

ANNUAL DISCLOSURE INFORMATION

Pertaining to
City of Portland, Oregon



First Lien Sewer System Revenue & Refunding Bonds:

\$86,165,000	2014 Series A	Dated August 14, 2014
\$329,805,000	2015 Series A	Dated August 27, 2015
\$156,650,000	2016 Series A	Dated September 7, 2016

Second Lien Sewer System Revenue & Refunding Bonds:

\$407,850,000	2010 Series A	Dated August 19, 2010
\$210,965,000	2013 Series A	Dated September 17, 2013
\$204,220,000	2014 Series B	Dated August 14, 2014
\$63,300,000	2015 Series B	Dated August 27, 2015
\$162,465,000	2016 Series B	Dated September 7, 2016
\$191,930,000	2018 Series A	Dated May 3, 2018

December 31, 2018

MATURITY SCHEDULES – FIRST LIEN BONDS:

\$86,165,000*
FIRST LIEN SEWER SYSTEM REVENUE REFUNDING BONDS
2014 SERIES A

Due October 1	Principal Amount	Interest Rate	CUSIP 736742
2019	\$8,320,000	5.00%	UY1
2020	8,745,000	5.00%	UZ8
2021	9,190,000	5.00%	VA2
2022	9,670,000	5.00%	VB0
2023	10,155,000	5.00%	VC8
2024	10,680,000	5.00%	VD6
	<u>\$56,760,000</u>		

\$329,805,000*
FIRST LIEN SEWER SYSTEM REVENUE REFUNDING BONDS
2015 SERIES A

Due June 1	Principal Amount	Interest Rate	CUSIP 736742
2019	\$52,450,000	5.00%	WJ2
2020	55,075,000	5.00%	WK9
2021	47,000,000	5.00%	WL7
2022	*	*	*
2023	*	*	*
2024	8,185,000	5.00%	WM5
2025	8,600,000	5.00%	WN3
2026	9,030,000	5.00%	WP8
2027	9,475,000	3.00%	WQ6
2028	9,765,000	5.00%	WR4
2029	10,250,000	4.00%	WS2
2030	10,665,000	4.00%	WT0
2031	11,085,000	4.00%	WU7
	<u>\$231,580,000</u>		

* Original par amount

MATURITY SCHEDULES – FIRST LIEN BONDS (continued):

\$156,650,000*
FIRST LIEN SEWER SYSTEM REVENUE REFUNDING BONDS
2016 SERIES A

Due June 15	Principal Amount	Interest Rate	CUSIP 736742
2019	\$7,450,000	5.00%	XP7
2020	7,820,000	5.00%	XQ5
2021	8,215,000	5.00%	XR3
2022	8,620,000	5.00%	XS1
2023	9,050,000	5.00%	XT9
2024	9,500,000	5.00%	XU6
2025	9,980,000	5.00%	XV4
2026	10,480,000	5.00%	XW2
2027	11,005,000	5.00%	XX0
2028	11,550,000	2.00%	XY8
2029	11,780,000	2.00%	XZ5
2030	12,020,000	3.00%	YA9
2031	12,380,000	3.25%	YB7
2032	12,780,000	3.00%	YC5
2033	<u>13,165,000</u>	2.50%	YD3
	<u>\$155,795,000</u>		

* Original par amount

MATURITY SCHEDULES – SECOND LIEN BONDS:

\$407,850,000*
SECOND LIEN SEWER SYSTEM REVENUE BONDS,
2010 SERIES A

Due March 1	Principal Amount	Interest Rate	CUSIP 736742
2019	\$12,690,000	5.00%	TA 5
2020	13,330,000	5.00%	TB3
2021	13,990,000	4.00%	TC1
2022	14,550,000	4.00%	TD9
2023	15,140,000	4.00%	TE7
2024	15,740,000	4.25%	TF4
2025	16,410,000	4.25%	TG2
2026	17,110,000	5.00%	TH0
2027	17,960,000	5.00%	TJ6
2028	18,860,000	5.00%	TK3
2029	19,800,000	5.00%	TL1
2030	20,790,000	5.00%	TM9
2031	21,830,000	5.00%	TN7
2032	22,930,000	5.00%	TP2
2033	24,070,000	5.00%	TQ0
2034	25,270,000	5.00%	TR8
2035	26,540,000	5.00%	TS6
	<u>\$317,010,000</u>		

* Original par amount

MATURITY SCHEDULES – SECOND LIEN BONDS (continued):

\$210,965,000*
SECOND LIEN SEWER SYSTEM REVENUE BONDS,
2013 SERIES A

Due August 1	Principal Amount	Interest Rate	CUSIP 736742
2019	\$7,470,000	5.00%	TY3
2020	7,860,000	5.00%	TZ0
2021	8,260,000	5.00%	UA3
2022	8,685,000	5.00%	UB1
2023	13,250,000	5.00%	UC9
2024	6,190,000	5.00%	UD7
2025	6,510,000	5.00%	UE5
2026	6,840,000	5.00%	UF2
2027	7,160,000	4.00%	UG0
2028	7,450,000	4.00%	UH8
2029	7,795,000	5.00%	UJ4
2030	8,195,000	5.00%	UK1
2031	8,615,000	5.00%	UL9
2032	9,055,000	5.00%	UM7
2033	9,520,000	5.00%	UN5
2034	10,010,000	5.00%	UP0
2035	10,525,000	5.00%	UQ8
2036	11,060,000	5.00%	UR6
2037	11,630,000	5.00%	US4
2038	12,225,000	5.00%	UT2
	<u>\$178,305,000</u>		

* Original par amount

MATURITY SCHEDULES – SECOND LIEN BONDS (continued):

\$204,220,000*
SECOND LIEN SEWER SYSTEM REVENUE BONDS
2014 SERIES B

Due October 1	Principal Amount	Interest Rate	CUSIP 736742
2019	\$5,450,000	5.00%	VJ3
2020	5,730,000	5.00%	VK0
2021	6,025,000	5.00%	VL8
2022	6,330,000	5.00%	VM6
2023	6,655,000	5.00%	VN4
2024	7,000,000	5.00%	VP9
2025	7,355,000	5.00%	VQ7
2026	7,735,000	5.00%	VR5
2027	8,050,000	3.00%	VS3
2028	8,295,000	3.00%	VT1
2029	8,590,000	4.00%	VU8
2030	8,940,000	4.00%	VV6
2031	9,305,000	4.00%	VW4
2032	9,685,000	4.00%	VX2
2033	10,080,000	4.00%	VY0
2034	10,490,000	4.00%	VZ7
2035	10,920,000	4.00%	WA1
2036	11,365,000	4.00%	WB9
2037	11,830,000	4.00%	WC7
2038	12,310,000	4.00%	WD5
2039	12,815,000	4.00%	WE3
	<u>\$184,955,000</u>		

* Original par amount

MATURITY SCHEDULES – SECOND LIEN BONDS (continued):

\$63,300,000*
SECOND LIEN SEWER SYSTEM REVENUE REFUNDING BONDS
2015 SERIES B

Due June 1	Principal Amount	Interest Rate	CUSIP 736742
2019	\$3,590,000	5.00%	WY9
2020	3,770,000	5.00%	WZ6
2021	3,450,000	5.00%	XA0
2022	1,000,000	5.00%	XB8
2023	1,000,000	5.00%	XC6
2024	4,230,000	5.00%	XD4
2025	4,445,000	5.00%	XE2
2026	4,665,000	5.00%	XF9
2027	4,895,000	5.00%	XG7
2028	5,145,000	5.00%	XH5
2029	5,400,000	3.00%	XJ1
2030	5,560,000	3.00%	XK8
2031	5,725,000	3.00%	XL6
	<u>\$52,875,000</u>		

* Original par amount

MATURITY SCHEDULES – SECOND LIEN BONDS (continued):

\$162,465,000*
SECOND LIEN SEWER SYSTEM REVENUE REFUNDING BONDS
2016 SERIES B

Due June 15	Principal Amount	Interest Rate	CUSIP 736742
2019	\$6,630,000	5.000%	YG6
2020	6,075,000	5.000%	YH4
2021	6,730,000	5.000%	YJ0
2022	59,960,000	5.000%	YK7
2023	62,980,000	5.000%	YL5
2024	1,605,000	5.000%	YM3
2025	1,690,000	4.000%	YN1
2026	1,760,000	4.000%	YP6
2027	1,825,000	4.000%	YQ4
2028	1,895,000	5.000%	YR2
2029	1,990,000	2.000%	YS0
2030	2,030,000	2.125%	YT8
2031	2,080,000	2.250%	YU5
2032	2,125,000	2.375%	YV3
2033	<u>2,175,000</u>	2.500%	YW1
	<u>\$161,550,000</u>		

* Original par amount

MATURITY SCHEDULES – SECOND LIEN BONDS (continued):

\$191,930,000*
SECOND LIEN SEWER SYSTEM REVENUE BONDS
2018 SERIES A

Due June 15	Principal Amount	Interest Rate	CUSIP 736742
2019	\$5,930,000	5.000%	YX9
2020	6,180,000	5.000%	YY7
2021	6,490,000	5.000%	YZ4
2022	6,815,000	5.000%	ZA8
2023	7,155,000	5.000%	ZB6
2024	7,515,000	5.000%	ZC4
2025	7,890,000	5.000%	ZD2
2026	8,285,000	5.000%	ZE0
2027	8,700,000	5.000%	ZF7
2028	9,135,000	5.000%	ZG5
2029	9,590,000	4.500%	ZH3
2030	10,020,000	4.500%	ZJ9
2031	10,470,000	4.500%	ZK6
2032	10,945,000	4.500%	ZL4
2033	11,435,000	4.500%	ZM2
2034	11,950,000	4.500%	ZN0
2035	12,490,000	4.500%	ZP5
2036	13,050,000	4.500%	ZQ3
2037	13,635,000	4.500%	ZR1
2038	<u>14,250,000</u>	4.500%	ZS9
	<u>\$191,930,000</u>		

* Original par amount

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SEWER SYSTEM FINANCIAL AND OPERATING INFORMATION

OVERVIEW

This section provides financial and operating information specifically related to the Sewer System. Financial and operating information for the City as a whole is found in the section entitled “CITY FINANCIAL AND OPERATING INFORMATION.”

FUND ACCOUNTING SYSTEM

The financial reporting system of the Bureau of Environmental Services (the “Bureau”) is organized into five separate funds. These funds and their financial reporting purposes are described as follows. For financial reporting purposes, the first four funds referenced below (all except the Environmental Remediation Fund) are included within the Sewage Disposal Fund.

Sewer System Operating Fund

The Sewer System Operating Fund provides for the day-to-day operation, maintenance and management of Bureau programs. All payments for Sewer System personnel, materials and services are made within the Sewer System Operating Fund, with reimbursement from the Sewer System Construction Fund (described below) for capital improvements.

Sewer System Construction Fund

The Sewer System Construction Fund provides for the funding of Sewer System capital improvements, holding equity contributions and net bond proceeds until requested by the Sewer System Operating Fund for reimbursements of certain capital-related expenditures.

Sewer System Debt Redemption Fund

The Sewer System Debt Redemption Fund provides for payment of City debt incurred in conjunction with construction of Sewage System facilities and holds cash reserves as required by the issuance of sewer revenue bonds.

Sewer System Rate Stabilization Fund

The Sewer System Rate Stabilization Fund allows for better financial management by enabling the City to level fluctuations in Sewer System revenues (primarily connection charges) from year to year.

Environmental Remediation Fund

The Environmental Remediation Fund has in the past supported the City’s waste disposal site remediation activities and contributes funds to the Portland Harbor Superfund investigation. Portland Harbor Superfund program expenditures are recorded in this fund, which is funded through rate revenues that appear as separate line items in a customer’s sewer bill.

HISTORICAL REVENUES AND EXPENDITURES

The City has maintained Sewer System Gross Revenues sufficient to provide for all operating expenditures and debt service, and has met legal debt service coverage requirements. In addition to meeting these requirements, the City’s Sewer System Gross Revenues have provided substantial cash to finance the Capital Improvement Program (“CIP”) in combination with federal grants and the proceeds of revenue bond sales. Historical results of the Bureau’s financial operations are shown in the following table. Audited statements of net position; revenues, expenses, and changes in net position; and cash flows for the Sewer System Operating Fund are presented in the APPENDIX.

Table 1
CITY OF PORTLAND, OREGON
SEWER SYSTEM
Historical Operating Results (1)

Fiscal Year	2013-14	2014-15	2015-16	2016-17	2017-18
(In thousands of dollars)					
GROSS REVENUES					
Operating Revenues:					
Service Charges & Fees	\$281,210	\$301,376	\$313,288	\$326,485	\$343,123
Wholesale Contracts	3,370	3,519	3,545	3,490	3,611
Other Service Charges & Miscellaneous	3,536	3,658	4,768	9,187	5,585
Total Operating Revenues	288,116	308,553	321,601	339,162	352,319
System Development Charges	17,488	18,949	22,584	29,809	34,692
Interest Earnings	943	1,909	2,424	3,166	3,881
Cash Transfers In -					
Rate Stabilization Fund	0	0	1,485	0	5,000
Other Funds	3,587	1,814	1,120	1,388	1,783
TOTAL GROSS REVENUES (2)	\$310,134	\$331,225	\$349,214	\$373,525	\$397,675
OPERATING EXPENSES (3)					
Personal Services	\$45,968	\$46,934	\$48,569	\$50,537	\$55,103
Materials and Services	21,944	22,714	22,119	20,512	21,512
Internal Services	32,710	30,440	32,515	33,360	34,050
Capitalized Overhead	(11,317)	(10,869)	(12,042)	(11,618)	(11,214)
Cash Transfers Out -					
General Fund Overhead	6,965	3,936	5,874	6,064	6,170
Rate Stabilization Fund	21,375	25,250	25,100	31,500	34,000
Other	2,458	2,068	3,905	3,607	4,836
TOTAL OPERATING EXPENSES	\$120,103	\$120,473	\$126,040	\$133,962	\$144,457
NET REVENUES	\$190,031	\$210,752	\$223,174	\$239,563	\$253,218
DEBT SERVICE FOR COVERAGE					
First Lien Bonds	\$97,786	\$95,625	\$97,500	\$95,401	\$96,179
Second Lien Bonds (4)	48,803	66,614	73,965	71,890	72,710
TOTAL DEBT SERVICE	\$146,589	\$162,239	\$171,465	\$167,291	\$168,889
DEBT SERVICE COVERAGE (5)					
<u>With Rate Stabilization Transfers</u>					
First Lien Bonds	1.94x	2.20x	2.29x	2.51x	2.63x
First and Second Lien Bonds (6)	1.30x	1.30x	1.30x	1.43x	1.50x
<u>Without Rate Stabilization Transfers</u>					
First Lien Bonds	2.16x	2.47x	2.53x	2.84x	2.93x
First and Second Lien Bonds	1.44x	1.45x	1.44x	1.62x	1.67x

Notes:

- (1) Totals may not sum due to rounding.
- (2) As defined in the Master First Lien Bond Ordinance.
- (3) As defined in the Master First Lien Bond Ordinance. Excludes depreciation.
- (4) Interest calculated as defined in Master Second Lien Bond Declaration.
- (5) The Debt Service Coverage shown may differ slightly than what has been published previously in the City's Comprehensive Annual Financial Reports (CAFR), as the result of corrections to previous calculations. None of the corrections had a significant impact on coverages.
- (6) Debt service coverage above the Bureau's planning standard in FY 2016-17 and FY 2017-18 reflects a decision to transfer excess net operating income to the Sewer Construction Fund to cash-fund the Capital Improvement Program in lieu of issuing bonds sooner or adding to the growing balance within the Rate Stabilization Fund. See "USE OF RATE STABILIZATION FUND" below.

