ANNUAL DISCLOSURE INFORMATION

Pertaining to

City of Portland, Oregon

First Lien Water System Revenue & Refunding Bonds:

$73,440,000	**2010 Series A**	**Dated February 11, 2010**
$82,835,000	**2011 Series A**	**Dated March 22, 2011**
$76,510,000	**2012 Series A**	**Dated August 2, 2012**
$84,975,000	**2014 Series A**	**Dated December 16, 2014**
$168,525,000	**2016 Series A**	**Dated December 15, 2016**

Second Lien Water System Revenue & Refunding Bonds:

$253,635,000	**2013 Series A**	**Dated May 2, 2013**

December 31, 2018

MATURITY SCHEDULES FIRST LIEN BONDS:

$73,440,000*
First Lien Water System Revenue Bonds,
2010 Series A

Due May 1	Principal Amount	Interest Rate	CUSIP 736754
2019	$2,430,000	5.000%	HP0
2020	2,550,000	4.000%	HQ8
2021	2,655,000	4.000%	HR6
2022	2,760,000	4.000%	HS4
2023	2,870,000	4.000%	HT2
2024	2,985,000	4.000%	HU9
2025	3,105,000	4.000%	HV7
2026	3,230,000	4.000%	HW5
2027	3,355,000	4.000%	HX3
2028	3,490,000	4.000%	HY1
2029	3,630,000	4.000%	HZ8
2030	3,775,000	4.000%	JA1
2031	3,925,000	4.000%	JB9
	$40,760,000		

$17,410,000 4.25% Term Bonds due May 1, 2035;
CUSIP Number 736754 JC7

*Original par amount.

MATURITY SCHEDULES FIRST LIEN BONDS (Continued):

$82,835,000*
First Lien Water System Revenue Bonds,
2011 Series A

Due May 1	Principal Amount	Interest Rate	CUSIP 736754
2019	$2,580,000	5.000%	JL7
2020	2,710,000	5.000%	JM5
2021	2,845,000	4.000%	JN3
2022	2,960,000	4.000%	JP8
2023	3,075,000	4.000%	JQ6
2024	3,200,000	4.000%	JR4
2025	3,330,000	4.000%	JS2
2026	3,460,000	4.000%	JT0
2027	3,600,000	4.000%	JU7
2028	3,745,000	4.000%	JV5
2029	3,895,000	4.250%	JW3
2030	4,060,000	4.500%	JX1
2031	4,240,000	4.500%	JY9
2032	4,430,000	5.000%	JZ6
2033	4,655,000	5.000%	KA9
2034	4,885,000	5.000%	KB7
2035	5,130,000	5.000%	KC5
2036	5,385,000	5.000%	KD3
	$68,185,000		

*Original par amount.

MATURITY SCHEDULES FIRST LIEN BONDS (Continued):

$76,510,000*
First Lien Water System Revenue Bonds
2012 Series A

Due April 1	Principal Amount	Interest Rate	CUSIP 736754
2019	$2,390,000	5.000%	KL5
2020	2,510,000	5.000%	KM3
2021	2,635,000	5.000%	KN1
2022	2,765,000	3.000%	KP6
2023	2,850,000	3.000%	KQ4
2024	2,935,000	3.000%	KR2
2025	3,020,000	3.000%	KS0
2026	3,110,000	3.000%	KT8
2027	3,205,000	3.000%	KU5
2028	3,300,000	3.000%	KV3
2029	3,400,000	3.000%	KW1
2030	3,505,000	3.000%	KX9
2031	3,610,000	3.000%	KY7
2032	3,715,000	3.000%	KZ4
2033	3,825,000	3.000%	LA8
2034	3,940,000	3.250%	LB6
2035	4,070,000	3.250%	LC4
	$54,785,000		

$8,545,000 3.25% Term Bonds, due April 1, 2037
CUSIP Number 736754LD2

*Original par amount.

MATURITY SCHEDULES FIRST LIEN BONDS (Continued):

$84,975,000*
First Lien Water System Revenue Bonds
2014 Series A

Due May 1	Principal Amount	Interest Rate	CUSIP 736754
2019	$2,275,000	5.000%	MT6
2020	2,385,000	5.000%	MU3
2021	2,505,000	5.000%	MV1
2022	2,630,000	5.000%	MW9
2023	2,760,000	5.000%	MX7
2024	2,900,000	5.000%	MY5
2025	3,045,000	3.000%	MZ2
2026	3,135,000	3.000%	NA6
2027	3,230,000	5.000%	NB4
2028	3,390,000	4.000%	NC2
2029	3,530,000	3.000%	ND0
2030	3,635,000	4.000%	NE8
2031	3,780,000	4.000%	NF5
2032	3,930,000	4.000%	NG3
2033	4,085,000	4.000%	NH1
2034	4,250,000	4.000%	NJ7
2035	4,420,000	4.000%	NK4
2036	4,600,000	4.000%	NL2
2037	4,780,000	4.000%	NM0
2038	4,975,000	3.500%	NN8
2039	5,145,000	4.000%	NP3
	$75,385,000		

*Original par amount.

MATURITY SCHEDULES FIRST LIEN BONDS (Continued):

$168,525,000*
First Lien Water System Revenue and Refunding Bonds
2016 Series A

Due April 1	Principal Amount	Interest Rate	CUSIP 736754
2019	$10,895,000	5.00%	NS7
2020	11,435,000	5.00%	NT5
2021	12,015,000	5.00%	NU2
2022	5,135,000	5.00%	NV0
2023	5,390,000	5.00%	NW8
2024	5,665,000	5.00%	NX6
2025	5,945,000	5.00%	NY4
2026	6,240,000	5.00%	NZ1
2027	6,555,000	4.00%	PA4
2028	6,820,000	4.00%	PB2
2029	7,090,000	4.00%	PC0
2030	7,375,000	4.00%	PD8
2031	7,665,000	4.00%	PE6
2032	7,975,000	4.00%	PF3
2033	8,290,000	4.00%	PG1
2034	8,625,000	4.00%	PH9
2035	4,270,000	4.00%	PJ5
2036	4,440,000	4.00%	PK2
2037	4,620,000	4.00%	PL0
2038	4,805,000	4.00%	PM8
2039	4,995,000	4.00%	PN6
2040	5,195,000	4.00%	PP1
2041	5,405,000	4.00%	PQ9
	$156,845,000		

*Original par amount.

MATURITY SCHEDULE SECOND LIEN BONDS:

$253,635,000*
Second Lien Water System Revenue and Refunding Bonds
2013 Series A

Due Oct. 1	Principal Amount	Interest Rate	CUSIP 736754
2019	$3,000,000	3.000%	LK6
2019	6,410,000	5.000%	MF6
2020	3,000,000	4.000%	LL4
2020	6,840,000	5.000%	MG4
2021	3,000,000	4.000%	LM2
2021	8,450,000	5.000%	MH2
2022	12,030,000	5.000%	MJ8
2023	3,000,000	4.000%	LN0
2023	9,635,000	5.000%	MK5
2024	8,945,000	5.000%	LP5
2025	9,405,000	5.000%	LQ3
2026	9,885,000	5.000%	LR1
2027	10,395,000	5.000%	LS9
2028	10,815,000	3.000%	LT7
2029	11,200,000	4.000%	LU4
2030	11,650,000	4.000%	LV2
2031	10,145,000	4.000%	ML3
2031	2,000,000	5.000%	LW0
2032	5,925,000	4.000%	MM1
2032	2,000,000	5.000%	LX8
2033	5,205,000	4.000%	MN9
2033	3,070,000	5.000%	LY6
	$156,005,000		

$36,685,000 4.00% 2013 Series A Term Bonds due October 1, 2037;
CUSIP Number 736754 LZ3

*Original par amount.

