

Office of the City Auditor



City and County of Honolulu
State of Hawai`i

City and County of Honolulu Sewer Fund

Financial Statements and Supplementary Schedules
June 30, 2019 and 2018

City and County of Honolulu Sewer Fund

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Report of Independent Auditors

To the Chair and Members of the City Council City and County of Honolulu

Report on the Financial Statements

We have audited the accompanying financial statements of the City and County of Honolulu, Sewer Fund ("Sewer Fund"), as of June 30, 2019 and 2018, and the related notes to the financial statements, as listed in the index.

Management's Responsibility for the Financial Statements

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

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. 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 auditors consider 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 financial position of the Sewer Fund as of June 30, 2019 and 2018, and the changes in financial position and its cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Adjustments to Prior Period Financial Statements

The financial statements of the Sewer Fund as of June 30, 2018 were audited by other auditors whose report dated December 20, 2018 expressed an unmodified opinion on those statements. As discussed in Note 12 to the financial statements, the Sewer Fund has adjusted its 2018 financial statements to retrospectively apply the change in accounting in GASB Statement No. 83, *Certain Asset Retirement Obligations*. The other auditors reported on the financial statements before the retrospective adjustment.

As part of our audit of the 2019 financial statements, we also audited the adjustments to the 2018 financial statements to retrospectively apply the change in accounting as described in Note 12. In our opinion, such adjustments are appropriate and have been properly applied. We were not engaged to audit, review or apply any procedures to the Sewer Fund's 2018 financial statements other than with respect to the adjustments and, accordingly, we do not express an opinion or any other form of assurance on the 2018 financial statements as a whole.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Sewer Fund and do not purport to, and do not present fairly the financial position of the City and County of Honolulu ("City") as of June 30, 2019 and 2018, and the changes in its financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis on pages 3 through 6 and the schedule of the City's proportionate share of the net pension liability, schedule of pension contributions, schedule of changes in net other postemployment benefits ("OPEB") liability and related ratios, and schedule of OPEB contributions on pages 39 through 44 be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Honolulu, Hawaii December 19. 2019

Accenty LLP

The following summary discussion and analysis of the financial statements for the fiscal years ended June 30, 2019 and 2018 are provided by the City and County of Honolulu's wastewater enterprise ("Wastewater Enterprise"). The summary is designed to provide an introduction to the Sewer Fund financial statements and the financial condition of the Wastewater Enterprise. We encourage readers to also review the financial statements as a whole.

Financial Highlights

- 110.7 million gallons per day of wastewater were collected and treated in fiscal year 2019, a decrease of 2.9% from fiscal year 2018. There were 114.0 million gallons per day of wastewater collected and treated in fiscal year 2018, 2.5% less than fiscal year 2017. As of June 30, 2019, the Wastewater Enterprise had approximately 147,000 customer accounts and served approximately 780,000 residents.
- Total assets and deferred outflows of resources were \$5.0 billion and exceeded total liabilities by \$2.1 billion as of June 30, 2019. As of June 30, 2018 (as restated), total assets and deferred outflows of resources were \$4.9 billion and exceeded total liabilities by \$1.9 billion. As of June 30, 2019, net position (difference between assets, deferred inflows/outflows of resources, and liabilities) increased by \$181.6 million, or 9.5%, from June 30, 2018 (as restated), while net position at June 30, 2018 (as restated) increased by \$96.5 million, or 5.3%, from June 30, 2017 (as restated). The increase in net position in 2019 was due to increased capital assets and 2018 was due to increased current, restricted and capital assets.
- As of June 30, 2019, total assets increased by \$91.2 million to \$4.9 billion, representing a 1.9% increase from the prior fiscal year, while total assets increased by \$429.2 million to \$4.8 billion, at June 30, 2018, representing a 9.9% increase from June 30, 2017. The increase in fiscal years 2019 was due to increased capital assets and 2018 was due to additional capital and current assets.
- Total current and restricted assets decreased by 2.9% or \$49.0 million to \$1.6 billion at June 30, 2019, while total current and restricted assets increased by 21.5% or \$294.6 million to \$1.7 billion at June 30, 2018. The decrease in 2019 was primarily due to expenditure of revenue bond proceeds and the increase in 2018 was primarily due to revenue bonds proceeds.
- Total current liabilities increased by 6.4% or \$12.5 million to \$209.3 million primarily due to an increase in accounts payable. At June 30, 2019, total liabilities decreased 3.0% or \$88.8 million to \$2.9 billion due to a decrease in notes and bonds payable. At June 30, 2018 (as restated), total current liabilities increased by 0.1% or \$103,305 to \$196.8 million due to an increase in bonds payable. Total liabilities also increased by 12.6% or \$330.5 million to \$2.9 billion due to an increase in bonds payable and inclusion of the net other postemployment benefits ("OPEB") liability.
- Due to the implementation of Governmental Accounting Standards Board ("GASB") Statement No. 83, Certain Asset Retirement Obligations, during fiscal year 2019, the July 1, 2018 beginning net position has been restated in the amount of \$6.2 million.

Overview of the Financial Statements

This discussion and analysis is intended to serve as an introduction to Wastewater Enterprise's financial statements, which consist of the basic financial statements and notes to the financial statements.

Basic financial statements. The basic financial statements are designed to provide readers with a broad overview of the Wastewater Enterprise's finances, in a manner similar to a private-sector business.

The statements of net position present information of the Wastewater Enterprise's assets and liabilities, with the difference reported as net position. Over time, increases or decreases in net position may serve as a useful indicator of whether the financial position of the Wastewater Enterprise is improving or deteriorating. Net position increases when revenues and subsidies exceed expenses. Increases to assets without a corresponding increase to liabilities results in increased net position, which indicate an improved financial position.

The statements of revenues, expenses and change in net position present information showing how the Wastewater Enterprise's net position changed during the past two fiscal years. All changes in net position are reported as soon as the underlying event occurs, regardless of timing of related cash flows. Thus, revenues and expenses are reported in this statement for some items that will result in cash flows in future fiscal periods (e.g., earned but unused vacation leave).

The statements of cash flows present changes in cash and cash equivalents, resulting from operating, financing and investing activities. This statement presents cash receipts and cash disbursements information, without consideration of the earnings event, when an obligation arises, or depreciation of capital assets.

Notes to the financial statements. The notes provide additional information that is essential to a full understanding of the data provided in the basic financial statements.

Financial Analysis

The following are the highlights of the condensed statements of net position for the Wastewater Enterprise (in thousands of dollars):

Statements of Net Position

	2019	2018 Restated	2017 Restated
Assets			
Current assets	\$ 1,357,126	\$ 1,225,345	\$ 1,121,172
Restricted assets, noncurrent	257,443	438,207	247,765
Capital assets, net	3,253,365	3,113,168	2,978,459
Other noncurrent assets	-	-	135
Deferred outflows of resources	103,352	104,893	107,440
Total assets and deferred outflows	\$ 4,971,286	\$ 4,881,613	\$ 4,454,971
Liabilities			
Current liabilities	\$ 209,301	\$ 196,760	\$ 196,658
Noncurrent liabilities	2,645,839	2,747,184	2,416,803
Deferred inflows of resources	15,801	18,970	19,343
Total liabilities and deferred inflows	2,870,941	2,962,914	2,632,804
Net investment in capital assets	954,970	852,641	874,926
Restricted for debt service	259,977	260,091	165,226
Unrestricted	885,398	805,967	782,015
Total net position	2,100,345	1,918,699	1,822,167
Total liabilities, deferred inflows, and net position	\$ 4,971,286	\$ 4,881,613	\$ 4,454,971

Net Position

Net position (the difference between assets, liabilities, and deferred inflows/outflows of resources) may serve, over time, as a useful indicator of a government's financial position. In the case of the Wastewater Enterprise, assets and deferred outflows of resources exceeded liabilities by \$2.1 billion and \$1.9 billion at the end of fiscal year 2019 and 2018 (as restated), respectively. Additions of capital assets resulted in a 9.5% increase in net position from fiscal year 2018 to 2019. The largest portion of the Wastewater Enterprise's net position represented its investment in capital assets (e.g., land, buildings, transmission, and distribution system, etc.). The Wastewater Enterprise uses these capital assets to provide wastewater services on the Island of Oahu and consequently, capital assets are not available to liquidate liabilities or other spending.

The following are the highlights of the condensed statements of revenues, expenses and changes in net position (in thousands of dollars):

Statements of Revenues, Expenses and Changes in Net Position

	2019	2018 Restated	2017 Restated
Operating revenues	\$ 461,011	\$ 455,438	\$ 458,773
Operating expenses	(221,263)	(206,419)	(195,065)
Operating income	239,748	249,019	263,708
Nonoperating revenues (expenses)			
Interest income	33,992	14,436	7,718
Interest expense	(82,025)	(74,614)	(52,061)
Other	8,018	3,578	2,934
Income before transfers and capital contributions	199,733	192,419	222,299
Transfers out	(20,404)	(18,170)	(16,199)
Capital contributions	2,317	8	205
Change in net position	181,646	174,257	206,305
Net position			
Beginning of year, as previously reported	1,918,699	1,822,167	1,621,177
Adjustment for change in accounting principle		(77,725)	(5,315)
Beginning of year, as restated	1,918,699	1,744,442	1,615,862
End of year	\$ 2,100,345	\$ 1,918,699	\$ 1,822,167

The changes in net position were primarily due to:

- Operating revenues, comprised mainly of sewer service charges, increased 1.2% to \$461.0 million for the fiscal year 2019 compared to the prior fiscal year, and decreased 0.7% to \$455.4 million for fiscal year 2018 compared to fiscal year 2017. Sewer service charge rates remained the same in fiscal year 2019.
- Operating expenses increased \$14.8 million or 7.2% to \$221.2 million for fiscal year 2019 compared to the prior fiscal year and increased \$11.4 million or 5.8% to \$206.4 million for fiscal year 2018 (as restated), compared to fiscal year 2017 (as restated). The primary increase in 2019 and 2018 was due to increased administration and general, depreciation, and utilities.

- Interest expense increased by \$7.4 million or 9.9% to \$82.0 million for fiscal year 2019 compared to the prior fiscal year, and increased by \$22.6 million or 43.3% to \$74.6 million for fiscal year 2018 compared to fiscal year 2017. The increase in 2019 was due to an increase in interest expense on wastewater revenue bonds. The increase in 2018 was due to an increase in interest expense on wastewater revenue bonds and implementation of GASB 89.
- Contributed capital increased to \$2.3 million in fiscal year 2019 up from \$8,354 in fiscal year 2018 and \$205,271 in fiscal year 2017. Contributed capital represents assets (primarily capital assets) transferred from other City governmental funds and other entities. Approximately \$20.4 million was transferred out during fiscal year 2019 for the Wastewater Enterprise's share of central administrative expenses incurred by the City and \$18.2 million was transferred out during fiscal year 2018 for the Wastewater Enterprise's share of central administrative expenses incurred by the City.