Source: City of Portland, Bureau of Environmental Services.

USE OF RATE STABILIZATION FUND

The Bureau uses transfers between the Sewer System Operating Fund and the Sewer System Rate Stabilization Fund to smooth rate increases while ensuring that coverage meets planning standards purposes. Balances in the Rate Stabilization Fund were collected between FY 2002-03 and FY 2007-08 in anticipation of funding needs related to the completion of the Eastside CSO project and were drawn down through FY 2012-13 as a result of new debt required to complete the CSO project in FY 2011-12. As shown in the table below, balances have increased significantly since that time as a result of the strong economy in Portland producing higher-than-expected revenues, lower-than-expected expenditure growth, and a planned strategy to establish higher cash balances to encourage long-term financial stability.

Table 2
CITY OF PORTLAND, OREGON
Sewer System
HISTORICAL RATE STABILIZATION
ENDING FUND BALANCE

<u>Fiscal Year</u>	<u>Ending Balance</u>
2011-12	\$12,356,845
2012-13	4,864,460
2013-14	26,266,266
2014-15	51,663,657
2015-16	75,666,584
2016-17	107,968,316
2017-18	138,446,143

Source: City of Portland.

USER CHARGE BILLING AND COLLECTION

Ratemaking and Authorization

Section 11-302 of the City Charter authorizes the City Council to fix fees and charges for connection to and use of the Sewer System. Sewer user fees and connection charges are formally reviewed every year by the Bureau. Rates required to support proposed activities and meet all obligations to bondholders are submitted annually by the Director of the Bureau to the City Council for review and approval. No governmental approval, other than the City Council's, is required. The City Council approved an increase to the average single-family residential bill of approximately 2.35 percent for FY 2018-19 in May 2018. Over the last five fiscal years, approved increases in the estimate average single-family residential bills have increased by an average of 3.23 percent annually.

Billings and Collections

Sewer System billings and collection services for retail customers are provided by the City's Water Bureau. Retail customers include both residential and commercial. Customers are billed quarterly, bimonthly, and monthly. Billings include separate line items for sewer, stormwater, and water services.

In FY 2017-18, there were on average 5,735 retail accounts of all types receiving water from either the Rockwood Water People's Utility District or the Lorna Water District. Since they are not City water customers, meter data must come from the respective water districts. These accounts are known by the acronym "SODNR" or "sewer only – do not read". Table 3 below displays the annual average customer counts by class in the recent five-year period.

For delinquent sewer bills of City water customers, the Water Bureau implements service shutoffs on behalf of the Bureau. There is no water shutoff option for collection of delinquent sewer bills for the SODNR accounts. SODNR revenues for FY 2017-18 are estimated at \$5.9 million and past due balances at June 30, 2018, total approximately \$1.7 million for this group, or approximately 24 percent of total delinquencies. Property liens have been used to enforce payment of delinquent accounts for owner-occupied single-family properties in the past and are expected to continue to be used in the future.

Wholesale customers are billed at various times during a fiscal year ranging from bi-monthly to quarterly. As of June 30, 2018, no wholesale customer was delinquent with respect to billed charges.

Table 3
CITY OF PORTLAND, OREGON
Sewer System
Historical Number of Customer Accounts by Class (1)

Fiscal Year	2013-14	2014-15	2015-16	2016-17	2017-18
CUSTOMER CLASS					
<u>RESIDENTIAL</u>					
Single Family	149,710	150,098	150,591	150,817	151,488
SODNR (2)	5,248	5,212	5,200	5,260	5,286
Stormwater Only	333	336	334	338	341
Drainage Districts Stormwater Only (3)	666	666	669	670	670
Multifamily					
Monthly	2,072	2,090	2,098	2,109	2,139
Quarterly	8,452	8,665	8,893	9,253	9,661
SODNR (2)	315	317	321	326	325
Drainage Districts Stormwater Only (3)	29	29	30	30	32
Subtotal	166,796	167,384	168,136	168,803	169,942
<u>COMMERCIAL</u>					
Commercial/Industrial					
Monthly	3,440	3,479	3,503	3,529	3,621
Quarterly	9,837	9,821	9,850	9,862	10,064
Quarterly (sewer only)	124	124	125	124	124
Clean Water to Storm	15	15	16	16	15
Stormwater Only					
Monthly	25	26	27	26	27
Quarterly	128	133	150	160	159
Drainage Districts Stormwater Only (3)	802	802	733	680	711
Subtotal	14,247	14,400	14,404	14,397	14,721
Total Accounts	180,394	181,011	182,540	183,200	184,663

Notes:

- (1) Table reports annual average customer accounts.
- (2) As described in the text above, Sewer Only-Do Not Read accounts receive no City water service.
- (3) Prior to FY 2013-14, the Bureau was compensated for stormwater drainage attributable to adjacent Drainage Districts through an intergovernmental agreement. This practice has since been replaced by direct billing of the customers from those Drainage Districts and those accounts are listed as Drainage Districts Stormwater Only.

Source: City of Portland, Bureau of Environmental Services.

Clean River Rewards Program

To reflect the contributions to stormwater management made by individuals who install stormwater facilities on site, the City Council directed the Bureau to develop a discount program for stormwater charges. That program, referred to as the Clean River Rewards Program, was implemented on October 30, 2006. It provides for up to a 35 percent discount on the stormwater portion of the bill for customers who manage all stormwater on-site.

As of June 30, 2018, 34,673 customers have registered for and are receiving discounts on their stormwater bills, approximately 19 percent of the total customer base. Funding is provided by adjusting stormwater rates for all classes of customers upward to offset the revenue reductions from the stormwater discount program.

Low Income Discounts

In May of 2018 the City Council approved an expanded version of an existing low-income assistance program, in order to adjust income guidelines to reflect Portland incomes, create a multi-family crisis assistance program, and add a new discount for households in poverty. For FY 2018-19, the existing bill discount (now called Tier 1) for eligible residential households earning below 60 percent of median family income is approximately 44 percent of a typical single-family sewer bill, which lowers sewer bills by approximately \$32.43 per month or \$389.16 per year. A new Tier 2 was added for households earning below 30 percent of MFI and is approximately 71 percent of the typical single-family sewer bill, or \$51.89 per month or \$622.68 per year. Funding is provided by adjusting rates for residential classes of customers upward to offset the revenue reductions from the low-income discount program. Total sewer revenue redistribution from low-income discount rates is estimated at approximately \$3.8 million for FY 2018-19.

Extra Strength Charges

Prior to 2012, the Bureau monitored and charged about 72 commercial/industrial customers for sanitary sewage discharges in excess of residential or baseline strength. This excess is measured in terms of “biological oxygen demand” (“BOD”) and “total suspended solids” (“TSS”) and is referred to as “extra strength” discharge. These extra strength accounts are called “measured extra strength” because the discharges are monitored. Extra strength discharges are also associated with smaller scale food processing and service establishments. As many as 3,400 other commercial customers were thought to have significant extra strength discharges. Prior to 2012, the cost of treating the added extra strength load from those customers was borne by others.

In 2012, the Bureau implemented a “class average” system of strength-based rates for the smaller commercial and industrial customers. The class average rates system overcomes the need to continuously monitor the discharges of thousands of establishments. It has also improved both customer equity and pollution prevention incentives. Apart from implementation costs, this is a revenue-neutral program and the resulting revenues have lowered rates for other customers, systemwide. Currently nearly 3,900 Class Average Extra Strength Program accounts have been set up. In FY 2017-18, Class Average revenues totaled \$5.0 million. The corresponding figure for “Measured” (i.e., non-Class Average) extra strength revenue was \$5.1 million.

Wholesale Rates

The City currently provides contractual services to one major wholesale customer, the City of Lake Oswego, Oregon, and several smaller wholesale customers, including county service districts and portions of two other cities. Each wholesale service contract provides for full cost recovery during the life of the contract. Charges to wholesale customers were \$3.6 million for FY 2017-18, which was approximately 0.9 percent of total System operating revenues.

Table 4
CITY OF PORTLAND, OREGON
Sewer System
Historical Monthly Rates and Charges (1)

Fiscal Year	2013-14	2014-15	2015-16	2016-17	2017-18
<u>CUSTOMER CLASS</u>					
<u>Residential</u>					
Sanitary Volume (\$/ccf)	8.75	9.23	9.56	9.89	10.28
Impervious Area Charge (\$/1000 sq. ft.)	10.52	10.82	11.22	11.61	12.16
Average Single-Family Monthly Bill(\$/account) ²	62.74	65.25	67.60	69.80	71.86
<u>Commercial</u>					
Sanitary Volume (\$/ccf)	8.735	9.097	9.428	9.767	10.141
Cooling (Clean) Water To Storm Sewer (\$/ccf)	0.883	0.924	0.961	1.001	1.042
Impervious Area Charge (\$/1000 sq. ft.)	11.12	11.29	11.69	12.13	12.72
<u>Extra Strength</u>					
Biochemical Oxygen Demand (\$/lb.)	0.601	0.622	0.650	0.674	0.723
Suspended Solids (\$/lb.)	0.744	0.770	0.804	0.832	0.988
<u>Capital Charges</u>					
Sanitary System Development Charge (\$/EDU)	4,551	4,779	5,867	5,712	6,046
<u>Year-to-Year Percentage Increase</u>					
Of Avg. Single-Family Monthly Bill ²	5.3%	4.0%	3.6%	3.25%	2.95%

Notes:

- (1) Abbreviations used in the table include the following: "ccf" (hundred cubic feet) and "EDU" (Equivalent Dwelling Units).
- (2) Average bills have been restated to reflect average annual billed consumption, which is lower than winter average use.

Source: City of Portland, Bureau of Environmental Services.

Major Retail Users

The following table presents the top users of the Sewer System, as measured by user charges. The charges represent a combination of users' sanitary sewer and stormwater accounts.

**Table 5
CITY OF PORTLAND, OREGON
Sewer System
Largest Bureau Customers (FY 2017-18)**

<u>CUSTOMER</u>	<u>Total Sewer Charges</u>	<u>Percentage of Rate Revenues</u>
Port of Portland	\$6,021,940	1.75%
Oregon Health and Science University (OHSU)	2,535,997	0.74
Precision Castparts	2,511,423	0.73
Portland Public Schools	2,096,861	0.61
Darigold Inc.	1,760,613	0.51
Housing Authority of Portland	1,454,112	0.42
Widmer Brewing Co.	1,406,063	0.41
City of Portland Bureau of Parks	1,315,153	0.38
Siltronic Corp.	1,307,489	0.38
Fred Meyer Inc.	1,301,377	0.38
Total	\$21,711,028	6.32%

Source: City of Portland, Bureau of Environmental Services.

UTILITY LICENSE FEE

The Utility License Fee is paid directly to the City's General Fund for the right to operate a public or private utility within the City. The fee is levied per City Code Chapter 7.14. The Bureau, the Water Bureau, and City-owned golf courses pay this fee along with private utilities such as cable, telephone, gas, and electric. Currently, the utility license fee is not subject to regulation by State law and may be raised at the discretion of the City Council. The Utility License Fee is subordinate to the payment of debt service on the First Lien Bonds and Second Lien Bonds. The table below presents a five-year history of the Bureau's Utility License Fee payments, split between the Sewer Operating Fund (where sanitary and stormwater revenues reside) and the Environmental Remediation Fund (where Portland Harbor Superfund rate revenues reside).

**Table 6
CITY OF PORTLAND, OREGON
Sewer System
Utility License Fee Payments**

<u>Fiscal Year</u>	<u>Sewer Operating Fund</u>	<u>Environmental Remediation Fund</u>	<u>Total</u>
2013-14	\$13,748,827	\$122,970	\$13,871,797
2014-15	14,761,849	112,495	14,874,343
2015-16	15,571,211	138,095	15,709,306
2016-17	16,250,599	173,160	16,423,760
2017-18	16,884,548	226,035	17,110,583

Source: City of Portland.

OUTSTANDING SEWER SYSTEM DEBT

Revenue Bonds

The following table shows outstanding First Lien Bonds, Second Lien Bonds, and Subordinate Obligations as of December 31, 2018.

