any assumptions that differ from those used in the July 1, 2017 actuarial valuation. Refer to the July 1, 2017 actuarial valuation report for a complete description of all other assumptions, which can be found on the Retirement System's website http://mysfers.org.

Notes to Financial Statements
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Key Actuarial Assumptions

Valuation Date June 30, 2017 updated to June 30, 2018

Measurement Date June 30, 2018

Actuarial Cost Method Entry-Age Normal Cost

Expected Rate of Return 7.50%

Municipal Bond Yield 3.58% as of June 30, 2017 3.87% as of June 30, 2018

Bond Buyer 20-Bond GO Index, June 29, 2017 and June 28, 2018

Inflation 3.00

Salary Increases 3.50% plus merit component based on employee classification and years of service

Discount Rate 7.50% as of June 30, 2017 7.50% as of June 30, 2018

Administrative Expenses 0.60% of payroll as of June 30, 2017

0.60% of payroll as of June 30, 2018

Old Police & Fire, Old Police & Fire. Old Miscellaneous and Old Police & Fire, Charters A8.595 Charters A8.559 and A8.596 All New Plans Basic COLA pre 7/1/75 and A8.585 June 30, 2017 2.00% 2.70% 3.30% 4.40% June 30, 2018 2.50% 2.00% 3.10% 4.20%

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 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.

Kev 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

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

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.

45 (Continued)

Old Police & Fire,

Old Police & Fire,

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Discount Rate

Fiscal Year 2019

The beginning and end of year measurements are based on different assumptions and contribution methods that may result in different discount rates. The discount rate was 7.50% as of the June 30, 2018 (measurement date) and June 30, 2017 (measurement date).

The discount rate used to measure the total pension liability as of June 30, 2018 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, 2017 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 3.50% 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 June 30, 2018 for the probability and amount of Supplemental COLA for each future year. We have assumed that a full Supplemental COLA will be paid to all Post 97 Retirees effective July 1, 2018. The table below shows the net assumed Supplemental COLA for members with a 2.00% basic COLA for sample years.

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Assumed Supplemental COLA for Members with a 2.00% Basic COLA Before 11/6/96

Fiscal years	96 - Prop C	or After Prop C
2019	0.750 %	0.000 %
2022	0.750	0.290
2025	0.750	0.350
2028	0.750	0.360
2031+	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 2097 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 3.87% to the extent they are not available. The single equivalent rate used to determine the total pension liability as of June 30, 2018 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	31.0 %	5.4 %
Private Equity	18.0	6.6
Real Assets	17.0	4.5
Hedge Funds/Absolute Returns	15.0	3.7
Private Credit	10.0	4.6
Treasuries	6.0	0.5
Liquid Credit	3.0	3.3
Total	100.0	

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Fiscal Year 2018

The beginning and end of year measurements are based on different assumptions and contribution methods that may 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.

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Assumed Supplemental COLA for Members with a 2.00% Basic COLA Before 11/6/96

Fiscal years	96 - Prop C	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	

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.

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Fiscal Year 2019

Employer		ecrease Share IPL @ 6.50%	Share of NPL @ 7.50%	1% Increase Share of NPL @ 8.50%
Wastewater	\$	159,265	85,037	23,656
Fiscal Year 201	8			
	1% D	ecrease Share	Share of NPL	1% Increase Share
Employer	of N	IPL @ 6.50%	@ 7.50%	of NPL @ 8.50%
Wastewater	\$	172,984	100,973	41,390

(b) Other Post-Employment Benefits

The Enterprise participates in the City's single employer defined benefit plan (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, surviving spouses, and domestic partners. 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

Fiscal year 2019				
Valuation Date (VD)	June 30, 2018			
Measurement Date (MD)	June 30, 2018			
Measurement Period (MP)	July 1, 2017 to June 30, 2018			
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			

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, 2018. 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 as of June 30, 2018 and 2017 measurement dates were 1.49% and 1.60%, respectively.

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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 service¹

Age 60 with 10 years of credited service

Safety Age 50 with 5 years of credited service

Disabled Retirement² Any age with 10 years of credited service Terminated Vested³ 5 years of credited service at separation

- ¹ Age 53 with 20 years of credited service, age 60 with 10 years of credited service, or age 65 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) and UHC Medicare Advantage

(fully insured)

HMO - Kaiser (fully-insured) and Blue Shield (flex-funded)

Dental: Delta Dental, DeltaCare USA and UnitedHealthcare Dental

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 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.