Capital Assets and Debt Administration

Capital Assets

The Wastewater Enterprise's investment in capital assets amounted to \$3.3 billion and \$3.1 billion, net of accumulated depreciation, as of June 30, 2019 and 2018, respectively, an increase of \$140.2 million or 4.5% in 2019 and \$134.7 million or 4.5% in 2018. Capital assets include land, buildings, infrastructure, land improvements, equipment and machinery for the nine treatment plants, 70 pumping stations, and over 2,100 miles of sewer line that makes up the Wastewater Enterprise. Capital assets are added, rehabilitated or replaced according to the infrastructure and facilities twenty-year capital plan.

Long-term Debt

Wastewater revenue bonds and State revolving fund loans are the primary long-term financing instruments used to fund the acquisition of capital assets. Revenue bonds outstanding as of June 30, 2019 and 2018 totaled \$2.3 billion and \$2.4 billion, respectively. State revolving fund notes payable outstanding at June 30, 2019 and 2018 totaled \$210.3 million and \$229.4 million, respectively.

Debt service coverage was 288% on Senior Revenue Bonds, 226% on all revenue bonds, and 179% on all debt at June 30, 2019, compared to 282% on Senior Revenue Bonds, 214% on all revenue bonds, and 185% on all debt at June 30, 2018. Debt service coverage exceeded the requirements of bond covenants and policies of the City Council in 2019 and 2018.

Additional information on the Wastewater Enterprise's capital assets and long-term debt can be found in the notes to the financial statements.

Currently Known Facts, Decisions or Conditions

In support of requirements in the 2010 Consent Decree (see Note 11 to the financial statements) and other system requirements, the City issued during November 2019 additional wastewater system revenue bonds to pay for costs of certain additions and improvements to the wastewater system and to refund eligible previously issued bonds for economic savings.

Requests for Information

Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the City and County of Honolulu, Department of Environmental Services, 1000 Uluohia Street, Suite 308, Kapolei, Hawaii 96707.

City and County of Honolulu Sewer Fund Statements of Net Position June 30, 2019 and 2018 (Amounts in thousands)

		2019	ı	2018 Restated
Assets and Deferred Outflows of Resources				
Current assets	_		_	
Cash and cash equivalents	\$	383,202	\$	157,181
Investments		835,690		983,106
Receivables				
Accounts, net of allowance for uncollectible accounts		70.407		00.440
of \$4,679 and \$2,962 in 2019 and 2018, respectively		73,487		66,419
Interest		11,510		4,049
Employee advances		671		733
Inventories of materials and supplies Restricted assets		11,516		13,857
		44.050		
Cash and cash equivalents		41,050		<u> </u>
Total current assets		1,357,126		1,225,345
Restricted assets – investments		257,443		438,207
Capital assets, net		3,253,365		3,113,168
Total assets		4,867,934		4,776,720
Deferred outflows of resources				
Deferred refunding costs, net		53,069		57,325
Deferred pension costs		29,808		33,265
Deferred other postemployment benefit costs		15,195		8,779
Deferred asset retirement obligations costs		5,280		5,524
Total deferred outflows of resources		103,352		104,893
Total assets and deferred outflows of resources	\$	4,971,286	\$	4,881,613

City and County of Honolulu Sewer Fund Statements of Net Position June 30, 2019 and 2018 (Amounts in thousands)

	2019	2018 Restated
Liabilities, Deferred Inflows of Resources, and Net Position		
Current liabilities		
Accounts payable	\$ 66,444	\$ 54,396
Due to other City funds	8	356
Interest payable	46,501	46,553
Bonds payable	72,518	70,545
Notes payable	21,483	22,670
Accrued payroll	1,856	1,738
Compensated absences	491	502
Total current liabilities	209,301	196,760
Notes payable	188,807	206,728
General obligation bonds payable, net	586	651
Asset retirement obligations	12,012	11,765
Revenue bonds payable, net	2,198,904	2,287,667
Net pension liability	122,953	117,720
Net other postemployment benefit liability	115,348	115,525
Compensated absences	7,229	7,128
Total liabilities	2,855,140	2,943,944
Deferred inflows of resources		
Deferred pension costs	13,528	18,538
Deferred other postemployment benefit costs	2,273	432
Total deferred inflows of resources	15,801	18,970
Net position		
Net investment in capital assets	954,970	852,641
Restricted for debt service	259,977	260,091
Unrestricted	885,398	805,967
Total net position	2,100,345	1,918,699
Total liabilities, deferred inflows of resources, and net position	\$ 4,971,286	\$ 4,881,613

City and County of Honolulu Sewer Fund

Statements of Revenues, Expenses and Changes in Net Position Years Ended June 30, 2019 and 2018

(Amounts in thousands)

		2019	F	2018 Restated
Operating revenues Sewer service charges Other revenue	\$	458,218 2,793	\$	450,541 4,897
Total operating revenues		461,011		455,438
Operating expenses Depreciation Administrative and general Fringe benefits Utilities Contractual services Materials and supplies Fuel and lubricants Maintenance Total operating expenses		77,184 53,532 27,021 25,200 20,918 15,484 1,026 898	_	68,546 48,338 29,361 23,149 21,000 14,344 1,106 575
Operating income		239,748		249,019
Nonoperating revenues (expenses) Interest income Interest expense Net increase (decrease) in fair value of investments Other Total nonoperating expenses	_	33,992 (82,025) 2,964 5,054 (40,015)		14,436 (74,614) (620) 4,198 (56,600)
Income before transfers and capital contributions		199,733		192,419
Transfers out Capital contributions		(20,404) 2,317		(18,170) 8
Change in net position		181,646		174,257
Net position Beginning of year, as previously reported Adjustment for change in accounting principle Beginning of year, as restated End of year	\$	1,918,699 - 1,918,699 2,100,345	\$	1,822,167 (77,725) 1,744,442 1,918,699

City and County of Honolulu Sewer Fund Statements of Cash Flows Years Ended June 30, 2019 and 2018 (Amounts in thousands)

		2019	F	2018 Restated
Cash flows from operating activities				
Cash received from customers	\$	451,686	\$	450,157
Cash payments to suppliers	•	(64,825)	•	(65,048)
Cash payments to employees		(68,879)		(61,548)
Other receipts		558		785
Net cash provided by operating activities		318,540		324,346
Cash flows from noncapital financing activities				
Transfers out		(20,404)		(18,170)
Net cash used in noncapital financing activities		(20,404)		(18,170)
Cash flows from capital and related financing activities				
Acquisition and construction of capital assets		(209,998)		(216,524)
Proceeds from issuance of notes		3,900		222
Repayments on notes		(22,670)		(23,593)
Interest paid on notes		(1,781)		(2,040)
Proceeds from issuance of bonds, net		-		602,614
Repayments on bonds		(70,545)		(310,215)
Interest paid on bonds		(89,622)		(85,142)
Payment to escrow agent for crossover refunding		-		(106,409)
Interest subsidies for wastewater system revenue bonds		5,035		5,013
Net cash used in capital and related financing activities		(385,681)		(136,074)
Cash flows from investing activities				
Purchase of investments	(1,640,689)	(2,411,252)
Proceeds from maturity of investments	•	1,970,678		2,262,852
Interest on investments		24,627		12,246
Net cash provided by (used in) investing activities		354,616		(136,154)
Net increase in cash and cash equivalents		267,071		33,948
Cash and cash equivalents				
Beginning of year		157,181		123,233
End of year (including \$41,050 in restricted cash				
and cash equivalents in 2019)	\$	424,252	\$	157,181

City and County of Honolulu Sewer Fund Statements of Cash Flows (continued) Years Ended June 30, 2019 and 2018 (Amounts in thousands)

	2019	F	2018 Restated
Reconciliation of operating income to net cash			
provided by operating activities			
Operating income	\$ 239,748	\$	249,019
Adjustments to reconcile operating income to			
net cash provided by operating activities			
Depreciation	77,184		68,546
Write-off of capital assets	7,411		4,915
Other revenue (expense)	(20)		593
Change in			
Accounts receivable	(7,006)		(5,463)
Inventories of materials and supplies	2,341		1,175
Deferred outflows from pension	3,457		15,714
Deferred outflows from other postemployment benefits	(6,416)		(1,053)
Deferred outflows from asset retirement obligations	244		285
Accounts payable	(397)		(1,570)
Other liabilities	208		(158)
Net pension liability	5,233		(9,957)
Asset retirement obligations	247		185
Net other postemployment benefits liability	(177)		2,136
Due to other City funds	(348)		352
Deferred inflows from pension	(5,010)		(805)
Deferred inflows from other postemployment benefits	1,841		432
Net cash provided by operating activities	\$ 318,540	\$	324,346

Supplemental disclosure of noncash capital and related financing activities

The Sewer Fund received \$2.3 million and \$8,354 in contributions of capital assets from government agencies and developers, which are recorded as capital contributions at their cost or estimated cost at June 30, 2019 and 2018, respectively.

Amortization of net bond premiums, (discounts), and (deferred loss on refunding) amounted to \$16.8 million, (\$471,368), and (\$4.3) million in fiscal 2019 and \$17.3 million, (\$755,232), and (\$3.9) million in fiscal 2018.

1. Financial Reporting Entity

The Sewer Fund was established as an enterprise fund effective July 1, 1999 in conjunction with the November 1998 City Resolution 98-193, CD1, authorizing the issuance of the Wastewater System Revenue Bonds for the City and County of Honolulu's ("City") wastewater system. The fund accounts for the operations of the City's wastewater system.

The Sewer Fund is one of the various enterprise funds of the City. The Sewer Fund's financial statements reflect only its portion of the proprietary fund type. The City's Director of Budget and Fiscal Services maintains the central accounts for all City funds and publishes financial statements for the City annually, which includes the Sewer Fund's financial activities.

2. Summary of Significant Accounting Policies

Financial Statement Presentation

The Sewer Fund is included in the City's Enterprise Fund. The Sewer Fund's financial statements are intended to present the financial position, change in its financial position, and its cash flows of only that portion of the funds of the City's Enterprise Fund that is attributable to the transactions of the Sewer Fund.

The accompanying financial statements of the Sewer Fund have been prepared in conformity with accounting principles generally accepted in the United States of America prescribed by the Governmental Accounting Standards Board ("GASB").

Basis of Accounting

The accompanying financial statements are presented using the economic resources measurement focus and the accrual basis of accounting, whereby revenues and expenses are recognized in the period earned or incurred.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and 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. Significant items subject to such estimates and assumptions included revenue recognized related to unbilled accounts, allowance for uncollectible accounts, net pension liability, net other postemployment benefits ("OPEB"), and asset retirement obligations ("ARO"). Actual results could differ from those estimates.

Cash and Cash Equivalents

Cash includes amounts in demand and time deposits primarily with various financial institutions in the State of Hawaii. Cash on deposit with financial institutions is collateralized in accordance with state statutes. Investments with original maturity of three months or less when purchased are considered cash equivalents.

Investments

Investments consist of U.S. treasury and government securities and nonparticipating guaranteed investment contracts. All nonparticipating investment contracts are recorded at amortized cost. Participating investment contracts with maturities of one year or more are stated at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Participating investment contracts with maturities of less than one year are recorded at amortized cost.

Inventories of Materials and Supplies

Inventories of materials and supplies are stated at weighted average cost. The costs of inventories are recorded as expenditures when consumed rather than when purchased.