**Table 7
CITY OF PORTLAND, OREGON
Sewer System
Outstanding First Lien Bonds, Second Lien Bonds, and Subordinate Obligations**

<u>Issue</u>	<u>Dated</u>	<u>Final Maturity</u>	<u>Original Par Amount</u>	<u>Amount Outstanding</u>
First Lien Bonds				
2014 Series A Bonds	08/14/2014	10/01/2024	\$86,165,000	\$56,760,000
2015 Series A Bonds	08/27/2015	06/01/2031	329,805,000	231,580,000
2016 Series A Bonds	09/07/2016	06/15/2033	156,650,000	155,795,000
Subtotal			<u>\$572,620,000</u>	<u>\$444,135,000</u>
Second Lien Bonds				
2010 Series A Bonds	08/19/2010	03/15/2035	\$407,850,000	\$317,010,000
2013 Series A Bonds	09/17/2013	08/01/2038	210,965,000	178,305,000
2014 Series B Bonds	08/14/2014	10/01/2039	204,220,000	184,955,000
2015 Series B Bonds	08/27/2015	06/01/2031	63,300,000	52,875,000
2016 Series B Bonds	09/07/2016	06/15/2033	162,465,000	161,550,000
2018 Series A Bonds	05/03/2018	05/01/2038	191,930,000	191,930,000
Subtotal			<u>\$1,240,730,000</u>	<u>\$1,086,625,000</u>
Subordinate Obligations				
SRF Loans	Various	Various	<u>\$26,302,393</u>	<u>\$11,479,477</u>
TOTAL			<u>\$1,839,652,393</u>	<u>\$1,542,239,477</u>

Source: City of Portland.

The following table shows the Sewer System’s annual debt service requirements associated with outstanding First Lien Bonds and Second Lien Bonds.

Table 8
CITY OF PORTLAND, OREGON
SEWER SYSTEM REVENUE BONDS
Annual Debt Service Requirements (1)

Fiscal Year	Outstanding	Outstanding	
Ending	First	Second	Total
June 30	Lien Bond	Lien Bond	Debt Service
	Debt Service	Debt Service	Debt Service
2019	\$87,968,450	\$92,143,191	\$180,111,641
2020	87,967,575	91,265,981	179,233,556
2021	77,141,200	91,110,481	168,251,681
2022	27,782,075	141,380,506	169,162,581
2023	27,789,575	141,357,256	169,146,831
2024	35,961,450	84,026,906	119,988,356
2025	35,976,325	76,493,081	112,469,406
2026	25,030,325	76,494,931	101,525,256
2027	25,024,825	76,480,531	101,505,356
2028	25,025,325	76,491,456	101,516,781
2029	25,021,075	76,482,331	101,503,406
2030	25,030,475	76,478,881	101,509,356
2031	25,023,275	76,483,194	101,506,469
2032	13,492,525	70,596,844	84,089,369
2033	13,494,125	70,585,800	84,079,925
2034	-	68,353,675	68,353,675
2035	-	68,362,775	68,362,775
2036	-	40,497,150	40,497,150
2037	-	40,489,575	40,489,575
2038	-	40,494,850	40,494,850
2039	-	25,599,425	25,599,425
2040	-	13,071,300	13,071,300
Total	\$557,728,600	\$1,614,740,122	\$2,172,468,722

Notes:

(1) Totals may not sum due to rounding.

Source: City of Portland.

RESERVE ACCOUNTS, RESERVE EQUIVALENTS AND RESERVE CREDIT FACILITIES

First Lien Bond Reserve Account

The Prior Bonds Reserve Account is a pooled reserve account that secures all currently outstanding First Lien Bonds. The Prior Bonds Reserve Subaccount is fully funded with Reserve Equivalents and contains no cash and investments, as shown in the table below. The Prior Bonds Required Reserve is currently approximately \$45.0 million. The current balance in the First Lien Bond Reserve Account, which is the aggregate face amount of First Lien Bond Reserve Equivalents, is approximately \$61.1 million.

Table 9
CITY OF PORTLAND, OREGON
First Lien Bond Reserve Account (1)

Series of Bonds Secured (2)	Date of Issue	Maturity Date	Surety Provider	Required Reserve	Surety Face Value (3)	Moody's/S&P Ratings (4)
2014 Series A	8/14/2014	10/1/2024	AGM	n/a	\$11,641,700	A2/AA
2015 Series A	8/27/2015	6/1/2031	AGM	n/a	31,148,923	A2/AA
2016 Series A (5)	9/7/2016	6/15/2033	AGM	n/a	18,280,050	A2/AA
Total				<u>\$44,969,828</u>	<u>\$61,070,673</u>	

Notes:

- (1) As of December 31, 2018.
- (2) The Prior Bonds (including the outstanding 2014 Series A Bonds and the 2015 Series A Bonds) and the 2016 Series A Bonds are jointly secured by the Prior Bonds Reserve Subaccount, which currently is calculated at 125 percent of average annual debt service for outstanding Prior Bonds and 2016 Series A Bonds.
- (3) While the aggregate face amount of Prior Bonds Reserve Equivalents exceeds the Prior Bonds Required Reserve, the Prior Bonds Reserve Equivalents may only be drawn up to an amount equal to the Prior Bonds Required Reserve in the event of a payment default.
- (4) Ratings for surety providers are from Moody's Investors Service and Standard and Poor's, respectively.
- (5) The City refunded a portion of the 2008 Series A Bonds with proceeds of the 2016 Series A Bonds and defeased the remaining maturity of the 2008 Series A Bonds in September 2017. The Reserve Equivalent provided by AGM for the 2008 Series A Bonds extends to the 2016 Series A Bonds.

Source: City of Portland.

The Master First Lien Bond Declaration provides that Reserve Equivalents are valued at the amount available to be drawn on them unless a Reserve Credit Event has occurred and is continuing. The City currently expects that it could draw the full face amount under all First Lien Bond Reserve Equivalents shown in Table 9 above and no reserve Credit Event has occurred and is continuing.

Second Lien Bond Reserve Account

The Second Lien Bond Reserve Account consists of subaccounts that secure different Series of Second Lien Bonds. All of the subaccounts are fully funded. The subaccounts in the Second Lien Sewer System Refunding Bonds, 2015 Series B, and the Second Lien Sewer System Revenue Refunding Bonds, 2016 Series B currently contain the Reserve Credit Facilities shown in the following table. The subaccounts in the Second Lien Bond Reserve Account for the Second Lien Sewer System Revenue Bonds, 2010 Series A, the Second Lien Sewer System Revenue Bonds, 2013 Series A, and the Second Lien Sewer System Revenue Bonds, 2014 Series A contain cash or investments.

Table 10
CITY OF PORTLAND, OREGON
Funding of Second Lien Bond Reserve Subaccounts (1)

Series of Bonds Secured	Date of Issue	Maturity Date	Surety Provider/Cash	Reserve Requirement	Surety Face Value/Cash	Moody's/S&P Ratings (2)
2010 Series A	8/19/2010	3/1/2035	Cash	\$27,870,500	\$27,870,500	N/A
2013 Series A	9/17/2013	8/1/2038	Cash	17,554,266	17,905,146	N/A
2014 Series B	8/14/2014	10/1/2039	Cash	13,073,050	13,073,050	N/A
2015 Series B	8/27/2015	6/1/2031	AGM	5,904,050	5,904,050	A2/AA
2016 Series B	9/7/2016	6/15/2033	AGM	3,000,000	3,000,000	A2/AA
Total				\$67,401,866	\$67,752,746	

Notes:

- (1) As of December 31, 2018.
- (2) Ratings for surety providers are from Moody's Investors Service and Standard and Poor's, respectively.

Source: City of Portland.

The Master Second Lien Bond Declaration provides that each subaccount in the Second Lien Bond Reserve Account is deemed to contain the amount available to be paid under all Reserve Equivalents that are credited to that subaccount. The City currently believes that the amount available to be paid under each Reserve Equivalent shown in Table 10 is equal to its full face amount.

CITY FINANCIAL AND OPERATING INFORMATION

BASIS OF ACCOUNTING

The governmental fund types are reported using the current financial resources measurement focus and the modified accrual basis of accounting. The economic resources measurement focus and the accrual basis of accounting is used for all proprietary fund and fiduciary fund financial statements. The City's accounting practices conform to Generally Accepted Accounting Principles (GAAP) as interpreted by the Governmental Accounting Standards Board (the "GASB").

FISCAL YEAR

July 1 to June 30.

AUDITS

The Oregon Municipal Audit Law (ORS 297.405 - 297.555) requires an audit and examination be made of the accounts and financial affairs of every municipal corporation at least once each year. The audit shall be made by accountants whose names are included on the roster prepared by the State Board of Accountancy. Moss Adams LLP has performed auditing services for FY 2002-03 through FY 2017-18.

A complete copy of the City's FY 2017-18 audit is available on the EMMA system for municipal securities disclosure established by the MSRB and accessible at <http://emma.msrb.org>.

FINANCIAL REPORTING AND BUDGETING

Financial Reporting

The City has been awarded the Government Finance Officers Association ("GFOA") Certificate of Achievement for Excellence in Financial Reporting every year since 1982. According to the GFOA, the Certificate of Achievement is the "highest form of recognition in the area of governmental financial reporting." To be awarded the certificate, a governmental unit must publish an easily readable and efficiently organized comprehensive financial report whose content conforms to program requirements and satisfies both generally accepted accounting principles and applicable legal requirements. The City has been awarded the GFOA Award for Outstanding Achievement in Popular Annual Financial Reporting every year since 2016.

Budget Process

The City prepares annual budgets for all its bureaus and funds in accordance with provisions of Oregon Local Budget Law. The law provides standard procedures for the preparation, presentation, administration, and public notice for public sector budgets. At the outset of the process, the Mayor or the full City Council reviews overall goals, establishes priorities, and provides direction to bureaus. The City Council conducts an extensive public information process to obtain direct public input on City service priorities, and most bureaus include key stakeholders in developing their budget requests.

In addition to this public outreach process, in January 2014, the City Council approved a five-year contract with the Citizens' Utility Board of Oregon (the "CUB"), an independent consumer advocacy nonprofit organization, to provide input regarding the City's water and sewer bureaus on behalf of residential customers. The CUB provides recommendations to the City Council on capital spending, rates, and customer service issues. On June 10, 2015, the City Council approved creation of the Portland Utility Board, a new citizen oversight panel that replaced the Portland Utility Review Board and budget advisory committees for the Portland Water Bureau and Bureau of Environmental Services. The Portland Utility Board, which is staffed by a dedicated financial analyst, advises the City Council regarding operations of the two utility bureaus, including development of bureau budgets and financial plans, capital spending, and rate setting.

A five-year General Fund financial forecast, which serves as the basis for determining resources available for budgeting, is also provided to the City Council along with budget requests. Major City bureaus generally prepare and submit five-year financial plans and capital improvement plans. The City Budget Office, which was created by the City Council in December 2012, coordinates the budget development process.

Bureau budget requests are reviewed by the Mayor and Council members, as well as a panel of community advisors. The Mayor develops a Proposed Budget that addresses City Council priorities, public input, and balancing requirements. Following

presentation of the Proposed Budget, a community hearing is scheduled wherein public testimony is taken. A budget summary and notice of hearing are published prior to the hearings. The City Council, sitting as the Budget Committee, considers the testimony from the community and can alter the budget proposal before voting to approve the budget.

The City Council transmits the Approved Budget to the Tax Supervising and Conservation Commission (the "TSCC"), an oversight board appointed by the governor, for public hearing and review for compliance with budget law. Upon certification by the TSCC, the City Council holds a final public hearing prior to adoption. Final adoption of the City's budget is required to be through a vote of the Council no later than June 30. All committee meetings and budget hearings are open to the public.

INSURANCE

The City is exposed to various risks of loss related to theft, damage and destruction of assets, tort claims (general and fleet liability), injuries to employees, acts of terrorism, and natural disasters. The City is self-insured for workers' compensation, fleet and general liability claims and certain employees' medical coverage in internal service funds.

The City estimates liability for incurred losses for reported and unreported claims for workers' compensation, general and fleet liability and employee medical coverage (included in accrued self-insurance claims in the combined statement of net position). Workers' compensation, general and fleet liability estimates are primarily based on individual case estimates for reported claims and through historical data for unreported claims as determined by the City's Risk Management Services Division and independent actuarial studies. Liabilities are based on an estimated ultimate cost of settling claims, including effects of inflation and other societal and economic factors. The estimated liability is then discounted by the City's expected rate of return and anticipated timing of cash outlays to determine present value of the liability. For fiscal year ended June 30, 2018, the expected rate of return used was 1.35 percent. For fiscal year ending June 30, 2019, and subsequent years, the expected rate of return used was 1.80 percent and 2.25 percent respectively. The Bureau of Human Resources and the employee benefits consultant determines relevant employees' medical coverage estimates.

The City provides insurance coverage deemed as adequate, appropriate, and actuarially sound. It meets all the City's anticipated settlements, obligations and outstanding liabilities. An excess liability coverage insurance policy covers individual claims in excess of \$1 million to policy limits, police law enforcement claims in excess of \$2.5 million for claims occurring after November 12, 2013, to policy limits and an excess workers' compensation coverage insurance policy covers claims in excess of \$850,000 for occurrences after July 1, 2012. The City purchases commercial insurance for claims in excess of coverage provided by the self-insurance fund. The City's limits of coverage on the excess liability policy is \$10 million per claim above the self-insurance retention for covered torts. The City does not have any claims reserved above the current self-insurance retention and excess layer. In the City's last three excess renewals, there have been no material changes in retention, coverage or conditions. Furthermore, current levels of accrued claims and case reserve estimates are viewed as reasonable provisions for expected future losses.

Per ORS 30.272 limitations on liability of public bodies for personal injury to any single claimant for causes of action arising on or after July 1, 2017, and before July 1, 2018, limitations are \$706,000 for single claimant and \$1.412 million for multiple claimants. For causes of action arising on or after July 1, 2018 limits increased to \$727,200 for a single claimant and \$1,454,300 for multiple claimants.

Per ORS 30.273 limitations on liability of public bodies for property damage arising on or after July 1, 2017 and before July 1, 2018, limitations increase to \$115,800 for single claimant and \$579,000 for multiple claimants. For causes of action arising on or after July 1, 2018, limits increased to \$119,300 for single claimants and \$596,400 for multiple claimants.

Liabilities are reported in the applicable fund when it is probable that a loss has occurred and the amount of loss can be reasonably estimated. Liabilities include an amount for claims that have been incurred but not reported. The result of the process to estimate the claims liability is not an exact amount as it depends on many complex factors, such as inflation, changes in legal doctrines, and damage awards. Accordingly, claims are reevaluated for effects of inflation, recent claim settlement trends (including frequency and amount of pay-outs), and other economic and social factors.

