

**City of Portland, Oregon**  
**\$210,965,000**  
**Second Lien Sewer System Revenue and Refunding Bonds**  
**2013 Series A**

**BASE CUSIP: 736742**

**DATED:** Date of Delivery

**DUE:** August 1, as shown on inside cover

**This cover page contains certain information for quick reference only. It is not a summary of the issue. Investors must read the entire Official Statement to obtain information essential to making an informed investment decision.**

Ratings	Moody's Aa3 Standard & Poor's AA-
Tax Status	In the opinion of Hawkins Delafield & Wood LLP, Bond Counsel, under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described herein, (i) interest on the 2013 Series A Bonds is excluded from gross income for Federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"), and (ii) interest on the 2013 Series A Bonds is not treated as a preference item in calculating the alternative minimum tax imposed on individuals and corporations under the Code; such interest, however, is included in the adjusted current earnings of certain corporations for purposes of calculating the alternative minimum tax imposed on such corporations. In the opinion of Bond Counsel, interest on the 2013 Series A Bonds is exempt from Oregon personal income tax under existing law. See "TAX MATTERS" herein for a discussion of the opinion of Bond Counsel.
Security	The 2013 Series A Bonds are secured by a subordinate lien on, and are payable solely from, the Net Revenues and amounts required to be deposited in the Second Lien Bond Account and Second Lien Revenue Bond Reserve Account as provided in the Master Second Lien Sewer Revenue Bond Declaration (the "Master Second Lien Bond Declaration"). The lien of the pledge that secures the 2013 Series A Bonds is subordinate to the lien on the Sewer System revenues that secures the First Lien Bonds that the City has issued, and may issue in the future, under the First Lien Bond Ordinance. See "PROVISIONS OF THE 2013 SERIES A BONDS" herein. The 2013 Series A Bonds do not constitute general obligations of the City, and neither the full faith and credit nor the taxing power of the City is pledged for the payment of the principal of, premium (if any), or interest on the 2013 Series A Bonds. No recourse may be had against any funds or assets of the City (other than the Net Revenues of the Sewer System and the accounts described in this paragraph) to enforce payment of any amounts owing under or with respect to the 2013 Series A Bonds.
Purpose	The 2013 Series A Bonds are being issued to finance certain capital facilities and improvements to the sanitary sewer and stormwater drainage system (the "System" or "Sewer System") owned and operated by the City, to fund the Second Lien Bond Reserve Requirement for the 2013 Series A Bonds, and to pay issuance costs. The 2013 Series A Bonds also will be used to refund any or all maturities of the City's Second Lien Sewer System Revenue Bonds, 2003 Series A.
Interest Payment Dates	February 1 and August 1, commencing February 1, 2014.
Principal Payment Dates	August 1, as shown on inside cover.
Denominations	\$5,000 and any integral multiple thereof.
Redemption	The 2013 Series A Bonds maturing on or after August 1, 2024 are callable at par on August 1, 2023 or any date thereafter.
Closing/Settlement	On or about September 17, 2013.
Book Entry System	The Depository Trust Company.
Bond Counsel	Hawkins Delafield & Wood LLP, Portland, Oregon.
Paying Agent	U.S. Bank, National Association.

## MATURITY SCHEDULE

**\$210,965,000**

### SECOND LIEN SEWER SYSTEM REVENUE AND REFUNDING BONDS 2013 SERIES A

<u>Due August 1</u>	<u>Principal Amount</u>	<u>Interest Rate</u>	<u>Price or Yield</u>	<u>CUSIP Number (1)</u>
2014	\$6,120,000	3.00%	0.18%	736742 TT4
2015	6,240,000	1.00	0.48	736742 TU1
2016	6,430,000	5.00	0.87	736742 TV9
2017	6,765,000	5.00	1.30	736742 TW7
2018	7,105,000	5.00	1.76	736742 TX5
2019	7,470,000	5.00	2.18	736742 TY3
2020	7,860,000	5.00	2.58	736742 TZ0
2021	8,260,000	5.00	2.91	736742 UA3
2022	8,685,000	5.00	3.20	736742 UB1
2023	13,250,000	5.00	3.37	736742 UC9
2024	6,190,000	5.00†	3.55	736742 UD7
2025	6,510,000	5.00†	3.72	736742 UE5
2026	6,840,000	5.00†	3.89	736742 UF2
2027	7,160,000	4.00	4.15	736742 UG0
2028	7,450,000	4.00	4.25	736742 UH8
2029	7,795,000	5.00†	4.32	736742 UJ4
2030	8,195,000	5.00†	4.43	736742 UK1
2031	8,615,000	5.00†	4.51	736742 UL9
2032	9,055,000	5.00†	4.59	736742 UM7
2033	9,520,000	5.00†	4.65	736742 UN5
2034	10,010,000	5.00†	4.70	736742 UP0
2035	10,525,000	5.00†	4.74	736742 UQ8
2036	11,060,000	5.00†	4.77	736742 UR6
2037	11,630,000	5.00†	4.80	736742 US4
2038	12,225,000	5.00†	4.82	736742 UT2

† Priced to par call on August 1, 2023.

- (1) CUSIP is a registered trademark of the American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed by Standard & Poor's Financial Services LLC on behalf of The American Bankers Association. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Services. The City is not responsible for the selection or correctness of the CUSIP numbers set forth herein.

**OFFICIAL STATEMENT  
OF THE  
CITY OF PORTLAND  
MULTNOMAH, WASHINGTON AND CLACKAMAS COUNTIES  
STATE OF OREGON  
CITY OF PORTLAND, OREGON**

**\$210,965,000  
Second Lien Sewer System Revenue and Refunding Bonds  
2013 Series A**

**CITY COUNCIL**

Charlie Hales,  
Mayor and Commissioner of Finance and Administration

Amanda Fritz, Commissioner No. 1  
Nick Fish, Commissioner No. 2  
Dan Saltzman, Commissioner No. 3  
Steve Novick, Commissioner No. 4

**CITY OFFICIALS**

LaVonne Griffin-Valade, City Auditor  
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Hawkins Delafield & Wood LLP  
Portland, Oregon

No dealer, broker, salesperson or other person has been authorized by the City of Portland (the "City") to give any information or to make any representations, other than those contained in this Official Statement, and, if given or made, such other information or representations must not be relied upon as having been authorized by the City. Bond Counsel's review of this document is limited; see "Legal Matters" herein.

This Official Statement speaks only as of its date, and the information contained herein is subject to change without notice. Certain statements contained in this Official Statement are projections, forecasts and other statements about future events. These statements ("Forward Looking Statements") are not statements of historical facts and no assurance can be given that the results shown in these Forward Looking Statements will be achieved. See "FORWARD LOOKING STATEMENTS." All estimates set forth herein have been made on the best information available and are believed to be reliable, but no representations whatsoever are made that such estimates are correct. So far as any statements herein involve any matters of opinion, whether or not expressly so stated, they are intended merely as such and are not representations of fact.

This Official Statement does not constitute an offer to sell or the solicitation of any offer to buy, nor shall there be any sale of, the 2013 Series A Bonds by any person in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. The 2013 Series A Bonds have not been registered under the Securities Act of 1933, as amended, in reliance upon a specific exemption contained in such act, nor have the 2013 Series A Bonds been registered under the securities laws of any state.

In making an investment decision, potential investors must rely on their own examination of the City and the terms of the offering, including the merits and risks involved. These securities have not been recommended by any federal or state securities commission or regulatory authority. Furthermore, the foregoing authorities have not confirmed the accuracy or determined the adequacy of this Official Statement. Any representation to the contrary is a criminal offense.

**In connection with this offering, the successful bidder may over allot or effect transactions which stabilize or maintain the market price of the 2013 Series A Bonds at a level above that which might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued, and if discontinued, then recommenced, at any time.**

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**OFFICIAL STATEMENT**  
**OF THE**  
**CITY OF PORTLAND, OREGON**  
**RELATED TO**  
**CITY OF PORTLAND, OREGON**

**\$210,965,000**  
**Second Lien Sewer System Revenue and**  
**Refunding Bonds**  
**2013 Series A**

**INTRODUCTION**

The purpose of this Official Statement is to set forth certain information concerning the City of Portland, Oregon (the “City”), the municipally-owned sewer and stormwater drainage system of the City (the “System” or “Sewer System”), and the City’s Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A (the “2013 Series A Bonds”), dated as of the Date of Delivery.

The 2013 Series A Bonds will be sold in accordance with City Ordinance No. 185583 adopted by the City Council on August 29, 2012 (the “Ordinance”). The Ordinance authorizes the Debt Manager to execute a supplemental bond declaration to specify the terms under which the 2013 Series A Bonds are issued and the administrative provisions that apply to the 2013 Series A Bonds, and to provide any covenants that apply to the 2013 Series A Bonds that are not contained in the First Lien Bond Ordinance, the Master Second Lien Bond Declaration, or the Ordinance.

The 2013 Series A Bonds are secured by a subordinate lien on, and are payable solely from, the Net Revenues and amounts required to be deposited in the Second Lien Bond Account and Second Lien Revenue Bond Reserve Account as provided in the Master Second Lien Sewer Revenue Bond Declaration (the “Master Second Lien Bond Declaration”). The 2013 Series A Bonds are issued on parity with outstanding and future obligations issued under the Master Second Lien Bond Declaration (collectively, referred to herein as the “Second Lien Bonds”). The lien that secures the Second Lien Bonds is subordinate to the lien on the Net Revenues that secures the bonds issued under the City Ordinance No. 160276 as amended (the “First Lien Bond Ordinance”), and may issue in the future, under the First Lien Bond Ordinance.

The City’s Debt Manager will execute the Supplemental Bond Declaration for the 2013 Series A Bonds (the “2013 Supplemental Bond Declaration”) to establish the specific terms and conditions of the 2013 Series A Bonds, which are issued as Parity Second Lien Obligations under the Master Second Lien Bond Declaration. The body of this Official Statement briefly summarizes many of the provisions of the Master Second Lien Bond Declaration and the 2013 Supplemental Bond Declaration (collectively, the “Bond Declaration”) and does not purport to be complete. Under the 2013 Supplemental Bond Declaration, the City has reserved the right to make a variety of amendments to the Master Second Lien Bond Declaration without the consent of the Owners of the 2013 Series A Bonds, including amendments to permit replenishing deficiencies in subaccounts of the Second Lien Bond Reserve Account over time in certain circumstances and to facilitate the issuance of additional Second Lien Bonds as interest subsidy payment bonds. **By purchasing the 2013 Series A Bonds, the Owners of the 2013 Series A Bonds are deemed to have consented to such amendments.** Reference is made to the Master Second Lien Bond Declaration found in APPENDIX A and the 2013 Supplemental Bond Declaration which is found in APPENDIX B. Capitalized terms that are used but not defined in the body of this Official Statement have the meanings defined for those terms in the Bond Declaration.

The body of this section of this Official Statement only contains summaries of the provisions of the Master Second Lien Bond Declaration. The 2013 Supplemental Bond Declaration will have the interest rates, payment, defeasance, and other terms of the 2013 Series A Bonds added after the 2013 Series A Bonds are sold. The 2013 Supplemental Bond Declaration also includes a description of amendments to the Master Second Lien Bond Declaration for which the City has reserved the right to execute and **by purchasing the 2013 Series A Bonds, the Owners of the 2013 Series A Bonds are deemed to have consented to such amendments.** **Additionally, once such amendments have been executed, the City reserves the right to reduce the amount held in the debt**

**service reserve subaccount for the 2013 Series A Bonds. The Owners of the 2013 Series A Bonds are deemed to have consented to this reduction.** To understand the terms of those documents, readers must review the entire documents, copies of which are attached as APPENDIX A and APPENDIX B. Also see “PROVISIONS OF THE 2013 SERIES A BONDS— SECOND LIEN BOND RESERVE ACCOUNT—The 2013 Series A Reserve Subaccount” herein.

## **THE 2013 SERIES A BONDS**

### **DESCRIPTION**

The 2013 Series A Bonds are special obligations of the City, payable solely from the Net Revenues of the City’s Sewer System and certain dedicated accounts, as more fully described herein. The 2013 Series A Bonds do not constitute general obligations of the City, and neither the full faith and credit nor the taxing power of the City is pledged for payment of principal of, or premium, if any, or interest on the 2013 Series A Bonds. No recourse may be had against any funds or assets of the City (other than the Net Revenues of the Sewer System and the dedicated accounts) to enforce payment of any amounts owing under or with respect to the 2013 Series A Bonds.

### **AUTHORIZATION AND PURPOSE**

The 2013 Series A Bonds are being issued pursuant to ORS 287A.150 (the “Act”), which permits the City to authorize revenue bonds for any lawful purpose by enacting an ordinance that is subject to referendum. The 2013 Series A Bonds were authorized by the Ordinance, which was subject to referendum and was not referred, and the period for referring the Ordinance has ended.

The 2013 Series A Bonds are being issued to fund capital improvements to the City’s Sewer System including projects related to the following programs:

- Maintenance and Reliability,
- Sewage Treatment Systems,
- Stormwater Quality,
- Combined Sewer Overflow, and
- System Development.

The 2013 Series A Bonds also are being issued to repay the principal on a line of credit established to pay the costs of Sewer System capital improvements and to refund any or all maturities of the City’s Second Lien Sewer System Revenue Bonds, 2003 Series A (the “Refunded Bonds”). See “THE 2013 SERIES A BONDS—REFUNDING PLAN” herein. Additionally, proceeds of the 2013 Series A Bonds will be used to fund the Second Lien Bond Reserve Requirement for the 2013 Series A Bonds, and to pay costs of issuance. (See “—ESTIMATED SOURCES AND USES OF BOND PROCEEDS” and “PROVISIONS OF THE 2013 SERIES A BONDS –RESERVE ACCOUNTS” herein.)

### **FORM**

The 2013 Series A Bonds will be issued in fully-registered book-entry only (“BEO”) form without coupons in denominations of \$5,000 or integral multiples thereof. The 2013 Series A Bonds will be issued subject to the BEO System of registration, transfer and payment operated by The Depository Trust Company, New York, New York (“DTC”), and will be subject in all respects to the rules, regulations and agreements pertaining to such BEO System. In accordance with the BEO System, the 2013 Series A Bonds, when executed and delivered, will be registered in the name of Cede & Co., as registered owner and nominee for DTC. One fully-registered bond certificate will be issued for each maturity of the 2013 Series A Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC.

Purchasers of the 2013 Series A Bonds who are the Beneficial Owners thereof will not receive certificates evidencing their ownership interests in the 2013 Series A Bonds. While Cede & Co. is the registered owner of the 2013 Series A Bonds (in such capacity, the “Owner”) as nominee of DTC, it shall be treated in all respects as the sole Owner of the 2013 Series A Bonds and shall have the right to exercise (in lieu of the Beneficial Owners of the 2013 Series A Bonds) all rights as Owner, including but not limited to the right to give consents, the right to receive notices (including notices of redemption), and other rights conferred on owners of the 2013 Series A Bonds under the Bond Declaration or applicable law. So long as the 2013 Series A Bonds are subject to the BEO System, all registrations and transfers of beneficial ownership of the 2013 Series A Bonds will be made only through the BEO System. (See APPENDIX I for a discussion of the BEO System.)



## **MATURITY AND PAYMENT**

The 2013 Series A Bonds mature on August 1 of the years and in the aggregate principal amounts set forth on the inside cover page of this Official Statement and will bear interest from the Date of Delivery. Accrued and unpaid interest on the 2013 Series A Bonds will be due and payable semiannually on February 1 and August 1 of each year, commencing February 1, 2014.

So long as the 2013 Series A Bonds are subject to the BEO System, all payments of the principal of and interest on the 2013 Series A Bonds shall be remitted by the Registrar and Paying Agent, currently U.S. Bank National Association (the "Paying Agent") directly to DTC. DTC, in turn, will be required to distribute such payments to DTC Participants, and the DTC Participants will be responsible for ultimate distribution of such payments to the Beneficial Owners of the 2013 Series A Bonds. The City has no responsibility for the distribution of any payments on the 2013 Series A Bonds by DTC to any DTC Participant or by any DTC Participant to any Beneficial Owner, and shall have no liability whatsoever in the event of any failure by DTC or a DTC Participant to make any such distribution. See "BEO SYSTEM" in APPENDIX I herein.

## **REDEMPTION OF THE 2013 SERIES A BONDS**

### **Optional Redemption**

The 2013 Series A Bonds maturing on or after August 1, 2024, are subject to redemption at the option of the City on August 1, 2023, and on any date thereafter, in any order of maturity and by lot within a maturity, at a price of par, plus interest accrued to the date fixed for redemption. While the 2013 Series A Bonds are in BEO form, if less than all the outstanding 2013 Series A Bonds of a particular maturity are to be redeemed, DTC will select the particular 2013 Series A Bonds in accordance with its customary practices.

### **Notice of Redemption**

While the 2013 Series A Bonds are subject to the BEO System, notice of any redemption shall be given by the Paying Agent only to DTC in accordance with the agreement entered into among the City, the Paying Agent and DTC. It shall be the sole responsibility of DTC to give all notices of redemption to DTC Participants, and the DTC Participants, in turn, shall be responsible for giving such notices to the Beneficial Owners. Neither the City nor the Paying Agent will be responsible for giving any notice of redemption to any Beneficial Owner or any DTC Participant, nor shall the City or the Paying Agent be liable for any failure of DTC or any DTC Participant to give any such notice as described above. Interest on any 2013 Series A Bond or 2013 Series A Bonds called for redemption shall cease on the redemption date designated in the notice.

### **Conditional Notice of Redemption**

Any notice of optional redemption to the Paying Agent or to the Owners may state that the optional redemption is conditioned upon receipt by the Paying Agent of moneys sufficient to pay the redemption price of such 2013 Series A Bonds or upon the satisfaction of any other condition, and/or that such notice may be rescinded upon the occurrence of any other event, and the Bond Declaration provides that any conditional notice so given may be rescinded at any time before payment of such redemption price if any such condition so specified is not satisfied or if any such other event occurs. The Bond Declaration requires notice of such rescission or of the failure of any such condition to be given by the Paying Agent to affected Owners of 2013 Series A Bonds as promptly as practicable upon the failure of such condition or the occurrence of such other event.

### **Effect of Notice of Redemption**

The Bond Declaration provides that official notice of redemption having been given (other than conditional notices of optional redemption as described above), the 2013 Series A Bonds or portions of 2013 Series A Bonds so to be redeemed shall, on the date fixed for redemption, become due and payable at the redemption price therein specified, and from and after such date (unless the City fails to pay the redemption price) such 2013 Series A Bonds or portion of 2013 Series A Bonds shall cease to bear interest.

## **REFUNDING PLAN**

To achieve debt service savings, the City will apply a portion of the proceeds from the sale of the 2013 Series A Bonds to refund outstanding maturities of the Refunded Bonds. The Refunded Bonds were issued to finance capital improvements of the Sewer System.

A portion of the proceeds of the 2013 Series A Bonds will be placed in an irrevocable escrow fund (the "Escrow Fund") to be held by U.S. Bank National Association, acting as escrow agent (the "Escrow Agent"). The proceeds in the Escrow Fund are sufficient to pay the principal of, interest on, and any redemption premium on the Refunded Bonds. The Escrow Fund will irrevocably be

pledged to and held in trust for the benefit of the Owners of the Refunded Bonds by the Escrow Agent, pursuant to the Escrow Deposit Agreement.

The table below shows the Refunded Bonds to be refunded with the 2013 Series A Bonds.

**Table 1**  
**CITY OF PORTLAND, OREGON**  
**Refunding Plan for the Refunded Bonds**

<b>CUSIP No.</b> <b>736742</b>	<b>Refunded</b> <b>Maturity</b>	<b>Principal</b> <b>Amount</b>	<b>Redemption</b> <b>Date</b>	<b>Redemption</b> <b>Price</b>
<i>Second Lien 2003 Series A Bonds</i>				
JP 3	6/1/2014	\$2,425,000	10/22/2013	100%
JQ 1	6/1/2015	2,555,000	10/22/2013	100%
JR 9	6/1/2016	2,690,000	10/22/2013	100%
JS 7	6/1/2017	2,830,000	10/22/2013	100%
JT 5	6/1/2018	2,975,000	10/22/2013	100%
JU 2	6/1/2019	3,135,000	10/22/2013	100%
JV 0	6/1/2020	3,300,000	10/22/2013	100%
JW 8	6/1/2021	3,470,000	10/22/2013	100%
JX 6	6/1/2022	3,645,000	10/22/2013	100%
JY 4	6/1/2023	3,825,000	10/22/2013	100%

Source: City of Portland.

#### **Verification of Mathematical Calculations**

Grant Thornton LLP, a firm of independent public accountants (the “Verification Agent”), is expected to deliver to the City, on or before the Date of Delivery, its verification report indicating that it has verified, in accordance with attestation standards established by the American Institute of Certified Public Accountants, the mathematical accuracy of the mathematical computations of the adequacy of the cash in the Escrow Fund to pay, when due, the maturing principal of, interest on and related call premium requirements of the Refunded Bonds.

The verification performed by the Verification Agent will be solely based upon data, information and documents provided to the Verification Agent by the City and its representatives. The Verification Agent has restricted its procedures to recalculating the computations provided by the City and its representatives and has not evaluated or examined the assumptions or information used in the computations.

## ESTIMATED SOURCES AND USES OF BOND PROCEEDS

The anticipated uses of proceeds from the 2013 Series A Bonds are itemized in the following table:

**Table 2**  
**CITY OF PORTLAND, OREGON**  
**Estimated Sources and Uses of 2013 Series A Bond Proceeds**

<b>Sources of Funds</b>	
Par amount of bonds	\$210,965,000.00
Original issue premium	13,924,178.80
<b>TOTAL SOURCES</b>	<b><u>\$224,889,178.80</u></b>
<b>Uses of Funds</b>	
Deposit to construction fund	\$86,612,652.51
Deposit to refunding escrow	31,473,641.04
Repayment of line of credit	88,387,347.49
Deposit to debt service reserve account	17,905,146.18
Underwriter's discount	283,496.25
Costs of issuance	226,895.33
<b>TOTAL USES</b>	<b><u>\$224,889,178.80</u></b>

Source: City of Portland.

The following table presents the debt service on the 2013 Series A Bonds.

**Table 3**  
**CITY OF PORTLAND, OREGON**  
**Debt Service for the 2013 Series A Bonds**

<b>Fiscal Year Ending June 30</b>	<b>Principal</b>	<b>Interest</b>	<b>Total</b>
2014	\$ 0	\$3,733,445	\$3,733,445
2015	6,120,000	9,938,350	16,058,350
2016	6,240,000	9,815,350	16,055,350
2017	6,430,000	9,623,400	16,053,400
2018	6,765,000	9,293,525	16,058,525
2019	7,105,000	8,946,775	16,051,775
2020	7,470,000	8,582,400	16,052,400
2021	7,860,000	8,199,150	16,059,150
2022	8,260,000	7,796,150	16,056,150
2023	8,685,000	7,372,525	16,057,525
2024	13,250,000	6,824,150	20,074,150
2025	6,190,000	6,338,150	12,528,150
2026	6,510,000	6,020,650	12,530,650
2027	6,840,000	5,686,900	12,526,900
2028	7,160,000	5,372,700	12,532,700
2029	7,450,000	5,080,500	12,530,500
2030	7,795,000	4,736,625	12,531,625
2031	8,195,000	4,336,875	12,531,875
2032	8,615,000	3,916,625	12,531,625
2033	9,055,000	3,474,875	12,529,875
2034	9,520,000	3,010,500	12,530,500
2035	10,010,000	2,522,250	12,532,250
2036	10,525,000	2,008,875	12,533,875
2037	11,060,000	1,469,250	12,529,250
2038	11,630,000	902,000	12,532,000
2039	12,225,000	305,625	12,530,625
<b>Total</b>	<b>\$210,965,000</b>	<b>\$145,307,620</b>	<b>\$356,272,620</b>

Source: City of Portland.

## **PROVISIONS OF THE 2013 SERIES A BONDS**

This section describes key provisions of the Master Second Lien Bond Declaration and the 2013 Supplemental Bond Declaration.

### **SPECIAL OBLIGATION; PLEDGE OF NET REVENUES**

The 2013 Series A Bonds are special obligations of the City secured by a pledge of and lien on, and payable solely from, the Net Revenues of the Sewer System and amounts required to be deposited in the Second Lien Bond Account and the 2013 Series A Reserve Subaccount in the Second Lien Bond Reserve Account pursuant to the Master Second Lien Bond Declaration. The lien of the pledge of the Net Revenues that secures the 2013 Series A Bonds is subordinate to the lien on the Net Revenues that secures bonds issued under the First Lien Bond Ordinance (the "First Lien Bonds"), but shall otherwise be superior to all other claims and liens except liens and claims for the payment of Operating Expenses.

The 2013 Series A Bonds do not constitute general obligations of the City, and neither the full faith and credit nor the taxing powers of the City is pledged for the payment of the principal of, premium (if any) or interest on the 2013 Series A Bonds. No recourse may be had against any funds or assets of the City (other than the Net Revenues of the System) to enforce payment of any amounts owing under or with respect to the 2013 Series A Bonds.

Under ORS 287A.310, if a municipality is authorized by statute, or municipal charter to pledge its revenues, the pledge is valid and binding from the time the pledge is made, the revenues so pledged are immediately subject to the lien of such pledge without physical delivery, filing or other act, and the lien of such pledge is superior to all other claims and liens of any kind whatsoever. The Act pursuant to which the 2013 Series A Bonds are being issued authorizes such a pledge.

As described below, the City intends to amend the Master Second Lien Bond Declaration to provide that federal interest subsidies for Build America Bonds or similar obligations that are eligible for federal interest subsidies are pledged for the payment of Second Lien Bonds. See "PROVISIONS OF THE 2013 SERIES A BONDS – Proposed Amendments" below.

### **SECOND LIEN BOND RATE COVENANT**

The City covenants for the benefit of the Owners of the Second Lien Bonds, including the 2013 Series A Bonds, that it will establish and maintain rates and charges in connection with the operation of the Sewer System which are sufficient to permit the City to pay all Operating Expenses and all lawful charges against the Net Revenues, to make all transfers required by the Master Second Lien Bond Declaration to the Second Lien Bond Account, the Second Lien Bond Reserve Account and the Subordinate Obligations Account, and to pay any franchise fees or similar charges imposed by the City on the Sewer System or its operations.

Additionally, the City covenants for the benefit of the Owners of all Second Lien Bonds:

- (1) that it shall charge rates and fees in connection with the operation of the Sewer System which, when combined with other Gross Revenues, but without regard to transfers from and to the Rate Stabilization Fund, are adequate to generate Net Revenues each Fiscal Year at least equal to one hundred percent (100.00%) of the Combined Annual Debt Service.
- (2) that it shall charge rates and fees in connection with the operation of the Sewer System which, when combined with other Gross Revenues, are adequate to generate Net Revenues each Fiscal Year at least equal to one hundred ten percent (110.00%) of Combined Annual Debt Service due in that Fiscal Year.

"Combined Annual Debt Service" is defined as the sum of: (a) the amount of any required transfers to the First Lien Bond Reserve Account, (b) the amount of principal of and interest on First Lien Bonds required to be paid in that Fiscal Year, (c) the amount of any required transfers to the Second Lien Bond Reserve Account, and (d) the amount of principal of and interest on all Outstanding Second Lien Bonds required to be paid in that Fiscal Year.

The City shall determine whether it complied with the rate covenants for each Fiscal Year not later than 60 days after the beginning of the subsequent Fiscal Year based on the financial information available to the City at the time, and compliance with the rate covenants shall be determined based on that financial information. It shall not constitute an Event of Default if the City fails to comply with the rate covenants as long as, within 120 days after the beginning of the subsequent Fiscal Year, the City implements the recommendations of a Qualified Consultant that is engaged by the City to deliver written recommendations for a schedule of rates and charges or other actions which the Qualified Consultant reasonably projects will permit the City to comply with the rate covenants for the remainder of the Fiscal Year in which the recommendations are delivered to the City (with calculations for the partial year made on an annualized basis).

As described below, the City intends to amend the Master Second Lien Bond Declaration to reduce Annual Second Lien Bond Debt Service and Combined Annual Debt Service by the amount of any federal interest subsidies for Second Lien Bonds and First Lien Bonds that are issued as Build America Bonds or similar obligations that are eligible for federal interest subsidies. See “PROVISIONS OF THE 2013 SERIES A BONDS – Proposed Amendments” below.

## FUNDS AND ACCOUNTS

The City covenants to deposit the Gross Revenues in the Sewage Disposal Fund.

The First Lien Bond Ordinance establishes the Redemption Fund in the Sewage Disposal Fund. The Redemption Fund includes the following accounts:

- **Debt Service Account.** Amounts in the Debt Service Account shall be used only to pay debt service on First Lien Bonds.
- **Reserve Account.** Amounts in the Reserve Account shall be used only to pay principal and interest on First Lien Bonds, and only in the event that money in the Debt Service Account is not sufficient to pay principal and interest when due. (the “First Lien Bond Reserve Account”).

The Master Second Lien Bond Declaration establishes the following accounts in the Sewage Disposal Fund:

- **Second Lien Bond Account.** Amounts in the Second Lien Bond Account shall be used only to pay Second Lien Bonds.
- **Second Lien Bond Reserve Account.** Amounts credited to the Second Lien Bond Reserve Account shall be used only to pay Second Lien Bonds, and only if amounts in the Second Lien Bond Account and Net Revenues credited to other accounts in the Sewage Disposal Fund are insufficient.
- **Subordinate Obligations Account.** Amounts in this account may be used to pay Subordinate Obligations, if any.

Additionally, the Rate Stabilization Fund is created by the First Lien Bond Ordinance. Net Revenues may be transferred to the Rate Stabilization Fund at the option of the City as permitted by the First Lien Bond Ordinance and the Master Second Lien Bond Declaration, and may be withdrawn at any time and used for any purpose for which the Gross Revenues may be used. (See “Rate Stabilization Fund” below.)

## APPLICATION OF GROSS REVENUES

As long as any 2013 Series A Bonds remain issued and outstanding, the First Lien Bond Ordinance and the Master Second Lien Bond Declaration provide that Gross Revenues shall be used solely to pay the following amounts in the following order of priority:

1. To pay Operating Expenses of the Sewer System which are then due (other than payments to the Rate Stabilization Fund) and any rebate of earnings on nonpurpose obligations in which the gross proceeds of First Lien Bonds are invested which is required to be paid under Section 148(f) of the Internal Revenue Code of 1986, as amended.
2. To make payments to the First Lien Bond Debt Service Account in an amount sufficient to make timely payment of all First Lien Bond principal and interest when due.
3. To make any payment required in connection with an insurance policy, surety bond or letter of credit in which the provider agrees unconditionally to provide the City with funds for the payment of debt service on First Lien Bonds (a “First Lien Bond Reserve Equivalent”);
4. To make payments to replenish the First Lien Bond Reserve Account in accordance with the schedule specified in the First Lien Bond Ordinance. The First Lien Bond Ordinance currently requires the City to replenish deficiencies in the First Lien Bond Reserve Account over a period of twelve months by making twelve substantially equal deposits to the First Lien Bond Reserve Account.
5. To make payments to the Second Lien Bond Account in an amount sufficient (with amounts available in the Second Lien Bond Account) to pay in full all Second Lien Bond principal, interest and premium, if any, which is due as required by the Master Second Lien Bond Declaration.

6. If the City has elected to fund the initial deposit to a subaccount in the Second Lien Bond Reserve Account in installments, to make the installment deposits to the Second Lien Bond Reserve Account. Section 3.3.K of the Master Second Lien Bond Declaration allows the City to elect to fund the initial deposit to a subaccount in the Second Lien Bond Reserve Account in up to five annual installments. The City has not made this election for the 2013 Series A Bonds, and will fully fund the 2013 Series A Bond Reserve Subaccount at Closing.
7. On the first day of each month following a Valuation Date on which the balance in the Second Lien Bond Reserve Account is determined to be less than the Second Lien Bond Reserve Requirement, to make required transfers to the Second Lien Bond Reserve Account to replenish the balance in the Second Lien Bond Reserve Account. See APPENDIX A - Master Second Lien Bond Declaration, Section 3.3.C and 3.3.D.
8. To pay any rebates or penalties for Second Lien Bonds when due to be paid to the United States pursuant to Section 148 of the Code.
9. On the dates specified in any proceedings authorizing Subordinate Obligations, if any, the City shall transfer to the Subordinate Obligations Account the Net Revenues required by those proceedings.
10. After all transfers and payments having a higher priority under this Section have been made, Net Revenues shall be applied to any franchise fees and similar charges imposed by the City on the Sewer System or its operations.
11. On any date, the City may transfer Net Revenues to the Rate Stabilization Fund or spend Net Revenues for any other lawful purpose, but only if all deposits and payments having a higher priority under this Section have been made.

## **RATE STABILIZATION FUND**

Under the First Lien Bond Ordinance, the City has established the Sewer System Rate Stabilization Fund. Amounts may be transferred to the Sewer System Rate Stabilization Fund from Gross Revenues of the Sewer System at any time. The City has established a practice of annually budgeting specific amounts of deposits to and withdrawals from the Sewer System Rate Stabilization Fund and to make such transfers and withdrawals during the current fiscal year based on Sewer System financial performance. It is the intent of the City to use such deposits and withdrawals to smooth the flow of Net Revenues of the Sewer System on a year to year basis to minimize the size of required Sewer System rate increases in each year. For purposes of calculating Net Revenues, deposits into the Rate Stabilization Fund are treated as Operating Expenses in the year for which they are deposited, and withdrawals from the Rate Stabilization Fund are treated as Gross Revenues in the year in which they are withdrawn. (See “PROJECTED REVENUES AND EXPENDITURES -- USE OF RATE STABILIZATION FUND” herein.)

## **SECOND LIEN BOND RESERVE ACCOUNT**

### **The 2013 Series A Reserve Subaccount**

#### Funding

Each Series of Second Lien Bonds, including the 2013 Series A Bonds, is additionally secured by amounts credited to a subaccount in the Second Lien Bond Reserve Account. Amounts credited to the subaccount established for the 2013 Series A Bonds (the “2013 Series A Reserve Subaccount”) are not available to pay other Series of Second Lien Bonds, and amounts credited to other subaccounts in the Second Lien Bond Reserve Account are not available to pay the 2013 Series A Bonds. The Master Second Lien Bond Declaration requires the City to fund and maintain a balance in the 2013 Series A Reserve Subaccount (but solely from the proceeds of the 2013 Series A Bonds and the Net Revenues) that is at least equal to the lesser of the greatest amount of principal, interest and premium, if any, required to be paid in any Fiscal Year on the 2013 Series A Bonds, 125% of average annual debt service on the 2013 Series A Bonds, or ten percent of the proceeds of the 2013 Series A Bonds. The Master Second Lien Bond Declaration permits the City to fund the contribution to the 2013 Series A Reserve Subaccount over a five-year period, but the City will fund the contribution for 2013 Series A Bonds in full on the date of closing with bond proceeds. (See APPENDIX A and the definition of “Second Lien Bond Reserve Requirement.”)

#### Reduction of Amount and Other Changes to the 2013 Series A Reserve Subaccount

The purchasers of the 2013 Series A Bonds are consenting to future amendments to the Master Second Lien Bond Declaration that allow the City to (a) establish subaccounts in the Second Lien Bond Reserve Account that secure multiple Series of Second Lien Bonds; (b) determine the reserve requirement for subaccounts in the Second Lien Bond Reserve Account; and, (c) combine subaccounts in the Second Lien Bond Reserve Account. See “—CONSENT OF OWNERS OF 2013 SERIES A BONDS TO FUTURE AMENDMENTS” below.

If the City makes any of these amendments it may make corresponding changes to the 2013 Series A Reserve Subaccount, and (i) use the 2013 Series A Reserve Subaccount to secure multiple Series of Second Lien Bonds; (ii) establish a new, lower reserve requirement for the 2013 Series A Reserve Subaccount, or (iii) combine the 2013 Series A Reserve Subaccount with other subaccounts in the Second Lien Bond Reserve Account.

If the City makes any of these changes it will not reduce the reserve requirement for the 2013 Series A Reserve Subaccount, or any subaccount into which that subaccount is combined, below the “2013 Series A Reserve Subaccount Requirement” as defined in Section 4.6.B of the 2013 Supplemental Bond Declaration. The “2013 Series A Reserve Subaccount Requirement” is defined as one half of the greatest amount of principal, interest and premium, if any, required to be paid in any Fiscal Year on all Second Lien Bonds that are secured by the 2013 Series A Reserve Subaccount, unless the amount required to be added to that subaccount for a Series exceeds the Tax Maximum for that Series. See APPENDIX B, “2013 SUPPLEMENTAL BOND DECLARATION.”

#### Use of Reserve Credit Facilities

The City may fund the 2013 Series A Reserve Subaccount with cash, investments, or “Reserve Credit Facilities.” The Master Second Lien Bond Declaration states that a Reserve Credit Facility is a Credit Facility issued for the purpose of funding, in lieu of cash, all or any portion of the Second Lien Bond Reserve Requirement, under which the Credit Provider agrees to unconditionally provide the City with funds to transfer to the Second Lien Bond Reserve Account if amounts are required to be withdrawn from that account for deposit in the Second Lien Bond Account. The Master Second Lien Bond Declaration defines a “Credit Facility” as “means a letter of credit, a municipal bond insurance policy, a surety bond, standby bond purchase agreement or other credit enhancement device which is obtained by the City to secure Second Lien Bonds, and which is issued or provided by a Credit Provider whose long-term debt obligations or claims-paying ability (as appropriate) are rated one of the two highest rating categories by a Rating Agency which rated the Second Lien Bonds secured by the Credit Facility.” The City is not required, nor does it intend, to replace any surety bond if, subsequent to its purchase, the rating of the provider of such surety bond falls below a Aa3 or AA- by Moody’s or Standard & Poor’s, respectively.

#### Amendments

In the 2013 Supplemental Bond Declaration, the City reserves the right to amend the Master Second Lien Bond Declaration to make clarifications and amendments relating to the Second Lien Bond Reserve Account and Reserve Credit Facilities. Those amendments include amendments providing that the City is not obligated to replenish Reserve Credit Facilities when the Net Revenues are at least 130% of Combined Annual Debt Service, amendments permitting the City to replenish Reserve Credit Facilities that are downgraded below investment grade over five years when the Net Revenues are less than 130% of Combined Annual Debt Service, and amendments permitting the City to issue additional Second Lien Bonds when the balance of any subaccount is below the applicable Reserve Requirement so long as all required deposits to replenish the Second Lien Bond Reserve Account have been made. See APPENDIX B, “2013 Supplemental Bond Declaration,” Section 9, and “– CONSENT OF OWNERS OF 2013 SERIES A BONDS TO FUTURE AMENDMENTS” below.

#### **Subaccounts of the Second Lien Bond Reserve Account**

As described above, the Second Lien Bond Reserve Account consists of subaccounts that secure different Series of Second Lien Bonds. All of the subaccounts are fully funded. The subaccounts in the Second Lien Bond Reserve Account for the 2006 Series B Bonds and the 2008 Series B Bonds currently contain the Reserve Credit Facilities shown in the following table. The subaccounts in the Second Lien Bond Reserve Account for the 2010 Series A Bonds and the 2013 Series A Bonds contain cash or investments.



**Table 4**  
**CITY OF PORTLAND, OREGON**  
**Funding of Second Lien Bond Reserve Subaccounts (1) (2)**

Series of Bonds Secured	Date of Issue	Maturity Date	Surety Provider/ Cash	Surety Face Value/ Cash	Ratings (5)
2006 Series B	05/25/2006	6/15/2031	NPFG (3)	\$6,118,475	Baa1/A
2008 Series B	04/17/2008	6/15/2033	AGM (4)	17,028,836	A2/AA-
2010 Series A	08/19/2010	3/1/2035	Cash	27,870,500	N/A
2013 Series A	09/17/2013	8/1/2038	Cash	17,905,146	N/A

Notes:

- (1) As of the delivery date of the 2013 Series A Bonds.
- (2) All maturities of the Second Lien Sewer System Revenue and Refunding Bonds, 2003 Series A were refunded with the proceeds of the 2013 Series A Bonds. As a result, the AGM surety policy associated with the 2003 Series A Bonds is not shown in this table. Prior to issuance of the 2013 Series A Bonds, the face value of the 2003 Series A Bonds was \$7,921,439.
- (3) The City purchased Reserve Credit Facilities from Financial Security Assurance Inc. to fund the Second Lien Bond Reserve Requirement for the 2006 Series B Bonds. In July 2009, Assured Guaranty acquired FSA and the surety bond provider for these bonds is now Assured Guaranty Municipal Corp. ("AGM")
- (4) The City has purchased a Reserve Credit Facility from MBIA Insurance Corporation ("MBIA") to fund the Second Lien Bond Reserve Requirement for the 2008 Series B Bonds. Since the date of issue, MBIA has been restructured. The surety provider for these bonds is now National Public Finance Guarantee Corporation ("NPFG").
- (5) Ratings for surety providers are from Moody's Investors Service and Standard and Poor's, respectively.

Source: City of Portland.

The Master Second Lien Bond Declaration provides that each subaccount in the Second Lien Bond Reserve Account is deemed to contain the amount available to be paid under all Reserve Equivalents that are credited to that subaccount. The City currently believes that the amount available to be paid under each Reserve Equivalent shown in Table 4 is equal to its full face amount.

If the financial condition of the obligors under a Reserve Equivalent in a subaccount of the Second Lien Bond Reserve Account deteriorates to the extent that no amount is available to be paid under that Reserve Equivalent, and as a result the balance in that subaccount is below the its Second Lien Bond Reserve Requirement, the Master Second Lien Bond Declaration requires the City to make deposits of Net Revenues to the Second Lien Bond Reserve Account from Net Revenues that remain after the City has made the required deposits to the Second Lien Bond Account. See "APPLICATION OF GROSS REVENUES" above and APPENDIX A, Master Second Lien Bond Declaration, Section 2.1.E.

**FIRST LIEN BOND RESERVE ACCOUNT**

The First Lien Bond Reserve Account is a pooled reserve account that secures all currently outstanding First Lien Bonds. The First Lien Bond Reserve Account is fully funded with "First Lien Bond Reserve Equivalents" and contains no cash and investments, as shown in the table below. The First Lien Bond Required Reserve is currently approximately \$77.1 million. The current balance in the First Lien Bond Reserve Account, which is the aggregate face amount of First Lien Bond Reserve Equivalents, is approximately \$88.2 million.

**Table 5**  
**CITY OF PORTLAND, OREGON**  
**First Lien Bond Reserve Account (1)**

Series of Bonds Secured	Date of Issue	Maturity Date	Surety Provider	Surety Face Value	Ratings (4)
2004 Series A	11/30/2004	10/01/2024	AGM (2)	\$12,789,475	A2/AA-
2004 Series B	11/30/2004	06/01/2017	AGM (2)	9,308,000	A2/AA-
2005 Series A	06/16/2005	08/01/2020	AGM(2)	14,485,000	A2/AA-
2006 Series A	05/25/2006	06/15/2031	NPFG (3)	12,230,744	Baa1/A
2007 Series A	03/08/2007	06/01/2015	NPFG (3)	21,137,600	Baa1/A
2008 Series A	04/17/2008	06/15/2033	AGM (2)	18,280,050	A2/AA-

Notes:

- (1) As of the delivery date of the 2013 Series A Bonds.
- (2) The City purchased Reserve Equivalents from Financial Security Assurance Inc. to fund the First Lien Required Reserve. In July 2009, Assured Guaranty acquired FSA and the surety bond provider for these bonds is now Assured Guaranty Municipal Corp. (“AGM”)
- (3) The City has purchased Reserve Equivalents from MBIA Insurance Corporation (“MBIA”) to fund the First Lien Required Reserve. Since the date of issue, MBIA has been restructured. The surety provider for these bonds is now National Public Finance Guarantee Corporation (“NPFG”).
- (4) Ratings for surety providers are from Moody’s Investors Service and Standard and Poor’s, respectively.

Source: City of Portland.

The City is required to maintain a balance in the First Lien Bond Reserve Account that is equal to the First Lien Bond Required Reserve. The “First Lien Bond Required Reserve” is the lesser of: the maximum annual debt service on all outstanding First Lien Bonds; one hundred twenty-five percent of average annual debt service on all outstanding First Lien Bonds; or ten percent of the proceeds of all outstanding issues of First Lien Bonds (as the term “proceeds” is used in Section 148(d) of the Code).

The First Lien Bond Ordinance provides that the First Lien Bond Reserve Account is deemed to contain the amount available to be paid under First Lien Bond Reserve Equivalents. The City currently believes that it could draw the full face amount under all First Lien Bond Reserve Equivalents shown in Table 5.

If the financial condition of the obligors under a First Lien Bond Reserve Equivalent deteriorates to the extent that no amount is available to be paid under that First Lien Bond Reserve Equivalent, and as a result the balance in the First Lien Bond Reserve Account is below the First Lien Bond Required Reserve, the First Lien Bond Ordinance requires the City to make deposits of Net Revenues to the First Lien Bond Reserve Account over a period of twelve months that are sufficient to restore the balance in the First Lien Bond Reserve Account to the First Lien Bond Required Reserve. Those deposits must be made from Net Revenues before Net Revenues can be used to fund the Second Lien Bond Account. See “APPLICATION OF GROSS REVENUES” above and APPENDIX A, Master Second Lien Bond Declaration, Section 2.1.B.

**ADDITIONAL SECOND LIEN PARITY OBLIGATIONS**

The City may issue Parity Second Lien Obligations to provide funds for any purpose relating to the Sewer System, but only if no Event of Default under the Master Second Lien Bond Declaration or any Supplemental Declaration has occurred and is continuing; there is no deficiency in the Second Lien Bond Account; the balance in the Second Lien Bond Reserve Account is at least equal to the Second Lien Bond Reserve Requirement; the Supplemental Declaration authorizing the issuance of the Second Lien Bonds contains a covenant requiring the City to charge rates and fees in connection with the operation of the Sewer System in accordance with Section 4.2 of the Master Second Lien Bond Declaration; and there has been filed with the City *either*:

- (1) A certificate of the Debt Manager stating that the Net Revenues (adjusted as provided below) for the Base Period were not less than one hundred ten percent (110.00%) of Maximum Combined Annual Debt Service on all then Outstanding First Lien Bonds and Second Lien Bonds, calculated as of the date the Parity Second Lien Obligations are issued and with the proposed Parity Second Lien Obligations treated as Outstanding; or
- (2) A certificate or opinion of a Qualified Consultant:
  - a. stating the amount of the Adjusted Net Revenues computed as provided below for each of the four Fiscal Years after the last Fiscal Year for which interest on the Parity Second Lien Obligations is, or is expected to be, capitalized, or, if

interest will not be capitalized, for each of the four Fiscal Years after the proposed Parity Second Lien Obligations are issued;

- b. concluding that the respective amounts of Adjusted Net Revenues in each of the Fiscal Years described in 2.a. above are at least equal to one hundred ten percent (110.00%) of the Combined Annual Debt Service for each of those respective Fiscal Years on all Outstanding First Lien Bonds and Second Lien Bonds, with the proposed Parity Second Lien Obligations treated as Outstanding;
- c. stating the projected amount of the Adjusted Net Revenues for the fifth Fiscal Year after the last Fiscal Year for which interest on the Parity Second Lien Obligations is, or is expected to be, capitalized, or, if interest will not be capitalized, the fifth Fiscal Year after the Parity Second Lien Obligations are issued; and,
- d. concluding that this amount described in 2.c. above is at least equal to one hundred ten percent (110.00%) of the Maximum Combined Annual Debt Service, calculated for the period beginning with that fifth Fiscal Year on all then Outstanding First Lien Bonds and Second Lien Bonds, with the proposed Parity Second Lien Obligations treated as Outstanding.

Net Revenues may be adjusted for purposes of (1) above by adding any Net Revenues the Debt Manager calculates the City would have had during the Base Period because of increases in Sewer System rates, fees and charges which have been adopted by the City on or before the date the Parity Second Lien Obligations are issued.

For purposes of (2) above, Adjusted Net Revenues shall be computed by adjusting the Net Revenues for the Base Period in any of the ways described in the Master Second Lien Bond Declaration.

The City may issue Parity Second Lien Obligations to refund Outstanding Second Lien Bonds or First Lien Bonds without complying with the foregoing requirements if the refunded Second Lien Bonds or First Lien Bonds are defeased on the date of delivery of the refunding Parity Second Lien Obligations and if the Combined Annual Debt Service on the refunding Parity Second Lien Obligations does not exceed the Combined Annual Debt Service on the refunded Second Lien Bonds or First Lien Bonds (calculated as if the refunded First Lien Bonds were Second Lien Bonds) in any Fiscal Year by more than \$5,000.

All Parity Second Lien Obligations issued in accordance the requirements of the Master Second Lien Bond Declaration shall have a lien on the Net Revenues which is equal to the lien of all other Outstanding Second Lien Bonds.

## **SUBORDINATE OBLIGATIONS**

The City may issue Subordinate Obligations only if the Subordinate Obligations are payable solely from amounts permitted to be deposited in the Subordinate Obligations Account, and the Subordinate Obligations state clearly that they are secured by a lien on or pledge of the Net Revenues which is subordinate to the lien on, and pledge of, the Net Revenues for the First Lien Bonds and the Second Lien Bonds.

## **OTHER COVENANTS**

The City covenants that it will:

1. Promptly cause the principal, premium, if any, and interest on the First Lien Bonds and the Second Lien Bonds to be paid as they become due in accordance with the provisions of the First Lien Bond Ordinance, the Master Second Lien Bond Declaration and any Supplemental Declarations.
2. Maintain complete books and records relating to the operation of the Sewer System and all City funds and accounts in accordance with generally accepted accounting principles, shall cause such books and records to be audited annually at the end of each Fiscal Year, and shall have an audit report prepared by the Auditor and made available for the inspection of the First Lien Bond Owners and the Second Lien Bond Owners.
3. For the benefit of the Owners of the First Lien Bonds, not issue obligations having a claim that is superior to the claim of the First Lien Bonds upon the Net Revenues, except as provided in the First Lien Bond Ordinance.
4. For the benefit of the Owners of the Second Lien Bonds, not issue obligations which have a lien on the Net Revenues that is superior to the lien of the Second Lien Bonds except for First Lien Bonds and obligations to pay Operating Expenses.

5. Not amend the First Lien Bond Ordinance in any way that materially and adversely affects the rights of the Owners of Second Lien Bonds; however, this covenant shall not be construed to limit the ability of the City to issue First Lien Bonds pursuant to the provisions of the First Lien Bond Ordinance.
6. Promptly deposit the Gross Revenues and other amounts into the funds and accounts as required by the First Lien Bond Ordinance and the Master Second Lien Bond Declaration.
7. Cause the Sewer System to be operated at all times in a safe, sound, efficient and economic manner in compliance with all health, safety and environmental laws, regulatory body rules, regulatory body orders and court orders applicable to the City's operation and ownership of the Sewer System.
8. Maintain the Sewer System in good repair, working order and condition.
9. Not enter into any agreement to provide Sewer System products or services at a discount from published rate schedules, and that it will not provide free Sewer System products or services except in case of emergencies.
10. For the benefit of the Owners of the First Lien Bonds, maintain insurance, or a reasonable system of self insurance, appropriate to the risks associated with operation of the Sewer System.
11. For the benefit of Owners of the Second Lien Bonds, self insure the Sewer System or purchase all such insurance on the Sewer System as is customarily maintained with respect to works and properties of like character against accident to, loss of or damage to such works or properties, and apply the net proceeds of insurance covering Sewer System damage to the repair or rebuilding of the Sewer System, and to the extent not so applied, to the payment or redemption of the Second Lien Bonds.
12. Not sell, mortgage, lease or otherwise dispose of or encumber all or any portion of the Sewer System except as specifically permitted by the First Lien Bond Ordinance and the Master Second Lien Bond Declaration.