Receivables

Sewer service charge revenues are accrued by the City based on estimated billings for services provided through the end of the fiscal year. Receivables included estimated unbilled sewer charges amounting to approximately \$37.8 million and \$35.3 million at June 30, 2019 and 2018, respectively. The allowance for doubtful accounts is based on the aging of accounts receivable. Approximately 90% of balances over 120 days are regarded as uncollectible.

Restricted Assets

Revenue bond indentures allow the City to invest in U.S. Government Securities. At June 30, 2019, restricted assets consisted of unspent debt proceeds of \$130.8 million, revenue bond collateral reserves of approximately \$62.4 million, and cash and cash equivalents and investments held in escrow accounts for crossover refunding bonds of \$41.1 million and \$64.2 million, respectively, totaling \$298.5 million. As June 30, 2018, restricted assets consisted of unspent debt proceeds of \$270.4 million, revenue bond collateral reserves of approximately \$62.4 million, and investments held in escrow accounts for crossover refunding bonds of \$105.4 million, totaling \$438.2 million.

Capital Assets

Capital assets include property, plant and equipment, including infrastructure (sewer system, network of pipes and sewer mains). Assets with an initial individual cost of \$5,000 or more for equipment and \$100,000 for buildings, structures and infrastructure, and an estimated useful life of more than one year are capitalized. Such assets are recorded at cost or estimated cost.

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Depreciation is calculated on a straight-line basis over the following estimated useful lives:

i cai s
10 – 50
13 – 100
5 – 25

Sales and retirements of depreciable property are recorded by removing the related cost and accumulated depreciation from the accounts. Gains or losses on sales and retirements of property are reflected in results of operations.

Normal maintenance and repairs that do not add to the value of the assets or materially extend asset lives are not capitalized. Betterments are capitalized and depreciated over the remaining useful lives of the related assets, as applicable.

Asset Retirement Obligations

AROs represent the liabilities where both an external obligating event and internal obligating event have occurred, and the liability is reasonably estimable and recorded based on the City's best estimates of the current value of outlays expected to be incurred. The AROs are reevaluated annually for the effects of general inflation or deflation and any events that would cause a significant change in the estimated outlays. Refer to Note 7 for more information.

Original Issue Discounts or Premiums

Original issue discounts or premiums on bonds are amortized ratably over the terms of the respective issues and are offset against the bonds payable in the statements of net position.

Accrued Vacation

Employees are credited with vacation at the rate of one and three-quarters working days per month. Accumulation of such vacation credits is limited to 90 days at calendar year-end and is convertible to pay upon termination of employment. Such accumulated vacation has been accrued and reflected in the statements of net position.

Deferred Outflows and Inflows of Resources

Deferred outflows of resources represent consumptions of net position that apply to future periods and will not be recognized as an outflow of resources (expenditures) until then. The amount consists of:

- Deferred charges on refunding bonds resulting from the difference between the carrying value of debt and its reacquisition price. This amount is deferred and amortized over the shorter of the life of the refunded or refunding debt on a basis that approximates the effective-interest method.
- 2) According to GASB Statement No. 68, Accounting and Reporting for Pensions (an amendment of GASB Statement No. 27) and GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pension, differences between projected and actual experience and changes in assumptions are recognized in pension/OPEB expense using a systematic and rational method over a closed period equal to the average of the expected remaining service lives of all employees that are provided with pensions/OPEB through the pension/OPEB plan (active and inactive employees) determined as of the beginning of the measurement period. The average of expected remaining service lives for the purposes of recognizing the applicable deferred outflows and inflows of resources established in the 2018 fiscal year for pension and OPEB are 5.3882 years and 5.8776 years, respectively.
- 3) According to GASB Statement No. 83, Certain Asset Retirement Obligations, when an ARO is recognized, a corresponding deferred outflow of resources equal to the ARO is also recognized. The deferred outflow of resources is amortized over the remaining useful life of the related capital assets.

Additionally, differences between projected and actual earnings on pension/OPEB plan investments are recognized in pension/OPEB expense using a systematic and rational method over a closed five-year period.

Contributions to the pension/OPEB plan from the employer subsequent to the measurement date of the net pension/OPEB liability and before the end of the reporting period are reported as deferred outflows of resources.

Pension

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

Other Postemployment Benefits

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB and OPEB expense, information about the fiduciary net position of the Hawaii Employer-Union Health Benefits Trust Fund ("EUTF"), and additions to/deductions from the EUTF's fiduciary net position have been determined on the same basis as they are reported by the EUTF. For this purpose, benefit payments are recognized when due and payable in accordance with benefits terms. Investments are reported at their fair value.

Net Position

Net position is comprised of the accumulated income from operating and nonoperating revenues, expenses, transfers, and capital contributions. Net position is classified in the following three components: net investment in capital assets, restricted for debt service, and unrestricted net position. Net investment in capital assets consists of capital assets, net of accumulated depreciation, and is reduced by outstanding debt that is attributable to the acquisition, construction or improvement of those assets. Debt related to unspent proceeds or other restricted cash and investments at fiscal year-end are not included in the calculation of the amount of net investment in capital assets. Restricted for debt service consists of net position for which constraints are placed thereon by external parties, such as lenders, grantors, contributors, laws, regulations and enabling legislation, including self-imposed legal mandates. Unrestricted net position consists of all other net position not included in the above categories. When an expense is incurred for purposes for which both restricted and unrestricted net position is available, restricted resources are applied first, then unrestricted resources as they are needed.

Operating Revenues and Expenses

The City distinguishes operating revenues and expenses from nonoperating items. Operating revenues and expenses generally result from providing services in connection with the Sewer Fund's principal wastewater operations. The principal operating revenues are from charges for wastewater system usage, while operating expenses include cost of services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as nonoperating revenues and expenses.

Capital Contributions

Capital contributions represent assets transferred from or constructed utilizing contributions from governmental agencies and developers and recorded at cost on the date placed in service.

Transfers

Transfers include authorized transfers of resources from the fund legally required to receive them to the fund through which such resources are to be expended. Transfers also include reimbursement of funds to the City's General Fund for expenditures paid by the General Fund on behalf of the Sewer Fund.

Risk Management

The City is exposed to various risks for losses related to torts; theft of, damage to, or destruction of assets; errors or omissions; natural disasters; and injuries to employees. A liability for a claim for a risk of loss is established if the information indicates that it is probable that a liability has been incurred at the date of the financial statements and the amount of the loss is reasonably estimable.

New Accounting Pronouncements

GASB Statement No. 83

In November 2016, GASB issued Statement No. 83, *Certain Asset Retirement Obligations*. The objective of this Statement is to provide financial statement users with information about asset retirement obligations that were not addressed in GASB standards by establishing uniform accounting and financial reporting requirements for these obligations. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018. The adoption of GASB 83 resulted in the restatement of the Sewer Fund's 2018 balances. Refer to Note 12 for additional details.

GASB Statement No. 87

In June 2017, GASB issued Statement No. 87, *Leases*. This Statement increases the usefulness of governments' financial statements by requiring recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. This Statement is effective for periods beginning after December 15, 2019. Management has not yet determined the effect this Statement will have on its financial statements.

GASB Statement No. 88

In April 2018, GASB issued Statement No. 88, *Certain Disclosures Related to Debt, Including Direct Borrowings and Direct Placements*. This Statement increase the usefulness of governments' financials by providing the users with essential information about resources to liquidate debt and the risk associated with changes in terms associated with debt will be disclosed. Management implemented the provisions of GASB 88 as of June 30, 2019 and has made the necessary disclosures. Refer to Note 7 below for additional details.

3. Cash and Investments

The cash and investment balances reported in the accompanying statements of net position are included in the City's cash and cash equivalents and investment pool that is substantially used by all of the City's funds. Investments include \$12.7 million with FSA Capital Management LLC at June 30, 2019 and 2018. The remaining balance at June 30, 2019 and 2018 was invested in the City's pooled investment fund. Information pertaining to credit risk, interest rate risk, and fair value measurements is available for only the cash and cash equivalents and investment pool, which is disclosed in the City's Comprehensive Annual Financial Report ("CAFR") available at City's website: http://www.honolulu.gov/budget/budget-cafr.html.

State statutes authorize the City to invest in obligations of the U.S. Treasury and U.S. agencies; obligations of other states, cities and counties; mutual funds; and bank repurchase agreements. Investments in repurchase agreements are primarily U.S. government or federal agency securities.

Investments

State statutes authorize the City to invest in obligations of the U.S. Treasury and U.S. agencies; obligations of other states, cities, and counties; mutual funds; and bank repurchase agreements. Investments in repurchase agreements are primarily U.S. government or federal agency securities. Section 46-50, Hawaii Revised Statutes, the City's investment policy and resolution 18-115, CD1 govern acceptable types of investments. The City's resolution 07-51, CD1 govern the deposit and short-term investment of general excise and use tax revenues.

Interest Rate Risk

The City structures the investment portfolio so that securities mature to meet cash requirements for ongoing operations, avoiding the need to sell securities on the open market prior to maturity. This practice decreases the City's exposure to risk caused by the fluctuation in interest rates. The City may invest operating funds primarily in shorter-term securities, money market mutual funds, or similar investment pools. As of June 30, 2019, the City had no investments in money market mutual funds or external investment pools.

4. Credit Risk

Financial instruments, which potentially expose the City to concentrations of credit risk, consist primarily of cash, investments in debt securities, and accounts receivable from customers. Cash and cash equivalents are maintained in various financial institutions in the State. Credit risk related to investments in debt securities has been mitigated by limiting such investments to debt obligations of the U.S. government.

Investments include \$12.7 million with FSA Capital Management LLC at June 30, 2019 and 2018. The remaining balance at June 30, 2019 and 2018 was invested in the City's pooled investment fund.

The customer base is concentrated among commercial, industrial, residential and governmental customers located within Honolulu, Hawaii. Although the City is directly affected by Honolulu's economy, management does not believe significant credit risk exists at June 30, 2019, except as provided in the allowance for uncollectible accounts. The City manages its credit exposure through procedures designed to identify and monitor credit risk.

5. Due To Other City Funds

Due to other City funds consists primarily of payroll-related expenses for the Sewer Fund temporarily advanced by the General Fund.