TABLE OF CONTENTS

WATER SYSTEM FINANCIAL AND OPERATING INFORMATION

OVERVIEW

This section provides financial and operating information specifically related to the Water System.

FUND ACCOUNTING SYSTEM

The financial reporting system of the Portland Water Bureau (the "Bureau") is organized into three separate funds. The funds and their financial reporting purpose are described as follows:

- **Water Operating Fund.** This fund serves as the operating fund of the Bureau and, with the exception of debt service, all expenditures are made from this fund for operation, maintenance and capital assets. Receipts from the sale of water are the primary source of revenue for the Water Operating Fund. The cash flow in this fund determines the need for rate increases. The Rate Stabilization Account is within the Operating Fund.

- **Water Construction Fund.** By City Charter stipulation, this fund is the recipient of proceeds from bond sales and System Development Charges. Other sources of revenue include reimbursements for capital expenditures, such as main extensions and service installations and sale of assets. Also, a portion of the water sales revenues is transferred to this fund to finance routine capital system repair and replacement. The Water Construction Fund reimburses the Water Operating Fund for capital asset requirements including capitalized overhead, capitalized interest, and the cost of issuing bonds.

- **Water Bond Sinking Fund.** This fund provides for the repayment of bonded debt and interest, and maintains the water revenue bond debt service reserves for various issues. The source of revenue for this fund is a transfer from the Water Operating Fund and interest earnings.

These three funds enable the Bureau to segregate resources for specific uses and ensure that reserves are not used to supplement daily operating needs. Maintaining the fiscal integrity of each fund is a key objective of the Bureau's financial planning and analysis efforts. The Bureau's fund structure provides for the accounting and control of expenditures and differs from the account structure described in the Master First Lien Water System Revenue Bond Declaration (the "Master First Lien Bond Declaration") and the Master Second Lien Water System Revenue Bond Declaration (the "Master Second Lien Bond Declaration"). The accounts described in the Master First Lien Bond Declaration and the Master Second Lien Bond Declaration have been established to identify priority claims on Water System revenues and are accounted for independently to satisfy the requirements of the Master First Lien Bond Declaration and the Master Second Lien Bond Declaration.

HISTORICAL OPERATING RESULTS

The Bureau has collected Water System revenues sufficient to provide for all operating expenses, to pay debt service, and to meet debt service coverage requirements on its outstanding Water System revenue bonds. In addition to meeting these requirements, the Bureau provides cash financing of its capital program by setting current rates and charges at a level sufficient to meet planned debt service coverage targets.

The Bureau continues to maintain a target minimum debt service coverage ratio of 1.90 times on First Lien Bonds (higher than the 1.25 times required by the Master First Lien Bond Ordinance). In addition, the Bureau maintains a minimum debt service coverage ratio target for combined first and second lien bond debt service of 1.75 times using Stabilized Net Revenues as defined in the Master Second Lien Bond Declaration. (The Master Second Lien Bond Declaration requires 1.10 times debt service coverage using Stabilized Net Revenues.)

Historical operating results of the Bureau's financial operations are shown in the following table. Between FY 2013-14 and FY 2017-18, Gross Revenues grew at a compound annual rate of 8.3 percent. Gross revenues increased overall primarily due to the rate change for water sales, increased capital charges due to an increase in building and permitting activity, and increased interest earnings. Gross revenues increased in FY 2014-15, FY 2015-16, and FY 2017-18 due to increased water demand. Operating Expenses during the five-year period averaged $77.7 million.

Over the last five years, Net Revenues have provided from 2.97 times to 3.36 times debt service coverage on First Lien Bonds. Debt service coverage increased in FY 2017-18 due to increased water sales revenue, capital revenue, and interest earnings, offset by increased operating expenses and debt service. The Bureau contributed $8.1 million to the Rate Stabilization Account in FY

2017-18. Stabilized Net Revenues provided 1.99 times coverage on the combined annual debt service for both First and Second Lien Bonds in FY 2017-18. Audited statements of revenues, expenses, and changes in fund net position, the statement of net position, and the statement of cash flows for the Water Fund are presented in the Appendix.

Table 1
CITY OF PORTLAND, OREGON
Water Bureau
Historical Operating Results

Fiscal Year Ending June 30	2013-14	2014-15	2015-16	2016-17	2017-18
(in thousands of dollars)					
GROSS REVENUES (1)					
Operating Revenues	$135,616	$147,558	$161,849	$164,675	$179,007
Interest Earnings	1,021	1,020	1,371	2,262	3,244
Capital Charges	10,860	13,950	15,980	16,367	20,948
Total Gross Revenues	$147,497	$162,528	$179,200	$183,304	$203,199
OPERATING EXPENSES (2) (3)					
Operating Expenses	$65,035	$67,951	$93,514	$77,909	$84,143
NET REVENUES	$82,462	$94,577	$85,686	$105,395	$119,056
DEBT SERVICE					
First Lien Bonds	$26,415	$28,151	$28,804	$34,872	$36,988
Second Lien Bonds	$19,313	$22,054	$22,050	$18,772	$18,778
Total	$45,728	$50,205	$50,854	$53,644	$55,766
DEBT SERVICE COVERAGE (x)					
First Lien Bonds (4)	3.12	3.36	2.97	3.02	3.22
First and Second Lien Bonds (6)	1.80	1.88	2.07	1.96	2.13
COVERAGE BASED ON STABILIZED NET REVENUES (5)					
NET REVENUES (6)	$82,462	$94,577	$105,450	$105,395	$119,056
Less: Transfers to Rate Stabilization Account	0	(2,500)	(3,000)	(3,000)	(8,100)
Plus: Transfers from Rate Stabilization Account	428	0	0	0	0
STABILIZED NET REVENUES	$82,890	$92,077	$102,450	$102,395	$110,956
DEBT SERVICE COVERAGE (x)					
First and Second Lien Bonds	1.81	1.83	2.01	1.91	1.99

Notes:

(1) As defined in the Master First Lien Bond Declaration. Does not reflect adjustments to Second Lien Bond calculations as defined in the Master Second Lien Bond Declaration. Gross Revenues excludes $5.5 million for FY 2017-18 related to proceeds from the Anderson lawsuit settlement. See "LITIGATION" herein.

(2) Operating Expenses excludes a non-cash negative expense of $12.8 million for FY 2014-15. For calculating First Lien Bond debt service coverage, Operating Expenses includes a non-cash expense of $19.8 million for FY 2015-16 related to reporting requirements under GASB 68. That treatment of these non-cash items results in the most conservative debt coverage calculation for both fiscal years. Effective with the issuance of the First Lien Water System Revenue and Refunding Bonds, 2016 Series A Bonds and FY 2016-17, these non-cash GASB-related expenses are excluded from the Operating Expenses in calculating Net Revenues and debt service coverage. See definition of Operating Expenses in Master First Lien Bond Declaration. For calculating combined First and Second Lien Bond debt service coverage in FY 2015-16, Operating Expenses excludes a non-cash expense of $19.8 million related to GASB 68 reporting requirements, as provided in the Master Second Lien Water System Bond Declaration, resulting in Operating Expenses of $73.8 million. See definitions of Operating Expenses in Master Second Lien Bond Declaration.