The estimate of claims liability also includes amounts for incremental claim adjustment expenses related to specific claims and other claim adjustment expenses regardless of whether any are allocated to specific claims. Estimated recoveries, from salvage or subrogation for example, are another component of the claims liability estimate. Changes in the balances of claims liabilities during the past two years are as follows:

	Fiscal Year Ended June 30, 2018	Fiscal Year Ended June 30, 2017
Balance, beginning of fiscal year	\$28,068,818	\$26,796,392
Incurring claims and adjustments	64,839,071	60,331,926
Claim cash payments	(61,186,489)	(59,059,500)
Unpaid claims, end of fiscal year	\$31,721,400	\$28,068,818

CYBERSECURITY

The City, like other large public and private entities, relies on a large and complex technology environment to conduct its operations, and consequently faces the threat of cybersecurity incidents. Cybersecurity incidents could result from unintentional events, or from deliberate attacks by unauthorized entities or individuals attempting to gain access to the City’s information technology systems to misappropriate assets or information or to cause operational disruption and damage. To reduce and mitigate the risk of business operations impact and/or damage from cybersecurity incidents, the City has invested in multiple forms of cybersecurity and operational safeguards, including adopting the National Institute of Standards and Technology Cybersecurity Framework to support, maintain, and prioritize securing critical infrastructure and data systems, manage risk, and improve cybersecurity event detection and remediation. Under the leadership of the City’s Chief Information Security Officer, the City’s Bureau of Technology Services has established a cybersecurity team which is responsible for identifying, evaluating, responding, and reporting on information security risks in a manner that meets compliance and regulatory requirements, and which aligns with and supports the cybersecurity risk posture of the City. Additionally, all information security related policies and administrative rules are reviewed annually.

As a recipient and provider of personal and confidential information, the City has been the subject of cybersecurity incidents that have resulted in, or could have resulted in, adverse consequences to the City’s confidential information and technologies and that required a response action to mitigate potential consequences. For example, during 2018, the City was subject to several phishing attacks against our Microsoft-hosted email system which briefly disrupted some email services and exposed several employee e-mail accounts to unauthorized entities or individuals. The scope of impact was limited to a small number of accounts and the attacks were quickly contained and mitigated. The City has no evidence that any City or individual’s confidential information was exfiltrated, but there is a possibility of exfiltration. The City has thoroughly investigated these incidents and where appropriate, will offer the potentially impacted individuals a year of free credit monitoring.

The City’s cybersecurity and operational safeguards are periodically internally tested and assessed by external auditors, however the City cannot assure that these measures will prevent all potential cybersecurity attacks and accompanying disruptions and costs. To offset some of the potential financial costs and risks associated with a breach, the City’s Risk Management office is exploring options for obtaining a cyber-liability insurance policy.

PENSION PLANS: OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM

Overview

The Oregon Public Employees Retirement System (“PERS” or “the Statewide PERS System”) provides statewide defined benefit retirement plans for units of state government, political subdivisions, community colleges, and school districts. Most public employers in Oregon, including the City, participate in PERS. PERS is administered under ORS Chapter 238, Chapter 238A, and Internal Revenue Code Section 401(a) by the Public Employees Retirement Board (the “PERS Board”). The PERS Board is responsible for setting policies and for providing administrative direction to PERS. Benefits provided through PERS are paid from the Oregon Public Employees’ Retirement Fund (“OPERF”). PERS is a cost-sharing, multiple-employer public employee retirement system.

City employees (other than certain fire and police personnel), after six months of employment, participate in one of three retirement pension benefit programs provided through PERS as described below. The three PERS pension programs include two closed defined benefit programs and one program that has features of both defined benefit and defined contribution plans. In a defined benefit plan, the investment risk for the plan assets is borne by the employer. In a defined contribution plan, the investment risk for the plan assets is borne by the employee. A combination of participating employer contributions (determined by the PERS Board based upon the results of actuarial valuations), investment earnings and employee-paid contributions (currently, for the City, six percent of salaries and nine percent for police and fire employees) fund these pension programs. See “—Employer Contribution Rates and Amounts” and “—PENSION PLANS: FIRE AND POLICE DISABILITY AND RETIREMENT FUND” below.

Benefit Programs

Employees hired before January 1, 1996, are known as “Tier 1” participants. The retirement benefits applicable to Tier 1 participants are based on a defined benefit model. Tier 1 has a normal retirement age of 58 and, effective January 1, 2018, an assumed earnings rate guarantee of 7.20 percent. PERS maintains a “Tier One Rate Guarantee Reserve” which is credited with investment earnings in excess of the assumed earnings rate guarantee and used to offset the effects of investment earnings below the assumed earnings rate guarantee. As of June 30, 2018, the balance of this reserve was \$448.8 million. As of June 30, 2018, there were 21,392 active plan members, 127,501 retired plan members or their beneficiaries currently receiving benefits, 8,782 inactive plan members entitled to but not yet receiving benefits, and 3,631 inactive members eligible for the refund value of their accounts only, for a total of 161,306 Tier One members in the Statewide PERS System.

Employees hired on or after January 1, 1996, and before August 29, 2003, are known as “Tier 2” participants. The Tier 2 program also provides a defined benefit but with lower expected costs to employers than under the Tier 1 benefit. There is no assumed earnings rate guarantee and Tier 2 has a higher normal retirement age of 60. As of June 30, 2018, there were 35,136 active plan members, 13,908 retired plan members or their beneficiaries currently receiving benefits, 6,902 inactive plan members entitled to but not yet receiving benefits, and 8,359 inactive members eligible for the refund value of their accounts only, for a total of 64,305 Tier 2 members in the Statewide PERS System.

Employees hired on or after August 29, 2003, are participants in a successor retirement program to the Tier 1 and Tier 2 retirement programs (the “T1/T2 Pension Programs”) known as the Oregon Public Service Retirement Plan (“OPSRP”). OPSRP consists of a defined benefit plan and also offers the Individual Account Program (“IAP”), which offers a defined contribution benefit. As of June 30, 2018, there were 119,469 active plan members, 4,454 retired plan members or their beneficiaries currently receiving benefits, 5,013 inactive plan members entitled to but not yet receiving benefits, and 13,306 inactive plan members not eligible for refund or retirement, for a total of 131,097 OPSRP Pension Program members.

Effective January 1, 2004, all active Tier 1 and Tier 2 employees also became members of the IAP. Tier 1 and Tier 2 employees retain their existing T1/T2 Pension Program account, but member contributions are now deposited into the member’s IAP account, not into the member’s PERS account.

Apportionment of City Assets and Liabilities

The City is pooled with the State of Oregon and other Oregon local government and community college public employers for its T1/T2 Pension Programs (the “State and Local Government Rate Pool” or “SLGRP”), and the SLGRP’s assets and liabilities are pooled. These assets and liabilities are not tracked or calculated on an employer basis or allocated to individual employers. The City’s portion of the SLGRP’s assets and liabilities is based on the City’s proportionate share of SLGRP’s pooled covered payroll. OPSRP’s assets and liabilities are pooled on a program-wide basis. These assets and liabilities are not tracked or calculated on an employer basis or allocated to individual employers. The City’s share of OPSRP’s assets and liabilities is based on the City’s proportionate share of OPSRP’s pooled covered payroll. The City’s proportionate liability of the T1/T2 Pension Programs and OPSRP may increase if other pool participants fail to pay their full employer contributions.

Employer Asset Valuation and Liabilities

Oregon statutes require an actuarial valuation of the Statewide PERS System by a competent actuary at least once every two years. The current PERS actuary is Milliman, Inc. (“Milliman”). Under current practice, actuarial valuations are performed annually, but only valuations as of the end of each odd-numbered year are used to determine annual required employer contribution rates that employers will be required to pay to fund the obligations of T1/T2 Pension Programs, OPSRP and the PERS-sponsored Retirement Health Insurance Account Plan (“RHIA”). For a description of RHIA, see “POST-EMPLOYMENT RETIREMENT BENEFITS” below. Valuations are released approximately one year after the valuation date.

An employer’s unfunded actuarial liability (“UAL”) is the excess of the actuarially determined present value of the employer’s benefit obligations to employees over the existing actuarially determined assets available to pay those benefits. At its July 28, 2017, meeting, the PERS Board modified certain methods and assumptions which were to be used for the 2016 and 2017 valuations. The following table shows certain methods and assumptions adopted by the PERS Board, which are the basis for the actuarial valuations.

Table 11
OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
Actuarial Assumptions and Methods

ASSUMPTION/ METHOD	2014 & 2015 VALUATIONS	2016 & 2017 VALUATIONS (1)
Actuarial Cost Method:	Entry Age Normal	Entry Age Normal
UAL -Method: T1/T2 Programs	Level Percentage of Payroll over 20 years (fixed)	Unchanged
OPSRP	Level Percentage of Payroll over 16 years (fixed)	Unchanged
Asset Valuation Method:	Market Value (2)	Unchanged
Investment Rate of Return:	7.50%	7.20%
Payroll Growth Rate:	3.50%	Unchanged
Inflation Level:	2.50%	Unchanged
Contribution Rate Stabilization Method:	Contribution rate may increase or decrease by 3% of payroll or by 20% of the previous rate; whichever is greater, when an employer's funded status is between 70% and 130%. At a funded status of 60% or less, or 140% or more, the limitation doubles to 6% of payroll or 40% of the previous rate, whichever is greater. At a funded status between 60% and 70% or 130% and 140%, the limitation increases in increments between 3%-6% of payroll or 20%-40% of the previous rate, whichever is greater.	Unchanged

Notes:

- (1) Assumptions and methods adopted by the PERS Board on July 28, 2017, that apply to actuarial valuations as of December 31, 2016, and December 31, 2017.
- (2) Market value of assets reduced by value of assets in statutory reserves (contingency, capital preservation and rate guarantee reserves).

Source: Oregon Public Employees Retirement System.

Milliman released its 2015 valuation for the Statewide PERS System as of December 31, 2015, (the "2015 System Valuation") on September 27, 2016, its 2016 valuation for the Statewide PERS System as of December 31, 2016 (the "2016 System Valuation") on December 6, 2017, and its 2017 valuation for the Statewide PERS System as of December 31, 2017 (the "2017 System Valuation") on September 28, 2018. These reports include system-wide actuarial valuations for the T1/T2 Pension Programs and OPSRP.

Milliman released the City's individual 2015 valuation report as of December 31, 2015, (the "2015 City Report") on October 11, 2016, its individual 2016 valuation as of December 31, 2016, (the "2016 City Report") on December 7, 2017, and its 2017 valuation as of December 31, 2017, (the "2017 City Report") on October 17, 2018. These valuation reports provide the City's portion of (a) the SLGRP based on the City's proportionate share of the total SLGRP covered payroll as of the valuation date, (b) OPSRP based on the City's proportionate share of total OPSRP covered payroll as of the valuation date, and (c) the RHIA based on the City's proportionate share of the total RHIA covered payroll as of the valuation date.

The tables below provide historical summary valuation information for the Statewide PERS System and for the City.

Table 12
OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
Summary of Statewide PERS System Funding Levels
(\$ in Millions) (1)

STATEWIDE PERS SYSTEM				
Calendar Year	Actuarial	Unfunded		
	Value of Assets (2)	Actuarial Liability	Actuarial Liability	Funded Ratio (%)
2008	\$38,386.1	\$54,259.5	\$15,873.4	70.7
2009	43,238.8	56,810.6	13,571.8	76.1
2010	46,004.4	59,329.5	13,325.1	77.5
2011	43,238.8	61,198.4	17,959.6	76.1
2012 (3)	49,265.9	60,405.2	11,139.3	81.6
2013 (3)	54,090.1	62,593.6	8,503.5	86.4
2014 (4)	55,518.2	73,458.9	17,940.7	75.6
2015	54,365.8	76,196.6	21,830.8	71.3
2016	55,670.2	80,970.3	25,300.1	68.8
2017	61,764.9	84,056.1	22,291.2	73.5

Notes:

- (1) Composed of Tier 1/Tier 2 and OPSRP pensions but excluding retiree healthcare subsidies of RHIA.
- (2) Does not take into account offsets for deposits made by individual employers from bond proceeds or cash on hand in side accounts
- (3) Reflects savings that were anticipated from the 2013 PERS Bills but will not be realized because most of the 2013 PERS Bills were invalidated. See “—Recent Developments Related to PERS” below.
- (4) Reflects the Oregon Supreme Court decision invalidating most of the 2013 PERS Bills. See “—Recent Developments Related to PERS” below.

Source: Oregon Public Employees Retirement System.

Table 13
OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
Summary of City Funding Levels
(\$ in Millions) (1)

Calendar Year	Actuarial	Unfunded		
	Value of Assets	Actuarial Liability	Actuarial Liability	Funded Ratio (%)
2008	\$1,280.6	\$1,539.9	\$259.2	83.2
2009	1,424.0	1,606.0	182.0	88.7
2010	1,499.8	1,672.5	172.7	89.7
2011	1,459.0	1,724.2	265.3	84.6
2012 (2)	1,624.8	1,744.3	119.5	93.2
2013 (2)	1,762.8	1,804.7	41.9	97.7
2014 (3)	1,844.1	2,210.1	366.0	83.4
2015	1,820.6	2,335.5	514.9	78.0
2016	1,891.4	2,540.2	648.8	74.4
2017	2,171.1	2,776.3	605.2	78.2

Notes:

- (1) Composed of Tier 1/Tier 2 and OPSRP pensions but excluding retiree healthcare subsidies of RHIA. City information is calculated separately for the SLGRP and OPSRP using the City's payroll as a percentage of combined payroll of the respective rate pools. SLGRP values include adjustments made to maintain comparability among employers entering the SLGRP.
- (2) Reflects savings that were anticipated from the 2013 PERS Bills, but will not be realized because most of the 2013 PERS Bills were invalidated. See "—Recent Developments Related to PERS" below.
- (3) Reflects the Oregon Supreme Court decision invalidating most of the 2013 PERS Bills. See "—Recent Developments Related to PERS" below.

Source: Oregon Public Employees Retirement System.

The following table presents a history of the City’s member payroll, unfunded actuarial liability and ratio of unfunded actuarial liability to payroll.