Notes to Financial Statements
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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 the City's GASB Actuary 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 years ending June 30, 2019 and 2018, the City's funding was based on "pay-as-you-go" plus a contribution of \$32,786 and \$25,839 to the Retiree Healthcare Trust Fund, respectively. The "pay-as-you-go" portion paid by the City was \$185,839 for a total contribution of \$218,625 for the fiscal year ending June 30, 2019, and \$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 2019 was \$3,252, and for fiscal year 2018 was \$3,264.

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

Fiscal Year 2019

As of June 30, 2019, the City reported net OPEB liabilities related to the Plan of \$3.6 billion. The Enterprise's proportionate share of the City's net OPEB liability as of June 30, 2019 was \$53,567.

For the year ended June 30, 2019, the City's recognized OPEB expense was \$320,332. Amortization of the City's deferred inflow is included as a component of OPEB expense. The Enterprise's proportionate share of the City's OPEB expense was \$768.

As of June 30, 2019, 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		\$	3,252	\$	-
Differences between expected and actual experience			-		4,918
Changes in assumptions			1,417		-
Net difference between projected and actual earnings					
on plan investments			-		49
	Total	\$	4,669	\$	4,967

Notes to Financial Statements
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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:

2020	\$ (602)
2021	(602)
2022	(602)
2023	(578)
2024	(583)
Thereafter	(583)
Total	\$ (3,550)

Fiscal Year 2018

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 OPEB 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		flows of	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)
Total	\$ (96)

Notes to Financial Statements
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Actuarial Assumptions

Fiscal Year 2019

A summary of the actuarial assumptions and methods used to calculate the Total OPEB Liability as of June 30, 2018 (measurement date) is provided below:

Key Actuarial Assumptions

Valuation Date June 30, 2018
Measurement Date June 30, 2018

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 6.50% and trends down to ultimate rate of 3.93% in 2076

Medicare trend starts at 7.50% and trends down to ultimate rate of 3.93% in 2076

10-County average trend starts at 5.90% and trends down to ultimate rate of 3.93% in 2076

Vision and expenses trend remains a flat 3.50% for all years

Expected Rate of Return on Plan Assets 7.40% Discount Rate 7.40%

Salary Increase Rate Wage Inflation Component: 3.50%

Additional Merit Component (dependent on years of service):

Police: 1.50% - 8.00% Fire: 1.50% - 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: 2.75% 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.

 $Non-Annuita\underline{nt} - CalPERS \ employee \ mortality \ tables \ without \ scale \ BB \ projection$

Gender	Adjustment Factor	Base Year
Female	0.918	2009
Male	0.948	2009

 $Healthy\,Annu\underline{itants}\,-\,CalPERS\,healthy\,annuitant\,mortality\,table\,\,without\,scale\,\,BB\,projection$

Gender	Adjustment Factor	Base Year
Female	1.014	2009
Male	0.909	2009

 $\underline{\text{Miscellaneous }\underline{\text{Disabled Annuitants - RP-2014 }\underline{\text{Disabled Ret}}} \\ \text{Tables without MP-2014 }\underline{\text{projection}}$

Gender	Adjustment Factor	Base Year
Female	1.066	2006
Male	0.942	2006

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

	Adjustment	
Gender	Factor	Base Year
Female	0.983	2009
Male	0.909	2009

The mortality rates in the base tables are projected generationally from the base year using the modified version of the MP-2015 projection scale. The scale was modified using the Society of Actuaries' model implementation tool with rates converging to the ultimate rate in 2017 (instead of 2029) and an ultimate rate of improvement of 0.85% (instead of 1.00%) up to age 85 decreasing to 0.70% (instead of 0.85%) at age 95.

Notes to Financial Statements June 30, 2019 and 2018 (Dollars in thousands, unless otherwise stated)

Fiscal Year 2018

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

Key Actuarial Assumptions

Valuation Date

June 30, 2016 updated to June 30, 2017

Measurement Date

June 30, 2017

7.50% 7.50%

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 **Discount Rate**

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

	Adjustment	
Gender	Factor	Base Year
Female	0.918	2009
Male	0.948	2009

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

	Adjustment	
Gender	Factor	Base Year
Female	1.014	2009
Male	0.909	2009

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

	Adjustment	
Gender	Factor	Base Year
Female	1.066	2006
Male	0.942	2006

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

	Adjustment	
Gender	Factor	Base Year
Female	0.983	2009
Male	0.909	2009

Notes to Financial Statements
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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:

Fiscal Year 2019				
Employer	-1.00%	Healt	hcare Trend	1.00%
Wastewater	\$ 46,558	\$	53,567	\$ 62,259
Fiscal Year 2018				
Employer	-1.00%	Healt	hcare Trend	1.00%
Wastewater	\$ 51,941	\$	59,517	\$ 68,883

