

**NEW ISSUE
BOOK-ENTRY ONLY**

RATING: Moody's Aa1

In the opinion of Bond Counsel, interest on the Bonds is excluded from gross income subject to federal income taxation under Section 103(a) of the Internal Revenue Code of 1986, subject to certain conditions and assumptions described herein under "TAX EXEMPTION." The Bonds are not private activity bonds. Interest on the Bonds is included in the computation of certain federal taxes on corporations. In the opinion of Bond Counsel, interest on the Bonds is exempt from present personal income taxation by the State of Oregon.



**\$35,000,000
CITY OF PORTLAND, OREGON
Water System Revenue Bonds
2000 Series A**



DATED: March 15, 2000

DUE: August 1, as shown below

The Water System Revenue Bonds, 2000 Series A (the "Bonds") will be issued in registered book-entry form only without coupons in denominations of \$5,000 or integral multiples thereof. The Bonds, when executed and delivered, will be registered in the name of Cede & Co. as the registered owner and nominee for the Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the Bonds. While Cede & Co. is the registered owner of the Bonds (the "Owner") as nominee of DTC, references herein to the Bondowners shall mean Cede & Co., as aforesaid, and shall not mean the Beneficial Owners of the Bonds. See "BOOK-ENTRY SYSTEM" herein.

Interest on the Bonds is payable semi-annually on February 1 and August 1 of each year beginning August 1, 2000. While the Bonds are in book-entry form, interest on the Bonds will be paid through DTC. See "BOOK-ENTRY SYSTEM" herein.

The Bonds will be issued for the purpose of funding improvements to the Water System of the City of Portland (the "City") as more fully described herein.

The Bonds are special obligations of the City, payable solely from the Net Revenues of the City's Water System and amounts deposited in the Revenue Bond Reserve Account, all as defined in the City ordinance authorizing issuance of the Bonds. The Bonds are not general obligations of the City, and neither the full faith and credit nor the taxing power of the City is pledged to pay the Bonds. See "PAYMENT OF AND SECURITY FOR THE BONDS" herein.

The Bonds are subject to call and redemption prior to maturity. See "REDEMPTION OF THE BONDS" herein.

MATURITY SCHEDULE

Due August 1	Principal Amount	Interest Rate	Price or Yield	Due August 1	Principal Amount	Interest Rate	Price or Yield
2001	\$490,000	5.000%	4.200%	2011	\$800,000	5.000%	5.100%
2002	510,000	5.000	4.550	2012	840,000	5.125	5.180
2003	540,000	5.000	4.650	2013	890,000	5.200	5.240
2004	560,000	5.000	4.720	2014	930,000	5.250	5.310
2005	590,000	5.000	4.800	2015	990,000	5.250	5.380
2006	620,000	5.000	4.850	2016	1,040,000	5.250	5.430
2007	650,000	5.000	4.900	2017	1,090,000	5.250	5.530
2008	690,000	5.000	4.950	2018	7,030,000	5.375	5.530
2009	720,000	5.000	100	2019	7,420,000	5.500	5.580
2010	760,000	5.000	5.040	2020	7,840,000	5.500	5.620

The Bonds are offered when, as and if issued and received by the Underwriters, subject to prior sale, withdrawal or modification of the offer without notice, to the approval of legality by Preston Gates & Ellis, LLP, Portland, Oregon, Bond Counsel, and to certain other conditions. The City expects that the Bonds will be available in definitive form for delivery to DTC in New York, New York, on or about April 17, 2000.

Official Statement Dated March 30, 2000



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

RELATING TO

**\$35,000,000
WATER SYSTEM REVENUE BONDS
2000 SERIES A**

CITY COUNCIL

Vera Katz,
Mayor and Commissioner of Finance and Administration

Jim Francesconi, Commissioner of Public Utilities
Charlie Hales, Commissioner of Public Safety
Dan Saltzman, Commissioner of Public Affairs
Erik Sten, Commissioner of Public Works

CITY OFFICIALS

Gary Blackmer, City Auditor
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Portland, Oregon

This Official Statement has been designed to conform, where applicable, to the guidelines presented in Disclosure Guidelines for State and Local Government Securities, published by the Government Finance Officers Association in 1976 and revised in 1979, 1988 and 1991. The Official Statement DOES NOT constitute a recommendation, express or implied, to purchase or not to purchase these Bonds or any other previous bonds of the City.

The date of this Official Statement is March 30, 2000.



This Official Statement has been prepared by the City of Portland (the "City"). The City deems this Official Statement to be final as of its date, except for terms specified in the bid for the Bonds, other terms of the Bonds depending on such matters, and the identity of the underwriter(s), in accordance with Section 240.15c2-12C(1), Chapter 11, Title 17 of the Code of Federal Regulations. The information and expressions of opinion set forth herein are subject to change without notice and neither the delivery of this Official Statement nor the sale of any of the Bonds implies that there has been no change in the matters described herein since the hereof. This Official Statement is submitted in connection with the sale of Bonds and may not be reproduced, used or relied upon, in whole or in part, for any other purpose. The City will provide annual updates of certain information contained in this Official Statement. See "CONTINUING DISCLOSURE" herein.

In preparing this Official Statement, factual information has been included which was considered useful to potential purchasers of the Bonds. Tables and Exhibits to this document have been obtained or compiled from the attributed sources. All estimates and assumptions set forth herein have been made based on the best information reasonably available and are believed by the City to be reliable, but no representations whatsoever are made that such estimates and assumptions 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 not as representations of fact. All summaries of provisions of Statutes of the State of Oregon, ordinances, resolutions or programs of the City, and of other documents herein set forth are made subject to all detailed provisions thereof of which reference is hereby made for further information, and such summaries do not purport to be complete statements of any or all of such provisions.

No dealer, broker, salesperson or other person has been authorized by the City of Portland 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. The statements of law made in this Official Statement under the captions "DESCRIPTION OF THE BONDS," "AUTHORIZATION AND PURPOSE," "PAYMENT OF AND SECURITY FOR THE BONDS," "REDEMPTION OF THE BONDS," AND "TAX EXEMPTION," have been reviewed and approved by Bond Counsel. All other representations of law and fact have not been reviewed by Bond Counsel and have not, therefore, been approved by Bond Counsel.

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

**WATER SYSTEM REVENUE BONDS
\$35,000,000
2000 SERIES A**

INTRODUCTION

The purpose of this Official Statement is to set forth certain information concerning the City of Portland, Oregon (the "City"), the City's Water System (the "Water System"), and the City's Water System Revenue Bonds, 2000 Series A, dated March 15, 2000, (the "Bonds"). The Bonds are authorized by City Ordinance No. 174241, the Amended and Restated Master Water System Bond Ordinance (the "Master Ordinance"), which also provides the terms under which the City may issue the Bonds; Ordinance No. 173611, adopted on August 4, 1999; and in accordance with the Notice of Sale of the City. Reference is made to the Notice of Sale for the terms and conditions of sale and delivery of the Bonds to the original purchasers of the Bonds. A summary of the Master Ordinance is shown in Appendix A herein.

THE BONDS

DESCRIPTION OF THE BONDS

The Bonds are valid and binding obligations of the Bureau of Water Works (the "Bureau") of the City. The Bonds are payable solely from the Net Revenues of the Water System, pursuant to Section 12.201 of the City Charter and the Master Ordinance.

The Bonds will mature on August 1 of the years and in the principal amounts shown on the front cover of this Official Statement and will bear interest from March 15, 2000, payable on February 1 and August 1 of each year, commencing August 1, 2000, at the rates indicated on the cover of this Official Statement.

The Bonds will be issued in fully registered form, and when issued will be registered in the name of Cede & Co. as nominee of the Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository, which will in turn remit such principal and interest to its Participants, for subsequent distribution to the Beneficial Owners of the Bonds. If DTC ceases to act as securities depository and the City fails to identify another qualified securities depository to replace DTC, or if the City has decided to terminate the use of the book-entry only system, then the registration of any Bonds may, in accordance with its terms, be transferred upon the Bond Register by the person in whose name it is registered, in person or by his or her duly authorized attorney, accompanied by the delivery of a written instrument of transfer in a form approved by the Bond Registrar and duly executed by the Owner of his or her authorized attorney. See "BOOK-ENTRY SYSTEM" in Appendix E.

Interest on the Bonds will be payable by check or draft mailed to the person whose name appears as the registered owner thereof on the registration books of the City, maintained by the Paying Agent. Checks will be mailed on the interest payment date (or the next business day if the interest payment date is not a business day). The Paying Agent is currently U.S. Bank Trust National Association, Portland, Oregon.

REDEMPTION OF THE BONDS

Optional Redemption of the Bonds

The Bonds maturing on or after August 1, 2011, are subject to redemption prior to maturity in whole or in part at the option of the City on any date on or after August 1, 2010. Any such redemption shall be at a price equal to 100% of the principal amount to be

redeemed, plus accrued and unpaid interest thereon to the date fixed for redemption. In the case of any redemption of less than all of the outstanding Bonds, the City shall have the right to specify the particular maturities to be redeemed and the aggregate principal amount of each maturity to be redeemed.

Selection of Bonds for Redemption

Subject to the City's right to select the maturities and principal amounts to be redeemed at its option, and provided the Bonds then remain subject to a Book-Entry System, if less than all the outstanding Bonds of a particular maturity are to be redeemed, the particular Bonds of such maturity shall be selected for redemption by DTC in accordance with its customary practices.

Notice of Redemption

So long as the Bonds are subject to the Book-Entry 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.

Effect of Redemption

If notice of redemption is given by the Paying Agent to DTC as described above and if, on or before the date fixed for redemption, the City has deposited or caused to be deposited with the Paying Agent moneys sufficient to pay the redemption price of the Bonds called for redemption on such date, then from and after the date fixed for redemption interest shall cease to accrue on the Bonds so called for redemption, such Bonds will no longer be secured by the pledge of the Net Revenues or be outstanding under or entitled to the benefits of the Ordinance, and the Owners of such Bonds shall be restricted to the funds held by the Paying Agent (or transmitted by the Paying Agent to DTC) for the payment of the redemption price of such Bonds.

AUTHORIZATION AND PURPOSE

The Bonds will be issued pursuant to Section 12.201 of the City Charter, which authorizes the City to issue revenue bonds to finance the costs of revenue producing facilities, and pursuant to the Master Ordinance and City Ordinance No. 173611, adopted on August 4, 1999. Capitalized terms (other than proper nouns) used in this official statement and not defined herein have the meanings defined for such terms in the summary of the Master Ordinance (see Appendix A).

The Bonds are being issued to fund improvements to the City's Water System, including improvements to supply conduits and storage facilities, the replacement and improvement of water mains and distribution facilities, and well site maintenance and improvements. Certain costs of issuance of the Bonds will be paid directly by the City. Any accrued interest on the Bonds will be deposited in the Water Bond Sinking Fund and will be used to pay interest on the Bonds.

The anticipated uses of the proceeds from the Bonds are itemized in the following table.

Table 1
CITY OF PORTLAND, OREGON
Water System Revenue Bonds
Estimated Sources and Uses of Funds

Sources of Funds:	
Par Amount of Bonds	\$35,000,000.00
Accrued Interest	<u>165,832.67</u>
Total Sources of Funds	<u><u>\$35,165,832.67</u></u>
Uses of Funds:	
Deposit to Project Construction Fund	\$34,390,306.60
Underwriter's Discount	204,750.00
Original Issue Discount	361,193.40
Purchase of Debt Service Reserve Surety Bond	43,750.00
Deposit to Revenue Bond Account	<u>165,832.67</u>
Total Uses of Funds	<u><u>\$35,165,832.67</u></u>

Source: City of Portland.

The following table shows projected debt service on the Bonds, along with debt service on outstanding Senior Lien and General Obligation Bonds of the Bureau.

Table 2
CITY OF PORTLAND, OREGON
Bureau of Water Works
Annual Debt Service Requirements

Fiscal Year Ending June 30 th	Senior Lien Water Revenue Bonds, 2000 Series A		Outstanding Senior Lien Bonds		Outstanding General Obligation Bonds		Total Requirements
	Principal	Interest	Principal	Interest	Principal	Interest	
2001		\$1,637,598	\$2,390,000	\$3,330,420	\$5,602,001	\$1,758,830	\$14,718,849
2002	490,000	1,853,368	2,500,000	3,220,965	5,872,087	1,516,343	15,452,763
2003	510,000	1,828,368	2,620,000	3,104,025	6,082,174	1,260,649	15,405,216
2004	540,000	1,802,118	2,735,000	2,979,320	6,312,208	988,626	15,357,272
2005	560,000	1,774,618	2,875,000	2,847,070	6,007,244	701,717	14,765,649
2006	590,000	1,745,868	3,015,000	2,705,530	4,172,155	470,761	12,699,314
2007	620,000	1,715,618	3,165,000	2,554,610	1,360,000	342,950	9,758,178
2008	650,000	1,683,868	3,330,000	2,393,150	1,430,000	275,275	9,762,293
2009	690,000	1,650,368	3,500,000	2,220,281	1,500,000	202,740	9,763,389
2010	720,000	1,615,118	3,685,000	2,037,344	1,580,000	124,950	9,762,412
2011	760,000	1,578,118	3,880,000	1,842,731	1,660,000	42,330	9,763,179
2012	800,000	1,539,118	4,085,000	1,636,026			8,060,144
2013	840,000	1,497,593	4,305,000	1,417,766			8,060,359
2014	890,000	1,452,928	4,530,000	1,187,360			8,060,288
2015	930,000	1,405,375	4,780,000	941,350			8,056,725
2016	990,000	1,354,975	5,035,000	679,063			8,059,038
2017	1,040,000	1,301,688	5,310,000	411,750			8,063,438
2018	1,090,000	1,245,775	5,580,000	139,500			8,055,275
2019	7,030,000	1,028,231					8,058,231
2020	7,420,000	635,250					8,055,250
2021	7,840,000	215,600					8,055,600
TOTAL	\$35,000,000	\$30,561,554	\$67,320,000	\$35,648,261	\$41,577,869	\$7,685,171	\$217,792,855

Source: City of Portland.

PAYMENT OF AND SECURITY FOR THE BONDS

Net Revenues

The Bonds are special obligations of the City, payable solely from the Net Revenues of the Water System and amounts deposited in the Revenue Bond Reserve Account. The Net Revenues are pledged to pay the Bonds, and there are no obligations outstanding which have a pledge of or lien on the Net Revenues which is superior to the pledge of and lien on the Net Revenues for the Bonds.

Net Revenues do not include all revenues of the City relating to the Water System; see Appendix A and the definitions of "Gross Revenue," "Operating Expenses," and "Net Revenues" for a detailed statement of the components of Net Revenues.

Rate Covenant

The City covenants for the benefit of the Owners of the Bonds that it will establish and maintain rates and charges in connection with the operation of the Water 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 the Master Ordinance to the Revenue Bond Account, the Revenue Bond Reserve Account, and the other accounts established in the Master Ordinance.

In addition, the City covenants for the benefit of the Owners of all Bonds that it shall charge rates and fees in connection with the operation of the Water System which, when combined with other Gross Revenues, are adequate to generate Net Revenues each Fiscal Year at least equal to 1.25 times Annual Debt Service due in that Fiscal Year.

See the definition of "Annual Debt Service" in Appendix A for the rules which apply to calculating Annual Debt Service for different types of Bonds, including Variable Rate Obligations and Parity Derivative Products.

It shall not constitute an Event of Default if the City fails to comply with the rate covenant as long as: the City engages the services of a Qualified Consultant; the Qualified Consultant recommends a schedule of rates and charges or other actions which the Qualified Consultant reasonably projects will permit the City to comply with the rate covenant for the then current fiscal year; and, the City implements the recommendations of the Qualified Consultant.

Reserve Account

The City covenants to fund and maintain, but solely from Bond proceeds and Net Revenues, a balance in the Revenue Bond Reserve Account at least equal to the Reserve Requirement for all Outstanding Bonds. The Reserve Requirement is generally equal to the lesser of Maximum Annual Debt Service on all Outstanding Bonds or the amount the City was required to maintain in the Revenue Bond Reserve Account prior to issuing a series of Bonds, plus the largest amount of proceeds of tax exempt bonds the City may use to fund a reserve under the Internal Revenue Code of 1986, as amended. The City has reserved the option to fund the Revenue Bond Reserve Account over a five year period following the issuance of each series of Bonds. The balance in the Revenue Bond Reserve Account includes the amount available to be drawn under a Reserve Credit Facility. See Appendix A and the definitions of "Reserve Requirement" and "Tax Maximum."

Revenue Bond Reserve Account

The Master Ordinance requires the establishment of a Revenue Bond Reserve Account in an amount generally equal to the Maximum Annual Debt Service on all Outstanding Bonds. The Master Ordinance authorizes the City to obtain a Reserve Credit Facility in lieu of fully funding with cash the Reserve Requirement. Accordingly, application has been made to Financial Security Assurance for the issuance of a Municipal Bond Debt Service Reserve Insurance Policy for the purpose of funding a portion of the Reserve Requirement. (See summary of the Master Ordinance contained in Appendix A herein.) The Bonds will only be delivered upon the issuance of such Policy or otherwise meeting the Reserve Requirement. The premium on the Policy is to be fully paid at or prior to the issuance and delivery of the Bonds.

Funds and Accounts

The City covenants to deposit the Gross Revenues in the Water Enterprise Fund. The Master Ordinance establishes the following accounts in the Water Enterprise Fund:

- **Revenue Bond Account:** Amounts in this account may be used only to pay Bonds.
- **Revenue Bond Reserve Account:** Amounts in this account may be used only to pay Bonds, and only if amounts in the Revenue Bond Account and Net Revenues available in the Water Enterprise Fund are insufficient to pay Bonds.
- **Subordinate Obligations Account:** Amounts in this account may be used to pay Subordinate Obligations.
- **Charter General Obligation Bond Account:** Amounts in this account may be used to pay general obligation bonds of the City issued under Section 11-103 of the City Charter to finance the Water System.
- **Capital Renewal Account:** Amounts in the Capital Renewal Account may be used solely to pay for capital costs of the Water System, including costs of repairing, replacing, improving and expanding the Water System.

The City covenants for the benefit of the Bondowners that it will apply the Gross Revenues on or before the following dates for the following purposes in the following order of priority:

1. At any time to pay Operating Expenses which are then due;
2. One business day prior to each Payment Date, to transfer to the Revenue Bond Account an amount sufficient to pay in full all Bond principal, interest and premium, if any, which is due to be paid on that Payment Date;
3. On the schedules specified in the Master Ordinance, to make transfers to the Revenue Bond Reserve Account to maintain or restore the balance in that account to the Reserve Requirement; Section 148 of the Code;
4. On the dates specified in any proceedings authorizing Subordinate Obligations, the amounts required to be deposited in the Subordinate Obligations Account;
5. One business day prior to any principal or interest payment date on City general obligation bonds issued pursuant to Section 11-103 of the City Charter, to transfer to the Charter General Obligation Bond Account an amount sufficient to pay all principal, interest and premium, if any, due on those general obligation bonds on that payment date;
6. To apply Net Revenues to the payment of any franchise fees and similar charges imposed by the City on the Water System;
7. Not later than the last day of each fiscal year, to transfer not less than \$5,000,000 to the Capital Renewal Account;
8. After all transfers and payments having a higher priority under this section have been made, Net Revenues may be applied for any other lawful purpose.

PARITY OBLIGATIONS

The City may issue Parity Obligations to provide funds for any purpose relating to the Water System, but only if no Event of Default has occurred and is continuing, there is no deficiency in the Revenue Bond Account, the balance in the Revenue Bond Reserve Account is at least equal to the Reserve Requirement, and there has been filed with the City either:

1. A certificate of the Director stating that Net Revenues (adjusted by the Director as provided below) for the Base Period were not less than one hundred twenty-five percent (125%) of the average Annual Debt Service on all Outstanding Bonds, with the proposed Parity Obligations treated as Outstanding; or,

2. A certificate or opinion of a Qualified Consultant stating that the Adjusted Net Revenues (computed as provided below) are at least one hundred twenty-five percent (125%) of the average Annual Debt Service on all Outstanding Bonds, with the Proposed Parity Obligations treated as Outstanding.

Net Revenues may be adjusted by the Director by adding any Net Revenues the Director calculates the City would have had during the Base Period because of increases in Water System rates, fees and charges which took effect after the beginning of the Base Period. However, no adjustment shall be made for these increases unless they have been approved by the Council prior to delivery of the Proposed Parity Obligations and are required to take effect no later than sixty days after the delivery of the proposed Parity Obligations.

The Qualified Consultant may compute Adjusted Net Revenues by adjusting the Net Revenues for the Base Period in any of the following ways:

1. If the Bonds are being issued for the purpose of acquiring operating Water System utility properties having an earnings record, the Qualified Consultant may estimate the effect on the Net Revenues for the Base Period if the Water System utility properties had been part of the Water System during the Base Period. The estimate shall be based on the operating experience and records of the City and any available financial records relating to the Water System utility properties which will be acquired.
2. To reflect any changes in rates and charges that have been adopted by the City Council and which:
 - a. Are in effect on the date of sale and delivery of the Bonds; or
 - b. Are to go into effect not later than twelve months after such date, and were not in effect during the entire Base Period.
3. To reflect any customers added to the Water System after the beginning of the Base Period and prior to the date of the Qualified Consultant's certificate;
4. If extensions of or additions to the Water System are in the process of construction on the date of the Qualified Consultant's certificate, or if the proceeds of the Bonds being issued are to be used to acquire or construct extensions of or additions to the Water 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).

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

A Derivative Product may be a Parity Derivative Product and a Parity Obligation if the obligation to make City Payments under the Derivative Product qualifies as a Parity Obligation, after the Reciprocal Payments under the Derivative Product are applied to reduce Annual Debt Service. Any Parity Derivative Product shall clearly state that it is a Parity Derivative Product and has qualified as a Parity Obligation under the Master Ordinance. There are no Derivative or Parity Derivative Products outstanding and the City has no plans to issue such Derivative or Parity Derivative Products at this time.

All Parity Obligations issued in accordance with the requirement of the Master Ordinance shall have a lien on the Net Revenues which is equal to the lien of all other Outstanding Bonds.

OTHER COVENANTS

The City covenants it will:

1. Not take or omit any action within its control which is required for interest on the Bonds to be excluded from gross income for federal taxation purposes.

2. Maintain records relating to the operation of the Water System and all City funds and accounts in accordance with generally accepted accounting principles, and to have records to be audited annually, and the audit report made available for the inspection of Bondowners.
3. Not issue Bonds or other obligations having a claim superior to the claim of the Bonds upon the Net Revenues.
4. Operate the Water System in a sound, efficient and economic manner, that it will not enter into any new agreement to provide Water System products or services at a discount from published rate schedules or to provide free Water System products or services (except for fire suppression and in case of emergencies).
5. Self insure the Water System, or purchase insurance on the Water System of the sort customarily maintained by entities such as the City with respect to properties like the Water System, and that it will apply the net proceeds of insurance covering Water System damage to repair or rebuild the Water System, or to the redemption of the Bonds on a pro rata basis.
6. Not sell, mortgage, lease or otherwise dispose of or encumber all or any portion of the Water System except as specifically permitted by the Master Ordinance.
7. Cause the Water 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 Water System, and shall cause the Water System to be maintained, preserved, reconstructed, expanded and kept, with all appurtenances and every part and parcel thereof, in good repair, working order and condition, and shall from time to time cause to be made, without undue deferral, all necessary or proper repairs, replacements and renewals so that at all times the operation of the Water System shall be properly and advantageously conducted.

THE WATER SYSTEM

This section provides an overview of the Water System's water sources, storage and distribution, treatment, and hydroelectric power generation.

GENERAL INFORMATION

The Bureau has supplied domestic water to residents of the Portland area for over 100 years. The Bureau is the largest supplier of domestic water in Oregon. More than 800,000 people, approximately one-quarter of the state's population, are served by the Bureau within its 225 square mile service area. The Bureau delivered more than 42 billion gallons of water to its customers in Fiscal Year ("FY") 1998-99. Average annual daily water use is 115 million gallons ("MG"), but on a hot summer day that use can exceed 200 MG. Total system per capita consumption is about 136 gallons per day, with residential per capita consumption totaling about 72 gallons per day. A depiction of the Water System is shown on the following page.

SOURCES OF SUPPLY

The Bull Run Watershed

The primary source of water supply comes from the 65,000 acre Bull Run Watershed (the "Watershed") which lies 35 miles east of the City in the Mt. Hood National Forest. The Watershed is a dense forest consisting primarily of old growth Douglas Fir with the land at elevations of 750 to 4,150 feet above sea level. The Watershed takes its name from a herd of maverick cattle that once roamed within its boundaries.

The Bull Run River is a very productive water source. Water is replenished by rain and mist at streamflow rates as high as 900 million gallons per day ("MGD") and as low as 50 MGD. Portland averages about 40 inches of rain per year while some areas in the Watershed average up to 170 inches per year. Average annual runoff at the mouth is about 600,000 acre-feet, which is equivalent to a water depth of 105 inches spread uniformly over the Watershed. The average rate of flow is about 820 cubic feet per second. The Watershed's reservoir and lakes hold 31.5 billion gallons of water with a useful capacity of 12.9 billion gallons. The Watershed has remained an unfiltered water source by continuously meeting the unfiltered criteria established by the Environmental Protection Agency ("EPA") under the Surface Water Treatment Rule ("SWTR").

Bull Run Lake, a natural lake and a significant tributary of the Bull Run River, is located near the eastern boundary of the Watershed and is the highest reservoir in the Watershed. Bull Run Lake has a total capacity of 14.8 billion gallons, of which a maximum of about 2.7 billion gallons is releasable for system use. The releasable capacity is restricted by provisions of a 1997 U.S. Forest Service ("USFS") easement. Terms of this easement limit the volume available, the timing of use, and the mitigation requirements for releases that result in the lake not refilling by the following spring. In 1998, the City obtained "certification" of the easement from the State of Oregon under §401 of the Clean Water Act. Mitigation requirements and use restrictions in the easement are designed to protect the lake ecosystem, especially habitat for bald eagles and cutthroat trout. Natural climatic and geologic conditions also affect volume availability in Bull Run Lake.