Table 14
OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
City Payroll for PERS Members and Unfunded Actuarial Liability

Calendar Year	Payroll	Unfunded Actuarial Liability	Unfunded Liability to Payroll Ratio
2008	\$289,371,762	\$259,241,423	90%
2009	303,851,551	182,019,126	60%
2010	307,538,429	172,726,579	56%
2011	303,508,135	265,267,189	87%
2012	311,688,601	119,477,128	38%
2013	313,291,592	41,882,231	13%
2014	335,113,826	365,964,877	109%
2015	350,158,915	514,861,639	147%
2016	362,850,562	648,861,639	179%
2017	384,409,335	605,231,941	157%

Source: Oregon Public Employees Retirement System.

The funded status of the pension programs may change depending on the market performance of the securities that the OPERF is invested in, future changes in compensation and benefits of covered employees, demographic characteristics of members and methodologies and assumptions used by the actuary in estimating the assets and liabilities of PERS. Additionally, the market value of the investments held in the OPERF is determined using various sources.

State Investment Policy

The Oregon State Treasury is the investment officer for the state of Oregon. Investment standards are established in ORS 293.726 and require funds to be managed as a prudent investor would do. The Oregon Investment Council (“OIC”) establishes policies for the investment and reinvestment of moneys in PERS investment funds. Policies are established based on the primary investment asset class of each investment manager. The OIC has approved the following asset classes for the OPERF: Short-Term Investing, Fixed Income, Real Estate, Public and Private Equities, and Alternative Investments. In addition, OPERF invests in the Opportunity Portfolio, which may be populated with investment approaches across a wide range of investment opportunities with no limitation as to asset classes or strategies. The target investment portfolio mix at fair market value was revised at the OIC meeting of June 3, 2015, and currently is 37.5 percent public equity, 17.5 percent private equity, 20 percent debt securities, 12.5 percent real estate, and 12.5 percent alternative equity.

The following table presents a 10-year history of investment returns for the OPERF.

Table 15
OREGON PUBLIC EMPLOYEES RETIREMENT FUND
Oregon PERS Investment Returns (1)

Fiscal Year	Net
Ending June 30	Returns (%)
2009	-22.3
2010	17.0
2011	22.3
2012	1.6
2013	12.7
2014	16.6
2015	4.3
2016	1.2
2017	11.9
2018	9.4

Notes:

(1) Total fund performance, excluding variable account.

Source: Oregon Public Employees Retirement Fund System Comprehensive Annual Financial Report for the fiscal years ended June 30, 2009 through June 30, 2018.

The following table presents annualized investment returns over the most recent 1-year, 3-year and 5-year periods. Calculations were prepared using a time-weighted rate of return based on market rates in accordance with the Global Investment Performance Standards performance presentation standards.

Table 16
OREGON PUBLIC EMPLOYEES RETIREMENT FUND
Annualized Investment Results (1)

Periods Ending June 30, 2018	Annualized		
	1-Year	3-Year	5-Year
Total Portfolio, Excluding Variable	9.4%	7.5%	8.6%

Notes:

(1) Total fund performance, regular account. Excludes variable account.

Source: Oregon Public Employees Retirement Fund System Comprehensive Annual Financial Report for the fiscal year ended June 30, 2018.

Employer Contribution Rates and Amounts

The PERS Board is required by State statute to determine liabilities of the Statewide PERS System from time to time and to set contributions of participating employers at a level that ensures liabilities of the Statewide PERS System will be funded no more than 40 years after the date on which the determination is made. ORS 238.225 requires participating public employers to pay the amounts the PERS Board determines to be actuarially necessary to fund benefits provided to employees.

PERS funding policy provides for monthly employer contributions at actuarially determined rates. These contributions, expressed as a percentage of covered payroll, are intended to accumulate sufficient assets to pay benefits when due. Employer contribution rates are based upon the current and projected cost of benefits and the anticipated level of funding available from the OPERF, including known and anticipated investment performance of the OPERF.

At the end of each odd-numbered year, actuarial valuations determine the employer contribution rates that are officially set by the PERS Board. All employers participating in PERS are required to make their contribution to PERS based on the employer contribution rates set by the PERS Board. The City’s employer contribution rates were derived using a rate stabilization methodology (the “Rate Collar”) designed to cap rate increases and reduce large fluctuations in employer contribution rates. Such rate increases are shifted to future biennia. See Table 11 for a summary of the Rate Collar in effect. Because of the Rate Collar, the PERS Board-approved employer contribution rates for some employers, including the City, are currently less than the actuarially required contribution (“ARC”).

T1/T2 Pension Programs employees and OPSRP employees are required by state statute to contribute six percent of their annual salary to the respective programs. Employers are allowed to pay the employees’ contribution in addition to the required employers’ contribution. The City has elected to make the employee contribution. An employer also may elect via written employment policy or agreement to make additional employer contributions to its employees’ IAP accounts in an amount that can range from not less than one percent of salary to no more than six percent of salary and must be a whole percentage. Employers may make this policy or agreement for specific groups of their employees. The City has elected to make an optional contribution to the IAP accounts of public safety employees hired after January 1, 2007, of an additional three percent of their annual salary.

The table below shows the City’s current employer contribution rates for the 2017-19 biennium that ends on June 30, 2019. The table also shows the City’s employer adopted rates for the 2019-21 biennium that begins on July 1, 2019, as reported in the 2017 System Valuation. The rates reported in the table do not include the six percent and nine percent employee contribution rates for contributions to the IAP paid by the City.

**Table 17
OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
Employer Contribution Rates for the City
Percentage of Covered Payroll (1) (2)**

Payrolls Paid	Current Rates	Adopted Rates
	2017-19	2019-21
T1/T2	17.62%	21.86%
OPSRP General Services	10.69%	15.53%
OPSRP Police and Fire	15.46%	20.16%

Notes:

- (1) Includes contribution rates to fund RHIA. See “OTHER POST-EMPLOYEE RETIREMENT BENEFITS – PERS Program.” For FY 2017-18, one percent of the City’s covered payroll for the three pension benefit programs was approximately: \$1,356,707 for T1/T2 Pension Programs; \$2,121,673 for OPSRP general services; and \$577,879 for OPSRP police and fire.
- (2) Includes adjustments for side accounts and pre-SLGRP liabilities.

Source: City of Portland, Oregon Public Employees Retirement System.

The City’s contribution rates may increase or decrease due to a variety of factors, including the investment performance of the OPERF, the use of pension-related reserves, further changes to system valuation methodology and assumptions and decisions by the PERS Board, and changes in benefits resulting from legislative modifications. The City cannot predict whether any legislation or related actions will attempt to further modify the PERS System or whether such attempts would withstand legal challenge.

The City’s financial plan has been updated to incorporate higher growth assumptions for PERS employer rates. For each of the next two biennia (FYs 2020 and 2021 and FYs 2022 and 2023), the financial plan assumes increases in rates for both T1/T2 and OPSRP of approximately five percentage points.

City Funding Policy

In August 2014, the City Council approved a policy regarding funding of its PERS pension liability. The policy requires the City to make contributions at no less than the rate established by the PERS Board and required by ORS 238.225. The City has always funded its full employer contribution as required by ORS 238.225. See “—Employer Contribution Rates and Amounts” above.

Pension Obligation Bonds

In addition to their PERS contribution, City bureaus in existence as of November 10, 1999, (the issue date of the bonds) are required to make a contribution to pay debt service on outstanding Limited Tax Pension Obligation Revenue Bonds (the “Pension Obligation Bonds”), which were issued to fund the City’s share of the unfunded actuarial liabilities of PERS as of December 31, 1997. The Pension Obligation Bonds were issued in three series: one series of fixed rate bonds in an amount of \$150,848,346 and two series of auction rate securities in an aggregate amount of \$150,000,000. The final maturity of the fixed rate Pension Obligation Bonds is June 1, 2029. Pension Obligation Bonds issued as auction rate securities mature on June 1, 2019. Proceeds of the Pension Obligation Bonds were deposited with PERS. Table 18 below shows the debt service paid by the City on its Pension Obligation Bonds.

Total City Pension Contribution

The following table shows the amount of City contributions paid to PERS for the three pension programs including amounts paid by the City for the employee contribution. Contributions include the payments from the Fire and Police Disability and Retirement Fund for pensions of police and firefighters participating in the T1/T2 Pension Programs and OPSRP. Fire and Police Disability and Retirement Fund contributions are funded from a dedicated Citywide property tax levy. See “—PENSION PLANS: FIRE AND POLICE DISABILITY AND RETIREMENT FUND” below. In FY 2017-18, approximately 68 percent of the total cash contribution was for the employer share and 32 percent was for the employee share. The City made its required contribution for its pension obligation in all years. See “—Employer Contribution Rates and Amounts” above.

Table 18
CITY OF PORTLAND, OREGON
City Contribution Related to PERS

Fiscal Year Ending June 30	City's Required Cash Contribution to PERS (1)	Debt Service on Pension Obligation Bonds	Total Cash Contribution for Pension Costs
2009	\$35,326,820	\$16,059,937	\$51,386,757
2010	32,598,608	15,223,638	47,822,246
2011	33,622,080	16,416,215	50,038,295
2012	45,229,731	17,740,796	62,970,527
2013	45,278,556	19,433,725	64,712,281
2014	45,868,558	21,129,361	66,997,919
2015	46,969,145	23,074,692	70,043,837
2016	55,530,023	25,350,317	80,880,340
2017	58,637,409	27,853,142	86,490,551
2018	76,185,383	30,540,190	106,725,574

Notes:

- (1) Includes City's statutorily required employer contribution for T1/T2 and OPSRP pension program and its pension contribution on behalf of employees. Includes contributions from FPDR property tax levy and other non-General Fund bureaus such as the Water Bureau and the Bureau of Environmental Services.

Source: Oregon Public Employees Retirement System and City of Portland; Oregon.

Recent Developments Related to PERS

During the 2013 Legislative Session and the 2013 Special Session the Legislative Assembly enacted Senate Bills 822, 861, and 862 (the "2013 PERS Bills") that were expected to: limit annual benefits cost of living adjustments ("COLAs"), for PERS retirees, eliminate a benefit increase for out-of-state retirees based on Oregon income tax, exclude salary increases given to pay for insurance costs from the final average salary used to calculate pension benefits, and reduce legislators' participation in PERS. The 2013 PERS Bills were expected to reduce the amount of future benefit payments from the Statewide PERS System and reduce the unfunded actuarial liability of the Statewide PERS System by approximately \$5 billion.

In addition to legislative actions, in 2013 the PERS Board made other adjustments that were estimated by PERS to increase the unfunded actuarial liability of the Statewide PERS System by approximately \$2.5 billion. Several lawsuits were filed challenging the 2013 PERS Bills. On April 30, 2015, the Oregon Supreme Court released its decision in these cases. According to its decision, the Supreme Court invalidated the limits on COLAs insofar as they apply to benefits that members earned before the effective dates of the 2013 PERS Bills and upheld the elimination of the benefit increase for out-of-state retirees.

In May 2017, Governor Kate Brown appointed a seven-member task force comprised of business leaders and individuals with public sector experience (the "Task Force") to find ways to reduce the PERS unfunded liability by at least \$5 billion over the next five years. Specifically, the Governor asked the Task Force to consider (1) assets that could be monetized, (2) one-time funding streams that could be redirected, (3) capital from other accounts that could be invested or loaned, and (4) ways to leverage similar funds from other PERS employers. The Task Force released a report on November 1, 2017, identifying options it judged to be reasonable and likely to deliver "a material reduction" in the liability, including increasing state excise taxes on alcohol sales; capturing excess state reserve funds; dedicating one-time financial "windfall" revenues to PERS; and selling one or more state universities to a private, not-for-profit entity. The City cannot predict whether any of the options identified by the Task Force will be implemented or the impact on the PERS unfunded liability.

PENSION PLANS: FIRE AND POLICE DISABILITY AND RETIREMENT PLAN

Overview

The following discussion pertains to the City's Fire and Police Disability, Retirement and Death Benefit Plan (the "FPDR Plan"). The FPDR Plan was established in 1942 to provide disability, retirement and death benefits for sworn members of the City's Bureaus of Fire and Police and their survivors. The FPDR Plan is governed by a Board of Trustees (the "FPDR Board"), composed of the Mayor or Mayor's designee, two active members of the Fire and Police Bureaus and two citizens appointed by the Mayor and confirmed by the City Council. The Fire and Police member trustees are elected by the active members of the Fire Bureau and Police Bureau, respectively. The citizen trustees must have relevant experience in pension or disability matters. The Plan is administered by the Bureau of Fire and Police Disability and Retirement, led by the Fund Administrator.

The FPDR Plan's authority for vesting and benefit provisions is provided by Chapter 5 of the City Charter. Most amendments require majority approval of the voters in the City. Ten revisions have been passed by the voters since the creation of the plan. The most recent voter revision, comprised of eleven different plan amendments, was passed November 6, 2012. City Council may provide by ordinance any additional benefits that the City is required by law to extend to the members and may also change benefits by ordinance to maintain the FPDR Plan's tax-qualified status. The most recent amendments by the City Council occurred in 2016.

Benefit Programs

The FPDR Plan consists of three tiers, two of which are now closed to new employees. The retirement plans for FPDR One, the original plan, and FPDR Two, in which most active fire and police personnel participate, are single-employer, defined-benefit plans administered by the FPDR Board. In addition to retirement benefits for FPDR One and FPDR Two members, the FPDR Plan provides service-connected, nonservice-connected, and occupational disability benefits for FPDR One, FPDR Two and FPDR Three members. FPDR Plan members do not participate in Social Security and do not receive Social Security benefits for their years of service.

FPDR One. Sworn members of the Police and Fire Bureaus subject to the FPDR Plan as constituted prior to July 1, 1990, are included in the FPDR One tier. All FPDR One members are now retired or receiving long-term disability benefits. Under FPDR One, retirement benefits are provided upon termination of employment on or after attaining age 50 (with 25 or more years of service) or 55 (with 20 years or more of service). Retirement benefits are paid to members at two percent of current top-step pay for a police officer or firefighter for each year of active service (up to 60 percent); therefore, FPDR One members receive postretirement benefit increases equal to increases in current top-step police officer or firefighter pay.