(3) Operating Expenses includes the Bureau's share of debt service for the City's pension obligation bonds and Post-Employment Retirement Benefits. See "CITY OPERATING AND FINANCIAL INFORMATION—PENSION PLANS—Pension Obligation Bonds" and "—OTHER POST-EMPLOYMENT BENEFITS ("OPEB")" in Appendix D.

(4) The First Lien Bond debt service coverage ratio for FY 2015-16 would be 3.66 after adjusting for springing amendments incorporated in the Master First Lien Bond Declaration.

(5) The Second Lien Rate Stabilization Account was created with the issuance of Second Lien Bonds in 2006.

(6) In FY 2015-16, Stabilized Net Revenues excludes $19.8 million of expenses related to GASB 68 reporting requirements, as provided in the Master Second Lien Bond Declaration.

Source: City of Portland. Totals may not add due to rounding.

WATER SYSTEM CUSTOMERS, DEMAND, RATES AND BILLING

Overview

The Bureau has both retail and wholesale water customers. Table 2 shows the number of accounts for the past five fiscal years for retail and wholesale customers.

Retail Water Customers

Approximately 40 percent of all Bureau retail water sales are to single-family residential customers; 17 percent are to multi-family residential customers; and 43 percent are to commercial, industrial, and institutions. As of fiscal year ending June 30, 2018, residential accounts make up the majority of the approximately 185,600 retail water accounts. Commercial accounts total approximately 20,000 (including 3,900 fire line) water services. In addition to water service accounts, there are more than 6,100 sewer-only accounts, most of which are billed bi-monthly.

Table 2
CITY OF PORTLAND, OREGON
Water Bureau
Historical Number of Accounts

Fiscal Year Ending June 30	2013-14	2014-15	2015-16	2016-17	2017-18
TOTAL RETAIL CUSTOMERS	183,175	183,300	184,300	185,100	185,600
WHOLESALE CUSTOMERS					
Tualatin Valley Water District	59,833	60,550	61,684	63,535	62,985
Rockwood Water PUD	13,221	13,417	13,420	13,519	13,568
Gresham, City of	16,668	16,789	16,691	16,832	17,074
Tualatin, City of	6,689	6,384	6,872	6,900	6,985
Tigard, City of (1)	18,678	18,535	18,821	-	-
West Slope Water District	3,308	3,310	3,200	3,221	3,225
Raleigh Water District	1,008	1,008	1,004	1,005	1,015
Palatine Hill Water District	607	603	598	611	611
City of Sandy	3,508	3,608	3,703	3,776	3,853
Lake Grove Water District	1,218	1,327	1,267	1,268	1,273
Valley View Water District	381	383	384	383	385
Pleasant Home Water District	545	546	550	545	575
Lusted Water District	409	410	409	411	411
Burlington Water District	113	113	113	113	113
Six private water companies (2)	209	207	207	209	214
Total Wholesale Customers	126,395	127,190	128,923	112,328	112,287
Grand Total	309,570	310,490	313,223	297,428	297,887

Notes:

(1) The City of Tigard Regional Water Sales Agreement terminated on June 30, 2016.
(2) Six private water companies include GNR Corporation, Green Valley Water Company, Hideaway Hills Water Company, Lorna Portland Water LLC, Skyview Acres Water Company, and Two Rivers Water Association.

Source: City of Portland. Totals may not add due to rounding.

Table 3 shows the top ten retail users and revenues for FY 2017-18.

Table 3
CITY OF PORTLAND, OREGON
Water Bureau
Major Retail Users for Fiscal Year 2017-18

Retail Commercial Users	Annual Usage (ccf)[1]	% of Annual Usage (ccf)[1] to Total Retail Customers	Revenue
City of Portland, Bureau of Parks	388,181	1.5%	$1,600,802
Siltronic Corp.	305,747	1.2	1,371,701
Oregon Health and Sciences University	242,861	1.0	1,121,639
Precision Castparts	217,336	0.9	981,310
Port of Portland	195,851	0.8	944,973
Darigold, Inc.	165,378	0.6	745,145
Evraz, Inc.	121,029	0.5	545,982
Portland Public Schools	113,636	0.4	654,949
Portland State University	102,292	0.4	515,694
Ajinomoto Frozen Foods USA, Inc.	97,270	0.4	442,346

Notes:

(1) "CCF" means centum cubic feet or 100 cubic feet.

Source: City of Portland.

Wholesale Water Customers

The Bureau currently provides water on a wholesale contract basis to 19 water purveyors, which include cities, water districts, and private water companies. Annual water sales to wholesale customers account for about ten percent of annual water sale revenues. Wholesale customers pay based on their use of the system in accordance with water sales agreement terms.

Between 2006 and 2009, the City entered into new wholesale contracts with 14 cities and public water districts. These 14 contracts constitute more than 99 percent of the Bureau's wholesale water sales. Of the 14 wholesale contracts, five customers have 10-year contracts and nine customers have 20-year contracts. The remaining wholesale customers are six small private water companies, with contracts that renew every five years. The City of Tigard was the only wholesale customer with a 10-year agreement that provided a non-renewal notice in FY 2010-11, therefore, their agreement terminated on June 30, 2016. The remaining four wholesale customers with 10-year agreement will continue through June 30, 2026.

A significant feature of the wholesale agreements is the guaranteed supply and payment provisions. In exchange for the Bureau's guarantee of a predetermined water supply to each wholesale customer, the wholesale customers will pay for those annual quantities on a take-or-pay basis during the contract period. This provision means that the Bureau's wholesale revenues are considerably more stable and not subject to adverse demand fluctuations due to weather, economic downturns, or other factors for the duration of the contracts. The only variation in revenues due to demand would occur from mutually agreed-upon sales beyond the take-or-pay quantities or from changes in the ratio of peak-to-average demands of the users. The City currently has ample water supply to meet all obligations to deliver water as required by wholesale agreements and to supply its retail customers.

Wholesale customers must give five years' notice of non-renewal. Either party may give a written notice of non-renewal and can do so at any time during the last five years of their respective contracts. If such a notice is issued, the contract will terminate on the next June 30 at least five years but not more than six years from the date of the notice. If neither party gives notice of non-renewal during the last five years of the respective contracts, the contract will continue for another ten years. If the contracts are renewed, then the contracts shall also be repeatedly renewed for ten-year intervals, and every ten years thereafter, unless one of the parties gives a notice of non-renewal during the second five years of each ten-year renewal period.

The 20- and 10-year agreements are virtually identical except that the 10-year agreement customers pay a higher rate of return to the City in exchange for the ability to elect not to renew their contracts at an earlier date. Tualatin Valley Water District (TVWD) is partnering with the City of Hillsboro to develop an alternative source of supply from the Willamette River. However, with the renewal of their agreement, the west-side wholesale customers will continue to purchase water from the City for at least through June 30, 2026. When the alternative source of supply is developed, wholesale customers may opt to utilize the new source of supply and reduce or even eliminate purchases from the City.

The amount of revenue to be generated from wholesale customers under these contracts is guaranteed to be about $18.8 million in FY 2018-19, based on the take-or-pay provisions in the contracts and the guaranteed water quantities requested by each wholesale customer. Table 4 shows guaranteed purchase quantities, rates, guaranteed revenues, and percent of wholesale sales from each wholesale customer for FY 2018-19.