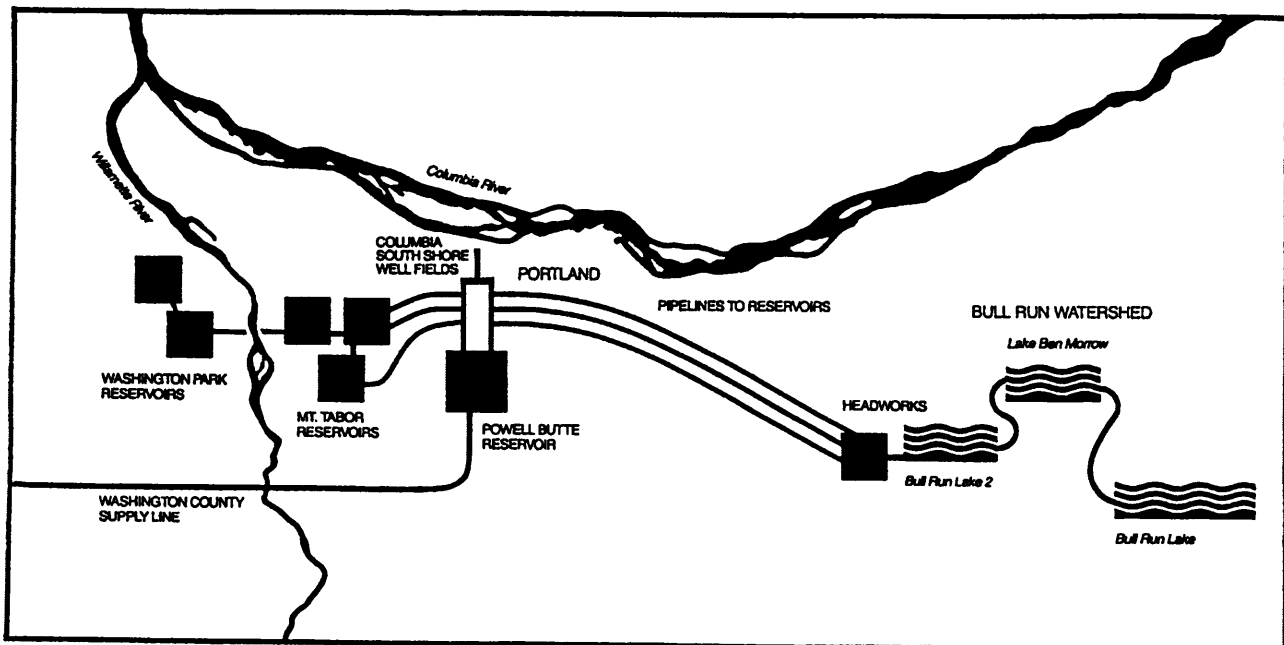
Fourteen miles downstream of Bull Run Lake on the Bull Run River is Lake Ben Morrow, which was created by the construction of Bull Run Dam 1 in 1929. Lake Ben Morrow has a total capacity of 9.9 billion gallons, of which 7.8 billion gallons is available, with the remaining balance currently not accessible for drinking water purposes. Bull Run Dam 2, constructed in 1962, is located on the Bull Run River four miles downstream of Bull Run Dam 1, creating the Bull Run Reservoir. The Bull Run Reservoir has a total capacity of 6.8 billion gallons, with 2.4 billion gallons available and the remaining capacity currently not accessible for drinking water purposes. Capacity limits in both of these man-made impoundments are the result of drawdown restrictions designed to help ensure that turbidity levels always remain acceptable and that the Bureau does not violate its SWTR exemption. Continuation of the SWTR exemption requires the Bureau to meet the turbidity standard of 5 Nephelometric Turbidity Units ("NTU"). The Bureau believes there is a very small risk of violating the turbidity standard given its current Watershed protection program and restricted reservoir usage. The major strategy the Bureau uses to avoid violating the turbidity standard is to shut down the Bull Run supply before the 5 NTU standard is reached and switch to the groundwater back up supply.

The two primary reservoirs created at Dam 1 and Dam 2 are operated under a permit from the USFS as well as a Federal Energy Regulatory Commission ("FERC") license. The USFS special use permit requires consultation with USFS staff for operation and maintenance activities. The 1966 special use permit for the reservoirs does not have an expiration date, but is subject to reevaluation by the USFS at its discretion. The Bureau has an ongoing, cooperative working relationship with the USFS, and would expect to be a negotiating partner in any future environmental assessments involving the reservoirs' special use permit. The FERC license regulates the timing and amount of water that can be released for hydropower purposes only. The FERC license and associated USFS special use permit for hydropower facilities expire in 2029.

Protection of the Watershed and its water quality has been addressed in a unique series of public laws and Presidential proclamations dating back to 1892. From 1904 to 1977, the Watershed was managed under a law that came to be known as the Trespass Act, which allowed access to the Watershed by City and federal employees and their contractors for the sole purpose of protecting the forest. The Watershed is currently managed under the terms of Public Law 95-200, passed by Congress in 1977, and amended in 1996. That law establishes the primary purpose of the Watershed as being continued production of pure potable water for use by the Portland urban area, and requires all USFS land management activities to meet strict water quality standards.

Because of the high quality of Bull Run water and its SWTR filtration exemption, treatment requirements are significantly reduced. Bull Run water treatment facilities include only disinfection and limited corrosion control. The Headworks (primary) treatment facilities are located immediately below Bull Run Dam 2 in the Watershed. At the Headworks, chlorine is added for primary disinfection of the raw water. Water leaving the Headworks is continuously monitored to determine the chlorine residual.

Portland's Regional Water Supply System



Ammonia is added to the water at the Lusted Hill Ammonia Facility located 10 miles downstream from the Headworks. Corrosion treatment is also located at Lusted Hill and began January 1, 1997, to comply with the EPA's Lead and Copper Rule. Corrosion treatment consists of adding about 3 parts per million of sodium hydroxide resulting in a slight increase in pH levels while making a minimal change in mineral quality.

The Bull Run Watershed Management Unit, an administrative boundary that encompasses the Watershed, is located within the Mt. Hood National Forest and administered by the USFS. The USFS manages this land under numerous statutory authorities, including P.L. 95-200. Recent land management directives that affect the Watershed will likely enhance water quality protection. They include:

- the Northwest Forest Plan, which established standards and guidelines for protecting terrestrial species dependent on old growth forest conditions (including the northern spotted owl) as well as protection for aquatic habitat, and
- the Oregon Resources Conservation Act, an amendment to P.L. 95-200, which eliminates commercial timber harvesting within the Bull Run physical drainage area (except where it serves or enhances the Water System).

Historically, timber harvest revenues have funded water quality monitoring, road maintenance, and general management activities in the Watershed. However, the changing emphasis on timber harvest has produced a significant reduction in the financial resources and, accordingly, USFS services in the Watershed. For example, maintenance activities for the 350 mile Bull Run road system and the associated drainage structures and facilities, such as culverts and roadside ditches, are being appropriated at not more than \$40,000 per year, or about 5 percent of the dollar amount provided a decade ago. To assure that critical maintenance, monitoring and management activities continue to be adequately addressed, the USFS and the Bureau have been working toward short-term agreements as well as actively pursuing strategies to address the longer-term Watershed management issues. The key criteria for these discussions is clarity of roles (decision making) and expectations (standards) so the Bureau can effectively develop a work plan in concert with its financial and staffing resources. Already, the City has assumed and is funding some of these responsibilities, but the final cost estimate for transfer of other USFS Watershed responsibilities remains unknown at this time, and, if significant, will be managed in such a way that can be incorporated over time in a reasonable manner.

The Columbia South Shore Well Field

In the 1970's, plans were developed for a groundwater well system that would yield up to 90 MGD or nearly enough to replace the system's average daily winter/off-peak demand. The intent in developing this system was to provide an emergency backup source of supply to the Bull Run's surface water system and to provide a supplement to meet peak-day and peak-season demand. Construction of phase I of the Columbia South Shore Well Field (the "Well Field") was completed in 1984 and phase II in 1987.

The Well Field is located just east of the Portland airport and contains 24 groundwater wells with a total capacity of 90 MGD. Water from the Well Field is treated with chlorine and ammonia for disinfection, and is currently used as an emergency backup system and to augment summer supply demands. Corrosion control facilities under design for the Well Field will increase operational flexibility by adjusting the pH of groundwater to match the pH of Bull Run water and ensure compliance with the Lead and Copper Rule.

In 1986, groundwater contaminants were found in the vicinity of the Well Field although no contamination associated with the regional contamination has appeared in any of the Bureau's wells. The known groundwater contaminants are primarily restricted to the shallow water table aquifer. The majority of City production wells are located in deeper confined aquifers, which are isolated from the shallow water table aquifer by up to 100 feet of low permeability clay.

The City has not been charged with responsibility for causing or for cleanup of the contamination. See "LITIGATION" herein. Investigation and cleanup efforts for groundwater contamination are underway by the responsible parties under the direction of the EPA and the State of Oregon Department of Environmental Quality ("DEQ"). The Bureau is working closely with these agencies to ensure that operation of the Well Field does not hamper cleanup efforts and to protect the Well Field from contamination. The Bureau is also actively participating in development and implementation of the remediation plan.

The most extensive pollution has been found near the eastern portion of the Well Field. Remedy implementation is on-going, following issuance of the Record of Decision ("ROD") for the eastern contamination plume in December 1996. Several smaller contaminant plumes located in the western portion of the Well Field are in various stages of assessment, characterization or remediation. Assessment activities to identify the source or sources of contamination detected in City groundwater monitoring wells in the central portion of the Well Field are ongoing. There is no indication, however, that these sources of contamination pose a risk to the Bureau's ability to operate its production wells that is as serious as that posed by the contamination in the eastern part of the Well Field.

Through successful remedy implementation in the eastern portion of the Well Field, there is now 65 MGD available for at least 90 days. In the case of a more severe event such as interruption of Bull Run water, the Bureau can access the backup groundwater

source up to its full capacity of 85 MGD for up to 30 days. The Bureau has also established emergency response agreements with other major water systems. A proposed Well Field capacity expansion resulting from installation of three new wells should increase the reliable capacity of the groundwater system to 75 MGD for 90 days and 95 MGD for 30 days by the winter of FY 2000-01.

The Bureau currently manages a Wellhead Protection Program for the Columbia South Shore area. This program prohibits (within the Well Field protection area) certain commercial activities that have a high potential for spills of hazardous materials. It also requires all commercial businesses needing building permits within the City to be reviewed and, if necessary, to install facilities needed to contain such materials in the event of a spill.

Since the inception of the Wellhead Protection Program in 1987, this area of Portland has been rapidly developing into a light industrial and commercial center, heightening the need to both actively protect the Well Field from contamination and aggressively address contaminants that are identified. The Bureau has pursued both these strategies and is satisfied with progress to date. Major accomplishments include:

- implementation of the agreed upon remediation plan by the Boeing Company and Cascade Corporation (whose activities are alleged to have contributed to ground water contamination near the Well Field) to address contaminants in the East Multnomah County area of the Well Field. See "LITIGATION" herein. This remedy is proceeding faster than anticipated and is expected to result in complete clean up of the contamination sooner than the original 20 year estimate.
- installation of a monitoring well network involving 60 wells located at one, five and 20 year time-of-travel distances from production wells. These monitoring wells serve as an "early warning" system allowing the Bureau to identify potential threats well in advance of any influence on production wells. In August 1998 and February 1999, two previously unidentified sources of contamination were picked up by the monitoring well network, enabling the Bureau to begin working with the DEQ to identify responsible parties and delineate the contaminant plume in preparation for designing a remediation plan.
- initiation of a community based plan to review and update the Wellhead Protection Program for the Columbia South Shore area, including formally working with the cities of Fairview and Gresham to bring the entire Columbia South Shore area under the current protection program while working cooperatively with citizen, business, and government interests to assess and potentially revise the 12-year-old Wellhead Protection Program.

The evolving role of the Well Field's use as a summer peaking source is the subject of ongoing discussion in the City and in the region. Factors that will influence the future role of the Well Field include: 1) Council policy development on the use of groundwater, 2) the opportunity to use the Well Field to store available Bull Run water during the winter and spring through an aquifer storage and recovery system, and 3) implementation of the Regional Water Supply Plan ("RWSP") as carried out through the renewal of wholesale contracts after 2004. (See "FACTORS AFFECTING NEAR-TERM WATER SYSTEM CAPITAL INVESTMENT" herein.)

STORAGE AND DISTRIBUTION

Water is conveyed from the Watershed to Portland through three large conduits (210 MGD capacity), each 25 miles long. An intertie conduit, which is approximately two miles long and with a capacity of 325 MGD, connects these conduits with the transmission main from the Well Field and Powell Butte Reservoir. With the exception of the groundwater source, it is a gravity supply system, which is a major contributor in keeping the City's water rates low.

The Bureau's in-town water system storage consists of six large terminal storage reservoirs and 74 smaller standpipes and tanks, with a total storage capacity of about 300 MG. Water flows from the Powell Butte Reservoir to the other five terminal reservoirs or directly to west side wholesale customers through the Washington County Supply Line. Secondary disinfection treatment facilities are located at the Mt. Tabor and Washington Park terminal reservoirs. These facilities are designed to add chlorine to ensure that an acceptable chlorine residual level is maintained throughout the distribution system. There are eight Willamette River crossings (including the Washington County Supply Line) to supply the Bureau's west side customers. Pumping facilities supply all areas higher in elevation than can be served by the terminal storage reservoirs. The Bureau's transmission and distribution system contains 36 separate pump stations with a total of 118 pumps.

The Water System contains approximately 1,900 miles of transmission and distribution pipe; over 200 miles of these pipes are 16 inches in diameter and larger. The system is constructed of cast iron, ductile iron, steel, and copper piping and is in good condition with an expected future life of 50 to 100 years. Thousands of valves are located in the transmission and distribution piping to allow control during repairs, maintenance, or improvements. Approximately 11,600 fire hydrants are located on the distribution piping network to provide fire protection to system customers. All customers are metered. The Bureau's system has approximately 159,000 meters, including 55 meters serving wholesale customers. The distribution system also includes over 150 drinking and decorative fountains for use by the public.

The Bureau's supply and distribution system is constantly monitored and controlled via a Water Control Center. The original computer-based Supervisory Control and Data Acquisition System was completed in 1991, providing monitoring and control for all of the Bureau's facilities from a central location. A second generation system replaced this system late in 1999. This new system will allow Bureau staff to access the system data from remote locations and provide for integration opportunities with other computer software and databases. The table below summarizes key features of the Water System.

Table 3
CITY OF PORTLAND, OREGON
Bureau of Water Works
Water System Statistics (06/30/99)

Watershed Storage Capacity	31.5 Billion Gallons
Useful Capacity	12.9 Billion Gallons
No. of Groundwater Wells	24
Useful Capacity	90 MGD
No. of Transmission Conduits	3
Miles of Conduit Pipe	75.2
Maximum Bull Run Supply Capacity	210 MGD
No. of In-Town Terminal Storage Reservoirs	6
Total In-Town Storage Capacity	300 Million Gallons
Miles of Transmission and Distribution Pipe	1,919
No. of Standpipes and Tanks	74
No. of Pump Stations	36
No. of Pumps	118
No. of Services	158,955
Single Family Residential	131,200
Multi-Family Residential	9,600
Commercial and Industrial	18,100
Wholesale	55
No. of Fire Hydrants	11,643
No. of Drinking and Decorative Fountains	147

Source: City of Portland.

WATER SUPPLY OPERATIONS

Current Operations

Normally, the Bureau can supply 100 percent of its customer's water needs entirely from the Watershed. The Bureau has established a water supply plan to respond to such weather abnormalities as drought or unseasonably warm weather. Since 1992, this seasonal contingency plan or Summer Supply Plan has been updated annually and adopted by City Council each fiscal year. The plan provides a pre-agreed list of supply augmentations and demand reduction options that the Bureau can implement as needed, and contains trigger and implementation criteria under different forecast scenarios.

To help ensure a timely and proper response to a severe or catastrophic event, the Bureau has constructed an Emergency Operations Center. From this center, the Bureau's full time Emergency Operations Manager can plan and coordinate the Bureau's actions during emergencies. The 1999 update of the Bureau's Emergency Plan uses the state-of-the-art Incident Command System to ensure appropriate actions during emergencies.

Strategic Supply Planning

Background. The population growth rate in the Portland metropolitan area has been above the national average during the 1990's. The Water System has provided a significant portion of the water for that growth, supplying about 70 percent of the metro area. The Bureau currently sells over 40 percent of its water on a wholesale basis to 19 cities, special districts, and private water companies.

Regional Water Supply Plan. Under the leadership of the City of Portland, the Bureau in concert with 26 other water providers and the regional government Metro, embarked on a three year process to jointly manage and fund the development of a regional water supply plan. In early 1997, a final RWSP was endorsed by 27 of the region's water providers and Metro. As part of the RWSP endorsement, the region's water providers also formed a Regional Water Providers Consortium (the "Consortium"), which operates with an elected officials Board and a Technical Advisory Committee to oversee the implementation of the RWSP.

The RWSP contains a set of strategies on both programs and source/transmission development to meet future growth needs in the region. The strategies contained in the RWSP place a reliance on the Water System to continue to meet a significant portion of the region's water demands as well as significant conservation programs to reduce peak season demand over time.

The most recent initiative of the Consortium is a regional evaluation of transmission and storage, which is expected to develop and evaluate different regional transmission visions for how the water sources of the region might be interconnected in the future. The issues associated with regional transmission/storage and the means for managing and financing such a system are also actively being discussed. This discussion is likely to become the framework within which future regional water supplier contract arrangements will be determined, and is expected to result in more clearly defined and longer term agreements. The Consortium Board is expected to adopt a regional transmission vision in the summer of 2000.

Strategy. The Bureau is actively taking steps to address a number of factors that could affect costs to operate and maintain the Water System. Key issues include:

- continued work on developing and clarifying the role of the Well Field as a summer peak season supply including the potential to inject Bull Run water into the ground for peak season use, known as aquifer storage and recovery ("ASR"),
- vulnerability of the Water System to events which could impact supply availability over short or long term periods,
- the need to address the requirements of the Endangered Species Act ("ESA") for the listed Steelhead Trout and Chinook Salmon in the Sandy Basin as well as the other potential fish listings which could affect the operation and expansion of Bull Run water supplies,
- opportunities to develop and implement cost effective programs to reduce demand for potable supplies including conservation, direct source use, and re-use of wastewater,
- identification and programming of major infrastructure projects over the near and long term to maintain and enhance the viability and reliability of Portland's water supplies as the region's major water source, and

- continued development of Well Field remediation strategies as well as enhanced source protection, and the development of a monitoring well system and model to accurately forecast yield, assess risks and improve the Bureau's ability to protect the quantity and quality of the groundwater.

Although these are complex issues, not unlike many facing other large municipal water suppliers in the United States, the Bureau believes that it is both necessary and achievable to consider these issues in an integrated and strategic manner. To do so, the Bureau is engaged in an ongoing strategic planning process. This process is designed to enable effective and timely decisions by the City Council regarding: 1) future wholesale contracts and institutional arrangements needed to implement a regional vision for the Water System; 2) necessary improvements which will ensure system viability and acceptable reliability; and, 3) adoption of financing strategies to accomplish these objectives.

Infrastructure Master Plan. A key feature of moving forward with strategic planning and implementation is the completion of the Bureau's first Infrastructure Master Plan ("IMP"), underway since early 1998. This process has focused on the largest and typically most expensive portions of the water system – Supply, Transmission, and Terminal Storage. A set of tools has been developed to allow staff to evaluate different combinations of infrastructure investments for their ability to meet water supply, system reliability, water quality, environmental, water conservation, and financial objectives. Included in the assessment work that has been completed on future facility investments are the results of work on the rehabilitation, replacement, and improvements to existing facilities as well as evaluations of system needs to meet growing demand in the region and address future drinking water regulations.

As a result of the work conducted in the RWSP and in more detail within the IMP process, the Bureau and Commissioner in-charge are actively working on defining the future of the Water System. This system has significant potential for expansion and it appears that both existing and new customers can be served in the future. Opportunities for expanding the Watershed's storage include potential construction of a new dam or expansion of existing dams. In addition, other source enhancement options such as water filtration, ASR, and groundwater upgrade projects are included in the IMP analysis.

Development of Future Wholesale Contracts. The Bureau has been discussing the future of the Water System with both current wholesale contract customers through the Water Managers Advisory Board and with the Consortium.

The City currently sells water on a long term wholesale contract basis to 14 cities and public water districts. These 25 year contracts will expire beginning in the year 2004. The Bureau has recently entered into a collaborative contract renewal process with these customers. This process is intended to ensure that all major stakeholders will have an opportunity to be involved in the determination of the conditions under which the City will make decisions on extending and renewing wholesale contracts.

The following table presents a list of all 14 current public wholesale customers, their contract expiration date, and forecast average annual demand and share of total system demand over the remaining four full years of the contract. In addition, the Bureau sells water to five small private water systems, whose contracts renew every five years. In total, the Bureau forecasts collecting about 23 percent of water sales revenues from these 19 wholesale customers.

Table
CITY OF PORTLAND, OREGON
Bureau of Water Works
Public Wholesale Customers and Projected Demand
(FY 2000-01 through FY 2003-04)

<u>Wholesale Customer</u>	<u>Contract Expires</u>	<u>Projected Average Annual Demand FY 2001-04 (million cubic feet)</u>	<u>% of Total Sales</u>
Lusted Water District	12/19/04	0.1	< 1%
Tualatin, City of	12/19/04	1.9	4%
Tualatin Valley Water District	12/19/04	8.9	17%
Pleasant Home Water District	12/26/04	0.1	< 1%
Burlington Water District	12/26/04	0.0	< 1%
Raleigh Water District	12/26/04	0.3	1%
Palatine Hill Water District	03/19/05	0.2	< 1%
West Slope Water District	06/04/05	0.6	1%
Rockwood Water People's Utility District	07/06/05	3.7	7%
Powell Valley Road Water District	07/09/05	1.6	3%
Gresham, City of	08/11/05	3.1	6%
Valley View Water District	09/17/05	0.1	< 1%
Lake Grove Water District	01/21/06	0.1	< 1%
Tigard, City of	07/01/07	2.3	4%
SUBTOTAL		23.1	44%
Water Companies with 5 Year Agreements	2001	0.3	< 1%
Portland, City of		30.2	56%
TOTAL PROJECTED		53.6	100%
Over the 4 Year Period - % of Revenue from Wholesale Customers			23%

Source: City of Portland.

In December 1998, the Bureau submitted a 50-year water supply proposal to four communities (Wilsonville, Sherwood, Tualatin and Tigard) located southwest of the City. At that time, all of these four cities along with the Tualatin Valley Water District ("TVWD") were pursuing the construction of a Willamette River 35 MGD filtration treatment plant and attended transmission mains. The Bureau's proposal was presented to enable these cities to contrast and evaluate their own proposal against an alternative approach focusing on the Water System.

Wilsonville is actively proceeding to develop the Willamette as the source for its long term water supply. Potential partners include the cities of Sherwood and Tualatin (a current wholesale customer of the City). However, for both of these cities, initiative petitions have been filed and a citizen vote in 2000 is likely on the question of tapping the Willamette as a municipal water source. Regardless, the City of Tualatin is expected to continue to contract for water with the City at its current demand levels.

Tigard citizens approved by a strong majority a Charter amendment requiring a vote if funds were to be allocated to using the Willamette as a water source. At this time, Tigard elected officials are evaluating alternatives to meet their long term supply including the use of the Clackamas River through the South Fork system. The City of Tigard, which until recently has not purchased a significant amount of water from the City, is expected to continue to contract with the City for emergency supplies.

The Governing Board of the TVWD, the City's largest wholesale customer, has approved its participation in the Willamette proposal. However, the TVWD has limited its participation to investing in over-sizing capacity for the Willamette treatment plant's intake structure and transmission and pumping facilities. This investment will facilitate expansion of the plant to a future maximum capacity of 110 MGD should west side communities eventually look to the Willamette to meet their long term growth. For the foreseeable future, TVWD has made substantial investments in transmission facilities connecting it with the Portland system and indications are that TVWD intends to continue to make water purchases similar to current levels well into the future.

With the exception of Powell Valley Road Water District (and Tigard as noted), other current wholesale customers are expected to continue to contract with Portland for their primary future water supplies. Powell Valley Road Water District, by intergovernmental agreement, will merge its customers and facilities with the Bureau in 2005. As a result, the City will begin serving directly an additional 10,000 retail accounts, all located within the current City boundaries.

Given the likelihood that all or most of the Bureau's existing wholesale customers will continue to contract for supplies in the future, current Bureau infrastructure plans reflect current and future demands for these customers needs. Future commitments by the City to provide additional supply and transmission capacity for these customers will be funded through contract renewals containing adequate financial commitments on the part of wholesale customers. These new wholesale contracts are expected to be negotiated and approved by July 1, 2001.

BULL RUN WATERSHED HYDROELECTRIC POWER GENERATION

The City owns two hydroelectric plants in the Watershed, which together form the Portland Hydroelectric, Project (the "Project"). The Project's facilities were constructed from 1979 to 1982 and consist of a 24-megawatt (36,000 horsepower ("HP")) turbine generator below Dam 1, a 12 megawatt (12,000 HP) turbine generator below Dam 2 and ten miles of power transmission lines required to connect the City's power plants with the Portland General Electric ("PGE") power system. The Project powerhouses are physically operated and maintained by PGE personnel as a condition of the Project's power sales agreement between the City and PGE. Annual power generation from these facilities is projected to average about 100,000 megawatt hours but varies from year to year based on actual rainfall.

The plants operate under a license from the FERC as well as permits from the USFS and certain other State of Oregon agencies. Both the FERC license and the USFS permit clearly place the operational priority of the Project in a secondary role to that of municipal water supply. These documents further restrict the Project from varying the City's two major water supply reservoirs any more than two feet below their respective dam spillway crests solely for hydropower generation purposes. The FERC license and associated USFS special use permit for hydropower facilities expire in 2029.

A portion of the annual cost of operation of a fish hatchery on the Clackamas River is paid for by the Project as mitigation for loss of fish habitat caused by construction of the original watershed dams in the mid to late 1920's.

The Project's facilities and its associated revenues and expenses are accounted for under its own fund structure and per the Master Ordinance, are excluded from the Water System and its associated accounting.

REGULATORY ENVIRONMENT

Operation of the Water System, like all water systems, is regulated under the Safe Drinking Water Act ("SDWA") through the EPA. In Oregon, administration of this Act is delegated to the Oregon Health Division ("OHD") as the "primacy" agency. OHD also establishes and enforces its own regulations for public water systems (OAR Chapter 333). The City's primary water source, the Bull Run Watershed, is located on National Forest System land that is managed under Public Law, P.L. 95-200 (the "Bull Run Management Act").

The City is also subject to environmental regulations and statutes administered by the DEQ and the EPA. The DEQ has been delegated enforcement of most of the programs that affect the City.

REGULATORY DEVELOPMENT

In 1974, Congress initially adopted comprehensive legislation for drinking water supplies. Since then, the original legislation has been significantly revised and expanded twice, first in 1986 and again in 1996. Regulations arising out of this legislation address among others, chemical and microbial contaminants, operator certification, disinfection and treatment practices, source water protection, and consumer information requirements. The first wave of new regulations resulting from the 1996 Amendments to the SDWA are largely in place at this time, but EPA anticipates an ongoing process through much of the early part of this century to fully realize Congress' intent in the recent revisions.

The Water System is currently in compliance with all regulations under the SDWA as well as those imposed by the OHD. To meet the requirements of some of the anticipated future regulations, improvements in the City's water treatment processes will likely be needed. To meet these future challenges, the Bureau has embarked on two parallel paths.

First, extensive effort has been put into participation in the regulatory development process. The objectives have been to ensure that the regulations are based on the best available scientific information and to ensure that both the national and state regulations reflect the unique circumstances of the Water System. Achieving these objectives means that the regulations will protect public health in the most cost effective manner possible. The Bureau has participated in national research projects and conducted local studies to develop technical information needed by regulatory agencies to set the rules. The Bureau has also taken part in national regulatory review groups to formally discuss the rules with the regulatory agencies, and has provided detailed public comments in the rule making process.