FPDR Two. Sworn members of the Police and Fire Bureaus subject to the FPDR Plan as constituted after June 30, 1990, and first sworn before January 1, 2007, are included in the FPDR Two tier. Under FPDR Two, retirement benefits are provided upon termination of employment on or after attaining age 55, or on or after attaining age 50 if the member has 25 or more years of service. Members become 100 percent vested after five years of service. Benefits are paid using a formula tied to years of service and the highest one-year base pay the member received during the final three years of employment. The FPDR Board has the authority to grant postretirement benefit increases to FPDR Two members, so long as the increases do not exceed increases awarded to sworn retirees of PERS. Members enrolled in the FPDR Plan and still working prior to July 1, 1990, were required to make an election as to whether they wished to fall under the provisions of the FPDR Plan as constituted prior to July 1, 1990 (now called FPDR One) or become subject to the new FPDR Two provisions after June 30, 1990.

FPDR Three. Sworn members of the Police and Fire Bureaus hired on or after January 1, 2007, are included in the FPDR Three tier; those sworn on or after January 1, 2013, become FPDR Three members after six months of service. These participants are part of OPSRP for retirement benefits and are under the FPDR Plan for disability and pre-retirement death benefits, offset by any benefits received on account of disability or death under OPSRP. Retirement benefits for these participants are pre-funded, and the FPDR levy pays the employee and employer portions of the OPSRP contribution. For information regarding OPSRP and the employee and employer contribution rates for OPSRP, see "PENSION PLANS: OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM," above.

Funding

The FPDR Fund receives the proceeds of a special property tax levy which cannot exceed two and eight-tenth mills on each dollar of valuation of property (\$2.80 per \$1,000 of Real Market Value) that is not exempt from such levy. The FPDR property tax levy has been sufficient in all years to meet required annual benefit payments. In the event that collections from this special property tax levy are less than the amount required for payment of benefits in any particular year, the FPDR Fund could receive advances

from the FPDR Reserve Fund first and then from other City funds to make up the difference. While the FPDR Fund has not experienced any funding shortfalls to date, future funding is dependent on the availability of property tax revenues and, in the absence of sufficient property tax revenues, other legally available City funds.

Although the City Charter provides the FPDR Plan with dedicated property tax levy authority, the Oregon state constitution caps each property’s general government taxes at \$10 per \$1,000 of Real Market Value. After reaching this point, all levies, including the FPDR levy, are subject to Measure 5 compression to fit within the \$10 limit. For this reason, it is unlikely that FPDR could collect the full \$2.80 per \$1,000 of Real Market Value on each property. In FY 2017-18, the tax loss due to Measure 5 compression was \$7.5 million, or 5.1 percent of the FPDR tax levy.

Retirement Plan Asset Valuation and Liabilities

The table below shows key assumptions for the most recent valuation of the FPDR Plan. Mortality and other assumptions are regularly reviewed and updated as needed. The discount rate has changed over time to reflect economic conditions. Beginning with the June 30, 2014, valuation, the discount rate is equal to the June 30 value of the Bond Buyer General Obligation 20-Bond Municipal Bond Index each year, in accordance with the requirement of Governmental Accounting Standards Board Statement No. 67 (“GASB 67”) that plans use a risk-free discount rate for the portion of the plan’s liability that is not prefunded.

**Table 19
CITY OF PORTLAND, OREGON
FPDR Plan -- Actuarial Assumptions and Methods
For the June 30, 2016, Valuation**

Actuarial Cost Method	Entry Age Normal
Actuarial Value of Assets	Market Value
Funding Policy	Pay-As-You-Go
Discount Rate	2.85%
Payroll Growth Rate	3.75%

Source: Milliman Inc., City of Portland Fire & Police Disability & Retirement (FPDR) Fund, Pension Actuarial Valuation Report as of June 30, 2016, dated January 16, 2017.

As distinguished from the pension plan for FPDR Three members, assets generally are not accumulated in the current year to pay for benefit payments in future years for the FPDR Plan. The table below shows funding levels for the FPDR Plan over the past ten fiscal years. In accordance with the Charter’s provisions, there are no requirements to fund the FPDR Plan using actuarial techniques. The FPDR Plan is funded on a pay-as-you-go basis. Each year’s benefits and expenses are paid for with employer contributions derived from dedicated property tax revenue received during that year. Because of the FPDR Plan’s pay-as-you-go funding basis, the unfunded actuarial accrued pension liability and net pension liability (the new terminology per GASB 67 implemented by the City effective June 30, 2014), do not reflect the value of dedicated future revenues from the property tax levy. See “—Levy Adequacy” below. As reflected in the City’s CAFR for its fiscal year ended June 30, 2018, and required by GASB 68, the net pension liability for the FPDR Plan is a primary factor in the City’s unrestricted net position deficit for governmental activities for the fiscal year ended June 30, 2018, and contributed to the City’s total net position decrease from FY 2012-13 to FY 2013-14. See table entitled “Net Position by Component Last Ten Fiscal Years (accrual basis of accounting)” on page 338 of the City’s CAFR for its fiscal year ended June 30, 2018, which is available on the EMMA website.

Table 20
CITY OF PORTLAND, OREGON
FPDR Plan --Summary of Funding Levels (1)

Fiscal Year	Actuarial Value of Assets	Actuarial Liability	Unfunded Actuarial Liability (1)	Funded Ratio (2)
2009 (3)	\$11,571,074	\$2,279,923,000	\$2,268,351,926	0.51%
2010	16,542,896	2,549,479,088	2,532,936,192	0.65%
2011 (3)	25,648,253	2,610,360,794	2,584,712,541	0.98%
2012 (3)	20,287,803	2,674,072,175	2,653,784,372	0.76%

Fiscal Year (3)	Plan Net Position, Ending	Total Pension Liability	Net Pension Liability (2)	Net Position as Percent of Total Liability (2)
2013	\$17,155,015	\$2,517,096,534	\$2,499,941,519	0.68%
2014	20,532,924	2,473,970,866	2,453,437,942	0.83%
2015	21,876,942	2,896,894,767	2,875,017,825	0.76%
2016	17,425,353	3,391,461,315	3,374,035,962	0.51%
2017	14,150,087	3,367,105,729	3,352,955,642	0.42%
2018	17,790,774	3,295,142,974	3,277,352,200	0.54%

Notes:

- (1) Table reflects transition to new accounting classifications as required by the Governmental Accounting Standards Board beginning with the fiscal year ending June 30, 2013.
- (2) Does not include value of future dedicated FPDR property tax collections.
- (3) Amounts are calculated by rolling forward prior actuarial valuations. See Table 21 below for a summary of the June 30, 2014, and June 30, 2016, valuations.

Source: City of Portland audited financial statements.

Overall the total pension liability increased from \$2.47 billion on June 30, 2014, to \$3.67 billion on June 30, 2016, as shown in Table 21 below. Note that these valuations differ from results shown in Table 20 above because they are based on actual results prepared by Milliman and are not roll-forward amounts of prior valuations.

Table 21
CITY OF PORTLAND, OREGON
FPDR Plan--Summary of Most Recent Actuarial Valuations

Fiscal	Plan	Total	Net
Year	Assets	Pension	Pension
		Liability	Liability
2014	\$20,532,924	\$2,488,261,858	\$2,467,728,934
2016	17,425,353	3,689,965,110	3,672,539,757

Source: Milliman Inc., City of Portland Fire & Police Disability & Retirement (FPDR) Fund, Pension Actuarial Valuation Report as of June 30, 2016, dated January 16, 2017.

The single largest driver of the higher liability is the discount rate (the June 30 value of the Bond Buyer General Obligation 20-Bond Municipal Bond Index each year). The rate dropped from 4.29 percent on June 30, 2014, to 2.85 percent on June 30, 2016, resulting in a \$574 million increase in the plan liability. As described above, the FPDR Plan provides that FPDR Two postretirement benefit increases cannot exceed the postretirement benefit increases for PERS sworn retirees. For the 2014 valuation, these adjustments were based on the PERS COLA as modified by the 2013 PERS Bills, which reduced the maximum COLA from 2.0 percent to 1.25 percent. However, the lower COLA was invalidated by the Oregon Supreme Court in 2015, insofar as it applies to benefits that members earned before the effective dates of the 2013 changes (see “—Recent Developments Related to PERS”). The PERS Board subsequently adopted a blended COLA, which applies up to 2.0 percent for the percentage of service credited before October 2013 and 1.25 percent for later service. The FPDR Board chose a similar COLA methodology beginning in 2015 and directed the actuaries to assume this methodology continues for purposes of the 2016 valuation. The higher COLA assumption increased the liability by \$289 million between June 30, 2014, and June 30, 2016. A final significant change was an update to the plan’s mortality assumptions, which the FPDR Board has decided will mirror the mortality experience in the larger pool of PERS sworn members. Longer life expectancies for retirees increased the liability by another \$147 million.

FPDR Fund and Levy Adequacy

A critical measure of the FPDR Fund’s financial health is whether the dedicated property tax will ever be insufficient to fully cover expenditures both for the pay-as-you-go FPDR Plan and the pre-funded OPSRP plan. The table below compares the certified tax levy for FPDR Plan contributions (for FPDR One and FPDR Two participants) and OPSRP contributions (for FPDR Three participants) with the amount authorized based on the \$2.80/\$1,000 Charter limitation. Between FY 2008-09 and FY 2017-18, Real Market Value of property subject to taxation has grown by a compounded annual rate of approximately 4.8 percent.

Table 22
CITY OF PORTLAND, OREGON
FPDR Fund--Certified Levies Compared with Maximum Levies Authorized

FYE June 30	Tax Levy per \$1,000 RMV	Certified Tax Levy (1)	Maximum Levy Authorized (\$2.80/1,000 RMV)	Amount Available to be Certified from Authorized Levy
2009	\$1.23	\$111,152,436	\$253,003,644	\$141,851,208
2010	1.29	114,980,456	249,261,909	134,281,453
2011	1.37	118,526,184	241,849,105	123,322,921
2012	1.41	114,264,711	227,257,618	112,992,907
2013	1.55	123,564,952	223,709,460	100,144,508
2014	1.62	136,383,540	235,325,707	98,942,167
2015	1.48	136,883,230	259,331,341	122,448,111
2016	1.30	133,795,013	287,358,793	153,563,780
2017	1.15	138,900,728	338,199,473	199,298,745
2018	1.13	155,553,793	384,951,394	229,397,601

Notes:

(1) Before Measure 5 compression, delinquencies and discounts.

Source: City of Portland.

The table below shows historical taxes imposed (after Measure 5 compression) and historical expenditures for retirement benefits and death and disability benefits. As fire and police retirement benefits transition from a pay-as-you-go system to a pre-funded system through OPSRP, the FPDR levy will be funding two generations of FPDR members simultaneously: FPDR One and FPDR Two members who are funded on a pay-as-you-go basis during their retirement years and FPDR Three members whose retirement benefits are pre-funded through OPSRP during their working careers. Costs for disability benefits will continue to be paid on a pay-as-you go basis. As described below, higher costs are expected over approximately the next 20 years, with the potential for higher tax levy rates.

Table 23
CITY OF PORTLAND, OREGON
FPDR Fund--Imposed Levies and Expenditures for
Pension Benefits and Death/Disability Benefits

FYE June 30	Imposed Tax Levy (1)	FPDR One & Two Pension Benefits	FPDR Three OPSRP Contributions	Disability & Funeral Benefits	Total FPDR Benefit Contributions
2009	\$107,869,880	\$85,079,520	\$1,774,991	\$9,241,784	\$96,096,295
2010	111,376,678	89,038,110	2,210,250	9,075,988	100,324,348
2011	114,217,070	90,464,611	2,865,737	7,938,636	101,268,984
2012	108,666,428	94,708,986	4,735,637	7,064,187	106,508,810
2013	115,752,880	99,417,595	5,265,815	6,725,710	111,409,120
2014	123,304,615	103,506,696	5,998,321	7,410,977	116,915,994
2015	126,777,805	103,355,638	6,952,685	6,219,646	116,527,969
2016	126,376,817	107,074,899	8,699,501	6,420,506	122,194,906
2017	132,477,613	113,826,622	9,672,695	6,525,351	130,024,668
2018	148,214,877	119,616,359	13,318,516	6,050,635	138,985,510

Notes:

(1) Amount after Measure 5 compression but not adjusted for delinquencies and discounts.

Source: City of Portland.

The FPDR Board assesses the FPDR Plan’s long-term financial condition in part by projecting the future availability of revenues from the dedicated property tax (the “Levy Adequacy Analysis”), which are the source of employer contributions under the Charter. The most recent Levy Adequacy Analysis, completed by an independent actuary in connection with the actuarial valuation of the fund, was as of June 30, 2016. The Levy Adequacy Analysis found that, under a wide range of simulated economic scenarios over the next 20 years, the future FPDR Fund levy would remain under \$2.80 per \$1,000 of Real Market Value, but the levy exceeded the \$2.80 threshold in at least one year in fewer than three percent of modeled scenarios. This represents a decline from approximately four percent of modeled scenarios in the prior analysis as of June 30, 2014. Real Market Values in the City’s tax base have grown by more than enough to offset more expensive plan benefits. The first year in which the percent of scenarios exceeding the levy limit reaches the one percent level is FY 2031-32. Pay-as-you-go costs peak in FY 2036-37 in nominal terms; the peak on an inflation-adjusted basis is in FY 2031-32.

The table below shows projected levy rates and taxes levied at the 50th and 5th percentiles for FY 2016-17 through FY 2035-36 as included in the 2016 Levy Adequacy Analysis. Note that the actual levy rate per \$1,000 of Real Market Value was \$1.15 for FY 2016-17 and \$1.13 for FY 2017-18.