#### **CONSENT OF OWNERS OF 2013 SERIES A BONDS TO FUTURE AMENDMENTS**

The Master Second Lien Bond Declaration includes requirements for amendments with and without consents. The 2013 Supplemental Bond Declaration provides that the City reserves the right to amend the Master Second Lien Bond Declaration without subsequently seeking the consent of the Owners of the 2013 Series A Bonds to provide for certain matters described below. **By purchasing the 2013 Series A Bonds, the Owners of the 2013 Series A Bonds are deemed to have consented to the proposed amendments described below and in the 2013 Supplemental Bond Declaration attached hereto as APPENDIX B.**

1. Amendments that reduce Annual Second Lien Bond Debt Service by the amount of any federal interest subsidies for Second Lien Bonds that are issued as Build America Bonds or similar obligations that are eligible for federal interest subsidies.
2. Amendments that reduce Combined Annual Debt Service by the amount of any federal interest subsidies for First Lien Bonds that are issued as Build America Bonds or similar obligations that are eligible for federal interest subsidies.
3. Amendments that pledge federal interest subsidies for Build America Bonds and similar obligations to pay Second Lien Bonds, but exclude those subsidies from "Gross Revenues" so that the subsidies are not both added to Gross Revenues and applied to reduce annual debt service.
4. Amendments excluding non-cash expenses and extraordinary, non-recurring expenditures from the definition of "Operating Expenses."
5. Amendments allowing debt service on obligations that finance Operating Expenses to be treated as Operating Expenses.
6. Amendments allowing the City to establish subaccounts in the Second Lien Bond Reserve Account that secure multiple Series of Second Lien Bonds.
7. Amendments allowing the City to determine the reserve requirement for subaccounts in the Second Lien Bond Reserve Account, including the 2013 Series A Bonds. See "—The 2013 Series A Reserve Subaccount" above.

8. Amendments allowing the City to combine subaccounts in the Second Lien Bond Reserve Account, including the 2013 Series A Bonds. See “—The 2013 Series A Reserve Subaccount” above.
9. Amendments clarifying that the ratings requirement for a Reserve Credit Facility Provider would apply only at the time the Reserve Credit Facility is issued.
10. Amendments clarifying that a Reserve Credit Facility continues to be valued at the amount that is available to be drawn on it unless Net Revenues are below 130% of Combined Annual Debt Service and all ratings on the Reserve Credit Facility Provider and its reinsurers or guarantors are either withdrawn or reduced below investment grade.
11. Amendments specifying that a Reserve Credit Facility shall have no value when the Net Revenues are below 130% of Combined Annual Debt Service, and all ratings on the Reserve Credit Facility Provider and its reinsurers or guarantors are either withdrawn or reduced below investment grade.
12. Amendments allowing the City to replenish a subaccount in the Second Lien Bond Reserve Subaccount over five years, if that subaccount has a deficiency because the Reserve Credit Facility has no value because of circumstances described in Section 11 above.
13. Amendments clarifying that the City may issue additional Second Lien Bonds when a subaccount in the Second Lien Bond Reserve Account contains an amount that is less than its reserve requirement, but only if all required deposits to replenish the subaccount have been made when the Second Lien Bonds are issued.
14. When all First Lien Bonds are paid or defeased, amendments that remove any references to the First Lien Bonds, replace references to Combined Annual Debt Service with references to Annual Second Lien Bond Debt Service, change all references to Second Lien Bonds to “First Lien Bonds”, and make related, conforming changes.
15. Amendments conforming related provisions of the Master Second Lien Bond Declaration to the amendments that are authorized by Section 10 and by Section 11 of the Master Second Lien Bond Declaration, and restating the Master Second Lien Bond Declaration to include all of those amendments.

See also APPENDIX B, “2013 SUPPLEMENTAL BOND DECLARATION,” Section 9.

## THE SEWER SYSTEM

The City owns, operates and maintains the sanitary and stormwater collection, transportation, and treatment systems within its boundaries. The service area is located on both sides of the Willamette River, extending approximately 20 miles south of its confluence with the Columbia River. It is generally bounded on the west by low-lying hills paralleling the Willamette River, by other service areas serving the City metropolitan area to the south, by the City of Gresham to the east, and by the Columbia River to the north. The City provides sanitary sewer service to approximately 586,000 people, numerous commercial and industrial facilities, and several wholesale contract customers located adjacent to the City. The following table provides an overview of the Sewer System characteristics:

**Table 6**  
**CITY OF PORTLAND, OREGON**  
**Sewer System Characteristics**

Service Area (acres)	
In City	96,000
Outside City (wholesale)	9,000
Population Served	586,000
Piping in Sewer System (miles)	2,330
Pumping Stations	97
Treatment Capacity (millions of gallons per day)	108.3

Source: Bureau of Environmental Services.

The City's earliest sewers were installed in 1860 to provide storm and sanitary sewer service to the early settlement along the Willamette River. Prior to 1947, additions to the storm and sanitary sewage collection system were constructed as combined sewers with untreated wastes discharged to the Willamette River and Columbia Slough. In 1947, construction began on a system designed to intercept the entire sanitary portion of the combined sewage and transport it to a new treatment plant. With construction of these first intercepting lines and a primary treatment plant on Columbia Boulevard, the City began treating its wastewater. Sewage treatment capacity was further expanded in 1964 with the construction of a treatment plant in the City of Lake Oswego, called the Tryon Creek sewage treatment plant, to provide secondary treatment to the City's southwest area and, on a wholesale contract basis, to the City of Lake Oswego.

### SANITARY AND STORM COLLECTION SYSTEM

Collection sewers transport wastewater from the receiving point (laterals at the curb line) to the point of discharge into the interceptor sewers. Collection sewers comprise most of the footage and economic value of the Sewer System, fronting on most of the property in the City. Older collection sewers carry both storm and sanitary sewage and comprise approximately 860 miles (or about 37 percent) of the system. Collection sewers constructed since 1960 carry sanitary wastes only. The collection system is inspected through the use of closed-circuit TV cameras and cleaned on a routine basis. Sewer System maintenance and repair projects are scheduled according to the results of the inspection program.

The City's storm drainage responsibility is divided into 18 drainage basins. Most of the drainage basins located within the west side of the City flow directly into the Willamette River, with the exception of Fanno Creek and its tributary basins, which flow west out of the City, eventually discharging to the Tualatin River in adjacent Washington County.

The basins in North and Northeast Portland typically drain to the Columbia and Willamette Rivers. Some of these basins have highly permeable soils. Stormwater in these locations drains to Underground Injection Controls ("UICs") or ponds on the surface and slowly percolates through the ground to underlying soils. UICs are referred to as drains or sumps. Most of the storm runoff in Southeast Portland drains to the Johnson Creek basin, which covers an area of approximately 54 square miles. The Johnson Creek basin is the largest basin in the City's Urban Services Boundary.

### INTERCEPTOR AND PUMP STATION SYSTEM

Large interceptor sewers, generally paralleling the Willamette River on the east and west, and extending along the south side of the Columbia Slough, are the major sewage-carrying conduits in the Sewer System. Sewer diversions are located at the intersections of combined trunk sewers and interceptor sewers. These diversions were designed with the capacity to direct approximately three times the average dry weather combined sewer flow into the interceptor system. During rainfall, when combined sewage flow exceeds three times the average dry weather flow, a portion of the sewage flow bypasses the diversion structures and discharges to the Columbia Slough Consolidation Conduit (in the Columbia Slough Watershed) or to the Willamette Combined Sewage Overflow

("CSO") Tunnels. In response to the Clean Water Act of 1972 (as amended in 2000), the West Side and East Side CSO facilities were built to substantially reduce combined sewage flow discharges. (see "REGULATORY ENVIRONMENT—BUREAU PERMITS—Wastewater Treatment System Permits").

Ninety-seven pump stations provide service where gravity sewers cannot function because of topographic restrictions. All pumping stations are monitored remotely through telemetry connected to a central computer system in the control console room at the Columbia Boulevard Wastewater Treatment Plant ("CBWTP"), which is staffed 24 hours per day.

## **SEWAGE TREATMENT PLANTS**

The City's two sewage treatment plants, the CBWTP and the Tryon Creek Wastewater Treatment Plant ("TCWTP"), are both activated sludge, secondary treatment plants with capacities to treat a minimum of 100 million gallons per day ("mgd") and 8.3 mgd, respectively, through the secondary treatment system. Dry weather sewage flows to the wastewater treatment facilities receive primary and secondary treatment. Dry weather flows for 2012 equaled 61 mgd at the CBWTP and 4.4 mgd at the TCWTP. Annual average daily flows to both treatment facilities were 93 mgd in 2012 or 86 percent of secondary treatment capacity. Peak secondary treatment capacities at the CBWTP and the TCWTP are 120 mgd and 20 mgd, respectively. Wet weather flows in excess of this amount receive primary treatment and are blended with secondary effluent prior to disinfection and discharge. Enhancements to the CBWTP secondary treatment system are currently in design and will be constructed by 2014. These enhancements are in the current Capital Improvement Program ("CIP") and will increase the ability to treat more wet weather flows through the secondary system.

Past projects at the CBWTP have focused on enhancing the plant's peak wet weather treatment capacity. Additional capacity expansion was completed as of December 2012 to treat increased flows from the CSO control facilities. The West Side CSO facilities were fully operational on December 1, 2006. The East Side CSO facilities were fully operational in December 2011. Peak wet weather flows to the CBWTP increased by 60 mgd and 115 mgd for the West Side CSO facilities and East Side CSO facilities, respectively.

The City's biosolids recycling program meets U.S. Environmental Protection Agency ("EPA") and Oregon Department of Environmental Quality ("DEQ") regulations. The City routinely monitors biosolids quality and land application practices and impacts to demonstrate both regulatory compliance and the benefits resulting from solids recycling. Two new biosolids digesters were completed in October 2011 at CBWTP to process the increased solids loading. Biosolids land application at Madison Farm in north central Oregon has been the major focus of the City's biosolids management program since 1990.

The City manages industrial discharges to the sanitary Sewer System in order to protect the Publicly Owned Treatment Works ("POTW"), protect the sewage and collection systems, protect the health and safety of the POTW workers, prevent POTW interference and pass through, prevent non-compliance of the City's NPDES permits, and protect the receiving waters. There are currently 155 industries operating under City discharge permits, and compliance files are maintained on approximately 500 industrial users. Periodically, through its ongoing monitoring program, the City may detect discharges to the System that exceed established standards. In these cases, the City initiates a process of notification and enforcement requiring the industry to regain compliance. Lack of compliance by the offending industry can lead to imposition of fines or ultimately to the termination of the industry's sewer service. The City Code also allows recovery of any damages to the Sewer System that result from impermissible discharges. Ninety-nine percent of samples collected from permitted industries are in compliance.

## REGULATORY ENVIRONMENT

### OVERVIEW

The City is subject to an array of federal and state regulations involving the protection/restoration of the environment. The federal regulations, which most often stem from public laws administered by the EPA, are typically managed, monitored, and enforced by the DEQ by way of delegation from the EPA. State-specific regulations also are managed by the DEQ. Most of the services provided by the Bureau through programs and projects are designed to respond to these regulations. Generally, the goal of such efforts is to protect human health and safety, as well as the physical and biological health of area watersheds, streams, and rivers.

### BUREAU PERMITS

#### Wastewater Treatment System Permits

The Clean Water Act (“CWA”) was passed by Congress in 1972. The CWA requires all facilities that discharge to Waters of the United States through a pipe to get a NPDES permit. The Bureau has a NPDES permit for both the CBWTP and the TCWTP. These permits set waste discharge limits, minimum monitoring and reporting requirements, and deadlines for specific actions to be taken by the Bureau; require an industrial pretreatment program; and specify penalties for noncompliance. The CBWTP permit was issued in July 2011 and will expire in 2016. The TCWTP permit was issued in October 2004 and was administratively extended in 2009. The TCWTP permit has not been renewed due to the backlog of permit applications at the DEQ. Because the Bureau applied for a new permit in a timely manner, the expired TCWTP permit remains in force until final action is taken on the application per Oregon Administrative Rule 340-045-0040.

Several ongoing and completed actions influence the permitting process. These include the completion of the CSO Control Program, ongoing legal action concerning the Willamette River Total Maximum Daily Load (“TMDL”) for temperature, and the DEQ’s new Revised Human Health Water Quality Criteria for Toxics.

In 2000, Congress amended the CWA to require that subsequently issued permits and orders “conform” to a 1994 CSO Control Policy. The Bureau has been under a DEQ administrative order, Stipulation and Final Order No. WQ-NWR-91-75 (the “Order”) since 1991, amended in 1994. The Order was designed to address the CSO issues facing the City by an agreed-upon timeframe. The CSO Control Program was completed as of December 1, 2011. The program reduced CSOs to the Columbia Slough by more than 99 percent and to the Willamette River by 94 percent. Instead of an average of 50 Willamette River CSO events each year, there are now an average of less than four CSO events each winter and an average of one event in three years during the summer. The City met all of its required CSO program milestones on time, meeting the regulatory obligations outlined in the Order.

Section 303 (d) of the CWA requires states every two years to identify those waters “for which existing required pollution controls are not stringent enough to achieve that state’s water quality standards,” and to develop that a TMDL. A TMDL is the calculated amount of pollutant a water body can receive and still meet State of Oregon (“State”) water quality standards. The DEQ finalized the Willamette Basin TMDL (including mainstem and tributaries) in 2006 after extensive study. TMDLs were developed for temperature, bacteria, and mercury because State water quality standards for these pollutants are often exceeded. In *Northwest Environmental Advocates (“NEA”) v. U.S. Environmental Protection Agency (“EPA”)*, on February 28, 2012, the U.S. District Court of Oregon invalidated the EPA’s decision to approve some of Oregon’s water quality standards with implications for nonpoint sources of pollution from farming, forestry, grazing, and related practices. The court also invalidated the EPA’s decision to approve Oregon’s Natural Conditions Criteria for temperature to protect fish. The results of this action are unclear since the legal process has not yet been resolved, but it may impact the schedule and content of the TCWTP permit. Bureau staff are following developments.

The DEQ is responsible for establishing water quality criteria for toxic pollutants to protect both aquatic life and human health. These criteria are established to protect surface water for aquatic life and to allow Oregonians to consume fish and shellfish and to use State waters for drinking water supply without adverse health effects. The DEQ develops its water quality criteria based on EPA recommended criteria. Following an extensive review of the human health toxics criteria, the EPA approved revised criteria to protect human health on October 17, 2011. The new human health toxics criteria are now effective under state and federal law for CWA programs. Bureau staff have been preparing to test for the regulated pollutants at the new, lower concentrations in preparation for new requirements when the permits are renewed.

The CBWTP also has Air Contaminant Discharge, Construction Stormwater, and Industrial Stormwater Discharge permits. Changes and upgrades to the CBWTP and collection system have been made over the years and will continue to be made as regulations evolve.



## **NPDES Municipal Separate Storm Sewer System (“MS4”) Permit**

An NPDES permit for a municipal separate storm sewer system is referred to as an MS4 permit. The City’s five-year NPDES stormwater permit requires that the City and its co-permittee, the Port of Portland, implement stormwater management programs to reduce pollutant discharges “to the maximum extent practicable” from their respective municipal stormwater systems. The permit was first issued in September 1995 and most recently renewed in January 2011. The MS4 permit incorporates the stormwater components of TMDL implementation through a requirement to develop “benchmarks” (defined as estimated future pollutant load reductions) for TMDL parameters with EPA-approved waste load allocations (“WLAs”). An evaluation of stormwater program effectiveness in making progress towards these benchmarks is also required. In addition, the 2011 permit includes a requirement to assess measures needed to attain TMDL WLAs.

The stormwater management program will impact operating programs as well as the capital program. Currently identified capital costs deemed necessary to comply with the NPDES stormwater permit are included within the Bureau’s Surface Water Management CIP. The operating costs of permit-related programs, distributed across bureaus and other City programs (for example, stormwater facility maintenance, street sweeping) exceeds \$500,000 per year and is expected to increase in future years. Capital cost impacts are approximately \$5 million over the FY 2013-14 through FY 2017-18 five-year forecast interval.

## **Underground Injection Control Water Pollution Control Facility Permit**

The City’s Underground Injection Control (“UIC”) Water Pollution Control Facility permit was first issued on June 1, 2005. The permit establishes construction, operation and maintenance requirements for UICs (sumps). It requires the City to develop and implement a UIC management plan to protect groundwater as a drinking water resource. The permit expires May 31 2015.

The City currently owns and operates approximately 9,000 UICs that collect stormwater from public rights-of-way and discharge it to the subsurface. UICs are most prevalent in the eastern portion of the City, where subsurface soils support greater stormwater drainage and infiltration rates. For many areas east of the Willamette River, UICs are the only form of stormwater disposal available. UICs are also an essential element of a comprehensive watershed strategy to use stormwater as a resource by infiltrating it back into the ground and preclude the need to install or increase the capacity of piped stormwater infrastructure that eventually discharges into local surface water bodies, including Johnson Creek, the Columbia Slough, and the Willamette River.

Although the UIC management plan has many stormwater management actions in common with the NPDES stormwater permit program, developing and implementing the new program has additional impacts on operating programs as well as the capital program. The Bureau’s operating costs of UIC permit implementation are approximately \$1.0 million in FY 2013-14, primarily for stormwater discharge monitoring, system inventory and management, program implementation and permit compliance. Implementation costs through the current permit term are expected to remain at similar levels. Additional costs are distributed across other City Bureaus and other City programs (e.g., UIC system assessment updates and system maintenance).

Currently identified capital costs, such as identifying and implementing corrective actions for non-compliant UICs, are included within the Surface Water Management CIP. Capital costs are estimated to be approximately \$1.5 million over the FY 2013-14 to FY 2017-18 forecast interval.

## **ENDANGERED SPECIES ACT REQUIREMENTS**

For Pacific salmon, National Marine Fisheries Service (“NOAA Fisheries”) considers an Evolutionarily Significant Unit (“ESU”) a “species” under the Endangered Species Act (“ESA”). For Pacific steelhead, NOAA Fisheries has delineated Distinct Population Segments (“DPSs”) for consideration as “species” under the ESA.

An updated final listing for salmon and steelhead was issued on January 5, 2006 (71 FR 834). These include eight ESUs of salmon and five DPSs of steelhead that may use or migrate through watercourses in the Portland area. Seven of the eight ESUs of salmon are listed as threatened. The basic requirement of the ESA is to avoid harming or harassing the listed species or adversely modifying their critical habitat and to work to recover these species through the development and implementation of recovery plans.

In September 2005, NOAA Fisheries issued a final rule on the designation of critical habitat for the salmon ESUs and steelhead DPSs (50 CFR Part 226). The critical habitat designations require that City projects not “adversely affect” the designated areas unless adequate mitigation is conducted. The City is currently working with the State to implement a State recovery plan that is being reviewed for adoption as the official federal recovery plan. The recovery plan includes many ongoing Bureau programs and activities including stream restoration, green infrastructure investments, land acquisition, and code improvements. NOAA Fisheries has provided written support for the City’s ongoing ESA-related activities.

Although a recovery plan have been adopted by the State, it is still awaiting federal approval, so the final requirements and associated financial obligations are unclear. At a minimum there will be costs associated with more complicated permitting issues. Many of the actions are considered “voluntary” but are used as a baseline in permitting reviews. At a maximum there will be additional costs from new facilities and revised operating procedures that will help address the water quality and habitat issues under the Bureau’s charge. Going forward, funding for any capital projects or additional operating requirements will have to be budgeted as needs are identified.

## **PORTLAND HARBOR SEDIMENTS**

In December 2000, the EPA listed a stretch of the Willamette River known as Portland Harbor as a Superfund site under the federal National Priorities Listing process. The EPA has the lead in overseeing the investigation of sediment contamination and the design and implementation of sediment cleanup activities. The DEQ is the lead agency for evaluating and implementing source control measures for upland and adjacent land cleanup. In addition, federal, State and Tribal Natural Resource Trustees are involved in evaluating the need for restoration activities associated with natural resource damages at the site.

The Portland Harbor Superfund investigation is currently focused on a stretch of the Willamette River from River Mile 2 to River Mile 12. The City is one of the potentially responsible parties funding and conducting an investigation of contaminated sediments, assessing cleanup options and planning for restoration in this section of the river. The City’s potential liabilities are associated with stormwater discharges and with some City-owned upland properties. The City operates stormwater and CSO outfalls within the Portland Harbor area. The outfalls drain stormwater from City rights-of-way and from privately owned industrial, commercial, residential, and vacant lands. Stormwater can transport soil (dust, sediment, and debris) and contaminants such as metals, oil, grease, bacteria, and chemicals associated with upland activities to the river. The DEQ and the City are cooperating to assess whether discharges to the stormwater collection system are a significant source of sediment contamination. The City is working with the DEQ to identify and reduce sources of contamination that are conveyed to the Willamette River through the City’s stormwater outfalls. Information on current and past land uses within the drainage basin of each outfall will be used to help identify potential upland sources of contaminants.

The City’s involvement with the Superfund site, which includes the anticipated cost for management, technical and legal staffing, sediment investigation, investigation of the outfalls, assessment of source control measures, and early natural resource projects, is currently forecast to cost approximately \$15.2 million over the next five years. The EPA Record of Decision for the Superfund site is expected no earlier than late 2014. The total costs associated with the cleanup and restoration activities and the City’s ultimate share of those costs are unknown and the City cannot at this time predict the financial impact on the Sewer System. However, the City is taking a leading role in efforts to make the cleanup efficient and effective. The City is taking a proactive stance in cooperating with EPA’s sediment assessment work and developing an outfall evaluation and source control plan in cooperation with the DEQ. Cleanup and restoration work will build upon the Bureau’s implementation of the Portland Watershed Plan. The City is beginning to assess potential restoration activities with the Tribal Natural Resource Trustees, and is working with the U.S. Army Corps of Engineers on a comprehensive plan that could result in substantial funding for overall Lower Willamette natural resources restoration under the Water Resources Development Act. See “LITIGATION” herein.

# THE BUREAU OF ENVIRONMENTAL SERVICES

## BUREAU ORGANIZATION

The Bureau of Environmental Services (the “Bureau”) is headed by a director who reports to the Commissioner-in-Charge. See “THE INITIATIVE PROCESS—LOCAL INITIATIVES—Proposed Initiative to Amend City Charter” herein. The Bureau is responsible for the Sewer System’s operation, maintenance and capital construction. The Bureau is organized into six groups: the Office of the Director (i.e. Environmental Policy, Public Affairs, Portland Harbor, and Office of Healthy Working Rivers), the Business Services Group, the Wastewater Operations Group, the Watershed Services Group, the Engineering Services Group, and Pollution Prevention Services Group. At times, consultants are employed for specific projects, which require expertise or staffing beyond the Bureau’s capability. Certain administrative functions and Sewer System maintenance are provided by other City departments and bureaus on a reimbursable basis. The total budgeted staffing complement for the Bureau in FY 2013-14 stands at 519 full time equivalent employees (“FTEs”) distributed as follows:

- Office of the Director – 20 FTEs
- Business Services Group – 46.5 FTEs
- Wastewater Operations Group – 142 FTEs
- Watershed Services Group – 45 FTEs
- Engineering Services Group – 180 FTEs
- Pollution Prevention Services Group – 85.5 FTEs

Responsibility for overall management of the Sewer System and environmental policy planning resides in the Office of the Director. The organization chart in Figure 1 shows how the Bureau operations are assigned to the various groups.

### Office of the Director

The Office of the Director provides policy direction for all Bureau programs, coordinates the activities of the Bureau’s five operating groups, and assures timely and appropriate responses to the public, the ratepayers, and the regulatory agencies. The Office of the Director works closely with other City bureaus and government agencies to develop recommendations for policy and for review by the City Council on environmental issues. The Office of the Director includes public information, public involvement, and coordination of the City’s participation in the Portland Harbor Superfund process. The Portland Harbor Superfund process is an ongoing investigation of sediment contamination and design and implementation of a cleanup process for a recently listed Superfund site in the City. (See “REGULATORY ENVIRONMENT –PORTLAND HARBOR SEDIMENTS.”)

### Business Services Group

The Business Services Group provides and coordinates Bureau accounting, budgeting, mapping and data analysis, contract management, facilities management, financial, and human resources services, and assures timely and appropriate responses to the public, the ratepayers, and the regulatory agencies.

### Wastewater Group

The Wastewater Group is responsible for the operation, maintenance, monitoring and administration of the City's wastewater and stormwater collection and treatment facilities and related programs. These facilities include the CBWTP and TCWTP, 98 active pumping stations, the sanitary sewage and stormwater collection system, and a wide variety of stormwater detention and treatment facilities, and also the water quality ponds, UICs, and surface drainage systems.

### Watershed Services Group

The Watershed Services Group leads implementation of the Portland Watershed Management Plan (“PWMP”), a comprehensive watershed management plan covering all five of the City’s urban watersheds. The PWMP provides for an integrated approach to improve watershed health, and to meet regulatory mandates. Watershed Services chairs three cross-bureau work groups to ensure that all City projects such as new streets, and programs such as land use zoning and City code updates, all contribute to improving watershed health. Other responsibilities include monitoring and evaluating the effectiveness of stormwater management practices, promoting and implementing sustainable site development projects and practices, developing new policies, interpreting and implementing state and federal surface and groundwater policies and regulations, and implementing projects to protect and restore watershed functions.

## **Engineering Services Group**

The Engineering Services Group includes all of the Bureau's engineering activities under the direction of the Chief Engineer. This group provides project design and construction management services to the Bureau's capital programs and serves development activity through plan review and permit issuance for connection to the existing sanitary sewer system, expansion of the system, management of stormwater runoff on private property, and water quality treatment at construction sites. The group is responsible for developing the Bureau's Public Facility Plans and the CIP, and for managing implementation of capital projects for the sanitary and stormwater collection and treatment systems, including meeting all State Environmental Quality Commission requirements regarding the CSO program. Specific tasks in developing the CIP include collecting project proposals and information, prioritizing projects in accordance with Bureau ranking criteria, recommending annual and five year capital plans to the Bureau, and assisting in the planning process for projects in the adopted CIP.

## **Pollution Prevention Services Group**

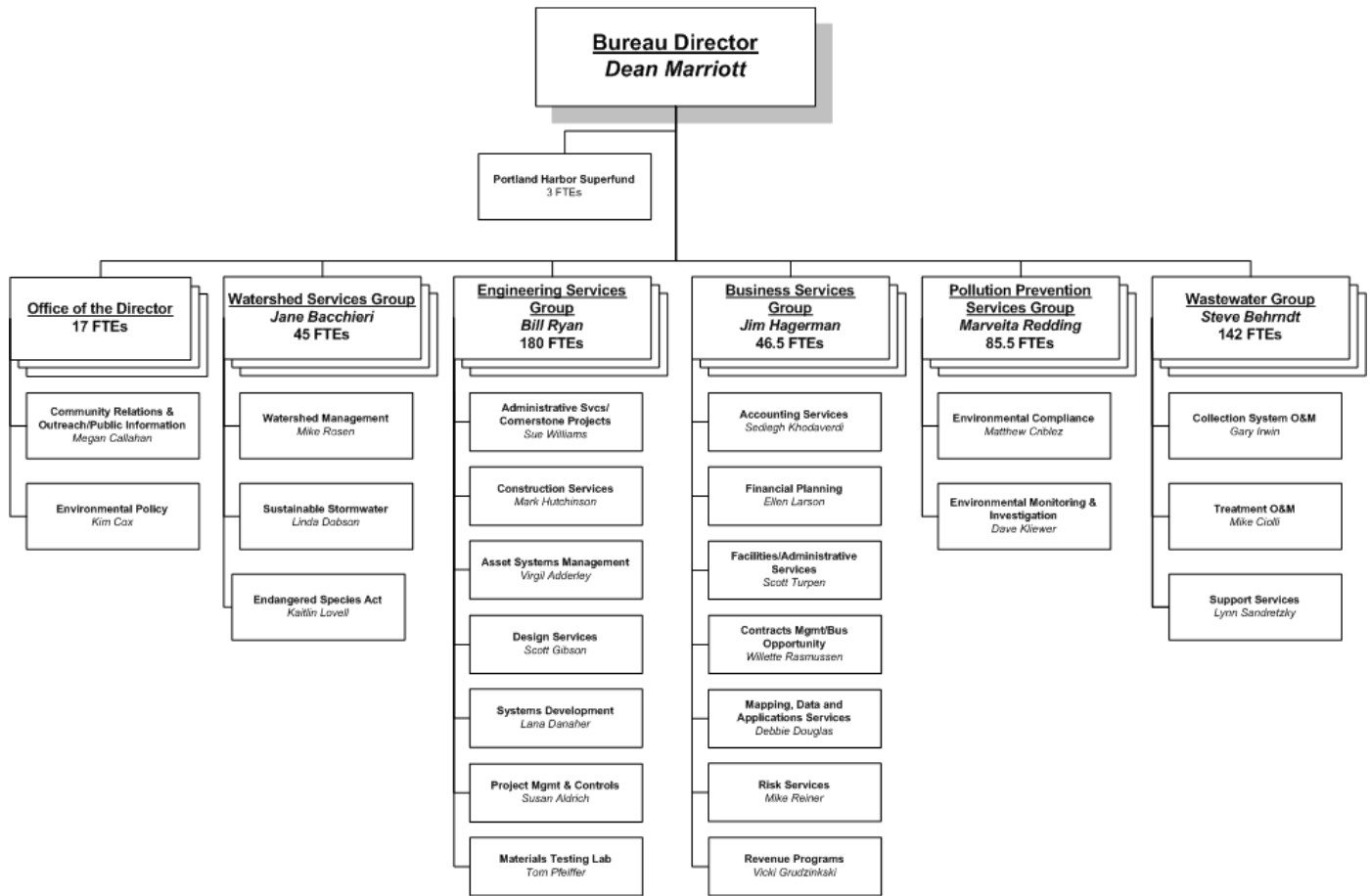
The Pollution Prevention Services Group has responsibility for the source control program, and provides environmental investigation and monitoring, environmental compliance, and enforcement support to other Bureau programs.

## **SERVICES PROVIDED BY OTHER CITY BUREAUS**

Services provided to the Bureau by other City bureaus and offices fall into two major categories: overhead and direct. Overhead services include legal, purchasing, central accounting, personnel and payroll services, and are charged to the Bureau based on various workload indicators used to measure consumption of overhead services. The FY 2013-14 costs for overhead services are budgeted at \$7.0 million.

Direct services include fleet, printing, internal mail, telephone, electronic services, liability and workers' compensation insurance, and engineering related services such as survey and structural engineering services. Direct services are charged according to actual use. The most significant direct services in terms of budgeted expenditures are sewer maintenance, cleaning, and repair of sanitary and stormwater sewer systems, including the portion of street sweeping services that directly benefit the Sewer System, provided by the City's Bureau of Maintenance. The FY 2013-14 costs for direct services are currently budgeted at \$39.7 million. Payments for direct services from other City bureaus are negotiated annually in Interagency Agreements. In the event of failure to reach a satisfactory agreement, the Bureau has the authority to modify these agreements by declining to purchase some of the services provided by other bureaus, by contracting with other suppliers for some services or by internalizing some services provided by other bureaus.

**Figure 1**  
**CITY OF PORTLAND, OREGON**  
**Bureau of Environmental Services**  
**Organization Chart**



Source: City of Portland, Bureau of Environmental Services.

## **MANAGEMENT PERSONNEL**

The following are brief biographies of key Sewer System personnel.

### **Nick Fish, Commissioner-in-Charge**

Mr. Fish was elected to the City Council in 2008, and re-elected to a four-year term in 2010. In addition to the Bureau of Environmental Services, he also oversees the Portland Water Bureau. Previously, he served as Commissioner of the Portland Housing Bureau and Portland Parks and Recreation. Mr. Fish is the Council liaison to Elders in Action, Age-Friendly Cities, the Regional Arts and Culture Council, and Venture Portland, which supports small businesses in the community. He has also held leadership positions on the boards of the Oregon Cultural Trust, Volunteers of America, Oregon, and the Housing Authority of Portland (now Home Forward). After graduating from Harvard, Mr. Fish worked as a legislative aid for Massachusetts Congressman Barney Frank. He received a law degree from Northeastern University in 1986, and spent ten years representing health care workers in New York.

### **Dean Marriott, Director, Bureau of Environmental Services**

Mr. Marriott was named Director in April 1994. Prior to his appointment, he was Commissioner of Environmental Protection for the State of Maine for a period of seven years. In addition, he was Director of Planning for the largest consulting engineering firm in Maine, served as legal counsel for a landscape architecture and planning firm in Pennsylvania, and was an environmental planner for a suburban Philadelphia county planning agency. Mr. Marriott holds a Bachelor of Arts degree from the University of Delaware and a Juris Doctor degree from the Florida State University College of Law.

### **Jim Hagerman, Manager, Business Services Group**

Mr. Hagerman has been with the Bureau of Environmental Services since 1992 and has managed the Business Services Group since July 2005. Mr. Hagerman has held various positions within the finance area, including ratemaking, financial planning, budgeting, and debt management. Prior to working with the Bureau, Mr. Hagerman was employed by the State of Oregon Public Utility Commission and Reed College. He holds a Bachelor of Science degree in Economics and Mathematics from the University of Oregon and a Ph.D. in Economics from Northwestern University.

### **Stephen Behrnt, Manager, Wastewater Group**

Mr. Behrnt has managed the Wastewater Group since 1997, responsible for operation, maintenance and administration of wastewater and stormwater collection, pumping and treatment facilities and related programs. He has been a manager in the Bureau for 22 years, having previously served as Public Works Superintendent from 1992 to 1997 and Maintenance Stores Systems Manager from 1990-1992. Mr. Behrnt came to the City in 1990 from the City of Eugene's Water Pollution Control Facility, where he was a manager in the Maintenance Division from 1984 to 1990. Mr. Behrnt holds a Bachelor of Science degree from the University of Oregon.

### **Jane Bacchieri, Manager, Watershed Services Group**

Ms. Bacchieri joined the Bureau in January 2011. She is responsible for managing implementation of Portland's Watershed Management programs, Sustainable Stormwater Management program, and Science, Fish and Wildlife program. Ms. Bacchieri has over 15 years of experience in natural resources management, including 4 years as a Policy Advisor for Oregon Governor Ted Kulongoski, and positions with Oregon's Department of Land Conservation and Development, Department of State Lands, Portland State University, and the National Park Service. She has a Masters in Environmental Management from Duke University and an undergraduate degree in Biology from the University of Vermont.

### **William F. Ryan, P.E., Manager, Engineering Services Group**

Mr. Ryan was named Chief Engineer in May 2004. He is responsible for managing and developing the Bureau's CIP and providing CIP design and construction services to the Bureau. Mr. Ryan has over 30 years of engineering experience, with the last 20 devoted to public works. He was the Bureau's Construction Manager from 1999 to 2004. Mr. Ryan is a registered civil and geotechnical engineer in Oregon. He holds a Master of Science degree in Civil Engineering from the University of Florida.

**Marveita Redding, Manager, Pollution Prevention Services Group**

Ms. Redding has been with the Bureau of Environmental Services since 1990 and was appointed the Manager of the Pollution Prevention Services Group in January 2007. From November 2005 until January 2007, she was Interim Manager, Pollution Prevention Services Group. From 1990 until November 2005, she was the Environmental Compliance Manager for the Bureau with responsibilities for the Bureau's compliance with federal, state and local environmental programs. During that period, she also was in charge of the Spill Protection and Citizen Response unit, the Brownfields Program and the Consolidated Site Assessment Program. She came to the City from the State of Oregon, Department of Agriculture where she served as the Executive Assistant to the Director. Prior to her state and local employment, Ms. Redding was an attorney with the U.S. Department of Agriculture, General Counsel. Ms. Redding holds a Bachelor of Arts degree from Pacific Union College and a Juris Doctor degree from the University of California, Hastings College of Law.

# CAPITAL CONSTRUCTION AND FINANCING PROGRAM

## CAPITAL PLANNING PROCESS

The Bureau is responsible for the Sewer System's operation, maintenance and capital construction. The Bureau annually prepares capital budgets for the upcoming fiscal year and for the balance of the five-year planning horizon. The Bureau also periodically forecasts on 10- and 20-year horizons to gain additional understanding and insight into long-term capital financing needs. (For a discussion of Bureau policies governing the financing of capital construction projects, see "FINANCIAL POLICIES AND PLANNING STANDARDS.") The major components of the Sewer System define the program categories within the capital budgeting process. The major components are:

- **Sewage Treatment Systems.** Projects within this category include renovation, modification, and expansion of sewage treatment plants and facilities directly related to sewage treatment and solids utilization.
- **Maintenance and Reliability.** Projects within this category include maintenance of collector sewers, trunk sewers, interceptor sewers (including diversion structures within the combined system), and major pump stations.
- **Surface Water Management.** Projects within this category include construction of separated storm sewers, stormwater detention facilities, stormwater facilities necessary to meet water quality requirements, and other capital projects related exclusively to drainage services.
- **Combined Sewer Overflow.** Projects within this category include separation of combined sewers, provision of additional capacity for interceptor sewers, installation of UICs, and all other projects directly related to compliance with CSO control requirements.
- **Systems Development.** Projects within this category include construction of new pump stations, relocation of sewage collectors and interceptor lines, and other capital projects relating to Sewer System expansion that do not fall under the scope of the other program areas.

Capital projects are proposed, scheduled and evaluated according to their impact on the following criteria:

- Protection of human health, safety, and property
- Protection of existing capital investment and System reliability
- Regulatory compliance and contractual commitments
- Environmental enhancement
- Promotion of growth and economic development
- Cost reduction

Projects mandated by regulatory authorities or necessary to maintain System reliability are given priority consideration.

## FACTORS AFFECTING SEWER SYSTEM CAPITAL INVESTMENT

Until recently, CSO related expenditures were the primary focus of the Bureau's capital investment program. With the majority of CSO expenditures now complete, the Bureau's current capital program will address the continuing need for investments to improve the maintenance and reliability of the existing facilities. As major facilities within the Sewer System begin showing their age, major reconstruction and maintenance projects will need to be undertaken. Forecast capital improvement expenditures within the Bureau's Maintenance and Reliability Program total \$344.4 million, or about 62 percent of the CIP, over the next five years.



## CAPITAL IMPROVEMENT PROGRAM RESOURCES AND REQUIREMENTS

The City forecasts capital requirements for the Sewer System of approximately \$595 million (shown in Table 7 as cash transfers from the Sewer System Operating Fund and Capitalized Overhead) during the forecast period from FY 2013-14 through FY 2017-18. A brief description of the resources required to finance these requirements follows.

- Line and Branch Charges. Charges in lieu of assessment will be used to support CIP outlays. Line and branch charges are received in the form of cash and in the form of proceeds from special assessment bonds issued for property owners who elect to finance their line and branch charges.
- System Development Charges. System Development Charges (“SDCs”) are equity charges applied to properties at the time they connect to the Sewer System. SDCs are based upon the total cost of major sewer facilities, less grant revenues, divided by System capacity. SDC revenues support CIP projects and debt service.
- Current Income. Current Sewer System net income from service fees and charges will also be used to fund CIP outlays. The availability of current income to fund CIP expenditures is the result of meeting debt service coverage requirements on outstanding bonds. Cash contributions to capital construction are projected to total \$128.7 million over the five-year forecast period.
- Bond Proceeds. Proceeds from the sale of Sewer System revenue bonds will support the CIP. Debt service requirements for future bond sales have been forecast assuming a 25-year debt amortization schedule through FY 2014-15, 20-years thereafter, and level debt service for each series of bonds.
- Investment Income. Investment or interest income is earned on all Sewer System funds administered by the City Treasurer. Any investment income earned on balances within Sewer System funds helps offset required increases in sewer user fees.

The following table shows Sewer System capital funding by source. Expenditures for the capital program occur in the Operating Fund and are subsequently reimbursed by the Construction Fund.

**Table 7**  
**CITY OF PORTLAND, OREGON**  
**Sewer System Construction Fund**  
**Forecast Sources and Uses of Funds**  
**and Estimated Changes in Fund Balances (1)**

Fiscal Year	Projected 2012-13	Forecast 2013-14	Forecast 2014-15	Forecast 2015-16	Forecast 2016-17	Forecast 2017-18
(In thousands of dollars)						
<b>RESOURCES:</b>						
Line & Branch Charges (2)	\$783	\$750	\$711	\$719	\$726	\$743
Cash Transfers In -						
Sewer System Operating Fund (3)	3,495	18,759	20,096	20,916	22,963	29,153
Grants and State Loans						
Bond Proceeds (Sewer Revenue Bonds) (4)	0	298,535	145,000	0	200,823	0
Bond Proceeds (Limited Tax Improvement Bonds)	0	700	1,500	1,600	1,700	1,600
Note Proceeds (Line of Credit)	77,617	10,000	0	0		0
Miscellaneous	952	0	0	0		0
Interest On Investments	29	472	877	852	1,068	824
<b>TOTAL RESOURCES</b>	<b>82,876</b>	<b>329,216</b>	<b>168,184</b>	<b>24,087</b>	<b>227,280</b>	<b>32,320</b>
<b>REQUIREMENTS:</b>						
Cash Transfers Out:						
Sewer System Operating Fund (5)	86,400	112,100	110,345	108,732	112,424	108,913
Capitalized Overhead (to Operating Fund)	6,711	8,255	8,413	8,574	8,738	8,905
Retired Notes / Refundings	0	95,000	0	0		0
Sewer System Debt Redemption Fund (6)	0	23,146	11,402	0	18,230	0
Miscellaneous	96	399	1,073	0	1,393	0
<b>TOTAL REQUIREMENTS</b>	<b>93,207</b>	<b>238,900</b>	<b>131,233</b>	<b>117,306</b>	<b>140,785</b>	<b>117,818</b>
<b>RESOURCES OVER (UNDER) REQUIREMENTS</b>	<b>(10,331)</b>	<b>90,316</b>	<b>36,952</b>	<b>(93,219)</b>	<b>86,495</b>	<b>(85,498)</b>
<b>BEGINNING FUND BALANCE</b>	<b>15,287</b>	<b>4,956</b>	<b>95,271</b>	<b>132,223</b>	<b>39,004</b>	<b>125,499</b>
<b>ENDING FUND BALANCE</b>	<b>\$4,956</b>	<b>\$95,271</b>	<b>\$132,223</b>	<b>\$39,004</b>	<b>\$125,499</b>	<b>\$40,001</b>

Notes:

- (1) Totals may not sum due to rounding.
- (2) Increases in FY 2012-13 reflect the required connections resulting from recent sewer extension projects, for which properties are required to pay fees and connect within three years of sewer availability.
- (3) Represents cash financing of construction activity from sewer system revenues.
- (4) Amount for FY 2013-14 includes the 2013 Series A Bonds and bonds planned to be issued in FY 2013-14.
- (5) Expenditures for the capital program occur in the Operating Fund and are subsequently reimbursed from the Construction Fund.
- (6) Transfer of bond proceeds for cash-funded debt service reserves.

Source: Bureau of Environmental Services.

Planned CIP outlays (excluding capitalized overhead) total \$553 million over the five-year forecast period. The following table shows the construction costs estimated for the FY 2013-14 through FY 2017-18 forecast period by program and by major expense type.

**Table 8**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Forecast Capital Improvement Program Costs**  
**(excluding fund balances and cash transfers) (1)**

Fiscal Year	Forecast 2013-14	Forecast 2014-15	Forecast 2015-16	Forecast 2016-17	Forecast 2017-18	<b>5-Year Total</b>
(In thousands of dollars)						
<b><u>SYSTEM PROGRAM</u></b>						
Sewage Treatment Systems	\$16,982	\$10,584	\$18,089	\$23,980	\$23,049	\$92,684
Maintenance & Reliability	68,051	75,394	65,325	68,026	67,634	344,430
Surface Water Management	16,103	19,412	19,660	13,654	12,228	81,057
Combined Sewer Overflow	3,373	164	307	525	0	4,369
System Development	7,591	4,790	5,352	6,239	6,002	29,974
<b>TOTAL BY SYSTEM PROGRAMS</b>	<b>\$112,100</b>	<b>\$110,345</b>	<b>\$108,732</b>	<b>\$112,424</b>	<b>\$108,913</b>	<b>\$552,515</b>

Notes:

(1) Totals may not sum due to rounding.

Source: Bureau of Environmental Services.

## **FINANCIAL POLICIES AND PLANNING STANDARDS**

### **FIVE YEAR FINANCIAL PLAN**

The Bureau annually prepares a five-year financial plan that has three key elements. Initial operating and capital expenditure requirements for the Bureau are developed through separate operating and capital planning processes. They are then brought together and overall revenue requirements and a corresponding five-year funding program is developed taking account of the impacts of capital construction on future operations and maintenance requirements.

The financial planning process lays the groundwork for setting rates, which are formally adopted each year by the City Council. Additionally, the planning process helps ensure conformance with policy and planning standards pertaining to debt issuance, maintenance of reserves, and use of the Rate Stabilization Fund. From time to time, the Bureau reviews all policies and planning standards and may elect to change them.

### **FINANCIAL OPERATIONS POLICIES**

#### **Ending Fund Balances**

The Bureau maintains a financial planning policy that the combined ending fund balances within the Sewer System Operating Fund and the Rate Stabilization Fund must be equal to or greater than ten percent of each year's Operating Expenses, plus any required debt service reserves. Over the five year historical period from FY 2007-08 through FY 2011-12, the Bureau's combined Operating Fund and Rate Stabilization Fund ending balances have exceeded this policy threshold. This is due in part to the build-up of the Rate Stabilization Fund balance over the interval from FY 2001-02 to FY 2007-08 in order to smooth future rate increases from increased debt service. Although Rate Stabilization Fund balances declined as planned from FY 2007-08 through FY 2012-13, the Bureau exceeded its minimum planning standard of ten percent of Operating Expenses. For the forecast period beginning in FY 2013-14, combined Operating Fund and Rate Stabilization Fund ending balances are expected to exceed the minimum planning policy level of ten percent of Operating Expenses. In addition, as part of the Bureau's commitment to sound financial management, the Sewer System Operating Fund holds another \$200,000 reserve for State Revolving Fund loans outstanding in the amount of \$18.9 million as of June 30, 2013.

#### **Use of Rate Stabilization Fund**

The Bureau uses transfers between the Sewer System Operating Fund and the Sewer System Rate Stabilization Fund to smooth rate increases over the financial planning period. This smoothing is one of the Bureau's key financial planning objectives and is aimed at maintaining financial stability and predictability in the context of changing regulatory requirements and operating needs. It also helps ensure that debt service coverage meets planning standards. (See "—Debt Service Coverage" below.)

### **POLICIES AND PLANS AFFECTING BOND ISSUANCE**

#### **Debt Service Coverage**

The bulk of the Bureau's CIP is financed by revenue bonds. Bond covenants for outstanding First Lien Bonds affect revenue needs through coverage requirements. The existing covenants call for Net Revenues (including transfers to and from the Rate Stabilization Fund) to be at least 1.20 times the annual debt service requirement on First Lien Bonds. For Second Lien Bonds, Net Revenues (including transfers to and from the Rate Stabilization Fund) must be at least 1.10 times the Combined Annual Debt Service on First and Second Lien Bonds. However, the Bureau strives to meet more stringent planning standards than are required by these legal covenants. The Bureau's planning standard for First Lien Bonds is to set rates such that Net Revenues (including transfers to and from the Rate Stabilization Fund) are at least 1.50 times the annual debt service requirement on First Lien Bonds. The Bureau also maintains a planning standard for Second Lien Bonds that will result in Net Revenues (including transfers to and from the Rate Stabilization Fund) of at least 1.30 times Combined Annual Debt Service on First and Second Lien Bonds. These two standards exceed the debt service coverage required by bond covenants and serve two purposes. First, the absolute dollar difference between the planning standard and the Bureau's legal debt service coverage requirement provides a margin of safety for meeting coverage requirements. Second, the higher standards ensure ongoing equity contributions to the capital program, further strengthening financial operations.

The Bureau has always met the First Lien Bond and Second Lien Bond legal debt service coverage requirements and the First Lien Bond debt service coverage planning standard. In FY 2011-12 and FY 2012-13, the Combined Annual Debt Service coverage based on stabilized Net Revenues was 1.29 in FY 2011-12 and is projected to be 1.28 in FY 2012-13, slightly below the 1.30 times planning standard established for Second Lien Bonds, based on financial results as of April 2013. Subsequent unaudited FY 2012-13 financial results indicate that the City will meet its 1.30 times planning standard in FY 2012-13; however,

projected financial operating information reported herein has not been updated to reflect those results. The Bureau has implemented a plan to return to the 1.30 times planning standard in FY 2013-14. See Table 18 and Table 19 in “PROJECTED REVENUES AND EXPENDITURES” herein.

### **Financial Policies Relating to Variable Rate Obligations**

The City does not currently have any variable rate debt outstanding secured by the revenues of the Sewer System. In the event of issuance of any future variable rate obligations, the Bureau has adopted the following policies to manage the risks associated with this variable rate debt:

- The Bureau will maintain reserves sufficient to offset interest rates at three percent above forecast levels for two years.
- The interest rate used to calculate debt service for the variable rate bonds in the Bureau’s financial forecasts (for the purpose of determining planning standard coverage requirements) will be at least 100 basis points (1.0%) higher than the most recent actual rate on variable rate bonds.
- Funds representing the difference between forecast and Actual Debt Service on variable rate bonds will be used first to fund and maintain the reserve for interest rate risk, then to retire outstanding Sewer System debt.
- The Bureau will review the interest rate assumptions and revise them as necessary to satisfy the one-percent margin for the forecasts underlying the annual five-year financial plan and the annual rate study. The Bureau may update the assumptions more frequently should it determine the need to do so.

## **SEWER SYSTEM FINANCIAL AND OPERATING INFORMATION**

### **OVERVIEW**

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

### **FUND ACCOUNTING SYSTEM**

The Bureau's financial reporting system is organized into five separate funds. These funds and their financial reporting purposes are described as follows.

#### **Sewer System Operating Fund**

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

#### **Sewer System Construction Fund**

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

#### **Sewer System Debt Redemption Fund**

The Sewer System Debt Redemption Fund is a single fund that provides for payment of City debt incurred in conjunction with construction of Sewage System facilities.

#### **Sewer System Rate Stabilization Fund**

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

#### **Environmental Remediation Fund**

The Environmental Remediation Fund has in the past supported the City's waste disposal site remediation activities and contributes funds to the Portland Harbor Superfund investigation. Beginning FY 2005-06, all expenditures for the Portland Harbor Superfund program occur in this fund, which is funded through Portland Harbor rate revenues. These revenues appear as separate line items in a customer's sewer bill.