6. Capital Assets

The capital assets activity for the years ended June 30, 2019 and 2018 were as follows (in thousands of dollars):

	Balance at July 1, 2018	Additions	Retirements/ Transfers	Balance at June 30, 2019
Depreciable assets Buildings and improvements Transmission and distribution system Equipment and machinery Land improvements	\$ 1,357,132 2,100,265 119,345 7,598	\$ 32,746 63,271 4,295 346	\$ (12,023) (201) (409)	\$ 1,377,855 2,163,335 123,231 7,944
Total depreciable assets	3,584,340	100,658	(12,633)	3,672,365
Less: Accumulated depreciation Buildings and improvements Transmission and distribution system Equipment and machinery Land improvements Total accumulated depreciation	(313,731) (444,828) (54,126) (2,405) (815,090) 2,769,250	(28,920) (40,335) (7,712) (217) (77,184) 23,474	1 400 - 401 (12,232)	(342,651) (485,162) (61,438) (2,622) (891,873) 2,780,492
Land	46,033	1,496	(3)	47,526
Construction in progress	297,885	204,827	(77,365)	425,347
Total capital assets, net	\$ 3,113,168	\$ 229,797	\$ (89,600)	\$ 3,253,365
	Balance at July 1, 2017	Additions	Retirements/ Transfers	Balance at June 30, 2018
Depreciable assets Buildings and improvements Transmission and distribution system Equipment and machinery Land improvements		Additions \$ 216,622 302,727 37,271 90		
Buildings and improvements Transmission and distribution system Equipment and machinery	\$ 1,140,510 1,797,655 82,375	\$ 216,622 302,727 37,271	Transfers \$ - (117)	\$ 1,357,132 2,100,265 119,345
Buildings and improvements Transmission and distribution system Equipment and machinery Land improvements Total depreciable assets Less: Accumulated depreciation Buildings and improvements Transmission and distribution system Equipment and machinery Land improvements	\$ 1,140,510 1,797,655 82,375 7,508 3,028,048 (289,242) (408,123) (47,335) (2,193)	\$ 216,622 302,727 37,271 90 556,710 (24,489) (36,753) (7,092) (212)	\$ - (117) (301) - (418) 48 301	\$ 1,357,132 2,100,265 119,345 7,598 3,584,340 (313,731) (444,828) (54,126) (2,405)
Buildings and improvements Transmission and distribution system Equipment and machinery Land improvements Total depreciable assets Less: Accumulated depreciation Buildings and improvements Transmission and distribution system Equipment and machinery	\$ 1,140,510 1,797,655 82,375 7,508 3,028,048 (289,242) (408,123) (47,335) (2,193) (746,893)	\$ 216,622 302,727 37,271 90 556,710 (24,489) (36,753) (7,092) (212) (68,546)	\$ - (117) (301) - (418) 48 301 - 349	\$ 1,357,132 2,100,265 119,345 7,598 3,584,340 (313,731) (444,828) (54,126) (2,405) (815,090)
Buildings and improvements Transmission and distribution system Equipment and machinery Land improvements Total depreciable assets Less: Accumulated depreciation Buildings and improvements Transmission and distribution system Equipment and machinery Land improvements	\$ 1,140,510 1,797,655 82,375 7,508 3,028,048 (289,242) (408,123) (47,335) (2,193)	\$ 216,622 302,727 37,271 90 556,710 (24,489) (36,753) (7,092) (212)	\$ - (117) (301) - (418) 48 301	\$ 1,357,132 2,100,265 119,345 7,598 3,584,340 (313,731) (444,828) (54,126) (2,405)
Buildings and improvements Transmission and distribution system Equipment and machinery Land improvements Total depreciable assets Less: Accumulated depreciation Buildings and improvements Transmission and distribution system Equipment and machinery Land improvements Total accumulated depreciation	\$ 1,140,510 1,797,655 82,375 7,508 3,028,048 (289,242) (408,123) (47,335) (2,193) (746,893) 2,281,155	\$ 216,622 302,727 37,271 90 556,710 (24,489) (36,753) (7,092) (212) (68,546) 488,164	\$ - (117) (301) - (418) 48 301 - 349	\$ 1,357,132 2,100,265 119,345 7,598 3,584,340 (313,731) (444,828) (54,126) (2,405) (815,090) 2,769,250

Depreciation expense was \$77.2 million and \$68.5 million for the years ended June 30, 2019 and 2018, respectively.

7. Long-Term Liabilities

General Obligation Bonds

The City issues general obligation bonds for the construction of major capital facilities. The Sewer Fund's general obligation bonds are collateralized by or expected to be paid from sewer user charges. These instruments are a direct obligation of the City for which its full faith and credit is pledged. The general obligation bonds for the Sewer Fund were issued during fiscal years 2010 through 2013 in the original amount totaling approximately \$779,000 and mature serially through fiscal year 2028. The general obligation bonds bear interest at rates ranging from 1.26% to 5.00% at June 30, 2019. No new general obligation bonds have been issued to finance construction of Sewer Fund capital facilities since fiscal year 1998. Subsequently, Sewer Fund capital facilities were funded by wastewater system revenue bonds.

Wastewater System Revenue Bonds

Wastewater system revenue bonds in the City's business-type activities were issued during fiscal years 1999 through 2018, in the original amount totaling \$3.1 billion, less discounts of \$35.3 million and adjusted for premiums of \$240.9 million, which are being amortized over the related term of the bonds. The bonds bear interest at 0.60% to 6.34% at June 30, 2019 and mature at various dates through fiscal year 2048. The wastewater system revenues collateralize the revenue bonds.

The wastewater system revenue bonds issued are limited special obligations of the City. The net revenues and all funds and accounts established other than the rebate account, the subordinate obligation account, and the reimbursable obligation account, and, in certain instances, the common reserve account or separate series reserve accounts have been pledged as security for the payment of debt service on the bonds. In an event of default, the bonds contain a provision that the holders of not less than 25% in principal amount of the bonds then outstanding may declare that all the principal and accrued interest is due and payable immediately. An event of default includes but is not limited to the following situations: failure to pay principal, redemption price, and interest due; failure to punctually perform or observe any of the covenants, agreements or conditions; and filing a petition in bankruptcy. The City has covenanted and agreed to maintain the wastewater system in good repair, to fix rates and charges sufficient to meet the net revenue requirement, to not dispose of the properties comprising the wastewater system, to maintain and keep proper books, and other actions consistent with conducting the business of the wastewater system in an efficient and economical manner.

On December 20, 2017, the City issued wastewater system revenue bonds of \$252.5 million. The bonds were comprised of \$155.2 million of Senior Series A for refunding of bonds and \$97.3 million of Senior Series B for crossover refunding. Proceeds from bonds utilized for crossover refunding are held in an escrow account to be used to pay debt service cost and purchase government obligations and therefore included as restricted assets – investments on the statements of net position. The refunded bonds are not considered legally defeased until the crossover date and therefore are included as revenue bonds payable on the statements of net position.

Senior Series 2017A were issued for \$155.2 million. The proceeds of the bonds, along with release of \$1.7 million common reserve funds, were used to refund a portion of revenue bond Series 2011A and 2012A. The bonds mature annually on July 1, 2018 through July 1, 2034 and bear interest at 2.4% to 3.1%. The refunding was undertaken to reduce total debt service payments by \$28.2 million and resulted in an economic gain of \$13.6 million.

Senior Series 2017B were issued for \$97.3 million. The proceeds of the bonds, along with release of \$9.1 million of common reserve funds, were used as a crossover refunding for a portion of revenue bond Series 2009B and 2010B. The bonds mature annually on July 1, 2020 through July 1, 2034 and bear interest at 2.5% to 3.0%. The refunding was undertaken to reduce total debt service payments by \$21.3 million and resulted in an economic gain of \$7.1 million. The crossover dates are July 1, 2019 for the revenue bond Series 2009B and July 1, 2020 for the revenue bond Series 2010B.

On February 13, 2018, the City issued tax-exempt wastewater system revenue bonds of \$282.9 million and taxable wastewater system revenue bonds of \$41.9 million. The bonds were comprised of Senior Series A & B and Junior Series A & B with total aggregate of \$324.8 million.

Senior Series 2018A was issued for \$239.3 million. The proceeds of the bonds will be used to pay for certain additions and improvements to the wastewater system. The bonds mature annually on July 1, 2035 through July 1, 2047 and bear interest ranging from 3.3% to 5.0%. For certain bonds maturing on or after July 1, 2035 through July 1, 2047, the City may exercise its option of redemption on or after January 1, 2028 in whole or in part, at any time, in order of maturity selected by the City, and by lot within maturity, at the principal amount thereof, plus interest accrued to the date fixed for redemption thereof, without premium.

Senior Series 2018B were issued for \$34.3 million. The proceeds of the bonds were used to refund a portion of revenue bond series 2015C. The bonds mature annually on July 1, 2018 through July 1, 2025 and bear interest rate at 5.0%. The refunding was undertaken to reduce total debt service payments by \$1.0 million and resulted in an economic gain of approximately \$0.9 million.

Junior Series 2018A were issued for \$41.9 million. The proceeds of the bonds, along with release of \$3.3 million in common reserve funds, were used to refund a portion of revenue bond Series 2009A and 2010A. The bonds mature annually on July 1, 2018 through July 1, 2026 and bear interest ranging from 2.2% to 3.2%. The refunding was undertaken to reduce total debt service payments by \$5.8 million and resulted in an economic gain of approximately \$1.8 million.

Junior Series 2018B were issued for \$9.3 million. The proceeds of the bonds were used to refund a portion of revenue bonds Series 2015B. The bonds mature annually on July 1, 2018 through July 1, 2025 and bear interest at 4.0%. The refunding was undertaken to reduce total debt service payments by \$0.3 million and resulted in an economic gain of approximately \$0.3 million.

Defeased Bonds

The Sewer Fund defeased certain general obligation and revenue bonds by placing the proceeds of new bonds in irrevocable trusts to provide for all future debt service payments on the old bonds. Accordingly, the assets of the irrevocable trusts and the liability for the defeased bonds are not included in the Sewer Fund's financial statements. At June 30, 2019, approximately \$364.1 million of the Sewer Fund's bonds outstanding were considered defeased.

Notes Payable

The notes payable to the State are for the construction of necessary treatment works and for other projects intended for wastewater reclamation or waste management. During fiscal year 2019, the City issued notes payable amounting to \$3.6 million. The notes amounted to \$210.3 million and \$229.4 million at June 30, 2019 and 2018, respectively, bearing interest ranging from 0.0% to 2.4%, and require annual principal and interest payments through fiscal year 2035.

The notes payable are collateralized by the City's wastewater net revenue. The outstanding loans contain a provision that, in the event of default, the Director of the State of Hawaii Department of Health ("DOH") shall be entitled to collect a rate of 12% simple interest per year commencing on the repayment due date and ending on the date of the check or warrant issued by the City. A default is deemed to exist if repayment of loan fees or current loans are not paid when due, if the City fails to fulfill its obligation, or if the City becomes financially insolvent. The City covenanted that it shall exercise its revenue bonds, revenue, assessment, and other authority as needed to the extent allowed by law to pay the semiannual repayments and loan fees.

Total interest costs incurred in 2019 and 2018 were \$82.0 million and \$74.6 million, respectively.