Table 4
CITY OF PORTLAND, OREGON
Water Bureau
Guaranteed Purchase Quantities and Guaranteed Revenues for Wholesale Customers, FY 2018-19

Wholesale Customer	Earliest Date for Contract Termination	FY 2018-19 Guaranteed Purchase Quantities (million ccf)	FY 2018-19 Rate (1)	Guaranteed Revenue	% of Total Wholesale Sales ($)
Tualatin Valley Water District	6/30/2026	6.4	$1.225	$7,866,531	42%
Rockwood Water PUD	6/30/2026	3.8	$0.731	$2,782,296	15%
Gresham, City of	6/30/2026	3.7	$0.740	$2,708,223	14%
Tualatin, City of	6/30/2026	2.1	$1.090	$2,340,294	12%
West Slope Water District	6/30/2026	0.7	$1.776	$1,213,284	6%
Palatine Hill Water District	6/30/2027	0.2	$2.273	$476,935	3%
Lake Grove Water District	6/30/2026	0.1	$3.021	$442,245	2%
Raleigh Water District	6/30/2026	0.3	$0.989	$337,820	2%
Valley View Water District	6/30/2026	0.1	$2.368	$187,191	<1%
Sandy, City of	6/30/2028	0.2	$0.619	$151,025	<1%
Pleasant Home Water District	6/30/2026	0.1	$1.087	$106,083	<1%
Lusted Water District	6/30/2026	0.1	$1.063	$93,369	<1%
Burlington Water District	6/30/2026	< 0.1	$1.628	$43,690	<1%
Six private water companies (2)	6/30/2021	< 0.1	$1.041	$35,573	<1%
TOTAL		18.0		$18,784,559	100%

Notes:

(1) Wholesale rates are calculated using methodologies that differ from inside-city retail rates, and generally do not include distribution system costs.
(2) Six private water companies include GNR Corporation, Green Valley Water Company, Hideaway Hills Water Company, Lorna Portland Water LLC, Skyview Acres Water Company, and Two Rivers Water Association all signed a 5-year contract beginning July 1, 2016, with a renewal option for another 5 years.

Source: City of Portland. Totals may not add due to rounding.

Retail and Wholesale Demand

As shown in Table 5 below, retail use constitutes about 60 percent of all water use in a given year, while wholesale water use is the remaining 40 percent. The number of retail customer accounts and demand has remained about the same with slightly lower demand in FY 2013-14 and FY 2016-17 during the five most recent fiscal years. Retail consumption has averaged 25.3 million ccf. The Bureau has aligned its annual demand projections within this historical trend. Wholesale water demand is based on guaranteed water quantities requested by each customer.

Table 5
CITY OF PORTLAND, OREGON
Water Bureau
Historical Consumption (ccf)

Fiscal Year Ending June 30	2013-14	2014-15	2015-16	2016-17	2017-18
TOTAL RETAIL CONSUMPTION	24,800,000	25,700,000	25,900,000	24,700,000	25,500,000
WHOLESALE CONSUMPTION					
Tualatin Valley Water District	6,445,029	6,694,702	7,412,974	7,618,976	8,315,151
Rockwood Water PUD	3,061,865	3,040,125	2,987,030	3,003,143	3,012,777
Gresham, City of	2,793,032	3,018,577	2,973,719	2,839,686	2,863,252
Tualatin, City of	2,067,263	2,275,654	2,114,692	2,066,186	2,187,379
Tigard, City of (1)	2,311,166	2,514,233	2,093,844	--	--
West Slope Water District	518,699	566,461	588,420	555,560	608,843
Raleigh Water District	249,632	272,749	295,775	241,771	261,272
City of Sandy	36,688	229,487	231,035	206,238	222,495
Palatine Hill Water District	151,342	183,588	188,578	158,148	180,386
Lake Grove Water District	172,470	176,825	143,140	179,480	212,040
Pleasant Home Water District	68,735	78,530	79,245	75,785	78,240
Lusted Water District	65,413	72,134	78,519	68,517	74,342
Valley View Water District	59,212	67,399	73,287	58,742	62,700
Burlington Water District	19,956	14,780	16,156	18,820	17,200
Six private water companies (2)	25,456	15,707	18,672	17,932	16,955
Total Wholesale Consumption	18,045,958	19,220,951	19,295,086	17,108,984	18,113,032
Grand Total	42,845,958	44,920,951	45,195,086	41,808,984	43,613,032

Note:

(1) The City of Tigard Regional Water Sales Agreement terminated on June 30, 2016.

(2) Six private water companies include GNR Corporation, Green Valley Water Company, Hideaway Hills Water Company, Lorna Portland Water LLC, Skyview Acres Water Company, and Two Rivers Water Association. Starting in FY 2014-15, Skyview Acres Water Company purchased water from City of Sandy.

Source: City of Portland. Totals may not add due to rounding.

Rates and Rate Setting

Section 11-105 of the City Charter authorizes the City Council to fix fees and charges for connection to and use of the water system. Water user fees and connection charges are formally reviewed every year by the Bureau. Rates required to support proposed activities for the next year are submitted by the Bureau Administrator to the City Council for review and approval.

Rates and charges for water services are established annually based, in part, upon cost of service principles and methodologies recommended by the American Water Works Association (the "AWWA"). The process used by the Bureau follows the Commodity Demand method promulgated by the AWWA. Under this approach using a rate model developed for the Bureau by Raftelis Financial Consultants, Inc. in 2006, the Water System costs are allocated to customers based on their average and peak water demand characteristics and use of the system.

Under the wholesale water sales agreements, wholesale rates are determined according to a complex set of variables and methodologies. Each wholesale customer's rate is determined based on some variables that are specific to that customer, as well as some variables that apply to all the wholesale customers. Each wholesale customer has an annual guaranteed purchase quantity (i.e., "take-or-pay" quantity) that may not be changed without permission of the Bureau. Each customer also selects its seasonal and maximum-day peak-demand quantities. Costs are allocated to each wholesale customer based on these various demand amounts and on the specific Water System assets that the respective wholesale customers use. Other variables impacting all wholesale customers are the Bureau's budget and an index of municipal bond interest rates. The rates are then calculated for each wholesale customer on an annual basis and are audited by a third party every five years. The most recent audit was completed in December 2015. Retail rates are then established based on the residual financial requirements of the Water System.

The Bureau received approval from the State of Oregon Water Resources Department in 2010 for the City's Water Management and Conservation Plan (the "WMCP"). The WMCP final order states that the Bureau will perform a comprehensive study of conservation rate structure options within the next five years and determine whether a change in rate structure is desirable or necessary. The Bureau completed a conservation rate structure study in June 2013. The study results indicated that changes in Portland's water rate structure were unlikely to produce significant additional reductions in water use by Portland customers. Based on the study results, the City does not plan to change its water rate structure at this time. The City submitted to the Oregon Water Resources Department a 5-year progress report as required under OAR 086-0120(4) by May 25, 2015.

Tables 6 and 7 summarize the Bureau's historical water rates and monthly water bills for various customers as well as a comparison of residential monthly water bills for various systems within the State of Oregon and the nation.