For financial reporting purposes, the first four of the above-referenced funds (all except the Environmental Remediation Fund) are included within the Sewage Disposal Fund. The financial statements of the Sewage Disposal Fund and the Environmental Remediation Fund are reported in APPENDIX C of this Official Statement.

### **HISTORICAL REVENUES AND EXPENDITURES**

The City has maintained Sewer System Gross Revenues sufficient to provide for all operating expenditures and debt service, and has met legal debt service coverage requirements. In addition to meeting these requirements, the City's Sewer System Gross Revenues have provided substantial cash to finance the CIP in combination with federal grants and the proceeds of revenue bond sales. Historical results of the Bureau's financial operations are shown in the following table. Audited statements of revenues, expenditures, changes in retained earnings, and the audited balance sheet for the Sewer System Operating Fund are presented in APPENDIX C.

**Table 9**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Historical Operating Results (1)**

Fiscal Year	2007-08	2008-09	2009-10	2010-11	2011-12
(In thousands of dollars, except for debt service coverage)					
<b>GROSS REVENUES (2)</b>					
Total Operating Revenues	\$205,787	\$215,169	\$223,774	\$241,384	\$251,586
Interest Earnings	8,231	7,287	2,115	1,981	1,091
System Development Charges	11,043	7,791	4,566	5,431	9,138
Cash Transfers In -					
Rate Stabilization Fund	118	10,000	9,750	29,500	18,585
Other Funds	923	1,331	1,234	2,095	2,363
<b>TOTAL GROSS REVENUES</b>	<b>\$226,102</b>	<b>\$241,578</b>	<b>\$241,440</b>	<b>\$280,391</b>	<b>\$282,764</b>
<b>OPERATING EXPENSES</b>					
Operating Expenses (3)	\$81,478	\$84,871	\$87,213	\$89,421	\$93,966
Cash Transfers Out -					
Rate Stabilization Fund	17,000	0	0	0	0
<b>TOTAL OPERATING EXPENSES</b>	<b>\$98,478</b>	<b>\$84,871</b>	<b>\$87,213</b>	<b>\$89,421</b>	<b>\$93,966</b>
<b>NET REVENUES</b>	<b>\$127,625</b>	<b>\$156,706</b>	<b>\$154,227</b>	<b>\$190,970</b>	<b>\$188,797</b>
<b>DEBT SERVICE</b>					
First Lien Bonds	\$72,343	\$90,026	\$90,032	\$97,804	\$97,790
Second Lien Bonds (4)	\$22,305	\$29,598	\$28,504	\$48,484	\$49,092
<b>TOTAL DEBT SERVICE</b>	<b>\$94,648</b>	<b>\$119,624</b>	<b>\$118,536</b>	<b>\$146,288</b>	<b>\$146,881</b>
<b>DEBT SERVICE COVERAGE (5)</b>					
<u>With Rate Stabilization Transfers</u>					
First Lien Bonds	1.76x	1.74x	1.71x	1.95x	1.93x
First and Second Lien Bonds	1.35x	1.31x	1.30x	1.31x	1.29x
<u>Without Rate Stabilization Transfers</u>					
First Lien Bonds	2.00x	1.63x	1.60x	1.65x	1.74x
First and Second Lien Bonds	1.52x	1.23x	1.22x	1.10x	1.16x

Notes:

- (1) Totals may not sum due to rounding
- (2) As defined in the First Lien Bond Ordinance.
- (3) Excluding depreciation expense.
- (4) The interest rate on second lien variable rate bonds is calculated using the Estimated Average Interest Rate as defined in the Master Second Lien Sewer System Revenue Bond Declaration and differs from the actual interest payments. All variable rate bonds were refunded on April 10, 2008.
- (5) The debt service coverage shown may differ slightly than what has been published previously in the City's Comprehensive Annual Financial Reports as the result of corrections to previous calculations. None of the corrections had a significant impact on coverages.

Source: Bureau of Environmental Services.

## **USER CHARGE BILLING AND COLLECTION**

### **Ratemaking and Authorization**

Section 11-302 of the City Charter authorizes the City Council to fix fees and charges for connection to and use of the Sewer System. Sewer user fees and connection charges are formally reviewed every year by the Bureau. Rates required to support proposed activities and meet all obligations to bondholders under the Ordinance are submitted annually by the Director of the Bureau to the City Council for review and approval. No governmental approval, other than the City Council's, is required. The City Council approved an average increase to fees and charges of approximately 5.32 percent for FY 2013-14 in May 2013. Over the last 20 years, rate increases have averaged 6.6 percent annually.

### **Billings and Collections**

Sewer System billings and collection services for retail customers are provided by the City's Water Bureau. Bills sent to customers include separate line items for water and Sewer System services. As of April 2013, Sewer System billings and collection services for retail customers are on a quarterly cycle for approximately 168,451 accounts, a bimonthly cycle for approximately 5,461 accounts, and on a monthly basis for 5,524 large user accounts. Bills sent to customers include separate line items for sewer, stormwater, and water services. For delinquent bills, the Water Bureau implements service shutoffs on behalf of the Bureau.

As of April 2013, there were 5,461 accounts receiving water from the Rockwood Water People's Utility District, or the Lorna Water District. Since they are not City water customers, there is no water shutoff option for collection of delinquent sewer bills for these customers. Past due balances currently total approximately \$1.6 million for this group. Liens have been used for owner-occupied single family properties in the past.

Wholesale customers are billed at various times during a fiscal year ranging from bi-monthly to quarterly. As of June 30, 2012, no wholesale customer was delinquent with respect to billed charges.

### **Clean River Rewards Program**

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

In the nearly seven years since the Clean River Rewards Program was implemented, approximately 35,500 customers have registered for and are receiving discounts on their stormwater bills, approximately 20 percent of the total customer base. Funding is provided by adjusting stormwater rates for all classes of customers upward to offset the revenue reductions from the stormwater discount program.

### **Low Income Discounts**

In May of 1997 the City Council approved an expanded version of an existing low-income assistance program. For FY 2013-14, the bill discount is 46 percent of a typical low-income customer bill, which lowers sewer bills for eligible residential households by approximately \$28.08 per month or \$336.96 per year. Funding is provided by adjusting rates for all classes of customers upward to offset the revenue reductions from the low-income discount program. Total sewer revenue redistribution from low-income discount rates is estimated at approximately \$3.0 million for FY 2012-13.

### **Extra Strength Charges**

Prior to 2012, the Bureau monitored and charged about 72 commercial/industrial customers for extra strength sanitary sewage discharges based upon samples taken and laboratory analysis of their sewage discharges. However, as many as 2,500 other customers are believed to have discharge strength significantly higher than the residential or baseline strength. Therefore the cost of treatment for the added loading from these customers historically has been borne by others.

The Bureau has developed a "class average" system of strength-based rates for commercial and industrial customers that will improve both customer equity and pollution prevention incentives. Apart from implementation costs, this is a revenue-neutral program and the estimated \$2.9 million collected annually will result in lower rates for other customers systemwide. The program also is intended to provide an economic incentive to customers to reduce grease discharges, which is important to the Bureau for both regulatory compliance and reduced maintenance costs.



The Bureau has finalized its administrative rules for the Class Average Extra Strength Program and began implementation on January 1, 2012. Full implementation using a phased approach is expected to take approximately two years. As of June 30, 2013, more than 1,500 Class Average Extra Strength Program accounts have been set up.

### Wholesale Rates

The City currently provides contractual services to one major wholesale customer, the City of Lake Oswego, Oregon, and several smaller wholesale customers, including county service districts and portions of two other cities. Each wholesale service contract provides for full cost recovery during the life of the contract. Charges to wholesale customers are estimated to be approximately \$4,142,000 for FY 2012-13, which would be approximately 1.4 percent of total System operating revenues.

**Table 10**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Historical Monthly Rates and Charges (1)**

Fiscal Year	2008-09	2009-10	2010-11	2011-12	2012-13
<u>CUSTOMER CLASS</u>					
<u>Residential</u>					
Sanitary Volume (\$/ccf)	6.17	6.61	7.01	7.63	8.20
Impervious Area Charge (\$/1000 sq. ft.)	8.07	8.64	9.42	9.65	10.18
Average Single-Family Monthly Bill(\$/account) (2)	46.89	50.15	53.33	56.52	59.57
<u>Commercial</u>					
Sanitary Volume (\$/ccf)	6.347	6.743	7.135	7.719	8.181
Cooling (Clean) Water To Storm Sewer (\$/ccf)	0.651	0.726	0.736	0.777	0.824
Impervious Area Charge (\$/1000 sq. ft.)	8.77	9.25	10.00	10.30	10.77
<u>Extra Strength</u>					
Biochemical Oxygen Demand (\$/lb.)	0.505	0.527	0.547	0.583	0.574
Suspended Solids (\$/lb.)	0.603	0.639	0.667	0.711	0.696
<u>Capital Charges</u>					
Sanitary System Development Charge (\$/EDU)	3,520	3,835	4,089	4,335	4,335
<u>Year-to-Year Percentage Increase</u>					
Of Avg. Single-Family Monthly Bill (2)	5.7%	7.0%	6.3%	6.0%	5.4%

Notes:

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

Source: Bureau of Environmental Services.

## Major Retail Users

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

**Table 11**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Largest Bureau Customers (FY 2012-13)**

<u>CUSTOMER</u>	<u>Total Sewer Charges</u>	<u>Percentage of Rate Revenues</u>
Darigold Inc.	\$2,195,072	0.85%
Oregon Health and Science University (OHSU)	1,967,397	0.76
Portland Public Schools	1,952,082	0.75
Precision Castparts	1,788,383	0.69
Siltronic Corp.	1,443,279	0.56
Port of Portland	1,433,442	0.55
American Property Management	1,118,340	0.43
Portland State University	1,080,922	0.42
Fred Meyer Inc.	1,050,752	0.41
Swan Island Dairy	998,722	0.39
Total	<u>\$15,028,391</u>	<u>4.97%</u>

Notes:

(1) Estimated actual results (unaudited).

Source: City of Portland.

## UTILITY LICENSE FEE

The Utility License Fee is paid directly to the City's General Fund for the right to operate a public or private utility within the City. The fee is levied per City Code Chapter 7.14. The Bureau, the Water Bureau, and City-owned golf courses pay this fee along with private utilities such as cable, telephone, gas, and electric.

Currently, the utility license fee is not subject to regulation by State law and may be raised at the discretion of the City Council. The Utility License Fee is subordinated to the payment of debt service on the First Lien Bonds and Second Lien Bonds.

On September 1, 2004, the City Council voted to cap utility license fees for the water and sewer utilities at the FY 2004-05 budgeted levels until those levels represent five percent of retail utility revenues. Consequently, the Bureau's budgeted utility license fee payment has remained at \$12.8 million since FY 2007-08. This will continue until that amount represents five percent of utility revenues. After that time, utility license fee payments may grow again, but cannot exceed five percent of utility revenues. In FY 2012-13, utility license fees payments continued at \$12.8 million. In FY 2013-14, the utility license fees payments are projected to be \$13.7 million.

## OUTSTANDING SEWER SYSTEM DEBT

### Revenue Bonds

Upon the issuance of the 2013 Series A Bonds, the City will have a total of \$1,675,095,000 of Sewer System First and Second Lien Bonds outstanding. The following table shows outstanding First and Second Lien Bonds as of the delivery of the 2013 Series A Bonds.

**Table 12**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Outstanding First and Second Lien Bonds**

<u>Issue</u>	<u>Dated</u>	<u>Final Maturity</u>	<u>Original Par Amount</u>	<u>Amount Outstanding</u>
<b>First Lien Bonds</b>				
2004 Series A Bonds	11/30/2004	10/1/2024	\$163,500,000	\$116,300,000
2004 Series B Bonds	11/30/2004	6/1/2017	93,080,000	81,200,000
2005 Series A Bonds	6/16/2005	8/1/2020	144,850,000	144,850,000
2006 Series A Bonds	5/25/2006	6/15/2031	177,845,000	147,380,000
2007 Series A Bonds	3/8/2007	6/1/2015	193,510,000	61,550,000
2008 Series A Bonds	4/10/2008	6/15/2033	333,015,000	279,315,000
Subtotal			<u>\$1,105,800,000</u>	<u>\$830,595,000</u>
<b>Second Lien Bonds</b>				
2006 Series B Bonds	5/25/2006	6/15/2031	\$87,135,000	\$72,445,000
2008 Series B Bonds	4/10/2008	6/15/2033	195,700,000	189,130,000
2010 Series A Bonds	8/19/2010	3/15/2035	407,850,000	371,960,000
2013 Series A Bonds	9/17/2013	8/1/2038	210,965,000	210,965,000
Subtotal			<u>\$901,650,000</u>	<u>\$844,500,000</u>
<b>TOTAL</b>			<u>\$2,007,450,000</u>	<u>\$1,675,095,000</u>

Source: City of Portland.

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

**Table 13**  
**CITY OF PORTLAND, OREGON**  
**Sewer System Revenue Bonds**  
**Annual Debt Service Requirements**

<b>Fiscal Year</b>	<b>Outstanding</b>	<b>Second Lien</b>	<b>Outstanding</b>	<b>Total</b>	
<b>Ending</b>	<b>First</b>	<b>2013 Series A</b>	<b>Second</b>	<b>Second</b>	<b>Total</b>
<b>June 30</b>	<b>Lien Bond</b>	<b>Bond</b>	<b>Lien Bond</b>	<b>Lien Bond</b>	<b>Debt Service</b>
	<b>Debt Service</b>	<b>Debt Service</b>	<b>Debt Service (1)</b>	<b>Debt Service</b>	<b>Debt Service</b>
2014	\$97,785,644	\$3,733,445	\$45,069,750	\$48,803,195	\$146,588,839
2015	97,802,394	16,058,350	45,057,000	61,115,350	158,917,744
2016	100,038,394	16,055,350	45,054,500	61,109,850	161,148,244
2017	100,059,894	16,053,400	45,060,000	61,113,400	161,173,294
2018	100,905,394	16,058,525	45,066,250	61,124,775	162,030,169
2019	92,624,644	16,051,775	50,431,250	66,483,025	159,107,669
2020	92,629,294	16,052,400	49,550,000	65,602,400	158,231,694
2021	92,615,981	16,059,150	49,889,250	65,948,400	158,564,381
2022	40,631,013	16,056,150	102,787,150	118,843,300	159,474,313
2023	40,639,838	16,057,525	102,819,650	118,877,175	159,517,013
2024	40,625,963	20,074,150	38,290,550	58,364,700	98,990,663
2025	40,635,850	12,528,150	38,294,350	50,822,500	91,458,350
2026	27,855,438	12,530,650	38,297,425	50,828,075	78,683,513
2027	27,848,313	12,526,900	38,289,425	50,816,325	78,664,638
2028	27,850,588	12,532,700	38,290,175	50,822,875	78,673,463
2029	27,847,425	12,530,500	38,286,175	50,816,675	78,664,100
2030	27,851,963	12,531,625	38,286,225	50,817,850	78,669,813
2031	27,846,650	12,531,875	38,292,475	50,824,350	78,671,000
2032	15,619,625	12,531,625	32,181,250	44,712,875	60,332,500
2033	15,623,463	12,529,875	32,174,250	44,704,125	60,327,588
2034	-	12,530,500	27,860,500	40,391,000	40,391,000
2035	-	12,532,250	27,867,000	40,399,250	40,399,250
2036	-	12,533,875	-	12,533,875	12,533,875
2037	-	12,529,250	-	12,529,250	12,529,250
2038	-	12,532,000	-	12,532,000	12,532,000
2039	-	12,530,625	-	12,530,625	12,530,625
<b>Total</b>	<b>\$1,135,337,768</b>	<b>\$356,272,620</b>	<b>\$1,007,194,600</b>	<b>\$1,363,467,220</b>	<b>\$2,498,804,988</b>

Source: City of Portland.

## PROJECTED REVENUES AND EXPENDITURES

Sewer System historical and forecast operating results are shown in the tables which follow. In general, the results reflect relatively moderate growth in operating expenditures. The financial forecast through FY 2017-18 has been developed in conformance with the Bureau’s financial policies and planning standards. (See “FINANCIAL POLICIES AND PLANNING STANDARDS.”)

### ASSUMPTIONS

Key assumptions underlying the revenue forecast through FY 2017-18 include:

- Annual rate increases of 5.10 percent in FY 2014-15 and FY 2015-16 and 4.65 percent in the final two years of the forecast interval;
- System development charge revenues will average \$12.1 million annually;
- Annual growth of 0.25 percent in the number of accounts within the City in FY 2013-14 and 0.5 percent thereafter;
- Annual reduction in monthly rate/ccf of 1.5 percent for single family residences, 0.75 percent for multi-family residences, and 0.75 percent for commercial users due to water conservation;
- Planned debt service coverage ratios of at least 1.50 on First Lien Bonds and 1.30 on First and Second Lien Bonds combined; and
- An operating reserve equal to a minimum of 10 percent of operating expenses for unforeseen financial needs.

Key assumptions underlying the cost forecast include:

- 2.43 percent annual inflation for external materials and services;
- 0.9 percent annual inflation for personal services in FY 2013-14, with 2.99 percent thereafter; and
- 2.32 percent annual inflation for utilities;
- 3.21 percent annual inflation for internal materials and services.

Assumptions underlying the debt forecast include:

- Long-term debt (in addition to the 2013 Series A Bonds) issued in support of future years’ capital improvement programs, in the following gross amounts (including projected costs of issuance):

<u>Fiscal Year</u>	<u>Amount</u>
2013-14	\$107,780,000
2014-15	145,000,000
2015-16	0
2016-17	200,823,000
2017-18	0
TOTAL	\$453,603,000

- All future amounts are assumed to be Second Lien Bonds. The City may choose to issue First Lien Bonds in future fiscal years where Second Lien Bonds are currently assumed.
- A 5.1 percent interest rate on the FY 2013-14 fixed-rate debt issue, 5.75 percent interest rate on the FY 2014-15 fixed-rate debt issue and a 6.5 percent interest on the FY 2016-17 fixed-rate debt issue, including funding of debt service reserves with bond proceeds.

### USE OF RATE STABILIZATION FUND

The Bureau uses transfers between the Sewer System Operating Fund and the Sewer System Rate Stabilization Fund to smooth rate increases while ensuring that coverage meets planning standards purposes. Balances in the Rate Stabilization Fund were being collected between FY 2002-03 and FY 2007-08 in anticipation of funding needs related to the completion of the Eastside CSO project and have been drawn down through FY 2012-13. As shown in Table 14 below, balances are projected to be rebuilt to smooth

the impact of future debt issues on sewer rates. (See “FINANCIAL POLICIES AND PLANNING STANDARDS—FINANCIAL OPERATIONS POLICIES” herein.)

**Table 14**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Historical and Projected Rate Stabilization**  
**Ending Fund Balance (1)**

<u>Fiscal Year</u>	<u>Ending Balance</u>
2007-08	\$76,462,557
2008-09	68,615,053
2009-10	38,090,996
2010-11	13,990,074
2011-12	12,356,845
2012-13	Forecast 2,009,000
2013-14	Forecast 3,567,000
2014-15	Forecast 9,137,000
2015-16	Forecast 15,034,000
2016-17	Forecast 19,900,000
2017-18	Forecast 16,597,000

Notes:

- (1) Balances reflect transfers to and from the Sewer System Operating Fund as well as interest earnings on Rate Stabilization Fund balances.

Source: Bureau of Environmental Services.

**Table 15**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Forecast Customer Accounts**

Fiscal Year	Forecast 2013-14	Forecast 2014-15	Forecast 2015-16	Forecast 2016-17	Forecast 2017-18
Customer Class					
Residential					
Single Family	156,063	156,840	157,621	158,406	159,195
Multi Family					
Monthly	2,415	2,425	2,435	2,445	2,456
Quarterly	8,402	8,444	8,486	8,528	8,571
TOTAL RESIDENTIAL	166,880	167,709	168,542	169,379	170,222
Commercial					
Monthly	4,128	4,145	4,162	4,179	4,196
Quarterly	10,106	10,156	10,207	10,258	10,309
Extra Strength	65	65	65	65	65
Commercial Clean Water to Storm Sewer	15	15	15	15	15
TOTAL COMMERCIAL	14,314	14,381	14,449	14,517	14,585
Total Forecast Accounts	181,194	182,090	182,991	183,896	184,807

Source: Bureau of Environmental Services.

**Table 16**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Current and Forecast Monthly Rates and Charges (1)**

Fiscal Year	Actual 2013-14	Forecast 2014-15	Forecast 2015-16	Forecast 2016-17	Forecast 2017-18
<b><u>CUSTOMER CLASS</u></b>					
<b><u>Residential</u></b>					
Sanitary Volume (\$/ccf) (2)	8.75	9.31	9.89	10.46	11.04
Impervious Area Charge (\$/1,000 sq. ft.) (2)	10.52	11.10	11.74	12.38	13.06
Average Single-Family Monthly Bill (\$/Account) (3)	62.74	65.94	69.30	72.52	75.90
<b><u>Commercial</u></b>					
Sanitary Volume (\$/ccf) (2)	8.735	9.295	9.875	10.437	11.029
Cooling (Clean) Water To Storm Sewer (\$/ccf)	0.883	0.928	0.975	1.021	1.068
Impervious Area Charge (\$/1,000 sq. ft.) (2)	11.12	11.74	12.42	13.10	13.81
Extra Strength Biochemical Oxygen Demand (\$/lb.)	0.601	0.632	0.664	0.695	0.727
Suspended Solids (\$/lb.)	0.744	0.782	0.822	0.860	0.900
<b><u>Capital Charges (4)</u></b>					
Sanitary Sewer SDC (\$/EDU)	4,551	4,824	5,114	5,420	5,746
Forecast Year-to-Year Percentage Increase of Avg. Single-Family Monthly Bill	5.32%	5.10%	5.10%	4.65%	4.65%

**Notes:**

- (1) Abbreviations used in the table include the following: "ccf" (hundred cubic feet) and "EDU" (Equivalent Dwelling Units).
- (2) Residential and commercial volume and impervious area charges are gross, including the Willamette River/Portland Harbor Superfund Charge, which was split out separately on sewer bills beginning in FY 2007-08.
- (3) Average bills reflect average annual billed consumption, which is lower than winter average use.
- (4) Capital charges for FY 2014-15 and beyond are estimated; state law requires that these fees to be based on actual capital projects completed, thus they are computed annually.

**Source:** Bureau of Environmental Services.

**COMPARISON OF MONTHLY RESIDENTIAL BILLS**

The table below compares average monthly bills for single-family residential customers in a regional and national sample of cities.



**Table 17**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Comparison of Average Monthly Sewer and Stormwater Bills**  
**For Single Family Residential Monthly Customers (1)**

<u>Local/Regional</u>	<u>Monthly Bill</u>
Seattle, WA	\$80.60
Lake Oswego, OR	73.55
Olympia, WA	63.74
<b>Portland, OR</b>	<b>62.74</b>
Tacoma, WA	62.65
Newport, OR	61.96
Milwaukie, OR	59.95
Woodburn, OR	56.57
Spokane, WA	55.15
Puyallup, WA	53.66
McMinnville, OR	51.83
Vancouver, WA	50.41
Bend, OR	49.70
Yachats, OR	49.25
Tigard, OR	46.70
Clackamas County, OR	46.45
Beaverton, OR	45.37
Washington County, OR	44.70
Eugene, OR	44.50
Tualatin, OR	44.05
Ashland, OR	41.92
Salem, OR	40.82
Corvallis, OR	38.82
Gresham, OR	36.14
<b>National</b>	
Atlanta, GA	\$108.08
Honolulu, HI	97.20
Juneau, AK	67.34
Cincinnati, OH	66.26
<b>Portland, OR</b>	<b>62.74</b>
Knoxville, TN	59.45
Sacramento, CA	56.98
Richmond, VA	55.60
Kansas City, MO	49.25
Charlotte, NC	48.18
San Francisco, CA	47.36
Washington, DC	44.34
Fort Collins, CO	42.46
Boston, MA	42.44
Nashville, TN	36.69
Colorado Springs, CO	35.17
Denver, CO	33.24
Cleveland, OH	25.63
Salt Lake City, UT	16.73

Notes:

(1) As of July 2013. Bills are calculated based on average sewer usage as reported by each agency.

Source: Bureau of Environmental Services.

## **HISTORICAL AND PROJECTED RESULTS OF FINANCIAL OPERATIONS**

Tables 18 and 19 show historical and projected results of the Sewer System's financial operations for FY 2007-08 through FY 2017-18. As shown in Table 19, total gross revenues are forecast to increase from the current year projection of \$289.7 million to \$382.4 million, an annual compound increase of 5.7 percent. Total operating revenues are projected to grow at an annual compound rate of 6.5 percent over the forecast interval, from the current year's projection of \$263.4 million to \$361.4 million in FY 2017-18. Service charges and fees are the largest component of operating revenues. Their growth from \$255.0 million to \$353.7 million over the same interval (an annual compound increase of 6.8 percent) reflects forecast residential bill increases averaging 5.0 percent, 0.5 percent growth in the number of accounts served, and continued water conservation by residential and commercial customers. In addition to base customer growth, service charge and fee revenues are forecast to increase in excess of the average rate increase due to a number of factors. Commercial and multifamily impervious areas have increased as a result of recent Bureau efforts to update impervious area measurements. The Bureau has expanded its extra strength program to include smaller non-monitored customer types (e.g., restaurants and laundries) where industry data show average concentrations for these customer to be in excess of domestic strength limit. Finally, retail stormwater rates will be assessed beginning in FY 2013-14 to approximately 1,400 customers in three Multnomah County drainage districts within the city limits.

Forecast Operating Expenses increase from the current year's projection of \$101.8 million to \$123.1 million in FY 2017-18, an annual average increase of 3.9 percent. Net Revenues are forecast to increase from the current year's projected \$187.9 million to \$259.3 million in FY 2017-18, an annual compound increase of 6.6 percent. First and second lien debt service requirements are projected to increase from the current \$146.9 million to \$199.5 million in FY 2017-18. During the FY 2013-14 to 2017-18 forecast period, the Bureau expects to maintain debt service coverage at or above the 1.50 policy standard on the First Lien Bonds, and to meet the 1.30 policy standard on the First and Second Lien Bonds combined.

### **The Bond Feasibility Study**

The City contracted with the Galardi Rothstein Group to review and report on the Bureau's historical financial performance, its projected financial plan, and debt service coverage to assure compliance with the First and Second Lien Bond Ordinances. The report, which is shown in APPENDIX H entitled "BOND FEASIBILITY STUDY," includes a review of the financial forecast for the period FY 2012-13 through FY 2017-18 and its underlying analysis and assumptions.

The report concludes that the forecast is sound and feasible, and presents the following opinions:

- The principal assumptions used in the financial forecast are reasonable given recent experience and economic conditions.
- The Bureau's financial planning and rate practices are comprehensive and conform to established industry standards.
- The Bureau and the City Council have demonstrated through historical financial planning and rate increases both a commitment to conforming to established financial policies, and effectiveness at balancing rate increases with the financial requirements of the system (including debt service coverage requirements).
- Projected operating results are consistent with the Bureau's established financial policies and debt service requirements, and will provide funding necessary to implement the CIP as currently envisioned.

**Table 18**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Historical Operating Results (1)**

Fiscal Year	2007-08	2008-09	2009-10	2010-11	2011-12
(In thousands of dollars)					
<b>GROSS REVENUES</b>					
Operating Revenues:					
Service Charges & Fees (2)	\$194,084	\$207,909	\$217,557	\$231,883	\$244,059
Wholesale Contracts	3,323	3,859	3,206	3,378	3,727
Other Service Charges & Miscellaneous	8,380	3,401	3,011	6,123	3,800
<b>Total Operating Revenues</b>	<b>205,787</b>	<b>215,169</b>	<b>223,774</b>	<b>241,384</b>	<b>251,586</b>
System Development Charges	11,043	7,791	4,566	5,431	9,138
Interest Earnings	8,231	7,287	2,115	1,981	1,091
Cash Transfers In -					
Rate Stabilization Fund	118	10,000	9,750	29,500	18,585
Other Funds	923	1,331	1,234	2,095	2,363
<b>TOTAL GROSS REVENUES (3)</b>	<b>\$226,102</b>	<b>\$241,578</b>	<b>\$241,440</b>	<b>\$280,391</b>	<b>\$282,764</b>
<b>OPERATING EXPENSES (4)</b>					
Personal Services	\$34,532	\$37,650	\$39,767	\$40,513	\$45,284
Materials and Services	22,075	23,704	21,985	18,195	19,119
Internal Services	29,561	27,741	28,892	31,411	30,748
Capitalized Overhead	(10,232)	(10,863)	(10,173)	(9,932)	(9,867)
Cash Transfers Out -					
General Fund Overhead	4,670	5,142	5,517	5,449	6,901
Rate Stabilization Fund	17,000	0	0	0	0
Other	871	1,497	1,225	3,785	1,782
<b>TOTAL OPERATING EXPENSES</b>	<b>\$98,478</b>	<b>\$84,871</b>	<b>\$87,213</b>	<b>\$89,421</b>	<b>\$93,966</b>
<b>NET REVENUES</b>	<b>\$127,625</b>	<b>\$156,706</b>	<b>\$154,227</b>	<b>\$190,970</b>	<b>\$188,797</b>
<b>DEBT SERVICE FOR COVERAGE</b>					
First Lien Bonds	\$72,343	\$90,026	\$90,032	\$97,804	\$97,790
Second Lien Bonds (5)	22,305	29,598	28,504	48,484	49,092
<b>TOTAL DEBT SERVICE</b>	<b>\$94,648</b>	<b>\$119,624</b>	<b>\$118,536</b>	<b>\$146,288</b>	<b>\$146,881</b>
<b>DEBT SERVICE COVERAGE (6)</b>					
<u>With Rate Stabilization Transfers</u>					
First Lien Bonds	1.76x	1.74x	1.71x	1.95x	1.93x
First and Second Lien Bonds (7)	1.35x	1.31x	1.30x	1.31x	1.29x
<u>Without Rate Stabilization Transfers</u>					
First Lien Bonds	2.00x	1.63x	1.60x	1.65x	1.74x
First and Second Lien Bonds	1.52x	1.23x	1.22x	1.10x	1.16x

**Notes:**

- (1) Totals may not sum due to rounding.
- (2) FY 2006-07 Operating Revenues include a one-time accrual of \$17.4 million to bring billing system revenues to full accrual accounting basis.
- (3) As defined in the First Lien Bond Ordinance.
- (4) As defined in the First Lien Bond Ordinance. Excludes depreciation.
- (5) Interest calculated as defined in Master Second Lien Bond Declaration.
- (6) The Debt Service Coverage shown may differ slightly than what has been published previously in the City's Comprehensive Annual Financial Reports (CAFR), as the result of corrections to previous calculations. None of the corrections had a significant impact on coverages.
- (7) Debt service coverage below the Bureau's planning standard in FY 2011-12 reflects a decision to preserve capacity in the Rate Stabilization Fund against future demand fluctuations.

**Source:** Bureau of Environmental Services.

**Table 19**  
**CITY OF PORTLAND, OREGON**  
**Sewer System**  
**Projected Operating Results (1)**

Fiscal Year	Projected 2012-13	Forecast 2013-14	Forecast 2014-15	Forecast 2015-16	Forecast 2016-17	Forecast 2017-18
(In thousands of dollars)						
<b>GROSS REVENUES</b>						
Operating Revenues:						
Service Charges & Fees	\$254,980	\$277,523	\$295,890	\$316,149	\$336,160	\$353,730
Wholesale Contracts	4,142	3,445	3,555	3,669	3,787	3,909
Other Service Charges & Miscellaneous	4,296	3,329	3,436	3,546	3,660	3,777
<b>Total Operating Revenues</b>	<b>263,418</b>	<b>284,297</b>	<b>302,881</b>	<b>323,365</b>	<b>343,608</b>	<b>361,416</b>
System Development/Line & Branch Charges	11,033	10,650	11,565	12,234	12,936	13,130
Interest Earnings	595	894	1,397	1,633	1,966	1,822
Cash Transfers In -						
Rate Stabilization Fund	10,400	0	0	0	0	3,450
Other Funds	4,290	2,783	2,333	2,408	2,485	2,565
<b>TOTAL GROSS REVENUES (2)</b>	<b>\$289,736</b>	<b>\$298,624</b>	<b>\$318,177</b>	<b>\$339,640</b>	<b>\$360,995</b>	<b>\$382,383</b>
<b>OPERATING EXPENSES (3)</b>						
Personal Services	\$44,673	\$44,887	\$46,243	\$49,707	\$51,566	\$53,828
Materials and Services	19,242	21,527	22,064	23,250	25,638	26,457
Internal Services	35,324	33,150	34,139	35,664	37,139	38,384
Capitalized Overhead	(8,400)	(8,255)	(8,413)	(8,574)	(8,738)	(8,905)
Cash Transfers Out -						
General Fund Overhead	7,507	6,965	7,348	7,753	7,966	8,186
Rate Stabilization Fund	0	1,550	5,550	5,825	4,750	0
Other	3,475	3,776	4,200	4,586	4,882	5,166
<b>TOTAL OPERATING EXPENSES</b>	<b>\$101,820</b>	<b>\$103,599</b>	<b>\$111,131</b>	<b>\$118,211</b>	<b>\$123,204</b>	<b>\$123,116</b>
<b>NET REVENUES</b>	<b>\$187,916</b>	<b>\$195,025</b>	<b>\$207,046</b>	<b>\$221,429</b>	<b>\$237,791</b>	<b>\$259,267</b>
<b>DEBT SERVICE</b>						
First Lien Bonds (4)	\$97,806	\$97,786	\$97,802	\$100,038	\$100,060	\$100,905
Second Lien Bonds (5)	49,075	48,803	61,115	69,911	82,518	98,237
<b>TOTAL DEBT SERVICE</b>	<b>\$146,881</b>	<b>\$146,589</b>	<b>\$158,918</b>	<b>\$169,949</b>	<b>\$182,577</b>	<b>\$199,143</b>
<b>DEBT SERVICE COVERAGE</b>						
<u>With Rate Stabilization Transfers</u>						
First Lien Bonds	1.92x	1.99x	2.12x	2.21x	2.38x	2.57x
First Lien and Second Lien Bonds (6)	1.28x	1.33x	1.30x	1.30x	1.30x	1.30x
<u>Without Rate Stabilization Transfers</u>						
First Lien Bonds	1.81x	2.01x	2.17x	2.27x	2.42x	2.54x
First Lien and Second Lien Bonds	1.21x	1.34x	1.34x	1.34x	1.33x	1.28x

**Notes:**

- (1) Totals may not sum due to rounding.
- (2) As defined in the First Lien Bond Ordinance.
- (3) As defined in the First Lien Bond Ordinance. Excludes depreciation.
- (4) Includes debt service on outstanding First Lien Bonds, with no additional First Lien Bonds sold.
- (5) Includes debt service on outstanding Second Lien Bonds, including 2013 Series A Bonds, and additional Second Lien Bonds issues of \$107,780,000 in FY 2013-14, \$145,000,000 in FY 2014-15, and \$200,823,000 in FY 2016-17 at assumed interest rates of 5.08 percent, 5.75 percent, and, 6.50 percent, respectively. Debt service for the 2013 Series A Bonds reflects actual sale results and differs from estimated amounts in the Bond Feasibility Study.
- (6) Debt service coverage below the Bureau's planning standard in FY 2012-13 reflects unanticipated cyclical decline in commercial consumption and the decision to preserve capacity in the Rate Stabilization Fund against future demand fluctuations. Estimates in this Table 19 and in the Bond Feasibility Study were prepared as of April 2013. Subsequent unaudited FY 2012-13 results indicate that the City will meet its 1.30x planning standard in FY 2012-13; however, projected operating information shown in this table has not been updated to reflect those results.

Source: Bureau of Environmental Services.

## **SUPPLEMENTAL INFORMATION ON THE CITY FY 2013-14 BUDGET**

After several years of recessionary economic conditions, the City is beginning to experience modest economic growth. Home values are improving as the housing market recovers and overall employment levels are up.

Despite measured improvement in the regional economy, the City entered the FY 2013-14 budget process facing a significant shortfall in General Fund resources, primarily due to three factors: the newly-established Multnomah County library district which is expected to increase Measure 5 compression of the City's general operating property tax levy, additional costs from the City's agreement with the Department of Justice regarding police treatment of the mentally ill, and the conversion of housing, economic development, and neighborhood involvement programs from one-time to ongoing funding. As a result, the City needed to reduce ongoing General Fund discretionary costs by \$21.5 million in FY 2013-14 in order to balance the budget over the five-year forecast.

The City's FY 2013-14 Budget, which was adopted in June 2013, incorporates the following adjustments to address the General Fund shortfall:

- Reduced cost-of-living adjustments for all employees and delayed for non-represented employees until January 1, 2014.
- Ongoing savings of \$1.5 million from increasing the City's span of control and from streamlining and automating current business processes.
- Savings resulting from PERS reform approved by the state legislature in 2013. Overall, PERS reform citywide may save over \$12 million to all City funds.
- Enactment of programmatic cuts to balance the budget over the long term, with reductions focused on administration and overhead services.
- A reduction of approximately 130 positions Citywide relative to the FY 2012-13 budget.

As part of his mayoral campaign, Mayor Hales pledged to slow down increases in water and sewer rates. The FY 2013-14 Adopted Budget includes rate increases for the Water Bureau and the Bureau of Environmental Services of approximately 3.6% and 5.3%, respectively, for a combined rate increase of 4.8%. The Water Bureau had requested a 7.8% increase and the Bureau of Environmental Services requested a 6.5% increase. The average, combined single family residential sewer/water bill based on the adopted budget is expected to increase by \$4.13 per month. Lower rate increases have been achieved in part by shifting certain programs from utility bureaus to the general fund, eliminating some non-essential programs, and incorporating savings from operating efficiencies and PERS reform.

### **THE INITIATIVE PROCESS**

The Oregon Constitution, Article IV, Section 1, reserves to the people of the State the initiative power to amend the State constitution or to enact State legislation by placing measures on the statewide general election ballot for consideration by the voters. Oregon law therefore permits any registered Oregon voter to file a proposed initiative with the Oregon Secretary of State's office without payment of fees or other burdensome requirements. Consequently, a large number of initiative measures are submitted to the Oregon Secretary of State's office, and a much smaller number of petitions obtain sufficient signatures to be placed on the ballot.

Because many proposed initiative measures are submitted that do not qualify for the ballot, the City does not formally or systematically monitor the impact of those measures or estimate their financial effect prior to the time the measures qualify for the ballot. Consequently, the City does not ordinarily disclose information about proposed initiative measures that have not qualified for the ballot.

### **PROCESS FOR QUALIFYING STATE-WIDE INITIATIVES TO BE PLACED ON THE BALLOT**

To place a proposed state-wide initiative on a general election ballot, the proponents must submit to the Secretary of State initiative petitions signed by the number of qualified voters equal to a specified percentage of the total number of votes cast for all candidates for governor at the gubernatorial election at which a governor was elected for a term of four years next preceding the filing of the petition with the Secretary of State. Any elector may sign an initiative petition for any measure on which the elector is entitled to vote. State-wide initiatives may only be filed for general elections in even-numbered years.

A state-wide initiative petition must be submitted to the Secretary of State not less than four months prior to the general election at which the proposed measure is to be voted upon. As a practical matter, proponents of an initiative have approximately two years in

which to gather the necessary number of signatures. State law permits persons circulating initiative petitions to pay money to persons obtaining signatures for the petition.

Once an initiative measure has gathered a sufficient number of signatures and qualified for placement on the ballot, the State is required to prepare a formal estimate of the measure’s financial impact. Typically, this estimate is limited to an evaluation of the direct dollar impact.

Historically, a larger number of initiative measures have qualified for the ballot than have been approved by the electors. According to the Elections Division of the Secretary of State, the total number of initiative petitions that qualified for the ballot and the numbers that passed in recent general elections are as follows:

**Table 20**  
**CITY OF PORTLAND, OREGON**  
**Statewide Initiative Petitions that Qualified and Passed**  
**2002-2012**

<u>Year of General Election</u>	<u>Number of Initiatives that Qualified</u>	<u>Number of Initiatives that Passed</u>
2002	7	3
2004	6	2
2006	10	3
2008	8	0
2010	4	2
2012	7	2

Source: Elections Division, Oregon Secretary of State.

## **FUTURE STATE-WIDE INITIATIVE MEASURES**

The recent experience in Oregon is that many more initiative measures are proposed in some form than receive the number of signatures required to be placed on a ballot. Consequently, the City cannot accurately predict whether specific future initiative measures that may have an adverse effect on the City’s financial operations will be proposed, obtain sufficient signatures, and be placed on a ballot for voter approval, or if placed on a ballot, will be approved by voters.

The Oregon Secretary of State’s office maintains a list of all initiative petitions that have been submitted to that office. The office can be reached by telephone at (503) 986-1518.

## **LOCAL INITIATIVES**

### **Overview**

Article IV, Section 1 and Article XI, Section 2 of the Oregon Constitution and state statutes grant the voters in the City the initiative power to amend the City Charter or City ordinances, and to refer City Ordinances. A petition to refer a City measure must be signed by six percent of the registered voters in the City. A petition to initiate a City measure must be signed by nine percent of the registered voters in the City. No initiative or referendum petitions are currently being circulated that would limit the financial powers of the City. The City Council or a Charter Commission may also refer measures directly to voters. Under current law, local initiative and referendum elections may be held only in March, May, September and November, unless the City Council calls for a special election due to public interest in prompt resolution.

### **Proposed Initiative to Amend City Charter**

A citizen group, Portlanders for Water Reform, has expressed concern about recent utility rate increases, operational decisions, and spending priorities, and is sponsoring an initiative petition to refer a measure to amend the City Charter. The petition must obtain 29,786 signatures from eligible City voters by January 21, 2014 in order to be placed on the ballot for the May 20, 2014 election. If qualified for the ballot, Oregon law allows the measure to be approved by a majority of City voters who vote on the measure. If approved, the measure would transfer authority to operate and manage the City’s sewer and water systems from the City Council to

the “Portland Public Water District,” a separate group that would be formed as part of the City but governed by a new, elected, seven-member board, and would take effect on June 1, 2014.

The City cannot predict whether the measure will receive enough signatures to be placed on the ballot, or whether City voters will approve the measure if it is placed on the ballot. However, if the measure is placed on the ballot and is approved by a majority of City voters who cast ballots:

- A. The Portland Public Water District would be legally obligated to operate the water and sewer systems in compliance with all bond covenants made by the City before the creation of the Portland Public Water District, including covenants related to the 2013 Series A Bonds as described in the Master Second Lien Bond Declaration and the 2013 Supplemental Bond Declaration; and,
- B. The Portland Public Water District would not be obligated to comply with current internal planning and management standards for the water and sewer systems.

The City cannot predict how the measure, if approved, would affect future operational and financial decisions related to the sewer and water systems other than as required by bond covenants

## **TAX MATTERS**

### **OPINION OF BOND COUNSEL**

In the opinion of Hawkins Delafield & Wood LLP, Bond Counsel to the City, under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described herein, (i) interest on the 2013 Series A Bonds is excluded from gross income for Federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the “Code”), and (ii) interest on the 2013 Series A Bonds is not treated as a preference item in calculating the alternative minimum tax imposed on individuals and corporations under the Code; such interest, however, is included in the adjusted current earnings of certain corporations for purposes of calculating the alternative minimum tax imposed on such corporations. In rendering its opinion, Bond Counsel has relied on certain representations, certifications of fact, and statements of reasonable expectations made by the City in connection with the 2013 Series A Bonds, and Bond Counsel has assumed compliance by the City with certain ongoing covenants to comply with applicable requirements of the Code to assure the exclusion of interest on the 2013 Series A Bonds from gross income under Section 103 of the Code.

In addition, in the opinion of Bond Counsel to the City, under existing statutes, interest on the 2013 Series A Bonds is exempt from State of Oregon personal income tax.

Bond Counsel expresses no opinion regarding any other Federal or state tax consequences with respect to the 2013 Series A Bonds. Bond Counsel renders its opinion under existing statutes and court decisions as of the issue date, and assumes no obligation to update, revise or supplement its opinion to reflect any action hereafter taken or not taken, or any facts or circumstances that may hereafter come to its attention, or changes in law or in interpretations thereof that may hereafter occur, or for any other reason. Bond Counsel expresses no opinion on the effect of any action hereafter taken or not taken in reliance upon an opinion of other counsel on the exclusion from gross income for Federal income tax purposes of interest on the 2013 Series A Bonds, or under state and local tax law.

### **CERTAIN ONGOING FEDERAL TAX REQUIREMENTS AND COVENANTS**

The Code establishes certain ongoing requirements that must be met subsequent to the issuance and delivery of the 2013 Series A Bonds in order that interest on the 2013 Series A Bonds be and remain excluded from gross income under Section 103 of the Code. These requirements include, but are not limited to, requirements relating to use and expenditure of gross proceeds of the 2013 Series A Bonds, yield and other restrictions on investments of gross proceeds, and the arbitrage rebate requirement that certain excess earnings on gross proceeds be rebated to the Federal government. Noncompliance with such requirements may cause interest on the 2013 Series A Bonds to become included in gross income for Federal income tax purposes retroactive to their issue date, irrespective of the date on which such noncompliance occurs or is discovered. The City has covenanted to comply with certain applicable requirements of the Code to assure the exclusion of interest on the 2013 Series A Bonds from gross income under Section 103 of the Code.

### **CERTAIN COLLATERAL FEDERAL TAX CONSEQUENCES**

The following is a brief discussion of certain collateral Federal income tax matters with respect to the 2013 Series A Bonds. It does not purport to address all aspects of Federal taxation that may be relevant to a particular owner of a 2013 Series A Bond. Prospective

investors, particularly those who may be subject to special rules, are advised to consult their own tax advisors regarding the Federal tax consequences of owning and disposing of the 2013 Series A Bonds.

Prospective owners of the 2013 Series A Bonds should be aware that the ownership of such obligations may result in collateral Federal income tax consequences to various categories of persons, such as corporations (including S corporations and foreign corporations), financial institutions, property and casualty and life insurance companies, individual recipients of Social Security and railroad retirement benefits, individuals otherwise eligible for the earned income tax credit, and taxpayers deemed to have incurred or continued indebtedness to purchase or carry obligations the interest on which is excluded from gross income for Federal income tax purposes. Interest on the 2013 Series A Bonds may be taken into account in determining the tax liability of foreign corporations subject to the branch profits tax imposed by Section 884 of the Code.

## **ORIGINAL ISSUE DISCOUNT**

“Original issue discount” (“OID”) is the excess of the sum of all amounts payable at the stated maturity of a 2013 Series A Bond (excluding certain “qualified stated interest” that is unconditionally payable at least annually at prescribed rates) over the issue price of that maturity. In general, the “issue price” of a maturity means the first price at which a substantial amount of the 2013 Series A Bonds of that maturity was sold (excluding sales to bond houses, brokers, or similar persons acting in the capacity as underwriters, placement agents, or wholesalers). In general, the issue price for each maturity of 2013 Series A Bonds is expected to be the initial public offering price set forth on the inside cover page of the Official Statement. Bond Counsel further is of the opinion that, for any 2013 Series A Bonds having OID (a “Discount Bond”), OID that has accrued and is properly allocable to the owners of the Discount Bonds under Section 1288 of the Code is excludable from gross income for Federal income tax purposes to the same extent as other interest on the 2013 Series A Bonds.

In general, under Section 1288 of the Code, OID on a Discount Bond accrues under a constant yield method, based on periodic compounding of interest over prescribed accrual periods using a compounding rate determined by reference to the yield on that Discount Bond. An owner’s adjusted basis in a Discount Bond is increased by accrued OID for purposes of determining gain or loss on sale, exchange, or other disposition of such 2013 Series A Bond. Accrued OID may be taken into account as an increase in the amount of tax-exempt income received or deemed to have been received for purposes of determining various other tax consequences of owning a Discount Bond even though there will not be a corresponding cash payment.

Owners of Discount Bonds should consult their own tax advisors with respect to the treatment of original issue discount for Federal income tax purposes, including various special rules relating thereto, and the state and local tax consequences of acquiring, holding, and disposing of Discount Bonds.

## **BOND PREMIUM**

In general, if an owner acquires a 2013 Series A Bond for a purchase price (excluding accrued interest) or otherwise at a tax basis that reflects a premium over the sum of all amounts payable on the 2013 Series A Bond after the acquisition date (excluding certain “qualified stated interest” that is unconditionally payable at least annually at prescribed rates), that premium constitutes “bond premium” on that 2013 Series A Bond (a “Premium Bond”). In general, under Section 171 of the Code, an owner of a Premium Bond must amortize the bond premium over the remaining term of the Premium Bond, based on the owner’s yield over the remaining term of the Premium Bond determined based on constant yield principles (in certain cases involving a Premium Bond callable prior to its stated maturity date, the amortization period and yield may be required to be determined on the basis of an earlier call date that results in the lowest yield on such bond). An owner of a Premium Bond must amortize the bond premium by offsetting the qualified stated interest allocable to each interest accrual period under the owner’s regular method of accounting against the bond premium allocable to that period. In the case of a tax-exempt Premium Bond, if the bond premium allocable to an accrual period exceeds the qualified stated interest allocable to that accrual period, the excess is a nondeductible loss. Under certain circumstances, the owner of a Premium Bond may realize a taxable gain upon disposition of the Premium Bond even though it is sold or redeemed for an amount less than or equal to the owner’s original acquisition cost. Owners of any Premium Bonds should consult their own tax advisors regarding the treatment of bond premium for Federal income tax purposes, including various special rules relating thereto, and state and local tax consequences, in connection with the acquisition, ownership, amortization of bond premium on, sale, exchange, or other disposition of Premium Bonds.



## **INFORMATION REPORTING AND BACKUP WITHHOLDING**

Information reporting requirements apply to interest paid on tax-exempt obligations, including the 2013 Series A Bonds. In general, such requirements are satisfied if the interest recipient completes, and provides the payor with, a Form W-9, "Request for Taxpayer Identification Number and Certification," or if the recipient is one of a limited class of exempt recipients. A recipient not otherwise exempt from information reporting who fails to satisfy the information reporting requirements will be subject to "backup withholding," which means that the payor is required to deduct and withhold a tax from the interest payment, calculated in the manner set forth in the Code. For the foregoing purpose, a "payor" generally refers to the person or entity from whom a recipient receives its payments of interest or who collects such payments on behalf of the recipient.

If an owner purchasing a 2013 Series A Bond through a brokerage account has executed a Form W-9 in connection with the establishment of such account, as generally can be expected, no backup withholding should occur. In any event, backup withholding does not affect the excludability of the interest on the 2013 Series A Bonds from gross income for Federal income tax purposes. Any amounts withheld pursuant to backup withholding would be allowed as a refund or a credit against the owner's Federal income tax once the required information is furnished to the Internal Revenue Service.