The second path to prepare for the upcoming rules has been to conduct the scientific and engineering studies necessary to identify the most efficient and effective options for improvements in the City's water treatment processes and facilities to meet the anticipated rules. This is demonstrated by the Bureau's current plan for compliance with the EPA's Lead and Copper Rule, which consists of four elements:

- limited treatment of water to raise its pH,
- an expanded program for free lead testing of water,
- a home risk assessment program focused on lead based paint and targeted at high risk neighborhoods, and
- an expanded, targeted lead hazard education program.

The emphasis on lead-based paint in the City's older housing stock is the result of analysis that show that lead based paint is the source of lead that most contributes to elevated blood lead levels in children in Portland. Working with several community based organizations and in active partnership with the Multnomah County Health Department, the Bureau has conducted an active education and risk assessment program in the at risk communities in North and Northeast Portland. In addition, the program has been designed to include both a research component and an ongoing evaluation effort so that it can be revised as needed to provide the best service in the most cost effective manner.

OHD has determined that the Bureau's four part program constitutes "optimum corrosion control", the regulatory requirement established by the Lead and Copper rule for those systems that had exceeded the 15 part per billion action level.

SOURCE WATER PROTECTION – EMERGING ISSUES

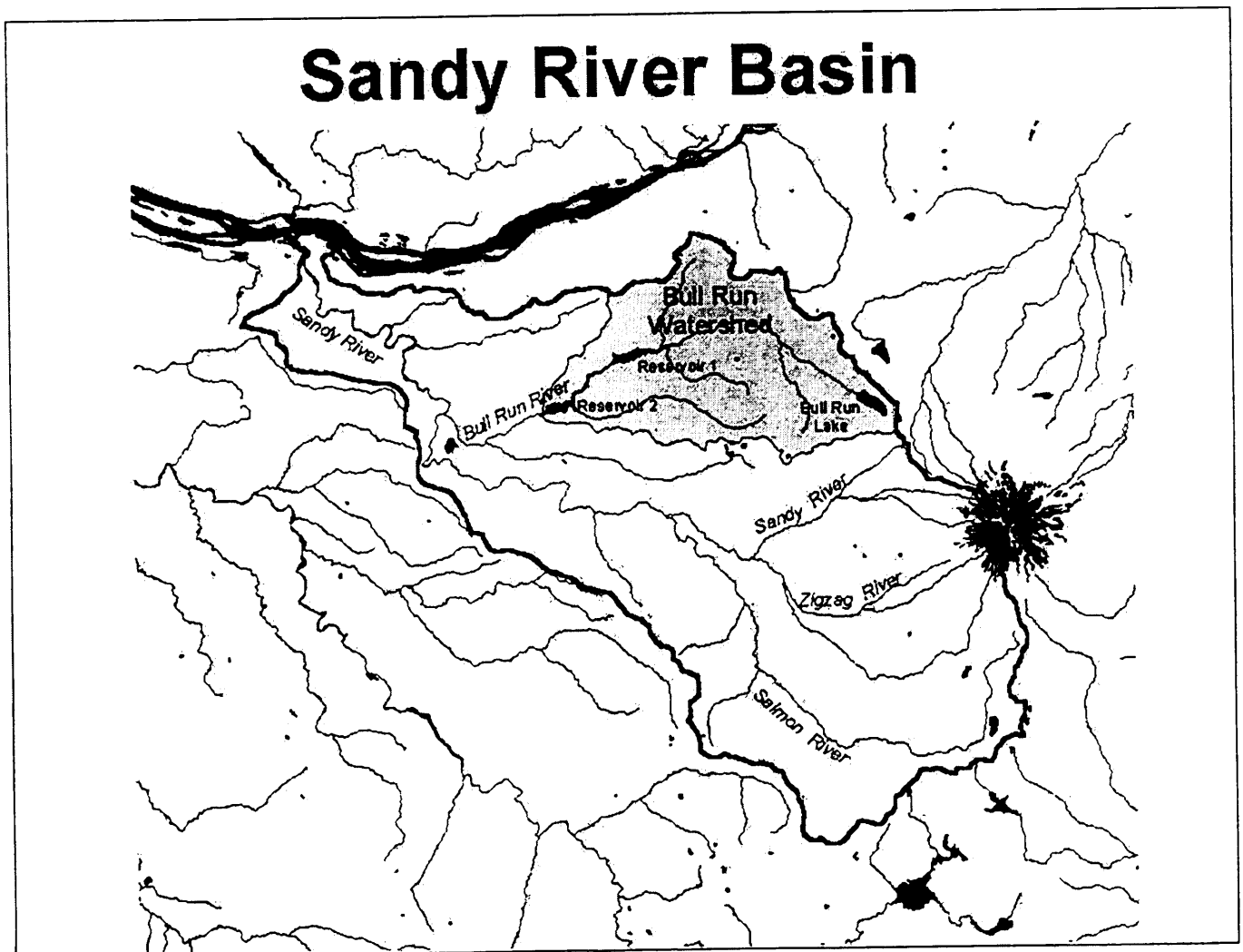
Water utilities strive to deliver to customers an adequate and reliable supply of high quality water at a reasonable price. Regulations can be a significant driver that influences this effort, although historically regulations have focused more on quality and public health issues than on quantity and availability issues. Both supply and quality regulatory issues have emerged as potentially significant for the Bureau:

Water Supply - the listing of various species of anadromous fish, including chinook salmon, winter steelhead trout, and the potential listing of sea-run cutthroat trout as threatened under the provisions of the ESA.

Water Quality - the regulation of *Cryptosporidium*, a chlorine resistant parasite, under the provisions of the Long Term Enhanced SWTR, and the further regulation of disinfectant by-products.

Water Supply

Endangered Species Act – Fish. Over the last two years, listing decisions for anadromous fish in the Lower Columbia Evolutionarily Significant Unit, which includes the Sandy Basin and its tributaries as well as the entire Portland-Vancouver metropolitan area, have introduced a new challenge and a new level of complexity to planning and managing surface water sources. Along with the fish listings, DEQ designated the lower Bull Run River (below the Headworks) as a water quality limited stream under the Clean Water Act (“CWA”) on December 1, 1998. A map of the Sandy River Basin is shown below.



The Bureau has dealt with fishery issues up to this point mainly through its fish mitigation agreement included in the 1984 FERC license for the City's Bull Run hydroelectric facilities. The Oregon State Fish and Wildlife Department agreed at the time that the mitigation program addressed both past damages and future impacts of the City's two dams and subsequent hydropower. Still, a listing of a species under the ESA provides opportunities for project licenses to be reopened and mitigation requirements to be revised in advance of formal license renewal processes. In addition, the special use permit issued by the USFS for operation of the Watershed dams can also be reopened by an endangered species listing.

The Bureau anticipated the potential for listing of one or more anadromous fish species beginning with assessment work initiated in 1994.

The Bureau recognizes that many parties affect habitat conditions in the Sandy Basin and that a collaborative, basin-wide approach to habitat restoration and enhancement will be necessary to create conditions conducive to healthy fish populations. In order to facilitate the collaborative planning and investments fishery enhancement measures in the basin, the Bureau led the development of the Sandy Basin Agreement, which was signed by the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, the USFS, the Oregon Department of Fish and Wildlife, PGE and the City in May 1999.

A key component of the Sandy Basin Agreement is the development of a "regulatory compliance plan" for the Bull Run water supply. This regulatory compliance plan would meet the City's obligations for the Bull Run system under the ESA and the CWA. This multi-year process has three phases – (1) technical investigation, (2) negotiations, and (3) procedural – and includes public involvement throughout the entire process. The Sandy Basin Agreement is the first step toward developing technical information about the opportunities and challenges of restoring healthy wild fish populations to the Sandy Basin. The negotiations phase will commence later this year and be completed by the end of 2002. With the completion of the procedural phase in 2003, the Bureau expects to finalize a regulatory compliance plan in FY 2003-04 that will provide regulatory certainty about the City's Bull Run water supply for the next 25 years.

The potential future cost impacts to the City for fishery mitigation requirements are difficult to forecast. The range of outcomes for fish mitigation are very broad and could include anywhere from small investments in habitat improvements and minor flow releases to a significant diversion of Bull Run water and major capital outlays. The history of resolution of similar issues elsewhere indicates that any impacts that do occur will accrue over time and in such a way that they can be incorporated in a reasonable manner. The Bureau intends to successfully manage these issues by actively engaging in them and working with agencies and interests to accomplish environmental benefits through cost effective solutions.

Water Quality

Cryptosporidium. The City has been able to maintain the Bull Run as one of only a half a dozen very large unfiltered surface water supplies in the United States. The 1989 SWTR included filtration avoidance criteria which was based upon the premise that chlorine disinfection of a very high quality water source is adequate to protect public health.

During the last decade, *Cryptosporidium* has emerged as a major public health issue, especially for those with suppressed immune systems. Unlike *Giardia*, which is also found in many surface water supplies, cryptosporidiosis, the disease caused by *Cryptosporidium*, is not treatable with antibiotics or other therapies.

Following a 1993 *Cryptosporidium* outbreak in Milwaukee, Wisconsin, the EPA began addressing the issue of *Cryptosporidium* by making changes to the SWTR. New requirements for filtered systems were promulgated in December, 1998, and EPA has committed to promulgating a "risk based" rule to protect the public from exposure to *Cryptosporidium* when it next revises requirements for surface water treatment.

EPA's commitment to a risk based rule includes considering a requirement that surface water suppliers reduce the level of *Cryptosporidium* in drinking water by both removing it (usually through filtration) and inactivating it (usually through disinfection). Since the Bull Run supply is unfiltered, and since *Cryptosporidium* is resistant to chlorine disinfection, a rule requiring removal and/or inactivation would impose potentially significant treatment changes and costs. Together with the other large unfiltered systems (San Francisco, Tacoma, Seattle, New York, and Boston), the City is working to assure that any risk based rule gives adequate and appropriate credit for high quality protected sources serving these communities.

Disinfection By-Products. Disinfection by-products are formed by the reaction of a disinfectant (typically chlorine, ozone, or any of their chemical relatives) with organic material present in the water being treated. The source of the organic material can be natural – for example, decaying leaves, or man-made, such as pollutants in the water from upstream sources. Such compounds

are reactive in human and other systems, and potential health risks associated with exposure to these compounds through drinking water have been a concern for some time.

In December 1998, EPA promulgated Stage 1 of the Disinfectant/Disinfection By-Products Rule. This rule lowered the acceptable concentration of total trihalomethanes, added a rule governing the concentration of haloacetic acids, and regulated bromate. EPA and its stakeholders have already commenced discussions for the negotiating process to develop the Stage 2 Disinfectant/ Disinfection By-Products Rule, and these discussions may result in significantly lowering maximum contaminant levels for these compounds of concern. Regulations that would lower the maximum contaminant level of haloacetic acids could drive treatment changes for the Bull Run source.

Treatment Strategy. EPA expects to promulgate both the Long Term Enhanced SWTR, and the Stage 2 Disinfectant/Disinfection By-Products Rule in May 2002. For both rules, the compliance timeframe is three years, with an automatic extension of two years if major capital construction is required. The current expectation is that the combined effects of both rules will require some form of new treatment.

A filtration plant (with ozone) is the traditional approach to addressing both issues at hand. The filtration process removes some of the natural organic material in the supply and the addition of ozone provides disinfection while reducing the system reliance on chlorine. In addition, constructing a filtration plant could provide up to 2.4 billion gallons in seasonal Bull Run supply capacity, as well as increased reliability during turbidity events which are occurring more frequently due to a pattern of storm events that are of greater intensity than those occurring in the 20 years spanning 1975 to 1995. Construction of a filtration plant is currently estimated at \$150 million with \$3 to \$5 million projected for annual operations and maintenance. A filtration plant would probably require a minimum of seven to ten years to complete and may require negotiations with OHD to establish an agreeable compliance schedule that would provide necessary coverage during the period of time between the end of the 5 year compliance window and completion of the project.

Ozone treatment alone (at a capital cost of \$60 million and \$2 to \$3 million for annual operations and maintenance) would likely satisfy the *Cryptosporidium* requirements as well as address potential lower disinfection by-product levels.

Recent research has added the potential of a new and significantly less expensive disinfection technology – ultra-violet light. The Bureau is an active participant in most of the research efforts currently underway, and preliminary research has shown ultra-violet disinfection to be effective in addressing both the level of disinfection by-product through reduced system reliance on chlorine, and inactivating *Giardia* cysts and *Cryptosporidium* oocysts. Full evaluation of cost and applicability of this potential treatment approach are continuing with the major research effort focused at “scaling up” applications for very large systems. Installation of this new technology for the Bull Run supply is currently estimated at between \$10 and \$20 million and is budgeted at \$15 million in the Bureau’s FY 2000-01 Ten-Year CIP. Given the current research efforts and level of interest nation-wide, the Bureau believes it is likely that this technology will be approved by EPA within the time-frame that would make it possible to consider it for application to the Bull Run system. Ultra-violet light operation and maintenance costs are also significantly lower with the majority of expense being electricity required to operate the ultra-violet light bulbs.

In summary, treatment changes for the Bull Run supply are likely over the next ten years due to anticipated future compliance requirements related to the Long Term Enhanced SWTR, and Stage 2 of the Disinfection By-Products Rule. Capital investments will likely be required over this time frame, and could range in cost from \$10 million to \$150 million. The process for deciding which regulatory option to pursue will need to weigh cost against benefits including reductions in risks to public health, ability to meet regulatory requirements now and in the future, increased system reliability due to reduced exposure to turbidity outages, potential availability of additional supply by being able to use more of available storage in the system, and potential to operate safely during possible construction of additional increments of storage in the Watershed.

While final decisions on treatment processes, locations, schedules and costs will be established based on specific regulatory analyses and decision making on the costs and benefits of various options available, the Bureau is beginning to anticipate the need to provide significant future funding for treatment process improvements. As a first step, the Bureau’s FY 2000-01 proposed Ten-Year CIP includes \$18 million to fund 1) the minimum anticipated treatment improvements for the Watershed (ultra-violet technology), and 2) investments in treatment improvements for groundwater systems (upgrades to disinfection and corrosion control systems). Should the Bureau determine that it is both necessary and desirable to construct a filtration plant for the Bull Run supply, completion of such a facility could be anticipated within the next 20 years, potentially using evolving membrane technology. It is believed that the cost of such a facility will require water rates above currently projected levels, which can be incorporated into the Bureau’s future planning requirements in a manageable fashion.

ORGANIZATION AND STAFF OF THE BUREAU OF WATER WORKS

BUREAU ORGANIZATION

The Bureau's FY 1999-00 budgeted work force of 532 full time employees is managed by an eight person Management Team led by the Administrator. The Bureau's internal management structure combines the efforts of the Administrator's Office and seven Work Groups including Government and Community Relations, Finance and Support Services, Information Technology, Customer Services, Maintenance, Engineering and Construction Services, and Water Resources Management. Since 1996, the Bureau has reported to City Commissioner Erik Sten. At times, consultants are employed for specific projects that require expertise or staffing beyond the Bureau's capability. Certain administrative and support functions are provided by other City departments and bureaus on a reimbursable basis.

The 532 employees of the Bureau are distributed as follows:

- Administrator's Office - 4 employees
- Government and Community Relations – 7 employees
- Finance and Support Services - 25 employees
- Information Services - 17 employees
- Customer Services - 48 employees
- Maintenance - 143 employees
- Engineering and Construction Services - 180 employees
- Water Resources Management - 108 employees

The chart on the next page shows the organization of the Bureau as of July 1, 1999.

ADMINISTRATOR'S OFFICE AND WORK GROUPS

The Administrator's Office is responsible for policy planning, leadership, direction, and operation of the Bureau. The Administrator's Office also manages organization development, training and education, and long-range planning.

The Government and Community Relations Office manages water conservation, public information/involvement, government and community relations, legislative activities, liaison with the commissioner-in-charge and City Council, and special projects including the process of re-negotiation of wholesale contracts.

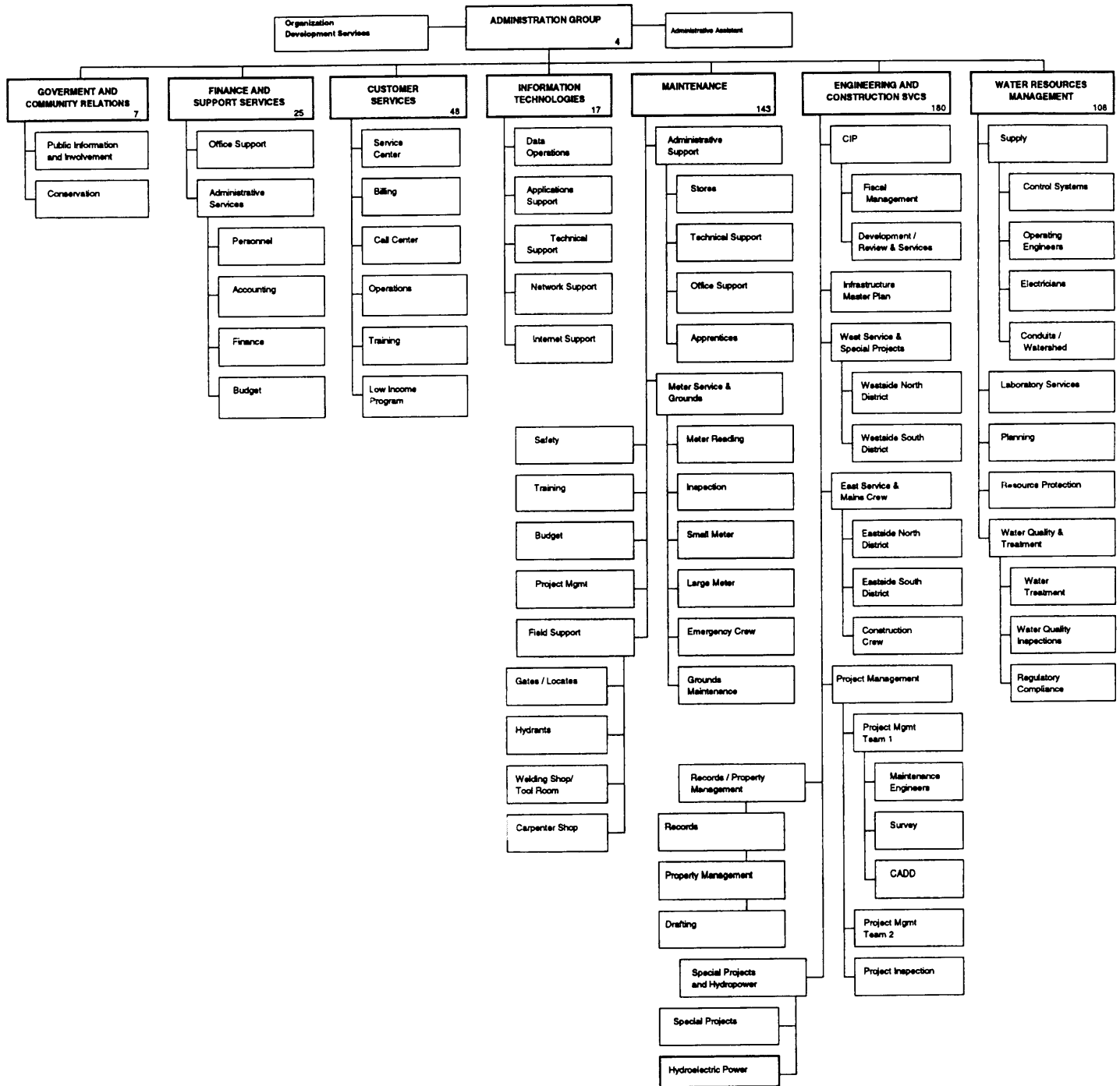
The Finance and Support Services Group provides financial planning, rate setting, Bureau-wide budgeting, accounting, personnel, payroll, and fiscal monitoring functions for the Bureau. It also provides word processing and clerical support for Bureau staff in the Portland Building.

The Information Technologies Group is responsible for the central information-processing infrastructure for the Bureau. This includes the interfaces to City financial and personnel systems, and other Bureau-specific software systems. Also included is facilitation of shared equipment funds, administration of Bureau-wide network and operating systems, hardware and software purchasing, and troubleshooting support for all servers and workstations.

The Customer Services Group is responsible for all billing and collection of City water and sewer fees. In completing this work, they respond to numerous customer inquiries related to bills as well as other utility service information requests and concerns. The group is responsible for maintenance of the billing system and is managing the process of acquiring a new customer information and billing system.

The Maintenance Group is responsible for the operation and maintenance of the distribution system including direct services and related support for mains, control valves, services, meters, fire hydrants, drinking fountains, and facility grounds. Support services include water facility and leak locating, 24-hour emergency response, welding, carpentry, purchasing and stores operation, and loss control programs. The group is also responsible for meter reading and meter inspection field services in support of the Customer Services Group.

**BUREAU OF WATER WORKS
ORGANIZATION CHART AS OF JULY 1, 1999**



TOTAL FULL TIME POSITIONS – 532

Source: Bureau of Water Works

The Engineering and Construction Services Group is responsible for capital improvement planning and implementation, serving as customer liaison for new service installation, plus designing, drafting (including geographic information system), surveying, inspecting and maintaining records on distribution system improvements. Installation, operation, and maintenance functions related to mains and services are performed by this group. Also, administrative review of the Hydroelectric Power function is conducted within this program.

The Water Resources Management Group is responsible for the operation and maintenance of water supply from the Bull Run Watershed and the Well Field; the Water Control Center; integrated resource planning; water quality protection, regulatory compliance, laboratory service, water treatment and the backflow program. This Group is also responsible for comprehensive planning on major issues, legislative issues, urban services, demand analysis, and participation in the RWPC.

MANAGEMENT PERSONNEL

The following are brief biographies of key management personnel.

Erik Sten, Commissioner of Public Works, was first elected to the City Council in November, 1996, to fill an open, partial-term Council position. In May 1998, he was re-elected to serve a full, four-year term that began January 1999. Commissioner Sten has day-to-day operating responsibility for the City's Bureau of Water Works, Housing & Community Development, Energy Office, and the Office of Cable Communications & Franchise Management. Commissioner Sten is also in charge of the City's response to the ESA listing of Steelhead Trout and other at-risk species.

Commissioner Sten has served on the boards of Portland Community Reinvestment Initiatives, Home Ownership One Street at a Time, and the Emanuel Hospital Housing Task Force. He was an organizer of the Albina Community Bank and currently serves on the Board of Directors of the Neighborhood Partnership Fund. Sten is a recipient of the Excellence in Housing Award and the Ma Curtis Award for Social Justice for his work with Portland's homeless.

Before election to the City Council, Sten served for 3 years as the chief of staff for City Commissioner Gretchen Miller Kafoury, and was her liaison to the Bureau of Housing and Community Development and the Parks Bureau. In 1989, Sten earned a Bachelor of Arts degree in English from Stanford University.

Michael Rosenberger, Administrator, is responsible for the ongoing operation of the Bureau, as well as long-range planning, organization development, facilitation of regional partnerships, and coordination with governments and regulators. Mr. Rosenberger joined the Bureau in 1985 as Director of Finance and Administration, and was appointed to the position of Deputy Administrator in 1989. He became the Bureau Administrator in April 1991. Before joining the Bureau, Mr. Rosenberger worked for the City's Bureau of Management and Budget and the Office of General Services. In 1968, he received a Bachelor of Science degree in Political Science from Portland State University, and in 1972, he earned a Masters degree in Public Administration from Syracuse University.

Jeanne LeJeune, Director of Government and Community Relations, is responsible for the Bureau's Conservation and Public Information/Involvement work groups. As part of her responsibilities, she directs several major special projects including coordination of the wholesale contract renewal process, and development of the Bureau's comprehensive workforce development plan. Ms. LeJeune has 27 years experience with the City, seven of those with the Water Bureau, most recently returning to the Bureau in 1999. From 1994 to 1996, she served on the Board of Directors and Executive Committee of the Board of the American Water Works Association ("AWWA"). From 1994 to 1996, she also served as Chair of AWWA's Public Affairs Council and between 1991 to 1993, Chair of the AWWA National Conservation and Public Information Committee. In 1971, Ms. LeJeune received a Bachelor's degree in Social Science from Portland State University, and a Masters of Arts in Education degree from the University of Portland in 1974.

Robert Rieck, Director of Finance and Support Services, manages finance, personnel/payroll, accounting, and office support. He started his career with the City in 1972, and has held engineering, regulatory, and finance positions within both the Bureau of Environmental Services and the Bureau of Water Works. Since joining the Bureau in 1992, Mr. Rieck has been responsible for the Bureau's Financial and Support Services Group. Mr. Rieck is a registered professional civil engineer in Oregon, and is a 1972 graduate of the Oregon Institute of Technology where he earned a Bachelor's degree in Civil Engineering Technology.

Sheila Maio, Director of Customer Service and Project Manager for the new Customer Information System ("CIS"), is responsible for managing the Water Bureau's customer service work group which provides customer contact services as well as billing and collection of City water and sewer fees for the Bureau's 180,000 water/sewer utility customers. Ms. Maio joined the

Bureau of Water Works in 1984 and has over 30 years experience in customer service including phone center support and management. She was appointed to her current position at the Bureau in 1997. Ms. Maio is also project manager for implementing the new CIS, and currently serves as Chairman of the vendor (new CIS) sponsored Open Vision User Group.

Steven Fulmer, Director of Information Technologies, is responsible for managing the Information Technologies work group which provides Bureau support and management of standard commodity technologies, local area network technologies, maintenance of City program interfaces and subsystems unique to the Bureau. Prior to joining the Bureau in 1998, Mr. Fulmer directed information services for the City's public school system from 1994 to 1998. In 1980, Mr. Fulmer earned a Bachelor of Science degree from Portland State University.

Barney Rabold, Director of Maintenance, is responsible for maintenance, repair, and support services related to mains, services, hydrants, meters, and valves in the water distribution system as well as meter reading and inspection services. Mr. Rabold has over 25 years experience in facility and utility management including positions with the US Navy, Marriott, and most recently the University of Oregon as their facility manager from 1995 until he joined the Bureau in January 1999. Mr. Rabold is a registered Professional Mechanical Engineer in California and North Carolina. Mr. Rabold earned a Bachelor of Science degree in Mechanical Engineering from Georgia Tech in 1970, and a Master of Science in Management from the Navy Postgraduate School in 1977.

Mort Anoushiravani, Director of Engineering and Construction Services, is responsible for overall Bureau management of engineering, construction, its support functions, and administration of the CIP. He joined the Bureau in 1979 as a Project Engineer. Mr. Anoushiravani was appointed Environmental Service Manager in 1992, responsible for the water quality program to ensure regulatory compliance and protection of the distribution system, and was appointed to his current position in 1995. Mr. Anoushiravani is a registered professional Civil Engineer and Environmental Engineer in Oregon. He earned a Bachelor of Science degree in Structural Engineering from Portland State University in 1978, and a Master of Science degree in Civil Engineering from the University of Portland in 1985.

Rosemary Menard, Director of Water Resources Management, is responsible for operations and maintenance of the water supply system for both the Watershed and the Well Field, resource planning, water quality protection, regulatory compliance, and water treatment. She joined the Water Bureau as the Water Resources manager in 1995 after 14 years at the Seattle Water Department. Ms. Menard served in Seattle as the first manager of Water Conservation programs, Manager of Planning and Environmental Services, and Director of Water Resources and Water Quality Services. She participated in Stage 1 and is participating in Stage 2 of EPA's negotiated rulemaking process for disinfectants and disinfectant by-products. Ms. Menard attended the University of Washington where she earned a Bachelor of Arts (in zoology) degree in 1974, and a Masters of Public Administration degree in 1983.