Scheduled maturities of long-term debt are as follows (in thousands of dollars):

	Gen Oblig Bor	ation	E	Revenue Bonds – Direct acements	Revenue Bonds	Notes ayable – Direct rrowings	Total Principal	Total Interest
Year ending June 30,								
2020	\$	58	\$	5,475	\$ 66,985	\$ 21,483	\$ 94,001	\$ 89,371
2021		61		6,605	69,635	21,162	97,463	87,577
2022		63		7,120	72,880	21,056	101,119	85,157
2023		65		13,445	75,935	20,367	109,812	81,818
2024		68		14,015	78,245	20,435	112,763	78,233
2025–2029		306		84,340	454,085	78,353	617,084	326,519
2030–2034		-		96,270	373,400	26,766	496,436	214,118
2035–2039		-		19,725	355,250	668	375,643	116,809
2040–2044		-		-	245,975	-	245,975	44,443
2045-2048					109,180	_	109,180	 7,422
		621		246,995	1,901,570	210,290	2,359,476	\$ 1,131,467
Less: Current portion		(58)		(5,475)	(66,985)	 (21,483)	(94,001)	
	\$	563	\$	241,520	\$ 1,834,585	\$ 188,807	\$ 2,265,475	

Asset Retirement Obligations

The Sewer Fund accounts for certain costs associated with the future dismantling and removal of underground storage tanks in accordance with GASB Statement No. 83, *Certain Asset Retirement Obligations*. Under Statement No. 83, the act of placing the tanks into operation requires the Sewer Fund to recognize a liability and corresponding deferred outflow of resources equal to the estimated current cost of activities that state law requires the City to perform upon retirement of the tanks in the future. The tanks currently have estimated lives ranging from 11–25 years.

The amounts reported as a liability and deferred outflow of resources at June 30, 2019 and 2018 were determined based on probability-weighted engineering estimates of what it would cost to perform all dismantling and removal tasks. Actual costs may be higher due to inflation, changes in technology, or changes in regulations.

Changes in Long-Term Liabilities

Activity for long-term liabilities, other than net pension and OPEB, for the fiscal years ended June 30, 2019 and 2018 were as follows (in thousands of dollars):

	Balance at July 1, 2018 Restated	Additions	Reductions	Balance at June 30, 2019	Amount Due Within One Year
General obligation bonds Revenue bonds – direct placements Revenue bonds Notes payable – direct borrowings	\$ 676 252,520 1,966,535 229,398	\$ - - 3,562	\$ (55) (5,525) (64,965) (22,670)	\$ 621 246,995 1,901,570 210,290	\$ 58 5,475 66,985 21,483
Add: Unamortized net premium (discount)	2,449,129	3,562	(93,215)	2,359,476	94,001
Total long-term debt Compensated absences Asset retirement obligations	2,588,261 7,630 11,765	3,562 3,125 247	(109,525) (3,035)	2,482,298 7,720 12,012	94,001 491
Total long-term liabilities	\$ 2,607,656	\$ 6,934	\$ (112,560)	\$ 2,502,030	\$ 94,492
	Balance at July 1, 2017 Restated	Additions	Reductions	Balance at June 30, 2018	Amount Due Within One Year
General obligation bonds Revenue bonds – direct placements Revenue bonds Notes payable – direct borrowings	July 1, 2017	Additions \$ - 252,520 324,745 222 577,487	Reductions \$ (60) - (288,415) (23,593) (312,068)		Within
Revenue bonds – direct placements Revenue bonds	July 1, 2017 Restated \$ 736 - 1,930,205 252,769	\$ - 252,520 324,745 222	\$ (60) - (288,415) (23,593)	June 30, 2018 \$ 676 252,520 1,966,535 229,398	Within One Year \$ 55 5,525 64,965 22,670
Revenue bonds – direct placements Revenue bonds Notes payable – direct borrowings Add: Unamortized net premium (discount)	July 1, 2017 Restated \$ 736 - 1,930,205 252,769 2,183,710 142,038	\$ - 252,520 324,745 222 577,487 26,769	\$ (60) - (288,415) (23,593) (312,068) (29,675)	\$ 676 252,520 1,966,535 229,398 2,449,129	Within One Year \$ 55 5,525 64,965 22,670 93,215

8. Net Position

At June 30, 2019 and 2018, net position consisted of the following (in thousands of dollars):

	2019	2018 Restated
Net investment in capital assets		
Net property, plant and equipment	\$ 3,253,365	\$ 3,113,168
Deferred outflows of resources – deferred refunding costs, net	53,069	57,325
Less:		
Wastewater general obligation bonds payable,		
net of unamortized premiums and discounts	(644)	(706)
Wastewater system revenue bonds payable, net of		
unamortized premium, discount, and issue cost	(2,271,364)	(2,358,157)
Notes payable	(210,290)	(229,398)
Amount of debt related to unspent debt proceeds	130,834	270,409
	954,970	852,641
Restricted for debt service	259,977	260,091
Unrestricted	885,398	805,967
	\$ 2,100,345	\$ 1,918,699

9. Employee Benefit Plans

Defined Benefit Pension Plan

Plan Description

Substantially all eligible employees of the City are members of the ERS, a cost-sharing multipleemployer defined benefit pension plan. The ERS provides retirement benefits as well as death and disability benefits and is governed by a Board of Trustees. All contributions, benefits and eligibility requirements are established by HRS Chapter 88, and can be amended by legislative action. The ERS is composed of three classes, the contributory, the noncontributory and the hybrid retirement classes. Prior to July 1, 1984, the plan consisted of only a contributory class. In 1984, legislation was enacted to create a new noncontributory class for members of the ERS who are also covered under social security. Persons employed in positions not covered by social security were precluded from the noncontributory class. The noncontributory class provides for reduced benefits and covers most eligible employees hired starting July 1, 1984. Employees hired before that date were allowed to continue under the contributory class or to elect the new noncontributory class and receive a refund of employee contributions. In 2004, legislation was enacted to create a hybrid retirement class, which took effect July 1, 2006. Employees in the contributory and noncontributory class were given the option to join the hybrid class or to remain in their existing class effective July 1, 2006. Starting July 1, 2006, all new employees covered by social security are required to join the hybrid class.

All benefits vest after five or ten years of credited service. Vesting is determined by the employee's class and date of hire. The monthly retirement allowance benefit formula is calculated based on the employee's age, years of credited service, average final compensation ("AFC"), and multiplier.

For employees who became members prior to January 1, 1971 the AFC is the average salary earned during the five highest paid years of service, including the vacation payment or the average salary earned during the three highest paid years of service excluding any lump sum vacation payment. For employees who became members on January 1, 1971 through June 30, 2012, the AFC is based on the three highest paid years of service excluding the vacation payment. For employees who became members after June 30, 2012, the AFC is the highest five years excluding any lump sum vacation payment.

The ERS issues a Comprehensive Annual Financial Report that may be obtained by writing to the Employees' Retirement System of the State of Hawaii, 201 Merchant Street, Suite 1400, Honolulu, Hawaii 96813 or found on the ERS website at http://ers.hawaii.gov/resources/financials.

Contributions

General employees covered under the contributory class and hired prior to July 1, 2012, are required to contribute 7.8% of their salary and will receive pensions based on a 2% multiplier. General employees hired after June 30, 2012, are required to contribute 9.8% of their salary with pensions based on a 1.75% multiplier. General employees covered under the hybrid class prior to July 1, 2012 are required to contribute 6% of their salary and will receive pensions based on a 2% multiplier. General employees hired after June 30, 2012, are required to contribute 8% of their salary with pensions based on a 1.75% multiplier. Employees covered under the noncontributory class will receive pensions based on a 1.25% multiplier.

Contributions are established by HRS Chapter 88 and may be amended through legislation. The employer rate is set by statute based on the recommendations of the ERS actuary resulting from an experience study conducted every five years. Since July 1, 2005, the employer contribution rate is a fixed percentage of compensation, including the normal cost plus amounts required to pay for the unfunded actuarial accrued liabilities. The Sewer Fund's contribution requirements as of June 30, 2019 and 2018 were approximately \$8.3 million and \$7.5 million, respectively.

The City is required to contribute the remaining amounts necessary to pay contributory class benefits and all amounts necessary to pay noncontributory class benefits. The funding method used to calculate the total employer contribution requirement is the Entry Age Normal Actuarial Cost Method.

On May 18, 2017, the Governor signed into law Act 17 (Sessions Law of Hawaii ("SLH") 2017), which increased future employer contributions to a phased-in contribution rate increase over four years beginning July 1, 2017. The rate for all employees, other than police and firefighters, increases to 19.00% on July 1, 2018; 22.00% on July 1, 2019 and 24.00% on July 1, 2020.

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

At June 30, 2019 and 2018, the Sewer Fund reported a liability of \$123.0 million and \$117.7 million, respectively, for its proportionate share of the net pension liability. The net pension liability at June 30, 2019 was measured as of June 30, 2018, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of that date. The Sewer Fund's proportion of the net pension liability was based on a projection of the Sewer Fund's long-term share of contributions to the pension plan relative to the projected contributions of all participating members of ERS, actuarially determined. At June 30, 2018 and 2017, the City's proportion was 18.20% and 17.82%, respectively. The Sewer Fund's proportionate share of the City's proportionate share as of June 30, 2018 and 2017 was 5.07% and 5.10%, respectively.

For the fiscal years ended June 30, 2019 and 2018, the Sewer Fund recognized pension expense of \$13.1 million and \$14.7 million, respectively. At June 30, 2019 and 2018, the Sewer Fund reported deferred outflows and inflows of resources related to pensions from the following sources (in thousands of dollars):

	Ou	eferred tflows of sources	lr	Deferred oflows of esources
2019	Φ.	4.500	Φ	(407)
Difference between actual and expected experience Net difference between projected and actual	\$	4,508	\$	(487)
earnings on pension plan investments		-		(741)
Changes of assumptions Changes in proportion and differences between		14,294		-
employer contributions and proportionate share				
of contributions		2,665		(12,300)
Sewer Fund contributions subsequent to the measurement date		0 244		
measurement date		8,341		(40.500)
	\$	29,808	\$	(13,528)
2018				
Difference between actual and expected experience	\$	4,862	\$	(895)
Net difference between projected and actual earnings on pension plan investments		_		(388)
Changes of assumptions		19,376		(300)
Changes in proportion and differences between		,		
employer contributions and proportionate share of contributions		1,526		(17,255)
Sewer Fund contributions subsequent to the				
measurement date		7,501		-
	\$	33,265	\$	(18,538)

The \$8.3 million reported as deferred outflows of resources related to pension at June 30, 2019, resulting from Sewer Fund contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ending June 30, 2020. Other amounts reported as deferred outflows and inflows of resources related to pension will be recognized in pension expense as follows (in thousands of dollars):

Years ending June 30,	
2020	\$ 3,465
2021	3,406
2022	959
2023	(95)
2024	204
	\$ 7,939

Actuarial Assumptions

The total pension liability in the June 30, 2018 and 2017 actuarial valuations were determined using the following actuarial assumptions, applied to all periods included in the measurement:

Inflation	2.50%
Projected salary increases, including inflation	3.50% - 6.50%
Payroll growth	3.50%
Investment rate of return, including inflation	7.00%

There were no changes to ad hoc postemployment benefits including cost-of living adjustments.

There were no other changes in assumptions between the measurement date, June 30, 2018, and the reporting date, June 30, 2019, that are expected to have a significant effect on the proportionate share of the net pension liability.

The post-retirement mortality rates are based on the 2016 Public Retirees of Hawaii mortality table with adjustments based on generational projections of the BB projection table for 2016 and full generational projection in future years. Pre-retirement mortality rates are based on multiples of RP-2014 mortality table based on the occupation of the member.