## **MISCELLANEOUS**

Tax legislation, administrative actions taken by tax authorities, or court decisions, whether at the Federal or state level, may adversely affect the tax-exempt status of interest on the 2013 Series A Bonds under Federal or state law or otherwise prevent beneficial owners of the 2013 Series A Bonds from realizing the full current benefit of the tax status of such interest. In addition, such legislation or actions (whether currently proposed, proposed in the future, or enacted) and such decisions could affect the market price or marketability of the 2013 Series A Bonds. For example, the Fiscal Year 2014 Budget proposed on April 10, 2013 by the Obama Administration recommends a 28% limitation on itemized deductions and "tax preferences," including "tax-exempt interest." The net effect of such proposal, if enacted into law, would be that an owner of a 2013 Series A Bond with a marginal tax rate in excess of 28% would pay some amount of federal income tax with respect to the interest on such 2013 Series A Bond. The enactment of such proposal could also impact the tax treatment of interest on the 2013 Series A Bonds for state law purposes.

Prospective purchasers of the 2013 Series A Bonds should consult their own tax advisors regarding the foregoing matters.

## **RATING**

The 2013 Series A Bonds have been rated "Aa3" by Moody's Investors Service and "AA-" by Standard & Poor's. Such ratings reflect only the views of such organizations and any desired explanation of the significance of such ratings should be obtained from the rating agency furnishing the same, at the following addresses: Moody's Investors Service, Inc., 250 Greenwich Street, New York, New York, 10007; and Standard & Poor's, 55 Water Street, New York, New York, 10041. Generally, a rating agency bases its rating on the information and materials furnished to it and on investigations, studies and assumptions of its own. There is no assurance that any such ratings will continue for any given period of time or that such ratings will not be revised downward or withdrawn entirely by the rating agency concerned, if in the judgment of such rating agency, circumstances so warrant. Any such downward revision or withdrawal of any such ratings may have an adverse effect on the market price of the 2013 Series A Bonds.

## **FORWARD LOOKING STATEMENTS**

This Official Statement contains statements relating to future results that are "forward looking statements" as defined in the Private Securities Litigation Reform Act of 1995. When used in this Official Statement and its appendices, the words "estimate," "forecast," "intend," "expect," "projected," and similar expressions identify forward looking statements. Such statements are subject to risks and uncertainties that could cause actual results to differ materially from those contemplated in such forward looking statements. Any forecast is subject to such uncertainties. Therefore, there are likely to be differences between forecasts and actual results, and those differences may be material.

## **LEGAL MATTERS**

Legal matters incident to the authorization, issuance and sale of the 2013 Series A Bonds by the City are subject to the approving opinion of Hawkins Delafield & Wood LLP, Portland, Oregon, Bond Counsel. Bond Counsel has reviewed this Official Statement only to confirm that the portions of it describing the 2013 Series A Bonds, the First Lien Bond Ordinance, the 2013 Series A Bond Declaration, and the authority to issue the 2013 Series A Bonds conform to the 2013 Series A Bonds and the applicable laws under which they are issued. The statements made in this Official Statement under the captions "THE 2013 SERIES A BONDS" and "TAX MATTERS" have been reviewed and approved by Bond Counsel. All other representations of law and factual statements

contained in this Official Statement, including but not limited to all financial and statistical information and representations contained herein, have not been reviewed or approved by Bond Counsel.

## **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 financial position of the Bureau or the Sewer System. 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 Bureau or the Sewer System. 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 Bureau or the Sewer System.

In December 2000, the EPA listed a stretch of the Willamette River known as Portland Harbor as a Superfund site under the federal National Priorities Listing process. The DEQ is the lead agency for evaluating and implementing source control measures for upland and adjacent land cleanup. In addition, federal, State and Tribal Natural Resource Trustees are involved in evaluating the need for restoration activities associated with natural resource damages at the site. Total costs of cleaning up the site and restoration of natural resources will be estimated at the completion of a Remedial Investigation and Feasibility Study (“RI/FS”) under the federal Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”). The City can not predict when the RI/FS will be complete. It is anticipated that allocation of liability for cleanup to various parties will be determined after a remedial action is selected. The City may also have liabilities to Natural Resource Trustees of the Willamette River (including federal, state and tribal resource agencies) for damages to natural resources in Portland Harbor. Potential resource damages have not been quantified by the trustees and cannot be estimated until the conclusion of trustee activities. The City can not predict when such trustee activities will be complete.

The City is one of the potentially responsible parties funding and is conducting an investigation of contaminated sediments, assessing cleanup options and planning for restoration in this section of the river. The City’s potential liabilities are associated with stormwater discharges and with some City-owned upland properties. The City operates stormwater and CSO outfalls within the Portland Harbor area. The outfalls drain stormwater from City rights-of-way and from privately owned industrial, commercial, residential, and vacant lands.

The Bureau may be liable for a portion of the cleanup and restoration activities, as well as costs for restoration of natural resources. As described above, the total costs of cleanup and restoration, as well as allocation among parties, is undeterminable at this time, but could be material to the period in which it is realized. See “REGULATORY ENVIRONMENT-- PORTLAND HARBOR SEDIMENTS” herein.

On December 6, 2011, the City received a complaint in *Anderson et al. v. City of Portland*, Multnomah County Circuit Court case No. 1112-15957. The complaint challenges certain expenditures by the City’s Water Bureau and the Bureau and asks for an order requiring the City to reimburse the Water Fund and Sewage Disposal Fund for those expenditures. The complaint does not allege the amount in dispute or the source of the reimbursement. The City estimates that if plaintiffs prevailed on all claims and a court ordered the relief requested, the reimbursement amount could exceed \$50 million. The City has not identified potential sources of any court-ordered reimbursement, but such sources could include any legally available resources of the City, including the General Fund. The City will vigorously defend the lawsuit and believes that it is unlikely that the plaintiffs will prevail on the majority of the claims alleged.

## **CERTIFICATE WITH RESPECT TO OFFICIAL STATEMENT**

At the time of the original delivery of the 2013 Series A Bonds, the City will deliver a certificate to the Underwriters to the effect that the City has examined this Official Statement and the financial and other data concerning the City contained herein and that, to the best of the City’s knowledge and belief, (i) this Official Statement, both as of its date and as of the date of delivery of the 2013 Series A Bonds, does not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein, in light of the circumstances under which the statements were made, and (ii) between the date of this Official Statement and the date of delivery of the 2013 Series A Bonds, there has been no material change in the affairs (financial or otherwise), financial condition or results of operations of the City except as set forth in this Official Statement.

## MISCELLANEOUS

All quotations from and summaries and explanations of provisions of law herein do not purport to be complete, and reference should be made to said laws for full and complete statements of their provisions. This Official Statement is not to be construed as a contract or agreement between the City and the Underwriters or owners of any of the 2013 Series A Bonds. Any statements made in this Official Statement involving matters of opinion are intended merely as opinion and not as representations of fact. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement nor any sale made hereunder shall, under any circumstances, create any implication that there has been no change in the affairs of the City or its agencies, since the date hereof.

## CONTINUING DISCLOSURE

Pursuant to SEC Rule 15c2-12, as amended (17 CFR Part 240, § 240.15c2-12) (the “Rule”), the City, as the “obligated person” within the meaning of the Rule, will execute and deliver a Continuing Disclosure Certificate substantially in the form attached hereto as APPENDIX G for the benefit of the 2013 Series A Bond holders.

The City has complied in all material respects with its agreements to provide continuing disclosure under the Rule during the last five years

## CONCLUDING STATEMENT

The undersigned certifies that to the best of his knowledge and belief, (i) this Official Statement, both as of its date and as of the date of delivery of the 2013 Series A Bonds, does not contain any untrue statement of a material fact or omit any statement of a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, and (ii) between the date of this Official Statement and the date of delivery of the 2013 Series A Bonds there has been no material change in the affairs (financial or other), financial condition or results of operations of the City except as set forth in or contemplated by this Official Statement.

The execution and delivery of this Official Statement has been duly approved by the City.

## CITY OF PORTLAND, OREGON

By: /s/ B. JONAS BIERY  
Debt Manager  
Office of Management and Finance



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**APPENDIX A**  
**PROVISIONS OF THE MASTER SECOND LIEN SEWER SYSTEM**  
**REVENUE BOND DECLARATION**  
**THAT APPLY TO ALL SECOND LIEN BONDS**

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# **PROVISIONS OF THE MASTER SECOND LIEN SEWER SYSTEM REVENUE BOND DECLARATION THAT APPLY TO ALL SECOND LIEN BONDS**

## **Section 1. Definitions.**

Unless the context clearly requires otherwise, capitalized terms that are used in this Master Declaration and are defined in this Section 1 shall have the meanings defined for those terms in this Section 1, and capitalized terms that are used in this Master Declaration but are not defined in this Section 1 shall have the meanings defined for those terms in the First Lien Bond Ordinance.

“2003 Series A Bonds” means the City’s Second Lien Sewer System Revenue and Refunding Bonds, 2003 Series A.

“Adjusted Net Revenues” means the Net Revenues, adjusted for purposes of Section 5.1 as provided in Section 5.3.

“Annual Second Lien Bond Debt Service” means in any Fiscal Year the sum of: (1) the amounts of any transfers to the Second Lien Bond Reserve Account that are described in Section 3.3.C and 3.3.D; plus (2) the amount of principal and interest required to be paid in that Fiscal Year on all Outstanding Second Lien Bonds, calculated as follows:

- (a) Interest which is to be paid from Second Lien Bond Proceeds shall be subtracted;
- (b) City Payments to be made in the Fiscal Year under a Parity Exchange Agreement shall increase Annual Second Lien Bond Debt Service, and Reciprocal Payments to be received in the Fiscal Year under a Parity Exchange Agreement shall reduce Annual Second Lien Bond Debt Service;
- (c) Second Lien Bonds which are subject to scheduled, noncontingent redemption or tender shall be deemed to mature on the dates and in the amounts which are subject to mandatory redemption or tender, and only the amount scheduled to be outstanding on the final maturity date shall be treated as maturing on that date;
- (d) Second Lien Bonds which are subject to contingent redemption or tender shall be treated as maturing on their stated maturity dates;
- (e) Variable Rate Obligations bear interest from the date of computation until maturity at their Estimated Average Interest Rate; and,
- (f) Each Balloon Payment shall be assumed to be paid according to its Balloon Debt Service Requirement.

“Audit” means the audit required by ORS 297.425.

“Auditor” means a person authorized by the State Board of Accountancy to conduct municipal audits pursuant to ORS 297.670.

“Balloon Debt Service Requirement” means the Committed Debt Service Requirement for a Balloon Payment or, if the City has not entered into a firm commitment to sell Second Lien Bonds or other obligations to refund that Balloon Payment, the Estimated Debt Service Requirement for that Balloon Payment.

“Balloon Payment” means any principal payment for a Series of Second Lien Bonds which comprises more than twenty-five percent of the original principal amount of that Series, but only if that principal payment is designated as a Balloon Payment in the closing documents for the Series.

“Base Period” means any twelve consecutive months selected by the City or Qualified Consultant out of the most recent twenty-four months preceding the delivery of a Series of Parity Second Lien Obligations.

“BEO” means “book-entry-only” and refers to a system for clearance and settlement of securities transactions through electronic book-entry changes, which eliminates the need for physical movement of securities.

“BMA Index” means the BMA Municipal Swap Index disseminated by Municipal Market Data, a Thomson Financial Services Company, or its successor. However, if that index ceases to be available, “BMA Index” means an index reasonably selected by the City which is widely available to dealers in municipal securities, and which measures the interest rate of municipal securities that bear interest at short term or variable rates.

“Bond Buyer 20 Bond Index” means the 20-Bond GO Index published by The Bond Buyer. However, if that index ceases to be available, “Bond Buyer 20 Bond Index” means an index reasonably selected by the City which is widely available to

dealers in municipal securities, and which measures the interest rate of high quality, long-term, fixed rate municipal securities.

“Bond Counsel” means a law firm having knowledge and expertise in the field of municipal law and whose opinions are generally accepted by purchasers of municipal bonds.

“Business Day” means any day except a Saturday, a Sunday, a legal holiday, a day on which the offices of banks in Oregon or New York are authorized or required by law or executive order to remain closed, or a day on which the New York Stock Exchange is closed.

“City Council” means the City Council of the City, or its successors.

“City Payment” means any scheduled payment required to be made by or on behalf of the City under a Exchange Agreement which is either fixed in amount or is determined according to a formula set forth in the Exchange Agreement.

“City” means the City of Portland, Multnomah, Washington and Clackamas Counties, Oregon, a municipal corporation of the State of Oregon.

“Code” means the Internal Revenue Code of 1986, as amended, including the rules and regulations promulgated thereunder.

“Combined Annual Debt Service” means the sum of (1) the amount of any transfers to the First Lien Bond Reserve that are required by Section G.3(ii) of the First Lien Bond Ordinance; plus (2) the amount of principal of and interest on First Lien Bonds that is required to be paid in that Fiscal Year on Outstanding First Lien Bonds, including any amounts of principal or interest required to be paid on the First Lien Bonds during such fiscal year pursuant to any mandatory redemption schedule, but reduced by the amount of any interest on First Lien Bonds that will be paid from the proceeds the First Lien Bonds; plus, (3) the Annual Second Lien Bond Debt Service.

“Committed Debt Service Requirement” means the schedule of principal and interest payments for a Series of Second Lien Bonds or other obligations which refund a Balloon Payment, as shown in the documents evidencing the City’s firm commitment to sell that Series. A “firm commitment to sell” means a bond purchase agreement or similar document which obligates the City to sell, and obligates a purchaser to purchase, the Series of refunding Second Lien Bonds or other obligations, subject only to the conditions which customarily are included in such documents.

“Construction Fund” means the Sewer Construction Fund in the Sewage Disposal Fund, which the City has created to hold proceeds of bonds and other revenues related to capital improvements.

“Credit Facility” means a letter of credit, a municipal bond insurance policy, a surety bond, standby bond purchase agreement or other credit enhancement device which is obtained by the City to secure Second Lien Bonds, and which is issued or provided by a Credit Provider whose long-term debt obligations or claims-paying ability (as appropriate) are rated one of the two highest rating categories by a Rating Agency which rated the Second Lien Bonds secured by the Credit Facility.

“Credit Provider” means a person or entity providing a Credit Facility.

“Debt Manager” means the Debt Manager of the City, the Chief Financial Officer of the Bureau of Financial Services, the Chief Administrative Officer of the Office of Management and Finance, or the person designated by the Chief Administrative Officer of the Office of Management and Finance to act as Debt Manager under this Master Declaration.

“Direct Obligations” means direct obligations of the United States, and any obligations the payment of which is fully and unconditionally guaranteed by the United States.

“DTC” means The Depository Trust Company or any other qualified securities depository designated by the City as its successor.

“Estimated Average Interest Rate” is the interest rate that Variable Rate Obligations are assumed to bear, and shall be calculated as provide in Section 4.5.



“Estimated Debt Service Requirement” means the schedule of principal and interest payments for a hypothetical Series of Second Lien Bonds that refunds a Balloon Payment that is prepared by the Debt Manager and that meets the requirements of Section 4.6.

“Event of Default” means any event specified in 9.2 of this Master Declaration.

“Exchange Agreement” means a swap, cap, floor, collar or similar transaction which includes a written contract between the City and a Reciprocal Payor under which the City is obligated to make one or more the City Payments in exchange for the Reciprocal Payor's obligation to pay one or more Reciprocal Payments, and which provides that:

- (a) the Reciprocal Payments are to be deposited directly into the Second Lien Bond Account; and
- (b) the City is not required to fulfill its obligations under the contract if: (i) the Reciprocal Payor fails to make any Reciprocal Payment; or (ii) the Reciprocal Payor fails to comply with its financial status covenants.

“First Lien Bond” refers to “first lien bond” and refers to an obligation that is defined as a “Bond” in the First Lien Bond Ordinance.

“First Lien Bond Debt Service Account” means the “Debt Service Account” in the “Redemption Fund” that is established in the First Lien Bond Ordinance to pay First Lien Bonds.

“First Lien Bond Ordinance” means City Ordinance 160276, as it may be amended from time to time in accordance with its terms and Section 8.4 of this Declaration. City Ordinance 160276 describes the terms under which the First Lien Bonds may be issued.

“First Lien Bond Reserve Account” means the “Reserve Account” in the “Redemption Fund” that is established in the First Lien Bond Ordinance to hold reserves for the First Lien Bonds.

“Fiscal Year” means the period beginning on July 1 of each year and ending on the next succeeding June 30, or as otherwise defined by State Law.

“Fitch” means Fitch Investors Service, Inc., its successors and assigns.

“Gross Revenues” means all fees and charges and other revenues that are properly accrued under generally accepted accounting principles as revenues of the Sewer System, including revenues from product sales and interest earnings on Gross Revenues in the Sewage Disposal Fund and transfers to the Sewage Disposal Fund from the City’s LID Construction Fund. Gross Revenues also shall include transfers out of the Rate Stabilization Fund. However, the term “Gross Revenues” shall not include:

- (i) The interest income or other earnings derived from the investment of the Rebate Fund or any escrow fund established for the defeasance or refunding of outstanding indebtedness of the City
- (ii) Installment loan contract payments received by the City for line and branch charges, connection fees, local improvement district assessments or system development charges that have been pledged as security for a borrowing through the City Auditor’s Office or another City bureau which is separate from the Bureau of Environmental Services;
- (iii) Any gifts, grants, donations or other moneys received by the City from any State or Federal Agency or other person if such moneys are restricted by law or the grantor to uses inconsistent with the payment of Second Lien Bonds;
- (iv) The proceeds of any borrowing except borrowings that are described in clause (b) of this definition in connection with line and branch charges, connection fees, local improvement district assessments or system development charges;
- (v) The proceeds of any liability or other insurance (excluding business interruption insurance or other insurance of like nature insuring against the loss of revenues);
- (vi) The proceeds of any casualty insurance which the City intends to utilize for repair or replacement of the Sewer System;
- (vii) The proceeds derived from the sales of assets pursuant to Section 8.10 of this Master Declaration;
- (viii) Any ad valorem or other taxes imposed by the City (except charges or payments for Sewer System services which become “taxes” within the meaning of Article XI, Section 11b of the Oregon Constitution only because they are imposed on property or property owners);
- (ix) Any income, fees, charges, receipts, profits or other moneys derived by the City from its ownership or operation of any Separate Utility System.

“Insurance Policy” means a municipal bond insurance policy issued by an Insurer at the request of the City guaranteeing the scheduled payment of principal of and interest on the Second Lien Bonds when due.

“Insurer” means any person or entity providing an Insurance Policy.

“Interest Payment Date” means any date on which Second Lien Bond interest is scheduled to be paid, and any date on which Second Lien Bonds are called for redemption.

“Master Declaration” means this Master Second Lien Sewer Revenue Bond Declaration, including any amendments made pursuant to Section 10.

“Maximum Annual Second Lien Bond Debt Service” means the greatest amount of Annual Second Lien Bond Debt Service that is due in any Fiscal Year, beginning with the Fiscal Year for which the calculation is made, and ending with the last Fiscal Year in which Outstanding Second Lien Bonds are scheduled to be paid.

“Maximum Combined Annual Debt Service” means the greatest amount of Combined Annual Debt Service that is due in any Fiscal Year, beginning with the Fiscal Year for which the calculation is made, and ending with the last Fiscal Year in which Outstanding Second Lien Bonds are scheduled to be paid.

“Moody’s” means Moody’s Investors Service, a corporation organized and existing under the laws of the State of Delaware, its successors and their assigns.

“Net Revenues” means the Gross Revenues less the Operating Expenses.

“Operating Expenses” means all costs which are properly treated as expenses of operating and maintaining the Sewer System under generally accepted accounting principles, lease payments described in Section 4.7, any rebate of earnings on nonpurpose obligations in which the gross proceeds of First Lien Bonds are invested which is required to be paid under Section 148(f) of the Code, and transfers to the Rate Stabilization Fund that are permitted under Section 2.1.I. However, Operating Expenses do not include:

- (a) Any rebates or penalties paid from Gross Revenues under Section 148 of the Code;
- (b) Payments of judgments against the City and payments for the settlement of litigation;
- (c) Depreciation and amortization of property values or losses, and all amounts treated for accounting purposes as payments for capital expenditures;
- (d) Debt service payments, paying agent fees, broker-dealer fees and similar charges for the maintenance of borrowings;
- (e) The expenses of owning, operating or maintaining any Separate Utility System;
- (f) Franchise fees and similar charges imposed by the City on the Sewer System or its operations;
- (g) Expenditures made from any liability insurance proceeds;
- (h) Expenditures made from any casualty insurance proceeds used to pay for costs of repairing or replacing portions of the Sewer System;
- (i) Expenditures made from grant monies regardless of whether such grant funds are dedicated to a specific purpose or available for the general operation, maintenance and repair or replacement of the Sewer System; and
- (j) Expenditures allocable to any other funding source which does not constitute Gross Revenues of the Sewer System.

“ORS” means the Oregon Revised Statutes.

“Outstanding” refers to: (1) all First Lien Bonds except First Lien Bonds that have been defeased pursuant to Section R of the First Lien Bond Ordinance and First Lien Bonds that have matured and not been presented for payment (provided sufficient funds to pay those First Lien Bonds has been transferred to the paying agent for those First Lien Bonds); and, (2) all Second Lien Bonds except Second Lien Bonds that have been defeased pursuant to Section 11 of this Master Declaration, and Second Lien Bonds which have matured and not been presented for payment (provided sufficient funds to pay those Second Lien Bonds have been transferred to the Paying Agent).

“Owner” or “Second Lien Bond Owner” means a registered owner of a Second Lien Bond.

“Parity Exchange Agreement” means a Exchange Agreement which qualifies as a Parity Second Lien Obligation in accordance with Section 5.5.

“Parity Second Lien Obligation” means any obligation payable from the Net Revenues which is issued in accordance with Section 5, and includes any Parity Exchange Agreement.

“Payment Date” means a Principal Payment Date or an Interest Payment Date.

“Permitted Investments” means any investments which the City is permitted to make under the laws of the State.

“Principal Payment Date” means any date on which any Second Lien Bonds are scheduled to be retired, whether by virtue of their maturity or by mandatory sinking fund redemption prior to maturity, and the redemption date of any Second Lien Bonds which have been called for redemption.

“Project” means any purpose for which Gross Revenues may be spent.

“Qualified Consultant” means an independent engineer, an independent auditor, an independent financial advisor, or similar independent professional consultant of recognized standing and having experience and expertise in the area for which such person or firm is retained by the City for purposes of performing activities specified in this Master Declaration or any Supplemental Declaration.

“Rate Stabilization Fund” means the Rate Stabilization Fund established in the First Lien Bond Ordinance.

“Rating Agency” means Fitch, Moody's, S&P, or any other nationally recognized financial rating Agency which has rated Outstanding Second Lien Bonds or a Credit Facility at the request of the City.

“Reciprocal Payment” means scheduled payment to be made to, or for the benefit of, the City under a Exchange Agreement by or on behalf of the Reciprocal Payor, which is either fixed in amount or is determined according to a formula set forth in the Exchange Agreement.

“Reciprocal Payor” means a party to a Exchange Agreement (other than the City) that is obligated to make one or more Reciprocal Payments thereunder, and which is rated in one of the top three rating categories by at least one Rating Agency for its obligations under the Exchange Agreement.

“Record Date” for the Second Lien Bonds means the fifteenth (15th) day of the month preceding the month in which each Interest Payment Date occurs, whether or not a Business Day.

“Registrar” means the registrar and paying agent for the Second Lien Bonds, which is U.S. Bank Trust National Association on the date of this Master Declaration.

“Reserve Credit Facility” means a Credit Facility issued for the purpose of funding, in lieu of cash, all or any portion of the Second Lien Bond Reserve Requirement, under which the Credit Provider agrees to unconditionally provide the City with funds to transfer to the Second Lien Bond Reserve Account if amounts are required to be withdrawn from that account for deposit in the Second Lien Bond Account.

“Reserve Credit Facility Provider” means a person or entity providing a Reserve Credit Facility.

“S&P” means Standard & Poor's Corporation, a corporation organized and existing under the laws of the State of New York, its successors and their assigns.

“Second Lien Bond” means the 2003 Series A Bonds and any Parity Second Lien Obligations.

“Second Lien Bond Account” means the Second Lien Bond Account described in Section 3.2 of this Master Declaration.

“Second Lien Bond Reserve Account” means the Second Lien Bond Reserve Account in the Sinking Fund described in Section 3.3 of this Master Declaration.

“Second Lien Bond Reserve Requirement” means, for any Series of Second Lien Bonds, the lesser of the greatest amount of principal, interest and premium, if any, required to be paid in any Fiscal Year on such Series; 125% of average amount of principal, interest and premium, if any, required to be paid on such Series during all Fiscal Years in which such Series will be Outstanding, calculated as of the date of issuance of such Series; or, ten percent of the proceeds of such Series, as “proceeds” is defined for purposes of Section 148(d) of the Code. However, the City may elect to fund the Second Lien Bond Reserve Requirement for any Series of Second Lien Bonds in equal annual installments over a period of five years, as provided in Section 3.3.K. If the City makes this election for a Series of Second Lien Bonds, the Second Lien Bond Reserve Requirement shall be reduced by any installments the City has elected to make, but which are not yet due to be deposited in the Second Lien Bond Reserve Account.

“Separate Utility System” means any utility property which is declared by the City Council to constitute a system which is distinct from the Sewer System in accordance with Section 7.

“Series,” refers to all Second Lien Bonds Parity Second Lien Obligations authorized by a single ordinance or declaration and delivered in exchange for payment on the same date, regardless of variations in maturity, interest rate or other provisions, unless the closing documents for the Series provide otherwise.

“Sewage Disposal Fund” means the collection of funds and accounts used by the City to hold the Gross Revenues and the proceeds of Second Lien Bonds.

“Sewer System” means all real and personal property now or hereafter owned, operated, used, or maintained by the City for sewage disposal or sewage purification within or without the corporate limits of the City, including but not limited to, all methods of storm drainage, intercepting sewers, diversion sewers, relieving or interconnection sewers, sewers to separate storm and sanitary sewage, pump or ejector stations and equipment, and plants for treatment, processing and disposal of sewage. However, the Sewer System does not include any Separate Utility System.

“Sinking Fund” means the Sewer System Debt Redemption Fund in the Sewage Disposal Fund, which the City has created to provide for the repayment of bonded debt and the interest on bonded debt.

“State” means the State of Oregon.

“Subordinate Obligations Account” means the Subordinate Obligations Account of the Sewage Disposal Fund which is described in Section 3.4.

“Subordinate Obligations” means obligations having a lien on the Net Revenues which is subordinate to the lien of the Second Lien Bonds. Restrictions on Subordinate Obligations are described in Section 6.

“Supplemental Declaration” means any declaration, resolution or other document which supplements or amends this Master Declaration, entered into by the City in compliance with Section 10.

“Valuation Date” means July 1 of each year (or the first Business Day thereafter, if July 1 is not a Business Day), and the Business Day following any transfer from the Second Lien Bond Reserve Account to the Second Lien Bond Account pursuant to Section 3.3.A.

“Variable Rate Obligations” means any Second Lien Bonds issued with a variable, adjustable, convertible, or other similar interest rate which changes prior to the final maturity date of the Second Lien Bonds, and any City Payments or Reciprocal Payments under a Parity Exchange Agreement for which the interest portion of the payment is based on a rate that changes during the term of the Exchange Agreement.

## **Section 2. Deposit, Pledge and Use of Gross Revenues.**

2.1 All Gross Revenues shall be deposited to and maintained in the Sewage Disposal Fund, and shall be used only as described in this Section as long as any Second Lien Bonds remain Outstanding. The City shall apply Gross Revenues in the Sewage Disposal Fund on or before the following dates for the following purposes in the following order of priority:

A. At any time to pay Operating Expenses which are then due;

- B. To make all transfers to the First Lien Bond Debt Service Account and the First Lien Bond Reserve Account on the dates those transfers are required by the First Lien Bond Ordinance;
- C. One Business Day prior to each Payment Date, to transfer Net Revenues to the Second Lien Bond Account an amount sufficient (with amounts available in the Second Lien Bond Account) to pay in full all Second Lien Bond principal, interest and premium, if any, which is due to be paid on that Payment Date;
- D. On each date specified in a schedule for installment funding of the Second Lien Bond Reserve Account pursuant to Section 3.3.K, to transfer Net Revenues in the amount specified in that schedule to the Second Lien Bond Reserve Account;
- E. On the first day of each month following a Valuation Date on which the balance in the Second Lien Bond Reserve Account is determined to be less than the Second Lien Bond Reserve Requirement, to transfer to the Second Lien Bond Reserve Account the amount required by Sections 3.3.C and 3.3.D;
- F. On the day on which any rebates or penalties for Second Lien Bonds are due to be paid to the United States pursuant to Section 148 of the Code, to pay the amounts due to the United States;
- G. On the dates specified in any proceedings authorizing Subordinate Obligations, the City shall transfer to the Subordinate Obligations Account the Net Revenues required by those proceedings;
- H. After all transfers and payments having a higher priority under this Section have been made, Net Revenues shall be applied to any franchise fees, utility license fees and similar charges imposed by the City on the Sewer System or its operations.
- I. On any date, the City may transfer Net Revenues to the Rate Stabilization Fund or spend Net Revenues for any other lawful purpose, but only if all deposits and payments having a higher priority under this Section have been made.

2.2 The City hereby pledges the Net Revenues to the payment of principal of, premium (if any) and interest on all Second Lien Bonds. In addition, the City hereby pledges the Net Revenues available for transfer to the Second Lien Bond Reserve Account to pay amounts due under any Reserve Credit Facility. Pursuant to ORS 288.594, these pledges of the Net Revenues hereby made by the City shall be valid and binding from the time of the adoption of this Master Declaration. The Net Revenues so pledged and hereafter received by the City shall immediately be subject to the lien of such pledge without any physical delivery or further act. The lien of these pledges shall be subordinate to the lien on the Gross Revenues that secures the First Lien Bonds, but shall otherwise be superior to all other claims and liens except liens and claims for the payment of Operating Expenses. The City covenants and agrees to take such action as is necessary from time to time to perfect or otherwise preserve the priority of the pledge.

### Section 3. Second Lien Bond Funds and Accounts.

3.1 So long as Second Lien Bonds are Outstanding, the City shall maintain the Second Lien Bond Account, the Second Lien Bond Reserve Account and the Subordinate Obligations Account as discrete accounts in the Sewage Disposal Fund. Unless the City restructures the funds and accounts in the Sewage Disposal Fund, the Second Lien Bond Account, the Second Lien Bond Reserve Account and the Subordinate Obligations Account shall be maintained in the Sinking Fund.

3.2 **Second Lien Bond Account.** The Second Lien Bond Account shall be held by the City. Until all Second Lien Bonds are paid or defeased, amounts in the Second Lien Bond Account shall be used only to pay Second Lien Bonds. The City shall transfer sufficient amounts from the Second Lien Bond Account to the Registrar in time to permit the Registrar to pay all Second Lien Bond principal, interest and premium (if any) when due in accordance with the Second Lien Bonds. Amounts in the Second Lien Bond Account shall be invested only in Permitted Investments. Earnings on the Second Lien Bond Account shall be credited to the Second Lien Bond Account.

3.3 **Second Lien Bond Reserve Account.** The City shall create a separate subaccount in the Second Lien Bond Reserve Account for each Series of Second Lien Bonds. Amounts credited to a subaccount the Second Lien Bond Reserve Account shall be used only to pay the Series of Second Lien Bonds for which the subaccount was created, and only if amounts in the Second Lien Bond Account and Net Revenues credited to other accounts in the Sewage Disposal Fund are insufficient.

- A. If, on any Payment Date the amounts on deposit in a subaccount of the Second Lien Bond Account are insufficient to pay the principal of, premium (if any) and interest due on the Series for which the subaccount was created, the City shall transfer Net Revenues in the Sewage Disposal Fund (other than amounts in the Second Lien Bond Reserve Account) to the Second Lien Bond Account in an amount equal to the deficiency. If the City is unable to make the transfer described by the preceding sentence, then the City shall transfer an amount equal to the deficiency from that Series' subaccount in the Second Lien Bond Reserve Account to the Second Lien Bond Account to pay that Series of Second Lien Bonds.
- B. Transfers subaccounts in the Second Lien Bond Reserve Account shall be applied first, to reimburse the Providers of any Reserve Credit Facilities that secure the Series for which the subaccount was created *pro rata* for amounts advanced under the Reserve Credit Facility; second, to replenish the balance in the subaccount with cash or Permitted Investments; and third to pay any other amounts owed under a Reserve Credit Facility that secures the Series for which the subaccount was created (including any interest, fees and penalties associated with any draw under a Reserve Credit Facility).
- C. If a transfer is made from a subaccount in the Second Lien Bond Reserve Account to the Second Lien Bond Account pursuant to Section 3.3.A, the City shall value the amounts in that subaccount as of the date of the transfer. If the transfer has reduced the balance in that subaccount below the amount the City is required to maintain in the Second Lien Bond Reserve Account, then beginning on the first day of the month that follows the Payment Date for which the transfer is made, the City shall make consecutive monthly transfers to that subaccount \until the earlier of the date on which the City has restored the amount of the reduction, or that subaccount in the Second Lien Bond Reserve Account contains a balance that is equal to the Second Lien Bond Reserve Requirement for that subaccount. Each transfer required by this Section 3.3.C shall be at least equal to one twelfth of the reduction. The following examples illustrate this requirement. Example 1: The Second Lien Bond Reserve Requirement for a Series of Second Lien Bonds on July 1 is \$100, the subaccount in the Second Lien Bond Reserve Account for that Series of Second Lien Bonds has a balance of \$105 because the City has not transferred earnings out of that subaccount, and the City transfers \$29 from that subaccount to the Second Lien Bond Account. The transfer causes that subaccount to have a balance that is \$24 less than the amount the City is then required to maintain in that subaccount (the reduction is calculated by subtracting the \$5 surplus from the \$29 transfer). The City must make monthly transfers of \$2 to that subaccount beginning on August 1<sup>st</sup>. Example 2. The City makes the transfer described in Example 1, and commences making \$2 monthly transfers to that subaccount. On the next January 1<sup>st</sup> the City has deposited \$12 into that subaccount, so the balance in the that subaccount on January 1<sup>st</sup> is \$88, or \$12 less than the amount the City is required to maintain in that subaccount. On that January 1<sup>st</sup>, the City is required to make another transfer of \$12 to that subaccount. This transfer reduces the balance in that subaccount to \$76, and requires the City to make twelve monthly transfers of \$1 to that subaccount, beginning on February 1<sup>st</sup>. On February 1<sup>st</sup>, the City will be required to make one of the remaining six monthly transfers of \$2 that resulted from the July 1<sup>st</sup> transfer, and to start making twelve monthly transfers of \$1 because of the January 1<sup>st</sup> transfer. Assuming no other transactions in that subaccount of the Second Lien Bond Reserve Account, the balance in the

Second that subaccount will again be equal to the Second Lien Bond Reserve Requirement for that subaccount on the following January 1<sup>st</sup>.

- D. If the value of a subaccount in the Second Lien Bond Reserve Account on a Valuation Date is less than the Second Lien Bond Reserve Requirement for that subaccount, and the deficiency is not due to a transfer from that subaccount to the Second Lien Bond Account pursuant to Section 3.3.A, then beginning on the first day of the month that follows the month in which the Valuation Date occurs, the City shall make consecutive monthly transfers to that subaccount in the Second Lien Bond Reserve Account until the City has restored the deficiency described in the first sentence of this Section 3.3.D or the balance in the Second Lien Bond Reserve Account is at least equal to the Second Lien Bond Reserve Requirement for that subaccount. Each transfer shall be at least equal to one fourth of the deficiency.
- E. If the value of the investments in a subaccount of the Second Lien Bond Reserve Account on a Valuation Date exceeds the Second Lien Bond Reserve Requirement for that subaccount, the City may transfer the excess to any account of the Sewage Disposal Fund.
- F. Moneys in the Second Lien Bond Reserve Account may be invested only in Permitted Investments that mature no later than the final maturity date of the Second Lien Bonds. Earnings on the Second Lien Bond Reserve Account shall be credited to the Second Lien Bond Reserve Account whenever the balance in that account is less than the Second Lien Bond Reserve Requirement. Otherwise earnings shall be credited to the Second Lien Bond Account.
- G. Whenever the City values the Second Lien Bond Reserve Account the City shall subtract from the value of the Permitted Investments and cash in the Second Lien Bond Reserve Account all amounts then owed under Reserve Credit Facilities, including any interest, fees and penalties associated with any draws under a Reserve Credit Facilities.
- H. Permitted Investments in the Second Lien Bond Reserve Account shall be valued on each Valuation Date in the following manner:
  - (i) Demand deposits, deposits in the Oregon Short Term Fund and investments which mature in two years or less after the Valuation Date shall be valued at their face amount, plus accrued interest;
  - (ii) Investments which mature more than two years after the Valuation Date and for which bid and asked prices are published on a regular basis in the Wall Street Journal (or, if not there, then in the New York Times) shall be valued at the average of their most recently published bid and asked prices;
  - (iii) Investments which mature more than two years after the Valuation Date and for which the bid and asked prices are not published on a regular basis in the Wall Street Journal or the New York Times shall be valued at the average bid price quoted by any two nationally recognized government securities dealers (selected by the City in its absolute discretion) at the time making a market in such investments or the bid price published by a nationally recognized pricing service;
  - (iv) Reserve Credit Facilities shall be valued at the amount which is available to be drawn or paid under them;
  - (v) Certificates of deposit and bankers acceptances which mature more than two years after the Valuation Date shall be valued at their face amount, plus accrued interest; and
  - (vi) Any investment which is not specified above and which matures more than two years after the Valuation Date shall be valued at its fair market value as reasonably estimated by the City.
- I. Withdrawals from subaccounts in the Second Lien Bond Reserve Account shall be made in the following order of priority:
  - (i) **First**, from any cash on deposit in that subaccount;
  - (ii) **Second**, from the liquidation proceeds of any Permitted Investments on deposit in that subaccount; and

(iii) **Third**, from moneys drawn or paid pro-rata under any Reserve Credit Facilities.

J. All amounts on deposit in a subaccount of the Second Lien Bond Reserve Account may be applied to the final payment (whether at maturity, by prior Redemption or by means of a defeasance as provided in Section 11) of Outstanding Second Lien Bonds that are secured by that subaccount. Amounts so applied shall be credited against the amounts the City is required to transfer into the Second Lien Bond Account under Section 2.1.B.

K. Any Supplemental Declaration authorizing the issuance of a Series of Second Lien Bonds shall require deposits into the subaccount in the Second Lien Bond Reserve Account for that Series in amounts sufficient to make the balance in the Second Lien Bond Reserve Account at least equal to the Second Lien Bond Reserve Requirement for that Series. The deposit required by this Section 3.3.K may be made in not more than five annual installments, with the final installment due not later than the fifth anniversary of the issuance of the Series of Second Lien Bonds. If the City elects to fund the portion of the Second Lien Bond Reserve Requirement which is allocable to a Series of Second Lien Bonds in installments, the election and the schedule for such deposits shall be stated prominently in the proceedings authorizing the Series of Second Lien Bonds.

3.4 **Subordinate Obligations Account.** If the City issues Subordinate Obligations, the City shall create and maintain the Subordinate Obligations Account as long as the Subordinate Obligations are outstanding. The Subordinate Obligations Account may be divided into subaccounts, and the City may establish priorities for funding the subaccounts in the Subordinate Obligations Subaccount. Net Revenues shall be deposited into the Subordinate Obligations Account only as permitted by Section 2.1.G. Earnings on the Subordinate Obligations Account shall be credited as provided in the proceedings authorizing the Subordinate Obligations.

3.5 **Rate Stabilization Fund.** The Rate Stabilization Fund has been established by the First Lien Bond Ordinance. The City shall maintain the Rate Stabilization Fund as long as Second Lien Bonds are Outstanding. Net Revenues may be transferred to the Rate Stabilization Fund at the option of the City as permitted by Section 2.1.I. Money in the Rate Stabilization Fund may be withdrawn at any time and used for any purpose for which the Gross Revenues may be used. Deposits to the Rate Stabilization Fund increase Operating Expenses for the Fiscal Year in which the deposit is made. Withdrawals from the Rate Stabilization Fund increase Gross Revenues for the Fiscal Year in which the withdrawal is made. The City may adjust deposits to and withdrawals from the Rate Stabilization Fund for a Fiscal Year at any time prior to the date on which the audit for that Fiscal Year is finalized. Earnings on the Rate Stabilization Fund shall be credited to the Sewage Disposal Fund.

#### **Section 4. Rate Covenant; Calculation of Estimated Average Interest Rate and Refunding Rate; Operating Leases.**

4.1 The City covenants for the benefit of the Owners that it will establish and maintain rates and charges in connection with the operation of the Sewer System which are sufficient to permit the City to pay all Operating Expenses and all lawful charges against the Net Revenues, and to make all transfers required by this Master Declaration to the Second Lien Bond Account, the Second Lien Bond Reserve Account and the Subordinate Obligations Account, and to pay any franchise fees or similar charges imposed by the City on the Sewer System or its operations.

4.2 The City covenants for the benefit of the Owners of all Second Lien Bonds that it shall charge rates and fees in connection with the operation of the Sewer System which, when combined with other Gross Revenues, but without regard to transfers from and to the Rate Stabilization Fund, are adequate to generate Net Revenues each Fiscal Year at least equal to one hundred percent (100.00%) of Combined Annual Debt Service due in that Fiscal Year.

4.3 The City covenants for the benefit of the Owners of all Second Lien Bonds that it shall charge rates and fees in connection with the operation of the Sewer System which, when combined with other Gross Revenues, are adequate to generate Net Revenues each Fiscal Year at least equal to one hundred ten percent (110.00%) of Combined Annual Debt Service due in that Fiscal Year.

4.4 The City shall determine whether it complied with Sections 4.2 and 4.3 for each Fiscal Year not later than sixty (60) days after the beginning of the subsequent Fiscal Year, based on the financial information available to the City at that time, and compliance with Sections 4.2 and 4.3 shall be determined based on that financial information. A failure to comply with Sections 4.2 or 4.3 shall not constitute an Event of Default if, within 120 days after the beginning of the subsequent Fiscal Year, the City implements the recommendations of a Qualified Consultant that is engaged by the City to deliver written recommendations for a schedule of rates and charges or other actions which the Qualified Consultant



reasonably projects will permit the City to comply with Sections 4.2 or 4.3 for the remainder of the Fiscal Year in which the recommendations are delivered to the City (with calculations for the partial year made on an annualized basis).

- 4.5 The Estimated Average Interest Rate for Variable Rate Obligations shall be calculated as provided in this Section.
- A. For purposes of calculating Combined Annual Debt Service for the rate covenants in Sections 4.2 and 4.3, the Estimated Average Interest Rate means the average BMA Index, expressed as an annualized interest rate, plus fifty basis points (0.50%), for the 52 week period that ends on or immediately before April 1 of the Fiscal Year that precedes the Fiscal Year in which that Estimated Average Interest Rate is used. For example: The City will determine the Estimated Average Interest Rate as of April 1, 2004, and that Estimated Average Rate shall be used to set the rates that are collected in the Fiscal Year 2004-2005 (the Fiscal Year that begins July 1, 2004) for all Variable Rate Obligations that are Outstanding during that Fiscal Year. At the beginning of Fiscal Year 2005-2006, the City will determine whether it complied with the rate covenants in Fiscal Year 2004-2005. The City will be deemed to have complied with the rate covenants in Fiscal Year 2004-2005 if the City collected Net Revenues that meet or exceed the requirements of Sections 4.2 and 4.3, using the Estimated Average Interest Rate calculated as of April 1, 2004.
- B. For purposes of calculating Annual Second Lien Bond Debt Service and Combined Annual Debt Service for the tests for issuing Parity Second Lien Obligations in Section 5.1.D:
- (i) Unless Section 4.5.B(ii) applies, the Estimated Average Interest Rate for any Series of Variable Rate Obligations means the average of the weekly Bond Buyer 20 Bond Index for the 52 week period that ends on or immediately before the last day of the month that precedes the month in which the Parity Second Lien Obligations are sold, expressed as an annualized interest rate; or,
- (ii) For any Series of Variable Rate Bonds that have been outstanding for at least 52 weeks at the end of the period described in Section 4.5.B(i), if the actual, annualized rate on that Series during that 52 week period is greater than the average, annualized rate described in Section 4.5.B(i), the Estimated Average Interest Rate for that Series means the average of the actual rates on that Series during that 52 week period, expressed as an annualized interest rate.
- C. For purposes of determining the Second Lien Bond Reserve Requirement, the Estimated Average Interest Rate for a Series of Parity Second Lien Obligations shall be the average of the weekly Bond Buyer 20 Bond Index for the 52 week period that ends on or immediately before the last day of the month that precedes the month in which the Parity Second Lien Obligations are sold, expressed as an annualized interest rate. This calculation of Estimated Average Interest Rate shall be used for that Series of Parity Second Lien Obligations as long as that Series of Parity Second Lien Obligations is Outstanding.
- 4.6 The Estimated Debt Service Requirement for Balloon Indebtedness shall be calculated in accordance with this Section 4.6.
- A. For the Rate Covenants: For each Balloon Payment that is Outstanding on May 1 of any Fiscal Year, the Debt Manager shall prepare a schedule of principal and interest payments for a hypothetical Series of Second Lien Bonds that refunds that Balloon Payment in accordance with Section 4.6.D. The Debt Manager shall prepare that schedule as of that first day of May, and, except as provided below in Section 4.6.E, that schedule shall be used to determine compliance with the rate covenants in Sections 4.2 and 4.3 for the following Fiscal Year.
- B. For Parity Second Lien Obligations: Whenever a Balloon Payment will be Outstanding on the date a Series of Parity Second Lien Obligations is issued, the Debt Manager shall prepare a schedule of principal and interest payments for a hypothetical Series of Second Lien Bonds that refunds each Outstanding Balloon Payment in accordance with this Section 4.6.D. The Debt Manager shall prepare that schedule as of the date the Parity Second Lien Obligations are sold, and, except as provided below in Section 4.6.E, that schedule shall be used to determine compliance with the tests for Parity Second Lien Obligations in Section 5.
- C. For the Second Lien Bond Reserve Requirement: Whenever a Series of Second Lien Bonds that contains a Balloon Payment is issued, the Debt Manager shall prepare a schedule of principal and interest payments for a hypothetical Series of Second Lien Bonds that refunds each Balloon Payment in that Series in accordance with this Section 4.6.C. The Debt Manager shall prepare that schedule as of the date the Series is sold, and that schedule shall be

combined with the schedule for payment of any debt service on that Series that is not a Balloon Payment, and that combined schedule shall be used to determine the Second Lien Bond Reserve Requirement as long as that Series is Outstanding.

- D. Each hypothetical Series of refunding Second Lien Bonds shall be assumed to be paid in equal annual installments of principal and interest sufficient to amortize the principal amount of the Balloon Payment over the term selected by the Debt Manager; however, the Debt Manager shall not select a term that exceeds the lesser of 20 years from the date the Balloon Payment is originally scheduled to be paid or the City's estimate of the remaining weighted average useful life (expressed in years and rounded to the next highest integer) of the assets which are financed with the Balloon Payment. The annual installments shall be assumed to be due on the anniversaries of the date the Balloon Payment is originally scheduled to be paid, with the first installment due on the date the Balloon Payment is scheduled to be paid. The hypothetical Series of refunding Second Lien Bonds shall be assumed to bear interest at the Debt Manager's estimate of the average rate that a Series of Second Lien Bonds would bear if it is amortized as provided in this Section 4.6.D and is sold at the time the applicable schedule described in Section 4.6.A, Section 4.6.B or Section 4.6.C is prepared.
- E. For purposes of determining compliance with the rate covenants in Sections 4.2 and 4.3 for the Fiscal Year in which a Balloon Payment is actually due, and for purposes of determining compliance the tests for Parity Second Lien Obligations in Section 5 for any Parity Second Lien Obligations that are issued during the Fiscal Year in which a Balloon Payment is actually due, the full, unpaid amount of a Balloon Payment shall be assumed to be paid on the date that payment is actually due, unless the City has in effect an irrevocable commitment to pay the Balloon Payment when it comes due from a Credit Facility Provider that is rated at least "P1" by Moody's or "A1" by S&P.

4.7 The City may enter into operating leases and capital leases for assets relating to the Sewer System. Payments due under operating leases shall be treated as Operating Expenses. Payments due under capital leases shall be treated as Operating Expenses only if the capital leases have a term of ten years or less, and the total amount of lease payments under capital leases which are treated as Operating Expenses in a fiscal year does not exceed ten percent of the Operating Expenses for the prior fiscal year. For purposes of the preceding sentence, "ten percent of the Operating Expenses for the prior fiscal year" shall be calculated by excluding all capital lease payments for Operating Expenses.

## **Section 5. Parity Second Lien Obligations**

5.1 The City may issue Parity Second Lien Obligations to provide funds for any purpose relating to the Sewer System, but only if:

- A. No Event of Default under this Master Declaration or any Supplemental Declaration has occurred and is continuing;
- B. At the time of the issuance of the Parity Second Lien Obligations there is no deficiency in the Second Lien Bond Account, and the balance in each subaccount of the Second Lien Bond Reserve Account is at least equal to the Second Lien Bond Reserve Requirement for that subaccount;
- C. The Supplemental Declaration authorizing the issuance of the Second Lien Bonds contains a covenant requiring the City to charge rates and fees in connection with the operation of the Sewer System which, when combined with other Gross Revenues, are adequate to satisfy the requirements of Section 4.2; and,
- D. There shall have been filed with the City either:
  - (i) A certificate of the Debt Manager stating that the Net Revenues (adjusted as provided in Section 5.2) for the Base Period were not less than one hundred ten percent (110.00%) of Maximum Combined Annual Debt Service on all then Outstanding First Lien Bonds and Second Lien Bonds, calculated as of the date the Parity Second Lien Obligations are issued and with the proposed Parity Second Lien Obligations treated as Outstanding; or
  - (ii) A certificate or opinion of a Qualified Consultant:

- (a) stating the amount of the Adjusted Net Revenues computed as provided in Section 5.3 below for each of the four Fiscal Years after the last Fiscal Year for which interest on the Parity Second Lien Obligations is, or is expected to be, capitalized, or, if interest will not be capitalized, for each of the four Fiscal Years after the proposed Parity Second Lien Obligations are issued;
- (b) concluding that the respective amounts of Adjusted Net Revenues in each of the Fiscal Years described in Section 5.1.D(ii)(a) are at least equal to one hundred ten percent (110.00%) of the Combined Annual Debt Service for each of those respective Fiscal Years on all Outstanding First Lien Bonds and Second Lien Bonds, with the proposed Parity Second Lien Obligations treated as Outstanding;
- (c) stating the projected amount of the Adjusted Net Revenues for the fifth Fiscal Year after the last Fiscal Year for which interest on the Parity Second Lien Obligations is, or is expected to be, capitalized, or, if interest will not be capitalized, the fifth Fiscal Year after the Parity Second Lien Obligations are issued; and,
- (d) concluding that this amount described in Section 5.1.D(ii)(c) is at least equal to one hundred ten percent (110.00%) of the Maximum Combined Annual Debt Service, calculated for the period beginning with that fifth Fiscal Year on all then Outstanding First Lien Bonds and Second Lien Bonds, with the proposed Parity Second Lien Obligations treated as Outstanding.

5.2 Net Revenues may be adjusted for purposes of Section 5.1.D(i) by adding any Net Revenues the Debt Manager calculates the City would have had during the Base Period because of increases in Sewer System rates, fees and charges which have been adopted by the City on or before the date the Parity Second Lien Obligations are issued.