Workforce Planning

The Bureau's workforce is aging and one result will be increasing numbers of retirements during the coming decade. As of March, 1999, 217 employees will be eligible to retire by June 30, 2004. An additional 79 employees will be eligible to retire from July 1, 2005, to June 30, 2008. Over the last two years, the Bureau has developed a clear understanding of the full scope of the change it is facing, identified the critical positions for which succession planning is necessary, and begun the process of defining future skill requirements for many of the technical and field positions in the Bureau.

The Bureau's current strategic business planning effort (whose objective is to translate corporate goals such as stewardship, customer service, and competitiveness into real work language) will be a critical driver of future workforce planning efforts. Priorities developed through this process will be used to redesign existing work processes and subsequently necessary staffing skill levels and personnel allocations. Implementation will be phased in over time to accommodate training needs and anticipated retirements and other personnel actions. This basic approach is designed to minimize service disruption, respond to the highest priority, and phase-in changes to match opportunities.

CAPITAL CONSTRUCTION AND FINANCING PROGRAM

Proceeds of the Bonds will be used to make improvements to the Water System, including improvements to supply conduits and storage facilities, the replacement and improvement of water mains and distribution facilities, and well site maintenance and improvements. Capital construction funding is expected primarily through a combination of cash flow from rates and proceeds from borrowings. Other capital funding includes project reimbursements, System Development Charges, and interest earnings. The size and timing of future bond issues is determined through analysis of projected capital requirements and system financial resources.

CAPITAL PLANNING PROCESS

The Bureau's Capital Improvement Program is directed to meet the City's need for a safe, reliable, and affordable supply of water. This goal underlies several other City and Bureau goals: public safety, economic development activities, energy conservation, and protection of the environment. Meeting these goals means providing a safe and reliable water supply 24 hours a day, year-round. It also means maintaining the system of dams, conduits, well fields, reservoirs, mains, and treatment facilities for the long run. The CIP addresses itself beyond today's operations—to prolong the life of the system and prevent breakdowns, to replace obsolete facilities, to forecast future needs, and to plan and implement projects to meet those needs.

Although the City Council only approves funding on an annual basis, it reviews capital projects over a five-year time horizon. Such a perspective is essential because many capital projects have extremely long planning and construction time frames. The Water System today benefits extensively from the long-range planning of the 1920's and 1930's.

Capital projects are undertaken for a number of reasons including the following.

- The City may annex areas, requiring integration of entire water systems. These water systems are in various states of adequacy and disrepair and often require significant work to bring them up to Bureau standards.
- Road work initiated by the Portland Office of Transportation ("PDOT") frequently requires the relocation of mains or other facilities for street and rail transportation projects. Much of the work necessitated by PDOT projects is paid for with federal, state, or City transportation funds.
- Citizens may petition for work to be performed, and these needs must be met. Most of the cost of petition work is paid for by the petitioner.

During any particular year, the CIP will include a wide variety of projects aimed at maintenance or improvement of the system for immediate and long-term water needs. Many projects meet several goals. Projects are selected and prioritized based on an evaluation by Bureau stakeholders and the Management Team. The City Council annually reviews the results of this process, and must approve them and appropriate funds prior to implementation.

In order to perform its mission, the Bureau has established four primary objectives for its CIP, as follows:

- protecting public and employee health and safety and protecting the environment.
- meeting existing needs for water.
- responding to increased demand for water in the near and long term.
- protecting the integrity of the system of dams, reservoirs, conduits, treatment facilities, and transmission and distribution mains.

Although the prioritization of capital projects involves engineering judgment, the Bureau has developed a system for analyzing and ranking projects. This system helps to ensure that all factors are considered in the priority-setting process.

Further, the emphasis of the capital improvement program over the next five years will continue to be on meeting existing demand, responding to growth, protecting assets and reducing system vulnerability, and protecting the health and safety of people and the environment. These need areas support the three components of the Water system: supply, distribution, and water quality described below.

Water Supply. The Water Supply Program addresses the need of citizens for sufficient quantities of water over the near and long term, and the infrastructure to support it. The supply infrastructure consists of the dams, headworks, reservoirs, groundwater wells, conduits, storage facilities, pump stations, and transmission mains.

Water Distribution. The Water Distribution Program addresses the need of citizens for a reliable supply of water and the infrastructure needed to support it. The distribution system consists of mains carrying water from central storage facilities to pump stations, storage tanks, valves, hydrants, services, meters, and related facilities.

Water Quality. The Water Quality Program addresses federal and state regulatory requirements as well as the needs of citizens for pure, potable water and the facilities required to provide it. The Water Quality infrastructure includes treatment facilities for disinfection and corrosion control, laboratory facilities for ongoing testing, and sample collection facilities.

The three primary programs are each comprised of three subprograms including planning, maintenance, and improvements. Planning projects assess existing programs to determine future needs at various time horizons and facilities required to meet those needs. Maintenance projects are directed at preventing deterioration in the system, and repair or replacement of existing facilities. Projects that sustain service at minimum standards also fall into this subprogram. Projects are considered improvements when they raise service to a level beyond the minimum standards, extend service to new areas, or respond to a growth in the number or density of consumers. Some projects may involve both maintenance and improvement aspects. Replacement of a main at the end of its useful life with a larger pipe to enhance pressure reliability is an example of a project with both maintenance and enhancement aspects.

The portion of the CIP devoted to studies has also increased over previous years. Most of these projects are related to investigation of the condition of existing facilities and developing plans for their maintenance or replacement.

FACTORS AFFECTING NEAR-TERM WATER SYSTEM CAPITAL INVESTMENT

Regional Water Supply Plan

The Water Bureau will prepare its own action strategy to carry out its RWSP responsibilities for near and long term capital requirements which will be addressed in the IMP. The strategy directed at the next 10 to 15 years will identify objectives and provide a framework and schedule for:

- evaluating, funding, and carrying out near-term source/transmission enhancements (e.g., Well Field remediation and maintenance, Powell Butte storage, Multnomah - Clackamas transmission linkages).
- maintaining the viability of potential future supply from the Bull Run.
- developing and implementing conservation programs.
- exploring and pursuing appropriate water recycling and reuse programs, along with the direct use of untreated surface water and groundwater for non-potable purposes.

Infrastructure Master Plan

The Bureau has been conducting a comprehensive evaluation of its long-term infrastructure and facilities needs over the past two years. This process focused on identifying the most effective approach to address current and future water system facility needs including, aging infrastructure, capacity, demand, growth, vulnerability, and reliability.

The initial IMP report is nearing completion and will include several recommendations for new facilities and modifications to existing facilities in both the near-term and the future within the context of current policy and constraints. The key improvements have been included in the current CIP. The study also developed an evaluation process and tools that will be used to continue to reevaluate and update future facility decisions, needs, and timing. Future CIPs will be updated to include any new and revised infrastructure recommended through the IMP process.

Current Studies

Capital studies now underway and planned for the next few years will provide the Bureau with the information needed to make long range investment decisions. These capital studies include:

- **Bull Run/Sandy River Fisheries Study.** The intent of this project is to help refine fisheries mitigation alternatives and/or provide background information to prepare for negotiations related to fisheries issues within the Bull Run Watershed Management Unit.
- **Bull Run Treatment.** The Bureau is currently conducting studies looking at potential treatment technologies for future improvements to the Bull Run supply, including microfiltration and disinfection using ultra-violet light. In addition, the Bureau's capital budget includes funding in the current fiscal year to begin a treatment siting study that will identify recommended site locations and permitting requirements for future Bull Run treatment improvements.
- **Open Reservoir Study.** The Bureau is nearing completion of a study to assess the condition and remaining useful life of its five large in-city open reservoirs that were built around 1900. This study will identify maintenance, enhancement measures, and make recommendations for their long-term utility.
- **Groundwater Treatment Study.** The Bureau recently completed a study to identify treatment needs for the groundwater source so that when it is blended with the Bull Run water, the water quality and aesthetic changes will be minimal or improved to the consumers. Based on the results of this study the Bureau is proceeding with the design of new disinfections and pH adjustment facilities.
- **Conduit 5 Predesign.** It is envisioned that over the next 20 years a new supply conduit (Conduit 5) could be needed. The Bureau is conducting this study to review the existing selected route to ensure its feasibility, or to identify an alternate route when the need for the new conduit arises. The study will also determine the remaining life of the existing conduits and when Conduit 5 will be needed.
- **System Vulnerability Study.** The Bureau is nearing completion of a comprehensive vulnerability assessment of its supply, transmission, storage, and treatment systems. This study is intended to identify system reliability in terms of its vulnerability to the various hazards that are most likely to occur. The results of this study are being incorporated with the IMP to identify the most effective way to address system vulnerabilities in conjunction with other system needs and deficiencies.

Capital requirements arising from these studies are and will be evaluated and prioritized based on the Bureau's CIP/IMP funding criteria. The Bureau's current total capital budget may increase modestly given these potential funding requirements. However, the Bureau will continue to weigh overall system costs, benefits and affordability before making substantial changes in the ongoing CIP budget.

CAPITAL CONSTRUCTION PROGRAM RESOURCES AND REQUIREMENTS

The Bureau forecasts capital requirements for the Water System of approximately \$223.2 million during the six-year period FY 1999-00 through FY 2004-05. During the same period, resources supporting capital construction include \$113.8 million in proceeds from borrowings, and \$109.4 million in cash from current income, capital charges, capital reserves, and interest income. Table 5 below shows Water Construction Fund Sources and Uses of Funds for the six-year period.

Construction costs during the forecast period are contained within four major project categories in the CIP. Detailed costs for each project category are shown in Table 6. As discussed above, the City's five year CIP is revised and updated annually. Spending plans are subject to change as the CIP is updated.

Table 5
CITY OF PORTLAND, OREGON
Bureau of Water Works
Water Construction Fund
Forecast Sources and Uses of Funds (1)

	Current Year					
Year Ending June 30	2000	2001	2002	2003	2004	2005
(In thousands of dollars)						
BEGINNING BALANCE	\$14,651	\$29,291	\$12,439	\$28,191	\$10,885	\$35,570
RECEIPTS:						
Capital Charges (2)	5,598	7,241	12,006	12,893	6,617	5,685
Bond Proceeds	34,434	0	31,600	0	47,775	0
Transfer from Water Fund	8,349	9,648	9,299	9,056	9,136	9,231
Interest Income	995	1,191	1,614	1,115	2,014	1,359
TOTAL RECEIPTS	49,376	18,080	54,519	23,064	65,542	16,275
TOTAL SOURCES OF FUNDS	\$64,027	\$47,371	\$66,958	\$51,255	\$76,427	\$51,845
EXPENDITURES						
Capital Reimbursement to Water Fund	\$34,286	\$34,028	\$37,440	\$39,542	\$39,130	\$38,785
Transfer to Water Bond Sinking Fund	450	904	1,327	828	1,727	1,072
TOTAL EXPENDITURES	34,736	34,932	38,767	40,370	40,857	39,857
ENDING BALANCE	29,291	12,439	28,191	10,885	35,570	11,988
TOTAL USES OF FUNDS	\$64,027	\$47,371	\$66,958	\$51,255	\$76,427	\$51,845

Notes:

(1) Totals may not foot due to rounding.

(2) Assumes reimbursement in FY 2001-02 and FY2002-03 for costs of relocating facilities to accommodate extension of region's light rail line.

Source: City of Portland.

Table 6
CITY OF PORTLAND, OREGON
Bureau of Water Works
Forecast Capital Costs (1)

	Current Year					
Year Ending June 30	2000	2001	2002	2003	2004	2005
(In thousands of dollars)						
SYSTEM PROGRAM						
Water Distribution	\$13,075	\$15,432	\$16,481	\$9,358	\$10,440	\$10,348
Water Supply	17,042	17,059	19,606	27,283	23,737	23,528
Water Quality	4,094	1,441	1,252	2,787	4,833	4,791
Other	75	96	102	115	119	118
TOTAL BY SYSTEM PROGRAM	\$34,286	\$34,028	\$37,440	\$39,542	\$39,130	\$38,785
EXPENSE TYPE						
Personal Services	\$6,037	\$5,985	\$6,585	\$6,955	\$6,882	\$6,821
Materials & Services	12,366	12,299	13,531	14,291	14,143	14,018
Capital Outlay	15,883	15,745	17,324	18,296	18,105	17,946
Other	0	0	0	0	0	0
TOTAL BY EXPENSE TYPE	\$34,286	\$34,028	\$37,440	\$39,542	\$39,130	\$38,785

Notes:

(1) Totals may not foot due to rounding.

Source: City of Portland.

ANNUAL DISCLOSURE INFORMATION

In conformance with SEC Rule 15c2-12, as amended (17 CFR Part 240, § 240.15c2-12) (the "Rule"), the City will provide annually the information presented in this section entitled "ANNUAL DISCLOSURE INFORMATION" and in the table titled "Annual Debt Service Requirements" found earlier in this Official Statement to all NRMSIRs and SIDs, if any. See Appendix D, "CONTINUING DISCLOSURE AGREEMENT" herein.

BASIS OF ACCOUNTING

The accrual basis of accounting is used for all funds. The City's accounting practices conform to generally accepted accounting principles.

FISCAL YEAR

July 1 to June 30.

AUDITS

The Oregon Municipal Audit Law (ORS 297.405 - 297.555) requires an audit and examination be made of the accounts and financial affairs of every municipal corporation at least once each year. The audit shall be made by accountants whose names are included on the roster prepared by the State Board of Accountancy. City audits for fiscal years ending June 30, 1977 through 1995 were performed by Coopers & Lybrand. The City audit for fiscal years ending June 30, 1996 through 1999 were performed by KPMG Peat Marwick LLP. A complete copy of the City's FY 1998-99 audit is available from the City's Debt Manager at the City of Portland, 1120 SW Fifth Ave., Room 1250, Portland, Oregon, 97204.

BUDGETING PROCESS

The City prepares two-year budgets for all its Bureaus in accordance with provisions of the Oregon Local Budget Law, which provides standard procedures for the preparation, presentation, administration and appraisal of budgets. At the outset of the biennial process, the City Council, along with City managers, convene to review overall goals and establish priorities. As part of this step, the Council conducts an extensive public information and survey process to obtain direct public input on City service priorities. In addition to this public outreach process, the City created in 1994 the Portland Utilities Review Board ("PURB"). The PURB is an appointed body of 15 interested citizens who provide independent and representative customer review of water, sewer, and solid waste financial plans and rates. They operate in an advisory capacity to Council.

The information derived from the public outreach processes is used to finalize the Council's goals, priorities, and action plan for the next two year budget cycle. Council then holds work sessions with the City's key bureaus to discuss short and long-term issues, and to review the five-year financial plans prepared for each major service area. This up front planning ensures that each year's budget responds to Council's long-term priorities.

Bureau budget proposals are reviewed by Budget Advisory Committees or, in the case of the water, sewer, and solid waste utilities, by the PURB. Following approval of the budgets, community hearings are scheduled wherein summary budget information is presented for each major service area and public testimony is taken. Finally, a formal public hearing is held by the City Council in Council Chambers. A budget summary and notice of hearing are published prior to the hearing. The City Council considers the testimony from the community and formal hearings and can alter the budget recommendations. Final approval of each Bureau's budget is through a majority vote of the Council. All committee meetings and budget hearings are open to the public. In the second year of the biennial budget, an abbreviated process is followed to adjust budgets on an as-needed basis for significant changes. The second year process does not include extensive community outreach up front, but does provide both community-based and formal City Council hearings before final approval.

OTHER FINANCIAL INFORMATION

The City has received the Government Finance Officers Association's ("GFOA") Certificate of Achievement for Excellence in Financial Reporting every year since 1981. 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.

FUND ACCOUNTING SYSTEM

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

- **Water Fund.** This fund serves as the operating fund of the Bureau and, with the exception of debt service, all expenditures are made from this fund for operation, maintenance and capital assets. Receipts from the sale of water are the primary source of revenue for the Water Fund. The cash flow requirements of this fund determine the need for rate increases.
- **Water Construction Fund.** By City Charter stipulation, this fund is the recipient of proceeds from bond sales. Other sources of revenue include reimbursements for capital expenditures, such as main extensions and service installations, system development charges and sale of assets. Also, a portion of the water sales revenues is transferred to this fund to finance system replacement. The Construction Fund reimburses the Water Fund for capital asset requirements including capitalized overhead, capitalized interest, and the cost of issuing bonds.
- **Water Bond Sinking Fund.** This fund provides for the repayment of bonded debt and interest on debt. The main sources of revenue for this fund are a transfer from the Water Fund and a transfer of interest earnings on bond proceeds from the Water Construction Fund.
- **Washington County Supply Sinking Fund.** This fund was established to pay the debt service for a special bond issue that financed the Washington County Gravity Supply Line. Under the terms of a contract with two wholesale water distributors, the distributors are responsible for 90 percent of the debt service on bonds sold to finance the Supply Line, while the City pays the remaining 10 percent. With the final debt service payment in FY 2004-05, this fund will be retired.
- **Water Growth Impact Trust Fund.** This fund is used to accumulate resources earmarked for future requirements resulting from growth in demand by wholesale customers. Revenues are received from wholesale purveyors according to a contractual formula. In 1995, wholesale contributions were suspended with the deletion of the growth section in the wholesale agreements. The pricing mechanism related to new infrastructure needs will be one of the factors to be resolved in the renewal of wholesale contracts. (see "WATER SUPPLY OPERATIONS" herein).

These five funds enable the Bureau to segregate resources for specific uses and ensure that reserves are not used to supplement daily operating needs. Maintenance of the fiscal integrity of each fund is a key objective of the Bureau's financial planning and analysis efforts. The Bureau's fund structure provides for the accounting and control of expenditures and differs from the account structure described in the Master Ordinance. The accounts described in the Master Ordinance have been established to identify priority claims on Water System revenues, and are accounted for separately.

HISTORICAL OPERATING RESULTS

In the past, the City has maintained system revenues sufficient to provide for all operating expenses and debt service on the Bureau's general obligation and revenue bonds. In addition to meeting these requirements, the Bureau provides substantial cash financing of its capital program by setting current rates and charges sufficient to fund annual routine repair and replacement capital needs.

Actual results of the Bureau's financial operations for the five year period FY 1994-95 through FY 1998-99 and for the period July 1, 1999, through February 2, 2000, are shown in the following tables. Over the last five years, Net Revenues available to pay debt service on Bureau indebtedness averaged approximately \$29.6 million. Debt service coverage has remained strong throughout the five year period due to higher than planned water sales, and/or operational cost savings. Total Gross Revenues grew at an average annual rate of 4.8 percent to reach \$73.5 million in FY 1998-99. By far the largest percentage of system revenues has been derived from user charges (water sales to retail and wholesale customers). Over the last five years, water sales revenues grew at an annual rate of 5.1 percent. Sporadic growth characterized Operating Expenses, which grew at an average annual rate of 8.8 percent to reach \$43.3 million in FY 1998-99. The largest increases in Operating Expenses occurred in FY 1996-97 as the Bureau recognized additional construction in progress write-offs. FY 1998-99 cost increases reflect the Bureau's increased emphasis on preliminary engineering and capital studies.

Audited statements of revenues, expenditures, changes in retained earnings, and the audited balance sheet for the Water Enterprise Fund are presented in Appendix B.

Table 7
CITY OF PORTLAND, OREGON
Bureau of Water Works
Historical Operating Results

Year Ending June 30	1995	1996	1997	1998	1999
(In thousands of dollars)					
GROSS REVENUES (1)					
Operating Revenues	\$53,469	\$54,341	\$59,246	\$60,415	\$64,210
Interest Earnings	2,044	2,541	2,398	3,028	2,685
Capital Charges	5,526	5,452	6,268	5,898	6,583
TOTAL GROSS REVENUES:	61,039	62,334	67,912	69,341	73,478
OPERATING EXPENSES (2)	30,905	33,688	39,238	39,078	43,257
NET REVENUES	\$30,134	\$28,646	\$28,674	\$30,263	\$30,221
DEBT SERVICE ON REVENUE BONDS	\$1,193	\$2,178	\$3,058	\$3,845	\$5,720
DEBT SERVICE COVERAGE (x)	25.3	13.2	9.4	7.9	5.3

Notes:

(1) As defined in the Master Ordinance.

(2) Excluding depreciation, utility license fees and Portland Building lease.

Source: City of Portland.

Table 8
CITY OF PORTLAND, OREGON
Bureau of Water Works
Interim Financial Results (1)

(In thousands of dollars)	Amount
OPERATING REVENUES:	
Service charges and fees	\$40,474,635
OPERATING EXPENSES:	
Salaries and wages	14,960,211
Operating supplies	3,281,715
Professional services	6,805,166
Utilities	822,759
Utility license fees	2,104,882
Depreciation and amortization	7,204,313
Miscellaneous	1,190,633
Total operating expenses	36,369,679
Operating income	4,104,956
NON-OPERATING REVENUES (EXPENSES):	
Interest on investments	1,300,535
Reimbursements from water districts	43,000
Other miscellaneous revenues (expenses)	611,335
Interest expense	(3,131,201)
Total non-operating revenues (expenses)	(1,126,831)
Income (loss)	\$2,928,125

Notes:

(1) Represents unaudited results for the period July 1, 1999, through February 2, 2000.

Source: City of Portland.

FINANCIAL OPERATIONS AND RATES

Water System Customers And Demand

In the City's Water System, water users are grouped into seven Service Areas which are defined by the type of service (gravity, pumping, etc.) necessary to deliver water to their geographic location. These Service Areas are defined as follows:

Outside-City Wholesale:

- Service Area 1. Direct Service, Conduits
- Service Area 2. Gravity Transmission
- Service Area 3. Pumped Transmission
- Service Area 4. Gravity Distribution (currently unused)
- Service Area 5. Washington County Gravity Supply Line

Outside-City Retail:

- Service Area 6. Extra-Territorial

Inside-City Retail:

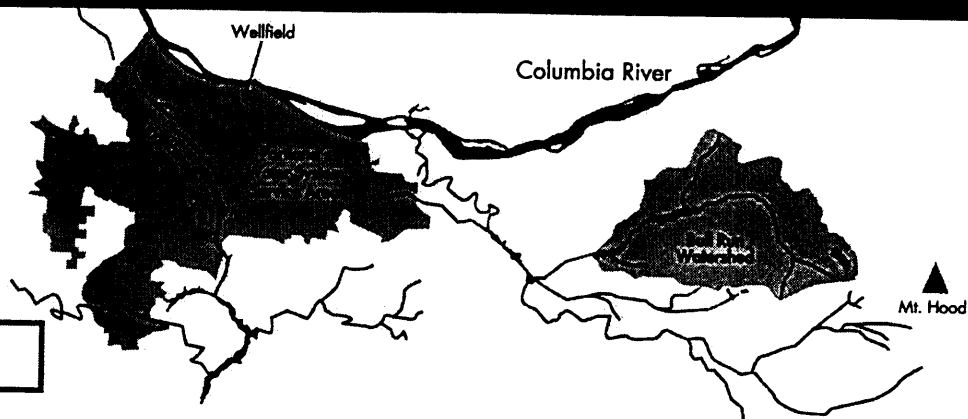
- Service Area 7. Inside City Boundaries

The Bureau provides water on a wholesale contract basis to 19 water purveyors, which include cities, water districts, and private water companies. Annual water sales to these customers account for over 20 percent of annual water sale revenues, and over 40 percent of annual water demand. The 14 water districts and cities are served under uniform 25-year agreements, which will be up for renewal beginning in 2004. (See "WATER SUPPLY OPERATIONS" herein.) These contracts account for over 99 percent of wholesale water sales. The remaining wholesale contracts are with five private water companies, which have five-year agreements through 2001. A map of the Bureau's service area is shown on the next page. Historical information by service area on the number of accounts and amount of consumption in hundreds of cubic feet ("ccf") supplied by the Water System is found on the following tables.

Watershed & Service Area



Scale: 1" = 10 miles



Water System Retail and Wholesale Service Area



Scale: 1" = 4 miles

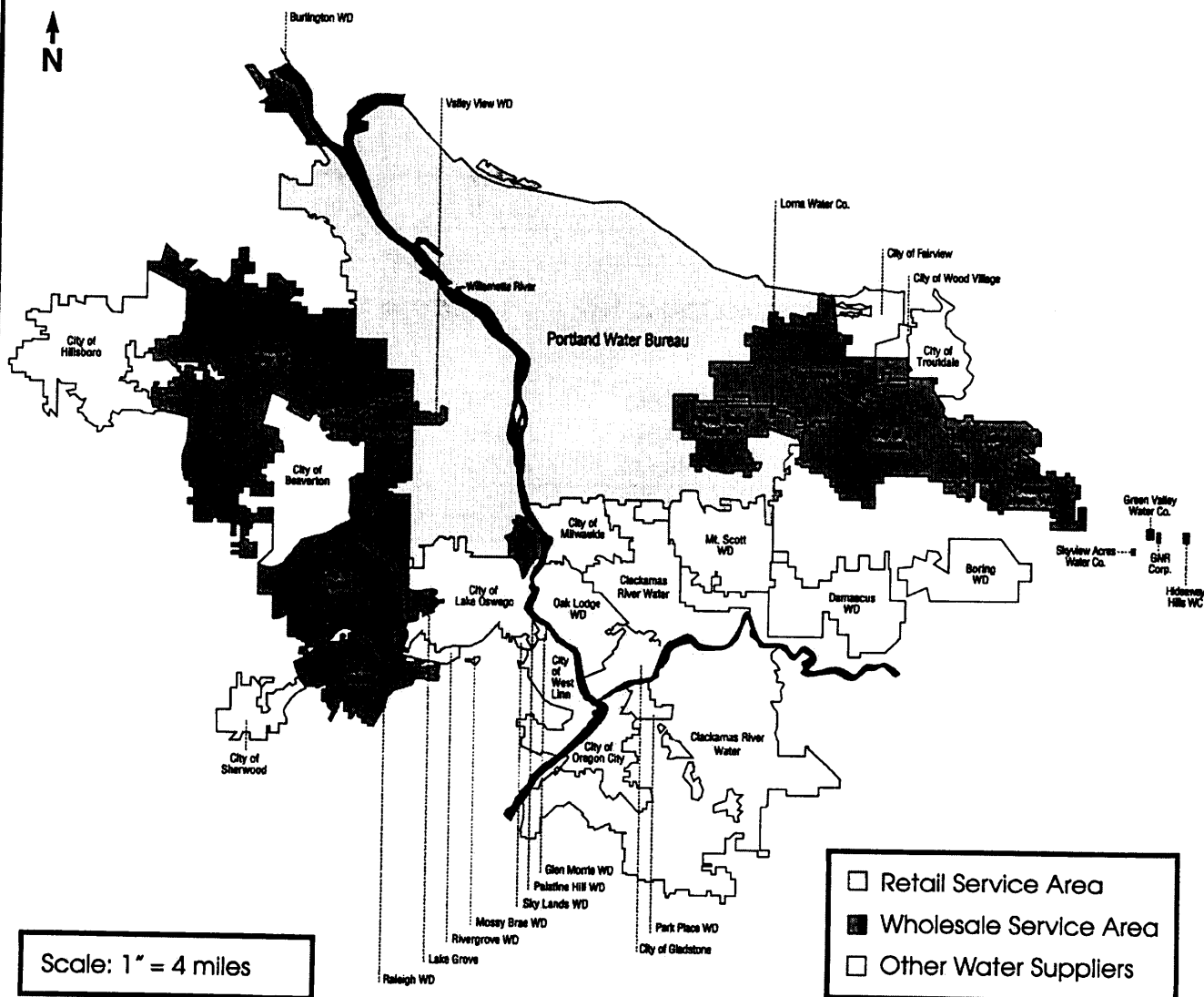


Table 9
CITY OF PORTLAND, OREGON
Bureau of Water Works
Historical Number of Accounts

Year Ending June 30	1995	1996	1997	1998	1999
TOTAL RETAIL	155,000	155,900	156,700	157,800	158,955
WHOLESALE DISTRICTS BY SERVICE AREA (1)					
Service Area 1:					
City of Gresham	12,255	12,952	13,341	13,510	13,861
Powell Valley Road Water District	9,503	9,566	9,767	9,902	10,032
Rockwood Water District	11,022	12,001	12,281	12,209	12,354
Other Districts	1,017	1,047	1,064	1,067	1,084
Subtotal – Service Area 1	33,797	35,566	36,453	36,688	37,331
Subtotal – Service Area 2	681	683	683	679	678
Service Area 3:					
City of Tigard	-	-	13,900	14,309	14,725
West Slope Water District	3,144	3,167	3,187	3,204	3,219
Other Districts	14,314	14,800	1,493	1,507	1,505
Subtotal – Service Area 3	17,458	17,967	18,580	19,020	19,449
Service Area 4	These Districts have been annexed or are now included in Service Area 2				
Service Area 5:					
Raleigh Water District	943	950	968	985	985
City of Tualatin	4,580	4,890	5,084	5,167	5,324
Tualatin Valley Water District	40,033	41,273	42,511	44,918	46,662
Subtotal – Service Area 5	45,556	47,113	48,563	51,070	52,971
TOTAL WHOLESALE CUSTOMERS	97,492	101,329	104,279	107,457	110,429
GRAND TOTAL	252,492	257,229	260,979	265,257	269,384

Notes:

- (1) Districts with more than 1,000 services that use Portland as the primary source of supply. Number of accounts represent actual accounts billed by each wholesale district.