The long-term expected rate of return on pension plan investments was determined using a "top down approach" of the Bespoke Client-Constrained Simulation-based Optimization Model (a statistical technique known as "re-sampling with replacement" that directly keys in on specific plan-level risk factors as stipulated by the ERS Board) in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

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The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

Strategic Allocation	Long-Term Target Allocation	Long-Term Expected Geometric Rate of Return
Broad growth	63 %	7.10 %
Principal protection	7 %	2.50 %
Real return	10 %	4.10 %
Crisis risk offset	20 %	4.60 %
	100 %	

Discount Rate

The discount rate used to measure the total pension liability was 7%. The projection of cash flows used to determine the discount rate assumed that plan member contributions will be made at the current contribution rate and that employer contributions will be made at rates equal to the difference between actuarially determined contribution rates and the member rate. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Sewer Fund's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the Sewer Fund's proportionate share of the net pension liability calculated using the single discount rate of 7.00%, as well as what the Sewer Fund's proportionate share of the net pension liability would be if it were calculated using a single discount rate that is one percentage point lower or one percentage-point higher than the current rates (in thousands of dollars):

	1%	1% Current	
	Decrease (6.00%)	Discount Rate (7.00%)	Increase (8.00%)
Sewer Fund's proportionate share of the net pension liability	\$ 162,344	\$ 122,953	\$ 90,482

Pension Plan Fiduciary Net Position

The pension plan's fiduciary net position is determined on the same basis used by the pension plan. The ERS financial statements are prepared using the accrual basis of accounting under which expenses are recorded when the liability is incurred, and revenues are recorded in the accounting period in which they are earned and become measurable. Employer and member contributions are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Investment purchases and sales are recorded as of their trade date. Administrative expenses are financed exclusively with investment income. There were no significant changes after the June 30, 2018 measurement date.

Payables to the Pension Plan

As of June 30, 2019 and 2018, the Sewer Fund had no payables to ERS.

Post-Employment Healthcare and Life Insurance Benefits

Plan Description

Pursuant to Act 88 (SLH 2001), the employers provide certain health care (medical, prescription, vision and dental) and life insurance benefits to all qualified employees. The EUTF, established on July 1, 2003, is an agent, multiple-employer defined benefit plan.

The EUTF issues a stand-alone financial report that is publicly available at https://eutf.hawaii.gov. Questions concerning any of the information contained therein or requests for any additional financial information related to that report should be addressed to EUTF, P.O. Box 2121, Honolulu, Hawaii 96805-2121.

City Policy

The actuarial valuation of the EUTF does not provide OPEB information by department or agency. Accordingly, the City's policy on the accounting and reporting for OPEB is to allocate a portion of the City's net OPEB liability, deferred inflows and outflows, and OPEB expense to proprietary funds that are reported separately in stand-alone financial statements or in the City's CAFR. The basis for the allocation is the proportionate share of contributions made by each proprietary fund for retiree health benefits.

Benefits Provided

For employees hired before July 1, 1996, the employers pay 100% of the base monthly contribution for employees retiring with ten or more years of credited service, and 50% of the base monthly contribution for employees retiring with fewer than ten years of credited service. The employers' contributions are based on the plan (single, two-party or family) selected by the retiree.

For employees hired after June 30, 1996 and retiring with 25 years or more of service, the employers pay the entire base monthly contribution. For employees retiring with at least 15 years but fewer than 25 years of service, the employers pay 75% of the base monthly contribution. For those retiring with at least ten years but fewer than 15 years of service, the employers pay 50% of the base monthly contribution. For those retiring with fewer than ten years of service, the employers make no contributions. If the retiree was hired before July 1, 2001, the employers' contributions are based on the plan (single, two-party or family) selected by the retiree. If the retiree was hired on or after July 1, 2001, the employers are responsible for the single plan base monthly contribution while the retiree must pay the difference if family coverage is elected.

Employees Covered by Benefit Terms

At July 1, 2018 and 2017, the following number of City employees were covered by the benefit terms:

	2018	2017
Inactive plan members or beneficiaries currently receiving benefits	7,370	7,185
Inactive plan members entitled to but not yet receiving benefits	911	885
Active plan members	8,576	8,612
Total plan members	16,857	16,682

Contributions

Act 268 (SLH 2013) required EUTF to establish and administer separate trust accounts for each public employer for the purpose of receiving irrevocable employer contributions to prefund OPEB for retirees and their beneficiaries. It established the Hawaii EUTF Trust Fund Task Force to examine further steps to address the unfunded liability and requires all public employers to make their annual required contributions (now known as actuarially determined contributions) effective with fiscal year 2014.

The employers' OPEB contributions (comprised of pay-as-you-go retiree costs and prefunding amounts paid to EUTF) are established by Hawaii State statutes. The retiree is responsible to pay the difference if the single plan base monthly contribution is less than the cost of the monthly premium for those employees hired on or after July 1, 2001. For fiscal years 2019 through 2021, the employers' prefunding contribution shall be equal to 100% of the valuation amount determined by an actuary retained by the EUTF board. Commencing with fiscal year 2019, the annual contribution shall be equal to the actuarially determined amount. In any fiscal year, should an employer's contribution be less than the actuarially determined amount, the difference shall be transferred to the OPEB trust account from the employer's portion of the transient accommodations tax revenues and all other of its revenues held by the State.

OPEB contributions for the fiscal years ended June 30, 2019 and 2018 amounted to approximately \$13.6 million and \$8.8 million, respectively.

OPEB Liability, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

At June 30, 2019 and 2018, the Sewer Fund reported a liability of \$115.3 million and \$115.5 million, respectively, for its proportionate share of net OPEB liability. The net OPEB liability was measured as of July 1, 2018 and 2017, respectively, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of that date. The City's proportion of the net OPEB liability was based on a projection of the City's long-term share of contributions to the EUTF relative to project contributions of all participants, actuarially determined. The City's proportion of the net OPEB liability was based on an allocation of the City's net OPEB liability based on the proportionate share of qualified payroll. At June 30, 2018 and 2017, the Sewer Fund's share of the City's net OPEB liability was 6.1% and 6.2%, respectively.

There were no changes in assumptions between the measurement date, July 1, 2018, and the reporting date, June 30, 2019, that are expected to have a significant effect on the proportionate share of the net OPEB liability.

For the years ended June 30, 2019 and 2018, the Sewer Fund recognized OPEB expense of approximately \$11.6 million and \$10.3 million, respectively. At June 30, 2019, the Sewer Fund reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources (in thousands of dollars):

	Deferred Outflows of Resources		Deferred Inflows of Resources	
2019				
Differences between expected and actual experience	\$	-	\$	(1,829)
Changes of assumptions		-		(444)
Net difference between projected and actual earnings on OPEB plan investments Sewer Fund contributions subsequent to the		1,609		-
measurement date		13,586		-
	\$	15,195	\$	(2,273)
2018				
Net difference between projected and actual earnings on OPEB plan investments Sewer Fund contributions subsequent to the	\$	-	\$	(432)
measurement date		8,779		
	\$	8,779	\$	(432)

The \$13.6 million reported as deferred outflows of resources related to OPEB at June 30, 2019 resulting from Sewer Fund's contribution subsequent to measurement date will be recognized as a reduction of the net OPEB liability in the fiscal year ending June 30, 2020. Other amounts reported as deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Years ending June 30,	
2020	\$ (183)
2021	(183)
2022	(183)
2023	(76)
2024	 (39)
	\$ (664)

Actuarial Assumptions

The total OPEB liability reflected in the actuarial valuation report as of July 1, 2018 was determined using the following actuarial assumptions and methods, applied to all periods including in the measurement, unless otherwise specified:

Valuation date July 1, 2018

Actuarial cost method Entry age normal

Discount rate 7.00% Inflation 2.50%

Salary increases 3.50% to 7.00%; including inflation

Demographic assumptions Based on the experience study covering

the five-year period ended June 30, 2015

Mortality System-specific mortality tables utilizing

scale BB to project generational mortality

improvement

Participation rates 98% healthcare participation assumption

for retirees that receive 100% of the Base Monthly Contribution ("BMC").

Healthcare participation rates of 25%, 65% and 90% for retirees that receive 0%, 50% or 75% of the BMC, respectively. 100% for life insurance and 98% for Medicare Part B

Healthcare cost trend rates

PPO* Initial rate of 10.00%, declining to a

rate of 4.86% after 13 yeas

HMO* Initial rate of 10.00%, declining to a

rate of 4.86% after 13 years

Part B & Base Monthly Contribution ("BMC") Initial rate of 4.00% and 5.00%, declining

to a rate of 4.70% after 12 years

Dental Initial rates of 5.00% for first three years,

followed by 4.00%

Vision Initial rates of 0.00% for first three years,

followed by 2.50%

Life insurance 0.00%

^{*} Blended rates for medical and prescription drugs.

The long-term expected rate of return on EUTF's investments was determined using a building-block method in which best-estimate ranges of expected future real rate of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Strategia Alla cation	Long-Term Target	Long-Term Expected Real
Strategic Allocation	Allocation	Rate of Return
Private equity	10 %	8.65%
U.S. microcap	7 %	7.00%
U.S. equity	15 %	5.05%
Non-U.S. equity	17 %	6.50%
Global options	7 %	4.50%
Core real estate	10 %	4.10%
Private credit	6 %	5.25%
Core bonds	3 %	1.30%
TIPS	5 %	0.75%
Long treasuries	6 %	1.90%
Alternative risk premia	5 %	2.45%
Trend following	9 %	3.00%
	100 %	

Single Discount Rate

The discount rate used to measure the net OPEB liability was 7%, based on the expected rate of return on OPEB plan investments of 7% and the municipal bond rate of 3.62% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-year Municipal GO AA index"). Beginning with the fiscal year 2019 contribution, the Sewer Fund's funding policy is to pay the recommended actuarially determined contribution, which is based on layered, closed amortization periods. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Changes in Net OPEB Liability

The following table represents a schedule of changes in the net OPEB liability. The ending balances are as of the measurement date, July 1, 2018.

			r Fiduciary t Position	•		
Balance at July 1, 2017	\$	131,427	\$	18,039	\$	113,388
Service cost		2,709		-		2,709
Interest on the total OPEB liability		9,130		-		9,130
Employer contributions		-		7,726		(7,726)
Net investment income		-		1,910		(1,910)
Benefit payments		(4,710)		(4,710)		-
Administrative expense		-		(5)		5
Other				71		(71)
Net changes		7,129		4,992		2,137
Balance at June 30, 2018		138,556		23,031		115,525
Service cost		2,726		-		2,726
Interest on the total OPEB liability		9,497		-		9,497
Difference between expected						
and actual experience		(2,204)		-		(2,204)
Changes of assumptions		1,938		-		1,938
Employer contributions		-		8,779		(8,779)
Net investment income		-		1,882		(1,882)
Benefit payments		(4,914)		(4,914)		-
Administrative expense		-		(6)		6
Other		(1,792)		(313)		(1,479)
Net changes		5,251		5,428		(177)
Balance at June 30, 2019	\$	143,807	\$	28,459	\$	115,348

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate and Healthcare Cost Trend Rates

The following table presents the Sewer Fund's net OPEB liability calculated using the discount rate of 7.00%, as well as what the Sewer Fund's net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current discount rate (amounts in thousands):

	_	1% Decrease (6.00%)	Dis	Current count Rate (7.00%)	1% ncrease (8.00%)
Sewer Fund's proportionate share of the net OPEB liability	\$	138,351	\$	115,348	\$ 97,344

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The following table presents the Sewer Fund's net OPEB liability calculated using the assumed healthcare cost trend rate, as well as what the Sewer Fund's net OPEB liability would be if it were calculated using the trend rate that is one percentage point lower or one percentage point higher than the current healthcare cost trend rate:

	_	1% ecrease (6.00%)	C	ealthcare ost Trend te (7.00%)	_	1% ncrease (8.00%)
Sewer Fund's proportionate share of the net OPEB liability	\$	96,587	\$	115,348	\$	139,644

Payables to the OPEB Plan

At June 30, 2019 and 2018, the Sewer Fund had no payables to EUTF.