5.3 Adjusted Net Revenues for purposes of Section 5.1.D(ii) shall be computed by adjusting the Net Revenues for the Base Period in any of the following ways:

- A. If the Second Lien Bonds are being issued for the purpose of acquiring operating Sewer System utility properties having an earnings record, the Qualified Consultant may estimate the effect on the Net Revenues for the Base Period if the Sewer System utility properties had been part of the Sewer System during the Base Period. The estimate shall be based on the operating experience and records of the City and any available financial and records relating to the Sewer System utility properties which will be acquired;
- B. To reflect any changes in rates and charges which the Qualified Consultant determines are reasonable.
- C. To reflect any customers added to the Sewer System after the beginning of the Base Period and prior to the date of the Qualified Consultant's certificate; and
- D. If extensions of or additions to the Sewer System are in the process of construction on the date of the Qualified Consultant's certificate, or if the proceeds of the Second Lien Bonds being issued are to be used to acquire or construct extensions of or additions to the Sewer System, to reflect any additional Net Revenues not included in the preceding paragraphs that will be derived from such additions and extensions (after deducting the estimated increase in operating and maintenance expenses resulting from such additions and extensions).

5.4 The City may issue Parity Second Lien Obligations to refund Outstanding Second Lien Bonds or First Lien Bonds without complying with Section 5.1 if the refunded Second Lien Bonds or First Lien Bonds are defeased on the date of delivery of the refunding Parity Second Lien Obligations and if the Combined Annual Debt Service on the refunding Parity Second Lien Obligations does not exceed the Combined Annual Debt Service on the refunded Second Lien Bonds or First Lien Bonds (calculated as if the refunded First Lien Bonds were Second Lien Bonds) in any Fiscal Year by more than \$5,000.

5.5 An Exchange Agreement may be a Parity Exchange Agreement and a Parity Second Lien Obligation if the obligation to make City Payments under the Exchange Agreement qualifies as a Parity Second Lien Obligation under Section 5.1, after the Reciprocal Payments under the Exchange Agreement are applied to reduce Combined Annual Debt Service. Any Parity Exchange Agreement shall clearly state that it is a Parity Exchange Agreement and has qualified as a Parity Second Lien Obligation under Section 5.1 of this Master Declaration. In addition, the City may replace a Parity Exchange Agreement with another Parity Exchange Agreement without qualifying the replacement Exchange Agreement

under Section 6.1 if the replacement does not increase the Combined Annual Debt Service in any Fiscal Year by more than \$5,000.

5.6 All Parity Second Lien Obligations issued in accordance with this Section shall have a lien on the Net Revenues which is equal to the lien of all other Outstanding Second Lien Bonds.

### **Section 6. Subordinate Obligations.**

The City may issue Subordinate Obligations only if:

6.1 The Subordinate Obligations are payable solely from amounts permitted to be deposited in the Subordinate Obligations Account pursuant to Section 2.1.G;

6.2 The Subordinate Obligations state clearly that they are secured by a lien on or pledge of the Net Revenues which is subordinate to the lien on, and pledge of, the Net Revenues for the Second Lien Bonds.

### **Section 7. Separate Utility System.**

The City may declare property which the City owns and is part of the Sewer System (but has a value of less than five percent of the Sewer System at the time of the declaration), and property which the City has not yet acquired but would otherwise become part of the Sewer System, to be part of a Separate Utility System. The City may pay costs of acquiring, operating and maintaining Separate Utility Systems from Net Revenues, but only if there is no deficit in the First Lien Bond Debt Service Account, the First Lien Bond Reserve Account, the Second Lien Bond Account or the Second Lien Bond Reserve Account. The City may issue obligations which are secured by the revenues produced by the Separate Utility System, and may pledge the Separate Utility System revenues to pay those obligations. In addition, the City may issue Subordinate Obligations to pay for costs of a Separate Utility System, and may pledge the revenues of the Separate Utility System to pay the Subordinate Obligations.

### **Section 8. General Covenants.**

The City hereby covenants and agrees with the Owners of all Outstanding Second Lien Bonds as follows:

8.1 The City shall promptly cause the principal, premium, if any, and interest on the Second Lien Bonds to be paid as they become due in accordance with the provisions of this Master Declaration and any Supplemental Declaration.

8.2 The City shall maintain complete books and records relating to the operation of the Sewer System and all City funds and accounts in accordance with generally accepted accounting principles, shall cause such books and records to be audited annually at the end of each Fiscal Year, and shall have an audit report prepared by the Auditor and made available for the inspection of Second Lien Bond Owners.

8.3 The City shall not issue obligations which have a lien on the Net Revenues that is superior to the lien of the Second Lien Bonds except for First Lien Bonds and obligations to pay Operating Expenses.

8.4 The City shall not amend the First Lien Bond Ordinance in any way that materially and adversely affects the rights of the Owners of Second Lien Bonds; however, this covenant shall not be construed to limit the ability of the City to issue First Lien Bonds pursuant to the provisions of the First Lien Bond Ordinance.

8.5 The City shall promptly deposit the Gross Revenues and other amounts described in this Master Declaration into the funds and accounts specified in this Master Declaration.

8.6 The City shall work in good faith to cause the Sewer System to be operated at all times in a safe, sound, efficient and economic manner in compliance with all health, safety and environmental laws, regulatory body rules, regulatory body orders and court orders applicable to the City's operation and ownership of the Sewer System.

8.7 The City shall maintain the Sewer System in good repair, working order and condition.

8.8 The City shall not enter into any agreement to provide Sewer System products or services at a discount from published rate schedules, and that it will not provide free Sewer System products or services except in case of emergencies;

8.9 The City shall at all times maintain with responsible insurers all such insurance on the Sewer System as is customarily maintained with respect to works and properties of like character against accident to, loss of or damage to such works or properties.

- A. The net proceeds of insurance against accident to or destruction of the Sewer System shall be used to repair or rebuild the damaged or destroyed Sewer System, and to the extent not so applied, will be applied to the payment or redemption of the Second Lien Bonds;
- B. Insurance described in Section 8.9 shall be in the form of policies or contracts for insurance with insurers of good standing and shall be payable to the City, or in the form of self-insurance by the City. The City shall establish such fund or funds or reserves which it deems are necessary to provide for its share of any such self-insurance;

8.10 The City shall not, nor shall it permit others to, sell, mortgage, lease or otherwise dispose of or encumber all or any portion of the Sewer System except:

- A. The City may dispose of all or substantially all of the Sewer System, only if the City pays all Second Lien Bonds or defeases them pursuant to Section 11.
- B. Except as provided in Section 8.10.C, the City will not dispose of any part of the Sewer System in excess of 5% of the value of the Sewer System in service unless prior to such disposition either:
  - (i) There has been filed with the City a certificate of a Qualified Consultant stating that such disposition will not impair the ability of the City to comply with the rate covenants contained in Section 4.1 of this Master Declaration; or
  - (ii) Provision is made for the payment, redemption or other defeasance of a principal amount of Second Lien Bonds equal to the greater of the following amounts:
    - (a) An amount which will be in the same proportion to the net principal amount of Second Lien Bonds then Outstanding (defined as the total principal amount of Second Lien Bonds then Outstanding less the amount of cash and investments in the Sinking Fund) that the Gross Revenues attributable to the part of the Sewer System sold or disposed of for the 12 preceding months bears to the total Gross Revenues for such period; or
    - (b) An amount which will be in the same proportion to the net principal amount of Second Lien Bonds then Outstanding that the book value of the part of the Sewer System sold or disposed of bears to the book value of the Sewer System immediately prior to such sale or disposition.
- C. The City may dispose of any portion of the Sewer System that has become unserviceable, inadequate, obsolete, or unfit to be used or no longer necessary for use in the operation of the Sewer System.
- D. If the ownership of all or part of the Sewer System is transferred from the City through the operation of law, the City shall to the extent authorized by law, reconstruct or replace such transferred portion using any proceeds of the transfer unless the City Council reasonably determines that such reconstruction or replacement is not in the best interest of the City and the Second Lien Bond Owners, in which case any proceeds shall be used for the payment, redemption or defeasance of the Second Lien Bonds.

## **Section 9. Events of Default and Remedies.**

9.1 Continuous Operation Essential. The City Council of the City hereby finds and determines that the continuous operation of the Sewer System and the collection, deposit and disbursement of the Net Revenues in the manner provided in this Master Declaration and in any Supplemental Declaration are essential to the payment and security of the Second Lien Bonds, and the failure or refusal of the City to perform the covenants and obligations contained in this Master Declaration

or any such Supplemental Declaration will endanger the necessary continuous operation of the Sewer System and the application of the Net Revenues to the operation of the Sewer System and the payment of the Second Lien Bonds.

9.2 Events of Default. The following shall constitute "Events of Default":

- A. If the City shall fail to pay any Second Lien Bond principal or interest when due, either at maturity, upon exercise of a right of tender, by proceedings for redemption or otherwise;
- B. Except as provided in Section 4.4 and 9.2.F, if the City shall default in the observance and performance of any other of its covenants, conditions and agreements in this Master Declaration, if such default continues for thirty (30) days after the City receives a written notice, specifying the Event of Default and demanding the cure of such default, from a Credit Provider, a committee of Second Lien Bond Owners or from the Owners of not less than 20% in aggregate principal amount of the Second Lien Bonds Outstanding;
- C. If the City shall sell, transfer, assign or convey any properties constituting the Sewer System in violation of Section 9.10;
- D. If an order, judgment or decree shall be entered by any court of competent jurisdiction:
  - (i) Appointing a receiver, trustee or liquidator for the City or the whole or any part of the Sewer System;
  - (ii) Approving a petition filed against the City seeking the bankruptcy, arrangement or reorganization of the City under any applicable law of the United States or the State; or
  - (iii) Assuming custody or control of the City or of the whole or any part of the Sewer System under the provisions of any other law for the relief or aid of debtors and such order, judgment or decree shall not be vacated or set aside or stayed (or, in case custody or control is assumed by said order, such custody or control shall not be otherwise terminated) within sixty (60) days from the date of the entry of such order, judgment or decree; or
- E. If the City shall:
  - (i) Admit in writing its inability to pay its debts generally as they become due;
  - (ii) File a petition in bankruptcy or seeking a composition of indebtedness under any state or federal bankruptcy or insolvency law;
  - (iii) Consent to the appointment of a receiver of the whole or any part of the Sewer System; or
  - (iv) Consent to the assumption by any court of competent jurisdiction under the provisions of any other law for the relief or aid of debtors of custody or control of the City or of the whole or any part of the Sewer System.
- F. Exception. It shall not constitute an Event of Default under Section 9.2.B. if the default cannot practicably be remedied within thirty (30) days after the City receives notice of the default, so long as the City promptly commences reasonable action to remedy the default after the notice is received, and continues reasonable action to remedy the default until the default is remedied.
- G. Remedies. If an Event of Default occurs, any Second Lien Bond Owner may exercise any remedy available at law or in equity. However, the Second Lien Bonds shall not be subject to acceleration.
- H. Books of City Open to Inspection.
  - (i) The City covenants that if an Event of Default shall have happened and shall not have been remedied, the books of record and account of the City and all other records relating to the Sewer System shall at all reasonable times be subject to the inspection and use of the Second Lien Bond Owners Committee and any persons holding at least twenty percent (20%) of the principal amount of Outstanding Second Lien Bonds and their respective agents and attorneys.

- (ii) The City covenants that if the Event of Default shall happen and shall not have been remedied, the City will continue to account, as a trustee of an express trust, for all Net Revenues and other moneys, securities and funds pledged under this Master Declaration.

I. Waivers of Event of Default.

- (i) No delay or omission of any Second Lien Bond Owner to exercise any right or power arising upon the happening of an Event of Default shall impair any right or power or shall be construed to be a waiver of any such Event of Default or to be an acquiescence therein; and every power and remedy given by this Section 9 to the Second Lien Bond Owners may be exercised from time to time and as often as may be deemed expedient by the Second Lien Bond Owners.
- (ii) The owners of not less than fifty percent (50%) in principal amount of the affected Second Lien Bonds that are at the time Outstanding, or their attorneys-in-fact duly authorized, may, on behalf of the owners of all of affected Second Lien Bonds, waive any past default under this Master Declaration with respect to such Second Lien Bonds and its consequences, except a default in the payment of the principal of, premium, if any, or interest on any of the Second Lien Bonds. No such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

J. Remedies Granted in Master Declaration Not Exclusive.

No remedy by the terms of this Master Declaration conferred upon or reserved to the Second Lien Bond Owners is intended to be exclusive of any other remedy, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Master Declaration or existing at law or in equity or by statute on or after the date of adoption of this Master Declaration.

**Section 10. Amendment of Master Declaration.**

10.1 This Master Declaration may be amended by Supplemental Declaration without the consent of any Second Lien Bond Owners for any one or more of the following purposes:

- A. To cure any ambiguity or formal defect or omission in this Master Declaration;
- B. To add to the covenants and agreements of the City in this Master Declaration, other covenants and agreements to be observed by the City which are not contrary to or inconsistent with this Master Declaration as theretofore in effect;
- C. To authorize issuance of Second Lien Bonds or Subordinate Obligations;
- D. To authorize Parity Exchange Agreements, and specify the rights and duties of the parties to a Parity Exchange Agreement;
- E. To modify, amend or supplement this Master Declaration or any Supplemental Declaration to qualify this Master Declaration under the Trust Indenture Act of 1939, as amended, or any similar federal statute hereafter in effect or to permit the qualification of any Second Lien Bonds for sale under the securities laws of any of the states of the United States of America;
- F. To confirm, as further assurance, any security interest or pledge created under this Master Declaration or any Supplemental Declaration;
- G. To make any change which, in the reasonable judgment of the City, does not materially and adversely affect the rights of the owners of any Outstanding Second Lien Bonds;
- H. So long as a Credit Facility (other than a Reserve Credit Facility) is in full force and effect with respect to the Second Lien Bonds affected by such Supplemental Declaration, to make any other change which is consented to in writing by the issuer of such Credit Facility other than any change which:

- (i) Would result in a downgrading or withdrawal of the rating then assigned to the affected Second Lien Bonds by the Rating Agencies;
- (ii) Changes the maturity (except as permitted herein), the Interest Payment Dates, interest rates, redemption and purchase provisions, and provisions regarding notices of redemption and purchase applicable to the affected Second Lien Bonds or diminishes the security afforded by such Credit Facility;
- (iii) Materially and adversely affects the rights and security afforded to the Owners of any Outstanding Second Lien Bonds not secured by such Credit Facility; or
- (iv) To modify any of the provisions of this Master Declaration or any Supplemental Declaration in any other respect whatever, as long as the modification shall take effect only after all affected Outstanding Second Lien Bonds cease to be Outstanding.

10.2 This Master Declaration may be amended for any other purpose only upon consent of Second Lien Bond Owners of not less than fifty-one percent (51%) in aggregate principal amount of the Second Lien Bonds outstanding; provided, however, that no amendment shall be valid without the consent of Second Lien Bond Owners of 100 percent (100%) of the aggregate principal amount of the Second Lien Bonds outstanding which:

- A. Extends the maturity of any Second Lien Bond, reduces the rate of interest upon any Second Lien Bond, extends the time of payment of interest on any Second Lien Bond, reduces the amount of principal payable on any Second Lien Bond, or reduces any premium payable on any Second Lien Bond, without the consent of the affected Second Lien Bond Owner; or
- B. Reduces the percent of Second Lien Bond Owners required to approve Supplemental Declarations.

10.3 For purposes of Section 10.2, and subject to Section 10.4, the initial purchaser of a series of Second Lien Bonds may be treated as the Owner of that Series at the time that series of Second Lien Bonds is delivered in exchange for payment.

10.4 Except as otherwise expressly provided in a Supplemental Declaration, as long as a Credit Facility (other than a Reserve Credit Facility) securing all or a portion of any Outstanding Second Lien Bonds is in effect, the issuer of such Credit Facility shall be deemed to be the Second Lien Bond Owner of the Second Lien Bonds secured by such Credit Facility:

- A. At all times for the purpose of the execution and delivery of a Supplemental Declaration or of any amendment, change or modification of this Master Declaration or the initiation by Second Lien Bond Owners of any action which under this Master Declaration requires the written approval or consent of or can be initiated by the Second Lien Bond Owners of at least a majority in principal amount of the affected Second Lien Bonds at the time Outstanding; and following an Event of Default for all other purposes;
- B. Notwithstanding the foregoing, the issuer of such Credit Facility shall not be deemed to be a Second Lien Bond Owner secured thereby with respect to any such Supplemental Declaration or of any amendment, change or modification of this Master Declaration which:
  - (i) Would result in a downgrading or withdrawal of the rating then assigned to the affected Second Lien Bonds by the Rating Agencies; or
  - (ii) Changes the maturity (except as expressly permitted herein), the Interest Payment Dates, interest rates, redemption and purchase provisions, and provisions regarding notices of redemption and purchase applicable to the affected Second Lien Bonds or diminishes the security afforded by such Credit Facility; or
  - (iii) Reduces the percentage or otherwise affects the classes of affected Second Lien Bonds, the consent of the Second Lien Bond Owners of which is required to effect any such modification or amendment.
- C. In addition and notwithstanding the foregoing, no issuer of a Credit Facility given as security for any Second Lien Bonds shall be entitled to exercise any rights under this Section during any period where:



- (i) The Credit Agreement or Credit Facility to which such Credit Provider is a party shall not be in full force and effect;
  - (ii) Such Credit Provider shall have filed a petition or otherwise sought relief under any federal or state bankruptcy or similar law;
  - (iii) Such Credit Provider shall, for any reason, have failed or refused to honor a proper demand for payment under such Credit Facility; or
  - (iv) An order or decree shall have been entered, with the consent or acquiescence of such Credit Provider, appointing a receiver or receivers or the assets of the Credit Provider, or if such order or decree having been entered without the consent or acquiescence of such Credit Provider, shall not have been vacated or discharged or stayed within ninety (90) days after the entry thereof.
- D. For purposes of determining the percentage of Second Lien Bond Owners consenting to, waiving or otherwise acting with respect to any matter that may arise under this Master Declaration, the Owners of Second Lien Bonds which pay interest only at maturity, and mature more than one year after they are issued shall be treated as Owners of Second Lien Bonds in an aggregate principal amount equal to the accreted value of such Second Lien Bonds as of the date the Registrar sends out notice of requesting consent, waiver or other action as provided herein.

#### **Section 11. Defeasance.**

- 11.1 The City may defease and deem all or any portion of the Outstanding Second Lien Bonds to be paid by:
- A. Irrevocably depositing (1) cash, (2) non-callable direct obligations of the United States of America (“Treasuries”), (3) evidences of ownership of proportionate interests in future interest and principal payments on Treasuries held by a bank or trust company as custodian, under which the owner of the investment is the real party in interest and has the right to proceed directly and individually against the obligor and the underlying Treasuries are not available to any person claiming through the custodian or to whom the custodian may be obligated, (4) pre-refunded municipal obligations rated “AAA” and “Aaa” by S&P and Moody’s, respectively or (5) securities eligible for “AAA” defeasance under then existing criteria of S & P or any combination thereof. Only these above forms of payment shall be authorized to be used to effect defeasance of the Second Lien Bonds unless the Insurer of the defeased Second Lien Bonds otherwise approves; and,
  - B. Delivering (i) a report of an independent firm of nationally recognized certified public accountants or such other accountant as shall be acceptable to the insurer of the 2003 Series A Bonds (“Accountant”) verifying the sufficiency of the escrow established to pay the Second Lien Bonds in full on the maturity or redemption date (“Verification”), (ii) an Escrow Deposit Agreement (which shall be acceptable in form and substance to any Insurer of the defeased Second Lien Bonds), and (iii) an opinion of nationally recognized bond counsel to the effect that the Second Lien Bonds are no longer Outstanding under this Master Declaration; each Verification and defeasance opinion shall be acceptable in form and substance, and addressed, to the City, the Registrar and any Insurer of the defeased Second Lien Bonds. The insurer of the 2003 Series A Bonds shall be provided with final drafts of the above-referenced documentation not less than five (5) Business Days prior to the funding of the escrow; and,
  - C. Filing with the escrow agent an opinion of nationally recognized bond counsel that the proposed defeasance will not cause interest on the defeased Second Lien Bonds to be includable in gross income under the Code.
- 11.2 Second Lien Bonds shall be deemed Outstanding under this Master Declaration unless and until they are in fact paid and retired or the above criteria are met.
- 11.3 Amounts paid by an Insurer under an Insurance Policy shall not be deemed paid for purposes of this Master Declaration and shall remain Outstanding and continue to be due and owing until paid by the City in accordance with this Master Declaration. This Master Declaration shall not be discharged unless all amounts due or to become due to the Insurer have been paid in full or duly provided for.

11.4 If Second Lien Bonds are defeased under this Section, all obligations of the City with respect to those defeased Second Lien Bonds shall cease and terminate, except for the obligation of the City, the escrow agent and the Registrar to pay the defeased Second Lien Bonds from the amounts deposited in escrow, and the obligation of the Registrar to continue to transfer Second Lien Bonds as provided in this Master Declaration.

## **Section 12. BEO System.**

12.1 Unless otherwise provided by a Supplemental Declaration, all Second Lien Bonds shall be subject to the BEO System pursuant to the provisions of this Section 12.

12.2 The Second Lien Bonds shall be initially issued as a BEO security issue with no Second Lien Bonds being made available to the Second Lien Bond Owners upon the execution and delivery of the letter of representations among the Registrar, DTC and the City. Ownership of the Second Lien Bonds shall be recorded through entries on the books of banks and broker-dealer participants and correspondents that are related to entries on the DTC BEO system. The Second Lien Bonds shall be initially issued in the form of separate single fully registered typewritten Second Lien Bonds for each maturity of the Second Lien Bonds (the "Global Second Lien Bonds") in substantially the form attached hereto as Exhibit B with such changes as the Debt Manager may approve. Each Global Second Lien Bond shall be registered in the name of CEDE & CO. as nominee (the "Nominee") of DTC (DTC and any other qualified securities depository designated by the City as a successor to DTC, collectively the "Depository") as the "Registered Owner", and such Global Second Lien Bonds shall be lodged with the Depository until early redemption or maturity of the Second Lien Bond issue. The Registrar shall remit payment for the maturing principal and interest on the Second Lien Bonds to the Second Lien Bond Owner for distribution by the Nominee for the benefit of the owners (the "Beneficial Owner" or "Record Owner") by recorded entry on the books of the Depository participants and correspondents. While the Second Lien Bonds are in BEO form, the Second Lien Bonds will be available in denominations of \$5,000 or any integral multiple thereof.

12.3 In the event the Depository determines not to continue to act as securities depository for the Second Lien Bonds, or the City determines that the Depository shall no longer so act, then the City will discontinue the BEO system with the Depository. If the City fails to designate another qualified securities depository to replace the Depository or elects to discontinue use of a BEO system, the Second Lien Bonds shall no longer be a BEO issue but shall be registered in the registration books maintained by the Registrar in the name of the Second Lien Bond Owner as appearing on the Second Lien Bond register and thereafter in the name or names of the Second Lien Bond Owners of the Second Lien Bonds transferring or exchanging Second Lien Bonds.

12.4 While the Second Lien Bonds are in BEO form, the City and the Registrar shall have no responsibility or obligation to any participant or correspondent of the Depository or to any Registered Owner on behalf of which such participants or correspondents act as agent for the Second Lien Bond Owner with respect to:

- A. The accuracy of the records of the Depository, the Nominee or any participant or correspondent with respect to any ownership interest in the Second Lien Bonds;
- B. The delivery to any participant or correspondent or any other person, other than an Second Lien Bond Owner as shown in the registration books maintained by the Registrar, of any notice with respect to the Second Lien Bonds, including any notice of prepayment;
- C. The selection by the Depository of the beneficial interest in Second Lien Bonds to be redeemed prior to maturity;  
or
- D. The payment to any participant, correspondent, or any other person other than the owner of the Second Lien Bonds as shown in the registration books maintained by the Registrar, of any amount with respect to principal of or interest on the Second Lien Bonds.

12.5 Notwithstanding the BEO system, the City may treat and consider the Owner in whose name each Second Lien Bond is registered in the registration books maintained by the Registrar as the Second Lien Bond Owner and absolute owner of such Second Lien Bond for the purpose of payment of principal and interest with respect to such Second Lien Bond, or for the purpose of giving notices of redemption and other matters with respect to such Second Lien Bond, or for the purpose of registering transfers with respect to such Second Lien Bond, or for all other purposes whatsoever. The City shall pay or cause to be paid all principal and interest on the Second Lien Bonds only to or upon the order of the Registered Owner, as shown in the registration books maintained by the Registrar, or their respective attorneys duly authorized in writing, and all

such payments shall be valid and effective to fully satisfy and discharge the City's obligation with respect to payment thereof to the extent of the sum or sums so paid.

12.6 Upon delivery by the Depository to the City and to the Second Lien Bond Owner of written notice to the effect that the Depository has determined to substitute a new nominee in place of the Nominee, then the word "Nominee" in this Master Declaration shall refer to such new nominee of the Depository, and upon receipt of such notice, the City shall promptly deliver a copy thereof to the Registrar. The Depository shall tender the Second Lien Bonds it holds to the Registrar for reregistration.

### **Section 13. Redemption of Second Lien Bonds.**

13.1 Unless otherwise provided by a Supplemental Declaration, all Second Lien Bonds shall be subject to the redemption terms of this Section 13.

13.2 If Second Lien Bonds are subject to mandatory redemption the Registrar shall, without further action by the City, select the particular Second Lien Bonds to be redeemed in accordance with the mandatory redemption schedule, by lot within each maturity, call the selected Second Lien Bonds, and give notice of their redemption in accordance with this Section 13.

13.3 If certain maturities of Second Lien Bonds are subject to both optional and mandatory redemption, the City may elect to apply any of those Second Lien Bonds which it has previously optionally redeemed. In addition, if the City purchases Second Lien Bonds which are subject to mandatory redemption, the City may elect to apply against the mandatory redemption requirement any such Second Lien Bonds which it has previously purchased. If the City makes such an election, it shall notify the Registrar not less than sixty days prior to the mandatory redemption date to which the election applies.

13.4 So long as the BEO-System remains in effect with respect to the Second Lien Bonds, the City shall notify the Registrar of any early redemption not less than 40 days prior to the date fixed for redemption, the Registrar shall notify the Depository of any early redemption not less than 30 but no more than 60 days prior to the date fixed for redemption, and shall provide such information in connection therewith as required by the letter of representations submitted to DTC in connection with the issuance of the Second Lien Bonds.

13.5 During any period in which the BEO System is not in effect with respect to the Second Lien Bonds, unless waived by any Owner of the Second Lien Bonds to be redeemed, official notice of any redemption of Second Lien Bonds shall be given by the Registrar on behalf of the City by mailing a copy of an official redemption notice by first class mail postage prepaid at least 30 days and not more than 60 days prior to the date fixed for redemption to the Owner of the Second Lien Bond or Second Lien Bonds to be redeemed, at the address shown on the Second Lien Bond Register or at such other address as is furnished in writing by such owner to the Registrar. The City shall notify the Registrar of any intended redemption not less than 45 days prior to the redemption date. All such official notices of redemption shall be dated and shall state:

- A. The redemption date;
- B. The redemption price;
- C. If less than all Outstanding Second Lien Bonds are to be redeemed, the identification (and, in the case of partial redemption, the respective principal amounts) of the Second Lien Bonds to be redeemed;
- D. That on the redemption date the redemption price will become due and payable upon each such Second Lien Bond or portion thereof called for redemption, and that interest thereon shall cease to accrue from and after said date; and
- E. The place where such Second Lien Bonds are to be surrendered for payment of the redemption price, which place of payment shall be the principal office of the Registrar.

13.6 The City shall deposit with the Registrar, on or before the redemption date, an amount of money sufficient to pay the redemption price of all the Second Lien Bonds or portions of Second Lien Bonds which are to be redeemed on that date.

13.7 Official notice of redemption having been given as aforesaid, the Second Lien Bonds or portions of Second Lien Bonds to be redeemed shall, on the redemption date, become due and payable at the Redemption Price therein specified, and from and after such date (unless the City shall default in the payment of the redemption price) such Second Lien Bonds or portions of Second Lien Bonds shall cease to bear interest. Upon surrender of such Second Lien Bonds for redemption in accordance with said notice, such Second Lien Bonds shall be paid by the Registrar at the Redemption Price. Installments of interest due on or prior to the redemption date shall be payable as herein provided for payment of interest. Upon surrender for any partial redemption of any Second Lien Bond, there shall be prepared for the registered owner a new Second Lien Bond or Second Lien Bonds of the same maturity in the amount of the unpaid principal. All Second Lien Bonds which have been redeemed shall be canceled and destroyed by the Registrar and shall not be reissued. Notwithstanding that any Second Lien Bonds called for redemption shall not have been surrendered, no further interest shall accrue on any such Second Lien Bonds. From and after such notice having been given and such deposit having been made, the Second Lien Bonds to be redeemed shall not be deemed to be Outstanding hereunder, and the City shall be under no further liability in respect thereof.

#### **Section 14. Authentication, Registration and Transfer.**

14.1 The provisions of this Section 14 apply only if the Second Lien Bonds cease to be a BEO issue, and unless otherwise specified in a Supplemental Declaration.

14.2 No Second Lien Bond shall be entitled to any right or benefit under this Master Declaration unless it shall have been authenticated by an authorized officer of the Registrar. The Registrar shall authenticate all Second Lien Bonds to be delivered at closing, and shall additionally authenticate all Second Lien Bonds properly surrendered for exchange or transfer pursuant to this Master Declaration.

14.3 All Second Lien Bonds shall be in registered form. Bank of America Oregon is hereby appointed to serve as Registrar for the Second Lien Bonds. A successor Registrar may be appointed for the Second Lien Bonds by ordinance or resolution of the City. The Registrar shall provide notice to Second Lien Bond Owners of any change in the Registrar not later than the Second Lien Bond payment date following the change in Registrar.

14.4 The ownership of all Second Lien Bonds shall be entered in the Second Lien Bond register maintained by the Registrar and the City and Registrar may treat the person listed as owner in the Second Lien Bond register as the owner of the Second Lien Bond for all purposes.

14.5 The Registrar shall mail each interest payment on the Interest Payment Date (or the next Business Day if the Interest Payment Date is not a Business Day) to the name and address of the Second Lien Bond Owner, as that name and address appear on the Second Lien Bond register as of the Record Date. If payment is so mailed, neither the City nor the Registrar shall have any further liability to any party for such payment.

14.6 Second Lien Bonds may be exchanged for an equal principal amount of Second Lien Bonds of the same maturity which are in different authorized denominations, and Second Lien Bonds may be transferred to other owners if the Second Lien Bond Owner submits the following to the Registrar:

- A. Written instructions for exchange or transfer satisfactory to the Registrar, signed by the Second Lien Bond Owner or his attorney in fact and guaranteed or witnessed in a manner satisfactory to the Registrar; and
- B. The Second Lien Bonds to be exchanged or transferred.

14.7 The Registrar shall not be required to exchange or transfer any Second Lien Bonds submitted to it during any period beginning with a Record Date and ending on the next following payment date; however, such Second Lien Bonds shall be exchanged or transferred promptly following the payment date.

14.8 The Registrar shall not be required to exchange or transfer any Second Lien Bonds which have been designated for redemption if such Second Lien Bonds are submitted to it during the fifteen-day period preceding the designated redemption date.

14.9 For purposes of this section, Second Lien Bonds shall be considered submitted to the Registrar on the date the Registrar actually receives the materials described in Section 14.6.

14.10 The City may alter these provisions regarding registration and transfer by mailing notification of the altered provisions to all Second Lien Bond Owners. The altered provisions shall take effect on the date stated in the notice, which shall not be earlier than 45 days after notice is mailed.



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**APPENDIX B**  
**2013 SUPPLEMENTAL BOND DECLARATION**

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# **SUPPLEMENTAL BOND DECLARATION**

**City of Portland, Oregon**

**Second Lien Sewer System Revenue and Refunding Bonds**

**2013 Series A**

**Executed on behalf of the City of Portland, Oregon**

**As of the 17th day of September, 2013**

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## **S U P P L E M E N T A L   B O N D   D E C L A R A T I O N**

THIS SUPPLEMENTAL BOND DECLARATION is executed as of September 17, 2013, by the Debt Manager of the City of Portland, Oregon pursuant to the authority granted to the “Debt Manager” by City Ordinance No. 185583 adopted on August 29, 2012. That Ordinance authorizes the Debt Manager to execute a bond declaration to specify the terms under which the 2013 Series A Bonds are issued and the administrative provisions that apply to the 2013 Series A Bonds, and to provide any covenants that apply to the 2013 Series A Bonds that are not contained in the Master Declaration or the Ordinance.

### **Section 1. Definitions**

Unless the context clearly requires otherwise, capitalized terms that are used in this 2013 Series A Bond Declaration and are defined in this Section 1 shall have the meanings defined for those terms in this Section 1, and capitalized terms that are used in this 2013 Series A Bond Declaration but are not defined in this Section 1 shall have the meanings defined for those terms in the Master Declaration.

“2013 Series A Bond Declaration” means this Supplemental Bond Declaration.

“2013 Series A Bonds” means the City’s Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A issued pursuant to Section 2 of this 2013 Series A Bond Declaration.

“2013 Series A Reserve Subaccount” means the subaccount in the Second Lien Bond Reserve Account as described in Section 4.

“Master Declaration” means the Amended Master Second Lien Sewer System Revenue and Refunding Bond Declaration executed on June 19, 2003 as it has been, and may in the future be, amended and supplemented in accordance with its terms.

“Ordinance” means City Ordinance No. 185583 which was adopted by the City Council on August 29, 2012, and which authorizes the execution of this 2013 Series A Bond Declaration and the issuance of the 2013 Series A Bonds.

“System Improvements” means capital assets of the Sewer System, including construction, replacement, rehabilitation or other improvements to real and personal property owned, operated, used, or maintained by the City for sewage disposal or sewage purification within or without the corporate limits of the City, including but not limited to, all methods of storm drainage, intercepting sewers, diversion sewers, relieving or interconnection sewers, sewers to separate storm and sanitary sewage, pump or ejector stations and equipment, and plants for treatment, processing and disposal of sewage.

### **Section 2. 2013 Series A Bonds as “Parity Second Lien Obligations” under the Master Declaration.**

2.1. The 2013 Series A Bonds shall be “Second Lien Bonds” and “Parity Second Lien Obligations” as defined in the Master Declaration.

- 2.2. The City will charge rates and fees in connection with the operation of the Sewer System, which, when combined with other Gross Revenues, but without regard to transfers from and to the Rate Stabilization Fund, are adequate to generate Net Revenues each Fiscal Year at least equal to one hundred percent (100%) of Combined Annual Debt Service due in that Fiscal Year.
- 2.3. Pursuant to Section 6 of the Master Declaration I certify that:
- A. No Event of Default under the Master Declaration or any Supplemental Declaration has occurred and is continuing; and
- B. There is no deficiency in the Second Lien Bond Account and all transfers to the Second Lien Bond Reserve Account that are required by the Master Declaration to be made on or before the date of issuance of the 2013 Series A Bonds have been made.

**Section 3. Basic Terms of the 2013 Series A Bonds.**

- 3.1. Pursuant to the authority of Oregon Revised Statutes Section 287A.150, the Ordinance and this 2013 Series A Bond Declaration, the City has issued its Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A, in the aggregate principal amount of \$210,965,000. The 2013 Series A Bonds shall bear interest payable on February 1 and August 1 of each year, commencing February 1, 2014, shall mature in the following years in the following principal amounts, and shall bear the following CUSIP numbers:

<u>Date (August 1)</u>	<u>Principal Amount (\$)</u>	<u>Interest Rate (%)</u>	<u>CUSIP No. (Base 736742)</u>
2014	6,120,000	3.00	TT4
2015	6,240,000	1.00	TU1
2016	6,430,000	5.00	TV9
2017	6,765,000	5.00	TW7
2018	7,105,000	5.00	TX5
2019	7,470,000	5.00	TY3
2020	7,860,000	5.00	TZ0
2021	8,260,000	5.00	UA3

<u>Date</u> <u>(August 1)</u>	<u>Principal</u> <u>Amount (\$)</u>	<u>Interest</u> <u>Rate (%)</u>	<u>CUSIP No.</u> <u>(Base 736742)</u>
2022	8,685,000	5.00	UB1
2023	13,250,000	5.00	UC9
2024	6,190,000	5.00	UD7
2025	6,510,000	5.00	UE5
2026	6,840,000	5.00	UF2
2027	7,160,000	4.00	UG0
2028	7,450,000	4.00	UH8
2029	7,795,000	5.00	UJ4
2030	8,195,000	5.00	UK1
2031	8,615,000	5.00	UL9
2032	9,055,000	5.00	UM7
2033	9,520,000	5.00	UN5
2034	10,010,000	5.00	UP0
2035	10,525,000	5.00	UQ8
2036	11,060,000	5.00	UR6
2037	11,630,000	5.00	US4
2038	12,225,000	5.00	UT2

- 3.2. 2013 Series A Bond proceeds shall be used to fund System Improvements, to refinance outstanding amounts on a line of credit, to refund the City's Second Lien Sewer System Revenue Bonds, 2003 Series A, to fund the 2013 Series A Reserve Subaccount as described in Section 4.2 below, and to pay costs of issuing the 2013 Series A Bonds.

#### **Section 4. 2013 Series A Reserve Subaccount**

- 4.1. The City shall create the 2013 Series A Reserve Subaccount when the 2013 Series A Bonds are issued. The 2013 Series A Reserve Subaccount shall secure the 2013 Series A Bonds. Except as specifically provided in this Section 4 amounts credited to the 2013 Series A Reserve Subaccount shall be used only to pay principal, interest and premium on the 2013 Series A Bonds, and only if amounts in the Second Lien Debt Service

Account are not sufficient to make those payments. The City hereby irrevocably pledges the amounts that are credited to the 2013 Series A Reserve Subaccount to pay the 2013 Series A Bonds. Pursuant to ORS 287A.325, this pledge shall be valid and binding from the Closing date of the 2013 Series A Bonds. The amounts so pledged and hereafter received by the City shall immediately be subject to the lien of this pledge without any physical delivery or further act, and the lien of this pledge shall be superior to all other claims and liens whatsoever.

- 4.2. At Closing of the 2013 Series A Bonds, the City shall deposit into the 2013 Series A Reserve Subaccount an amount equal to the Second Lien Bond Reserve Requirement. The deposit may be made from amounts available in the Subordinate Indebtedness Account, from 2013 Series A Bond proceeds, or other amounts available to the City, or may be in the form of one or more Reserve Credit Facilities.
- 4.3. If the Master Declaration is amended to permit the City to establish subaccounts in the Second Lien Bond Reserve Account that secure multiple Series of Second Lien Bonds, the City reserves the right to issue additional Series of Second Lien Bonds that are secured by the 2013 Series A Reserve Subaccount.
- 4.4. If the Master Declaration is amended to permit the City to determine the reserve requirement for subaccounts in the Second Lien Bond Reserve Account, the City reserves the right to amend this 2013 Series A Supplemental Declaration to reduce the reserve requirement for the 2013 Series A Reserve Subaccount. However, the City shall not reduce the reserve requirement for the 2013 Series A Reserve Subaccount or any subaccount into which the 2013 Series A Reserve Subaccount is combined below the 2013 Series A Reserve Subaccount Requirement, as defined in Section 4.6.
- 4.5. If the Master Declaration is amended to permit the City to combine subaccounts in the Second Lien Bond Reserve Account, the City reserves the right to amend this 2013 Series A Supplemental Declaration and combine the 2013 Series A Reserve Subaccount with other subaccounts in the Second Lien Bond Reserve Account.
- 4.6. For purposes of Section 4.4, the following terms shall have the following meanings:
  - A. “2013 Series A Reserve Subaccount Bonds” means the 2013 Series A Bonds and any other Series of Second Lien Bonds that the City elects to secure with the 2013 Series A Reserve Subaccount.
  - B. “2013 Series A Reserve Subaccount Requirement” means an amount equal to the lesser of: (a) one-half of the greatest amount of principal, interest and premium, if any, required to be paid on 2013 Series A Reserve Subaccount Bonds in any Fiscal Year, beginning with the remainder of the Fiscal Year for which the calculation is made and ending with the last Fiscal Year in which 2013 Series A Reserve Subaccount Bonds are scheduled to be paid, and recalculated whenever 2013 Series A Reserve Subaccount Bonds are issued or paid; or (b) the amount described in the next sentence. If at the time the City issues a Series of 2013 Series A Reserve Subaccount Bonds, the Tax Maximum for that Series is less than the amount that would need to be added to make the balance in the 2013 Series

A Reserve Subaccount equal to the amount described in clause (a) of the first sentence of this definition, calculated with that Series treated as Outstanding, then the 2013 Series A Reserve Subaccount Requirement shall mean the 2013 Series A Reserve Subaccount Requirement in effect immediately prior to the issuance of that Series, plus the Tax Maximum for that Series.

- C. “Tax Maximum” means, for any Series of 2013 Series A Reserve Subaccount Bonds, the lesser of the following, calculated as of the date a Series of 2013 Series A Reserve Subaccount Bonds is issued: (a) the greatest amount of principal, interest and premium, if any, remaining to be paid in any Fiscal Year on that Series; (b) 125% of average amount of principal, interest and premium, if any, required to be paid on that Series during all Fiscal Years in which such Series will be Outstanding; or, (c) ten percent of the proceeds of that Series, as “proceeds” is defined for purposes of Section 148(d) of the Code.

### **Section 5. Redemption of 2013 Series A Bonds.**

- 5.1. The 2013 Series A Bonds maturing on or after August 1, 2024, are subject to redemption at the option of the City on August 1, 2023, and on any date thereafter, in any order of maturity and by lot within a maturity, at a price of par, plus interest accrued to the date fixed for redemption.
- 5.2. In the case of any redemption of less than all of the outstanding 2013 Series A Bonds, the City shall have the right to specify the particular maturities to be redeemed and the aggregate principal amounts of each such maturity to be redeemed.
- 5.3. While the 2013 Series A Bonds are in BEO form the City shall give notice to DTC as provided in the rules and procedures of DTC. However, the City shall not be required to give DTC notice of redemption more than twenty days prior to the redemption date.
- 5.4. Any notice of optional redemption may state that the optional redemption will not occur if the City fails to provide the paying agent with moneys sufficient to pay the redemption price of the 2013 Series A Bonds that are being redeemed, or that the redemption will not occur if any other condition that is specified in the notice occurs. If a conditional notice of redemption is given and the City will not redeem 2013 Series A Bonds, the paying agent shall give notice to owners of the 2013 Series A that were to be redeemed as promptly as practicable.

### **Section 6. Security for 2013 Series A Bonds.**

The 2013 Series A Bonds shall be special obligations of the City. The 2013 Series A Bonds shall be “Second Lien Bonds” and “Parity Second Lien Obligations” as defined in the Master Declaration, and shall be payable solely from the Net Revenues, Subsidy Payments, and amounts required to be deposited in the Second Lien Bond Account and Second Lien Bond Reserve Account as required and as provided by the Master Declaration. Neither the full faith and credit nor the taxing powers of the City, the State of Oregon or any other political subdivision thereof is pledged to the payment of the principal of, premium (if any) or interest on the 2013 Series A

Bonds. No Owner of any 2013 Series A Bond shall have the right to compel the City to exercise its taxing powers to pay any amounts owing under or with respect to the 2013 Series A Bonds.

#### **Section 7. Form of 2013 Series A Bonds.**

The 2013 Series A Bonds shall be in substantially the form attached as Exhibit A and shall be signed with the facsimile or manual signature of the Mayor and the City Auditor.

#### **Section 8. Tax-Exempt Status of 2013 Series A Bonds**

The City covenants with the owners of the 2013 Series A Bonds to use the proceeds of the 2013 Series A Bonds and to otherwise comply with the provisions of the Code so that interest paid on the 2013 Series A Bonds will not be includable in gross income of the Owners for federal income tax purposes. The City specifically covenants to comply with its obligations in the “tax certificate” that has been prepared in connection with the closing of the 2013 Series A Bonds.

#### **Section 9. Reservation of Right to Make Subsequent Amendments.**

In addition to the rights the City has reserved under Section 11 of the Master Declaration, the City reserves the right to make any or all of the amendments to the Master Declaration that are described in this Section 9 without the consent of the Owners of the 2013 Series A Bonds. By purchasing 2013 Series A Bonds each Owner shall be deemed to have consented to any or all of the amendments described in this Section 9.

- 9.1. Amendments that reduce Annual Second Lien Bond Debt Service by the amount of any federal interest subsidies for Second Lien Bonds that are issued as Build America Bonds or similar obligations that are eligible for federal interest subsidies.
- 9.2. Amendments that reduce Combined Annual Debt Service by the amount of any federal interest subsidies for First Lien Bonds that are issued as Build America Bonds or similar obligations that are eligible for federal interest subsidies.
- 9.3. Amendments that pledge federal interest subsidies for Build America Bonds and similar obligations to pay Second Lien Bonds, but exclude those subsidies from “Gross Revenues” so that the subsidies are not both added to Gross Revenues and applied to reduce annual debt service.
- 9.4. Amendments excluding non-cash expenses and extraordinary, non-recurring expenditures from the definition of “Operating Expenses.”
- 9.5. Amendments allowing debt service on obligations that finance Operating Expenses to be treated as Operating Expenses.
- 9.6. Amendments allowing the City to establish subaccounts in the Second Lien Bond Reserve Account that secure multiple Series of Second Lien Bonds.
- 9.7. Amendments allowing the City to determine the reserve requirement for subaccounts in the Second Lien Bond Reserve Account.



- 9.8. Amendments allowing the City to combine subaccounts in the Second Lien Bond Reserve Account.
- 9.9. Amendments clarifying that the ratings requirements for a Reserve Credit Facility Provider would apply only at the time the Reserve Credit Facility is issued.
- 9.10. Amendments clarifying that a Reserve Credit Facility continues to be valued at the amount that is available to be drawn on it unless: Net Revenues are below 130% of Combined Annual Debt Service, and all ratings on the Reserve Credit Facility Provider and its reinsurers or guarantors are either withdrawn or reduced below investment grade.
- 9.11. Amendments specifying that a Reserve Credit Facility shall have no value when the Net Revenues are below 130% of Combined Annual Debt Service, and all ratings on the Reserve Credit Facility Provider and its reinsurers or guarantors are either withdrawn or reduced below investment grade.
- 9.12. Amendments allowing the City to replenish a subaccount in the Second Lien Bond Reserve Subaccount over five years, if that subaccount has a deficiency because the Reserve Credit Facility has no value because of circumstances described in Section 9.11.
- 9.13. Amendments clarifying that the City may issue additional Second Lien Bonds when a subaccount in the Second Lien Bond Reserve Account contains an amount that is less than its reserve requirement, but only if all required deposits to replenish the subaccount have been made when the Second Lien Bonds are issued.
- 9.14. When all First Lien Bonds are paid or defeased, amendments that remove any references to the First Lien Bonds, that replace references to Combined Annual Debt Service with references to Annual Second Lien Bond Debt Service, to change all references to Second Lien Bonds to “First Lien Bonds”, and to make related, conforming changes.
- 9.15. Amendments conforming related provisions of the Master Declaration to the amendments that are authorized by Section 9 and by Section 11 of the Master Declaration, and restating the Master Declaration to include all of those amendments.

Dated as of the 17th day of September, 2013.

**City of Portland, Oregon**

By: \_\_\_\_\_  
Debt Manager

Exhibit A

Form of 2013 Series A Bond

No. R-«BondNumber»

\$«PrincipalAmtNumber»

United States of America  
State of Oregon  
Counties of Multnomah, Washington and Clackamas  
**City of Portland**

Second Lien Sewer System Revenue and Refunding Bond, 2013 Series A

**Dated Date:** September 17, 2013

**Interest Rate Per Annum:** «CouponRate»%

**Maturity Date:** August 1, «MaturityYear»

**CUSIP Number:** 736742«CUSIPNumbr»

**Registered Owner:** -----Cede & Co.-----

**Principal Amount:** -----«PrincipalAmtSpelled» Dollars-----

THE CITY OF PORTLAND, State of Oregon (the “City”), for value received, acknowledges itself indebted and hereby promises to pay to the Registered Owner hereof, or registered assigns, but solely from the sources indicated below, the Principal Amount on the Maturity Date together with interest thereon from the date hereof at the Interest Rate Per Annum indicated above. Interest is payable semiannually on the first days of February and August in each year until maturity or prior redemption, commencing February 1, 2014. Principal and interest payments shall be received by Cede & Co., as nominee of The Depository Trust Company, or its registered assigns, as of the fifteenth day of the month immediately preceding the applicable interest payment date. Such payments shall be made payable to the order of “Cede & Co.” as nominee of The Depository Trust Company, New York, New York.

This 2013 Series A Bond is not a general obligation or liability of the City, and is payable solely from the Net Revenues of the Sewer System as provided in the Amended and Restated Master Second Lien Sewer System Revenue and Refunding Bond Declaration dated June 19, 2003 as amended and supplemented (the “Master Declaration”), including the supplemental bond declaration executed as of September 17, 2013 (the “2013 Series A Bond Declaration”). The City covenants and agrees with the owner of this 2013 Series A Bond that it will keep and perform all of the covenants in this 2013 Series A Bond, the 2013 Series A Bond Declaration, and in the Master Declaration. The City has pledged the Net Revenues of the Sewer System to the payment of principal and interest on this 2013 Series A Bond. The lien of the pledge that secures this 2013 Series A Bond is subordinate to the lien on the Sewer System revenues that secures obligations that the City has issued, and may issue in the future to refund currently outstanding First Lien Bonds, under the City Ordinance No. 160276, as it may be amended from time to time in accordance with the terms of the Master Declaration (the “First Lien Bond Ordinance”).

Unless the book-entry-only system is discontinued, notice of any call for redemption shall be given as required by the Letter of Representations to The Depository Trust Company, as referenced in the Master Declaration. The Bonds are subject to conditional notice of redemption. The City's paying agent and registrar, which is currently U.S. Bank National Association, in Portland, Oregon (the “Registrar”), will notify The Depository Trust Company of any 2013 Series A Bonds called for redemption not less than 20 days prior to the date fixed for redemption. If the book-entry-only system is discontinued, the Registrar and the City shall provide for an alternative system of providing notice of redemption and such other matters as need to be updated for the 2013 Series A Bonds that is of general acceptance in the municipal bond markets. However, any failure to give notice shall not invalidate the redemption of the Bonds.

The 2013 Series A Bonds are initially issued as a book-entry-only security issue with no certificates provided to the 2013 Series A Bondowners. Records of 2013 Series A Bond ownership will be maintained by the Registrar and The Depository Trust Company and its participants.

Should the book-entry-only security system be discontinued, the 2013 Series A Bonds shall be issued in the form of registered 2013 Series A Bonds without coupons in the denominations of \$5,000 or any

City of Portland, Oregon, Second Lien Sewer System Revenue Bond, 2013 Series A

integral multiple thereof. Such 2013 Series A Bonds may be exchanged for 2013 Series A Bonds of the same aggregate principal amount, but different authorized denominations, as provided in the Master Declaration.