Source: City of Portland.

Table 10
CITY OF PORTLAND, OREGON
Bureau of Water Works
Historical Consumption (ccf)

Year Ending June 30	1995	1996	1997	1998	1999
TOTAL RETAIL	30,387,800	31,163,900	29,921,100	30,300,300	29,954,500
WHOLESALE DISTRICTS BY SERVICE AREA (1)					
Service Area 1:					
City of Gresham	2,733,191	2,588,116	2,838,474	2,825,035	3,181,804
Powell Valley Road Water District	1,621,907	1,486,075	1,432,151	1,390,012	1,491,236
Rockwood Water District	3,407,053	3,357,368	3,450,144	3,687,673	3,464,903
Other Districts	368,495	185,142	209,767	192,055	206,682
Subtotal – Service Area 1	8,130,646	7,616,701	7,930,536	8,094,775	8,344,625
Subtotal – Service Area 2	210,536	151,932	209,054	194,983	208,912
Service Area 3:					
City of Tigard (2)	210,536	117,490	1,076,988	1,936,451	2,055,693
West Slope Water District	671,921	652,661	619,142	643,822	615,651
Other Districts	285,307	204,687	215,714	169,642	201,642
Subtotal – Service Area 3	1,167,764	974,838	1,911,844	2,749,915	2,872,986
Service Area 4	These Districts have been annexed or are now included in Service Area 2				
Service Area 5:					
Raleigh Water District	308,445	306,879	319,996	293,542	306,881
City of Tualatin	1,447,273	1,433,066	1,646,516	1,651,004	1,761,830
Tualatin Valley Water District	9,644,246	8,941,901	9,714,435	8,870,931	9,533,425
Subtotal – Service Area 5	11,399,964	10,681,846	11,680,947	10,815,477	11,602,136
TOTAL WHOLESALE CUSTOMERS	20,908,910	19,425,317	21,732,381	21,855,150	23,028,659
GRAND TOTAL	51,296,710	50,589,217	51,653,481	52,155,450	52,983,159

Notes:

- (1) Districts with more than 1,000 services that use Portland as the primary source of supply. Water consumption figures represent purchased water from Portland.
- (2) Prior to 1997, Tigard received most of its water from the City of Lake Oswego.

Source: City of Portland.

Retail Rates

Section 11-105 of the City Charter authorizes the City Council to fix fees and charges for connection to and use of the Water System. Water user fees and connection charges are formally reviewed every year by the Bureau. Rates required to support proposed activities for the next year are submitted by the Bureau Administrator to the City Council for review and approval. Table 11 summarizes the historical and current rate structure of the Bureau. Table 12 presents a comparison of residential monthly water bills for various systems within the State of Oregon and the nation.

Table 11
CITY OF PORTLAND, OREGON
Bureau of Water Works
Historical Water Rates

Year Ending June 30	1995	1996	1997	1998	1999
WATER USAGE CHARGES (per 100 cubic feet)					
Inside City (1)	\$0.845	\$0.890	\$0.900	\$0.900	\$0.950
Block 1 (1)	0.825	0.870	0.880	0.880	0.920
Outside City (2):					
Service Area 1	\$0.361	\$0.418	\$0.430	\$0.476	\$0.554
Service Area 2	0.830	0.798	0.792	0.731	0.750
Service Area 3	0.716	0.958	0.872	0.783	0.688
Service Area 5	0.461	0.496	0.532	0.529	0.562
MONTHLY SERVICE CHARGE					
Meter Size (inches):					
¾	\$4.43	\$4.59	\$5.31	\$5.31	\$5.69
1	7.80	7.61	7.86	7.86	7.36
1½	13.40	12.65	13.76	13.76	13.79
2	20.13	18.70	24.51	24.51	22.96
3	35.82	32.81	39.34	39.34	37.22
4	58.24	52.97	58.56	58.56	53.24
6	114.30	103.37	100.89	100.89	80.71
8	181.56	163.85	151.51	151.51	113.28
10	324.60	292.47	254.83	254.83	172.96
12	520.78	468.87	396.50	396.50	254.73
16	927.04	834.17	688.84	688.84	421.81
30	1,683.73	1,514.56	1,238.93	1,238.93	745.30
MONTHLY BILL FOR 10 ccf @ Block 1 Rates (2)	\$12.68	\$13.29	\$14.11	\$14.11	\$14.89

Notes:

- (1) The City began an inclining block pricing schedule in FY 1994-95.
- (2) Assumes Inside City rates and a ¾ inch meter.

Source: City of Portland.

Table 12
CITY OF PORTLAND, OREGON
Bureau of Water Works
Comparison of Residential Monthly Water Bills

WATER UTILITY	Residential Monthly Bill for 800 cubic feet	Residential Monthly Bill for 1000 cubic feet
Local:		
City of Tigard (1997)	\$12.34	\$14.98
CITY OF PORTLAND (July 1, 1999)	14.02	15.98
City of Milwaukie (1997)	13.78	16.48
Clackamas River Water – North (1999)	14.20	16.50
Powell Valley Road Water District (1999)	14.30	16.50
City of Lake Oswego (1998)	16.31	17.71
Tualatin Valley Water District (1998)	15.80	18.40
City of Tualatin (1998)	16.90	19.40
Rockwood Water District (1999)	16.60	19.50
West Slope Water District (1998)	17.00	20.00
City of Gresham (1999)	19.53	21.81
City of Beaverton (August 1998)	20.95	24.37
National (1):		
Sacramento (unmetered for residential)		\$9.99
Los Angeles		16.49
Seattle (winter)		16.90
Austin		17.53
Boston		19.92
Oakland		20.55

Notes:

- (1) Rates for the national comparison are published every two years by Reftelis Environmental Consulting Group Inc., Reftelis Environmental Consulting Group 1998 Water and Wastewater Rate Survey, Charlotte, NC.

Source: City of Portland.

Billings And Collections

The Bureau bills most retail customers on a quarterly cycle. Approximately 5,000 large commercial users and wholesale purveyors are billed on a monthly basis, and about 12,000 residential customers are currently participating in the Bureau's charge pre-payment monthly billing option. Commercial users account for approximately 18,000 of the 159,000 services. Table 13 presents a list of major users of the Water System.

Table 13
CITY OF PORTLAND, OREGON
Bureau of Water Works
Major Users for FY 1998-99

	Annual Usage	Revenue at
	(100's of cubic feet)	1998-99 Rates
COMMERCIAL USERS		
Wacker Siltronic Corp.	832,400	\$765,810
Atochem North America	477,840	439,610
Stroh Brewery (1)	363,890	334,780
City of Portland, Bureau of Parks	347,160	319,390
Oregon Health Sciences University	247,890	228,060
Precision Castparts	214,640	197,470
Housing Authority of Portland	207,490	190,890
Portland Public Schools	171,200	157,500
Cascade General	149,720	137,742
Darigold	148,750	136,850
 LARGEST WHOLESALE USERS		
Tualatin Valley Water District	9,533,425	\$5,371,830
Rockwood Water PUD	3,464,900	2,315,190
City of Gresham	3,181,800	1,513,180
City of Tigard	2,055,690	1,343,550
City of Tualatin	1,761,830	994,740
Powell Valley Water District	1,491,240	664,790

Notes:

- (1) Discontinued operations in August, 1999. Impacts of the loss of this facility are reflected in current year financial results and financial forecast.

Source: City of Portland.

The Bureau recently completed the process of implementing a new, flexible, state-of-the-art Customer Information System ("CIS") to support delivery of organization-wide exceptional customer service. The existing CIS had been on line for over 17 years, and no longer allowed for expanded functionality or changes in business process. The new CIS software went live in February 1999, and all indications are that the software is processing bills as expected.

The Bureau offers a low income assistance program to retail in-city customers with incomes at or below 60% of the average State of Oregon median family income. Assistance includes a flat quarterly water discount of \$9.90, crisis assistance vouchers (maximum of \$75 per year), in-home plumbing repair assistance, and free conservation workshops.

Most Water System bills are collected routinely along with the payment for sewer service. The Bureau's collection policy allows for a series of notices beginning with the reminder at 28 days up to and including the termination of service notice at week six. Even though the customer is still in arrears at the termination date, if it is in the best interest of both the Bureau and the customer to continue water service, the Bureau will set up special payment arrangements rather than shut off water service.

The result of these policies and procedures, in conjunction with a formal customer appeals procedure, has resulted in a 99% rate of collection of retail billings (bills paid divided by bills rendered within a 90 day period). Ultimately, about 99.6% of all retail billings are collected by the Bureau. The remaining 0.4 percent of billings are written off, which typically amount to approximately \$150,000 per year. The collection rate for wholesale customers is 100%.

SYSTEM DEVELOPMENT CHARGES

A System Development Charge ("SDC") is levied by the Bureau for each new water service connected to the Water System inside the City boundaries. The amount charged is dependent on the size of the service with larger services paying a greater amount based on the hypothetical capacity of the meter. Services dedicated to fire flow and temporary construction services do not pay an SDC. FY 1999-00 SDC revenues are projected at \$1.5 million.

The Bureau's SDC is in accordance with ORS 223.297-314, and is a reimbursement fee based on the estimated replacement cost of existing water facilities, less depreciation. The SDC computation nets out customer contributions and outstanding bond principal, while adding the value of construction in progress, to arrive at a cost basis. The current equivalent 5/8" meters are combined with the cost basis to arrive at a cost per equivalent 5/8" meter.

<u>Size of Meter/Service</u>	<u>Charge</u>
5/8"	\$917
3/4"	1,376
1"	2,293
1-1/2"	4,585
2"	7,336
3"	13,755
4"	22,925
6"	45,850
8"	73,361
10"	131,866

Beginning with the FY 1999-00 rate ordinance, City Council approved an "Affordable Housing SDC Fee Waiver." For any new qualified residential construction that meets certain affordability requirements, the entire SDC can be waived. Total FY 1999-00 fee waivers are currently estimated at less than \$100,000. The loss of these revenues is made up through general water retail rates and charges.

(End of Annual Disclosure Information)

FINANCIAL PROJECTIONS AND OTHER INFORMATION

PROJECTED REVENUES AND EXPENDITURES

Forecasted expenditures and other requirements and resources of the Water Operating Fund are shown in Table 14. The Bureau projects Water Operating Fund expenditures to increase over the forecast period of FY 1999-00 through FY 2004-05 from \$105.8 million to \$126.4 million. Total operating expenses, shown on Table 15, are projected to increase from \$46.4 million to \$56.1 million over the same interval, representing an average annual increase of 3.9%. In addition to operating expenses, Water Operating Fund requirements include capital outlays (reimbursed by the Construction Fund), debt service payments (transfers to the Water Bond Fund), cash transfers (rate financed capital) to the Water Construction Fund, and General Fund overhead and Utility License Fee cash transfers to the General Fund.

Key assumptions underlying the expenditure forecast include:

- annual inflation for operating requirements for FY 2000-01 of 3.7%, and 2.7% to 2.9% for the remaining forecast period.
- discounted operating requirements of 2% for labor turnover, and 8.5% for external materials and services.
- capital expenditure rates of 83% of budget for FY 2000-01 and 78% for the remaining forecast period. These expenditure rates include a 7% reclassification of expensed capital.
- increased employer pension obligations of \$0.6 million in FY 2000-01, rising to \$1.7 million in FY2004-05, for total of \$5.7 million over the forecast period.
- annual expenditures of \$0.8 million budgeted for groundwater pumping to meet peak summer demand.

The principal resources available to the Water Operating Fund are service charges and fees. As shown in the following table, revenues increase from \$99.8 million to \$126.2 million from FY 1999-00 to FY 2004-05 and represent an average annual increase of 4.8%. This increase is a reflection of projected increases in water rates as described below (see "FORECAST RATES AND CHARGES"), and net expenditure requirements. Customer accounts served by the Water System are expected to increase 1.6% per year over the forecast period. However, due to anticipated conservation efforts, overall water demand is projected to increase only 1.1% per year. The other major revenue source for the Water Operating Fund is the reimbursement of all capital expenditures by the Construction Fund. This amount averages \$37.2 million over the forecast period.

Key assumptions underlying the revenue forecast include:

- combined operating reserves of \$10.5 million including a permanent working capital reserve equal to \$8.5 million or approximately two months of operating fund expenditures excluding capital outlays, and full funding of the Rate Stabilization Account from FY 1994-95 surplus reserves at \$2.0 million. Any additional operating reserves above \$10.5 million will be drawn down to provide rate relief through FY 2005-06.
- assumes continuation of existing wholesale customers through FY 2004-05 with total system annual water consumption increasing from 52.7 to 55.1 million hundred cubic feet across the forecast period.
- funding of routine repair and replacement capital through current rates.
- reimbursement of \$14.0 million during FY 2000-04 for funding of the City's North Light Rail Transit project. Full reimbursement of Water system relocation costs is expected. If not reimbursed, the monthly water bill impact for a typical residential customer is estimated at 3.5%, or approximately \$0.50.
- FY 2004-05 water sales assume continuation of the same revenue split between wholesale and retail customers under the new wholesale contracts.
- year round block pricing will be revenue neutral.

Table 14
CITY OF PORTLAND, OREGON
Bureau of Water Works
Water Operating Fund
Forecast Sources and Uses of Funds (1)

	Current Year					
Year Ending June 30	2000	2001	2002	2003	2004	2005
(In thousands of dollars)						
BEGINNING BALANCE						
Unrestricted (2)	\$25,219	\$19,183	\$14,995	\$12,260	\$9,038	\$8,788
Rate Stabilization	2,000	2,000	2,000	2,000	2,000	2,000
TOTAL BEGINNING BALANCE	27,219	21,183	16,995	14,260	11,038	10,788
RECEIPTS:						
Water Sales	58,600	63,174	67,280	71,277	75,822	80,323
Interagency Receipts	4,713	5,382	5,528	5,155	5,304	5,453
Transfers from Construction Fund	34,285	34,028	37,440	39,512	39,130	38,785
Interest Income	1,191	1,066	855	717	555	543
Other Miscellaneous Receipts	987	1,011	1,285	1,317	1,087	1,114
TOTAL RECEIPTS	99,776	104,661	112,388	118,008	121,898	126,218
TOTAL SOURCES OF FUNDS	\$126,995	\$125,844	\$129,383	\$132,268	\$132,936	\$137,006
EXPENDITURES						
Operation and maintenance costs	\$53,132	\$54,573	\$56,793	\$58,618	\$59,730	\$61,493
Transfers to Construction Fund	8,349	9,648	9,299	9,056	9,136	9,231
Direct capital expenditures	28,165	26,964	30,186	32,085	31,455	30,896
General Fund overhead	1,920	1,876	1,926	1,980	2,038	2,095
City franchise fee	3,530	3,743	3,987	4,225	4,496	4,764
Transfer to Water Bond Sinking Fund	10,532	11,848	12,728	15,063	15,090	17,762
Transfer to Wash. Co. Sinking Fund	184	197	204	203	203	202
TOTAL EXPENDITURES	105,812	108,849	115,123	121,230	122,148	126,443
ENDING BALANCE	21,183	16,995	14,260	11,038	10,788	10,563
TOTAL USES OF FUNDS	\$126,995	\$125,844	\$129,383	\$132,268	\$132,936	\$137,006

Notes:

- (1) Totals may not foot due to rounding.
- (2) Unrestricted Beginning Fund Balance reflects the return of surplus operating reserves generated on unanticipated revenues and operating cost savings. These monies are returned to the rate payers over the forecast period in a manner that provides rate relief in the first year and stable rate increases in the remaining forecast period.

Source: City of Portland.

PROJECTED RESULTS OF FINANCIAL OPERATIONS

The following table shows projected results of the Water System's financial operations for FY 1999-00 through FY 2004-05. In developing these projections, it has been assumed that additional parity bonds will be issued to fund, in part, capital program requirements. Assumptions underlying the debt service forecast include:

- additional parity bonds issued in FY 2001-02 and FY 2003-04 for support of future years' CIPs in the amount of \$31.9 million and \$48.3 million, respectively.
- 6.0% interest rate on future debt issues.
- 20-year amortization on future debt issues.
- sufficient net revenues generated to meet and pay debt service obligations, both revenue and general obligation.

Table 15
CITY OF PORTLAND, OREGON
Bureau of Water Works
Forecast Operating Results (1)

	Current Year					
Year Ending June 30	2000	2001	2002	2003	2004	2005
(In thousands of dollars)						
GROSS REVENUES (2):						
Operating Revenues	\$61,999	\$69,568	\$74,092	\$77,748	\$82,213	\$86,890
Interest Earnings	2,186	2,257	2,469	1,833	2,569	1,902
Capital Charges	7,290	9,011	13,839	14,724	8,446	7,507
TOTAL GROSS REVENUES:	71,475	80,836	90,400	94,305	93,228	96,299
OPERATING EXPENSES (3):						
Operating Expenses	\$46,433	\$49,725	\$51,947	\$53,510	\$54,670	\$56,104
Transfer to Rate Stabilization	-	-	-	-	-	-
TOTAL OPERATING EXPENSES	46,433	49,725	51,947	53,510	54,670	56,104
NET REVENUES	\$25,042	\$31,111	\$38,452	\$40,795	\$38,558	\$40,195
DEBT SERVICE ON REVENUE BONDS	\$5,724	\$7,358	\$8,702	\$10,582	\$11,543	\$14,130
DEBT SERVICE COVERAGE:						
Revenue Bonds Only	4.4	4.2	4.4	3.9	3.3	2.8
Revenue and G.O. Bonds	1.9	2.1	2.4	2.3	2.0	1.9

Notes:

- (1) Totals may not foot due to rounding.
 (2) As defined in the Master Ordinance.
 (3) Excluding depreciation, utility license fees and Portland Building lease.

Source: City of Portland.

FORECAST RATES AND CHARGES

Water Rate Development

Rates and charges for water services are established annually based, in part, upon cost of service principles and methodologies recommended by the AWWA. The process used by the Bureau follows the Base-Extra Capacity method promulgated by the AWWA. Under this approach, developed for the Bureau by CH2M HILL Northwest in 1989, Water System costs are allocated to customers based on their average and peak water demand characteristics.

Block Pricing Schedule

Ordinance No. 173388 passed by City Council in May 1999 authorizes a retail inclining block pricing schedule. This schedule is an integral component of the Bureau's overall conservation program and supply planning strategy. This rate structure is intended to be revenue neutral. That is, although charges increase for water use above allowances, the offsetting expected decrease in overall water use will produce no change in total revenues.

Rate Reform

In May 1999, City Council passed Resolution 35796, which directed the Bureau and the Bureau of Environmental Services to develop recommendations for reforming water and sewer rates (including drainage). The resolution focused on affordability and customer control of overall water/sewer bills, as well as enhancing water conservation efforts through both price and non-price programs. The bureaus reported back to Council informally in October 1999, and at a January 2000 public hearing with a narrowed list of service charge and drainage rate structure alternatives. In February and March, the Bureaus held 14 neighborhood meetings where citizens could provide additional public input prior to a final recommendation on these structure alternatives. Early in April, the bureaus will return to Council with their final recommendations. Any recommended service charge or drainage structural rate changes would be included in the May FY 2000-01 rate ordinance with implementation in July 2000. All rate changes are intended to be revenue neutral, and revenue volatility was analyzed for each of the service charge alternatives. The second phase or "conservation" phase of this study is scheduled to commence in April 2000. It is anticipated that changes resulting from new volumetric conservation rates will be adopted as part of the May FY 2001-02 rate ordinance, or soon after implementation of universal monthly meter reading and billing.

Proposed Rate Increases

To generate the operating revenues in the Bureau's financial forecast, the Bureau will need to increase its user charges. The following table presents projected rates that generate the required revenues. These rates are based on the revenue requirements from the Bureau's financial plan and the cost allocation methodology of its cost-of-service rate model.

The Bureau assesses both a volumetric usage charge and a fixed monthly charge. The average volumetric charge for retail users is projected to increase from \$1.01 per ccf in FY 1999-00 to \$1.36 per ccf in FY 2004-05. This increase corresponds to an average annual increase of 6.1%. A monthly service charge is imposed on water services connected directly to the city system. Such service charges are in addition to the rates charged for water usage. The fixed monthly charges account for approximately 25% of the Bureau's user charge revenues. Fixed charges for a ¾-inch meter are projected to increase from \$6.18 per month in FY 1999-00 to \$8.25 per month in FY 2004-05. This corresponds to an average annual increase of 6.0%. The 10 ccf monthly bill is projected to increase from \$15.98 in FY 1999-00 to \$21.56 in FY 2004-05. This corresponds to an average annual increase of 6.2%.

The proceeding discussion assumes no basic change in the makeup of fixed service charges and volumetric charges. However, as described earlier, alternatives currently under consideration for the City's rate restructuring effort include options where the service charge is either eliminated or significantly reduced, with those costs no longer being collected within the service charge, transferred to the retail volume charge.

Table 16
CITY OF PORTLAND, OREGON
Bureau of Water Works
Current and Forecasted Water Rates

Year Ending June 30	Current Year					
	2000 (1)	2001	2002	2003	2004	2005
WATER USAGE CHARGES (per ccf)						
Inside City Average Retail Rate (2)	\$1.01	\$1.07	\$1.13	\$1.20	\$1.28	\$1.36
Block 1 (2)	\$0.98	\$1.04	\$1.10	\$1.17	\$1.25	\$1.33
Block 2	\$1.18	\$1.25	\$1.33	\$1.41	\$1.51	\$1.60
Block 3	\$1.47	\$1.56	\$1.66	\$1.76	\$1.88	\$2.00
Outside City (3):						
Service Area 1	\$0.512	\$0.610	\$0.640	\$0.670	\$0.700	\$0.730
Service Area 2	0.656	0.790	0.830	0.860	0.910	0.930
Service Area 3	1.085	0.880	0.920	0.950	0.990	1.010
Service Area 5	0.524	0.620	0.660	0.670	0.710	0.740
Service Area 6	1.405	1.520	1.620	1.670	1.750	1.800
Service Area 1-C Direct Conduit	0.512	0.610	0.640	0.670	0.700	0.730
MONTHLY SERVICE CHARGE						
Meter Size (inches):						
3/4	\$6.18	\$7.00	\$7.30	\$7.70	\$7.90	\$8.25
1	7.34	7.50	8.00	8.50	9.00	9.50
1-1/2	11.79	14.00	15.00	16.00	17.00	18.00
2	22.80	23.00	24.00	25.00	27.00	29.00
3	32.68	36.00	38.00	40.00	42.00	45.00
4	43.77	47.00	50.00	53.00	56.00	59.00
6	62.78	55.00	58.00	61.00	65.00	69.00
8	85.33	64.00	68.00	72.00	76.00	81.00
10	126.65	70.00	74.00	78.00	83.00	88.00
12	183.27	77.00	82.00	87.00	92.00	98.00
16	298.94	89.00	94.00	100.00	106.00	112.00
30	522.92	129.00	137.00	145.00	154.00	163.00
MONTHLY BILL FOR 10 ccf (2)	\$15.98	\$17.40	\$18.30	\$19.40	\$20.40	\$21.55

Notes:

- (1) Reflects rate schedule currently in effect. Rates shown in future years are subject to Council review and approval.
- (2) The City began an inclining block pricing schedule in FY 1994-95. Monthly Bill calculation assumes Usage Charge based on Block 1 Rate and Monthly Service Charge based on a 3/4 inch meter.
- (3) Assumes Inside City rates and a 3/4 inch meter.

Source: City of Portland.

MONTHLY BILLING

The Bureau has embarked on a two-year planning process for implementation of system-wide monthly meter reading early in 2001. The main benefits of doing this were determined to be 1) a smaller bill for residential customers, 2) better estimation and customer management of winter sanitary sewer usage, 3) timely price signal for conservation rate structures, 4) regional billing leadership in support of conservation, 5) water drought/shortage tool, and 6) increased contact with customers.

Selection criteria for meeting increased meter reading and billing workloads are currently being developed and will likely include considerations of cost as well as impacts on existing Bureau staff. Preliminary alternatives could include, some level of out-sourcing, partnering with other utilities, as well as hiring additional Bureau staff. Fully automated meter reading is not considered a viable alternative in the near term, but will be a long term option.

Based on the current timeline, there will be no customer bill impact until FY 2001-02. (Additional one-time revenues will offset any additional operational costs in the year of implementation.) The anticipated monthly bill impact for a water/sewer customer is not known at this time but is likely to be between \$1.00 and \$2.00. Due to this uncertainty, the rate schedules and financial forecasts displayed in this official statement do not include any fiscal impacts resulting from implementation of system-wide monthly meter reading and billing. Even though charges for a typical residential customer (8 ccf per month) may increase from 7 to 14 percent as a result of system-wide monthly meter reading, actual monthly customer utility bills will only be about one-third the size of quarterly bills, and residential customers will have the ability to manage their winter sanitary sewer usage.

INSURANCE

The City is self-funded and administered in the areas of comprehensive general, fleet liability and worker's compensation insurance. The State of Oregon protects public bodies by disallowing claim payments greater than (i) \$50,000 to any claimant for any number of claims for damage to or destruction of property, including consequential damages, arising out of a single accident or occurrence; (ii) \$500,000 for any number of claims arising out of a single accident or occurrence.