Table 6
CITY OF PORTLAND, OREGON
Water Bureau
Historical Water Rates

Fiscal Year Ending June 30	2013-14	2014-15	2015-16	2016-17	2017-18
WATER USAGE RATES					
Retail Volume Rate (per ccf) (1)	$3.441	$3.682	$3.940	$4.216	$4.499
BASE CHARGE (Monthly Rate)(2)					
Quarterly Read Customer	$10.40	$11.13	$11.91	$12.75	$13.61
Monthly Read Customer	$31.21	$33.40	$35.74	$38.25	$40.82
MONTHLY WATER BILLS (based on usage indicated below)					
Residential (5 ccf) (3)	$27.61	$29.54	$31.61	$33.83	$36.11
Medium Commercial (100 ccf) (3)	$375.31	$401.60	$429.74	$459.85	$490.72
Large Commercial (20,000 ccf) (3)	$68,851	$73,673	$78,836	$84,358	$90,021
Low-Income Residential (5 ccf) (4)	$13.80	$14.77	$15.80	$16.90	$18.06

Notes:

(1) Applies to substantially all retail customers.
(2) The base charge is a fixed amount per bill; customers billed quarterly pay the same fixed charge as customers billed monthly.
(3) Residential customers are charged the Quarterly Read Customer Base Charge. Commercial customers are charged the Monthly Read Customer Base Charge.
(4) The low income discount is 50% of a 5 ccf bill.

Source: City of Portland.

Table 7
CITY OF PORTLAND, OREGON
Water Bureau
Comparison of Residential Monthly Water Bills

WATER UTILITY (Effective Date)	Residential Monthly Bill For 5 ccf	Residential Monthly Bill For 10 ccf
Local:		
Rockwood Water PUD (2018)	$21.13	$33.38
Tualatin, City of (2018)	23.06	37.81
Milwaukie, City of (2018)	28.39	48.09
Beaverton, City of (2018)	30.85	46.70
Gresham, City of (2018)	35.50	48.05
PORTLAND, CITY OF (2018) (1)	39.24	63.69
West Slope Water District (2018)	39.91	64.06
Lake Oswego, City of (2018)	41.39	58.14
Tualatin Valley Water District (2018)	41.98	68.13
Tigard, City of (2018)	46.84	72.00
National:		
Charlotte (2018)		32.12
Cincinnati (2018)		33.40
Denver (2018)		38.29
Sacramento (unmetered) (2018)		56.42
Kansas City (2013)		60.86
Seattle (winter) (2018)		68.10

Notes:

(1) Calculations are based on rates in effect as noted, and the City's rates are effective July 1, 2018, through June 30, 2019.

Source: City of Portland, Portland Water Bureau.

System Development Charges

A System Development Charge ("SDC") is levied by the Bureau for each new water service connected to the Water System inside the City boundaries. The Bureau's SDC is in accordance with ORS 223.297-314, and is a reimbursement fee based on the estimated replacement cost of existing water facilities, less depreciation. The amount charged is dependent on the size of the service with larger services paying a greater amount based on the capacity of the meter. Services dedicated to fire flow and temporary construction services do not pay an SDC. FY 2017-18 SDC revenues were $6.8 million.

Table 8
CITY OF PORTLAND, OREGON
Water Bureau
FY 2018-19 SDC Charge by Meter/Service Size

Size of Meter/Service	Charge
5/8"	$2,808
¾"	4,211
1"	7,019
1-1/2"	14,038
2"	22,460
3"	42,113
4"	70,188
6"	140,376
8"	224,602
10"	403,721

Source: City of Portland.

Beginning with the FY 1999-00 rate ordinance, City Council approved an Affordable Housing SDC Fee Waiver. For any new qualified residential construction that meets certain affordability requirements, the entire SDC can be waived for a 5/8" metered service. If a 3/4" metered service is requested, only the SDC dollar amount for the 5/8" metered service is waived. Multi-family housing SDC waivers are also available if certain affordability requirements are met. FY 2017-18 fee waivers (including accessory dwelling units waivers) totaled $1,640,317. Loss of these revenues is made up through general water retail rates and charges. City Council extended the suspension of system development charges for construction of accessory dwelling units or the conversion of structures to accessory dwelling units until July 31, 2018. Effective August 1, 2018, property owners must sign a covenant stating that neither the accessory dwelling unit nor the house will be rented as accessory short-term rentals for 10 years. There is currently no expiration date for the revised waiver program. FY 2017-18 accessory dwelling unit SDC waivers were $955,148.

Billings and Collections

The Bureau provides billing and collection for water, sewer, and stormwater services. The City uses a Cayenta Utilities billing system, purchased in April 2006, to serve the Bureau and the City's Bureau of Environmental Services. Billing for most retail water customers (about 178,000) is on a quarterly cycle. A monthly statement option is available for qualified customers billed on a quarterly basis. Currently, more than 22,600 customers participate in the monthly statement option. In addition, more than 7,600 large retail commercial accounts, multi-family users, and wholesale purveyors are billed on a monthly basis.

A financial assistance program for water, sewer, and stormwater services is available to retail single-family residential in-city customers with gross monthly household incomes at or below 60 percent of the median family income. Program qualification is based on household size and is the greater of the Portland or state of Oregon median family income. For FY 2018-19, assistance includes a flat quarterly bill discount for water customers of $58.85, crisis assistance vouchers (maximum of $500 per year, including $167 for water and $333 for sewer), in-home plumbing repair assistance for owner-occupied properties up to $2,800, and free conservation devices. In addition, a Utility Safety Net Program is available to ratepayers as a last resort to prevent shutoff of service should they experience a significant change in household income due to employment, medical, or other emergencies. Beginning in FY 2018-19 customers with gross monthly household incomes at or below 80 percent of the median family income qualify for a flat quarterly bill discount of $94.20 for water. Also new in FY 2018-19 is a pilot program to provide financial assistance to multifamily residents who do not receive a water bill through a partnership with Home Forward's Short-Term Rent Assistance program (maximum of $500 per year, $167 funded by the Bureau and $333 funded by the Bureau of Environmental Services).

Most water bills are collected with the payment for sewer and stormwater service. When a bill for water, sewer, or stormwater service becomes delinquent (21 days after billing) a reminder notice is sent on day 35. Additional notices are sent on days 42, 49, and 53 post-billing. After eight weeks from the original bill date, services are terminated if the bill has not been paid. If the customer is still in arrears at the termination date, but is in contact with the Bureau, the City may set up special payment arrangements. Setting up payment arrangements rather than shutting off water service may be in the best interest of both the City and the customer to continue water service. In recent years, a number of efficiencies have been added to the Bureau's billing and collection system, including the ability for customers to make payments electronically and over the phone through an automated system as well as the ability for customers to set their payment arrangements online themselves rather than having to call and speak with a representative.

REGULATORY UPDATES

The City entered into a Bilateral Compliance Agreement with the Oregon Health Authority ("OHA") in December 2017, which establishes a 10-year compliance schedule to build and begin operating a filtration water treatment facility to remove Cryptosporidium from the Bull Run Watershed drinking water source. On December 12, 2018, the City Council adopted Resolution 37402 to accept the Water Bureau's preferred alternatives for the filtration plant, including a capacity range of 145 million gallons per day ("mgd") to 160 mgd, with a target of 160 mgd; a plant location at Carpenter Lane; and a preferred filtration technology of granular media filtration. These preferred options will be the focus of further study over the coming months. The Bureau's FY 2018-19 Five-Year Capital Improvement Plan includes $500 million for the filtration water treatment project, which is reflected in forecasted rates. The Bureau has also committed to continued monitoring for Cryptosporidium, maintaining protections within the Bull Run Watershed, and coordinating with public health officials to maintain public health protection until a filtration treatment facility is online.