Any transfer of this 2013 Series A Bond must be registered, as provided in the Master Declaration, upon the 2013 Series A Bond register kept for that purpose by the Registrar. Upon registration, a new registered 2013 Series A Bond or 2013 Series A Bonds, of the same series and maturity and in the same aggregate principal amount, shall be issued to the transferee as provided in the Master Declaration. The Registrar and the City may treat the person in whose name this 2013 Series A Bond is registered as its absolute owner for all purposes, as provided in the Master Declaration.

**Unless this certificate is presented by an authorized representative of The Depository Trust Company to the issuer or its agent for registration of transfer, exchange or payment, and any certificate issued is registered in the name of Cede & Co. or such other name as requested by an authorized representative of The Depository Trust Company and any payment is made to Cede & Co., ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL since the registered owner hereof, Cede & Co., has an interest herein.**

This 2013 Series A Bond is one of a series of \$210,965,000 aggregate principal amount of Second Lien Sewer Revenue Bonds, 2013 Series A, of the City, and is issued by the City for the purpose of financing improvements to the City's Sewer System, to refinance outstanding amounts on a line of credit, to refund the City's Second Lien Sewer System Revenue Bonds, 2003 Series A, to fund the 2013 Series A Reserve Subaccount, and to pay costs of issuing the 2013 Series A Bonds, in strict accordance and compliance with all of the provisions of the Constitution and Statutes of the State of Oregon and the charter of the City.

The 2013 Series A Bonds are subject to optional and mandatory redemption under the terms stated in the 2013 Series A Bond Declaration.

This Bond shall remain in the Registrar's custody subject to the provisions of the FAST Balance Certificate Agreement currently in effect between the Registrar and The Depository Trust Company.

IT IS HEREBY CERTIFIED, RECITED, AND DECLARED that all conditions, acts, and things required to exist, to happen, and to be performed precedent to and in the issuance of this 2013 Series A Bond have existed, have happened, and have been performed in due time, form, and manner as required by the Constitution and Statutes of the State of Oregon; that the issue of which this 2013 Series A Bond is a part, and all other obligations of such City, are within every debt limitation and other limits prescribed by such Constitution and Statutes.

IN WITNESS WHEREOF, the City Council of the City of Portland, Oregon, has caused this 2013 Series A Bond to be signed by facsimile signature of its Mayor and attested by facsimile signature of its Auditor as of the date indicated above.



**City of Portland, Oregon**

Charlie Hales, Mayor

LaVonne Griffin-Valade, Auditor

THIS 2013 Series A BOND SHALL NOT BE VALID UNLESS PROPERLY  
AUTHENTICATED BY THE REGISTRAR IN THE SPACE INDICATED BELOW.

CERTIFICATE OF AUTHENTICATION

This 2013 Series A Bond is one of a series of \$210,965,000 aggregate principal amount of Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A, of the City, issued pursuant to the 2013 Series A Bond Declaration and the Master Declaration both described herein.

Date of authentication: September 17, 2013.

**U.S. Bank National Association**, as Registrar

---

Authorized Officer

ASSIGNMENT

FOR VALUE RECEIVED, the undersigned sells, assigns and transfers unto: \_\_\_\_\_

(Please insert social security or other identifying number of assignee)

this 2013 Series A Bond and does hereby irrevocably constitute and appoint \_\_\_\_\_  
\_\_\_\_\_ as attorney to transfer this 2013 Series A Bond on the books kept for  
registration thereof with the full power of substitution in the premises.

Dated: \_\_\_\_\_

NOTICE: The signature to this assignment must correspond with the name of the registered owner as it appears upon the face of this 2013 Series A Bond in every particular, without alteration or enlargement or any change whatever.

NOTICE: Signature(s) must be guaranteed by a member of the New York Stock Exchange or a commercial bank or trust company

Signature Guaranteed

\_\_\_\_\_  
(Bank, Trust Company or Brokerage Firm)

\_\_\_\_\_  
Authorized Officer

The following abbreviations, when used in the inscription on the face of this 2013 Series A Bond, shall be construed as though they were written out in full according to applicable laws or regulations.

TEN COM -- tenants in common

TEN ENT -- as tenants by the entireties

JT TEN -- as joint tenants with right of survivorship and not as tenants in common

OREGON CUSTODIANS use the following:

\_\_\_\_\_ CUST UL OREG \_\_\_\_\_ MIN

as custodian for (name of minor)

OR UNIF TRANS MIN ACT

under the Oregon Uniform Transfer to Minors Act

Additional abbreviations may also be used though not in the list above.



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**APPENDIX C**  
**AUDITED FINANCIAL STATEMENTS**

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## INTRODUCTION TO FINANCIAL STATEMENTS

The financial statements of the City have been audited by independent certified public accountants for the fiscal years 2008, 2009, 2010, 2011 and 2012. Copies of these financial statements containing the reports of the independent certified public accountants are available on the City's website at:

<http://www.portlandonline.com/omf/index.cfm?c=26053>

The following pages in this Appendix C are excerpted from the City's Comprehensive Annual Financial Reports of the City for Fiscal Years ending June 30, 2008 through June 30, 2012. The Notes that follow the tabular data have been prepared by the City and have not been reviewed by the independent auditor.

**A CONSENT OF THE INDEPENDENT AUDITOR WAS NOT REQUESTED. THE AUDITOR WAS NOT REQUESTED TO PERFORM AND HAS NOT PERFORMED ANY SERVICE IN CONNECTION WITH THE 2013 SERIES A BONDS AND IS THEREFORE NOT ASSOCIATED WITH THE 2013 SERIES A BONDS.**



**CITY OF PORTLAND, OREGON**  
**SEWAGE DISPOSAL FUND**  
**STATEMENT OF NET ASSETS (1)**  
**As of June 30**

	2008	2009	2010	2011	2012
<b>ASSETS</b>					
Current assets (unrestricted):					
Cash and investments	\$ 54,578,217	\$ 77,591,298	\$ 52,151,004	\$ 42,679,782	\$ 31,939,279
Receivables					
Accounts, net	32,187,406	36,021,211	36,961,411	39,820,839	44,453,631
Assessments	3,294,741	4,938,001	2,997,035	3,847,378	585,357
Advances	-	10,000	-	-	-
Accrued interest	2,143,859	1,891,102	560,514	1,045,815	347,510
Due from other funds	1,540,000	1,303,924	21,013	21,013	21,013
Due from component units	4,000	-	-	75,000	5,000
Internal loans	-	-	500,940	16,700,000	-
Inventories	1,013,402	1,074,639	1,140,815	1,291,697	1,335,900
Prepaid expenses	2,335,940	2,113,087	1,571,500	757,176	-
Total current assets (unrestricted)	<u>97,097,565</u>	<u>124,943,262</u>	<u>95,904,232</u>	<u>106,238,700</u>	<u>78,687,690</u>
Current assets (restricted)					
Cash and investments	-	-	2,217,812	13,428,254	1,085,641
Total current assets (restricted)	<u>-</u>	<u>-</u>	<u>2,217,812</u>	<u>13,428,254</u>	<u>1,085,641</u>
Total current assets	<u>97,097,565</u>	<u>124,943,262</u>	<u>98,122,044</u>	<u>119,666,954</u>	<u>79,773,331</u>
Noncurrent assets (unrestricted):					
Capital assets, not being depreciated or amortized:					
Land	43,792,483	46,657,942	44,587,339	54,565,230	62,091,165
Construction in progress	369,266,800	505,635,924	660,198,402	800,494,115	142,267,439
Intangible assets:					
Land use rights	-	-	-	11,988,421	12,122,209
Capital assets, being depreciated or amortized:					
Plant, buildings and improvements	20,080,704	20,392,764	31,112,788	21,146,577	21,146,575
Equipment	27,001,621	28,311,433	29,798,884	22,884,843	27,104,061
Intangible assets:					
Software	-	-	-	8,594,081	9,710,018
Infrastructure	2,048,170,133	2,089,164,385	2,148,662,039	2,241,748,831	3,031,438,190
Capitalized leases	306,728	306,728	306,728	-	-
Accumulated depreciation and amortization	<u>(236,386,793)</u>	<u>(263,805,874)</u>	<u>(293,159,335)</u>	<u>(323,209,523)</u>	<u>(351,363,155)</u>
Capital assets net of accumulated depreciation and amortization	2,272,231,676	2,426,663,302	2,621,506,845	2,838,212,575	2,954,516,502
Internal loan	-	-	21,700,000	-	-
Pre-paid expense	24,076,182	22,952,002	21,827,822	20,703,641	23,117,691
Total noncurrent assets (unrestricted)	<u>2,296,307,858</u>	<u>2,449,615,304</u>	<u>2,665,034,667</u>	<u>2,858,916,216</u>	<u>2,977,634,193</u>
Noncurrent assets (restricted):					
Cash and investments	257,817,270	72,203,826	53,244,370	115,677,506	28,070,500
Total non-current assets	<u>2,554,125,128</u>	<u>2,521,819,130</u>	<u>2,718,279,037</u>	<u>2,974,593,722</u>	<u>3,005,704,693</u>
Total assets	<u>2,651,222,693</u>	<u>2,646,762,392</u>	<u>2,816,401,081</u>	<u>3,094,260,676</u>	<u>3,085,478,024</u>

**CITY OF PORTLAND, OREGON**  
**SEWAGE DISPOSAL FUND**  
**STATEMENT OF NET ASSETS (continued)**  
**As of June 30**

	2008	2009	2010	2011	2012
<b>LIABILITIES</b>					
Current liabilities (payable from unrestricted assets):					
Accounts payable	\$21,047,319	\$18,112,711	\$24,882,897	\$6,415,162	\$11,683,405
Compensated absences	2,127,649	2,098,956	2,641,467	3,008,431	3,278,581
Due to component unit	390,000	1,814,662	-	-	-
Due to other funds	140,000	-	-	-	-
Capital leases payable	54,357	84,772	-	-	-
Unearned revenue	597,833	683,732	499,378	591,126	549,721
Bonds payable	47,711,479	53,284,499	62,454,523	77,063,726	80,245,847
Notes and loans payable	1,141,064	1,157,893	7,910,345	1,280,253	1,354,862
Accrued interest payable	12,086,845	7,656,185	7,802,355	13,410,551	13,038,480
Pollution remediation	-	-	277,500	153,000	145,000
Other liabilities	1,030,206	342,333	265,876	126,157	136,115
Total current liabilities (unrestricted)	<u>86,326,752</u>	<u>85,235,743</u>	<u>106,734,341</u>	<u>102,048,406</u>	<u>110,432,011</u>
Current liabilities (payable from restricted assets):					
Accounts payable	-	-	\$2,217,812	\$13,428,254	\$1,085,641
Total current liabilities (restricted)	<u>-</u>	<u>-</u>	<u>2,217,812</u>	<u>13,428,254</u>	<u>1,085,641</u>
Total current liabilities	<u>86,326,752</u>	<u>85,235,743</u>	<u>108,952,153</u>	<u>115,476,660</u>	<u>111,517,652</u>
Noncurrent liabilities:					
Compensated absences	858,186	1,422,569	876,594	656,020	569,863
Bonds payable	1,447,764,241	1,387,785,456	1,319,152,128	1,673,468,737	1,593,222,889
Notes and loans payable	20,003,965	18,877,070	172,385,128	19,291,988	19,178,792
Capital leases payable	84,771	-	-	-	-
Other liabilities	-	-	21,774	34,491	146,794
Prepaid sewer assessment	37,698	37,698	-	-	-
Accrued interest payable	3,249,918	3,954,617	4,716,240	6,481,013	7,364,966
Other postemployment benefits	363,229	709,049	901,537	1,157,019	1,284,644
Pollution remediation	-	-	45,000	172,000	415,000
Total noncurrent liabilities	<u>1,472,362,008</u>	<u>1,412,786,459</u>	<u>1,498,098,401</u>	<u>1,701,261,268</u>	<u>1,622,182,948</u>
Total liabilities	<u>1,558,688,760</u>	<u>1,498,022,202</u>	<u>1,607,050,554</u>	<u>1,816,737,928</u>	<u>1,733,700,600</u>
<b>NET ASSETS</b>					
Invested in capital assets, net of related debt	1,045,993,331	1,065,106,461	1,136,948,380	1,213,009,965	1,317,654,559
Restricted for:					
Debt service	-	200,000	200,000	200,000	200,000
Capital projects	-	-	53,044,371	-	-
Unrestricted	46,540,602	83,433,729	19,157,776	64,312,783	33,922,865
Total net assets	<u>\$ 1,092,533,933</u>	<u>\$ 1,148,540,190</u>	<u>\$ 1,209,350,527</u>	<u>\$ 1,277,522,748</u>	<u>\$ 1,351,777,424</u>

Source: City of Portland audited financial statements.

**CITY OF PORTLAND, OREGON**  
**SEWAGE DISPOSAL FUND**  
**STATEMENT OF REVENUES, EXPENSES, and CHANGES IN FUND NET ASSETS**  
**FISCAL YEAR ENDING JUNE 30**

	2008	2009	2010	2011	2012
Operating revenues:					
Service charges and fees	\$216,810,171	\$226,397,001	\$219,312,766	\$239,654,867	\$255,238,165
Licenses and permits	1,287,991	1,094,165	1,042,164	1,103,843	1,428,987
Rents and reimbursements	64,288	55,780	123,566	66,146	71,291
Miscellaneous	1,468,109	712,433	8,885,510	4,576,102	1,732,379
<b>Total operating revenues</b>	<b>219,630,559</b>	<b>228,259,379</b>	<b>229,364,006</b>	<b>245,400,958</b>	<b>258,470,822</b>
Operating expenses:					
Salaries and wages	33,099,665	38,918,743	41,486,812	42,831,171	46,008,644
Operating supplies	2,452,405	3,394,636	3,398,251	3,614,671	3,428,085
Professional services	33,962,539	37,765,018	38,907,719	39,330,658	35,452,114
Utilities	7,164,665	5,171,400	4,372,847	4,147,994	5,053,988
Claims	-	-	-	-	7,640.00
Miscellaneous	7,158,345	1,909,729	423,054	1,285,846	6,677,789
Utility license fees	12,809,321	12,809,321	12,809,321	12,809,321	12,809,321
Bad debt expense	-	-	-	-	-
Downspout disconnect program expense	-	-	-	-	-
Depreciation expense	25,755,514	29,511,785	29,535,000	30,320,911	30,158,176
<b>Total operating expenses</b>	<b>122,402,454</b>	<b>129,480,632</b>	<b>130,933,004</b>	<b>134,340,572</b>	<b>139,595,757</b>
<b>Operating income (loss)</b>	<b>97,228,105</b>	<b>98,778,747</b>	<b>98,431,002</b>	<b>111,060,386</b>	<b>118,875,065</b>
Nonoperating revenues (expenses):					
Gain (loss) on sale of capital assets	(904,211)	(252,088)	36,531	292,955	(150,009)
Investment earnings	9,382,950	7,926,561	687,287	2,836,518	709,195
Interest expense	(49,620,799)	(50,336,722)	(39,406,741)	(47,006,826)	(46,130,545)
Debt issuance costs	(4,562,818)	(102,499)	(124,150)	(1,006,118)	(104,887)
Miscellaneous	1,335,592	(1,124,180)	-	-	-
<b>Total nonoperating revenues (expenses)</b>	<b>(44,369,286)</b>	<b>(43,888,928)</b>	<b>(38,807,073)</b>	<b>(44,883,471)</b>	<b>(45,676,246)</b>
<b>Income (loss) before contributions and transfers</b>	<b>52,858,819</b>	<b>54,889,819</b>	<b>59,623,929</b>	<b>66,176,915</b>	<b>73,198,819</b>
Transfers in	92,000	62,100	119,037	295,348	151,552
Transfers out	(693,305)	(799,601)	(690,649)	(441,074)	(415,016)
Capital contributions	4,364,744	2,053,939	958,038	2,141,032	1,319,321
<b>Change in net assets</b>	<b>56,622,258</b>	<b>56,206,257</b>	<b>60,010,355</b>	<b>68,172,221</b>	<b>74,254,676</b>
<b>Total net assets -- beginning, as restated</b>	<b>1,035,911,675</b>	<b>1,092,533,933</b>	<b>1,149,340,172</b>	<b>1,209,350,527</b>	<b>1,277,522,748</b>
<b>Total net assets -- ending</b>	<b>\$ 1,092,533,933</b>	<b>\$ 1,148,740,190</b>	<b>\$ 1,209,350,527</b>	<b>\$ 1,277,522,748</b>	<b>\$ 1,351,777,424</b>

Source: City of Portland audited financial statements.

**CITY OF PORTLAND, OREGON  
SEWAGE DISPOSAL FUND  
STATEMENT OF CASH FLOWS  
FISCAL YEAR ENDING JUNE 30**

	2008	2009	2010	2011	2012
<b>CASH FLOWS FROM OPERATING ACTIVITY</b>					
Receipts from customers and users	\$ 218,055,130	\$ 221,276,452	\$ 206,963,404	\$ 245,915,334	\$ 268,684,172
Receipts from interfund services provided	1,183,828	1,980,135	2,517,052	2,095,050	2,363,095
Payments to suppliers	(34,762,701)	(30,947,656)	(9,559,183)	(25,214,112)	(22,861,577)
Payments to employees	(32,667,778)	(38,037,233)	(40,173,608)	(41,305,118)	(44,572,845)
Payments for interfund services used	(24,427,555)	(32,501,504)	(43,014,730)	(43,507,055)	(47,328,672)
Other receipts (payments)	(173,419)	64,555	333,520	12,816	324
	<hr/>				
Net cash provided by operating activities	127,207,505	121,834,749	117,066,455	137,996,915	156,284,497
<b>CASH FLOW FROM NONCAPITAL FINANCING ACTIVITIES</b>					
Cash received from other funds	1,537,664	-	-	-	-
Other noncapital increases	922,108	-	-	-	-
Other noncapital decreases	-	-	-	-	-
Miscellaneous revenues (expenses)	-	-	-	-	-
Transfers in	92,000	62,100	119,037	109,486	65,505
Transfers out	(693,305)	(799,601)	(690,649)	(388,970)	(415,016)
	<hr/>				
Net cash provided (used) by noncapital financing activities	1,858,467	(737,501)	(571,612)	(279,484)	(349,511)
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>					
Proceeds from sale of bonds and notes	529,609,583	33,297	161,431,827	409,316,352	1,267,882
Premium on bonds and notes issued	22,965,687	-	-	42,143,289	-
Sale of capital assets	123,443	311,639	116,235	76,144	380,831
Acquisition of capital assets	(194,151,954)	(182,453,198)	(222,900,227)	(244,535,041)	(145,587,575)
Principal paid on bonds, notes and capital leases	(311,336,354)	(48,909,205)	(54,540,592)	(234,858,270)	(70,001,109)
Interest paid on bonds, notes and capital leases	(49,272,816)	(60,756,963)	(44,677,749)	(47,032,648)	(53,987,750)
Debt issuance costs	(4,562,818)	(102,499)	(124,150)	(1,006,118)	(104,887)
	<hr/>				
Net cash provided (used) by capital related financing activities	(6,625,229)	(291,876,929)	(160,694,656)	(75,896,292)	(268,032,608)
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>					
Interest on investments	9,627,876	8,179,318	2,017,875	2,351,217	1,407,500
	<hr/>				
Net increase (decrease) in cash and cash equivalents	132,068,619	(162,600,363)	(42,181,938)	64,172,356	(110,690,122)
<b>CASH AND CASH EQUIVALENTS</b>					
<b>July 1, Prior Year</b>	180,326,868	312,395,487	149,795,124	107,613,186	171,785,542
<hr/>					
<b>CASH AND CASH EQUIVALENTS</b>					
<b>June 30, Current Year</b>	\$ 312,395,487	\$ 149,795,124	\$ 107,613,186	\$ 171,785,542	\$ 61,095,420
<hr/>					
Reconciliation of Cash and Cash Equivalents to the Statements of Net Assets:					
Unrestricted cash and cash equivalents		\$77,591,298	\$52,151,004	\$42,679,782	\$31,939,279
Restricted cash and cash equivalents		72,203,826	55,462,182	129,105,760	29,156,141
Total		<hr/>			
		\$149,795,124	\$107,613,186	\$171,785,542	\$61,095,420

**CITY OF PORTLAND, OREGON**  
**SEWAGE DISPOSAL FUND**  
**STATEMENT OF CASH FLOWS (continued)**  
**FISCAL YEAR ENDING JUNE 30**

	2008	2009	2010	2011	2012
<b>Reconciliation of operating income (loss) to net cash provided by operating activities</b>					
Operating income (loss)	\$ 97,228,105	\$ 98,778,747	\$ 98,431,002	\$ 111,060,386	\$ 118,875,065
Adjustments to reconcile operating income (loss) to net cash provided (used) by operating activities:					
Depreciation and amortization of capital assets	25,755,514	29,511,785	29,535,000	30,320,911	30,158,176
Provision for uncollectible accounts	484,833	1,224,893	1,380,583	1,204,408	1,183,469
Noncash expenditure adjustment	-	-	-	-	-
Change in assets and liabilities:					
Accounts and contracts receivable	(770,951)	(6,489,105)	1,295,950	(2,975,673)	(4,211,114)
Inventories	(103,838)	(61,237)	(66,176)	(150,882)	(44,203)
Accounts payable	4,526,275	(2,934,608)	8,987,998	(7,257,293)	(7,074,370)
Compensated absences	68,658	535,690	(3,464)	146,390	183,993
Due from (to) other funds	(178,937)	1,524,738	(531,751)	(75,000)	70,000
Internal loans receivable	-	-	(22,200,940)	5,500,940	16,700,000
Other assets	-	-	-	-	-
Unearned revenue	68,929	85,899	(184,354)	91,748	(41,405)
Accrued claims	-	-	-	-	-
Other accrued liabilities	(234,312)	(687,873)	230,119	(124,502)	357,261
Accrued other postemployment benefits	363,229	345,820	192,488	255,482	127,625
Net cash provided by operating activities	<u>\$ 127,207,505</u>	<u>\$ 121,834,749</u>	<u>\$ 117,066,455</u>	<u>\$ 137,996,915</u>	<u>\$ 156,284,497</u>
<b>Noncash information</b>					
Prepaid PERS amortization	1,124,180	1,124,180	1,124,180	(1,124,180)	(1,124,181)
Capital contribution	4,364,744	2,053,939	958,038	2,141,032	1,319,321
Increase in fair value of investments (classified as cash equivalents)	1,152,035	134,351	(1,427,627)	855,563	(381,966)

Source: City of Portland audited financial statements.

**CITY OF PORTLAND, OREGON**  
**ENVIRONMENTAL REMEDIATION FUND**  
**STATEMENT OF NET ASSETS (1)**  
**As of June 30**

	2008	2009	2010	2011	2012
<b>ASSETS</b>					
Current assets (unrestricted)					
Cash and investments	\$ 3,796,682	\$ 3,662,894	\$ 3,685,799	\$ 5,332,780	\$ 5,923,399
Receivables:					
Accrued interest	17,203	6,509	2,764	13,768	18,087
Internal loans			0	0	295,000
Total current assets (unrestricted)	<u>3,813,885</u>	<u>3,669,403</u>	<u>3,688,563</u>	<u>5,346,548</u>	<u>6,236,486</u>
Noncurrent assets (unrestricted):					
Capital assets, not being depreciated or amortized	1,563,333	1,563,332	1,563,333	1,563,333	1,563,333
Land	-	-	5,416	5,416	-
Capital assets, being depreciated or amortized:					
Infrastructure	-	-	-	-	5,416
Buildings	1,768,170	1,768,170	1,768,170	1,768,170	1,768,170
Improvements to land	1,520,801	1,520,801	1,520,801	1,520,801	1,520,801
Accumulated depreciation and amortization	(774,709)	(843,035)	(911,998)	(980,961)	(1,049,925)
Capital assets, net of depreciation and amortization	<u>4,077,595</u>	<u>4,009,268</u>	<u>3,945,722</u>	<u>3,876,759</u>	<u>3,807,795</u>
Prepaid pension obligation	<u>10,808</u>	<u>10,303</u>	<u>9,798</u>	<u>9,292</u>	<u>8,786</u>
Total noncurrent assets	<u>4,088,403</u>	<u>4,019,571</u>	<u>3,955,520</u>	<u>3,886,051</u>	<u>3,816,581</u>
Total assets	<u>\$ 7,902,288</u>	<u>\$ 7,688,974</u>	<u>\$ 7,644,083</u>	<u>\$ 9,232,599</u>	<u>\$ 10,053,067</u>
<b>LIABILITIES</b>					
Current liabilities (payable from unrestricted assets)					
Accounts payable	\$ 1,032,628	\$ 779,329	\$ 834,026	\$ 1,096,429	\$ 1,184,867
Compensated absences	33,049	34,773	46,521	42,908	34,978
Bonds payable	301	369	438	518	601
Accrued interest payable	1,485	31	30	31	31
Pollution remediation	2,250,000	2,250,000	1,550,000	1,550,000	695,000
Total current liabilities (unrestricted)	<u>3,317,463</u>	<u>3,064,502</u>	<u>2,431,015</u>	<u>2,689,886</u>	<u>1,915,477</u>
Noncurrent liabilities					
Compensated absences	15,039	25,805	16,744	10,347	6,594
Bonds payable	14,473	14,104	13,664	13,142	12,541
Accrued interest payable	-	1,765	2,104	2,910	3,307
Other postemployment benefits	3,965	7,386	9,195	11,893	12,674
Pollution remediation			3,080,000	1,340,000	610,000
Total noncurrent liabilities	<u>33,477</u>	<u>49,060</u>	<u>3,121,707</u>	<u>1,378,292</u>	<u>645,116</u>
Total liabilities	<u>3,350,940</u>	<u>3,113,562</u>	<u>5,552,722</u>	<u>4,068,178</u>	<u>2,560,593</u>
<b>NET ASSETS</b>					
Invested in capital assets, net of related debt	4,077,595	4,009,268	3,945,724	3,876,759	3,807,795
Unrestricted	<u>473,753</u>	<u>566,144</u>	<u>(1,854,363)</u>	<u>1,287,662</u>	<u>3,684,679</u>
Total net assets	<u>\$ 4,551,348</u>	<u>\$ 4,575,412</u>	<u>\$ 2,091,361</u>	<u>\$ 5,164,421</u>	<u>\$ 7,492,474</u>



**CITY OF PORTLAND, OREGON**  
**ENVIRONMENTAL REMEDIATION FUND**  
**STATEMENT OF REVENUES, EXPENSES, and CHANGES IN FUND NET ASSETS**  
**FISCAL YEAR ENDING JUNE 30**

	2008	2009	2010	2011	2012
Operating revenues:					
Service charges and fees	\$ 331,808	\$ 229,644	\$ 6,158,862	\$ 6,424,068	\$ 5,424,547
Rents and reimbursements	460,283	481,970	382,452	482,540	467,637
Miscellaneous	3,900,000	4,355,000	225	69,085	5,977
Total operating revenues	<u>4,692,091</u>	<u>5,066,614</u>	<u>6,541,539</u>	<u>6,975,693</u>	<u>5,898,161</u>
Operating expenses:					
Salaries and wages	554,193	546,448	598,319	624,041	382,610
Operating supplies	179	137	-	69	2,170
Professional services	4,377,699	3,033,473	3,113,943	2,528,503	2,665,935
Utilities	10,447	-	-	-	-
Miscellaneous	53,049	1,460,724	5,222,005	730,809	486,176
Depreciation and amortization	59,201	68,327	68,963	68,963	68,963
Total operating expenses	<u>5,054,768</u>	<u>5,109,109</u>	<u>9,003,230</u>	<u>3,952,385</u>	<u>3,605,854</u>
Operating income	<u>(362,677)</u>	<u>(42,495)</u>	<u>(2,461,691)</u>	<u>3,023,308</u>	<u>2,292,307</u>
Nonoperating revenues (expenses):					
Investment earnings (loss)	148,371	69,670	(24,140)	48,574	36,702
Miscellaneous	(505)	(818)	(734)	(1,191)	(771)
Interest expense	(1,059)	(505)	-	-	-
Total nonoperating revenues (expenses)	<u>146,807</u>	<u>68,347</u>	<u>(24,874)</u>	<u>47,383</u>	<u>35,931</u>
Income before contributions and transfers	<u>(215,870)</u>	<u>25,852</u>	<u>(2,486,565)</u>	<u>3,070,691</u>	<u>2,328,238</u>
Transfers in	-	-	2,718	2,544	-
Transfers out	<u>(2,293)</u>	<u>(1,788)</u>	<u>(204)</u>	<u>(175)</u>	<u>(185)</u>
Change in net assets	<u>(218,163)</u>	<u>24,064</u>	<u>(2,484,051)</u>	<u>3,073,060</u>	<u>2,328,053</u>
Total net assets -- beginning	<u>4,769,511</u>	<u>4,551,348</u>	<u>4,575,412</u>	<u>2,091,361</u>	<u>5,164,421</u>
Total net assets -- ending	<u>\$ 4,551,348</u>	<u>\$ 4,575,412</u>	<u>\$ 2,091,361</u>	<u>\$ 5,164,421</u>	<u>\$ 7,492,474</u>

**CITY OF PORTLAND, OREGON  
ENVIRONMENTAL REMEDIATION FUND  
STATEMENT OF CASH FLOWS  
FISCAL YEAR ENDING JUNE 30**

	2008	2009	2010	2011	2012
<b>CASH FLOWS FROM OPERATING ACTIVITIES</b>					
Receipts from customers and users	\$ 4,360,283	\$ 5,066,614	\$ 6,541,539	\$ 6,975,693	\$ 5,167,592
Receipts from interfund services provided	331,808	-	-	-	435,569
Payments to suppliers	(4,311,803)	(4,319,259)	(10,536,667)	(4,736,978)	(3,768,942)
Payments to employees	(557,273)	(530,537)	(593,318)	(630,847)	(393,006)
Payments for interfund services used	(491,991)	(428,374)	5,416	-	(881,901)
Net cash provided (used) by operating activities	<u>(668,976)</u>	<u>(211,556)</u>	<u>(4,583,030)</u>	<u>1,607,868</u>	<u>559,312</u>
<b>CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES</b>					
Transfers in	-	-	2,718	2,544	-
Transfers out	(2,293)	(1,788)	(204)	(175)	(185)
Net cash used by noncapital financing activities	<u>(2,293)</u>	<u>(1,788)</u>	<u>2,514</u>	<u>2,369</u>	<u>(185)</u>
<b>CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES</b>					
Proceeds from sale of bonds and notes	-	-	4,630,000	-	-
Acquisition of capital assets	-	-	(5,417)	-	-
Principal paid on bonds, notes and capital leases	(239)	(301)	(370)	(442)	(518)
Interest paid on bonds, notes and capital leases	(770)	(507)	(396)	(384)	(373)
Net cash used by capital related financing activities	<u>(1,009)</u>	<u>(808)</u>	<u>4,623,817</u>	<u>(826)</u>	<u>(891)</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES</b>					
Interest earning (loss) on investments	138,093	80,364	(20,396)	37,570	32,383
Net increase (decrease) in cash and cash equivalents	<u>(534,185)</u>	<u>(133,788)</u>	<u>22,905</u>	<u>1,646,981</u>	<u>590,619</u>
<b>CASH AND CASH EQUIVALENTS, July 1, 2011</b>	<u>4,330,867</u>	<u>3,796,682</u>	<u>3,662,894</u>	<u>3,685,799</u>	<u>5,332,780</u>
<b>CASH AND CASH EQUIVALENTS, June 30, 2012</b>	<u>\$ 3,796,682</u>	<u>\$ 3,662,894</u>	<u>\$ 3,685,799</u>	<u>\$ 5,332,780</u>	<u>\$ 5,923,399</u>
<b>Reconciliation of cash and cash equivalents to the Statement of Net Assets:</b>					
Unrestricted cash and cash equivalents		\$ 3,662,894	\$ 3,685,799	\$ 5,332,780	\$ 5,923,399
Restricted cash and cash equivalents		-	-	-	-
Total cash and cash equivalents		<u>\$ 3,662,894</u>	<u>\$ 3,685,799</u>	<u>\$ 5,332,780</u>	<u>\$ 5,923,399</u>

**CITY OF PORTLAND, OREGON  
ENVIRONMENTAL REMEDIATION FUND  
STATEMENT OF CASH FLOWS (continued)  
FISCAL YEAR ENDING JUNE 30**

	2008	2009	2010	2011	2012
<b>Reconciliation of operating income (loss) to net cash provided (used) by operating activities</b>					
Operating income (loss)	\$ (362,677)	\$ (42,495)	\$ (2,461,691)	\$ 3,023,308	\$ 2,292,307
Adjustments to reconcile operating income (loss) to net cash provided (used) by operating activities:					
Depreciation	59,201	68,327	68,963	68,963	68,963
Change in assets and liabilities:					
Accounts, contracts receivable, advances, assessments	-	-	-	506	506
Internal loans receivable	-	-	-	-	(295,000)
Accounts payable	687,580	(253,299)	(2,195,303)	262,403	88,438
Compensated absences	(7,045)	12,490	2,687	(10,010)	(11,683)
Other postemployment benefits	3,965	3,421	1,809	2,698	781
Pollution remediation	-	-	-	(1,740,000)	(1,585,000)
Other assets	-	-	505	-	-
Other accrued liabilities	(1,050,000)	-	-	-	-
Net cash provided (used) by operating activities	<u>\$ (668,976)</u>	<u>\$ (211,556)</u>	<u>\$ (4,583,030)</u>	<u>\$ 1,607,868</u>	<u>\$ 559,312</u>
<b>Non-cash information</b>					
Non-operating prepaid PERS amortization	\$ 505	\$ 505	\$ 505	\$ (506)	\$ (506)
Increase (decrease) in fair value of investments (classified as cash equivalents)	15,355	15,657	(37,361)	27,429	2,503



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**APPENDIX D**  
**CITY OPERATING AND FINANCIAL INFORMATION**

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# CITY OPERATING AND FINANCIAL INFORMATION

## FISCAL YEAR

July 1 to June 30.

## BASIS OF ACCOUNTING

The governmental fund types, expendable trust funds, and agency funds are maintained on the modified accrual basis of accounting. The accrual basis of accounting is used for all enterprise funds. The City's accounting practices conform to generally accepted accounting principles as interpreted by the Governmental Accounting Standards Board (the "GASB").

## FINANCIAL REPORTING AND BUDGETING

### Financial Reporting

The City has received the Government Finance Officers Association's ("GFOA") Certificate of Achievement for Excellence in Financial Reporting every year since 1982. According to 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 annual financial report whose content conforms to program requirements and satisfies both generally accepted accounting principles and applicable legal requirements.

### 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 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, the City created the Portland Utilities Review Board (the "PURB") in 1994. The PURB, an appointed body of nine interested citizens who provide independent and representative customer review of water, sewer, stormwater, and solid waste financial plans and rates, operates in an advisory capacity to Council.

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.

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.

In December 2012, the City Council voted to amend the City Code to create a separate City office focused exclusively on budget analysis and economic forecasting. The new City Budget Office was created by removing the existing budget and economic analysis functions from the City's Office of Management and Finance. This reorganization is intended to ensure that all City Commissioners are given direct, unfiltered communication with budget office staff throughout the year and to remove potential conflicts of interest during the budget decision-making process. The ordinance creating the City Budget Office became effective on December 12, 2012.

## 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 2011-12.

A complete copy of the City's FY 2011-12 audit is available on the City's web site at <http://www.portlandoregon.gov/bfs/60673>. The City's web site is listed for reference only, and is not part of this Official Statement. Excerpts of the City's audited financial statements for the City's Water Fund on a Generally Accepted Accounting Principles (GAAP) basis are found in Appendix C. See Appendix C, "EXCERPTS OF AUDITED FINANCIAL STATEMENTS," herein.

## **INSURANCE**

The City is self-insured for workers' compensation, general liability claims and certain employees' medical coverage in internal service funds. The Oregon Tort Claims Act (ORS 30.260 to 30.300) limits certain claims against the City for personal injury, death and property damage or destruction as described below. Claims under federal jurisdiction are not subject to such limitations.

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 assets). 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 and independent actuarial studies. Liabilities are based on estimated ultimate cost of settling claims, including effects of inflation and other societal and economic factors. 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, 2013, the expected rate of return used was 0.35 percent. For fiscal year ending June 30, 2014 and subsequent years, the expected rate of return used was 0.50 percent. 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. Current levels of accrued claims and retained earnings are viewed as reasonable provisions for expected future losses. An excess liability coverage insurance policy covers individual claims in excess of \$1,000,000 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 \$1 million self-insurance retention for covered torts occurring after November 12, 2012.

### **Personal Injury and Death Claim**

Under ORS 30.272, the liability of a local public body and its officers, employees and agents acting within the scope of their employment or duties, to any single claimant for covered personal injury or death claims (and not property claims) arising out of a single accident or occurrence may not exceed \$600,000 for causes of action arising on or after July 1, 2012, and before July 1, 2013. This cap increases incrementally through June 30, 2015, to \$666,700. The liability limits to all claimants for covered personal injury or death claims (and not property claims) arising from a single accident or occurrence increases to \$1,200,000 for causes of action arising on or after July 1, 2012, and before July 1, 2013, and incrementally to \$1,333,300 through June 30, 2015.

For causes of action arising on or after July 1, 2015, the liability limits for both a single claimant and all claimants will be adjusted based on a determination by a State Court Administrator of the percentage increase or decrease in the cost of living for the previous calendar year as provided in the formula in ORS 30.272. The adjustment may not exceed three percent for any year.

### **Property Damage or Destruction Claim**

Under ORS 30.273, the liability of a public body and its officers, employees and agents acting within the scope of their employment or duties, for covered claims for damage and destruction of property that arise from causes of action arising on or after July 1, 2012, and before July 1, 2013, are as follows: (a) \$104,300 for any single claimant and (b) \$521,400 to all claimants. These liability limits are adjusted based on a determination by a State Court Administrator of the percentage increase or decrease in the cost of living for the previous calendar year as provided in the formula in ORS 30.273. The adjustment may not exceed three percent for any year.



## **PENSION PLANS**

### **General**

Substantially all City employees (other than most fire and police personnel), after six months of employment, are participants in three retirement pension benefit programs under the State of Oregon Public Employees Retirement System (“PERS” or the “System”) – Tier 1, Tier 2, or the Oregon Public Service Retirement Plan (“OPSRP”).

The Tier 1 and Tier 2 pension programs (the “T1/T2 Pension Programs”) are defined benefit pension plans that provide retirement and disability benefits, annual cost-of-living adjustments, and death benefits to members and their beneficiaries. Different benefit structures apply to participants depending on their date of hire. Retirement benefits for T1/T2 Pension Program members are based on final average salary and length of service and are calculated under a full formula method, formula plus annuity method, or money match (defined contribution) method if a greater benefit results.

Public employees hired on or after August 29, 2003, become part of OPSRP, unless membership was previously established in the T1/T2 Pension Programs. OPSRP is a hybrid (defined contribution/defined benefit) pension plan with two components. Employer contributions fund the defined benefit program and employee contributions fund the Individual Account Program (“IAP”) under the separate defined contribution program. Beginning January 1, 2004, active members of the T1/T2 Pension Program became members of the IAP under OPSRP and their employee contributions were directed to the member’s IAP account and will be part of a separate defined contribution program.

Oregon statutes require an actuarial valuation of the System by a competent actuary at least once every two years. Under current practice, actuarial valuations are performed annually, but only valuations as of the end of each odd-numbered year are used to determine 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”). See “POST-EMPLOYMENT RETIREMENT BENEFITS” below.

### **Employer Asset Valuation and Liabilities**

An employer’s share of PERS’s 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.

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 allocated 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.

In October 2010, the PERS actuary released the City’s 2009 actuarial valuation report (the “2009 City Report”), which included the City’s share of the SLGRP’s and OPSRP’s actuarial accrued liabilities and assets as of December 31, 2009 and provided the City’s employer contribution rates that were in effect (effective from July 1, 2011 through June 30, 2013). In October 2012, Milliman (“Milliman”), the current PERS actuary, released an actuarial valuation for the City as of December 31, 2011 (the “2011 City Report”), which includes the City’s share of the SLGRP’s and OPSRP’s actuarial accrued liability as of December 31, 2011 and provides the City’s employer contribution rates that were to be effective July 1, 2013 through June 30, 2015.

The table below is a summary of principal valuation results from the 2009 City Report and the 2011 City Report.

**Table 21**  
**CITY OF PORTLAND, OREGON**  
**Valuation Results for 2009 and 2011**  
**(as of December 31)**

	<b>2009</b>	<b>2011</b>
Allocated Pooled T1/T2 UAL/ (surplus)	\$178,802,989	\$260,088,620
Allocated Pooled OPSRP UAL/ (surplus)	3,216,137	5,178,569
Net unfunded pension actuarial accrued liability/(surplus)	\$182,019,126	\$265,267,189

Source: City of Portland, Oregon Public Employees Retirement System, 12/31/09 Valuation Report prepared by Mercer Human Resource Consulting and City of Portland, Oregon Public Employees Retirement System, 12/31/11 Valuation Report prepared by Milliman.

Significant actuarial assumptions and methods used in the valuations included: (a) Projected Unit Credit actuarial cost method, (b) asset valuation method based on market value, (c) rate of return on the investment of present and future assets of 8%, (d) payroll growth rate of 3.75%, (e) consumer price inflation of 2.75% per year, and (f) UAL amortization method of a level percentage of payroll over 20 years (fixed) for the T1/T2 Pension Programs and 16 years (fixed) for OPSRP.

The PERS Board recently announced that it expects to adopt changes to some of these actuarial assumptions and methods at its September 27, 2013 meeting. These include moving from the Projected Unit Credit to Entry Age Normal actuarial cost method and lowering the rate of return on the investment of present and future assets from 8% to 7.75%. Additionally, while the UAL amortization method for the T1/T2 Pension Programs will not change, the PERS Board is expected to direct Milliman to re-amortize the UALs for the T1/T2 Pension Programs from the 2007, 2009 and 2011 valuations to restart the 20-year amortization period effective with the 2013 valuation reports. It is expected that these changes to the actuarial assumptions and methods will delay the full repayment of the UAL for six years beyond current policies and are expected to increase the UAL; however, at this time, the amount of the increase is unknown.

The funded status of the System and the City, as reported by Milliman, changes over time depending on the market performance of the securities in which the Oregon Public Employees Retirement Fund (the “OPERF”) are invested, future changes in compensation and benefits of covered employees, any additional lump sum deposits made by employers, demographic characteristics of members and methodologies and assumptions used by the actuary in estimating the assets and liabilities of PERS. No assurance can be given that the unfunded actuarial liability of PERS and of the City will not materially increase.

### **Employer Contribution Rates**

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. Pursuant to ORS 238.225, all participating employers, such as the City, 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 for the 2011-2013 biennium were based on the 2009 City Report. The City’s 2013-2015 employer contribution rates were originally reported in the 2011 City Report and were capped using a rate stabilization methodology designed to limit increases in employer contribution rates from biennium to biennium (the “Rate Collar”). The Rate Collar limits increases in employer contribution rates before rate reductions from side accounts are deducted, and does not cover charges associated with RHIA and the Retiree Health Insurance Premium Account (“RHIPA”). Under normal conditions, the Rate Collar is the greater of three percent of payroll or 20 percent of the current base rate. If the funded status of the SLGRP is below 80 percent, the Rate Collar increases by 0.3 percent for every percentage point under the 80 percent funded level until it reaches six percent at the 70 percent funded level. According to the actuarial valuation for the System as of December 31, 2009, the SLGRP was 77 percent funded, resulting in a Rate Collar of 3.9 percent of covered payroll in the 2011-2013 biennium. Because the 2011-2013 employer contribution rates were reduced by the Rate Collar, further rate increases are deferred to future biennia, including the 2013-2015 biennium.

The PERS Board is expected to modify the Rate Collar so that the Rate Collar continues to be the greater of three percent of payroll or 20 percent of the current base rate until the funded status of the SLGRP is below 70 percent. If the funded status of the SLGRP is below 70 percent, the Rate Collar will increase by 0.3 percent for every percentage point under the 70 percent funded level until it reaches six percent at the 60 percent funded level. This policy revision is expected to be adopted at the September 27, 2013 PERS Board meeting.

The City’s 2013-2015 employer contribution rates were originally reported in the 2011 City Report. However, legislation was signed by the Governor on May 6, 2013 (“SB 822”) that includes changes to compensation and benefits of PERS covered

employees that is estimated to reduce the new employer contribution rate by 2.5% of payroll. SB 822 also includes a direction to the PERS Board to defer a 1.9% of payroll rate increase into future biennia. The anticipated cost to the System of the 1.9 percent contribution rate deferral is approximately \$350 million, which will result in an increase in payroll rates of approximately 2.2% of covered payroll in the 2015-2017 biennium. Based on SB 822, at its May 31, 2013 meeting the PERS Board adopted a methodology by which, in general, all jurisdictions received the reduction of the aggregate 4.4 percent of covered payroll in their employer contribution rates for the 2013-2015 biennium; however, no jurisdiction may pay less than the rate it paid in 2011-2013.

The table below shows the City’s employer contribution rates based on the 2009 City Report and the City’s current employer contribution rates based on the methodology adopted by the PERS Board at its May 31, 2013 meeting.

**Table 22**  
**CITY OF PORTLAND, OREGON**  
**Current Employer Contribution Rates and Advisory Rates**  
**(Percentage of Covered Payroll)**

	2011-2013			Current Rates 2013-15		
	T1/T2	OPSRP General	OPSRP P&F	T1/T2	OPSRP General	OPSRP P&F
	Total net pension contribution rate	8.71%	7.19%	9.90%	9.34%	7.52%

Source: City of Portland, Oregon Public Employees Retirement System, 12/31/09 Valuation Report prepared by Mercer Human Resource Consulting and Summary of PERS Employer Contribution Rates prepared by the Oregon Public Employees Retirement System.

For FY 2012-13, one percent of covered payroll for the three pension benefit programs was approximately: \$1,748,163 for T1/T2 Pension Programs; \$1,026,965 for OPSRP general services; and \$273,966 for OPSRP police and fire. 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 reserves, further changes to system valuation methodology and assumptions and decisions by the PERS Board and changes in benefits resulting from legislative modifications.

Lawsuits challenging the constitutionality of the changes made by SB 822 have been filed in the Oregon Supreme Court. In one of the lawsuits, two of the thirteen petitioners (a current City employee and a retired City employee) have named the City as a respondent in the case. The City cannot predict whether SB 822, or any related actions of the PERS Board, will withstand any legal challenges.

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 any or all of 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 rates reported in Table 11 above do not include the six percent and nine percent employee contribution rates for contributions to the IAP paid by the City.

In addition to the City’s employer rate, each City bureau is required to make a contribution to pay debt service on outstanding Limited Tax Pension Obligation Revenue Bonds originally issued in FY 1999-2000 to fund the City’s share of the unfunded actuarial liabilities of PERS as of December 31, 1997.

**Fire and Police Disability and Retirement Fund**

The following discussion pertains to the City’s Fire and Police Disability and Retirement (“FPDR”) Fund. Most of the fire and police sworn personnel are covered under the FPDR Plan. The FPDR Plan consists of three tiers, two of which are now closed to new employees. 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. FPDR Three participants are part of OPSRP for retirement benefits and are under the FPDR Plan for disability and death benefits. For information regarding OPSRP and the employee and employer contribution rates for OPSRP see “PENSION PLANS – General,” above. The authority for the FPDR

Plan's vesting and benefit provisions is contained in the Charter of the City. A ballot measure approved by voters November 6, 2012 changed the eligibility for membership in the FPDR Plan of fire and police personnel from generally upon employment to after six months of continuous sworn employment. The FPDR Plan provides for service connected disability benefits at 75 percent of salary, reduced by 50 percent of any wages earned in other employment with a 25 percent of salary minimum, for the first year of disability and 25 to 75 percent of salary in later years, depending on medical status and ability to obtain other employment. The FPDR Plan also provides for non-service connected disability benefits at reduced rates of base pay.

Effective July 1, 1990, the FPDR Plan was amended to create the FPDR Two tier, which provides for the payment of benefits upon termination of employment on or after attaining age fifty-five, or on or after attaining age fifty if the member has twenty-five or more years of service. Members become 100 percent vested after five years of service. Members enrolled in the FPDR Plan 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.

On November 7, 2006, voters in the City of Portland passed a measure that created the FPDR Three tier and changed the retirement plan benefits of new members to OPSRP. The FPDR levy pays the employee and employer portions of the OPSRP contribution. This move is expected to increase property taxes for 35 years. Performance audits have been implemented to assess the implementation of the FPDR Plan reforms. The initial and follow-up disability program audits have been performed, and a pension program audit was completed in January 2010.

Another ballot measure passed by the voters November 6, 2007, also made new retirees from active service eligible for payment by the FPDR Fund of medical and hospital expenses associated with their job-related injuries and illnesses accepted before retirement. The change is effective for retirees after January 1, 2007. New state legislation governing workers' compensation law requires that the FPDR Fund treat 12 cancers as presumptive occupational illnesses for firefighters effective January 1, 2010.

The November 6, 2012 ballot measure also clarified final pay calculations, eliminated a provision to increase vested termination benefits if the member was subsequently employed in PERS-covered service prior to FPDR retirement, and reduced the eligibility threshold for non-service connected death before retirement from ten years of service to five.

The FPDR Plan is funded by 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) not exempt from such levy. In the event that funding for the FPDR Plan is less than the required payment of benefits to be made in any particular year, the FPDR Fund could receive advances from the FPDR Reserve Fund first and other City funds second, to make up the difference. Repayment of advances, if any, would be made from the special property tax levy in the succeeding year. In the event that the special property tax levy is insufficient to pay benefits because benefits paid exceed the two and eight-tenth mills limit, other City funds would be required to make up the difference. The FY 2012-13 levy of \$123,564,952 required a tax rate of \$2.6080 per \$1,000 of assessed property value, or approximately \$1.5466 per \$1,000 of gross real market value.

In accordance with the Charter's provisions, there are no requirements to fund the Plan using actuarial techniques, and the Charter indicates that the City cannot pre-fund the FPDR Plan benefits. As required by the Charter, the FPDR Fund's Board of Trustees estimates the amount of money required to pay and discharge all requirements of the FPDR Fund for the succeeding fiscal year and submits this estimate to the City Council. The Council is required by Charter to annually levy a tax sufficient to provide amounts necessary to fund the estimated requirements for the upcoming year provided by the FPDR Fund's Board of Trustees. 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, City funds.

The FPDR Fund's Board periodically assesses the future availability of property tax revenues by having projections and simulations performed in connection with the Actuarial Valuation of the Fund. The most recent assessment was as of June 30, 2012. The Fund's Board believes that, under a wide range of simulated economic scenarios in the foreseeable future, the future FPDR Fund levy would remain under \$2.80 per \$1,000 of real market value, but reaching the \$2.80 threshold has a five percent or greater probability level starting in fiscal year 2028 and an almost 10 percent probability in fiscal year 2030. The levy requirement is expected to begin declining in fiscal year 2031.