10. Management Agreement

The Board of Water Supply ("BWS") has an agreement with the City's Department of Environmental Services to provide certain services through June 30, 2017 for the billing and collection of sewer service charges. BWS and City agreed to a month-to-month extension of the agreement until a new agreement is made. The revenue related to these fees is included in other operating revenues of BWS and the corresponding expense in the Sewer Fund. Service fees in addition to credit card fees incurred amounted to \$2.6 million and \$3.3 million for the years ended June 30, 2019 and 2018, respectively.

11. Commitments

Construction Contracts

The City has contractual commitments for the Sewer Fund of approximately \$848.2 million at June 30, 2019, primarily for construction contracts.

Accumulated Sick Leave Pay

Sick leave accumulates at the rate of one and three-quarters working days for each month, without limit. Sick leave is taken only in the event of illness and is not convertible to pay; accordingly, sick leave is not accrued. Employees who retire or leave government service in good standing with sixty or more unused sick leave days are entitled to an additional service credit in the retirement system. At June 30, 2019 and 2018, accumulated sick leave, including vested and nonvested accumulated rights to receive sick leave benefits, amounted to approximately \$19.8 million and \$20.0 million, respectively.

Deferred Compensation Plan

All full-time employees of the Sewer Fund are eligible to participate in the City's Public Employees' Deferred Compensation Program ("Plan") adopted pursuant to Internal Revenue Code Section 457. The Plan permits eligible employees to defer a portion of their salary until future years by contributing to a fund managed by a plan administrator. The deferred compensation amounts are not available to employees until termination, retirement, death or unforeseeable emergency.

A trust fund was established to protect plan assets from claims of general creditors and from diversion to any uses other than paying benefits to participants and beneficiaries. Deferred compensation plan assets are not reported in the financial statements.

Environmental Protection Agency Consent Decree

The Wastewater Treatment Plants ("WWTP") and other facilities operated by the Department of Environmental Services (the "Department") are governed either by National Pollutant Discharge Elimination System ("NPDES") permits, the DOH Underground Injection Control Wastewater Management permits, or Clean Air Branch Covered Source and Non-Covered Source permits.

The NPDES permits for the City's two largest treatment plants, Sand Island WWTP and Honouliuli WWTP, were reissued with effective dates of January 1, 2015, and March 30, 2014, respectively. The Sand Island WWTP permit was modified effective September 1, 2018, and the Honouliuli WWTP permit was modified effective February 1, 2019. The NPDES permit for the Kailua WWTP was reissued with an effective date of March 16, 2014. The NPDES permit for the Waianae WWTP was issued with an effective date of December 1, 2016. The City is contesting certain permit conditions for the Kailua WWTP and Waianae WWTP permits. The majority of these contested conditions have been stayed pending further review and consideration by DOH. DOH issued a modification to the Kailua WWTP NPDES permit with an effective date of August 1, 2017; however, this modification is limited to modifying two conditions in the Kailua WWTP NPDES permit, and the contested conditions that are not subject to the modification remain actively contested by the City.

One air consent order is currently in effect until December 31, 2016 between the State of Hawaii DOH and the City relating to air quality at the Kailua WWTP. The consent order provides for the payment of stipulated penalties when covered and non-covered source permit requirements are not met.

In addition, during the course of operating the wastewater system, occasional events of noncompliance with other permits, laws and regulations occur, including:

- Wastewater spills, which are subject to reporting pursuant to the NPDES permits, the 2010 Consent Decree described below, and DOH regulations.
- Exceedance of interim effluent limits set forth in the 2010 Consent Decree for the Sand Island and Honouliuli WWTPs, which are reported monthly with the discharge monitoring reports for the plants.
- Exceedance of effluent limits set forth in the NPDES permits for the WWTPs, which are reported monthly with the discharge monitoring reports for the plants.
- On November 26, 2014, DOH issued a Notice of Apparent Violation regarding the City's pretreatment program. The City responded on March 6, 2015.
- No other incident of noncompliance is subject to existing or threatened enforcement.

The City is complying with the terms of a consent decree (the "2010 Consent Decree") entered by the United States District Court in Hawaii to settle certain previous environmental lawsuits relating to the wastewater system. The Court retains continuing jurisdiction to enforce the 2010 Consent Decree. The following is a brief discussion of the 2010 Consent Decree and the City's obligations thereunder.

The 2010 Consent Decree, approved by the Environmental Protection Agency, DOH, the Sierra Club, Hawaii Chapter, Our Children's Earth Foundation, and Hawaii's Thousand Friends, was entered by the United States District Court in Hawaii. The 2010 Consent Decree became effective upon its entry by the Court on December 17, 2010. The City also settled the nonprofit organizations' claim for their attorneys' fees and costs, for an additional payment of \$1.1 million.

Under the 2010 Consent Decree, three previous environmental lawsuits were dismissed. The City's appeal of the EPA's January 2009 final decisions denying the City's applications to renew its permit variances from secondary treatment for the Honolulu and Sand Island WWTP was dismissed on February 2, 2011. The 2010 Consent Decree allows 10 years for completion of work on the collection system, 14 years for the upgrade of the Honolulu WWTP to secondary treatment, and up to 25 years, with the possibility of a three-year extension, for the upgrade of the Sand Island WWTP to secondary treatment. The City is expected to incur approximately \$3.5 billion in capital costs through fiscal year 2020 (which coincides with the term of the collection system portion of the 2010 Consent Decree). This amount will largely be spent on the collection system, and much of it will go towards work that was already required or planned. This amount also includes a portion of the costs of treatment plant upgrades at Sand Island and Honouliuli. Costs for the treatment plant upgrades include approximately \$550 million to replace primary treatment facilities at both plants and \$1.15 billion to upgrade the plants to secondary treatment plants. As part of the settlement, the City paid a civil penalty in the amount of \$800,000 to the United States, and \$800,000 to the State of Hawaii. In addition, the City paid \$800,000 to the Sierra Club, Hawaii Chapter, Our Children's Earth Foundation, and Hawaii's Thousand Friends, to fund four supplemental environmental projects.

The 2010 Consent Decree was amended on March 27, 2012. This amendment modified the 2010 Consent Decree to substitute construction of a Kaneohe-Kailua gravity tunnel and an associated influent pump station for the construction of a new force main between the City's Kaneohe pump station and its Kailua treatment plant and to eliminate requirements to proceed with and maintain storage projects in Kaneohe and Kailua.

In addition to the 2010 Consent Decree, the City is complying with the terms of an Administrative Order on Consent that the City and DOH voluntarily entered into on March 13, 2017 (the "2017 Administrative Order on Consent"). The 2017 Administrative Order on Consent resolved all liability of the City for certain 2015 wastewater spills, and the City made no admissions as to fact, violation, fault or liability in entering the 2017 Administrative Order on Consent. Pursuant to the 2017 Administrative Order on Consent, the City has agreed to conduct a storm water inflow detection, identification and quantification study in certain high density or ultra-urbanized areas; to revise its Standard Operating Procedures to improve response to spill prevention alarms; to upgrade its Supervisory Control and Data Acquisition system; to revise its sewage spill volume estimate procedures; and to pay a monetary penalty of \$100,000 to DOH, which has been paid.

Pending Wastewater System Litigation

The City and the Department generally are self-insured with respect to general liability claims. In the fiscal years ended June 30, 2016, 2017, 2018 and 2019, the Department reached settlements of lawsuits and claims related to the wastewater system and paid with Judgment, Settlements and Losses general funds of \$8,472, \$3,653, \$7,123 and \$14,180, respectively.

A lawsuit has been filed against the City and the Department which has the potential to surpass the amount paid in the preceding fiscal years. This case involves claims by a construction contractor for delay and extended overhead costs. This case is in the discovery stage of litigation and liability has not been established at this time, and the City and the Department intend to vigorously defend against the claims.

In the opinion of the City's Corporation Counsel, the expected liability arising out of the pending litigation would not constitute a material impairment of the Department's financial position.

12. Restatement

The Sewer Fund adopted GASB No. 83, *Certain Asset Retirement Obligations*, in the current year. As a result, the effect on fiscal year 2018 is as follows:

Statement of Net Position

	2018 As Previously Reported	Restatement	2018 Restated
Assets and Deferred Outflows of Resources Deferred outflows of resources Deferred asset retirement obligations costs	\$ -	\$ 5,524	\$ 5,524
Total assets and deferred outflows of resources	\$ 4,876,089	\$ 5,524	\$ 4,881,613
Liabilities, Deferred Inflows of Resources, and Net Position			
Asset retirement obligation ("ARO")	\$ -	\$ 11,765	\$ 11,765
Total liabilities	2,932,179	11,765	2,943,944
Net position			
Unrestricted	812,208	(6,241)	805,967
Total net position	1,924,940	(6,241)	1,918,699
Total liabilities, deferred inflows of resources, and net position	\$ 4,876,089	\$ 5,524	\$ 4,881,613