The City purchases insurance coverage for several other types of risk including all risk property insurance, boiler and machinery insurance, and marine hull and machinery insurance. Performance bond coverage is provided for all City officials and employees. All Water System plant facilities are insured for loss, up to full replacement cost, through purchased insurance coverage. These policies include a \$25,000 deductible; however, the Bureau's exposure is limited to \$5,000 with the difference paid by the City's Bureau of Risk Management. Mains and services are not insured but are repaired and replaced as required through the Bureau's maintenance program.

EMPLOYEE RELATIONS

Employees in the Bureau are represented by two labor organizations. The City of Portland Professional Employees Association ("COPPEA") represents professional and technical employees, primarily in the Engineering work groups of the Bureau. The District Council of Trade Unions ("DCTU") is a bargaining unit consisting of seven different unions that have banded together to bargain one overall contract with the City of Portland. Each of the separate unions has a paid union representative who acts as that union's representative for employees covered under the DCTU contract. The DCTU primarily represents clerical, technical, skilled craft, and service maintenance employees throughout the balance of the Bureau. Of the 532 full time positions in the Bureau, approximately 400 positions are represented by labor organizations. The new labor agreement between COPPEA and the City expires on June 30, 2001. The current DCTU labor contract was extended by the City Council to June 30, 2001.

Employees represented by labor organizations are also protected under rules and regulations of the City's Civil Service System. There have been no work stoppages by City employees since inception of collective bargaining between the City and its employees.

PENSION PLANS

Substantially all City employees (other than most fire and police personnel), after six months of employment, are participants in the State of Oregon Public Employees Retirement System ("PERS"), a defined benefit pension plan to which employees and employers both contribute. The rate of employee contribution is established by law, and is paid by the City in conformance with

City policy. The rate of the employer contribution is set periodically by PERS based on actuarial valuations. The total pension plan contribution of the City charged to expenditures for FY 1998-99 was \$26,121,308.

In October 1998, the City was notified by PERS of revised employer contribution rates adopted by the PERS Board. These revised contribution rates were the result of PERS' regular two-year actuarial update, and are based on actuarial values as of December 31, 1997. Based on this update, the City's unfunded actuarial liability with PERS (i.e., the difference between the present value of benefit obligations for City employees and existing assets available for those benefits) increased to \$257.9 million, nearly double the liability estimated as of December 31, 1995. Reasons for the change include decisions made by the State regarding the taxation of retirement benefits, costs associated with retirement benefits under the PERS "Money Match" option, and changes in the way PERS calculates segmented service liabilities. The unfunded actuarial accrued liability is amortized over thirty years. PERS determined that an employer contribution rate of 17.4%, effective July 1, 1999, would be necessary to fund present benefits when due.

To address this unfunded liability, the City issued approximately \$300 million of limited tax pension obligation revenue bonds in November 1999 to cover the unfunded actuarial accrued liability through December 31, 1997. The Bureau's share of the debt service for this issue is approximately 13.58 percent. The City will pay the fully funded employer rate of 8.56 percent of covered employees' salaries to PERS beginning January 1, 2000, and in FY 2000-01. This contribution rate is subject to future adjustment based upon the results of subsequent actuarial valuations.

CITY ECONOMIC CHARACTERISTICS

The City, with an estimated July 1, 1999, population of 512,395, 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 an immediate metropolitan area with a population of more than 1.4 million. The City is the county seat of Multnomah County. It is the largest city in Oregon and the second largest city in the Pacific Northwest.

The Portland Standard Metropolitan Statistical Area consisted of Multnomah, Clackamas and Washington counties in Oregon, and Clark County in Washington until the 1980 Census, when Clark County was eliminated from the area and Yamhill County was added, making it the Portland Primary Metropolitan Statistical Area ("PMSA"). In 1994, the PMSA became the Portland-Vancouver PMSA and now includes Multnomah, Washington, Clackamas, Columbia and Yamhill counties in Oregon, and Clark County in Washington. Metropolitan statistical areas are based on commuting patterns within a metropolitan area, and are used primarily for labor, employment and unemployment statistics. The current Portland PMSA population is 1.77 million persons.

POPULATION

The population for the City peaked in the 1970s, declined slightly early in the next decade, and increased each year since 1984.

Population projections are available from Portland State University Center for Population Research at the state and county levels only. According to the latest report, by 2010, Multnomah County will have a population of 684,320, an increase of 5.8 percent over 1999. Metro, the Portland area regional governmental agency, published the Region 2040 Growth Plan that projects population, employment and land use needs to 2040. According to Metro, by 2040, the City is estimated to have a population of 596,003, and Multnomah County, 796,924.

Table 17
CITY OF PORTLAND, OREGON
Population Estimate For the Last Ten Years

Year	City of Portland	Percent Change	Multnomah County	Percent Change	Portland Metro Area¹	Percent Change
1990	440,000	1.8%	583,500	0.4%	1,241,600	3.3%
1991	453,065	3.0%	600,000	2.8%	1,285,100	3.5%
1992	458,275	1.1%	605,000	0.8%	1,308,700	1.8%
1993	471,325	2.8%	615,000	1.7%	1,338,900	2.3%
1994	495,090	5.0%	620,000	0.8%	1,357,800	1.4%
1995	497,600	0.5%	626,500	1.0%	1,379,700	1.6%
1996	503,000	1.1%	636,000	1.5%	1,403,200	1.7%
1997	508,500	1.1%	639,000	0.5%	1,420,900	1.3%
1998	509,610	0.2%	641,900	0.5%	1,445,000	1.7%
1999	512,395	0.5%	646,850	0.8%	1,461,550	1.1%

Notes:

(1) Includes Multnomah, Clackamas, Washington and Yamhill counties.

Source: Portland State University Center for Population Research.

Table 18
CITY OF PORTLAND, OREGON
Selected Economic Indicators for the City of Portland from the 1990 Census

Population	
1990 census	437,316
Housing	
Owner occupied units	47.56%
Median value of owner occupied	\$59,200
Housing units built 1980 & after	6.59%
Education	
High school graduate or higher	82.9%
Bachelor's degree or higher	25.9%
Employment	
Employed	93.83%
Unemployed (% of local labor force)	6.17%
Executive, administrative, management, & professional	29.23%
Income	
Median household income	\$25,592
Per capita income ¹	\$17,120
Households with income \$50,000 or over	17.42%
Persons below the poverty level	14.50%

Notes:

- (1) Data differs from data in the Table 19 because the Bureau of Census calculates these figures differently from the Bureau of Economic Analysis.

Source: U.S. Bureau of Census.

INCOME

The following table shows personal income and per capita income for the Portland PMSA, compared to similar data for the State of Oregon and the United States. The compounded annual rate of change in total personal income for the Portland PMSA (1990-1997) was 7.63% and 6.72% for the State of Oregon. The compound annual rate of change in per capita income for the Portland PMSA was 5.21% in per capita income from 1990 to 1997, compared with 4.83% for the State of Oregon and 4.46% for the nation as a whole over the same time period.

Table 19
CITY OF PORTLAND, OREGON
Total Personal Income and Per Capita Income
Portland PMSA, Oregon, and the United States
1990 to 1998

Year	Personal Income (Millions)			Per Capita Income		
	Portland PMSA ¹	State of Oregon	U.S. Total	Portland PMSA ¹	State of Oregon	U.S. Total
1990	29,292	49,161	4,655,420	19,188	17,199	18,635
1991	31,118	51,874	4,841,078	19,809	17,768	19,201
1992	33,522	55,762	5,260,922	20,867	18,727	20,631
1993	36,081	59,640	5,507,622	21,897	19,619	21,365
1994	38,758	63,667	5,774,806	23,046	20,575	22,180
1995	41,933	67,908	6,059,091	24,489	21,618	23,059
1996	45,559	73,156	6,408,103	25,970	22,894	24,164
1997	49,019	77,519	6,770,650	27,388	23,920	25,288
1998	NA	81,310	7,158,176	NA	24,775	26,482

Notes:

- (1) Data for the PMSA includes Multnomah, Clackamas, Washington and Yamhill counties in Oregon, plus Columbia County in Oregon and Clark County in Washington.
- (2) PMSA data for 1998 will released in May, 2000.

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

LABOR FORCE AND UNEMPLOYMENT

The following table shows the average annual civilian labor force, employment level and unemployment level for the Portland PMSA. The unemployment rate for the Portland PMSA has been lower than the State of Oregon unemployment rate since 1982, and has been below the U.S. rate for the last ten years.

Table 20
CITY OF PORTLAND, OREGON
Portland-Vancouver PMSA Labor Force and Unemployment Rates
(000)

Portland PMSA	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Civilian Labor Force	815.0	838.7	854.3	874.5	907.1	936.5	958.6	1,001.9	1,025.7	1,048.8
Employment	776.3	803.2	812.4	818.4	852.8	896.2	923.0	956.5	981.6	1,004.8
Unemployment	38.7	35.5	41.9	56.1	54.3	40.3	35.6	45.4	44.1	44.8
Unemployment Rates										
Portland PMSA	4.7%	4.2%	4.9%	6.4%	6.0%	4.3%	3.7%	4.5%	4.3%	4.3%
State of Oregon	5.7%	5.5%	6.0%	7.3%	7.2%	5.4%	4.8%	5.9%	5.8%	5.6%
United States	5.3%	5.5%	6.7%	7.4%	6.8%	6.1%	5.6%	5.4%	4.9%	4.5%

Notes:

- (1) Between 1984 and 1992, the PMSA included Yamhill County and excluded Clark County. Beginning in 1993, the Portland-Vancouver PMSA includes Multnomah, Clackamas, Washington, Yamhill and Columbia counties in Oregon, and Clark County in Washington.
- (2) Civilian labor force includes employed and unemployed persons sixteen years and older, by place of residence. Data has been adjusted for multiple job holding and commuting.
- (3) Civilian labor force employment includes non-agricultural wage and salary, self-employed, unpaid family workers, domestics, agricultural workers and labor disputants.

Source: State of Oregon, Department of Human Resources, Employment Division.

EMPLOYMENT BY INDUSTRY

The Portland metropolitan area has demonstrated considerable economic diversity. The City is the service center for a large and diverse manufacturing area that has shown substantial growth since the 1980's. Because of the area's reliance on the City for related economic service activities, the manufacturing base of the surrounding area has a meaningful impact on the City's economy.

The State of Oregon's economy is largely based on farming and high-tech manufacturing with high-tech manufacturing accounting for more than half of the state's total exports. The lumber and wood products industry accounts for about 20.6% of the State's manufacturing employment and 3.2% of total non-agricultural employment. On the other hand, the metropolitan area's focus on manufacturing employment is largely based in the metals, instruments, machinery and electrical equipment sectors. The lumber and wood products industry accounts for only 5.8% of the Portland metropolitan area's manufacturing employment and 0.9% of total non-agricultural employment.

Service industries account for 27.8% of the total non-manufacturing employment in the metropolitan area, followed by wholesale and retail trade industries, which account for 24.8%.

Table 21
CITY OF PORTLAND, OREGON
Portland-Vancouver PMSA Non-Agricultural Wage and Salary Employment
(000)

Industry	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1998 % of Total
Non-Ag. Employment	699.5	728.3	730.8	745.0	766.7	802.1	839.6	879.0	916.7	938.6	100.0%
Manufacturing	121.3	124.0	122.2	121.1	124.1	129.9	137.2	142.0	147.3	148.9	15.9%
Durable goods	85.2	86.7	84.6	82.8	84.9	89.4	95.8	100.9	106.6	109.0	11.6%
Lumber & wood prod.	11.0	10.3	9.2	8.6	8.7	8.7	8.7	8.7	8.9	8.7	0.9%
Other durable goods	74.2	76.4	75.4	74.2	76.4	80.8	87.1	92.2	77.9	79.7	8.5%
Nondurable goods	36.1	37.4	37.6	38.2	39.2	40.5	41.3	41.1	40.7	39.9	4.3%
Food products	9.3	10.0	9.9	9.8	9.8	9.9	10.2	10.3	9.9	9.5	1.0%
Other non-dur. goods	26.8	27.4	27.7	28.4	29.5	30.6	31.1	30.8	30.8	30.4	3.2%
Nonmanufacturing	578.2	604.3	608.6	624.0	642.6	672.2	702.4	737.0	770.7	789.7	84.1%
Construction and mining	32.5	36.8	35.5	34.1	34.7	39.6	45.4	52.1	55.1	55.3	5.9%
Trans., comm. & util.	41.8	43.2	43.6	44.0	44.3	45.6	48.4	50.8	52.4	53.9	5.7%
Trade	180.2	185.1	185.7	188.1	193.2	203.6	210.8	218.3	227.7	233.2	24.8%
Finance, ins. & real est.	53.4	55.7	57.9	59.9	59.3	61.5	60.2	63.6	66.7	67.4	7.2%
Services	173.7	183.7	183.6	191.9	203.3	213.0	227.5	238.6	252.5	261.3	27.8%
Government	96.5	99.8	102.3	106.0	106.9	108.1	110.1	113.6	114.8	118.4	12.6%

Source: State of Oregon, Department of Human Resources, Employment Division.

Table 22
CITY OF PORTLAND, OREGON
Major Employers in the Portland Metropolitan Area

Employer	Product or Service	1999 Estimated Employment
Manufacturing Employers		
Intel Corporation	Semiconductor integrated circuits	11,000
Freightliner Corporation	Heavy duty trucks	5,000
Tektronix, Inc.	Electronic instruments	4,000
Hewlett-Packard Co.	Computer printers	3,000
Nike, Inc.	Sports shoes and apparel	2,850
Precision Castparts Corporation	Steel castings	2,120
Boeing of Portland	Aircraft frame structures	2,000
Fort James (formerly James River Corporation)	Pulp & paper, packaging	1,300
SEH America	Silicon wafers	1,700
Burns Brothers Inc.	Travel/fuel stops and safety traction devices	1,600
Wacker Siltronic Corporation	Silicon semiconductor materials	1,500
Epson Portland Inc.	Computer printers	1,350
Gunderson Inc.	Railroad freight cars	1,200
Oregonian Publishing Co.	Newspaper & commercial printing	1,170
Sequent Computer Systems	Supermini computer systems	1,142
Jantzen Inc.	Sportswear	1,020
Mentor Graphics	CAE software & hardware	1,010
Non-Manufacturing Employers		
Fred Meyer, Inc. (Krogers, Inc.)	Grocery & retail variety chain	10,130
Providence Health Care System	Hospitals & clinics	8,938
Legacy Health System	Hospital & health services	6,731
U.S. Bancorp	Bank & holding company	4,909
Kaiser Permanente	Hospitals & clinics	4,287
Wells Fargo & Co.	Bank	4,000
Safeway Stores	Grocery chain	4,000
Meier & Frank Co.	Department stores	3,500
U.S. West Communications	Communications utility	3,440
United Parcel Service	Small package transport	3,100
Southwest Washington Medical Ctr.	Health care	2,617
Albertson's	Retail grocery chain	2,500
Rite Aid Corp.	Retail drug stores	2,300
Regency Blue Cross & Blue Shield	Medical insurance	2,105
Shari's Management Corp.	Restaurant chain	2,000
Consolidated Freightways	Transportation	2,000
Portland General Corp.	Electric utility	1,853
Horizon Air	Airline	1,800
Nordstrom	Retail specialty stores	1,700
Bank of America Oregon	Full commercial banking services	1,594
McDonalds Corporation	Fast food franchise	1,500
PacifiCorp	Electricity, mining & telecommunications	1,421
Target Stores	Retail chain	1,400
Double Tree Motels	Hotel/motel chain	1,400
Westwind Group dba Burger King	Restaurants	1,300
JC Penney Co.	Department stores	1,300
Delta Air Lines, Inc.	Airline	1,250
Standard Insurance Co.	Insurance	1,219

Table 22 (continued)
CITY OF PORTLAND, OREGON
Major Employers in the Portland Metropolitan Area

Employer	Product or Service	1999 Estimated Employment
Non-Manufacturing Employers (continued)		
Dynamics Research Corporation	Information management system	1,200
Northwest Natural	Natural gas transportation and distribution	1,200
Adventist Medical Center	Hospital services	1,200
Reliance MetalCenter	Industrial Supplies	1,200
Sears, Roebuck & Co.	Retail department store	1,153
Costco Inc.	Wholesale membership warehouse	1,100
GTE Northwest	Telecommunications services	1,099
Tuality Healthcare	Health care	1,008
Home Depot	Home improvement	1,000
Public Employers		
U.S. Government	Government	17,600
State of Oregon	Government	8,400
Oregon Health Sciences University	Health care & education	9,600
Portland Public Schools	Education	6,200
City of Portland	Government	5,172
Multnomah County	Government	4,270
Washington County	Government	4,000
Portland State University	Education	3,500
Beaverton School District	Education	2,982
State of Washington	Government	2,900
Vancouver School District	Education	2,800
Bonneville Power Administration	Power generation & transmission utility	2,795
Portland Community College	Education	2,400
Tri Met	Transportation	2,321
Evergreen School District	Education	2,204
Hillsboro School District	Education	2,000

Source: Oregon Employment Department, Portland Chamber of Commerce, the *Business Journal* and NW Resources.

ECONOMIC DEVELOPMENT

The Portland Metropolitan Area is divided into three main counties. 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 other southern areas. As a major transportation hub of the Pacific Coast with water, land and air connections, Multnomah and Washington Counties serve expanding international markets and have experienced considerable growth.

During 1998, projects totaling approximately 2.3 million square feet of commercial real estate were constructed following a record-breaking 7 million square feet in 1997. Another 2 million square feet is presently under construction. The average selling price of a home in metropolitan Portland in 1998 was \$181,000 according to the Portland Metropolitan Area Multiple Listing Service.

There are approximately 293 industrial and business parks located in the Portland metropolitan area; 82 of these parks are located within the City. Major locations of industrial and business parks in the City are the Columbia Corridor along the Columbia River from Hayden Island on the west past the Portland International Airport ("PDX") to the east and along the Willamette River in northwest and north Portland areas.

The Portland metropolitan area is home to the following Fortune 500 Corporations: Fred Meyer Inc. (recently purchased by Kroger Inc.), Intel Corporation, NIKE Inc., PacifiCorp and Willamette Industries.

Current activities showing retail, commercial and industrial change in Portland and the Portland-Vancouver Metropolitan Statistical Area are reflected in the following building and economic development projects.

Office and Commercial within Downtown Portland

Total office vacancy rate in the metropolitan area office market is currently estimated at approximately 8.3 percent and the Portland metropolitan industrial vacancy rate at approximately 6.5 percent. Among the largest developments are two new class A office buildings and an addition to the Downtown Retail Core. TMT Development Company began construction in the spring of 1997 on the \$90 million 28-story Fox Tower that will have lower level retail space, eight levels of parking, a 10-screen theatre and 18 floors of office space. The ODS Tower, a \$45 million, 395,000-square-foot office building is now in the completion stage with space currently available for lease. The expansion at Pioneer Place currently under construction includes a seven-plex theatre at Southwest Fourth as well as new retail space. The project is expected to be completed and operational by March 2000.

The new \$129 million Mark O. Hatfield United States Courthouse, designed to accommodate growth of federal courts through 2020, was completed in late 1997.

Impac Hotel Development opened a 20-story 252-room Marriott Hotel in 1999, adjacent to a recently completed 70,000-square-foot parking and retail project. Westin Hotels and Resorts has completed development of a \$25-30 million, 200-room boutique hotel. West Coast Hotels is in process of development of the 162-room, \$14 million Paramount Hotel, with completion due in 1999. The old Multnomah Hotel has recently been renovated into a 276-unit Embassy Suites Hotel that opened in fall 1997. ITT Sheraton plans to convert a 13-story building in downtown Portland to a 16-story Sheraton hotel. When completed in 1999, the hotel will be 176,375 square feet, including 266 guestrooms and 5,800 square feet of meeting space. The Hilton Hotel expects to add 321 rooms, meeting space and a fitness center at a location adjacent to the current hotel with an expected completion date of June 2002.

Recent developments on the riverfront area include Pacific Gas Transmission Company's eight-story, \$21 million office building and parking structure in River Place. River Place is a mixed-use development on 73 acres along the west bank of the Willamette River, with apartments, restaurants, shops and office space. A \$15 million project with 182 apartments and townhouses was recently completed on 2.7 acres south of River Place. Proposed along Southwest Macadam Avenue is the \$14 million Avalon Hotel with 116 rooms and an 80-slip marina as well as the extension of Waterfront Park and a large swath of industrial land just north of the Marquam Bridge to North Macadam (a 130-acre district). The North Macadam District, which is being considered for designation as an urban renewal district by the City, is the last large piece of undeveloped land close to the downtown area. Proposed development plans call for as many as 3,000 homes and 10,000 jobs with a greenway, housing, office, retail and hotel development to be located in the district.

The Pearl, Old Town and River Districts

As a result of Urban Growth Boundaries set in 1973 and in an effort to revitalize the urban core, the Portland Development Commission has encouraged many projects in the changing Pearl, Old Town and River Districts.

The Lovejoy Extension Ramp has been demolished at a cost of \$919,000 to make way for a large series of mixed-use and residential projects. A walkway is being built to connect Old Town with River District. The Tri-Met "Fareless Square" has been expanded to include most of downtown including the Pearl District and part of Northwest Portland and a trolley system, the Central City Street Car project, that spans to N.W. 23rd will connect the downtown with the area. The trolley terminus will be located at Good Samaritan Hospital and at Portland State University between N.W. 10th and 11th Avenues. The project will be paid through a combination of local, federal monies, and bonds secured by City parking revenues.

In the Pearl District, Gerding/Edlen Development purchased the former Blitz Weinhard Brewery, a five-block complex adjoining Burnside Street for \$20 million. The firm expects to redevelop the property into a mixed-use retail, commercial and housing complex. The brewery property is near a building being redeveloped for Wieden & Kennedy in the Pearl District as its international headquarters. Gerding/Edlen Development is redeveloping the Historic Cold Storage building for Wieden & Kennedy. Wieden & Kennedy is an advertising agency which works for Nike, Diet Coke, Alta Vista, Homegrocer.com and others. This \$20 million renovation is expected to be complete in 1999. Gerding/Edlen Development also purchased the seven-story Meier & Frank storage building located nearby.

The Port of Portland has several large projects under development. In Old Town is a new administrative office building on N.W. First Avenue. The building is located on 1.2 acres of land adjacent to the NW Natural building and future Classical Chinese Garden. The seven-story building includes 103,000 square feet of office space, two above-grade parking levels and retail space on the ground level. The cost for the land purchase and improvements totaled more than \$20 million.

Groundbreaking occurred on June 7, 1999 for the Classical Chinese Garden that is being built at Northwest Third Avenue and Everett in the City of Portland's Old Town. The project, in planning for many years, is expected to open in 2000 and will be only the second such garden in North America.

The River District, a 100-acre site squared by Naito Parkway and Freeway 405, the Willamette River and Glisan, was formerly used for railroad and industrial operations. Improvements in the area are expected to cost over \$870 million over the next 20 years. Mixed-use projects which will be developed include 5,500 housing units, mostly rentals, and 2 million square feet of commercial space. On 7.5 acres southeast of Union Station, the second phase of a multi-family housing project is nearly complete. GSL Properties has finished more than 158 low-income housing units, and began leasing some of the 392 under development. The project will total 550 housing units when finished and is expected to cost \$50 million. The City expects that \$150 million in public funds will be invested in the projects, with over \$700 million from private funds. Just north of the Yards at Union Station is the \$8 million Food Innovation Center, a joint project of Oregon State University's Agricultural Experiment Station and the Oregon Department of Agriculture. The center is expected to include two buildings: the recently completed two-story, 33,000-square-foot Food Innovation Center and a proposed five-story, 100,000-square-foot Oregon Agricultural Center owned by the H. Naito Corporation.

Hoyt Street Properties ("HSP") completed a \$31 million project of two six-story mixed use buildings with 10,000 square feet of retail space plus 123 condominium units and 134 parking spaces in fall 1998. Many other Hoyt Street projects are under way. Eventually HSP parcels will have 2,000 to 3,000 new condominiums on 34 acres in the District.

North and Northwest Portland

The Port of Portland constructed a \$50 million mineral bulk facility on a 60- to 65-acre site at the Port of Portland's Terminal 5. When it became operational in the spring of 1997, the facility began exporting potash fertilizer to overseas markets. The Port plans to invest \$25 million on improvements to Terminal 6 over the next few years, which will be the first phase of a long-term \$60 million expansion plan. The Port of Portland in collaboration with the City of Portland began work in the spring of 1998 on a \$1.58 million roadway construction project to improve the south entrance to Rivergate Industrial Park.

Wacker Siltronic Corporation completed a \$250 million plant expansion in the summer of 1996. The facility quadrupled the company's capacity to produce silicon wafers. The firm also invested \$40 million in upgrading the existing plant. Wacker, which employs about 1,200 workers, received a property tax exemption of approximately \$10.8 million over five years, through the City's enterprise zone program.

Freightliner, the largest heavy-truck builder in North America, is planning a \$93 million expansion of its Swan Island complex, including a new 350,000-square-foot corporate headquarters and refurbished assembly lines. The Portland City Council approved a \$6.8 million tax break for Freightliner Corp. for the project. The expansion is expected to add approximately 400 new jobs when completed.

Southwest Portland

Hoffman Construction has constructed a new Planning and Permit Center for the City at 1900 S.W. Fourth Avenue adjoining a two-level Portland State University building. The \$28.7 million project accommodates five city bureaus including, planning, buildings, licenses, housing and community development under one roof. The Multnomah County Central Library's \$26 million renovation was completed in April 1997. The Portland City Hall recently completed a \$28 million renovation. The Multnomah County Library is currently renovating 13 of its branches throughout the county. The renovation plan is expected to cost approximately \$24.1 million when completed, will build three new buildings, open two new branches and renovate ten existing branches. All branches will also receive improvements to the telecommunications systems in addition to the 16,000 square feet of space to be added to the county system.

In Goose Hollow, adjoining the downtown area to the west, Baugh Construction completed construction on a 45,000-square-foot addition and renovation of the Multnomah Athletic Club on S.W. Salmon Street in Portland in September 1999.

Two blocks straddling Southwest Jefferson Street between 10th and 11th Avenues are being considered for development efforts that may result in construction starting sometime in 2000. The Portland Development Commission is actively recruiting a development team for the Jefferson block to construct maximum high-density, market-rate condominiums and retail space. Across Jefferson on the Safeway/YWCA block, a superblock is being considered which would consist of two standard city blocks and accommodate a Safeway doubled in size, an expanded YWCA, and add four additional levels of low income housing above the YWCA creating a nine-story building.

The Portland City Council approved a project headed by Portland Family Entertainment ("PFE") to renovate Civic Stadium and secure a Triple-A baseball team and an A League soccer team. Under the twenty-year agreement PFE would operate the stadium and the City would contribute approximately 90 percent of the \$37 million renovation costs.

The Department of Veterans Affairs Medical Center recently completed a new \$32 million, 96,000-square-foot expansion of its current Portland facility. The new building is now the largest cancer research facility in the Portland metropolitan area. Oregon Health Sciences University has begun construction on a new neurological sciences center. The project is expected to be complete in 2000.