The City has also been working with OHA to further reduce exposure to lead in Portland. In 2017, OHA approved the City's Improved Corrosion Control Treatment schedule. The design of a new Corrosion Control Treatment facility is underway with scheduled completion in spring 2022. The Bureau's FY 2018-19 Five-Year Capital Improvement Plan includes $20 million for the treatment facility and is reflected in forecasted rates. Until improved Corrosion Control Treatment is online, the Bureau will be implementing interim measures to further reduce exposure to lead in water at customer taps.

OTHER FINANCIAL INFORMATION

Outstanding Water System Debt

As of December 31, 2018, the City had a total of $614,605,000 of Water System revenue bonds outstanding, as shown in the following table.

Table 9
CITY OF PORTLAND, OREGON
Water Bureau
Outstanding Water System Revenue Bonds
as of December 31, 2018

Issue	Dated	Final Maturity	Original Par Amount	Amount Outstanding
First Lien Water System Revenue Bonds				
2010 Series A	02/11/10	05/01/35	$73,440,000	$58,170,000
2011 Series A	03/22/11	05/01/36	82,835,000	68,185,000
2012 Series A	08/02/12	04/01/37	76,510,000	63,330,000
2014 Series A	12/16/14	05/01/39	84,975,000	75,385,000
2016 Series A	12/15/16	04/01/41	168,525,000	156,845,000
Subtotal			$486,285,000	$421,915,000
Second Lien Water System Revenue Bonds				
2013 Series A	05/02/13	10/01/37	$253,635,000	$192,690,000
TOTAL			$739,920,000	$614,605,000

Source: City of Portland.

Debt Service Requirements

The following table represents the Bureau's annual debt service requirements on First Lien and Second Lien Bonds.

Table 10
CITY OF PORTLAND, OREGON
Water Bureau
Annual Debt Service Requirements (1)

Fiscal Year Ending 30-Jun	Outstanding First Lien Bonds	Outstanding Second Lien Bonds	Total Debt Service
2019	$38,114,275	$17,655,100	$55,769,375
2020	38,105,775	17,664,850	55,770,625
2021	38,116,775	17,658,600	55,775,375
2022	30,634,025	18,766,350	49,400,375
2023	30,629,025	18,774,350	49,403,375
2024	30,638,225	18,777,725	49,415,950
2025	30,634,525	14,563,225	45,197,750
2026	30,627,925	14,564,475	45,192,400
2027	30,630,975	14,562,225	45,193,200
2028	30,632,925	14,565,225	45,198,150
2029	30,636,125	14,563,125	45,199,250
2030	30,638,888	14,561,900	45,200,788
2031	30,629,638	14,554,900	45,184,538
2032	30,630,738	14,564,000	45,194,738
2033	30,627,975	9,922,600	40,550,575
2034	30,629,425	9,923,250	40,552,675
2035	25,928,425	9,924,800	35,853,225
2036	21,110,488	9,922,600	31,033,088
2037	15,452,975	9,921,100	25,374,075
2038	10,975,925	9,924,600	20,900,525
2039	10,969,600	-	10,969,600
2040	5,619,000	-	5,619,000
2041	5,621,200	-	5,621,200
TOTAL	$608,234,850	$285,335,000	$893,569,850

Notes:

(1) Totals may not foot due to rounding.

Source: City of Portland.

DEBT SERVICE RESERVE ACCOUNTS AND RESERVE CREDIT FACILITIES

First Lien Bonds

Each subaccount within the Revenue Bond Reserve Account for First Lien Water Revenue Bonds that were issued before September 1, 2016, is fully funded at the Reserve Requirement with cash as shown in the table below. The Reserve Requirement for these Series of First Lien Bonds is defined as the Tax Maximum for that Series. The City elected not to create a subaccount in the Revenue Bond Reserve Account to secure the First Lien Water System Revenue and Refunding Bonds, 2016 Series A.

Table 11
CITY OF PORTLAND, OREGON
Reserve Subaccounts for First Lien Bonds (1)

Series	Date of Issue	Maturity Date	Cash Funded Reserve Amount
2010 Series A	02/11/10	05/01/35	$4,826,425
2011 Series B	03/22/11	05/01/36	$5,659,388
2012 Series A	08/02/12	04/01/37	$4,482,938
2014 Series A	12/16/14	05/01/39	$5,355,275

Notes:

(1) As of December 31, 2018.

Source: City of Portland.

Second Lien Bonds

The City has created the First Subaccount in the Second Lien Bond Reserve Account, which secures the Second Lien Water System Revenue and Refunding Bonds, 2013 Series A (the "2013 Series A Bonds"). The First Subaccount is funded with cash in the amount of $11,027,175. This amount exceeds the First Subaccount Reserve Requirement of $9,388,863, which is equal to one-half of the maximum annual debt service on the 2013 Series A Bonds. The City plans to apply the excess debt service reserve amount to pay debt service in FY 2019-20.

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 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
Incurred 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 12
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 13
OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
Summary of Statewide PERS System Funding Levels
($ in Millions) (1)

STATEWIDE PERS SYSTEM				
Calendar Year	**Actuarial Value of Assets (2)**	**Actuarial Liability**	**Unfunded 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 14
OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
Summary of City Funding Levels
($ in Millions) (1)

Calendar Year	Actuarial Value of Assets	Actuarial Liability	Unfunded 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 15
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 16
OREGON PUBLIC EMPLOYEES RETIREMENT FUND
Oregon PERS Investment Returns (1)

Fiscal Year Ending June 30	Net 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 17
OREGON PUBLIC EMPLOYEES RETIREMENT FUND
Annualized Investment Results (1)

	Annualized		
Periods Ending June 30, 2018	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 12 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 18
OREGON PUBLIC EMPLOYEES RETIREMENT SYSTEM
Employer Contribution Rates for the City
Percentage of Covered Payroll (1) (2)

	Current Rates	Adopted Rates
Payrolls Paid	**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 19 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 19
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 20
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 21
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 22 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 22 below. Note that these valuations differ from results shown in Table 21 above because they are based on actual results prepared by Milliman and are not roll-forward amounts of prior valuations.

Table 22
CITY OF PORTLAND, OREGON
FPDR Plan--Summary of Most Recent Actuarial Valuations

Fiscal Year	Plan Assets	Total Pension Liability	Net Pension 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 23
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 24
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 50^{th} and 5^{th} 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 25
CITY OF PORTLAND, OREGON
FPDR Fund--Projected Levy Rate, Taxes and Requirements

Fiscal Year Ended June 30	Levy Rate at 50th Percentile	Taxes Levied at 50th Percentile	Levy Rate at 5th Percentile	Taxes Levied at 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 18 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 study 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	$100,197,951

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

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 water 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.

CITY OF PORTLAND, OREGON
1851

APPENDIX
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.