Table 24
CITY OF PORTLAND, OREGON
FPDR Fund--Projected Levy Rate, Taxes and Requirements

Fiscal Year	Levy Rate		Levy Rate	
Ended	at 50th	Taxes Levied at	at 5th	Taxes Levied at
June 30	Percentile	50th Percentile	Percentile	5th Percentile
2017	\$1.18	\$143,100,000	\$1.18	\$143,100,000
2018	1.13	150,100,000	1.13	150,100,000
2019	1.13	157,300,000	1.27	158,700,000
2020	1.18	170,300,000	1.39	173,800,000
2021	1.19	179,100,000	1.45	183,500,000
2022	1.23	194,400,000	1.59	203,700,000
2023	1.24	204,400,000	1.65	215,200,000
2024	1.25	216,700,000	1.75	234,000,000
2025	1.26	229,000,000	1.82	248,400,000
2026	1.28	243,000,000	1.91	267,700,000
2027	1.30	257,000,000	1.95	284,800,000
2028	1.31	271,100,000	2.03	304,100,000
2029	1.31	284,900,000	2.07	321,900,000
2030	1.37	311,600,000	2.22	354,300,000
2031	1.37	325,900,000	2.26	372,100,000
2032	1.36	339,000,000	2.32	392,700,000
2033	1.35	352,200,000	2.34	409,800,000
2034	1.33	362,200,000	2.38	428,700,000
2035	1.30	372,400,000	2.37	443,000,000
2036	1.21	361,700,000	2.27	437,600,000

Notes:

- (1) Results are expressed as a probability distribution. Amounts shown in table are median values within percentile categories. Actual rates for FY 2016-17 and FY 2017-18 are found in the table entitled "FPDR Fund—Certified Levies Compared with Maximum Levies Authorized."

Source: Milliman, Inc., FPDR Levy Adequacy Analysis as of June 30, 2016, dated January 24, 2017.

The current analysis extends through FY 2035-36 and encompasses all facts, decisions and conditions pertaining to the FPDR Plan known at the time the analysis was completed. Future actuarial measurements may differ significantly from the measurements presented herein due to factors such as changes in economic or demographic assumptions (including changes in Real Market Value); changes related to PERS, performance of investments, and changes in FPDR Plan benefit provisions or applicable law.

OTHER POST-EMPLOYMENT RETIREMENT BENEFITS ("OPEB")

The City's OPEB liability includes two separate plans. The City provides a contribution to the State of Oregon PERS cost-sharing multiple-employer defined benefit plan and an implicit rate subsidy for retiree Health Insurance Continuation premiums.

PERS Program

Retirees who receive pension benefits through the T1/T2 Pension Programs and are enrolled in certain PERS-administered health insurance programs may also receive a subsidy towards the payment of health insurance premiums. Under ORS 238.420, retirees may receive a subsidy for Medicare supplemental health insurance of up to \$60 per month towards the cost of their health insurance premiums under the RHIA program. RHIA's assets and liabilities are pooled on a system-wide basis. These assets and liabilities are not tracked or calculated on an employer basis. The City's allocated share of the RHIA program's assets and liabilities is based on the City's proportionate share of the program's pooled covered payroll. According to the 2017 City Report, the City's allocated share of the RHIA program's UAL was (\$4,404,636) as of December 31, 2017.

The City’s current employer contribution rate to fund RHIA benefits during the 2017-19 biennium for T1/T2 employees is 0.50 percent and for OPSRP general services and police and fire employees is 0.43 percent. According to the 2017 City Report, the adopted rate to fund RHIA benefits during the 2019-21 biennium for T1/T2 employees is 0.06 percent and for OPSRP general services and policy and fire employees is 0.00 percent. These employer contribution rates to fund RHIA are included in the rates described in Table 17 above.

Health Insurance Continuation Option

Distinct from the PERS program, Oregon municipalities, including the City, are required to allow retirees and their dependents to continue to receive health insurance by paying the premiums themselves at a rate that is blended with the rate for current employees until retirees and spouses are eligible for federal Medicare coverage and until children reach the age of 18 (the “Health Insurance Continuation Option” or “HIC”). GASB 45 refers to this as an implicit subsidy and therefore requires the corresponding liability to be determined and reported.

The OPEB liability associated with the Health Insurance Continuation Option is an actuarially-determined amount calculated in accordance with the parameters of GASB Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*. The valuation is prepared using the Entry Age Normal actuarial cost method and amortized over an open period of 30 years using the level percentage of projected pay. Other assumptions include a discount rate of 3.60 percent, 2.2 percent inflation rate, annual healthcare cost trend rates of 4.5 to 7.5 percent, and retirees’ share of benefit-related costs of 26 percent of estimated program costs. The City’s unfunded actuarial accrued liability for OPEB is solely attributable to the Health Insurance Continuation Option and at the valuation date of July 1, 2017 (the date of the most recent actuarial valuation), is estimated to be \$100,197,951. The unfunded actuarial accrued liability as a percentage of covered payroll is 23 percent. Actuarial valuations for the Health Insurance Continuation Option are undertaken every two years. A new valuation will be undertaken for reporting the OPEB liability as of July 1, 2019.

The City’s annual OPEB cost is calculated based on the actuarially-determined service cost, which represents a level of funding that, if paid on an ongoing basis, is projected to cover normal costs each year and amortize any unfunded liability over a period of 30 years. For FY 2017-18, the changes to the total OPEB liability is calculated as follows:

Balance at 6/30/17	\$104,746,377
Changes for the year:	
Service cost	4,140,465
Interest	3,086,463
Changes of assumptions	(6,825,794)
Benefit payments	(4,949,560)
Net Changes	(4,548,426)
Balance at 6/30/18	<u>\$100,197,951</u>

The City expects to use a pay-as-you-go approach to fund its actuarial accrued liability and OPEB obligation but will monitor its OPEB liability and assess whether a different approach is needed in future years.

Implementation of Governmental Accounting Standards Board Statement No. 75

As reflected in its unaudited CAFR for the fiscal year ended June 30, 2018, the City implemented Governmental Accounting Standards Board Statement No. 75, which changed employer reporting of OPEB for state and local governments. Under this new standard, for the fiscal year ending June 30, 2018, the City has reported in its unaudited CAFR the following balances:

	Deferred	Net OPEB	
	Outflow/(Inflow) of	Liability/(Asset)	OPEB Expense
	Resources		
RHIA	(\$695,350)	(\$1,476,036)	\$3,580
HIC	(5,876,449)	100,197,951	6,277,583
Total	<u>(\$6,571,799)</u>	<u>\$98,721,915</u>	<u>\$6,281,163</u>

See the City’s CAFR for the fiscal year ended June 30, 2018, which is posted on the EMMA website.

LITIGATION

Members of the public and advocacy groups from time to time assert that they intend to file a legal action against the City challenging certain programs, laws or actions that the City, its officers or bureaus have taken. Because the City cannot be certain as to whether such actions will actually be filed, the legal assertions that may be made in a potential action or the remedy sought in terms of the amount of damages or performance requested of the City, the City includes as threatened litigation only situations in which the City is engaged in active settlement negotiations with a person or group in order to pre-empt filing of a lawsuit.

The City discloses only pending or threatened litigation that the City has determined may have a materially adverse impact on the City's financial position. The current level of materiality involves litigation where the damages or performance sought has a reasonable probability of imposing liability of \$5 million or more against the City's General Fund.

There is no litigation pending or threatened against the City which impairs the City's ability to make principal and interest payments on the City's sewer system obligations when due. Except as noted in the following paragraphs, there is no litigation pending or threatened against the City which would materially and adversely affect the financial condition of the City.

On December 6, 2011, the City was sued by a group of water and sewer ratepayers in *Anderson et al. v. City of Portland, Multnomah County Circuit Court Case No. 1112-15957* (the "Anderson Case"). Plaintiffs challenged certain expenditures by the City's Water Bureau and Bureau of Environmental Services, alleging that the expenditures were not authorized by the City Charter and seeking to reimburse the Water Fund and Sewage Disposal Fund. The City vigorously defended this lawsuit, and on June 30, 2017, the Court issued an Amended Opinion ordering the City to reimburse the Water Fund \$13,506,511 and the Sewer Fund \$3,555,211. On December 20, 2017, Council passed an ordinance authorizing the Mayor to settle this lawsuit for a total of \$10 million, \$3 million of which was paid to the plaintiffs' attorneys on December 29, 2017, from General Fund resources. The remaining \$7 million must be reimbursed to the water and sewer funds by September 30, 2019, also from General Fund resources. There will be no appeal of the lawsuit, it and will be dismissed from the Circuit Court with prejudice, meaning these plaintiffs cannot bring these or similar claims against the City in the future.

In 2000, Portland Harbor, a 10-mile industrial stretch of the Lower Willamette River outside of the City's urban center, was listed by the EPA as a Superfund site. The EPA notified the City that it may have liability for releases of contaminants in the Willamette River. The City may also have liabilities to Natural Resource Trustees of the Willamette River (including tribes, and federal and state resource agencies) for damages to natural resources in Portland Harbor.

In 2017, the EPA issued its Record of Decision of final cleanup plan for the Portland Harbor Superfund Site. The EPA estimated capital costs to implement the selected remedy of approximately \$1.05 billion in 2017 dollars, estimated by the EPA to be \$1.7 billion in actual future dollars. The EPA has required an additional phase of environmental sampling before remedy implementation which is anticipated to be completed near the end of 2019. The work may change the expected costs of the remedy. The costs associated with the remedy have not been allocated among the numerous potentially liable parties.

The Natural Resource Trustees have not made a final determination of the total damages to natural resources and those costs have not been allocated among the numerous potentially liable parties.

The City is participating in voluntary, negotiated settlement processes to determine how cleanup costs can be allocated among all responsible parties. These processes cannot be concluded until the parties reach agreement or the liabilities are litigated. The City will defend against a significant allocation of liability to the City. Under Superfund law, responsible parties that fail to enter into agreements to remediate and restore Superfund sites become subject to legal action by the EPA for cleanup and restoration, including imposition of fines. Once initiated, the remedial design and implementation phase is expected to be conducted and funded over many years. The City expects to have an extended period to identify funding strategies and to fund its share of the remedy.

APPENDIX
EXCERPTS FROM AUDITED FINANCIAL STATEMENTS

INTRODUCTION TO EXCERPTS OF FINANCIAL STATEMENTS

The financial statements of the City have been audited by independent certified public accountants for the fiscal years 2014, 2015, 2016, 2017 and 2018. Copies of these financial statements containing the reports of the independent certified public accountants are available on the City's website at:

<http://www.portlandoregon.gov/bfs/26053>

The following pages in this Appendix A are excerpted from the City's Comprehensive Annual Financial Reports of the City for Fiscal Years ending June 30, 2014 through June 30, 2018. Any Notes that follow the tabular data have been prepared by the City and have not been reviewed by the independent auditor.

A CONSENT OF THE INDEPENDENT AUDITOR WAS NOT REQUESTED. THE AUDITOR WAS NOT REQUESTED TO PERFORM AND HAS NOT PERFORMED ANY SERVICE IN CONNECTION WITH THIS DISCLOSURE DOCUMENT AND IS THEREFORE NOT ASSOCIATED WITH THIS DISCLOSURE DOCUMENT.

**CITY OF PORTLAND, OREGON
SEWAGE DISPOSAL FUND
STATEMENT OF NET POSITION
As of June 30**

	2014	2015	2016	2017	2018
ASSETS					
Current assets (unrestricted):					
Cash and investments	\$ 50,475,180	\$ 93,893,296	\$ 142,221,490	\$ 171,056,466	\$ 220,282,473
Receivables					
Accounts, net	49,471,836	53,959,205	53,109,979	53,996,977	56,478,394
Assessments	902,694	1,256,515	2,378,736	2,600,727	2,873,871
Accrued interest, advances	230,548	672,838	860,668	911,912	1,653,693
Notes and loans net	83,232	83,232	83,232	83,232	-
Due from other funds	-	-	-	-	-
Due from component unit	-	-	61,484	-	-
Inventories	1,527,400	1,623,555	1,757,819	1,898,619	2,009,361
Prepaid expenses	-	-	-	-	1,369,497
Total current assets (unrestricted)	<u>102,690,890</u>	<u>151,488,641</u>	<u>200,473,408</u>	<u>230,547,933</u>	<u>284,667,289</u>
Current assets (restricted)					
Cash and investments	9,901,365	8,535,806	9,215,896	-	15,630,714
Total current assets (restricted)	<u>9,901,365</u>	<u>8,535,806</u>	<u>9,215,896</u>	<u>-</u>	<u>15,630,714</u>
Total current assets	<u>112,592,255</u>	<u>160,024,447</u>	<u>209,689,304</u>	<u>230,547,933</u>	<u>300,298,003</u>
Noncurrent assets (unrestricted):					
Capital assets, not being depreciated or amortized:					
Land	69,112,316	73,316,928	75,118,666	80,239,715	77,318,085
Construction in progress	164,129,220	157,060,654	141,220,550	178,010,942	221,278,779
Intangible assets/land use rights	14,135,856	10,960,297	11,769,066	12,109,796	12,170,970
Capital assets, being depreciated or amortized:					
Buildings	32,688,308	33,010,333	33,438,440	33,441,319	30,599,043
Improvements to land	1,292,824	1,753,470	2,249,269	2,249,269	1,485,801
Equipment	27,321,346	27,076,695	28,576,721	28,975,530	31,181,128
Intangible assets/software	8,631,572	8,571,730	8,571,730	8,489,429	8,489,429
Infrastructure	3,203,922,370	3,313,993,288	3,420,719,069	3,485,117,325	3,549,098,347
Capitalized leases	-	-	-	-	-
Accumulated depreciation and amortization	(427,486,282)	(469,842,639)	(514,586,210)	(560,635,720)	(604,879,652)
Capital assets net of accumulated depreciation and amortization	<u>3,093,747,530</u>	<u>3,155,900,756</u>	<u>3,207,077,301</u>	<u>3,267,997,605</u>	<u>3,326,741,930</u>
Receivables:					
Assessments	3,193,985	4,105,469	3,934,456	3,301,471	4,481,699
Pension asset	17,331,098	10,340,385	-	-	-
Internal balances	-	-	-	-	1,457,886
Net OPEB asset	-	-	-	-	121,681
Total noncurrent assets (unrestricted)	<u>3,114,272,613</u>	<u>3,170,346,610</u>	<u>3,211,011,757</u>	<u>3,271,299,076</u>	<u>3,332,803,196</u>
Noncurrent assets (restricted):					
Cash and investments	45,955,646	172,691,444	93,531,971	59,279,660	202,047,120
Total non-current assets	<u>3,160,228,259</u>	<u>3,343,038,054</u>	<u>3,304,543,728</u>	<u>3,330,578,736</u>	<u>3,534,850,316</u>
Total assets	<u>3,272,820,514</u>	<u>3,503,062,501</u>	<u>3,514,233,032</u>	<u>3,561,126,669</u>	<u>3,835,148,319</u>
DEFERRED OUTFLOWS OF RESOURCES					
Deferred outflows - pensions	-	3,394,556	6,105,726	35,003,532	21,274,974
Deferred outflows - OPEB	-	-	-	-	613,206
Total deferred outflows of resources	<u>-</u>	<u>3,394,556</u>	<u>6,105,726</u>	<u>35,003,532</u>	<u>21,888,180</u>