Eastside Development

Construction of the new Rose Garden Arena was completed in 1995, which features two professional sports teams, the National Basketball Association Portland Trail Blazers and the Western Hockey League Portland Winterhawks. The Arena, located adjacent to the Memorial Coliseum and three blocks from the Oregon Convention Center, was developed and financed through a business partnership between the City and the Oregon Arena Corporation. An eastside river park is currently under development with a 1,200-foot-long floating walkway beneath the Burnside Bridge now complete. When completed in about 2006, the Eastbank Riverfront Park will stretch from the Rose Quarter to the Oregon Museum of Science and Industry ("OMSI"), with links to Tom McCall Waterfront Park, the River District in Northwest Portland, the Oregon Convention Center and trails to Southeast Portland.

The City announced an \$85 million plan to pay for the proposed expansion of the Oregon Convention Center. Funding for an additional 165,000 square feet of new Convention Center space would come from the City, the Metropolitan Exposition-Recreation Commission, and a \$75 million bond package backed by the City. Revenues to retire the bonds would be generated over a 20-year period through 2.5 percent increases in lodging and car-rental taxes in Multnomah County. Once the approval process is complete, construction could begin in 2000 and the expanded building completed by the spring of 2002.

The City has approved a master plan for a retail and commercial park along the Willamette River on the eastside across from downtown. The project will be phased and will redevelop 27 blocks along the riverbank. A developer is developing three office buildings with a total of 300,000 square feet of space and 1,050 parking spaces on PGE-owned land south of OMSI in the central eastside industrial area. The first phase, a 45,000-square-foot headquarters building for KPTV has been completed.

Multnomah County purchased the former US Bank building located at 501 S.E. Hawthorne for \$25 million to house the County's administrative offices. The building was renamed the Multnomah Building. The County expects to invest \$5 million in renovation of the facility, to make tenant improvements and to pay for moving costs. The move will consolidate County staff and elected officials currently working in 7 locations throughout the County. County occupancy accomplished through phases is expected to be completed by February 2000.

A \$40 million, 17-story, 350,000-square-foot office building called the Liberty Center was completed in late 1997 in the Lloyd Center district. A 600-space parking garage is planned across the street. The \$25 million renovation and expansion of the Holiday Inn, near the Oregon Convention Center is now complete. A new Marriott Courtyard has been built several blocks to the north.

Renovation of the Eastport Plaza mall was recently completed; a Wal-Mart store is the anchor store and was completed in the fall of 1997. Century Theaters opened a new 16-screen theater in the Eastport Plaza. Opus Northwest LLC is developing a new industrial park at the former Foster/I-205 drive-in theater. Opus completed construction on the first phase at the end of 1998 with buildings ready for occupancy early in 1999. The 259,000-square-foot \$13.2 million project features office, light manufacturing and high-cube distribution space in two buildings. The park is expected to be the future home of employers with 260 to 350 workers.

Irvington Place, a six-story, mixed-used building located on N.E. Broadway, was completed during the summer of 1998. The \$7 million building features condominiums, retail space, and parking. Safeway Inc. recently completed a complete rebuild of its store directly across the street.

Twin 16-story towers are planned for development south of Holladay Park. The East Tower will have 230,000 square feet of office space and the West Tower will include a seven-story parking structure with 600 parking spaces and 152 housing units above. The project also includes 10,000-square-feet of retail space at street level and a public plaza connecting the two buildings. Construction is expected to begin in the near future on a 29-story, 179-unit condominium building called Cascadia Tower on N.E. Grand Avenue. Cascadia Tower will also include 10,000-square-feet of retail space on Holladay Street.

Center Commons, located in a former ODOT location on N.E. 60th and Glisan, is a \$30 million project that will include a five-story-172-unit senior facility (Center Square), a four-story-60-unit Center Village, a five-story-56-unit market rate Center Station Apartments and a three-story-26-unit station townhouses. Of the 314 residential units, 258 are considered affordable housing. Seventy-five percent of the housing will be affordable to citizens living at 60 percent below the medium income. Completion is expected in fall of 2000.

SM Andersen Co. completed a 194,000-square-foot warehouse, the final phase of Anchor Park on Swan Island, in summer 1998. The structure, along with another 118,000-square-foot warehouse and a 40,000-square-foot office-flex building is owned and operated by Rosan Inc.

Adidas America Inc. announced in December 1998 that it will move its more than 500 employees from Beaverton to the former Bess Kaiser Medical Center in North Portland. The athletic footwear and apparel maker has agreed to lease the entire 215,000-square-foot building and will soon launch a \$25 million renovation of the facility at 5055 N. Greeley Ave. The company began demolition of the structure's interior in 1999 and expects to move in by September 2000. Adidas America, a subsidiary of German-based Adidas Salomon AG, is negotiating with Portland for an "enterprise zone" tax break.

Enterprise Community - U.S. Department of Housing and Urban Development has designated 15 census tracts in inner north and northeast Portland, the Columbia Corridor and commercial downtown as the Portland Enterprise Community. The designation provides \$3 million of grant funding and \$20 million public bonding capacity for business development projects.

The Portland City Council adopted the Lents Town Center Urban Renewal Plan in September 1998. The plan for the southeast Portland area presented by the Portland Development Commission, will cost an estimated \$75 million over 15 years and includes neighborhood and commercial revitalization, projected transportation access and flow improvements, development of public parks, plazas, community centers and open space and development of a variety of affordable housing options.

The Columbia Corridor

The Rivergate Industrial Park is a 3,000-acre area owned by the Port of Portland in north Portland. In addition to Rivergate's access to the river and Portland Airport, the area qualifies local businesses for participation in the Enterprise Zone and related tax incentives. The purpose of the City's Enterprise Zone is to stimulate business investment in north and northeast Portland. In an attempt to hire and retrain Enterprise Zone residents for quality jobs, the Portland Development Commission has set up this program to reward businesses that provide local jobs. Businesses who participate can make use of a property tax exemption from new taxes generated during the first three to five years of a non-retail business investment in the Enterprise Zone. The boundaries of the Enterprise Zone include north and northeast Portland residential, commercial and industrial land west of Interstate 205 and north of Broadway Street.

Food processor Pasco Corporation developed a new 63,000-square-foot, \$20 million dough factory in the Rivergate area. Oregon Steel Mills, Inc. built a \$180 million expansion to double the capacity of its mill in the Rivergate area, in 1996.

In 1997, Spieker Properties completed a third distribution center bringing total square footage to 589,750 for the three centers. Total investment for the centers is more than \$15 million. Albertson's Inc. completed addition of 170,000 square feet to its Oregon/Washington distribution center in the summer of 1997. Columbia Sportswear recently completed an addition of 240,000 square feet to its location following the purchase of an adjoining 19.4 acres from the Port of Portland in December of 1997.

The Australian based ANI America expanded two of its subsidiaries, investing a total of \$55 million for two plants. The first project for Helser Machine Works, producer of rock-crushing machinery, was completed in March 1998 and consists of a new 70,000-square-foot manufacturing facility. The other subsidiary, Welded Tube Company of America, maker of structural tubing, broke ground on a 181,000-square-foot manufacturing facility in September 1997 that is expected to be completed and

operational in 1999. Oregon Metal Slitters, Inc., finished building a \$7 million, 100,000-square-foot plant that produces flat rolled steel.

Opus Northwest LLC completed construction on a 104,000-square-foot distribution and manufacturing facility in November 1997. Northwest Tire Factory completed a \$2.1 expansion of its Rivergate distribution center in October 1997. Portland French Bakery completed construction on a \$4 million, 53,000-square-foot bakery in November 1997.

Burlington Northern Santa Fe Railroad ("BNSF") recently completed several rail bridges and added 14,000 feet of track costing more than \$15 million. The projects done in part with the Port of Portland yield a new entrance from the BNSF and Union Pacific main line to North and South Rivergate. The projects increase flexibility and capacity to Rivergate and Terminal 4.

A \$50 million renovation of Jantzen Beach Shopping Center was completed in 1996; the old enclosed mall was replaced by a 730,000-square-foot center housing several major discount retailers. Fulton Provision Co., a wholesaler of meat products, completed construction of a \$5 million food processing plant in northeast Portland in April 1997. Contractors Inc. completed a \$2.3 million sports complex including five softball fields at East Delta Park in May 1997.

The City annexed the Airport Way industrial area in the early 1980s and established the Airport Way Urban Renewal Area east of the airport in 1986. The Area includes 2,880 acres close to the airport, freeways, and nearby residential areas. Much of the area surrounding the airport is not zoned for industrial use, making land zoned for industry scarce. Few large tracts of developable industrial land within the metropolitan area remain.

Three projects at PDX's AirTrans Center have recently been completed. A \$15 million, 130,000-square-foot operations center for Horizon Air Inc.; a 102,000-square-foot cargo building for Federal Express; and a 30,000-square-foot cargo building for Emery Worldwide. The Portland International Center, a business park at the airport, is the new location for three offices of the U.S. Customs Service. Due to heightened activity and congestion in this high traffic area the airlines and cargo carriers serving PDX have approved a \$7.2 million project to construct an engine test/noise reduction enclosure at PDX. The new facility is designed to significantly reduce aircraft noise impacting neighborhoods near PDX. Construction on the enclosure is scheduled to begin in 1999.

The \$46.5 million Hampton Inn Motel was completed in 1996 near the airport. John James plans to develop a 230,000-square-foot industrial park along Airport Way, and completed a 172-room Embassy Suites hotel on the same property.

Alderwood Corporate Center completed construction of its 314,000-square-foot Phase II project and Phase III which added an additional 300,000 square feet of warehouse space. Equity Development Inc. and P&C Construction Inc. recently completed a \$9.5 million Class A office building along Airport Way.

Construction of the \$125 million light rail link ("Air Max") to PDX began early in 1999. Federal approval has been issued for an airline passenger surcharge by airlines located at PDX for partial funding. Primary funders are the Port of Portland, Tri-Met, the Portland Development Commission and Cascade Station. Cascade Station includes 210 acres of proposed development on Port property south of Airport Way between I-205 and Northeast 82nd Avenue. The company will build hotels, office buildings and a theater complex on 120 acres of the project and initial construction costs estimated at \$180 million. A Bechtel subsidiary, Bechtel Infrastructures, will build the entire light-rail line as well as streets in Cascade Station.

UTILITIES

Portland General Electric Company and Pacific Power & Light provide electric service, and NW Natural distributes natural gas. Telephone services are provided by US West Communications and, in some areas, General Telephone of the Northwest.

AGRICULTURE

Because the City is the primary urban center in the state, agriculture is not a major industry in the greater metropolitan area. Multnomah County encompasses the smallest land area (457 square miles) and the largest population among counties in Oregon. Even so, the metro area accounted for more than 23% of the state's agricultural sales and harvested acres. Clackamas County ranked second and Washington and Yamhill counties, also included in the metro area, ranked fifth and sixth respectively in total amount of agricultural sales among all Oregon counties.

The projected gross 1998 farming income in Multnomah County, as estimated by the Oregon State University Extension Service, was \$58,133,000, consisting of \$56,254,000 from crops and \$1,879,000 from livestock and their products.

TRANSPORTATION AND DISTRIBUTION

The City is a leading warehousing and distribution center for the Pacific Northwest, serving a market area of approximately seven million people. The City's location at the head of deep-water navigation on the Columbia River system gives it substantial geographic and, therefore, economic advantages for the shipment of freight. The Columbia River ship channel is maintained at a depth of 40 feet from the Portland Harbor to the Pacific Ocean 110 miles downstream. The City is a regular port of call for 16 regularly scheduled major steamship lines serving major world trade routes. Seven Oregon and Washington port districts have joined to fund a five-year, \$6 million study of the feasibility of deepening the shipping channel of the Columbia River from 40 feet to 43 feet, in order to accommodate today's larger vessels. Primary cargoes include containers, automobiles, grain, and mineral bulks.

Upstream from the City, the Columbia River provides the only water route through the Cascade Mountains to the agricultural "Inland Empire" 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 three 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 Portland and the region east of the mountains.

The City 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.

The Port of Portland is a port district encompassing Multnomah, Clackamas and Washington counties. The district provides an extensive array of public facilities including marine terminals and cargo-handling facilities, grain storage and handling facilities, ship dry dock and repair facilities, industrial properties, PDX and satellite general aviation airports at Troutdale fifteen miles east of Portland, at Hillsboro west of Portland in Washington County, and at Mulino south and east of Portland in Clackamas County. The Port's 982-foot floating dry dock at the Swan Island Ship Repair Yard is the largest in the Americas and the third largest in the world. In 1994, the Port approved a \$60 million, ten-year plan to build out Terminal 6, which will expand its capacity to handle container units and larger ships. At present Terminal 6 comprises 122 acres, has three berths with seven gantry cranes, and features uncongested yard space with rail, truck and barge access. In addition, the Port has recently completed a \$12 million investment in rail infrastructure improvements made during the past two years.

In tonnage of total waterborne commerce, the Port is currently ranked as the third largest volume port on the West Coast, after Long Beach and Los Angeles. Exports include wheat and barley, potash, beef pulp pellets, baled hay, forest products (logs, lumber, plywood and wood chips), paper and newsprint, scrap metal, soda ash and aluminum products. The Port of Portland is the largest wheat export port in the United States. Imports include cement, ore (limestone, iron ore and alumina), iron and steel products, petroleum products, crude salt, autos and trucks. Total waterborne tonnage moving through the Port increased by 5.6% in 1998, with over 11.3 million short tons of cargo. Approximately 34% of that tonnage was grain. The total revenue generated by waterborne commerce including imports and exports was \$12.5 billion in 1998. During 1998, aviation and marine activities generated \$156.1 million in operating revenues.

The Port of Portland submitted an updated 20-year Transportation Improvement Plan ("TIP") to Metro and the Oregon Department of Transportation for inclusion in the Regional Transportation Plan and for funding and construction consideration through the state and metropolitan fund allocation processes. The Port's plan identifies the need for 57 road, rail, transit and waterway improvement projects, estimated to cost \$771 million, to address business and passenger access to markets through Port gateways, and to improve infrastructure for the movement of freight in the region. Some of the projects in the plan, such as those located within Port facilities, are primarily the Port's responsibility. However, many of the projects are on systems owned and operated by other governments or private rail carriers. The Port's plan lists 10 priority projects, which are in various stages of funding commitment from the partners. The projects (not in priority order) include: a light rail extension to PDX; highway and some rail improvements on connectors to Lombard, 82nd Avenue/I-205, I-205/Airport Way; South Rivergate, Going Street; North Marine Drive and I-5; channel deepening; Hayden Island bridge; and Airport Way and Rivergate "Intelligent Transportation Systems".

PDX handled 13 million passengers in 1998, a 1.6% increase over 1997; and 267,788 short tons of air cargo in 1998, also an increase of 1.6% over 1997. Nineteen passenger airlines and fourteen cargo airlines operate out of the airport. Major airlines include American, Canadian, Continental, Delta, Northwest, Southwest, TWA, and United; national airlines include Alaska, America West, and Hawaiian; regional airlines include Air BC, Horizon, Harbor Air, Regional, Sky West, Casino Express, Reno Air, and United Express. The airport, one of the fastest growing international airports in the nation, has undergone extensive expansion over the past four years, including construction of \$100 million in new terminal facilities which were the first phase of

an \$800 million plan for ten years of parking, road and terminal improvements. These improvements will include the south terminal expansion project, a 2,700-space addition to the existing parking garage, a new 250-foot air traffic control tower (funded by the Federal Aviation Administration), and the widening of the roadway in front of the ticket lobby from four lanes to eight lanes. Toward the end of the ten years, plans call for a second terminal building to be built east of the existing terminal and connected with it by a long concourse, and light rail stations will be added to each terminal building.

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 Interstate 5, the primary north-south highway artery of the West Coast, and by-pass routes I-205 and I-405 within and around Portland. 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 Oregon Department of Transportation is starting a \$100 million renovation plan for highways and bridges in the metropolitan area. Major projects include a 26-mile corridor of Interstate 5 between Wilsonville and the Interstate Bridge over four years and painting and rehabilitation of the northbound Interstate 5 bridge over 18 months. Interstates 84 and 205 are scheduled to receive new asphalt surfaces during the next four years. A complete renovation of the Hawthorne Bridge was completed 1999 and other bridges are scheduled for extensive rehabilitation and repair during the next few years including the Ross Island, St. Johns, Oregon City Arch, Interstate and Boones bridges.

In the City, numerous street-related projects are under construction including projects for downtown office buildings and commercial development, combined sewer overflow pipe installation, retaining walls to minimize drainage problems, resurfacing, arterial connection and street rehabilitation.

The Tri-County Metropolitan Transportation District ("Tri-Met"), the regional public transit agency, provides bus service through the region. Tri-Met's light rail system ("MAX") began operation in the fall of 1986 with the opening of the 15-mile line between downtown Portland and the City of Gresham to the east. Construction of a 12-mile, \$913-million extension of the light rail line west into Washington County began in May 1993. Completed in 1998, the Westside extension extends the line out to the cities of Beaverton and Hillsboro. This project was funded by federal transportation funds, the Oregon State Lottery, a \$125 million bond measure and \$21 million pledged by local governments. Construction of an extension of the light rail line to the PDX has begun. (See "CITY ECONOMIC CHARACTERISTICS—ECONOMIC DEVELOPMENT—The Columbia Corridor.")

Planning is underway for a north spur of the light rail system to run along the east side of the Willamette River from the Rose Garden to the Portland Metropolitan Exposition Center. Estimated costs are about \$350 million, including \$240 million in federal dollars in that corridor. Local sources being discussed include \$55 million in Metro regional money, \$25 million from Tri-Met, and \$30 million from the City. The project would not require an increase in property taxes.

Construction is now in process on a new commuter trolley, the Central City Streetcar project, which connects the downtown area with the Pearl District and Northwest Portland. Transportation on the trolley will be free to riders and included in the "Fareless Square" program.

TOURISM, RECREATION AND CULTURAL ATTRACTIONS

Portland is Oregon's largest city and the center of business and transportation routes in the state. Therefore, the City accommodates a large share of Oregon'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 Civic Theater, Oregon Ballet, Portland Opera, Portland Art Museum, Oregon Historical Society Museum, Children's Museum, Oregon Museum of Science and Industry, Western Forestry Center, Japanese Gardens, International Rose Test Gardens, and the Oregon Zoo and Zoological Gardens. 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.

Professional sports teams, the Portland Trail Blazers basketball team and the Portland Winterhawks hockey team, play at the recently constructed Rose Garden Arena complex and the Memorial Coliseum. The City has been awarded a conditional Women's National Basketball franchise ("WNBA") with play expected to begin in June 2000. The City is also home to the

Portland Forest Dragons arena football team and the Portland Pythons indoor soccer team. The City has recently adopted a \$37 million plan to renovate Civic Stadium and entered into an agreement with Portland Family Entertainment to operate the facility. The stadium is an active venue for minor league baseball, an expected A League soccer franchise, concerts and other large community events.

A prime tourist attraction for the City, which is known as the City of Roses, is the three-week long Portland Rose Festival held each year in June. More than two million participants take part in the Festival annually. The festival includes prominent car races and the two-day Rose Festival Air Show that is rated as one of the top five air shows in the nation and routinely attracts a quarter million spectators.

According to the Portland Oregon Visitor's Association ("POVA"), an estimated 265,541 convention delegates visited the City in 1998, attending meetings and exhibits in the Oregon Convention Center, the Memorial Coliseum, and other facilities. These visitors represented expenditures of approximately \$165 million in the metropolitan area.

POVA lists approximately 80 hotels and motels within the City, with a total of 10,689 units. Another 75 hotels and motels are located in the metropolitan area including Vancouver and Clark County, with a total of 6,824 units. Occupancy rates ran at 72.7% for 1997, the most recent year for which statistics are available, compared with a national average of 73.6%. Developers are in process of building an additional 1,105 rooms in the City. These construction activities include several large projects in the downtown and airport areas. (See "ECONOMIC DEVELOPMENT" herein.)

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 fertile Willamette Valley to the south offer opportunities for hiking, camping, swimming, fishing, sailboarding, skiing, wildlife watching and numerous other outdoor activities.

HIGHER EDUCATION

The City is the educational center for the State of Oregon. Within the Portland Metropolitan area are several post-secondary educational systems.

Portland State University ("PSU"), one of the three large universities in the Oregon State System of Higher Education, is located on a campus encompassing an area of over 28 blocks adjacent to the downtown business and commercial district of Portland. PSU offers baccalaureate and masters degrees in over 32 areas, doctoral degrees in six fields, and certificates in nine areas. Enrollment, as of fall 1998, was 15,230. PSU is noted for the development of programs specifically designed to meet the needs of the urban center. The City has approved PSU's plans for major changes to the campus, creating a 29-block university district, with gateways, more green spaces, a transit plaza, and several new academic and student housing buildings. The first two projects, estimated at \$60 million, are under construction and include a 100,000-square-foot academic building that will include retail space and a transit stop; and an elementary school and family facility that is planned jointly with the Portland Public School District. In addition, PSU is studying the design feasibility of several mixed-use projects.

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

Portland is the location of Oregon Health Sciences University ("OHSU"), located on 116 acres in the hills west of downtown. OHSU offers academic programs in dentistry, medicine and nursing, as well as continuing education, child development and rehabilitation, clinical training certificates, internships and fellowships. Combined enrollment, which includes students, resident and fellows in the fall of 1998, was 1,846. OHSU not only is dedicated to the education of health professionals, but also is a leader in biomedical research, receiving nearly \$100 million in grants for research annually. OHSU is also dedicated to public service and to patient care through the University Hospital, the Oregon Poison Center, the School of Dentistry and the recently constructed Doernbecher Children's Hospital. These facilities, with the University Clinics, the School of Medicine's Specialty Centers and the Child Development and Rehabilitation Center served over 140,000 patients in 1998.

OHSU operates out of 37 major buildings on the Marquam Hill Campus with approximately 4 million square feet of space. The University also operates more than 10 additional primary care and specialty care clinics throughout the area. Several building projects are now underway or have been completed on the campus, including a \$29 million Neurosensory Research Center; a \$29 million Center for Ambulatory Research and Education; and a \$25 million C Wing addition to University Hospital South, completed in early 1996; and a \$3 million major utility upgrade at University Hospital South. Two projects recently completed include the new \$60 million Doernbecher Children's Hospital, and the relocation of the emergency room, a \$5.5 million project.

Independent colleges in the City include Lewis & Clark College, the University of Portland, Reed College, and Marylhurst University, and three smaller church-affiliated schools, Warner Pacific College, Concordia University, and Columbia Christian College. The Western States Chiropractic College and East West College of the Healing Arts are also located in the City. Community colleges serving the Portland area include Portland Community College, which operates educational centers at several locations throughout the City, in neighboring Washington County, and in Columbia County to the north; Mt. Hood Community College in Gresham, east of Portland; and Clackamas Community College at Oregon City in Clackamas County. The Division of Continuing Education of the State System of Higher Education offers a diversified program for adult education in the City, principally through evening classes but also through correspondence classes and other services.

PUBLIC FACILITIES

Water

Portland's 102-square-mile Bull Run Watershed, located in the foothills of the Cascades west of Mt. Hood, is the primary source of water for the Portland metropolitan region. Water is gravity-fed to the City and surrounding areas through three conduits. These conduits are 25 miles long and have a carrying capacity of 210 million gallons per day. The City installed a groundwater backup system on the Columbia River south shore. The system pumps groundwater into the Powell Butte reservoir, where it is blended with Bull Run surface water. The well field is designed to supply 90 million gallons per day. Portland's storage reservoir capacity in the Bull Run is 16.8 billion gallons; 10.2 billion is available without filtration. Current usage from the Portland water system averages 95 million gallons a day in the winter (November to June) and 160 million gallons a day during the average peak season summer months (July to October). Current projects include pre-design work on the construction of a new conduit as part of the gravity water feed system and the feasibility of enclosing several open reservoirs.

The City, along with Metro and 25 other metropolitan area cities and water districts, participates in the Regional Water Providers Consortium. The Consortium works together through a voluntary intergovernmental agreement to coordinate and implement the Regional Water Supply Plan and to address water supply and resource management issues affecting the region. The City provides technical planning and administrative staff to the Consortium through the City's Water Bureau through an intergovernmental agreement.

Sewer and Wastewater

Approximately one-third of the 96,200 acres within the City Urban Services Boundary and approximately 60% of the City's population is served by combined sanitary and stormwater sewers. During rainstorms the collection system exceeds the capacity of the interceptor system that conveys sewage to the Columbia Boulevard treatment plant, resulting in overflows of untreated sewage directly into the Willamette River and the Columbia Slough. Under an agreement between the City and the Oregon Department of Environmental Quality, the City is undertaking the Combined Sewer Overflow program to remedy this situation. Costs are estimated at more than \$1 billion to be invested over 20 years, including a \$400 million treatment plant to be built near the Willamette River. Major construction is now underway and the specific projects are expected to meet regulatory compliance dates in 2001, 2007 and 2011.

OTHER ECONOMIC FACTORS

The following table shows various economic indices for the City over the past ten years.

Table 23
CITY OF PORTLAND, OREGON
Various Economic Indices
for Fiscal Years Ended June 30

Fiscal Year	Retail Sales (\$000)	Commercial Const.		Residential Const.		Total Construction		Bank Deposits (\$000)
		No. of Permits	Value	No. of Permits	Value	No. of Permits	Value	
1989	\$10,964,049	3,134	\$351,209,442	3,013	\$101,901,769	6,147	\$453,111,211	Not available
1990	12,139,866	3,230	294,157,779	2,795	141,957,418	6,025	436,115,197	6,662,366
1991	12,679,335	3,120	394,944,741	2,898	134,086,901	6,018	529,031,642	Not available
1992	13,914,356	3,242	233,574,653	3,329	111,153,551	6,571	344,728,204	9,087,891
1993	15,362,788	3,230	255,190,445	3,424	100,321,321	6,654	355,511,766	10,917,713
1994	16,601,340	3,300	424,277,673	4,125	182,599,809	7,425	606,877,482	9,234,510
1995	17,434,431	3,286	387,755,191	3,822	113,779,784	7,108	501,534,975	10,899,814
1996	18,826,688	3,069	497,058,470	4,011	132,248,762	7,080	629,307,232	11,133,967
1997	20,049,925	3,378	690,910,816	4,343	157,497,045	7,721	848,407,861	14,281,503
1998	N.A.	3,760	725,276,267	4,186	175,239,479	7,946	900,515,746	12,942,646

Sources:

Retail Sales:

Sales and Marketing Management, Survey of Buying Power.

Building:

City of Portland, Bureau of Buildings. Data is collected on a fiscal year basis and includes new construction and alterations. In July 1986 the City's Permit Center consolidated with the East County Permit Center operated by Multnomah County. Permit data shown is for the City of Portland *only*.

Bank Deposits:

State of Oregon, Division of Finance and Corporate Securities.

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. Currently over 100 proposed initiative measures have been submitted to the Oregon Secretary of State's Office for the November 2000 general election.

Because many proposed initiative measures are submitted which 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 which have not qualified for the ballot.

PROPOSED INITIATIVES WHICH QUALIFY TO BE PLACED ON THE BALLOT

To be placed on a general election ballot, the proponents of a proposed initiative must submit to the Secretary of State initiative petitions signed by a 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. For the 2000 general election, the requirements will be eight percent (89,048 signatures) for a constitutional amendment measure and six percent (66,786 signatures) for a statutory initiative. Any elector may sign an initiative petition for any measure on which the elector is entitled to vote.