Statement of Revenues, Expenses, and Change in Net Position

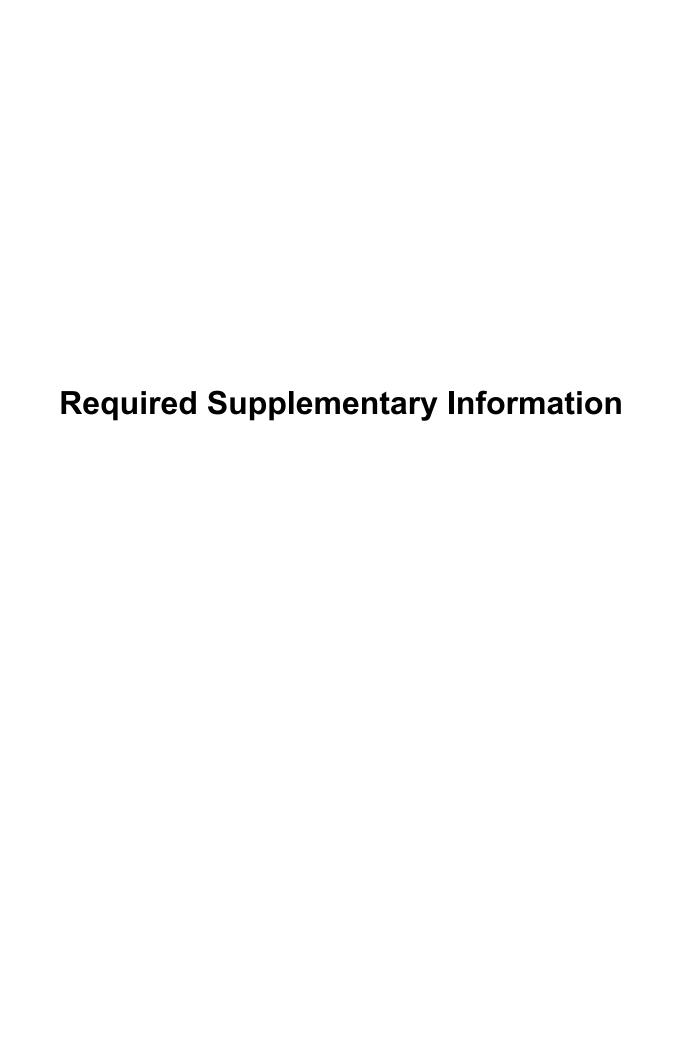
	2018 As Previously Reported	Restatement	2018 Restated
Operating expenses			
Contractual services	\$ 20,530	\$ 470	\$ 21,000
Total operating expenses	205,949	470	206,419
Income from operations	249,489	(470)	249,019
Change in net position	174,727	(470)	174,257
Net position			
Beginning of year	1,750,213	(5,771)	1,744,442
End of year	\$ 1,924,940	\$ (6,241)	\$ 1,918,699

Statement of Cash Flows

		2018 reviously resented	Rest	atement	F	2018 Restated		
Reconciliation of income from operations to net cash provided by operating activities								
Income from operations	\$	249,489	\$	(470)	\$	249,019		
Adjustments to reconcile income from operation	S							
to net cash provided by operating activities								
Changes in assets and liabilities								
Deferred outflows from ARO		-		285		285		
ARO liability				185		185		
Net cash provided by								
operating activities	\$	324,346	\$	-	\$	324,346		

13. Subsequent Events

On November 6, 2019, the City issued wastewater system revenue bonds, Senior tax-exempt Series 2019A and 2019B and taxable 2019C, Junior tax exempt Series 2019A and taxable Series 2019B in aggregate amount of \$496.9 million. The Senior Series 2019C and Junior Series 2019B are not subject to redemption prior to maturity. Senior Series 2019A Bonds maturing on or after July 1, 2030 are subject to redemption, at the option of the City on or after July 1, 2029, in whole or in part at any time. The bond proceeds will be used to fund certain wastewater system capital improvement projects and to refund certain outstanding wastewater system revenue bonds previously issues by the City.



City and County of Honolulu Sewer Fund Schedule of the City's Proportionate Share of the Net Pension Liability Fiscal Years 2013–2018 (Amounts in thousands)

Defined Benefit Plan

The following presents the Schedule of the City's Proportionate Share of the Net Pension Liability for the City as a whole, of which the Sewer Fund is one of its various enterprise funds.

	2018	2017	2016	2015	2014	2013
Proportion of the net pension liability	18.20%	17.82%	18.17%	17.41%	16.31%	16.76%
Proportionate share of the net pension liability	\$ 2,424,496	\$ 2,307,225	\$ 2,428,894	\$ 1,520,529	\$ 1,307,396	\$ 1,496,794
Covered payroll	\$ 640,203	\$ 626,639	\$ 599,494	\$ 578,043	\$ 536,304	\$ 509,130
Proportionate share of the net pension liability as a percentage of its covered payroll	378.71%	368.19%	405.16%	263.05%	243.78%	293.99%
Plan fiduciary net position as a percentage of the total pension liability	55.48%	54.80%	51.28%	62.42%	63.92%	57.96%

Prior fiscal years are not available. Table will be built prospectively.

City and County of Honolulu Sewer Fund

Notes to Schedule of the City's Proportionate Share of the Net Pension Liability Fiscal Years 2013–2019

(Amounts in thousands)

There were no changes in assumptions for the measure period June 30, 2018.

Contribution rates are a percentage of pensionable payroll and are set by statute based on the recommendation of the ERS actuary. Act 256 (SLH 2007) established contribution rates beginning July 1, 2008 through June 30, 2012. Act 163 (SLH 2011) established contribution rates beginning July 1, 2012 through July 1, 2015. Act 17 (SLH 2017) established new contribution rates beginning July 1, 2017 until statutory changes are implemented. Contribution rates by year are as follows:

Police and Fire	General Employees
41.0%	24.0%
36.0%	22.0%
31.0%	19.0%
28.0%	18.0%
25.0%	17.0%
24.0%	16.5%
23.0%	16.0%
22.0%	15.5%
19.7%	15.0%
	Fire 41.0% 36.0% 31.0% 28.0% 25.0% 24.0% 23.0% 22.0%

Act 152 (SLH 2012) amended the definition of compensation for new employees hired after June 30, 2012 for the purpose of pension benefit calculations. Compensation is defined as normal periodic payments and does not include overtime, supplemental payments, bonuses, lump sum salary differentials and other types of differentials. For employees hired prior to July 1, 2012 compensation includes overtime, supplemental payments, bonuses, and other types of differentials for the purpose of pension benefit calculations.

Act 153 (SLH 2012) requires employers to pay additional contributions for those employees who retire on or after July 1, 2012 with significant "non-base pay" increases in the three or five years used to calculate their average final compensation and maximum retirement allowances. The amount is determined by comparing the maximum retirement allowance that would have been received without the significant non-base pay increase to the actual maximum allowance. These amounts are assessed, on a fiscal year basis, for all retirees meeting the criteria during the previous fiscal year.

City and County of Honolulu Sewer Fund Schedule of Pension Contributions Fiscal Years 2013–2019 (Amounts in thousands)

Defined Benefit Plan

The following presents the Schedule of Contributions for the City as a whole, of which the Sewer Fund is one of its various enterprise funds.

	2019	2018	2017	2016	2015	2014	2013	2012
Statutorily required contribution	\$ 176,114	\$ 152,657	\$ 140,342	\$ 135,217	\$ 121,465	\$ 102,885	\$ 93,503	\$ 89,275
Contributions in relation to the statutorily required contribution	176,416	157,686	139,569	129,245	132,308	87,979	87,840	81,690
Contributions excess (deficiency)	\$ 302	\$ 5,029	\$ (773)	\$ (5,972)	\$ 10,843	\$ (14,906)	\$ (5,663)	\$ (7,585)
Covered payroll	\$ 666,311	\$ 640,203	\$ 626,639	\$ 599,494	\$ 578,043	\$ 536,304	\$ 509,130	\$ 517,862
Contributions as a percentage of covered payroll	26.48%	24.63%	22.27%	21.56%	22.89%	16.40%	17.25%	15.77%

Prior fiscal years are not available. Table will be built prospectively.

City and County of Honolulu Sewer Fund

Schedule of Changes in Net OPEB Liability and Related Ratios Years Ended June 30, 2019 and 2018

(Amounts in thousands)

Post-Employment Healthcare and Life Insurance Benefits

The following presents the Schedule of Changes in Net OPEB Liability and Related Ratios, for the City as a whole, of which the Sewer Fund is one of its various enterprise funds.

	2019	2018
Total other postemployment benefits ("OPEB") liability		
Service cost	\$ 44,698	\$ 43,835
Interest on the total OPEB liability	155,684	147,732
Difference between expected and actual experience		
in the measurement of total OPEB liability	(36,127)	-
Changes of assumptions	31,781	(70.000)
Benefit payments	 (80,555)	 (76,220)
Net change in total OPEB liability	115,481	115,347
Total OPEB liability – beginning	 2,242,000	2,126,653
Total OPEB liability – ending	\$ 2,357,481	\$ 2,242,000
Plan fiduciary net position		
Employer contributions	\$ 143,665	\$ 125,017
Net investment income	30,844	30,907
Benefit payments	(80,555)	(76,220)
OPEB plan administrative expense	(95)	(72)
Other	 	 1,147
Net change in plan fiduciary net position	93,859	80,779
Plan fiduciary net position – beginning	 372,671	291,892
Plan fiduciary net position – ending	 466,530	372,671
Net OPEB liability – ending	\$ 1,890,951	\$ 1,869,329
Plan fiduciary net position as a percentage		
of total OPEB liability	19.79%	16.62%
Covered-employee payroll	\$ 648,001	\$ 626,639
Net OPEB liability as a percentage		
of covered-employee payroll	291.81%	298.31%

Data for prior fiscal years is not available. Table will be built prospectively.

Notes to Schedule of Changes in Net OPEB Liability and Related Ratios: None

City and County of Honolulu Sewer Fund Schedule of OPEB Contributions Fiscal Years 2018-2019 (Amounts in thousands)

Post-Employment Healthcare and Life Insurance Benefits

The following presents the Schedule of OPEB Contributions for the City as a whole, of which the Sewer Fund is one of its various enterprise funds.

	2019	2018
Actuarially determined contribution	\$ 177,331	\$ 166,876
Actual contribution	 177,331	 143,665
Contributions excess (deficiency)	\$ 	\$ (23,211)
Covered-employee payroll	\$ 666,311	\$ 648,001 *
Contributions as a percentage of covered-employee payroll	26.61%	22.17%

Information prior to the fiscal year ended June 30, 2018 is not available. As information becomes available in future years, up to 10 years will be displayed prospectively.

^{*}Revised from previous CAFR.

City and County of Honolulu Sewer Fund Notes to Schedule of OPEB Contributions Year Ended June 30, 2019 (Amounts in thousands)

Valuation date The actuarially determined contribution for

fiscal year ended June 30, 2019 was developed

in the July 1, 2017 valuation

Actuarial cost method Entry age normal

Discount rate 7.00% Inflation 2.50%

Amortization method* Level percent, closed

Equivalent single amortization period 20.10% as of fiscal year ended June 30, 2019

Payroll growth 3.50%

Salary increases 3.50% to 7.00%; including inflation

Demographic assumptions Based on the experience study covering

the five-year period ended June 30, 2015

as conducted for the ERS

Mortality System-specific mortality tables utilizing scale

BB to project generational mortality improvement

Participation rates 98.00% healthcare participation assumptions

for retirees that receive 100% of the Base Monthly Contribution ("BMC"). Healthcare participation rates of 25%, 65%

Healthcare participation rates of 25%, 65% and 90% for retirees that receive 0%, 50% or 75% of the BMC, respectively. 100% for life insurance and 98% for Medicare Part B

Healthcare cost trend rates

PPO** Initial rates of 6.60%, 6.60% and 9.00%;

declining to a rate of 4.86% after 14 years

HMO** Initial rate of 9.00%, declining to a rate of 4.86%

after 14 years

Part B & Base Monthly Contribution ("BMC") Initial rates of 2.00% and 5.00%; declining

to a rate of 4.70% after 14 years

 Dental
 3.50%

 Vision
 2.50%

 Life insurance
 0.00%

^{*} Closed bases are established at each valuation for new unfunded liabilities.

^{**}Blended rates for medical and prescription drugs.