Recognizing that the economic conditions have changed significantly over the past few years, the City reviewed the discount rate and assumptions utilized in the calculations of the actuarial valuation, including actuarial accrued pension liabilities and net pension obligation, and determined they should be revised to more closely match the funding and investment returns that actually are achieved under existing investment. The City revised the rate for the June 30, 2012, valuation from 4.00 percent to 3.50 percent. This change increased the unfunded actuarial liability by \$226 million. Overall the unfunded actuarial liability increased from \$2.53 billion on July 1, 2010 to \$2.88 billion on July 1, 2012.

## **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 2009 City Report, the City’s allocated share of the RHIA program’s UAL is \$10,603,769 as of December 31, 2009, and according to the 2010 City Report, the City’s allocated share of the RHIA program’s UAL is \$11,064,746 as of December 31, 2010.

The City’s current total contribution rate to fund RHIA benefits for T1/T2 employees is 0.59 percent and for OPSRP general services employees and police and fire employees is 0.50 percent.

### **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”). 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 was 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 3.5 percent investment rate of return, and annual healthcare cost trend rates of one to 9.5 percent for health insurance, zero to six percent for dental insurance, and zero to three percent for vision. 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, 2011 (the date of the most recent actuarial valuation), is estimated to be \$104,946,292. 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, 2013.

For FY 2011-12, the annual required contribution (the “ARC”) of the employer to be recognized as the annual employer OPEB cost was \$9,395,189. For fiscal year ended June 30, 2012, the City benefits paid on behalf of retirees exceeded the premiums they paid by \$3,694,083. The City elected to not pre-fund the FY 2011-12 employer’s annual required contribution to the plan (ARC) of \$9,395,189. The amount unfunded in FY 2011-12 is \$32,415,855, which is the OPEB obligation from the beginning of the fiscal year, plus the ARC for FY 2011-12, less payments made in relation to the FY 2011-12 ARC. The City expects to use a pay-as-you-go approach to fund its actuarial accrued liability and ARC, but will monitor its OPEB liability and assess whether a different approach is needed in future years.



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**APPENDIX E**  
**CITY ECONOMIC CHARACTERISTICS**

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## **CITY ECONOMIC CHARACTERISTICS**

The City, with an estimated population of 587,865 as of July 1, 2012, comprises an area of approximately 135 square miles in northwestern Oregon. Located astride the Willamette River at its confluence with the Columbia River, the City is the center of commerce, industry, transportation, finance and services for a metropolitan area with an estimated population of approximately 2.2 million people as of July 1, 2012. The City is the county seat of Multnomah County and is the largest city in Oregon and the second largest city in the Pacific Northwest.

### **PORTLAND-VANCOUVER-BEAVERTON METROPOLITAN STATISTICAL AREA**

The Portland-Vancouver-Beaverton Metropolitan Statistical Area (the “MSA”) consists of Multnomah, Clackamas, Washington, Yamhill, and Columbia counties in Oregon, and Clark and Skamania counties in Washington. Metropolitan statistical areas are based on commuting patterns within a metropolitan area, and are used primarily for labor, employment and unemployment statistics.

Multnomah County encompasses the cities of Portland, Gresham, Troutdale, Fairview and Wood Village. Washington County contains Beaverton, Tigard, Tualatin and Hillsboro. Clackamas County includes Milwaukie, Oregon City, Lake Oswego, West Linn and Happy Valley. The cities of St. Helens and Scappoose are located in Columbia County. Yamhill County includes McMinnville and Newberg. Clark County contains Vancouver and Camas. Skamania County includes Stevenson, Carson and Skamania.

**POPULATION**

The population for the City has increased steadily over the past decade, as shown in the table below.

**Table E-1  
CITY OF PORTLAND, OREGON  
Population Estimate for the Last Ten Years**

<b>As of July 1</b>	<b>State of Oregon</b>	<b>City of Portland</b>	<b>MSA <sup>(1)</sup></b>	<b>Multnomah County</b>	<b>Washington County</b>	<b>Clackamas County</b>
2003	3,541,500	545,140	2,019,250	677,850	472,600	353,450
2004	3,582,600	550,560	2,050,650	685,950	480,200	356,250
2005	3,631,440	556,370	2,082,240	692,825	489,785	361,300
2006	3,690,505	562,690	2,121,910	701,545	500,585	367,040
2007	3,745,455	568,380	2,159,720	710,025	511,075	372,270
2008	3,791,075	575,930	2,191,784	717,880	519,925	376,660
2009	3,823,465	582,130	2,216,785	724,680	527,140	379,845
2010	3,837,300	583,775	2,230,578	736,785	531,070	376,780
2011	3,857,625	585,845	2,245,400	741,925	536,370	378,480
2012	3,883,735	587,865	2,265,725	748,445	542,845	381,680
2003-2012 Compounded Annual Rate of Change	1.0%	0.8%	1.3%	1.1%	1.6%	0.9%
2008-2012 Compounded Annual Rate of Change	0.6%	0.5%	0.8%	1.0%	1.1%	0.3%

Notes: The federal Census figures, as of April 1 of the stated year, are as follows:

	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2010</b>
State of Oregon	2,633,156	2,842,321	3,421,399	3,831,074
Multnomah County	562,647	583,887	660,486	735,334
City of Portland	368,139	438,802	529,121	583,776
Washington County	245,860	311,554	445,342	529,710
Clackamas County	241,911	278,850	338,391	375,992

Notes:

(1) Portland State University Population Research Center defines the Portland-Vancouver-Beaverton Metropolitan Statistical Area as Multnomah, Washington, Clackamas, Columbia and Yamhill counties in Oregon and Clark and Skamania Counties in Washington.

Source: Washington State Office of Financial Management; Portland State University, Center for Population Research. Under Oregon State law, the State Board of Higher Education must estimate annually the population of Oregon cities and counties so that shared revenues may be properly apportioned. The Center for Population Research and Census at Portland State University performs this statutory duty.

## INCOME

Table E-2 below shows personal income and per capita income for the MSA compared to similar data for the State and nation.

**Table E-2**  
**CITY OF PORTLAND, OREGON**  
**Total Personal Income and Per Capita Income**  
**MSA, Oregon, and the United States**

Year	Total Personal Income MSA (millions)	Per Capita Income		
		MSA	Oregon	USA
2002	\$66,298	\$33,101	\$29,797	\$31,481
2003	68,222	33,705	30,582	32,295
2004	70,927	34,780	31,650	33,909
2005	74,750	36,158	32,557	35,452
2006	80,794	38,416	34,706	37,725
2007	85,305	39,903	35,950	39,506
2008	89,977	41,410	37,407	40,947
2009	85,103	38,565	35,159	38,637
2010	87,940	39,384	35,906	39,791
2011	93,449	41,302	37,527	41,560
2002-2011 Compounded Annual Rate of Change	3.9%	2.5%	2.6%	3.1%

Source: U.S. Department of Commerce, Bureau of Economic Analysis, as of November 26, 2012.

## LABOR FORCE AND UNEMPLOYMENT

Table E-3 below shows the annual average civilian labor force, employment level and unemployment level data that is available for the MSA for the period 2003 through 2012. For June 2013, the seasonally-adjusted unemployment rate for the MSA was 7.3 percent (7.5 percent not seasonally-adjusted) with a resident civilian labor force of 1,175,090. Table E-4 below shows the seasonally-unadjusted, average annual unemployment rates for the MSA, the State and the United States for the period 2003 through 2012.

**Table E-3  
CITY OF PORTLAND, OREGON  
MSA Labor Force and Unemployment Rates<sup>(1)</sup>**

<b>Year</b>	<b>Resident Civilian Labor Force</b>	<b>Unemployment</b>		<b>Total Employment</b>
		<b>Number</b>	<b>Percent of Labor Force</b>	
2003	1,090,119	90,082	8.3%	1,000,037
2004	1,089,204	76,576	7.0	1,012,628
2005	1,097,592	64,282	5.9	1,033,310
2006	1,121,350	56,388	5.0	1,064,962
2007	1,142,519	55,274	4.8	1,087,245
2008	1,169,791	69,708	6.0	1,100,083
2009	1,185,625	127,688	10.8	1,057,937
2010	1,189,827	126,187	10.6	1,063,640
2011	1,195,738	109,302	9.1	1,086,436
2012	1,194,777	96,225	8.1	1,098,552

Notes:

(1) Includes non-agricultural wage and salary, self-employed, unpaid family workers, domestics, agricultural workers and labor disputants. Not seasonally adjusted.

Source: Oregon Employment Department as of January 2013.

**Table E-4  
CITY OF PORTLAND, OREGON  
Average Annual Unemployment  
MSA, Oregon, and the United States  
(Not Seasonally Adjusted)**

<b>Year</b>	<b>MSA</b>	<b>State of Oregon</b>	<b>USA</b>
2003	8.3%	8.1%	6.0%
2004	7.0	7.3	5.5
2005	5.9	6.2	5.1
2006	5.0	5.3	4.6
2007	4.8	5.2	4.6
2008	6.0	6.5	5.8
2009	10.8	11.1	9.3
2010	10.6	10.8	9.6
2011	9.1	9.5	8.9
2012	8.1	8.6	8.1

Source: Oregon Employment Department as of January 2013.

## EMPLOYMENT BY INDUSTRY

Non-manufacturing employment (including government) accounts for about 89 percent of non-farm employment in the Portland area. The Portland metropolitan area's manufacturing employment, accounting for the remaining 11 percent of area employment, is largely based in the metals and computer and electronic equipment sectors.

**Table E-5**  
**CITY OF PORTLAND, OREGON**  
**Portland-Vancouver-Beaverton, Oregon MSA**  
**Non-Farm Wage and Salary Employment <sup>(1)</sup>(000)**

<b>Industry</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Total nonfarm employment	<b>1,034,300</b>	<b>973,800</b>	<b>965,500</b>	<b>975,900</b>	<b>1,001,000</b>
Total private	<b>887,300</b>	<b>825,700</b>	<b>817,700</b>	<b>830,700</b>	<b>856,100</b>
Manufacturing	<b>123,200</b>	<b>109,100</b>	<b>106,700</b>	<b>108,300</b>	<b>113,000</b>
Durable goods	93,500	81,700	79,300	81,000	84,500
Wood product manufacturing	4,800	3,700	3,500	3,400	3,200
Primary metal manufacturing	7,100	5,800	5,600	5,800	5,300
Fabricated metal manufacturing	13,400	11,100	11,100	11,300	12,400
Machinery manufacturing	8,300	7,000	7,000	7,400	8,500
Computer/electronic manufacturing	35,900	33,900	33,200	34,300	35,300
Transportation equipment manufacturing	8,600	7,000	6,300	6,500	7,000
Nondurable goods	29,600	27,400	27,300	27,400	28,500
Food manufacturing	9,200	9,100	9,300	9,500	10,100
Paper manufacturing	4,500	3,900	3,600	3,300	3,200
Non-Manufacturing	<b>764,200</b>	<b>716,900</b>	<b>711,100</b>	<b>722,600</b>	<b>743,100</b>
Construction and mining	62,400	50,600	45,800	46,000	50,700
Trade, transportation, and utilities	203,900	189,700	186,700	190,600	194,600
Wholesale Trade	57,800	54,400	52,500	53,000	56,200
Retail trade	108,500	101,100	101,100	103,800	104,900
Transportation, warehousing, and utilities	37,600	34,200	33,100	33,900	33,500
Information	24,600	22,900	22,300	22,200	22,100
Financial activities	67,800	63,800	61,800	62,100	61,800
Professional and business services	136,500	124,900	126,600	129,700	133,300
Educational and health services	132,600	135,200	139,000	143,200	144,700
Leisure and hospitality	99,300	94,500	93,900	94,700	101,400
Other services	37,100	35,300	35,000	34,100	34,500
Government	<b>147,000</b>	<b>148,100</b>	<b>147,800</b>	<b>145,200</b>	<b>144,900</b>

Notes:

(1) Totals may not sum due to rounding.

Source: State of Oregon, Employment Department as of January 2013.

**Table E-6**  
**CITY OF PORTLAND, OREGON**  
**Major Employers in the MSA**

<b>Employer</b>	<b>Product or Service</b>	<b>Estimated Employment</b>
<b>Private Employers</b>		
Intel Corporation	Computer and electronic products	16,700
Providence Health System	Health care & health insurance	14,132
Fred Meyer Stores	Grocery & retail variety chain	10,176
Kaiser Foundation of the Northwest	Health care	9,896
Legacy Health System	Health care	9,835
NIKE Inc.	Sports shoes and apparel	7,000
Wells Fargo	Bank	4,794
U.S. Bank	Bank & holding company	4,000
Southwest Washington Medical Center	Health care	3,300
Daimler Trucks North America	Heavy duty trucks	2,800
New Seasons Market	Grocery	2,400
Target Corp.	Retail	2,173
The Standard	Insurance	2,105
<b>Public Employers</b>		
Oregon Health and Science University	Health care & education	14,106
U.S. Federal Government	Federal government	13,900
City of Portland	Government	9,318
State of Oregon	State government	7,559
Evergreen School District	Education	6,500
Portland School District	Education	6,500
Multnomah County	Government	4,400
Beaverton School District	Education	4,000
Portland State University	Education	3,749
Portland Community College	Education	3,372
Vancouver School District	Education	3,200
TriMet	Mass transit	2,550

Source: Portland Business Journal, July 12, 2013.

## **REAL ESTATE**

### **Industrial**

A diverse mix of industrial properties are located throughout the Portland metropolitan area for all types of industrial use, including more than 160 million square feet of industrial and business park space. On the eastside, the Columbia Corridor is the largest industrial area in Oregon, containing approximately 22,600 acres or 28 square miles along an 18-mile stretch of land that runs along the southern shore of the Columbia River. The Columbia Corridor includes the Rivergate Industrial District, marine terminals, and Portland International Airport (“PDX”). The Rivergate Industrial Park is a 2,800-acre area owned by The Port of Portland (the “Port”) in North Portland. In addition to Rivergate’s access to the Columbia River and PDX, the area qualifies local businesses for participation in the Enterprise Zone and related tax incentives.

Just west of the City, the Sunset Corridor has emerged as the center for Oregon’s high technology industry, including Intel’s approximately 16,000-employee campuses. This area parallels a major east/west highway (U.S. Highway 26) in the western metropolitan area. Another large submarket for industrial and flex space is the Interstate 5 (“I-5”) Corridor, which extends from S.W. Portland to the City of Wilsonville along I-5.

Portland’s industrial sector has endured the economic downturn and is showing increasing leasing activity according to Cushman & Wakefield in their publication *Marketbeat—Industrial Snapshot, Portland, OR, Q2 2013*. Cushman & Wakefield report that overall vacancy rates remain flat in the first quarter 2013 at 7.5 percent, approximately the same as the first quarter 2012 rate of 7.4 percent. The second quarter 2013 vacancy rate is up 0.1 percentage points from the second quarter 2012 rate of 7.4 percent. Cushman & Wakefield note that rental rates have stabilized in almost all submarkets and product types, with overall net absorption of approximately negative 1,029,689 square feet through the second quarter of 2013. A total of 73,865 square feet of new construction is reported to be underway, and most of the new development reported to be underway is build-to-suit.

### **Office**

The Portland metropolitan area office market is home to diverse architectural styles ranging from Class-A office space to unique historical buildings in downtown Portland.

The office market also is showing signs of improvement with increased leasing activity, as reported in *Marketbeat—Office Snapshot, Portland, OR, Q2 2013* prepared by Cushman & Wakefield. The second quarter overall vacancy rate for the Portland region was 13.0 percent, down from the second quarter 2012 vacancy rate of 15.1 percent. The second quarter 2013 overall vacancy rate in the downtown central business district remained relatively unchanged at 10.6 percent, approximately the same as the fourth quarter 2012 vacancy rate of 10.7 percent. Overall absorption in the central business district totaled 163,875 square feet for the second quarter of 2013. The suburban market was weaker, with a second quarter 2013 overall vacancy rate of 15.5 percent. Class A office space in the downtown continues to fare better than the rest of the market, with asking rents averaging \$26.44 per square foot compared to \$21.70 per square foot for the Class A space in the Portland region’s suburban market.

### **Housing**

The year-to-date median selling price of a home in the Portland metropolitan area through April 2013 was \$250,000, up 15.6 percent from the April 2012 year-to-date price of \$216,200, according to the Realtors Metropolitan Area Multiple Listing Service (“RMLS”). Through April 2013, homes in the Portland metropolitan area were on the market an average of 107 days during the year. According to RMLS, through April 2013, the Southeast, West Portland, and Northeast regions were the most active residential real estate areas, with 841, 742, and 719 closed sales, respectively. Portland metropolitan area closed sales year-to-date were up 12.9 percent from the same period in 2012.

The table below compares the median home sale price for the first quarter of 2012 and 2013 in the Portland metropolitan region and with the nation.

**Table E-7  
CITY OF PORTLAND, OREGON  
Median Home Sale Price  
(U.S. and Portland Metropolitan Area)**

<b>Region</b>	<b>1st Quarter 2012</b>	<b>1st Quarter 2013</b>	<b>Percent Change</b>
U.S.	\$158,600	\$176,600	11.3%
Portland Metro. Area	208,600	246,500	18.2%

Source: National Association of Realtors and RMLS.

The market for condominiums has rebounded, and shows growth that is higher than the nation for the first quarter of 2013 as shown in the table below.

**Table E-8  
CITY OF PORTLAND, OREGON  
Median Condo/Coop Sale Price  
(U.S. and Portland Metropolitan Area)**

<b>Region</b>	<b>1st Quarter 2012</b>	<b>1st Quarter 2013</b>	<b>Percent Change</b>
U.S.	\$156,200	\$172,400	10.4%
Portland Metro. Area	135,800	160,800	18.4%

Source: National Association of Realtors and RMLS.

Residential building permits are an indicator of growth in a region. The number and value of new single-family and multi-family residential building permits for Portland are shown below.

**Table E-9  
CITY OF PORTLAND, OREGON  
New Single-family and Multi-family  
Residential Construction Permits**

<b>Year</b>	<b>New Single Family</b>		<b>New Multi-Family</b>	
	<b>No. of Permits</b>	<b>Value</b>	<b>No. of Permits</b>	<b>Value</b>
2003	1,093	\$176,408,264	198	\$195,489,464
2004	956	162,215,542	161	153,283,224
2005	981	172,372,705	196	247,646,057
2006	1,256	232,917,661	164	241,125,419
2007	1,205	236,732,683	179	346,708,925
2008	648	126,171,068	73	410,957,333
2009	427	86,645,801	15	44,978,728
2010	435	95,809,473	30	86,511,573
2011	451	101,302,272	44	92,746,314
2012	644	148,883,319	64	166,493,454

Source: U.S. Census Bureau as of May 16, 2013.



## **TRANSPORTATION AND DISTRIBUTION**

Location and topography have established the City as a leading warehousing and distribution center for the Pacific Northwest. The City's location at the head of deep-water navigation on the Columbia River system gives it geographic and, therefore, economic advantages for the shipment of freight.

The Port is a port district encompassing Multnomah, Clackamas and Washington counties. The Port owns and maintains four marine terminals, four airports, and seven business parks. In tonnage of total waterborne commerce, the Port is currently ranked as the third largest volume port on the West Coast. The Port is the largest wheat export port in the United States and is the largest volume auto handling port and mineral bulks port on the West Coast. Leading exports include wheat, soda ash, potash and hay. Leading imports include automobiles, petroleum products, steel and limestone.

In 2012, 544 ocean-going vessels made calls at Port facilities. Total maritime tonnage in 2012 decreased by 7.7 percent to 12.35 million short tons in 2012 compared to 13.38 million in 2011.

The Columbia River ship channel extends from the Portland Harbor to the Pacific Ocean 110 miles downstream. In 2005, the Columbia River Channel Deepening Project was initiated to improve navigation to accommodate the current fleet of international bulk cargo and container ships and to improve the condition of the Columbia River estuary through the completion of other environmental restoration projects. The project deepened the Columbia River by three feet, to 43 feet along a 103-mile stretch of river from the Pacific Ocean to Portland and was completed in November 2010.

The Columbia River provides the only water route through the Cascade Mountains to the agricultural regions of eastern Oregon, Washington, and northern Idaho. This region has been opened to slack-water barge navigation by means of locks installed in a series of federal hydroelectric projects on the lower Columbia River and its largest tributary, the Snake River. There are two primary barge lines providing service between the upriver ports and Portland. In addition, the Columbia River Gorge forms a corridor through the Cascades which, because it is level, provides an economical rail and highway route between the City and the region east of the Cascade mountains.

Portland is also in a strategic position to serve the Willamette Valley, which extends approximately 145 miles south from the City and is one of the nation's most diversified and productive agricultural regions and food processing centers.

PDX handled approximately 14.4 million passengers in 2012, with more than 400 flights daily. This includes nonstop service on international flights to Amsterdam, Netherlands; Tokyo, Japan; Calgary, Alberta; Vancouver, British Columbia; and Toronto, Ontario. In 2012, 211,873 short tons of cargo and 7,168 short tons of mail were handled by PDX. Portland is also served by three publicly operated general aviation airports located in the suburban areas.

Two major railroads—the Burlington Northern Santa Fe and Union Pacific—plus the Amtrak passenger train system serve the City.

Transportation is facilitated by a highway system that includes I-5, the primary north-south highway artery of the West Coast, and two by-pass routes, Interstate 205 and Interstate 405, within and around the City. The primary east-west highway system is Interstate 84, which begins at Portland and heads east along the Columbia River to Idaho and beyond. The Portland metropolitan area is also served by U.S. highways 26 and 30, Oregon highways 43, 213, 217, 224, 99E, 99W, the Tualatin Valley Highway, the historic Columbia River Highway, nine bridges across the Willamette River and two bridges across the Columbia River.

The Tri-County Metropolitan Transportation District of Oregon ("TriMet"), the regional public transit agency, provides rail and bus service throughout the Portland metropolitan area. During TriMet's fiscal year, from July 2011 through June 2012, passengers boarded a TriMet bus or train approximately 102 million times.

TriMet's light rail system ("MAX") connects the cities of Portland, Gresham, Beaverton and Hillsboro, and PDX. In 2009, TriMet completed an 8.3 mile extension of the light rail line, providing service along Interstate-205 between Clackamas Town Center through downtown Portland to Portland State University. Tri-Met is currently underway with the Portland-Milwaukie light rail extension, which will connect downtown Portland to Milwaukie. This 7.3 mile line is expected to be

operational in 2015. In 2008, TriMet began service on the Washington County Commuter Rail, which runs from Beaverton to Wilsonville.

The Portland Streetcar connects South Waterfront area along the Willamette River with the Pearl District and Northwest Portland. The Portland Streetcar is owned and operated by the City, and has entered into contracts with TriMet for train operators and mechanics. An extension of the streetcar line to Portland's east side is currently underway. The extension will cross the Willamette River using the Broadway Bridge, travel through the Lloyd District, continue south along Martin Luther King, Jr. Boulevard, and make a loop at either SE Mill or Stephens Street before returning back along Grand Avenue. The project was completed in September 2012. . The next phase in the Portland Streetcar construction will be the "Close the Loop" project. This project will connect the Portland Streetcar to the TriMet Portland-Milwaukie light rail line bridge on both sides of the Willamette River, closing the southern end of the Loop. The "Close the Loop" project is scheduled to open in the fall of 2015 in conjunction with the opening of the Portland-Milwaukie Light Rail Project.

The Portland Aerial Tram ("Tram") opened in January 2007. The Tram, which is owned by the City and operated by Oregon Health and Science University ("OHSU"), links OHSU's North Macadam offices and its Marquam Hill campus.

## **TOURISM, RECREATION AND CULTURAL ATTRACTIONS**

Portland is the State's largest city and the center of business and transportation routes in the State. Therefore, the City accommodates a large share of the State's tourist and business visitors. The City is a destination for many tourists who are drawn to its diverse cultural and recreational facilities. These include the Oregon Symphony and associated musical organizations, Portland Center for the Performing Arts, Oregon Ballet, Portland Opera, Portland Center Stage, Portland Art Museum, Oregon Historical Society Museum, Children's Museum, Oregon Museum of Science and Industry, Forest Discovery Center (formerly World Forestry Center), Japanese Gardens, International Rose Test Gardens, the Lan Su Chinese Garden and the Oregon Zoo. The metropolitan area includes more than 40 other local theater and performance art companies and ten additional gardens of special interest. Portland is the home of Forest Park, the largest urban park in the United States with a total of more than 5,000 acres. A prime tourist attraction for the City, known as the City of Roses, is the three-week long Portland Rose Festival held each June since 1907. More than two million participants enjoy the festival annually.

A 90-minute drive from Portland in almost any direction provides access to numerous recreational, educational, and leisure activities. The Pacific Ocean and the Oregon Coast to the west, the Columbia Gorge and Mt. Hood, Mt. St. Helens and Mt. Adams in the Cascade Range to the east, and the Willamette Valley to the south offer opportunities for hiking, camping, swimming, fishing, sailboarding, skiing, wildlife watching, and numerous other outdoor activities.

The National Basketball Association ("NBA") Portland Trail Blazers play at the Rose Garden Arena complex (which includes the Veteran's Memorial Coliseum), as do the major-junior Western Hockey League ("WHL") Portland Winterhawks. JELD-WEN Field (formerly PGE Park) was recently renovated for major league soccer and is the home of the Major League Soccer ("MLS") Portland Timbers and National Women's Soccer League ("NWSL") Portland Thorns FC.

## **HIGHER EDUCATION**

Within the Portland metropolitan area are several post-secondary educational systems. Portland State University ("PSU"), the largest university in the Oregon University System, is located on a campus encompassing an area of over 28 blocks adjacent to the downtown business and commercial district of Portland. PSU offers over 220 undergraduate, masters, and doctoral programs. Enrollment for the Fall 2012 term was approximately 28,731 students. PSU is noted for the development of programs specifically designed to meet the needs of the urban center.

Oregon State University and the University of Oregon, also within the Oregon University System, have field offices and extension activities in the Portland metropolitan area.

OHSU's Marquam Hill campus sits on more than 100 acres overlooking downtown Portland. OHSU includes the schools of dentistry, medicine, nursing, and science and engineering. OHSU also includes Doernbecher Children's Hospital and OHSU Hospital, as well as primary care and specialty clinics, research institutes and centers, interdisciplinary centers, and

community service programs. Enrollment at the Portland campus for 2011-12 was approximately 1,986 medical, dental, nursing, science, and allied health students.

Independent colleges in the Portland metropolitan area include Lewis & Clark College, University of Portland, Reed College, Linfield College-Portland Campus, ITT Technical Institute, and Marylhurst University; and several smaller church-affiliated schools, including Warner Pacific College, Concordia University, George Fox University, and Cascade College. Several community colleges serve the Portland metropolitan area including Portland Community College, Mt. Hood Community College, and Clackamas Community College.

## **UTILITIES**

### **Electric Power and Natural Gas**

Electricity is provided by Portland General Electric Company (“PGE”) and Pacific Power. Low-cost hydroelectric power provides a substantial portion of the area’s energy requirements. NW Natural distributes natural gas.

### **Communications**

Telephone services are provided by CenturyLink and, in some areas, Frontier. The Portland metropolitan area is also served by three cable service providers, primarily Comcast within the Portland city limits, and Frontier and Reliance Connects in other parts of the region.

### **Water, Sewer, and Wastewater**

The City operates the water supply system that delivers drinking water to residents of Portland. About 900,000 people, almost one-quarter of the state’s population, are served by the City’s water system on a wholesale and retail basis within its 225 square mile service area. The primary water source is the Bull Run Watershed, located in the foothills of the Cascades west of Mt. Hood. The City also uses groundwater as a supplemental water supply.

The City also owns, operates, and maintains sanitary and storm water collection, transportation, and treatment systems within its boundaries. The City provides sanitary sewer service to approximately 588,000 people, numerous commercial and industrial facilities, and several wholesale contract customers located adjacent to the City.

## **AGRICULTURE**

Because the City is the primary urban center in the State, agriculture is not a major industry in the greater metropolitan area. The metropolitan area, however, accounted for approximately 18 percent of the State’s Gross Farm and Ranch Sales based on 2012 estimates from the Oregon State University Extension Economic Information Office dated as of April 23, 2013. The 2012 Gross Farm and Ranch Sales in Clackamas County was \$343,513,000; Washington County was \$292,044,000; Yamhill County was \$269,839,000; Multnomah County was \$56,774,000; and Columbia County was \$26,512,000 as estimated by the Oregon State University Extension Service.



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**APPENDIX F**  
**LEGAL OPINION**

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*On the date of issuance of the Bonds, Hawkins Delafield & Wood LLP, Bond Counsel, proposes to issue its approving opinion in substantially the following form:*

September 17, 2013

City of Portland  
1120 SW Fifth Avenue, Room 1250  
Portland, Oregon 97204

Subject: \$210,965,000 City of Portland, Oregon,  
Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A

Ladies and Gentlemen:

We have acted as bond counsel in connection with the issuance by the City of Portland, Oregon (the "City") of its Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A (the "2013 Series A Bonds"), which are dated as of their date of delivery and are in the aggregate principal amount of \$210,965,000. The 2013 Series A Bonds are issued pursuant to City Ordinance No. 185583 enacted by the City Council on August 29, 2012 (the "Ordinance"), an Amended Master Second Lien Sewer System Revenue Bond Declaration dated as of June 19, 2003 (the "Master Second Lien Bond Declaration"), and a Supplemental Bond Declaration dated as of the date of delivery of the 2013 Series A Bonds (the "Supplemental Bond Declaration" and collectively with the Master Second Lien Bond Declaration, the "Declarations"). Capitalized terms used but not defined in this opinion have the meanings defined for such terms in the Declarations.

We have examined the law and such certified proceedings and other documents as we deem necessary to render this opinion.

We have not been engaged or undertaken to review the accuracy, completeness or sufficiency of the official statement or other offering materials which has been or may be supplied to the purchasers of the 2013 Series A Bonds, and we express no opinion relating thereto, excepting only the matters set forth as our opinion in the official statement.

Regarding questions of fact material to our opinion, we have relied on representations of the City in the Ordinance and in the Declarations and in the certified proceedings and on other certifications of public officials and others furnished to us without undertaking to verify the same by independent investigation.

Based on the foregoing, we are of the opinion that, under existing law:

1. The 2013 Series A Bonds have been legally authorized, sold and issued under and pursuant to the Constitution and Statutes of the State of Oregon, the Charter of the City, and the Ordinance. The 2013 Series A Bonds constitute valid and legally binding obligations of the City enforceable in accordance with their terms.

2. The 2013 Series A Bonds are special, limited obligations of the City that are secured solely by and payable solely from the Net Revenues of the City's Sewer System and related amounts that are pledged to pay Second Lien Bonds as provided in the Declarations.

3. Under existing statutes and court decisions and assuming continuing compliance with certain tax covenants described below, (i) interest on the 2013 Series A Bonds is excluded from gross income for Federal income tax purposes pursuant to Section 103 of the Internal Revenue Code of 1986, as amended (the "Code"), and (ii) interest on the 2013 Series A Bonds is not treated as a preference item in calculating the alternative minimum tax imposed on individuals and corporations under the Code; such interest, however, is included in the adjusted current earnings of certain corporations for purposes of calculating the alternative minimum tax imposed on

such corporations. Bond counsel further is of the opinion that, for any 2013 Series A Bonds having original issue discount (a "Discount Bond"), original issue discount that has accrued and is properly allocable to the owners of the Discount Bonds under Section 1288 of the Code is excludable from gross income for Federal income tax purposes to the same extent as other interest on the 2013 Series A Bonds. In rendering our opinion, we have relied on certain representations, certifications of fact, and statements of reasonable expectations made by the City and others in connection with the 2013 Series A Bonds, and we have assumed compliance by the City and others with certain ongoing covenants to comply with applicable requirements of the Code to assure the exclusion of interest on the 2013 Series A Bonds from gross income under Section 103 of the Code.

The Code establishes certain requirements that must be met subsequent to the issuance and delivery of the 2013 Series A Bonds in order that, for Federal income tax purposes, interest on the 2013 Series A Bonds not be included in gross income pursuant to Section 103 of the Code. These requirements include, but are not limited to, requirements relating to the use and expenditure of proceeds of the 2013 Series A Bonds, restrictions on the investment of proceeds of the 2013 Series A Bonds prior to expenditure and the requirement that certain earnings be rebated to the Federal government. Noncompliance with such requirements may cause interest on the 2013 Series A Bonds to become subject to Federal income taxation retroactive to their date of issue, irrespective of the date on which such noncompliance occurs or is ascertained.

On the date of delivery of the 2013 Series A Bonds, the City will execute a Tax Certificate (the "Tax Certificate") containing provisions and procedures pursuant to which such requirements can be satisfied. In executing the Tax Certificate, the City covenants that it will comply with the provisions and procedures set forth therein and that it will do and perform all acts and things required by the Code to assure that interest paid on the 2013 Series A Bonds will, for Federal income tax purposes, be excluded from gross income.

In rendering the opinion in paragraph 3 hereof, we have relied upon and assumed (i) the material accuracy of the representations, statements of intention and reasonable expectation, and certifications of fact contained in the Tax Certificate with respect to matters affecting the status of interest paid on the 2013 Series A Bonds, and (ii) compliance by the City with the procedures and covenants set forth in the Tax Certificate as to such tax matters.

4. Interest on the 2013 Series A Bonds is exempt from Oregon personal income tax.

We note that the City has not designated the Bonds as "qualified tax-exempt obligations" within the meaning of Section 265(b)(3) of the Code.

Except as stated in paragraphs 3 and 4 above, we express no opinion as to any other Federal, state or local tax consequences arising with respect to the 2013 Series A Bonds or the ownership or disposition thereof. We render our opinion under existing statutes and court decisions as of the issue date, and we assume no obligation to update, revise or supplement this opinion after the issue date to reflect any action hereafter taken or not taken, or any facts or circumstances, or any change in law or in interpretations thereof, or otherwise, that may hereafter arise or occur, or for any other reason. Furthermore, we express no opinion herein as to the effect of any action hereafter taken or not taken in reliance upon an opinion of counsel other than ourselves on the exclusion from gross income for Federal income tax purposes of interest on the Bonds.

The portion of this opinion that is set forth in paragraph 1, above, is qualified only to the extent that enforceability of the 2013 Series A Bonds may be limited by or rendered ineffective by (i) bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other laws affecting creditors' rights generally; (ii) the application of equitable principles and the exercise of judicial discretion in appropriate cases; (iii) common law and statutes affecting the enforceability of contractual obligations generally; and (iv) principles of public policy concerning, affecting or limiting the enforcement of rights or remedies against governmental entities such as the City.

This opinion is given as of the date hereof and is based on existing law, and we assume no obligation to update, revise, or supplement this opinion to reflect any action hereafter taken or not taken, or any facts or circumstances that may hereafter come to our attention or any changes in law or interpretations thereof that may hereafter arise or occur, or for any other reason.



This opinion is limited to matters of Oregon law and applicable Federal law, and we assume no responsibility as to the applicability of laws of other jurisdictions.

This opinion is provided to you as a legal opinion only, and not as a guaranty or warranty of the matters discussed herein. No opinions may be inferred or implied beyond the matters expressly stated herein. No qualification, limitation or exception contained herein shall be construed in any way to limit the scope of the other qualifications, limitations and exceptions. For purposes of this opinion, the terms "law" and "laws" do not include unpublished judicial decisions, and we disclaim the effect of any such decision on this opinion.

We have served as bond counsel only to the City in connection with the 2013 Series A Bonds and have not represented any other party in connection with the 2013 Series A Bonds. This opinion is given solely for the benefit of the City in connection with the 2013 Series A Bonds and may not be relied on in any manner or for any purpose by any person or entity other than the City, the owners of the 2013 Series A Bonds, and any person to whom we may send a formal reliance letter, indicating that the recipient is entitled to rely on this opinion.

Very truly yours,



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**APPENDIX G**  
**CONTINUING DISCLOSURE CERTIFICATE**

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## CONTINUING DISCLOSURE CERTIFICATE

**\$210,965,000**

**City of Portland, Oregon**

**Second Lien Sewer System Revenue and Refunding Bonds  
2013 Series A**

This Continuing Disclosure Certificate (the “Certificate”) is executed and delivered by the City of Portland, Oregon (the “City”) in connection with the issuance of the City’s Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A (the “Bonds”).

Section 1. Purpose of Certificate. This Certificate is being executed and delivered by the City for the benefit of the Bondowners and to assist the underwriter(s) of the Bonds in complying with paragraph (b)(5) of the Securities and Exchange Commission Rule 15c2-12 (17 C.F.R. § 240.15c2-12) as amended, (the “Rule”). This Certificate constitutes the City’s written undertaking for the benefit of the Bondowners as required by Section (b)(5) of the Rule.

Section 2. Definitions. Unless the context otherwise requires, the terms defined in this Section shall, for purposes of this Certificate, have the meanings herein specified.

“Beneficial Owner” means any person who has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bonds, including persons holding Bonds through nominees or depositories.

“Bondowners” means the registered owners of the Bonds, as shown on the bond register maintained by the paying agent for the Bonds, and any Beneficial Owners.

“Commission” means the Securities and Exchange Commission.

“EMMA” means the Electronic Municipal Market Access system for municipal securities disclosure established by the MSRB and accessible at <http://emma.msrb.org/>.

“MSRB” means the Municipal Securities Rulemaking Board or any successor to its functions.

“Official Statement” means the final official statement for the Bonds dated September 4, 2013.

“Rule” means the Commission’s Rule 15c2-12 under the Securities Exchange Act of 1934, as the same may be amended from time to time.

Section 3. Financial Information. The City agrees to provide or cause to be provided to the MSRB, the following annual financial information and operating data:

A. The City’s previous fiscal year annual financial statements prepared in accordance with the Oregon Local Budget Law (or any successor statute) and in accordance with generally accepted accounting principles so prescribed by the Governmental Accounting Standards Board (or its successors); and

B. To the extent not included in those annual financial statements, information generally of the type included in the body of the Official Statement under the heading "Sewer System Financial and Operating Information" and in Appendix D: "City Operating and Financial Information."

Section 4. Timing. The information described in Section 3 above shall be provided by the City for each of its fiscal years in which the Bonds are outstanding. The City shall provide that information not later than nine months after the end of each fiscal year, commencing no later than March 31, 2014, for the fiscal year ended June 30, 2013. The City's current fiscal year ends June 30. The City may adjust such fiscal year by providing written notice of the change of fiscal year to the MSRB. In lieu of providing such annual financial information and operating data, the City may cross-reference to other documents provided to the MSRB.

Section 5. Material Events. The City to provide or cause to be provided to the MSRB in a timely manner not in excess of ten business days after the occurrence of the event, notice of any of the following events with respect to the Bonds:

- (a) Principal and interest payment delinquencies;
- (b) Non-payment related defaults, if material;
- (c) Unscheduled draws on debt service reserves reflecting financial difficulties;
- (d) Unscheduled draws on credit enhancements reflecting financial difficulties;
- (e) Substitution of credit or liquidity providers or their failure to perform;
- (f) Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax status of the security, or other material events affecting the tax status of the security;
- (g) Modifications to the rights of security holders, if material;
- (h) Bond calls, if material, and tender offers;
- (i) Defeasances;
- (j) Release, substitution or sale of property securing repayment of the securities, if material;
- (k) Rating changes;
- (l) Bankruptcy, insolvency, receivership or similar event of the obligated person; (Note: For the purposes of the event identified in this paragraph (l), the event is considered to occur when any of the following occur: The appointment of a receiver, fiscal agent or similar officer for an obligated person in a proceeding under the United States Bankruptcy Code or in any other proceeding under state or federal law in which a court or

governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governing body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person.);

(m) The consummation of a merger, consolidation, or acquisition involving an obligated person or the sale of all or substantially all of the assets of the obligated person, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;

(n) Appointment of a successor or additional trustee or the change of name of a trustee, if material.

The City may from time to time choose to provide notice of the occurrence of certain other events, in addition to those listed above, if, in the judgment of the City, such other event is material with respect to the Bonds, but the City does not undertake any commitment to provide such notice of any event except those events listed above.

Section 6. Failure to File Annual Financial Information. The City agrees to provide or cause to be provided, in a timely manner, to the MSRB, notice of a failure by the City to provide the annual financial information described in Section 3 above on or prior to the time set forth in Section 3.

Section 7. Termination. The City's obligation to provide notices of material events shall terminate upon the legal defeasance, prior redemption or payment in full of all of the Bonds. This Certificate, or any provision hereof, shall be null and void if the City (a) obtains an opinion of nationally recognized bond counsel to the effect that those portions of the Rule which require this Certificate, or any provision hereof, are invalid, have been repealed retroactively or otherwise do not apply to the Bonds; and (b) notifies the MSRB of such opinion and the termination of its obligations under this Certificate.

Section 8. Amendment. Notwithstanding any other provision of this Certificate, the City may amend this Certificate provided that the following conditions are satisfied:

A. If the amendment relates to the provisions of Sections 3.A or 3.B or Section 5 hereof, it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of the City with respect to the Bonds, or the type of business conducted;

B. If this Certificate, as amended, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

C. The amendment either (i) is approved by the Bondowners in the same manner as amendments to the Bond Declaration in effect at the time of the amendment or

(ii) does not, in the opinion of nationally recognized bond counsel, materially impair the interests of the Bondowners.

In the event of any amendment of a provision of this Certificate, the City shall describe such amendment in its next annual filing pursuant to Section 3 of this Certificate, and shall include, as applicable, a narrative explanation of the reason for the amendment and its impact on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the City. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of the amendment shall be given in the same manner as for a material event under Section 5 hereof, and (ii) the annual filing pursuant to Section 3 of this Certificate for the first fiscal year that is affected by the change in accounting principles shall present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

Section 9. Bondowner's Remedies Under This Certificate. The right of any Bondowner to enforce the provisions of this Certificate shall be limited to a right to obtain specific enforcement of the City's obligations hereunder, and any failure by the City to comply with the provisions of this undertaking shall not be an event of default with respect to the Bonds. Bondowners may take such actions as may be necessary and appropriate, including seeking mandamus or specific performance by court order, to cause the City to comply with its obligations under this Certificate. A default under this Certificate shall not be deemed a default or an event of default under the documents authorizing issuance of the Bonds, and no monetary damages shall arise or be payable hereunder, and the sole remedy under this Certificate in the event of any failure of the City to comply with this Certificate shall be an action to compel performance.

Section 10. Form of Information. All information required to be provided under this certificate will be provided in an electronic format as prescribed by the MSRB.

Section 11. Filing with EMMA. Any filings required by this certificate to be made with the MSRB may be made through EMMA so long as it is approved by the MSRB.

Section 12. Choice of Law. This Certificate shall be governed by and construed in accordance with the laws of the State of Oregon, provided that to the extent this Certificate addresses matters of federal securities laws, including the Rule, this Certificate shall be construed in accordance with such federal securities laws and official interpretations thereof.

Dated as of the 17th day of September, 2013.

**City of Portland, Oregon**

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Debt Manager



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**APPENDIX H**  
**BOND FEASIBILITY REPORT**

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# **Bond Feasibility Study**

## **Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A**

Prepared for:  
**City of Portland Bureau of Environmental Services**



Prepared by:  
**Galardi Rothstein Group**

JUNE 2013

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June 28, 2013

Mr. Dean Marriott, Director  
Bureau of Environmental Services  
City of Portland  
1120 SW Fourth Avenue, Room 1000  
Portland, OR 97204

**Subject:** Bond Feasibility Study for Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A

Dear Mr. Marriott:

The City of Portland Bureau of Environmental Services (the "Bureau") engaged Galardi Rothstein Group to review the Bureau's historical financial performance and projected financial plan and debt service coverage, in accordance with City of Portland (the "City") First and Second Lien Bond Ordinances. The analysis is being conducted with respect to the City's plans to issue approximately \$209 million of Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A ("2013 Series A Bonds"). [The impact of the refunding has not been incorporated into this report; however, it is expected that the refunding will generate net present value debt service savings in excess of five percent of the Refunded Bonds.]

During the course of this project the Bureau provided Galardi Rothstein Group with a variety of financial data and information. We have relied on this data and information in completing our review of the historical and projected financial results and in our preparation of this report. However, we have not independently verified the data as provided. During the course of our review and analysis, and the preparation of this report, nothing has come to our attention that would cause us to believe that the data provided by the Bureau are unreasonable. It is our opinion that the financial forecasts reported herein demonstrate that the Bureau can support the 2013 Series A Bonds from System net revenues.

We appreciate the opportunity to conduct this review and are prepared to answer any questions regarding its contents.

Sincerely,

A handwritten signature in black ink that reads "Deborah A. Galardi".

Deborah Galardi  
Principal

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## Acronyms and Abbreviations

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BOD	Biochemical Oxygen Demand
ccf	hundred cubic feet
CIP	Capital Improvement Program
City	City of Portland, Oregon
CSO	combined sewer overflow
Bureau	Bureau of Environmental Services
EPA	U.S. Environmental Protection Agency
FY	fiscal year
O&M	operation and maintenance
PERS	Public Employees Retirement System
Net Revenue	Gross revenues less operating expenses
SDC	System Development Charges
sq. ft.	square feet
SS	Suspended Solids
System	City's sanitary sewer and stormwater drainage systems

# 1.0 Introduction

---

## 1.1 Purpose

The purpose of this report is to provide information on the City of Portland Bureau of Environmental Service (the “Bureau”) sanitary sewer and stormwater drainage system (the “System”) financial performance. The report includes information on historical System financial performance for the period Fiscal Year (FY) 2008 – FY 2012, estimated FY 2013 and projected FY 2014 – FY 2018 financial results.

The Bureau has requested that Galardi Rothstein Group prepare this report to demonstrate the financial feasibility of its planned Second Lien Sewer System Revenue and Refunding Bonds, 2013 Series A (the “2013 Series A Bonds”). The 2013 Series A Bonds will be used to fund System improvements and to repay the principal on a line of credit established to pay the costs of System capital improvements and to refund any or all maturities of the City’s Second Lien Sewer System Revenue Bonds, 2003 Series A (the “Refunded Bonds”).

## 1.2 Report Organization

This report contains the following sections:

- **Section 1 - Introduction:** outlines the purpose and content of the report.
- **Section 2 - Financial Planning and Management:** provides an overview of Bureau’s financial planning process, fund structure, and financial policies.
- **Section 3 - Customers and Usage:** describes the System customer classes, accounts and usage for the most recent five-year period.
- **Section 4 - Rates and Charges -** describes the current user rates, capital charges, and rate-setting approach.
- **Section 5 - Historical Performance:** presents the revenues, expenses, and operating results for the period FY 2008 – FY 2012.
- **Section 6 - Forecast System Performance:** presents the projected revenues, expenses, operating results for the period FY 2013 – FY 2018. Projected user rates are also provided, along with a comparison of rates with other utilities.
- **Section 7 - Assumptions and Conclusions:** provides a summary of the key assumptions used in the Bureau’s financial forecast, and Galardi Rothstein Group’s conclusions from the review.



## 2.0 Financial Planning & Management

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An overview of the Bureau's financial planning process, financial policies, and fund structure for financial reporting follows.

### 2.1 Financial Planning Process

The Bureau's financial planning process consists of three key elements:

- Development of the Capital Improvement Plan (CIP);
- Development of the Operating Plan; and
- Development of Revenue Requirements and the Funding Plan.

Initial operating and capital expenditure requirements for the System are developed through separate processes that are then brought together to develop overall revenue requirements and a corresponding 5-year funding program. The first year of the plan serves as the basis for the Bureau's upcoming year budget request. The Bureau also conducts an annual Sewer User Rate Study to determine how annual rate revenue requirements (determined in aggregate, in the financial plan) will be shared among customers of the System.

Each element of the financial planning process is discussed in more detail below.

#### 2.1.1 Development of the CIP

The CIP is developed annually using a multi-step process to identify, develop, review, score, and rank projects for funding and scheduling priority. Project request forms are completed for each project following established guidelines. A Bureau-wide stakeholder review team then scores and ranks all proposed CIP projects in accordance with established evaluation criteria and scoring instructions. The Bureau's CIP management team then evaluates the information from the process and submits final recommendations to the Bureau Director. The Bureau Director reviews the findings, makes further refinements as needed, and approves the CIP plan that is then presented to the City Council for their consideration and adoption.

#### 2.1.2 Development of the Operating Plan

The Bureau's operating planning process focuses on two primary areas: 1) routine utility operations, and 2) regulatory response and watershed health. The routine functions include the day-to-day System operations (including administration support and customer services) and the maintenance of the collection, transportation, treatment, and disposal systems. The annual review focuses on incremental improvements to programs and services, and is part of on-going efforts to review and assess the effectiveness and efficiency of basic operations and services.

Planning related to regulatory response and watershed health includes development of plans and cost estimates related to activities and programs that respond to the System regulatory requirements, or that specifically promote water quality and watershed health.

### 2.1.3 Development of Revenue Requirements and the Funding Plan

Proposed CIP and operational revenue requirements are consolidated and reviewed against available funding over a 5-year forecast period. The operating budget and CIP are then re-examined for opportunities to reduce requirements (and associated rate increases). To the extent possible, the Bureau maintains annual rate increases over the forecast period near the increases forecast in the previous year's plan.

## 2.2 Fund Structure

The Bureau's financial reporting system is organized into five funds, as described below. The first four funds below are included within the Sewage Disposal Fund, as reported in the City of Portland (the "City") audited financial statements.

- **Sewer System Operating Fund**—Accounts for revenues and expenses associated with the development, maintenance, and operation of the System. The additional debt service requirements on the proposed bonds will be recovered from user charges that are collected in this fund and subsequently transferred to the Debt Redemption Fund.
- **Sewer System Debt Redemption Fund**—Provides for the funding the principal and interest on revenue bonds, notes, and state loans issued to finance System improvements. This fund receives transfers from the Operating Fund to pay debt service.
- **Sewer System Construction Fund**—Receives revenues, such as bond proceeds, that are dedicated to System capital projects. Reimburses the Sewer System Operating Fund for direct expenditures for capital projects, as well as indirect costs for personal services and materials and services.
- **Sewer System Rate Stabilization Fund**—Provides the Bureau the ability to smooth forecast rate increases by offsetting annual fluctuations in System revenue requirements. Transfers to and from this fund affect the System gross revenues, operating expenses, and debt service coverage. The Master Ordinance recognizes transfers to the Rate Stabilization Fund as operating expenses in the year in which the transfers are made. Transfers from the Rate Stabilization Fund to the Operating Fund are considered part of gross revenues in the year in which they are transferred.
- **Environmental Remediation Fund**—Currently used by the Bureau to manage the City's participation in the Portland Harbor Superfund investigation. Expenditures for the City's share of the Portland Harbor Superfund investigation are financed through dedicated fees on City utility bills, which are deposited in this fund. This practice allows the Bureau to distinguish the Portland Harbor Superfund investigation from routine sewer system operations, which are budgeted for and funded within the Sewer System Operating Fund.

## 2.3 Financial Policies

The Bureau's financial planning and rate-making processes are guided by a set of policies prepared by the Bureau. These policies include:

**Rate Stabilization:** The Bureau attempts to smooth rate changes over the 5-year forecast interval. This policy is aimed at maintaining financial stability and predictability in context of changing regulatory requirements and operating needs. The Bureau's Rate Stabilization Fund is the primary tool for achieving this policy – transfers from the Rate Stabilization Fund to the Sewer System Operating Fund reduce funding requirements from rates. Such transfers are programmed in years when system requirements exceed target rate increases. Conversely, transfers from the Sewer System Operating Fund to the Rate Stabilization Fund are programmed in years when other funding requirements are less acute. The practice of transferring funds to and from the Rate Stabilization Fund allows the Bureau to manage annual revenue requirements from rates in a manner that is consistent with rate stabilization objectives, and also to be used as a tool to meet debt service coverage and ending fund balance policy objectives (discussed below).