Discount Rate

Fiscal Year 2019

The discount rate used to measure the Total OPEB Liability as of June 30, 2018 was 7.4%. 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 7.4% 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:

		Long-term
	Target	Expected Real
Asset Class	Allocation	Rate of Return
Equities		
U.S. Equities	41.0%	7.3%
Developed Market Equity (non-U.S.)	20.0%	7.1%
Emerging Market Equity	16.0%	9.4%
Credit		
High Yield Bonds	3.0%	5.4%
Bank Loans	3.0%	5.0%
Emerging Market Bonds	3.0%	4.9%
Rate Securities		
Investment Grade Bonds	9.0%	3.6%
Treasury Inflation Protected Securities	5.0%	3.3%
Total	100.0%	

The asset allocation targets summarized above have a 20-year return estimate of 7.5%, which was weighted against a 10-year model estimating a 6.3% return, resulting in the ultimate long-term expected rate of return of 7.4%.

Notes to Financial Statements
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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			scount Rate @	1%	Increase Share
of NOL @ 6.40%		7.40%		of	NOL @ 8.40%
\$	61,585	\$	53,567	\$	47,006

Fiscal Year 2018

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:

	Target	20-year
Asset Class	Allocation	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		Di	scount Rate @	1% Increase Share	
of NOL @ 6.50%		7.50%		of No	OL@ 8.50%
\$	68,181	\$	59,517	\$	52,412

Notes to Financial Statements
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(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 \$25,658 or 30.0% and \$26,473 or 31.6% were allocated to the Enterprise for the years ended June 30, 2019 and 2018, 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 \$10,907 and \$10,195 for the years ended June 30, 2019 and 2018, respectively, has been included in services provided by other departments in the accompanying financial statements.

The Enterprise purchases water from Water Enterprise at retail rates. This amount, totaling \$1,266 and \$1,073 for the years ended June 30, 2019 and 2018, 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 \$13,884 and \$14,417 for the years ended June 30, 2019 and 2018, 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 \$10,571 and \$10,689 for the years ended June 30, 2019 and 2018, respectively, have been included in services provided by other departments in the accompanying financial statements.

As of June 30, 2019 and 2018, the Enterprise has payables in the amount of \$955 and \$1,061, respectively, 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, 2019, the Enterprise's allocable shares of expenses and prepayment were \$21 and \$1,210, respectively, and as of June 30, 2018 were \$23 and \$1,231, respectively.

SFPUC's 30-year lease agreement with the San Francisco Port Commission, for the use of approximately 4,833 square feet of land located within Seawall Lot 345 and within the public right-of-way on Terry A.

Notes to Financial Statements
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Francois Boulevard and on Illinois Street, commenced on September 1, 2018. SFPUC intends to use the premises for the reconstruction of the Mariposa Pump Station and Force Main Improvements. Total payment under this agreement is \$502, which was fully made as of fiscal year 2019. As of June 30, 2019, the Enterprise's expenses and prepayment were \$14 and \$488, 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-yougo 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

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(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, 2019 and 2018 were as follows:

Fiscal years	Be	ginning of year	Claims and changes in estimates	Claims paid	End of year
2019	\$	14,066	4,699	(2,397)	16,368
2018		14,149	3,936	(4.019)	14,066

(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.

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The changes in the liabilities for workers' compensation for the years ended June 30, 2019 and 2018 were as follows:

Fiscal years	Beg	inning of year	Claims and changes in estimates	Claims paid	End of year
2019	\$	5,784	1,944	(1,814)	5,914
2018		5,580	1,769	(1,565)	5,784

(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, 2019 and 2018, the Enterprise has outstanding commitments with third parties of \$269,132 and \$226,025, 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.

Notes to Financial Statements
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(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, 2019 and 2018, the Enterprise recorded \$7,500 and \$4,703 in pollution remediation liability, respectively. This increase of \$2,797 in pollution remediation liability in fiscal year 2019 is due to increase in cleanup cost estimates of \$3,000 for the toxic sediments at Yosemite Creek offset by remediation cost payment of \$203 for the Southeast Wastewater Treatment Plant hazardous materials. As of June 30, 2019, the pollution remediation liability of \$7,500 represents estimated cleanup costs for the Yosemite Creek toxic sediments. 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.



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.

Islais Creek Crossing Temporary Bypass Pipe Project

Exploring soil conditions in order to build a replacement pipe.

如果您需要中文翻譯,請致電: (415) 554-3289.

Si necesita una traducción o asistencia en español llame al: (415) 554-3289.

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