CITY OF PORTLAND, OREGON
SEWAGE DISPOSAL FUND
STATEMENT OF NET POSITION (Continued)
As of June 30

	2014	2015	2016	2017	2018
LIABILITIES					
Current liabilities (payable from unrestricted assets):					
Accounts payable	\$7,017,199	\$6,413,223	\$7,021,104	\$20,614,195	\$6,650,221
Compensated absences	3,818,108	4,001,277	3,957,778	4,077,025	4,581,410
Self insurance claims	-	-	159,717	13,878	35,415
Unearned revenue	722,820	687,853	909,767	899,755	937,747
Bonds payable	91,577,298	103,320,081	114,206,606	126,189,967	134,345,878
Notes and loans payable	1,386,781	1,352,453	1,366,091	1,379,871	1,393,792
Accrued interest payable	16,237,858	17,726,523	14,968,233	14,823,372	14,941,362
Landfill postclosure	-	-	53,700	54,702	59,102
Pollution remediation	-	1,115,000	1,087,500	547,500	50,000
Other liabilities	127,557	27,000	68,693	79,160	652,634
Total current liabilities (unrestricted)	<u>120,887,621</u>	<u>134,643,410</u>	<u>143,799,189</u>	<u>168,679,425</u>	<u>163,647,561</u>
Current liabilities (payable from restricted assets):					
Accounts payable	9,901,365	8,535,806	9,215,896	-	15,630,714
Total current liabilities (restricted)	<u>9,901,365</u>	<u>8,535,806</u>	<u>9,215,896</u>	<u>-</u>	<u>15,630,714</u>
Total current liabilities	<u>130,788,986</u>	<u>143,179,216</u>	<u>153,015,085</u>	<u>168,679,425</u>	<u>179,278,275</u>
Noncurrent liabilities:					
Compensated absences	116,383	-	140,510	-	72,178
Bonds payable	1,614,205,941	1,725,047,498	1,612,290,669	1,508,137,654	1,587,358,056
Notes and loans payable	16,423,970	14,920,587	13,554,496	12,174,625	10,780,833
Accrued interest payable	9,352,998	10,469,206	11,675,666	12,979,705	14,389,197
Net pension liability - PERS	-	-	26,482,758	68,928,094	61,091,980
Other postemployment benefits	1,463,418	1,511,569	1,502,373	1,491,795	6,701,542
Landfill postclosure	-	-	9,388,784	6,017,740	2,402,216
Pollution remediation	2,081,200	225,000	370,000	275,000	250,000
Other liabilities	63,581	46,730	87,170	87,370	149,835
Total noncurrent liabilities	<u>1,643,707,491</u>	<u>1,752,220,590</u>	<u>1,675,492,426</u>	<u>1,610,091,983</u>	<u>1,683,195,837</u>
Total liabilities	<u>1,774,496,477</u>	<u>1,895,399,806</u>	<u>1,828,507,511</u>	<u>1,778,771,408</u>	<u>1,862,474,112</u>
DEFERRED INFLOWS OF RESOURCES					
Deferred inflows - pensions	-	20,670,228	7,275,341	1,773,290	1,905,480
Deferred charge for debt refunding	-	4,820,670	10,488,168	7,892,777	5,696,253
Deferred inflows - OPEB	-	-	-	-	317,784
Total deferred inflows of resources	<u>-</u>	<u>25,490,898</u>	<u>17,763,509</u>	<u>9,666,067</u>	<u>7,919,517</u>
NET POSITION					
Net investment in capital assets	1,442,320,942	1,503,588,286	1,571,170,823	1,691,727,931	1,806,923,132
Restricted for:					
Debt service	180,000	180,000	180,000	180,000	180,000
Unrestricted	55,823,095	81,798,067	102,716,915	115,784,795	179,539,738
Total net position	<u>\$ 1,498,324,037</u>	<u>\$ 1,585,566,353</u>	<u>\$ 1,674,067,738</u>	<u>\$ 1,807,692,726</u>	<u>\$ 1,986,642,870</u>

Source: City of Portland audited financial statements.

CITY OF PORTLAND, OREGON
SEWAGE DISPOSAL FUND
STATEMENT OF REVENUES, EXPENSES, and CHANGES IN FUND NET POSITION
Fiscal Years Ending June 30

	2014	2015	2016	2017	2018
Operating revenues:					
Service charges and fees	\$300,025,977	\$327,555,376	\$342,572,796	\$366,138,808	\$386,034,051
Service charges and fees provided internally	1,959,225	1,456,981	1,119,694	1,388,251.00	1,782,503
Licenses and permits	1,739,676	2,013,484	1,908,089	2,248,626	2,166,745
Rents and reimbursements	71,446	314,856	453,334	405,794	189,308
Miscellaneous	3,226,654	2,071,706	1,285,699	1,385,314	366,919
Total operating revenues	307,022,978	333,412,403	347,339,612	371,566,793	390,539,526
Operating expenses:					
Salaries and wages	46,400,539	34,632,181	69,831,726	58,821,599	61,812,417
Operating supplies	4,168,128	4,740,899	4,563,403	4,515,510	4,339,605
Professional services	2,557,130	2,779,041	3,331,013	3,141,297	3,886,296
Services and materials provided internally	28,238,571	24,504,600	26,292,701	27,766,111.00	28,923,825
Utilities	5,779,768	5,545,403	5,703,550	6,278,847	6,006,085
Claims	2,812	-	159,717	-	-
Miscellaneous	13,681,099	12,240,324	21,340,877	5,240,636	6,170,070
Utility license fees	13,748,827	14,761,849	15,571,211	16,250,599	16,884,548
Depreciation expense	40,990,511	43,075,864	45,561,285	47,376,734	47,889,962
Total operating expenses	155,567,385	142,280,161	192,355,483	169,391,333	175,912,808
Operating income (loss)	151,455,593	191,132,242	154,984,129	202,175,460	214,626,718
Nonoperating revenues (expenses):					
Gain (loss) on sale of capital assets	(235,757)	(814,164)	(273,852)	38,331	3,816,807
Investment earnings	1,192,112	2,104,384	3,167,609	1,527,317	1,197,068
Interest expense	(66,654,535)	(69,390,014)	(68,503,667)	(69,588,885)	(39,651,443)
Debt issuance costs	(505,844)	(1,018,056)	(2,177,049)	(1,285,282)	(629,891)
Miscellaneous	-	-	(21,276.00)	-	1,457,152.00
Total nonoperating revenues (expenses)	(66,204,024)	(69,117,850)	(67,808,235)	(69,308,519)	(33,810,307)
Income (loss) before contributions and transfers	85,251,569	122,014,392	87,175,894	132,866,941	180,816,411
Transfers in	164,587	147,509	159,024	162,769	203,847
Transfers out	(620,312)	(526,697)	(532,093)	(559,574)	(600,825)
Capital contributions	2,266,450	3,000,654	1,698,560	1,154,852	3,419,865
Change in net position	87,062,294	124,635,858	88,501,385	133,624,988	183,839,298
Total net position - beginning, previously reported	-	1,498,324,037	1,585,566,353	-	1,807,692,726
Restatement per GASB 68 implementation	-	(37,393,542)	-	-	-
Restatement per GASB 75 implementation	-	-	-	-	(4,889,154)
Total net position -- beginning, as restated	1,411,261,743	1,460,930,495	1,585,566,353	1,674,067,738	1,802,803,572
Total net position -- ending	\$ 1,498,324,037	\$ 1,585,566,353	\$ 1,674,067,738	\$ 1,807,692,726	\$ 1,986,642,870

Source: City of Portland audited financial statements.

CITY OF PORTLAND, OREGON
SEWAGE DISPOSAL FUND
STATEMENT OF CASH FLOWS
For Fiscal Years Ending June 30

	2014	2015	2016	2017	2018
CASH FLOWS FROM OPERATING ACTIVITY					
Receipts from customers and users	\$ 304,291,589	\$ 326,154,556	\$ 346,278,369	\$ 369,539,539	\$ 384,990,657
Receipts from interfund services provided	1,959,226	1,456,981	1,119,693	1,388,251	1,782,502
Payments to suppliers	(16,396,500)	(42,991,814)	(39,714,229)	(35,171,776)	(40,562,376)
Payments to employees	(45,285,885)	(47,644,401)	(49,026,826)	(50,807,961)	(55,307,726)
Payments for interfund services used	(49,070,085)	(24,504,600)	(26,292,703)	(27,766,111)	(28,923,825)
Other receipts (payments)	1,400	13,225	-	1,544	-
Net cash provided by operating activities	195,499,745	212,483,947	232,364,304	257,183,486	261,979,232
CASH FLOW FROM NONCAPITAL FINANCING ACTIVITIES					
Transfers in	164,587	147,510	158,958	162,769	203,847
Transfers out	(483,595)	(511,664)	(532,092)	(559,574)	(600,825)
Net cash provided (used) by noncapital financing activities	(319,008)	(364,154)	(373,134)	(396,805)	(396,978)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES					
Proceeds from sale of bonds and notes	220,735,040	290,385,000	393,105,000	319,115,000	191,930,000
Premium on bonds and notes issued	13,924,179	32,206,753	48,885,563	56,113,433	21,636,279
Sale of capital assets	361,753	68,746	1,138,238	322,953	10,665,852
Acquisition of capital assets	(115,149,241)	(103,126,384)	(96,472,573)	(107,426,808)	(110,071,279)
Principal paid on bonds, notes and capital leases	(193,973,974)	(186,127,092)	(521,557,246)	(447,288,111)	(106,001,539)
Interest paid on bonds, notes and capital leases	(70,302,162)	(77,382,502)	(88,044,074)	(92,501,164)	(61,888,783)
Bond issuance costs	(505,844)	(1,018,056)	(2,177,049)	(1,285,282)	(629,891)
Net cash provided (used) by capital related financing activities	(144,910,249)	(44,993,535)	(265,122,141)	(272,949,979)	(54,359,361)
CASH FLOWS FROM INVESTING ACTIVITIES					
Interest on investments	1,115,024	1,662,097	2,979,782	1,530,067	401,288
Net increase (decrease) in cash and cash equivalents	51,385,512	168,788,355	(30,151,189)	(14,633,231)	207,624,181
CASH AND CASH EQUIVALENTS					
July 1 (beginning)	54,946,679	106,332,191	275,120,546	244,969,357	230,336,126
CASH AND CASH EQUIVALENTS					
June 30 (ending)	\$ 106,332,191	\$ 275,120,546	\$ 244,969,357	\$ 230,336,126	\$ 437,960,307
Reconciliation of Cash and Cash Equivalents to the Statements of Net Position:					
Unrestricted cash and cash equivalents	\$50,475,180	\$93,893,296	\$142,221,490	\$171,056,466	\$220,282,473
Restricted cash and cash equivalents	55,857,011	181,227,250	102,747,867	59,279,660	217,677,834
Total	\$106,332,191	\$275,120,546	\$244,969,357	\$230,336,126	\$437,960,307

CITY OF PORTLAND, OREGON
SEWAGE DISPOSAL FUND
STATEMENT OF CASH FLOWS (Continued)
For Fiscal Years Ending June 30

	2014	2015	2016	2017	2018
Reconciliation of operating income (loss) to net cash provided by operating activities					
Operating income (loss)	\$ 151,455,593	\$ 191,132,242	\$ 154,984,129	\$ 202,175,460	\$ 214,626,718
Adjustments to reconcile operating income (loss) to net cash provided (used) by operating activities:					
Depreciation and amortization of capital assets	40,990,511	43,075,864	45,561,285	47,376,734	47,889,962
Provision for uncollectible accounts	1,046,349	1,112,467	1,212,258	534,532	1,080,219
Nonoperating revenue	-	-	-	-	7,075
Change in assets and liabilities:					
Accounts and advances receivable	(798,160)	125,572	9,026,146	(1,064,533)	(4,999,457)
Inventories	(165,111)	(96,155)	(134,266)	(140,799)	(110,742)
Prepaid expense	-	-	-	-	(1,369,497)
Accounts payable	1,041,111	(1,969,535)	1,287,971	4,377,197	1,666,740
Self insurance claims	-	-	159,717	(145,839)	21,537
Compensated absences	(46,775)	66,786	97,011	(21,263)	576,563
Due from (to) component unit	(25,000)	-	(61,484)	61,484	-
Unearned revenue	105,228	(34,967)	221,915	(10,013)	37,994
Net pension liability - PERS	-	-	26,482,758	42,445,336	(7,836,114)
Accrued other postemployment benefits	37,248	48,151	(9,196)	(10,578)	5,209,747
Landfill postclosure	-	-	9,442,484	(3,370,042)	(3,611,124)
Pollution remediation	1,897,200	(741,200)	117,500	(635,000)	(522,500)
Other accrued liabilities	(38,449)	(117,408)	82,133	10,667	635,939
Deferred outflows - pensions	-	(3,394,556)	(2,711,170)	(28,897,806)	13,728,558
Deferred outflows - OPEB	-	-	-	-	(613,206)
Deferred inflows - pensions	-	20,670,228	(13,394,887)	(5,502,051)	132,190
Deferred inflows - OPEB	-	-	-	-	317,784
Restatement per GASB 68 implementation	-	(37,393,542)	-	-	-
Restatement per GASB 75 implementation	-	-	-	-	(4,889,154)
Net cash provided by operating activities	<u>\$ 195,499,745</u>	<u>\$ 212,483,947</u>	<u>\$ 232,364,304</u>	<u>\$ 257,183,486</u>	<u>\$ 261,979,232</u>
Noncash information					
Prepaid PERS amortization	(1,124,181)	-	-	-	-
Capital contribution	2,266,450	3,000,654	1,698,560	1,154,852	3,419,865
Capital assets transferred to/from business-type activity	-	-	(21,276)	-	-
Increase in fair value of investments (classified as cash equivalents)	(249,178)	194,992	743,852	(1,638,417)	(3,143,237)

Source: City of Portland audited financial statements.