**Rate Setting:** System rates are set on a cost of service basis, meaning that rates are designed to charge customers for their proportional cost of collecting, transporting, and treating discharges to the System. Cost-of-service ratemaking is also required by Environmental Protection Agency rules (40 CFR s 35.2140) as a condition of having received federal grants.

**Debt Service Coverage:** The Bureau's current planning standard is to set rates adequate to provide Net Revenues (gross revenues less operating expenses) including transfers from the Rate Stabilization Fund equal to or greater than 1.50 times the annual debt service requirement on first lien debt, and 1.30 times the annual debt service requirement on all (first and second lien) debt. These targets exceed the requirements specified in the existing debt covenants, which are as follows for outstanding first lien revenue bonds:

- Net income without transfers to or from the Rate Stabilization Fund must be equal to, or greater than 1.0 times the current year debt service.
- Net income including transfers to or from the Rate Stabilization Fund must be equal to, or greater than 1.2 times the current year debt service.

For combined outstanding first lien and second lien bonds, the coverage requirements are:

- Net income without transfers to or from the Rate Stabilization Fund must be equal to, or greater than 1.0 times the current year debt service.
- Net income including transfers to or from the Rate Stabilization Fund must be equal to, or greater than 1.1 times the current year debt service.

The dollar difference between the planning standard and the Bureau's actual debt service coverage requirement provides a margin of safety for meeting the minimum required coverage.

**Ending Fund Balances:** The Bureau's current policy is to maintain combined ending fund balances within the Operating Fund and the Rate Stabilization Funds equal to or greater than 10 percent of each year's operating expenses. If necessary, the Bureau may increase the combined ending fund balance requirement to provide a temporary reserve against additional risks that may arise.

The Construction Fund ending fund balance is targeted at 35 percent of the next year's CIP, or \$500,000, whichever is greater, for planning purposes. Actual ending fund balance will

differ depending on the rate of expenditures within the Bureau's capital program and the timing of CIP borrowings.

## 3.0 Customers & Usage

Sewer rates are the primary source of revenue for the System, both historically and as projected. This section presents information on historical customer growth and usage patterns, as these trends inform assumptions related to future customer growth and revenue.

### 3.1 Customer Growth

Table 3-1 indicates the number of customer accounts by class for the most recent five-year period (FY 2009 through FY 2013). The Bureau tracks customers both by the type of customer (e.g., single-family residential, multifamily residential, and commercial), and the service received (both sanitary and storm, or storm only). Most customers receive both sanitary and stormwater services; however, there are some stormwater only accounts, as shown in Table 3-1.

**Table 3-1**  
**City of Portland**  
**Bureau of Environmental Services**  
**Average Annual Number of Accounts by Customer Class**

Fiscal Year Ending	2009	2010	2011	2012	2013
<u>Residential</u>					
Single-Family	155,138	156,373	155,796	154,300	154,682
Stormwater Only	334	332	328	328	328
Multifamily	10,233	10,260	10,282	10,646	10,736
<b>Total Residential Accounts</b>	<b>165,706</b>	<b>166,965</b>	<b>166,406</b>	<b>165,274</b>	<b>165,745</b>
<u>Commercial/Industrial</u>					
Monthly	3,424	3,406	3,423	3,409	3,418
Quarterly	10,009	9,843	10,008	9,955	9,946
Clean Water to Storm	17	17	15	15	15
Storm Drainage Only					
Monthly	20	20	20	18	20
Quarterly	149	147	145	135	127
<b>Total Commercial &amp; Industrial</b>	<b>13,619</b>	<b>13,433</b>	<b>13,612</b>	<b>13,533</b>	<b>13,526</b>
<b>Total System</b>	<b>179,324</b>	<b>180,398</b>	<b>180,018</b>	<b>178,807</b>	<b>179,272</b>

As shown in Table 3-1, overall, the Bureau's customer base has remained relatively flat throughout the historical period analyzed, despite some annual fluctuations. In the most current year (FY 2013), residential customer growth increased by 0.25 percent, and commercial remained flat.

## 3.2 Customer Usage

Customers are billed sanitary service on the basis of water use (winter average month or actual use); stormwater services are billed based on impervious area (single-family residential accounts set at a class average, and measured for all other customers). Some commercial and industrial customers are also assessed “extra-strength” charges because their wastewater discharge exceeds domestic strength concentrations. For these customers, additional charges are assessed based on the measured or estimated pounds of biochemical oxygen demand (BOD) and Suspended Solids (SS) discharged that are in excess of domestic strength limits.

Table 3-2 presents billing units by customer class for the most recent 5-year period (FY 2009 through FY 2013). For all customer classes, annual sanitary volumes decreased during the historical period, reflecting decreases in water use per account (see Table 3-3 and related discussion) and limited customer growth. Impervious area remained flat for residential customers, but increased slightly for multifamily and commercial customers, primarily as a result of recent Bureau efforts to update impervious area measures.

**Table 3-2**  
**City of Portland**  
**Bureau of Environmental Services**  
**Historical Sanitary Volumes, Impervious Area and Extra Strength Load**

Fiscal Year Ending	2009	2010	2011	2012	Estimated 2013
<u>Residential</u>					
Annual Sanitary Volume (ccf)					
Single-Family	8,619,075	8,466,871	8,177,705	7,995,991	7,974,155
Multifamily	4,277,348	4,173,491	4,130,140	4,057,654	4,017,655
Total Residential Volume (ccf)	12,896,423	12,640,362	12,307,845	12,053,645	11,991,811
Impervious Area (1,000 sq. ft.)					
Single-Family	363,200	363,000	360,060	363,387	363,696
Multifamily	78,926	78,961	78,665	79,137	79,472
<u>Commercial</u>					
Sanitary Volume (ccf)	8,621,224	8,391,167	8,278,451	7,969,513	7,988,978
Impervious Area (1,000 sq. ft)	296,774	301,165	303,264	305,887	314,187
Extra Strength (annual lbs)					
BOD	7,339,760	6,239,669	7,054,928	7,969,689	9,761,874
SS	1,355,098	1,007,255	1,614,212	1,664,223	1,482,415

Extra strength loadings (pounds of BOD and SS) increased in 2011 and 2012 (compared to prior years) as the Bureau expanded its extra-strength program to include additional high strength customers. Prior to 2011, the extra-strength program applied only to a limited number (about 75) large industrial customers whose wastewater discharges are monitored and sampled. The Bureau has expanded the program to include non-monitored customer

types (e.g., restaurants and laundries) where industry data shows average concentrations for these customers to be in excess of domestic strength limits.

Table 3-3 presents historical monthly billable sanitary volumes and impervious area per account (or per dwelling unit for multifamily) for the historical period analyzed. Over this period, sanitary use per account decreased steadily for all customer types, by about 1.8 percent per year for single-family and commercial, and 1.5 percent per year for multifamily. The downward trend moderated some in FY 2013, with single-family residential volumes per account down 0.5 percent and a slight increase for commercial customers.

The reduction in usage levels during the period analyzed is likely related to both conservation efforts (including installation of water efficient plumbing fixtures) and continued slow economic growth. These usage trends have been experienced nationally, as well as locally.

**Table 3-3**  
**City of Portland**  
**Bureau of Environmental Services**  
**Historical Monthly Use per Account/Dwelling Unit**

	Fiscal Year Ending	2009	2010	2011	2012	Estimated 2013
<u>Residential</u>						
Sanitary Volume						
Single-Family (ccf/account)		4.63	4.51	4.37	4.32	4.29
Multifamily (ccf/DU)		4.24	3.94	3.94	4.04	3.99
Impervious Area						
Single-Family (1,000 sq. ft./account)		2.34	2.32	2.31	2.35	2.35
Multifamily (1,000 sq. ft./DU)		0.93	0.92	0.92	0.92	0.92
<u>Commercial</u>						
Sanitary Volume (ccf/account)		53.5	52.8	51.4	49.7	49.8
Impervious Area (1,000 sq. ft./account)		21.8	22.4	22.3	22.6	23.2

Table 3-3 also shows changes in impervious area per account over the historical period. Unlike sanitary volumes, impervious area per account has generally increased, in part due to the Bureau's recent efforts to collect updated measurements for multifamily and commercial customers.

## 4.0 Rates and Charges

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The Bureau prepares a Sewer User Rate Study annually to determine how System revenue requirements from rates should be recovered from individual customer classes and rate components.

### 4.1 User Rates

Table 4-1 shows the historical System rates for the current and previous 4 years. The Bureau's existing rate structure consists of the following three components:

- Sanitary Volume Rates
- Sanitary Extra-Strength Charges
- Impervious Area Charges

**Table 4-1**  
**City of Portland**  
**Bureau of Environmental Services**  
**Historical System Rates and Charges**

Fiscal Year Ending	2009	2010	2011	2012	2013
<b>Residential</b>					
Sanitary Sewage Volume Rate (\$/ccf) (1)	\$6.17	\$6.61	\$7.01	\$7.63	\$8.20
Impervious Area (\$/1,000 sq.ft.) (1)	\$8.07	\$8.64	\$9.42	\$9.65	\$10.18
<b>Commercial/Industrial</b>					
Sanitary Sewage Volume Rate (\$/ccf) (1)	\$6.347	\$6.743	\$7.135	\$7.719	\$8.181
Impervious Area (\$/1,000 sq.ft.) (1)	\$8.77	\$9.25	\$10.00	\$10.30	\$10.77
Clean Water to Storm Sewer Rates (\$/ccf)	\$0.651	\$0.726	\$0.736	\$0.777	\$0.824
<b>Industrial Extra Strength Rates</b>					
BOD (\$/lb)	\$0.505	\$0.527	\$0.547	\$0.583	\$0.574
SS (\$/lb)	\$0.603	\$0.639	\$0.667	\$0.711	\$0.696

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(1) Includes Portland Harbor rates.

The sanitary sewer volume rate recovers costs related to sanitary sewer flows (beginning in the collection system and ending with treatment and discharge) and normal strength loadings (the costs of purifying wastewater). The impervious area charge recovers the costs of the stormwater drainage program which includes the management of both volume and quality of stormwater drainage (generated by impervious surfaces).

The Bureau charges a subset of its commercial/industrial customers for extra strength sanitary sewage discharges based upon either: 1) individual samples taken, or 2) class averages applied to specific types of customers (e.g., restaurants). Separate rates are charged



commercial/industrial customers who discharge “clean water” (water generally used in industrial processes for cooling) directly to the stormwater system.

Sanitary volume and impervious area charges include rates to recover costs associated with the Willamette River/Portland Harbor Superfund investigation. The revenues from these rates are deposited into the Bureau’s Environmental Remediation Fund and are identified separately on the customer’s bill.

#### 4.1.1 Residential Bills

The sanitary volume portion of a residential customer bill is based on the unit costs presented in Table 4-1 and the customer’s individual metered water consumption. During winter periods<sup>1</sup>, residential customers are charged based on actual metered consumption. For non-winter periods, bills are based on the lesser of winter average usage or actual use. Sewer bills for commercial/industrial accounts are based on unit costs, metered water use (except for certain authorized, metered uses of water not discharged to the sanitary sewer system, such as water used for irrigation), and/or metered sanitary sewer discharges.

The average bill for a single-family residential customer currently is \$59.57 (FY 2013), based on the average annual monthly use per account (approximately 4.29 ccf). Table 4-2 provides a comparison of combined sewer and stormwater bills for an average single-family customer, effective as of July 1, 2013, for the Bureau and various agencies on a regional and national level. Sample single-family monthly bills provided in Table 4-2, range from a low of \$16.73 to a high of \$108.08. Variations in bills relate to a number of factors including, whether an agency is subject to NPDES Phase 1 stormwater permitting and CSO requirements (as is the case for the Bureau), and the average usage per account.

The Bureau provides a discount program for low-income customers. The program currently provides a 46 percent discount to qualified low-income residential customers.

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<sup>1</sup> Because customers are billed quarterly and in different cycles, the specific winter period will vary across customers, but is established by the first meter read occurring after February 1 of each year, and includes the previous 3-month period.

**Table 4-2**  
**City of Portland**  
**Bureau of Environmental Services**  
**Comparison of Average Single-Family Combined Sewer and Stormwater Bills (1)**

<b>Local/Regional</b>	<b>Monthly Bill</b>
Seattle, WA	\$80.60
Lake Oswego, OR	73.55
Olympia, WA	63.74
<b>PORTLAND, OR</b>	<b>62.74</b>
Tacoma, WA	62.65
Newport, OR	61.96
Milwaukie, OR	59.95
Woodburn, OR	56.57
Spokane, WA	55.15
Puyallup, WA	53.66
McMinnville, OR	51.83
Vancouver, WA	50.41
Bend, OR	49.70
Yachats, OR	49.25
Tigard, OR	46.70
Clackamas Co. Service District #1, OR	46.45
Beaverton, OR	45.37
Washington. Co. (Clean Water Services), OR	44.70
Eugene, OR	44.50
Tualatin, OR	44.05
Ashland, OR	41.92
Salem, OR	40.82
Corvallis, OR	38.82
Gresham, OR	36.14
<b>National</b>	<b>Monthly Bill</b>
Atlanta, GA	\$108.08
Honolulu, HI	97.20
Juneau, AK	67.34
Cincinnati, OH	66.26
<b>PORTLAND, OR</b>	<b>62.74</b>
Knoxville, TN	59.45
Sacramento, CA	56.98
Richmond, VA	55.60
Kansas City, MO	49.25
San Diego, CA	48.66
Charlotte, NC	48.18
San Francisco, CA	47.36
Washington DC	44.34
Fort Collins, CO	42.46
Boston, MA	42.44
Nashville, TN	36.69
Denver, CO	36.03
Colorado Springs, CO	35.17
Cleveland, OH	25.63
Salt Lake City, UT	16.73

(1) Bills are calculated based on the average sewer volume as reported by each agency, and are estimated to be effective July 1, 2013.

### 4.1.2 Consistency with Industry Practices

The Bureau bases its sewer user rates on cost-of-service principles. This approach is in conformance with EPA guidelines, which require that sewage system operation and maintenance costs be recovered from customers in proportion to system usage.

The primary objective of the Bureau's approach is to set rates and charges in a way that balances equity goals with administrative costs. The techniques the Bureau employs in setting user fees and charges are common to most wastewater and stormwater utilities around the country, and conform to principles established by the Water Environment Federation. There are five basic steps to the rate methodology:

1. Identify total System revenue requirements
2. Apply revenue offsets to calculate "net revenue requirements from rates"
3. Allocate net revenue requirements to service parameters (Flow, Strength, Drainage)
4. Determine unit costs of service for service parameters
5. Calculate sanitary sewer and stormwater rates

An emerging trend in the sanitary sewer industry is the disaggregation of commercial/industrial customers into subclasses based on sewage strengths. The Bureau's expansion of its extra-strength program (discussed previously), is consistent with this trend and cost-of-service principles.

## 4.2 Capital Charges

The Bureau has several charges designed to recover capital costs from new customers of the System. These include the sanitary system development charge (SDC), the stormwater SDC, and line and branch charges. Historical capital charges are provided in Table 4-3. The sanitary and stormwater SDCs are subject to state statutes governing SDCs and have been calculated as "reimbursement fees" under requirements of ORS 223.299. Line and branch charges are not subject to these requirements.

**TABLE 4-3**  
**City of Portland**  
**Bureau of Environmental Services**  
**Sewer System Capital Charges**  
*(Fiscal years ending June 30)*

Source	2009	2010	2011	2012	2013
<b>System Development Charges</b>					
Sanitary (\$/EDU)	\$3,520	\$3,835	\$4,089	\$4,335	\$4,335
Stormwater					
Impervious area (\$/1,000 sq. ft.)	\$136.00	\$145.00	\$154.00	\$164.00	\$164.00
Front Footage (\$/ft)	\$4.27	\$4.52	\$4.78	\$5.12	\$5.12
Vehicle Trip (\$/trip)	\$2.23	\$2.37	\$2.51	\$2.68	\$2.68
<b>Line and Branch Charges</b>					
Line Charge	\$0.99	\$1.11	\$1.20	\$1.29	\$1.39
Branch Charge	\$3,127	\$3,669	\$4,319	\$4,844	\$5,059

EDU = Equivalent Dwelling Unit

The purpose of the Bureau's sanitary and stormwater SDCs is to ensure that new customers pay an equitable portion of the costs of major sanitary and drainage system facilities that serve the entire community. These facilities are normally constructed with excess capacity in anticipation of future growth and development within the community. As this growth occurs, new customers pay connection and development charges to "reimburse" existing ratepayers for a share of the costs of these major facilities. In the case of the stormwater SDC, new customers are also reimbursing existing customers for the provision of the capacity for draining the public right of way, and for draining excess runoff from properties adjacent to the right of way.

Line and branch charges recover the costs of local collector sewers from the properties they serve.

## 5.0 Historical Performance

The Portland City Council has regularly adopted rate increases in order to collect revenue sufficient to fund operating and capital expenditures (including, debt service), and to maintain bond coverage requirements and target ending fund balances.

### 5.1 Revenues

Table 5-1 presents historical System gross revenue. Total revenue from service charges increased steadily during the 5-year period from \$194.1 million to \$244.1 million, which represents an average annual increase of 5.9 percent. Rate revenue during this period increased due to annual increases in user rates. Rate revenue growth was moderated due to the fact that customer usage levels per account decreased.

**Table 5-1**  
**City of Portland**  
**Bureau of Environmental Services**  
**Historical System Gross Revenue (1) By Source (\$1,000) (2)**

Source	2008	2009	2010	2011	2012
Service Charges & Fees	\$194,084	\$207,909	\$217,557	\$231,883	\$244,059
Wholesale Contracts	3,323	3,859	3,206	3,378	3,727
Other Service Charges & Miscellaneous	8,380	3,401	3,011	6,122	3,800
Subtotal Operating Revenue	\$205,787	\$215,169	\$223,774	\$241,384	\$251,586
System Development Charges	11,043	7,791	4,566	5,431	9,138
Interest Earnings	8,231	7,287	2,115	1,981	1,091
Cash Transfers In:					
Transfers from Rate Stabilization	118	10,000	9,750	29,500	18,585
Other Funds	923	1,331	1,234	2,095	2,363
Gross Revenues	\$226,102	\$241,578	\$241,440	\$280,391	\$282,764

Source: Bureau of Environmental Services

(1) Gross Revenues, as defined by the First Lien Bond Ordinance, do not include capital related transfers.

(2) Totals may not sum due to rounding.

In addition to revenue from customer service charges, the Bureau also received \$3.0 to \$4.0 million per year from wholesale service agreements. Other operating revenues include licenses and permits, rents and reimbursements, and miscellaneous sources. Revenue from SDCs generally declined with the local economy during the historical period; however, these revenues have increased in recent years, beginning in FY 2012.

Gross revenues also include interest income and transfers from the Bureau's Rate Stabilization Fund. Rate stabilization fund transfers are used to smooth rate increases, and are included in coverage calculations.

## 5.2 Expenses

Table 5-2 shows historical operating expenses for the System for the historical period. Total operating expenses varied between \$84.9 million in FY 2009 and almost \$98.5 million in FY 2008. This variability was primarily due to a \$17.0 million transfer to the Rate Stabilization Fund in FY 2008. Excluding the transfer to the Rate Stabilization Fund, operating expenses increased annually at an average of 3.5 percent over the historical period.

**Table 5-2**  
**City of Portland**  
**Bureau of Environmental Services**  
**Historical Operating Expenses (1)(2)**  
 (\$1,000)

<b>Source</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Personal Services	\$34,532	\$37,650	\$39,767	\$40,513	\$45,284
Material & Services					
External	22,075	23,704	21,985	18,195	\$19,119
Internal	29,561	27,741	28,892	31,411	\$30,748
Capitalized Overhead	(10,232)	(10,863)	(10,173)	(9,932)	(9,867)
Cash Transfers Out					
General Fund Overhead	4,670	5,142	5,517	5,449	6,901
Rate Stabilization Fund	17,000	-	-	-	-
Other	871	1,497	1,225	3,785	1,782
<b>Total Operating Expenses</b>	<b>\$98,478</b>	<b>\$84,871</b>	<b>\$87,213</b>	<b>\$89,421</b>	<b>\$93,966</b>

(1) Net of depreciation, as defined by the First Lien Bond Ordinance

(2) Totals may not sum due to rounding

Operating expenses shown in Table 5-2 are net of depreciation, but include the operating portion of the Bureau's debt service on bonds sold to finance the City's Public Employee Retirement System (PERS) obligations (as part of "Other" expenses).

## 5.3 Historical Operating Results and Debt Service Coverage

Table 5-3 presents historical operating results and debt service coverage for the period FY 2008 through FY 2012. During this period, the Bureau met its target debt service coverage ratios in all but FY 2012, where coverage on combined First and Second Lien Bonds (with Rate Stabilization) was 1.29, narrowly missing the 1.30 target, which is described in Section 2.3. Debt service coverage for first lien bonds (with Rate Stabilization) ranged from 1.71 to 1.95 during the historical period.

**Table 5-3**  
**City of Portland**  
**Bureau of Environmental Services**  
**Historical Operating Results and Debt Service Coverage (\$1,000)(1)**

Item	2008	2009	2010	2011	2012
<b>Gross Revenues</b>					
Operating Revenues	\$205,787	\$215,169	\$223,774	\$241,384	\$251,586
System Development Charges	11,043	7,791	4,566	5,431	\$9,138
Interest Earnings	8,231	7,287	2,115	1,981	\$1,091
Cash Transfers In:	0	0	0	0	\$0
Transfers from Rate Stabilization	118	10,000	9,750	29,500	\$18,585
Other Funds	923	1,331	1,234	2,095	\$2,363
<b>Total Gross Revenues</b>	<b>\$226,102</b>	<b>\$241,578</b>	<b>\$241,440</b>	<b>\$280,391</b>	<b>\$282,764</b>
<b>Operating Expenses</b>					
Total Operating Expenses (2)	81,477	84,871	87,213	89,421	93,966
Transfers to Rate Stabilization Fund	17,000	-	-	-	-
<b>Subtotal Operating Expenses</b>	<b>\$98,477</b>	<b>\$84,871</b>	<b>\$87,213</b>	<b>\$89,421</b>	<b>\$93,966</b>
<b>Net Revenues</b>	<b>127,625</b>	<b>156,706</b>	<b>154,227</b>	<b>190,970</b>	<b>188,797</b>
<b>Debt Service for Coverage Test</b>					
First Lien	72,343	90,026	90,032	97,804	97,790
Second Lien Bonds	22,305	29,598	28,504	48,484	49,092
<b>Total</b>	<b>\$94,648</b>	<b>\$119,624</b>	<b>\$118,536</b>	<b>\$146,288</b>	<b>\$146,881</b>
<b>Debt Service Coverage (First &amp; Second Lien Bonds)</b>					
With Rate Stabilization	1.35	1.31	1.30	1.31	1.29
Excluding Rate Stabilization	1.52	1.23	1.22	1.10	1.16
<b>Debt Service Coverage (First Lien Bonds)</b>					
With Rate Stabilization	1.76	1.74	1.71	1.95	1.93
Excluding Rate Stabilization	2.00	1.63	1.60	1.65	1.74

(1) Totals may not sum due to rounding

(2) Net of depreciation

Source: Bureau of Environmental Services

## 6.0 Forecast Performance

This section summarizes information on the Bureau's current year (FY 2013) and projected five-year System revenues, expenditures, debt service, debt service coverage and changes in fund balance. Accordingly, the forecast reflects the Bureau's judgment as of June 2013 for the 6-year period ending June 30, 2018.

### 6.1 Operating Fund Resources and Requirements

Table 6-1 summarizes the forecast resources and requirements for the Bureau's Sewer System Operating Fund. As discussed in previous sections, the Operating Fund accounts for the daily operations of the System. (Table 6-1 does not include resources and requirements of the Environmental Remediation Fund.)

**Table 6-1**  
**City of Portland**  
**Bureau of Environmental Services**  
**Sewer System Operating Fund**  
**Forecast Sources and Uses of Funds (\$1,000)**

Item	2013	2014	2015	2016	2017	2018
<b>RESOURCES</b>						
Service Charges & Fees	\$251,860	\$275,404	\$294,507	\$315,179	\$335,524	\$353,283
Connection Fees	11,185	9,910	9,364	9,909	10,494	10,773
Wholesale Contracts	4,142	3,445	3,555	3,669	3,787	3,909
Other Service Charges & Misc.	7,907	6,335	6,475	6,681	6,872	7,091
Cash Transfers In -						
Rate Stabilization Fund	10,400	-	-	-	-	3,450
Sewer Construction Fund	86,400	112,100	110,345	108,732	112,424	108,913
Capitalized Overhead	6,711	8,255	8,413	8,574	8,738	8,905
Other Funds	1,164	697	181	186	192	199
Interest Income	142	81	36	54	53	48
Beginning Fund Balance	42,105	52,999	58,176	62,214	66,539	70,786
<b>TOTAL RESOURCES</b>	<b>\$422,016</b>	<b>\$469,226</b>	<b>\$491,052</b>	<b>\$515,200</b>	<b>\$544,623</b>	<b>\$567,356</b>
<b>REQUIREMENTS</b>						
Personal Services	45,082	45,637	47,014	50,498	51,878	54,149
Materials & Services	34,098	36,893	38,470	40,657	43,172	44,897
Internal Services	35,479	33,153	34,689	36,233	37,722	38,986
Capital Outlay (1)	92,355	113,121	111,623	111,548	117,357	112,837
Int. Accruals/Lease Purchase	71	46	67	79	73	66
Cash Transfers -						
General Fund Overhead	7,507	6,965	7,348	7,753	7,966	8,186
Construction Fund	3,495	18,759	20,096	20,916	22,963	29,153
Rate Stabilization Fund	-	1,550	5,550	5,825	4,750	-
Debt Redemption Fund	148,269	151,949	160,579	171,426	183,984	200,474
Other Cash Transfers	2,661	2,977	3,401	3,727	3,972	4,205
Ending Fund Balance	52,999	58,176	62,214	66,539	70,786	74,404
<b>TOTAL REQUIREMENTS</b>	<b>\$422,016</b>	<b>\$469,226</b>	<b>\$491,052</b>	<b>\$515,200</b>	<b>\$544,623</b>	<b>\$567,356</b>

(1) Includes capitalized personal services, materials & services, internal services, land, equipment and capital improvements

Source: Bureau of Environmental Services



## 6.1.1 Resources

Revenues from service charges and fees, and transfers from the Sewer Construction Fund are the largest resources for the Operating Fund. Projections of new customers, water use per account, and planned rate increases are used to forecast sewer sales revenues over the forecast period. The sewer sales forecast reflects the following assumptions:

- Forecast rate increases are subject to annual City Council approval.
- The number of customer accounts will increase at an average annual rate of approximately 0.5 percent during the next 6 years. In addition to base customer growth, the Bureau will begin assessing retail stormwater rates in FY 2014 to approximately 1,400 customers in three Multnomah County drainage districts within the City's limits (formerly treated as a single wholesale customer.)
- Water usage per account is projected to continue to decline annually at rates of 0.75 percent (for commercial and multifamily customers) to 1.5 percent (for single family residential customers).
- Average impervious area per account is projected to remain at current levels for all customers.

The Bureau's projected rates by rate component are shown in Table 6-2. Most components are forecast to increase at average annual rates within the range of 5 percent to 6.5 percent through FY 2018.

**Table 6-2**  
**City of Portland**  
**Bureau of Environmental Services**  
**Projected Rates**

	Adopted 2013	Adopted 2014	2015	2016	2017	2018	Avg. Annual Change
<b>Residential</b>							
Sanitary Sewage Volume Rate (\$/ccf)	\$8.20	\$8.75	\$9.31	\$9.89	\$10.46	\$11.05	6.2%
Impervious Area (\$/1,000 sq.ft.)	\$10.18	\$10.52	\$11.10	\$11.74	\$12.38	\$13.06	5.1%
<b>Commercial/Industrial</b>							
Sanitary Sewage Volume Rate (\$/ccf)	\$8.181	\$8.735	\$9.295	\$9.875	\$10.437	\$11.029	6.2%
Impervious Area (\$/1,000 sq.ft.)	\$10.77	\$11.12	\$11.74	\$12.42	\$13.10	\$13.81	5.1%
<b>Clean Water Rates</b>							
To Storm Sewer only (\$/ccf)	\$0.824	\$0.883	\$0.928	\$0.975	\$1.021	\$1.068	5.3%
<b>Extra Strength Rates</b>							
BOD (\$/lb)	\$0.574	\$0.601	\$0.632	\$0.664	\$0.695	\$0.727	4.8%
SS (\$/lb)	\$0.696	\$0.744	\$0.782	\$0.822	\$0.860	\$0.900	5.3%

Source: Bureau of Environmental Services

As shown in Table 6-1, annual revenue from service charges is projected to increase from an estimated \$251.9 million in FY 2013, to \$353.3 million in FY 2018, an average annual increase of 7.0 percent. The average annual increase in revenue exceeds the rate increases shown in Table 6-2 due largely to the impact of additional stormwater customers from within the drainage districts. The Bureau plans to phase-in the retail stormwater rates for these customers over four years, beginning FY 2014, with additional revenues estimated to be \$2.9 million. By FY 2017 (the end of the phase-in period), additional revenue from these customers is estimated to be about \$14 million (an increase of 5 percent over existing total service charge revenue).

Other operating revenues include revenues from connection fees (\$11.2 million in FY 2013), wholesale charges (\$4.1 million in FY 2013), and other fees and charges (\$7.9 million in FY 2013). Wholesale revenues have been adjusted down in FY 2014, compared with FY 2013 due to the conversion of customers within the Multnomah County drainage districts to retail billing.

Transfers are planned from the Rate Stabilization Fund to the Operating Fund in FY 2013 (\$10.4 million) and FY 2018 (\$3.5 million). Transfers from the Construction Fund to the Operating Fund reimburse the Operating Fund for expenses associated with capital projects. These expenses are then capitalized as part of the project cost. Construction Fund transfers fluctuate annually over the forecast period – from a low of \$86.4 million in FY 2013, to a high of \$112.1 million in FY 2014 – based on the forecast CIP.

Other non-operating revenues include transfers from other funds and interest income.

## 6.1.2 Requirements

Table 6-1 also presents the forecast financial requirements of the Operating Fund. These include operating requirements as well as cash transfers for construction, debt redemption, general City overhead reimbursement, and other purposes.

**Operating Expenses.** Operating expenses include personal services, materials and services, internal services, transfers for general fund overhead, and transfers to the Rate Stabilization Fund and other funds. The operating expense forecast reflects the Bureau's existing operating budget, assumed cost escalation factors, as well as service additions associated with the CIP and other programs.

Personal services costs are estimated to be \$45.1 million in FY 2013, and are forecast to increase an average of 3.7 percent per year to \$54.2 million in FY 2018. Personal services cost increases reflect projected increases in salaries related to staffing levels planned for the forecast period, as well as benefit costs increasing at a rate greater than inflation.

Materials and services costs are estimated to be \$34.1 million in FY 2013, and are projected to increase at an average annual rate of 5.7 percent throughout the forecast period. The materials and services cost forecast reflects both one-time expenses and on-going service additions, in addition to general cost escalation factors.

Internal services costs are estimated to be \$35.5 in FY 2013. Internal services costs are projected to be nearly \$39.0 million at the end of the forecast period – an annual average increase of 1.9 percent. Transfers for general fund overhead are projected to increase about 1.8 percent per year during the forecast period. Other cash transfers included a portion of

the Bureau's PERS bond obligation allocated to operating personnel that averaged about \$2.7 million per year.

As transfers from the Rate Stabilization Fund are considered operating revenues for debt coverage purposes, operating expenses also include transfers to the Rate Stabilization Fund. The forecast resources and requirements for the Rate Stabilization Fund are shown in Table 6-3. Transfers to the Rate Stabilization Fund are forecast in FY 2013 and FY 2018, and transfers from the Rate Stabilization Fund are planned between FY 2014 and FY 2017. This practice is consistent with the Bureau's goal to keep rates stable and predictable over the long term, while meeting its necessary operating and capital requirements.

**Table 6-3**  
**City of Portland**  
**Bureau of Environmental Services**  
**Sewer System Rate Stabilization Fund**  
**Forecast Sources and Uses of Funds (\$1,000)**

Item	2013	2014	2015	2016	2017	2018
<b>RESOURCES</b>						
Interest On Investments	\$52	\$9	\$20	\$72	\$116	\$147
Transfer From Operating Fund	-	1,550	5,550	5,825	4,750	-
Beginning Fund Balance	12,357	2,009	3,567	9,137	15,034	19,900
<b>TOTAL RESOURCES</b>	<b>\$12,409</b>	<b>\$3,567</b>	<b>\$9,137</b>	<b>\$15,034</b>	<b>\$19,900</b>	<b>\$20,047</b>
<b>REQUIREMENTS</b>						
Cash Transfer-SSOF/SSCF	10,400	-	-	-	-	3,450
Ending Fund Balance	2,009	3,567	9,137	15,034	19,900	16,597
<b>TOTAL REQUIREMENTS</b>	<b>\$12,409</b>	<b>\$3,567</b>	<b>\$9,137</b>	<b>\$15,034</b>	<b>\$19,900</b>	<b>\$20,047</b>

Source: Bureau of Environmental Services

**Capital Requirements.** Capital-related expenses in the Operating Fund include capital outlays (predominantly CIP expenditures), as well as transfers to the Debt Redemption Fund and Construction Fund. These expenditures account for roughly two-thirds of Operating Fund requirements over the forecast period. In FY 2013 capital related expenses are estimated to be \$244.2 million. These requirements are projected to increase to \$342.5 million in FY 2018. The CIP will be funded predominantly through debt proceeds (reflected in the increased transfers to the Debt Redemption Fund shown in Table 6-1) and Operating Fund transfers (ranging from \$3.5 million to \$29.2 million in Table 6-1). Capital financing is discussed in more detail in the subsection immediately following.

## 6.2 Capital Financing

Table 6-4 shows the forecast resources and requirements for the Sewer Construction Fund through FY 2018. In addition to the 2013 Series A Bonds, the Bureau anticipates that it will issue revenue bonds as follows: \$107.8 million in FY 2014, \$145.0 million in FY 2015, and \$200.8 million in FY 2017. The remaining 20 percent of funding for the CIP will come from

Operating Fund transfers and other revenue sources (including interest earnings and special assessment bond proceeds).

**Table 6-4**  
**City of Portland**  
**Bureau of Environmental Services**  
**Sewer System Construction Fund**  
**Forecast Sources and Uses of Funds (\$1,000)**

Item	2013	2014	2015	2016	2017	2018
<b>RESOURCES</b>						
Line & Branch Charges	\$783	\$750	\$711	\$719	\$726	\$743
Cash Transfers In -						
Sewer System Operating	3,495	18,759	20,096	20,916	22,963	29,153
Other Funds	342					
Bond Proceeds (Revenue Bonds / LOC)	77,617	308,535	145,000		200,823	
Bond Proceeds (Spec. Assessment Bonds)		700	1,500	1,600	1,700	1,600
Miscellaneous	610					
Interest On Investments	29	472	877	852	1,069	824
Beginning Fund Balance	15,287	4,956	95,271	132,223	39,004	125,499
<b>TOTAL RESOURCES</b>	<b>\$98,163</b>	<b>\$334,172</b>	<b>\$263,456</b>	<b>\$156,310</b>	<b>\$266,284</b>	<b>\$157,819</b>
<b>REQUIREMENTS</b>						
Cash Transfers Out -						
Sewer System Operating	86,400	112,100	110,345	108,732	112,424	108,913
Capitalized Overhead (to Oper. Fund)	6,711	8,255	8,413	8,574	8,738	8,905
Sewer System Debt Redemption -- Cash Reserve		23,146	11,402		18,230	
Retired Notes / Refundings		95,000				
Miscellaneous	96	399	1,073		1,393	
Ending Fund Balance	4,956	95,271	132,223	39,004	125,499	40,001
<b>TOTAL REQUIREMENTS</b>	<b>\$98,163</b>	<b>\$334,172</b>	<b>\$263,456</b>	<b>\$156,310</b>	<b>\$266,284</b>	<b>\$157,819</b>

Source: Bureau of Environmental Services

The additional bond sales planned during the forecast period will increase the Bureau's annual debt service requirements. Table 6-5 presents the forecast debt service requirements for existing first and second lien obligations and planned future second lien obligations. Existing obligations total \$146.9 million in FY 2013. Annual debt service for the 2013 Series A Bonds is estimated to be \$12.4 million, bringing total debt service requirements to almost \$159.3 million in FY 2015. Additional debt is forecast to bring the total debt service requirement to \$199.5 million in FY 2018.

**Table 6-5**  
**City of Portland**  
**Bureau of Environmental Services**  
**Projected Debt Service Schedule (\$1,000)**

Item	2013	2014	2015	2016	2017	2018
<b>Existing First Lien</b>						
2004A	\$12,789	\$12,782	\$12,787	\$12,782	\$12,787	\$12,786
2004B	6,087	6,080	6,084	41,428	41,454	-
2005A	7,243	7,243	7,243	7,243	7,243	7,243
2006A	12,231	12,226	12,229	12,229	12,229	12,230
2007A	33,097	33,098	33,107	-	-	-
2008A	26,360	26,357	26,353	26,357	26,347	68,647
Subtotal First Lien Debt Service	\$97,806	\$97,786	\$97,802	\$100,038	\$100,060	\$100,905
<b>Existing Second Lien Debt Service</b>						
2003A	4,018	4,017	4,020	4,021	4,020	4,016
2006B	6,116	6,118	6,114	6,114	6,117	6,118
2008B	11,079	11,082	11,080	11,080	11,081	11,082
2010	27,862	27,870	27,863	27,861	27,863	27,867
Subtotal Existing Second Lien Debt Service	\$49,075	\$49,087	\$49,077	\$49,075	\$49,080	\$49,082
<b>Proposed Second Lien Debt Service</b>						
2013A	0	3,166	12,412	12,410	12,411	12,409
2014A	0	0	0	8,801	7,783	7,785
2015A	0	0	0	0	13,622	11,102
2017A	0	0	0	0	0	18,226
Subtotal Proposed Second Lien Debt Service	\$0	\$3,166	\$12,412	\$21,211	\$33,815	\$49,522
Total Gross Debt Service	\$146,882	\$150,039	\$159,292	\$170,325	\$182,954	\$199,509

Source: Bureau of Environmental Services

Table 6-6 shows the resources and requirements for the Debt Redemption Fund. Annual principal and interest requirements include a repayment of loans from the State Revolving Fund and Oregon Economic Development Department, in addition to the first and second lien debt service requirements shown in Table 6-5. Annual requirements are funded through transfers from the Operating Fund, net of any adjustments needed to maintain an ending cash balance in the Debt Redemption Fund of \$10,000.

**Table 6-6**  
**City of Portland**  
**Bureau of Environmental Services**  
**Sewer System Debt Redemption Fund**  
**Forecast Sources and Uses of Funds (\$1,000)**

Item	2013	2014	2015	2016	2017	2018
<b>RESOURCES</b>						
Interest On Investments	\$182	\$158	\$284	\$468	\$537	\$605
Cash Transfers In :						
Sewer Operating Fund	148,269	151,949	160,579	171,426	183,984	200,474
Construction Fund	-	95,000	-	-	-	-
Bond Sale Proceeds	-	23,146	11,402	-	18,230	-
Beginning Balance						
Unrestricted Reserve	10	10	10	10	10	10
Restricted Reserve	27,871	27,871	51,017	62,419	62,419	80,649
<b>TOTAL RESOURCES</b>	<b>\$176,332</b>	<b>\$298,134</b>	<b>\$223,291</b>	<b>\$234,323</b>	<b>\$265,180</b>	<b>\$281,738</b>
<b>REQUIREMENTS</b>						
Debt Principal Retirement	72,160	75,623	83,192	89,431	96,375	110,081
Interest Expense	76,291	76,484	77,671	82,463	88,146	90,998
Payment to Escrow	-	95,000	-	-	-	-
Ending Fund Balance						
Unrestricted Reserve	10	10	10	10	10	10
Restricted Reserve	27,871	51,017	62,419	62,419	80,649	80,649
<b>TOTAL REQUIREMENTS</b>	<b>\$176,332</b>	<b>\$298,134</b>	<b>\$223,291</b>	<b>\$234,323</b>	<b>\$265,180</b>	<b>\$281,738</b>

Source: Bureau of Environmental Services

### 6.3 Forecast Operating Results and Debt Service Coverage

Table 6-7 presents forecast operating results and debt service coverage for the forecast period. Gross revenues, including operating revenues, SDCs, and interest income, are estimated to total \$289.7 million in FY 2013, and projected to increase to \$382.4 million in FY 2018. When gross revenues are reduced by operating expenses, including transfers to the Rate Stabilization Fund, Net Revenues are estimated to be \$187.9 million in FY 2013, increasing to \$259.3 million in FY2018.

**Table 6-7**  
**City of Portland**  
**Bureau of Environmental Services**  
**Projected Operating Results and Debt Service Coverage (\$1,000)**

Item	2013	2014	2015	2016	2017	2018
<b>Gross Revenues (1)</b>						
Operating Revenues						
Service Charges (2)	\$254,980	\$277,523	\$295,890	\$316,149	\$336,160	\$353,730
Wholesale	4,142	3,445	3,555	3,669	3,787	3,909
Other Service Charges & Miscellaneous	4,296	3,329	3,436	3,546	3,660	3,777
Interest Earnings	595	894	1,397	1,633	1,966	1,822
System Development Charges	11,033	10,650	11,565	12,234	12,936	13,130
Cash Transfers In -						
Rate Stabilization Fund	10,400	-	-	-	-	3,450
Other Funds	4,290	2,783	2,333	2,408	2,485	2,565
<b>Total Gross Revenues</b>	<b>\$289,736</b>	<b>\$298,624</b>	<b>\$318,177</b>	<b>\$339,640</b>	<b>\$360,995</b>	<b>\$382,383</b>
<b>Operating Expenses (3)</b>						
Personal Services	44,673	44,887	46,243	49,707	51,566	53,828
Materials & Services	54,565	54,677	56,202	58,915	62,777	64,841
Internal Services						
Capitalized Overhead	(8,400)	(8,255)	(8,413)	(8,574)	(8,738)	(8,905)
Cash Transfers Out -						
General Fund Overhead	7,507	6,965	7,348	7,753	7,966	8,186
Rate Stabilization Fund	0	1,550	5,550	5,825	4,750	\$0
Other	3,474	3,776	4,200	4,586	4,882	5,166
<b>Subtotal Operating Expenses</b>	<b>\$101,820</b>	<b>\$103,599</b>	<b>\$111,131</b>	<b>\$118,211</b>	<b>\$123,204</b>	<b>\$123,116</b>
<b>Net Revenues</b>	<b>187,916</b>	<b>195,025</b>	<b>207,046</b>	<b>221,429</b>	<b>237,791</b>	<b>259,267</b>
<b>Debt Service for Coverage Test</b>						
First Lien	97,806	97,786	97,802	100,038	100,060	100,905
Second Lien Bonds	49,075	52,253	61,489	70,287	82,894	98,604
<b>Total</b>	<b>\$146,882</b>	<b>\$150,039</b>	<b>\$159,292</b>	<b>\$170,325</b>	<b>\$182,954</b>	<b>\$199,509</b>
<b>Debt Service Coverage (First &amp; Second Lien Bonds)</b>						
With Rate Stabilization	1.28	1.30	1.30	1.30	1.30	1.30
Excluding Rate Stabilization	1.21	1.31	1.33	1.33	1.33	1.28
<b>Debt Service Coverage (First Lien Bonds)</b>						
With Rate Stabilization	1.92	1.99	2.12	2.21	2.38	2.57
Excluding Rate Stabilization	1.81	2.01	2.17	2.27	2.42	2.54

## Notes:

- (1) As defined in the First Lien Bond Ordinance
- (2) Includes revenue from Portland Harbor rates
- (3) As defined in the First Lien Bond Ordinance; excludes depreciation expense.

Source: Bureau of Environmental Services

Based on the First Lien Bond Ordinance, the minimum first lien debt service coverage requirement is 1.20 times the annual required debt service. As mentioned previously, the Bureau has established target coverage on first lien bonds of 1.50. Based on the forecast Net Revenues and projected annual first lien debt service requirements, the projected first lien coverage exceeds the established target coverage of 1.50 in each year of the forecast.

The 2013 Series A Bonds are being offered as second lien obligations. As such, they are not subject to the same coverage requirements as first lien bonds. As mentioned previously, the Bureau has established target coverage on total first and second lien debt of 1.30. Based on the forecast Net Revenues and projected total debt service requirements (including debt service on planned additional bonds in FY 2014 and FY 2017), the projected total coverage meets the established target coverage of 1.30 in each year, except FY 2013.



# 7.0 Summary of Assumptions and Conclusions

## 7.1 Principal Assumptions

In analyzing the financial forecast, the Bureau relied on certain assumptions related to future System conditions. There will usually be differences between assumed and actual conditions because events and circumstances frequently do not occur as expected, and those differences may be significant. Table 7-1 provides a summary of key economic and budget assumptions used in the forecast.

**Table 7-1**  
**City of Portland**  
**Bureau of Environmental Services**  
**Key Assumptions**

	Fiscal Year	2014	2015	2016	2017	2018
<b>Economic Assumptions</b>						
Inflation rates						
Salaries and Wages (%) (1)		0.90	2.99	2.99	2.99	2.99
External Materials & Services (%)		2.43	2.43	2.43	2.43	2.43
Internal Materials & Services (%)		3.21	3.21	3.21	3.21	3.21
Utilities (%)		2.32	2.32	2.32	2.32	2.32
Other (%)		2.69	2.69	2.69	2.69	2.69
Interest Earnings Rate (%)		0.45	0.40	0.50	0.75	0.75
Revenue Bond Interest Rate (%)		5.08	5.75	6.00	6.50	6.50
Bond Term (years)		25	25	20	20	20
Target Coverage Ratio (First & Second Lien Total)		1.30	1.30	1.30	1.30	1.30
<b>Budget Assumptions</b>						
Ending Fund Balances (% of operating expenses)		10.00	10.00	10.00	10.00	10.00
City Overhead Growth Rate (%)		2.75	2.75	2.75	2.75	2.75
Expenditure Rates (% of Budget)						
CIP		95.00	97.00	97.00	97.00	97.00
Personal Services		98.50	98.50	98.50	98.50	98.50
External Materials and Services		95.00	95.00	95.00	95.00	95.00
Internal Materials and Services		100.00	100.00	100.00	100.00	100.00

(1) Does not include inflationary increases on health and retirement benefits, which according to the Bureau are forecast to increase in excess of salary and wages.

In addition, the following are the principal assumptions used in forecasting System revenues from user charges:

- The number of customer accounts will increase at an average annual rate of approximately 0.5 percent during the next 6 years, plus additional stormwater drainage customers within three Multnomah County drainage districts.
- Sewer usage per account is projected to continue to decline annually at rates of 0.75 percent (for commercial and multifamily customers) 1.5 percent (for single family residential customers).
- Average impervious area per account is projected to remain at current levels for all customers.

## 7.2 Conclusions

The financial forecast presented in this report represents a preliminary assessment by the Bureau of projected operating results for the period FY 2013 to FY 2018. Galardi Rothstein Group has reviewed the forecast, its underlying analysis and assumptions, and we find it to be sound and feasible. In addition, Galardi Rothstein Group offers the following opinions:

- The principal assumptions used in the financial forecast are reasonable given recent experience and economic conditions.
- The Bureau's financial planning and rate practices are comprehensive, and conform to established industry standards.
- The Bureau and the City Council have demonstrated through historical financial planning and rate increases, both a commitment to conforming to established financial policies, and effectiveness at balancing rate increases with the financial requirements of the system (including debt service coverage requirements).
- Projected operating results are consistent with the Bureau's established financial policies, and debt service requirements, and will provide funding necessary to implement the CIP as currently envisioned

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**APPENDIX I**  
**BEO SYSTEM**

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## BEO SYSTEM

### DTC LANGUAGE DESCRIBING BOOK-ENTRY-ONLY ISSUANCE (Prepared by DTC—bracketed material may be applicable only to certain issues)

1. The Depository Trust Company (“DTC”), New York, NY, will act as securities depository for the securities (the “Securities”). The Securities will be issued as fully-registered securities registered in the name of Cede & Co. (DTC’s partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Security certificate will be issued for [each issue of] the Securities, [each] in the aggregate principal amount of such issue, and will be deposited with DTC. [If, however, the aggregate principal amount of [any] issue exceeds \$500 million, one certificate will be issued with respect to each \$500 million of principal amount, and an additional certificate will be issued with respect to any remaining principal amount of such issue.]
2. DTC, the world’s largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code, and a “clearing agency” registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC’s participants (“Direct Participants”) deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants’ accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation (“DTCC”). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly (“Indirect Participants”). DTC has a Standard & Poor’s rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at [www.dtcc.com](http://www.dtcc.com).
3. Purchases of Securities under the DTC system must be made by or through Direct Participants, which will receive a credit for the Securities on DTC’s records. The ownership interest of each actual purchaser of each Security (“Beneficial Owner”) is in turn to be recorded on the Direct and Indirect Participants’ records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Securities are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Securities, except in the event that use of the book-entry system for the Securities is discontinued.
4. To facilitate subsequent transfers, all Securities deposited by Direct Participants with DTC are registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Securities with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Securities; DTC’s records reflect only the identity of the Direct Participants to whose accounts such Securities are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.
5. Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. [Beneficial Owners of Securities may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Securities, such as redemptions, tenders, defaults, and proposed amendments to the Security documents. For example, Beneficial Owners of Securities may wish to ascertain that the nominee holding the Securities for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.]

6. Redemption notices shall be sent to DTC. If less than all of the Securities within an issue are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such issue to be redeemed.
7. Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Securities unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to Issuer as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts Securities are credited on the record date (identified in a listing attached to the Omnibus Proxy).
8. Redemption proceeds, distributions, and dividend payments on the Securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from Issuer or Agent, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, Agent, or Issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of redemption proceeds, distributions, and dividend payments to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of Issuer or Agent, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.
9. A Beneficial Owner shall give notice to elect to have its Securities purchased or tendered, through its Participant, to [Tender/Remarketing] Agent, and shall effect delivery of such Securities by causing the Direct Participant to transfer the Participant's interest in the Securities, on DTC's records, to [Tender/Remarketing] Agent. The requirement for physical delivery of Securities in connection with an optional tender or a mandatory purchase will be deemed satisfied when the ownership rights in the Securities are transferred by Direct Participants on DTC's records and followed by a book-entry credit of tendered Securities to [Tender/Remarketing] Agent's DTC account.
10. DTC may discontinue providing its services as depository with respect to the Securities at any time by giving reasonable notice to Issuer or Agent. Under such circumstances, in the event that a successor depository is not obtained, Security certificates are required to be printed and delivered.
11. Issuer may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, Security certificates will be printed and delivered to DTC.
12. The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that Issuer believes to be reliable, but Issuer takes no responsibility for the accuracy thereof.