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
Water Fund
Statement of Revenues, Expenses, and Changes in Fund Net Position
For the Years Ended June 30

	2014	2015	2016	2017	2018
Operating revenues:					
Service charges and fees	$ 141,419,746	$ 157,380,504	$ 173,487,191	$ 175,614,113	$ 193,790,787
Service charges and fees provided internally	3,449,785	2,976,787	3,179,359	2,934,952	3,990,320
Miscellaneous	891,265	391,942	428,140	927,863	479,228
Total operating revenues	145,760,796	160,749,233	177,094,690	179,476,928	198,260,335
Operating expenses:					
Salaries and wages	36,039,039	23,071,213	58,594,493	47,977,994	49,037,424
Operating supplies	3,221,308	3,655,498	3,820,480	4,038,727	4,286,313
Professional services	1,368,457	1,581,177	1,430,391	2,669,596	3,748,009
Services and materials provided internally	16,023,162	16,279,698	17,538,439	18,926,002	19,156,911
Utilities	1,788,967	1,920,607	3,155,593	2,500,733	1,936,107
Miscellaneous	4,667,051	5,363,404	5,366,481	5,104,772	7,823,667
Utility license fees	5,528,579	6,007,691	6,536,256	6,776,380	7,349,454
Depreciation expense	25,870,266	25,747,919	29,029,736	29,672,576	30,519,028
Total operating expenses	94,506,829	83,627,207	125,471,869	117,666,780	123,856,913
Operating income (loss)	51,253,967	77,122,026	51,622,821	61,810,148	74,403,422
Nonoperating revenues (expenses):					
Gain (loss) on sale of capital assets	(2,497,943)	(1,150,129)	(2,788,130)	(2,434,064)	(552,117)
Investment earnings	1,504,424	1,003,061	1,849,415	1,044,195	2,035,994
Interest expense	(15,802,984)	(20,345,687)	(22,321,528)	(26,411,666)	(22,425,581)
Debt issuance costs	-	(252,949)	-	(553,403)	-
Miscellaneous	714,716	639,538	699,409	661,830	6,196,022
Total nonoperating revenues (expenses)	(16,081,787)	(20,106,166)	(22,560,834)	(27,693,108)	(14,745,682)
Income (loss) before contributions and transfers	35,172,180	57,015,860	29,061,987	34,117,040	59,657,740
Transfers in	-	119,083	35,000	904,022	1,040,246
Transfers out	(634,050)	(626,104)	(656,657)	(706,236)	(729,163)
Capital contributions	197,470	499,708	222,790	184,444	724,484
Income before special item	34,735,600	57,008,547	28,663,120	34,499,270	60,693,307
Change in net position	34,735,600	57,008,547	28,663,120	34,499,270	60,693,307
Total net position - beginning previously reported	-	492,451,439	-	-	575,111,213
Restatement per GASB 68 implementation	-	(37,511,163)	-	-	-
Restatement per GASB 75 implementation	-	-	-	-	(5,194,149)
Total net position -- beginning	457,715,839	454,940,276	511,948,823	540,611,943	569,917,064
Total net position -- ending	$ 492,451,439	$ 511,948,823	$ 540,611,943	$ 575,111,213	$ 630,610,371

Source: City of Portland. Audited financial statements.

CITY OF PORTLAND, OREGON
Water Fund
Statement of Net Position
As of June 30

	2014	2015	2016	2017	2018
ASSETS					
Current assets (unrestricted):					
Cash and investments	$ 80,318,903	$ 86,861,714	$ 109,603,859	$ 107,120,401	$ 152,780,512
Receivables					
Accounts, net	21,247,691	24,256,822	27,523,273	26,173,534	30,350,197
Assessments	239,908	299,408	306,645	498,515	340,337
Advances	245,568	227,328	267,763	256,597	119,761
Accrued interest	242,925	414,593	495,988	713,365	882,901
Due from other funds	8,175	8,175	-	-	-
Inventories	1,860,464	2,147,595	2,119,687	2,229,524	2,503,240
Property held for sale	-	-	-	-	151,630
Prepaid expense	-	-	-	-	1,017,390
Internal balances	-	-	-	-	400,000
Total current assets (unrestricted)	104,163,634	114,215,635	140,317,215	136,991,936	188,545,968
Current assets (restricted):					
Cash and investments	7,844,566	5,411,508	2,625,654	3,975,719	4,991,683
Total current assets (restricted)	7,844,566	5,411,508	2,625,654	3,975,719	4,991,683
Total current assets	112,008,200	119,627,143	142,942,869	140,967,655	193,537,651
Noncurrent assets (unrestricted):					
Capital assets, not being depreciated or amortized:					
Land	14,779,034	15,029,156	15,252,949	14,557,078	14,557,078
Construction in progress	223,600,474	92,044,177	81,303,435	84,910,984	124,666,357
Intangible assets/land use rights	2,622,487	3,211,842	3,525,180	3,677,626	4,095,390
Capital assets, being depreciated or amortized:					
Infrastructure	981,654,125	1,167,153,932	1,213,069,235	1,262,956,716	1,290,237,420
Buildings	61,143,415	78,186,859	80,571,820	80,766,179	81,082,997
Improvements to land	18,431,666	32,593,279	50,806,413	53,519,156	53,972,203
Equipment	32,056,168	32,336,697	34,994,539	31,441,875	32,467,749
Intangible assets/land use, owning rights/software	3,077,235	3,219,925	3,622,231	9,386,747	10,574,552
Accumulated depreciation and amortization	(364,271,887)	(383,187,171)	(405,940,881)	(424,932,406)	(450,129,768)
Capital assets net of accumulated depreciation and amortization	973,092,717	1,040,588,696	1,077,204,921	1,116,283,955	1,161,523,978
Receivables:					
Assessments	219,858	251,946	269,510	199,160	239,971
Pension asset	18,000,228	10,056,132	-	-	-
Internal balances	-	-	-	-	5,141,410
Net OPEB asset	-	-	-	-	129,271
Total non-current assets (unrestricted)	991,312,803	1,050,896,774	1,077,474,431	1,116,483,115	1,167,034,630
Noncurrent assets (restricted):					
Cash and investments:	58,555,117	89,890,089	46,973,948	111,685,396	44,437,881
Total non-current assets	1,049,867,920	1,140,786,863	1,124,448,379	1,228,168,511	1,211,472,511
Total assets	1,161,876,120	1,260,414,006	1,267,391,248	1,369,136,166	1,405,010,162
DEFERRED OUTFLOWS OF RESOURCES					
Deferred outflows - pensions	-	3,301,241	5,906,769	33,173,997	19,647,400
Deferred outflows - OPEB	-	-	-	-	651,459
Total deferred outflows of resources	-	3,301,241	5,906,769	33,173,997	20,298,859

CITY OF PORTLAND, OREGON
Water Fund
Statement of Net Position (continued)
As of June 30

	2014	2015	2016	2017	2018
LIABILITIES					
Current liabilities (payable from unrestricted assets):					
Accounts payable	4,509,532	5,716,250	4,792,206	4,753,223	6,790,333
Self insurance claims	-	-	189,831	192,375	125,548
Compensated absences	4,073,326	4,149,020	4,163,216	3,972,760	4,245,606
Unearned revenue	264,952	256,915	337,384	329,788	368,811
Bonds payable	26,818,549	30,196,739	31,781,557	35,245,689	36,693,214
Notes anf loans payable	-	-	-	-	-
Accrued interest payable - current	5,388,639	5,739,240	5,490,162	6,260,371	5,956,838
Pollution remediation	370,000	550,000	545,000	175,000	143,000
Other liabilities - current	-	-	134,138	6,414	6,414
Total current liabilities (unrestricted)	41,424,998	46,608,164	47,433,494	50,935,620	54,329,764
Current liabilities (payable from restricted assets):					
Accounts payable	7,844,566	5,411,508	2,625,654	3,975,719.00	4,991,683
Total current liabilities (restricted)	7,844,566	5,411,508	2,625,654	3,975,719	4,991,683
Total current liabilities	49,269,564	52,019,672	50,059,148	54,911,339	59,321,447
Noncurrent liabilities:					
Compensated absences	124,141	-	146,994	-	67,139
Self insurance claims	-	-	937,090	869,871	867,929
Bonds payable	608,158,798	665,979,141	634,197,583	687,928,912	651,235,698
Accrued interest payable	9,714,103	10,873,407	12,126,443	13,480,831	14,944,742
Net pension liability - PERS	-	-	25,103,554	65,240,068	57,717,412
Other postemployment benefits	1,745,075	1,797,052	1,787,268	1,775,909	7,310,649
Pollution remediation	413,000	-	175,000	-	-
Total noncurrent liabilities	620,155,117	678,649,600	674,473,932	769,295,591	732,143,569
Total liabilities	669,424,681	730,669,272	724,533,080	824,206,930	791,465,016
DEFERRED INFLOWS OF RESOURCES					
Deferred inflows - pensions	-	20,102,011	7,312,227	1,701,079	1,827,981
Deferred charge for debt refunding	-	995,141	840,767	1,290,941	1,068,045
Deferred inflows - OPEB	-	-	-	-	337,608
Total deferred inflows of resources	-	21,097,152	8,152,994	2,992,020	3,233,634
NET POSITION					
Net investment in capital assets	424,081,178	458,896,340	480,880,921	524,697,188	535,544,450
Unrestricted	68,370,261	53,052,483	59,731,022	50,414,025	95,065,921
Total net position	$ 492,451,439	$ 511,948,823	$ 540,611,943	$ 575,111,213	$ 630,610,371

Source: City of Portland. Audited financial statements.

CITY OF PORTLAND, OREGON
Water Fund
Statement of Cash Flows
For Fiscal Years Ended June 30

	2014	2015	2016	2017	2018
CASH FLOWS FROM OPERATING ACTIVITY					
Receipts from customers and users	$ 142,811,553	$ 154,664,651	$ 170,670,640	$ 177,770,606	$ 190,383,406
Receipts from interfund services provided	3,449,784	2,976,787	3,179,359	2,934,952	3,990,320
Payments to suppliers	(19,380,529)	(20,274,848)	(22,560,139)	(20,626,358)	(23,482,352)
Payments to employees	(34,823,855)	(35,833,980)	(38,678,712)	(41,068,665)	(42,669,125)
Payments for interfund services used	(16,023,163)	(16,279,698)	(17,538,437)	(18,926,002)	(19,156,912)
Other receipts (payments)	728,732	662,912	701,060	664,987	657,783
Net cash provided by operating activities	76,762,522	85,915,824	95,773,771	100,749,520	109,723,120
CASH FLOW FROM NONCAPITAL FINANCING ACTIVITIES					
Transfers in	-	16,999	35,000	904,022	1,040,246
Transfers out	(634,050)	(626,103)	(656,592)	(706,236)	(729,163)
Net cash provided (used) by noncapital financing activities	(634,050)	(609,104)	(621,592)	197,786	311,083
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES					
Proceeds from sale of bonds and notes	-	84,975,000	-	168,525,000	-
Premium on bonds and notes issued	-	7,642,900	-	14,864,824	-
Sale of capital/fixed assets	875,747	269,973	168,633	199,625	670,411
Acquisiton of capital assets	(132,709,964)	(94,068,304)	(68,379,995)	(71,200,855)	(76,257,097)
Principal paid on bonds, notes and capital leases	(23,282,989)	(26,582,115)	(26,376,616)	(121,308,581)	(30,868,832)
Interest paid on bonds, notes and capital leases	(17,511,810)	(22,677,893)	(25,292,067)	(28,722,676)	(25,864,956)
Bond issuance costs	-	(252,949)	-	(553,403)	-
Net cash provided (used) by capital related financing activities	(172,629,016)	(50,693,388)	(119,880,045)	(38,196,066)	(132,320,474)
CASH FLOWS FROM INVESTING ACTIVITIES					
Interest on investments	1,555,816	831,393	1,768,016	826,815	1,866,461
Interest on investments	-	-	-	-	(151,630)
Net increase (decrease) in cash and cash equivalents	(94,944,728)	35,444,725	(22,959,850)	63,578,055	(20,571,440)
CASH AND CASH EQUIVALENTS July 1, Prior Year	241,663,314	146,718,586	182,163,311	159,203,461	222,781,516
CASH AND CASH EQUIVALENTS June 30, Current Year	$ 146,718,586	$ 182,163,311	$ 159,203,461	$ 222,781,516	$ 202,210,076
Reconciliation of Cash and Cash Equivalents to the Statements of Net Position:					
Unrestricted cash and cash equivalents	$ 80,318,903	$ 86,861,714	$ 109,603,859	$ 107,120,401	$ 152,780,512
Restricted cash and cash equivalents	66,399,683	95,301,597	49,599,602	115,661,115	49,429,564
Total	$ 146,718,586	$ 182,163,311	$ 159,203,461	$ 222,781,516	$ 202,210,076

CITY OF PORTLAND, OREGON
Water Fund
Statement of Cash Flows (continued)
For Fiscal Years Ended June 30

	2014	2015	2016	2017	2018
Reconciliation of operating income (loss) to net cash provided by operating activities					
Operating income (loss)	$ 51,253,967	$ 77,122,026	$ 51,622,821	$ 61,810,148	$ 74,403,422
Adjustments to reconcile operating income (loss) to net cash provided (used) by operating activities:					
Depreciation and amortization of capital assets	25,870,266	25,747,919	29,029,736	29,672,576	30,519,028
Provision for uncollectible accounts	884,247	627,617	624,974	624,974	624,974
Nonoperating revenue	714,716	645,633	699,409	661,830	654,612
Change in assets and liabilities:					
Accounts and contracts receivable	797,894	4,234,000	6,099,471	614,412	(4,676,704)
Inventories	(60,007)	(287,131)	27,908	(109,837)	(273,716)
Prepaid expenses	-	-	-	-	(1,017,390)
Accounts payable	(3,168,454)	(1,226,340)	(3,709,900)	1,311,084	3,053,074
Self insurance claims	-	-	1,126,921	(64,675)	(68,769)
Compensated absences	7,392	(48,447)	161,190	(337,450)	339,985
Due from (to) other funds	-	-	8,175	-	-
Unearned revenue	31,293	(8,037)	80,470	(7,597)	39,021
Net pension liability	-	-	25,103,554	40,136,514	(7,522,656)
Other liabilities	-	-	134,138	(127,724)	-
Pollution remediation	391,000	(233,000)	170,000	(545,000)	(32,000)
Accrued other postemployment benefits	40,208	51,977	(9,784)	(11,359)	5,534,740
Deferred outflows - pensions	-	(3,301,241)	(2,605,528)	(27,267,228)	13,526,597
Deferred outflows - OPEB	-	-	-	-	(651,459)
Deferred inflows - pensions	-	20,102,011	(12,789,784)	(5,611,148)	126,902
Deferred inflows - pensions	-	20,102,011	(12,789,784)	(5,611,148)	337,608
Restatement per GASB 68 implementation	-	(37,511,163)	-	-	-
Restatement per GASB 75 implementation	-	-	-	-	(5,194,149)
Net cash provided by operating activities	$ 76,762,522	$ 106,017,835	$ 82,983,987	$ 95,138,372	$ 109,723,120
Noncash information					
Non-operating prepaid PERS amortization	(1,167,583)	-	-	-	-
Capital contribution	197,470	499,708	222,790	184,444	724,484
Capital assets transferred to/from business-type activities	-	-	272	-	-
Increase in fair value of investments (classified as cash equivalents)	483,009	(16,628)	478,555	(1,217,444)	(1,208,087)

Source: City of Portland. Audited financial statements.

CITY OF PORTLAND, OREGON

1851