The 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. If the person obtaining signatures is being paid, the signature sheet must contain a notice of such payment.

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 only.

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

<u>Year of General Election</u>	<u>Number of Initiatives that Qualified</u>	<u>Number of Initiatives that Passed</u>
1988	5	3
1990	8	3
1992	7	0
1994	16	9
1996	16	4
1998	10	6

Source: Elections Division, Oregon Secretary of State.

FUTURE 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.

PROPOSED INITIATIVE PETITION WHICH HAS NOT QUALIFIED FOR THE NOVEMBER 2000 BALLOT

The proposed initiative measure discussed below has not qualified to be placed on the November 2000 ballot. It is being disclosed only because it has received public attention, and appears likely, if approved by the voters, to have a material adverse impact on the financial condition of many local governments in Oregon. The City can not predict whether the proposed initiative will qualify to be placed on the November 2000 general election ballot, or whether the voters will approve the proposed initiative if it does qualify to be placed on the ballot.

The Taxpayer Protection Initiative (the "TPI") is an initiative to amend the Oregon Constitution. It requires voter approval of most future tax, fee and charge increases, and also requires governments to refund, with interest: a) most taxes, fees and charges newly imposed after December 6, 1998; and b) increases in most pre-existing taxes, fees and charges since December 6, 1998 to the extent such increases exceeded three percent. The TPI includes certain exceptions from the voter approval and refund requirements, which may be applicable to Water System fees and charges. The TPI further allows fees and charges which are limited by the TPI to grow at the rate of inflation after December 6, 2000 if those fees or charges do not exceed the actual cost of providing the product or service and either were in effect on or prior to December 6, 1998 or were adopted in accordance with the voter approval requirements of the TPI.

The City has increased Water System fees and charges more than three percent since December 6, 1998. It is not certain whether the exceptions from the voter approval and refund requirements contained in the TPI would apply to fees and charges imposed by the Water System. Therefore, it is possible that the TPI could have a material adverse impact on the financial condition of the Water System, if approved. Should it be determined that the Water System is subject to the refund requirement of the TPI, the City believes it could pay such refunds from existing Water System financial resources. Moreover, the proposed TPI should not prevent the City from collecting sufficient Net Revenues to pay the 2000 Series A Bonds.

TAX EXEMPTION

General. In the opinion of Preston Gates & Ellis LLP, Portland, Oregon, Bond Counsel, interest on the Bonds is excluded from gross income subject to federal income taxation under Section 103(a) of the Internal Revenue Code of 1986 (the "Code"), provided the requirements of the Code described in this section under the heading "Continuing Requirements" are complied with.

The Bonds are not private activity bonds and interest on the Bonds is not an item of tax preference for purposes of determining alternative minimum taxable income for individuals or corporations under the Code. However, interest on the Bonds is taken into account in the computation of adjusted current earnings for purposes of the corporate alternative minimum tax under Section 55 of the Code as more fully described in this section under the heading "Certain Federal Income Tax Consequences."

Except as described herein, Bond Counsel expresses no opinion on any federal, state or local tax consequence arising with respect to ownership of the Bonds.

Continuing Requirements. The Code imposes a number of requirements that must be satisfied for interest on state or local obligations, such as the Bonds to be excludable from gross income for federal income tax purposes. These requirements include limitations on the use of bond proceeds and the facilities financed or refinanced with such proceeds, limitations on the investment of bond proceeds prior to expenditure and a requirement that excess arbitrage earned on the investment of bond proceeds be paid periodically to the United States. The Issuer has covenanted in the bond documents that it will comply with these requirements.

Bond Counsel's opinion will assume continuing compliance with the covenants of the Issuer contained in the bond documents pertaining to those sections of the Code which affect the exclusion from gross income of interest on the Bonds for federal income tax purposes and, in addition, will rely on representations by the Issuer with respect to matters solely within the knowledge of the Issuer, which Bond Counsel has not independently verified. If the Issuer should fail to comply with the covenants in the bond documents or if the foregoing representations should be determined to be inaccurate or incomplete, interest on the Bonds could become taxable from the date of delivery of the Bonds, regardless of the date on which the event causing such taxability occurs.

Certain Federal Income Tax Consequences. The following is a discussion of certain federal tax matters under the Code. This discussion does not purport to deal with all aspects of federal taxation that may be relevant to particular bondowners. Prospective bondowners, 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 Bonds, as well as any tax consequences arising under the laws of any state or other taxing jurisdiction.

Alternative Minimum Tax on Corporations. Section 55 of the Code imposes an alternative minimum tax on corporations equal to the excess of the tentative minimum tax for the taxable year over the regular tax for such year. The tentative minimum tax is based upon alternative minimum taxable income which is regular taxable income with certain adjustments and increased by the amount of certain items of tax preference. One of the adjustments is 75 percent of the amount by which a corporation's adjusted current earnings exceeds the corporations alternative minimum taxable income (determined without regard to such adjustment and the alternative tax net operating loss deduction). Interest on tax-exempt obligations, such as the Bonds, is included in a corporation's adjusted current earnings.

For taxable years beginning after December 31, 1997, the corporate alternative minimum tax is repealed for small business corporations that had average gross receipts of less than \$5 million for the 3-year period beginning after December 31, 1994, and such small business corporations will continue to be exempt from the corporate alternative minimum tax so long as their average gross receipts do not exceed \$7.5 million.

Financial Institutions. The Code denies banks, thrift institutions and other financial institutions a deduction for 100% of their interest expense allocable to tax exempt obligations, such as the Bonds.

Borrowed Funds. The Code provides that interest paid on funds borrowed to purchase or carry tax-exempt obligations during a tax year is not deductible. In addition, under rules used by the Internal Revenue Service for determining when borrowed funds are considered used for the purpose of purchasing or when carrying particular assets, the purchase of obligations may be considered to have been made with borrowed funds even though the borrowed funds are not directly traceable to the purchase of such obligations.

Property and Casualty Insurance Companies. The deduction for loss reserves for property and casualty insurance companies is reduced by 15 percent of the sum of certain items, including the interest received on tax-exempt bonds, such as the Bonds.

Social Security and Railroad Retirement Benefits. The Code also requires recipients of certain Social Security or Railroad Retirement benefits to take into account, in determining gross income, receipts or accruals of interest that is exempt from federal income tax.

Branch Profits Tax. Certain foreign corporations doing business in the United States may be subject to a branch profits tax on their effectively connected earnings and profits, including tax-exempt interest on obligations such as the Bonds.

S Corporations. Certain S corporations that have subchapter C earnings and profits at the close of a taxable year and gross receipts more than 25% of which are passive investment income, which includes interest on tax-exempt obligations, such as the Bonds, may be subject to a tax on excess net passive income.

In the opinion of Bond Counsel, interest on the Bonds is exempt from present State of Oregon personal income taxation.

RATING

The Bonds have been rated "Aa1" by Moody's Investors Service, Inc. ("Moody's"). An explanation of the significance of such rating may be obtained from Moody's. There can be no assurance that any rating assigned to the Bonds will not be revised at a later date.

LEGAL MATTERS

Legal matters incident to the authorization, issuance and sale of the Bonds by the City are subject to the unqualified approving opinion of Preston Gates & Ellis LLP, Portland, Oregon, Bond Counsel. The opinion of Bond Counsel will be delivered to the original purchaser of the Bonds. Bond Counsel has reviewed this Official Statement only to confirm that the portions of it describing the Bonds, the Ordinance, and the authority to issue the Bonds, conform to the Bonds and the applicable laws under which they are issued.

LITIGATION

There is no litigation pending against the Water System of a material, adverse nature.

In December, 1999, the City sued the Boeing Company and Cascade Corporation in United States District Court for the District of Oregon. The City alleged that those two companies were responsible for costs incurred and losses suffered since 1988 as a result of ground water contamination near the Well Field. (Under the terms of consent orders with DEQ, Boeing and Cascade have now implemented a remedy that controls the contaminant plume and is expected to clean it up in less than 20 years.) The City's complaint contains causes of action under state and federal Superfund legislation and common law nuisance. The damages alleged exceed \$6.5 million. The case is in discovery at this time. None of the money that might be recovered by the City in this litigation is included as revenue within the Water Bureau's financial forecast.

YEAR 2000 COMPLIANCE

The City of Portland makes extensive use of computer technology and, over a number of years, took active steps to eliminate potential Year 2000 ("Y2K") problems – that is, the risk that computer applications may not be able to properly perform date-sensitive functions after December 31, 1999. All City systems were monitored during the actual Y2K rollover, and verification of continued functionality was confirmed through validation and testing throughout the New Year's weekend. To date, the City has not experienced any significant Y2K problems.

CERTIFICATE WITH RESPECT TO OFFICIAL STATEMENT

At the time of the original delivery of the Bonds, the City will deliver a certificate addressed to the Underwriters to the effect that the City has examined the 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 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 the Official Statement and the date

of delivery of the 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 is 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 Underwriter or owners of any of the Bonds. Any statements made in this Official Statement involving matters of opinion are intended merely as opinion and not as representation 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, has agreed to execute and deliver a Continuing Disclosure Certificate substantially in the form attached hereto as Appendix D for the benefit of the Bond holders.

The City has never failed to comply in all material respects with any previous undertakings with regard to said Rule to provide annual reports or notices of material events.

CONCLUDING STATEMENT

This Official Statement has been deemed final by the City for purposes of Rule 15c2-12 of the Securities and Exchange Commission. The undersigned certifies that to the best of his knowledge and belief, (i) the Official Statement, both as of its date and as of the date of delivery of the 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 light of the circumstances under which they were made, not misleading and (ii) between the date of the Official Statement and the date of delivery of the 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 the Official Statement.

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

CITY OF PORTLAND, OREGON

By /s/ Eric H. Johansen
Debt Manager
Office of Finance and Administration

APPENDIX A

WATER SYSTEM BOND ORDINANCE SUMMARY



Summary of Master Ordinance

Certain provisions of the Master Ordinance are summarized below. This summary does not purport to be complete or definitive and is qualified in its entirety by reference to complete copies of Ordinance No. 174241, the "Amended and Restated Master Water System Bond Ordinance".

Definitions

Capitalized terms used in the Master Ordinance will have the following meanings unless the context clearly requires use of a different meaning:

"Annual Debt Service" means the amount required to be paid in a Fiscal Year of principal and interest on any Outstanding Bond, calculated as follows:

- i. Interest which is to be paid from Bond Proceeds will be subtracted;
- ii. City Payments to be made in the Fiscal Year under a Parity Derivative Product will increase Annual Debt Service, and Reciprocal Payments to be received in the Fiscal Year under a Parity Derivative Product will reduce Annual Debt Service;
- iii. Bonds which are subject to scheduled, noncontingent redemption or tender will 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 will be treated as maturing on that date;
- iv. Bonds which are subject to contingent redemption or tender will be treated as maturing on their stated maturity dates;
- v. Variable Rate Obligations bear interest from the date of computation until maturity at their Estimated Average Interest Rate.

"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.

"Base Period" means any twelve consecutive months selected by the City out of the most recent twenty-four months preceding the delivery of a Series of Parity 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.

"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.

"Bondowner" or "Owner" means a registered owner of a Bond.

"Bonds" means the Series 1993 Bonds, the Series 1995 Bonds, the 1997 Series A Bonds, the 2000 Series A Bonds and any Parity Obligations.

"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.

"Capital Charge Obligations" means obligations which are secured by Capital Charges, and for which the City has made an election to treat the net proceeds of the obligations as a Gross Revenue.

“Capital Charge Proceeds” means the net proceeds of Capital Charge Obligations. For purposes of this definition, “net proceeds” means the proceeds of the Capital Charge Obligations available to be deposited in the Water Enterprise Fund and used as Gross Revenues, after payment of costs of issuance, credit enhancement fees, accrued and capitalized interest, and similar costs, and funding of reserves.

“Capital Charge Revenues” means all Capital Charges except Committed Capital Charges.

“Capital Charges” means all systems development charges, assessments for local improvements and similar charges which have been imposed on persons or property to recover capital related costs of the Water System, and which are deposited in the Water Enterprise Fund.

“Charter General Obligation Bond Account” means the Charter General Obligation Bond Account in the Sinking Fund described in the Master Ordinance.

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

“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 Derivative Product which is either fixed in amount or is determined according to a formula set forth in the Derivative Product.

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

“Committed Capital Charges” means Capital Charges which secure Capital Charge Obligations. For purposes of this definition, committing to pay obligations from Net Revenues will not be treated as securing the obligations with Capital Charges, and Capital Charges which would otherwise be part of Gross Revenues will not become Committed Capital Charges merely because Net Revenues are pledged to pay obligations.

“Construction Fund” means the Water Construction Fund in the Water Enterprise 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 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 Bonds secured by the Credit Facility.

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

“Derivative Product” means a written contract between the City and a Reciprocal Payor under which the City is obligated to pay the City Payments in exchange for the Reciprocal Payor’s obligation to pay Reciprocal Payments, and which provides that the Reciprocal Payments are to be deposited directly into the Revenue Bond Account and that 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.

“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.

“Director” means the permanent or acting Director of the Office of Finance and Administration, the permanent or acting Director of the Bureau of Financial Management, or the permanent or acting Debt Manager of the City or a person designated by the permanent or acting Director of the Office of Finance and Administration, the permanent or acting Director of the Bureau of Financial Management, or the permanent or acting Debt Manager to act as Director.

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

“Estimated Average Interest Rate” means:

For Outstanding Bonds during any period in which they are Variable Rate Obligations:

- i. if the Variable Rate Obligations have been Outstanding for a period of 12 months or more, the weighted average rate of interest applicable to such Bonds during the immediately preceding 12 month period; or
- ii. if the Variable Rate Obligations have not been Outstanding for a period of 12 months or more, the higher of the most current actual interest rate on the Variable Rate Obligations; or, 100% of the most recently published interest rate for municipal bonds with similar terms and credit ratings published in *The Bond Buyer*; and

For Bonds which have been authorized but not yet been issued, 100% of the most recently published interest rate for municipal bonds with similar terms and credit ratings published in *The Bond Buyer*.

“Event of Default” means events of default specified in the Master Ordinance.

“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 revenues, fees and charges, including Capital Charge Revenues and Capital Charge Proceeds, and other revenues resulting from the operation of the Water System, including revenues from product sales and interest earnings on Gross Revenues in the Water Enterprise Fund. However, the term “Gross Revenues” does not include:

- i. the interest income or other earnings derived from the investment of any fund created to hold Bond rebate payments which are being held for payment to the United States under Section 148 of the Code or any escrow fund established for the defeasance or refunding of outstanding indebtedness of the City;
- ii. Committed Capital Charges;
- 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 Bonds;
- iv. the proceeds of any borrowing (other than Capital Charge Proceeds);
- 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 Water System;
- vii. the proceeds derived from the sales of assets permitted by the Master Ordinance;
- viii. any ad valorem or other taxes imposed by the City (except charges or payments for Water System services which become “taxes” within the meaning of Article XI, Section 11b of the Oregon Constitution only because they are imposed on property);
- ix. any income, fees, charges, receipts, profits or other moneys derived by the City from its ownership or operation of any Separate Utility System.

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

“Master Ordinance” means Ordinance No. 174241, enacted on March 15, 2000.

“Maximum Annual Debt Service” means the greatest Annual Debt Service, calculated on all Bonds which are Outstanding on the date of calculation.

“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 Water System under generally accepted accounting principles, including financing lease payments which the Master Ordinance permits to be treated as Operating Expenses. However, Operating Expenses do not include:

- i. any rebates or penalties paid from Gross Revenues under Section 148 of the Code;
- ii. payments of judgments against the City and payments for the settlement of litigation;
- iii. depreciation and amortization of property values or losses, and all amounts treated for accounting purposes as payments for capital expenditures;
- iv. debt service payments;
- v. the expenses of owning, operating or maintaining any Separate Utility System; or
- vi. franchise fees and similar charges imposed by the City on the Water System or its operations.

“ORS” means the Oregon Revised Statutes.

“Outstanding” refers to all Bonds authorized and delivered pursuant to the Master Ordinance and any Supplemental Ordinance except Bonds canceled or defeased pursuant to the Master Ordinance, and Bonds which have matured and not been presented for payment (provided sufficient funds to pay those Bonds have been transferred to the Paying Agent).

“Parity Derivative Product” means a Derivative Product which qualifies as a Parity Obligation.

“Parity Obligation” means any obligation payable from the Net Revenues which is issued in accordance with the Master Ordinance, and includes any Parity Derivative Product.

“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 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 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 the Master Ordinance or any Supplemental Ordinance.

“Rate Stabilization Account” means the Rate Stabilization Account of the Water Enterprise Fund as described in the Master Ordinance.

"Rating Agency" means Fitch, Moody's, S&P, or any other nationally recognized financial rating Agency which has rated Outstanding 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 Derivative Product 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 Derivative Product.

"Reciprocal Payor" means a party to a Derivative Product (other than the City) that is obligated to make one or more Reciprocal Payments thereunder, and which has at least an investment grade rating from a Rating Agency for its obligations under the Derivative Product.

"Record Date" for the 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 Bonds, which is currently U.S. Bank Trust National Association.

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

"Reserve Requirement" means the lesser of Maximum Annual Debt Service on all Outstanding Bonds or the amount described in the next sentence. If, at the time of issuance of a Series of Bonds, the amounts required to be added to the Revenue Bond Reserve Account to make the balance in the Revenue Bond Reserve Account equal to the Maximum Annual Debt Service exceeds the Tax Maximum calculated with respect to such Bonds, then the Reserve Requirement means the Reserve Requirement in effect on the date of issuance of the Series of Bonds (calculated as if the Series of Bonds were not Outstanding), plus the Tax Maximum for the Series of Bonds. However, the City may elect to fund the Reserve Requirement for any Series of Bonds in equal annual installments over a period of five years. If the City makes this election for a Series of Bonds, the Reserve Requirement will be reduced by any installments the City has elected to make, but which are not yet due to be deposited in the Revenue Bond Reserve Account.

"Revenue Bond Account" means the Revenue Bond Account created by the Master Ordinance.

"Revenue Bond Reserve Account" means the Revenue Bond Reserve Account in the Sinking Fund created by the Master Ordinance.

"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.

"Separate Utility System" means any utility property which is declared by the City Council to constitute a system which is distinct from the Water System.

"Series" refers to all Bonds or Parity Obligations authorized by a single ordinance and delivered in exchange for payment on the same date, regardless of variations in maturity, interest rate or other provisions.

"Series 1993 Bonds" means the City's Water System Revenue Bonds, Series 1993, which were issued pursuant to Ordinance No. 166992.

"Series 1995 Bonds" means the City's Water System Revenue Bonds, Series 1995, which were issued pursuant to Ordinance No. 169398.

"Sinking Fund" means the Water Bond Sinking Fund in the Water Enterprise 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” means obligations having a lien on the Net Revenues which is subordinate to the lien of the Bonds.

“Subordinate Obligations Account” means the Subordinate Obligations Account of the Water Enterprise Fund.

“Supplemental Ordinance” means any Ordinance which supplements or amends the Master Ordinance.

“Tax Maximum” means, for any Series of 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.

“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 Revenue Bond Reserve Account to the Revenue Bond Account due to any deficiency in the Revenue Bond Account.

“Variable Rate Obligations” means any Bonds issued with a variable, adjustable, convertible, or other similar interest rate which changes during the term of the Bonds, and any City Payments or Reciprocal Payments under a Parity Derivative Product for which the interest portion of the payment is based on a rate that changes during the term of the Derivative Product.

“Water Enterprise Fund” means the collection of funds and accounts used by the City to hold the Gross Revenues and the proceeds of Bonds; it currently includes the Water Operating Fund, the Construction Fund, the Sinking Fund, the Washington County Supply Sinking Fund, and the Water Growth Impact Trust Fund.

“Water System” means all utility property now or hereafter used by the City to supply water within or without the corporate limits of the City, and any power generating facilities which are operated in connection with property which supplies water. However, the Water System does not include any Separate Utility System or the hydroelectric turbines and related facilities on the Bull Run River which were originally financed with the City’s Hydroelectric Power Revenue Bonds which were issued in 1979 in the original principal amount of \$38,000,000 and the City’s Hydroelectric Power Revenue Bonds, Series B which were issued in 1980 in the original principal amount of \$17,000,000 and any improvements to those turbines and facilities.

“1997 Series A Bonds” means the City’s Water System Revenue Bonds, 1997 Series A, which were issued pursuant to Ordinance No. 171743.

“2000 Series A Bonds” means the City’s Water System Revenue Bonds, 2000 Series A, which are being issued pursuant to this Master Ordinance.

Use of Gross and Net Revenues; Pledge.

Gross Revenues will be deposited and maintained in the Water Enterprise Fund and will be used as long as Bonds remain outstanding. Gross and Net Revenues will be applied in the following order of priority: 1) to pay Operating Expenses due each month; 2) to make semiannual transfers to pay Bond principal, interest and premium when due; 3) to fund and maintain the Revenue Bond Reserve Account ; 4) to pay rebates or penalties for Bonds to the United States pursuant to Section 148 of the Code; 5) to pay Subordinate Obligations; 6) to pay principal of, interest on, and premium on the City's general obligation bonds issued pursuant to Section 11-103 of the City Charter; 7) to pay franchise fees and similar charges; 8) to make annual transfers of not less than \$5,000,000 to the Capital Renewal Account; and, 9) if all deposits and payments having a higher priority under this paragraph have been made, to transfer Net Revenues to the Rate Stabilization Account or spend Net Revenues for any other lawful purpose.

The Net Revenues are pledged by the City to payment of principal, interest and any necessary premium on all Bonds, and any amounts due under any Reserve Credit Facility. All Net Revenues are subject to a lien of the pledge which is superior to all other claims and liens.

Bond Accounts

So long as Bonds are Outstanding, the City will maintain the Revenue Bond Account, the Revenue Bond Reserve Account, the Subordinate Obligations Account and the Charter General Obligation Bond Account as discrete accounts in the Water Enterprise Fund. Unless the City restructures the funds and accounts in the Water Enterprise Fund, the Revenue Bond Account, the Revenue Bond Reserve Account, the Subordinate Obligations Account and the Charter General Obligation Bond Account will be maintained in the Sinking Fund.

Revenue Bond Account

The City will maintain the Revenue Bond account until all Bonds are paid or defeased. These funds will only be used to pay Bonds. The City will transfer funds from this account to the Registrar to enable the Registrar to pay all Bond principal, interest and premium (if any) when due. Funds in the Revenue Bond account will only be invested in Permitted Investments and all earnings will be credited to the account.

If, on any Payment Date the amounts on deposit in the Revenue Bond Account are insufficient to pay all Bond principal of, premium (if any) and interest due on that Payment Date, the City will transfer Net Revenues in the Water Enterprise Fund (other than amounts in the Revenue Bond Reserve Account) to the Revenue Bond Account in an amount equal to the deficiency.

Revenue Bond Reserve Account

The funds in the Revenue Bond Reserve Account will be used to pay Bonds only if the funds in the Revenue Bond Account and Net Revenues are insufficient to pay Bond principal, interest and premium (if any) when due. In such a case, the City will transfer funds from the Revenue Reserve Account to the Revenue Bond Account equal to the deficiency.

If the value of the investments in the Revenue Bond Reserve Account on a Valuation Date is less than the Reserve Requirement, the City will begin making substantially equal monthly transfers from the Net Revenues to the Revenue Bond Reserve Account on the first day of the month following a Valuation Date on which the balance in the Revenue Bond Reserve Account is determined to be less than the Reserve Requirement. These payments will continue until the balance in the Revenue Bond Reserve Account equals the Reserve Requirement.

Transfers to the Revenue Bond Reserve Account will be applied in the following order: 1) to reimburse the Providers of any Reserve Credit Facilities pro rata for amounts advanced under the Reserve Credit Facility; 2) to replenish the balance in the Revenue Bond Reserve Account with cash or Permitted Investments; and 3) to pay any other amounts owed under a Reserve Credit Facility (including any interest, fees and penalties associated with any draw under a Reserve Credit Facility).

If a deficiency in the Revenue Bond Reserve Account is due to transfers from the Reserve Account to the Revenue Bond Account because of an insufficiency in the Revenue Bond Account, the City will make monthly transfers from the Net Revenues to the Revenue Bond Reserve Account in an amount at least 1/12 the difference between the Reserve Requirement and the Revenue Bond Reserve Account on the Valuation Date.

If the deficiency is due to a change in the value of investments of the Reserve Account, the City will make monthly transfers from the Net Revenues to the Revenue Bond Reserve Account in an amount at least $\frac{1}{4}$ the difference between the Reserve Requirement and the balance in the Revenue Bond Reserve Account on Valuation Date.

The "difference between the Reserve Requirement and the balance in the Revenue Bond Reserve Account on the Valuation Date" shall be calculated by including all amounts then owed under Reserve Credit Facilities, including any interest, fees and penalties associated with any draws under a Reserve Credit Facilities.

Revenue Bond Account Investments and Earnings

Funds in the Revenue Bond Reserve Account may be invested only in Permitted Investments that mature no later than the final maturity date of the Bonds. Earnings on the Revenue Bond Reserve Account will be credited to the Revenue Bond Reserve Account whenever the balance in that account is less than the Reserve Requirement. Otherwise earnings will be credited to the Revenue Bond Account

If the value of the investments in the Revenue Bond Reserve Account on a Valuation Date exceeds the Reserve Requirement, the City may transfer the excess to any account of the Water Enterprise Fund.

Permitted Investments in the Revenue Bond Reserve Account will 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 will 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) will 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 will 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 will 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 will 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 will be valued at its fair market value as reasonably estimated by the City.

Payment of Bonds from Revenue Bond Reserve Account

All amounts on deposit in the Revenue Bond Reserve Account may be applied to the final payment of Outstanding Bonds, whether at maturity, by prior Redemption or by means of a defeasance. Amounts so applied will be credited against the amounts the City is required to transfer into the Revenue Bond Account from Net Revenues.

Any Ordinance authorizing the issuance of a Series of Bonds must require deposits into the Revenue Bond Reserve Account in amounts sufficient to make the balance in the Revenue Bond Reserve Account at least equal to the Reserve Requirement. The City may elect to fund these deposits 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 Bonds. If the City elects to fund the portion of the Reserve Requirement which is allocable to a Series of Bonds in installments, the election and the schedule for such deposits will be stated prominently in the proceedings authorizing the Series of Bonds.

Subordinate Obligations Account

If the City issues Subordinate Obligations, the City will create and maintain the Subordinate Obligations Account as long as the Subordinate Obligations are outstanding.

Charter General Obligation Bond Account

The City will maintain a Charter General Obligation Bond Account, into which it will deposit Net Revenues sufficient to pay bonds issued under Section 11-103 of the City Charter.

Rate Stabilization Account

The Rate Stabilization Account is created within the Water Enterprise Fund. Net Revenues may be transferred to the Rate Stabilization Account at the option of the City only if all deposits and payments having a higher priority have been made. Money in the Rate Stabilization Account may be withdrawn at any time and used for any purpose for which the Gross Revenues may be used. Earnings on the Rate Stabilization Account will be credited to the Water Enterprise Fund.

Capital Renewal Account

The Capital Renewal Account is created within the Water Enterprise Fund. Net Revenues will be transferred to the Capital Renewal Account on the last day of each fiscal year in the aggregate amount of not less than \$5,000,000. Amounts in the Capital Renewal Account will be used solely to pay for capital costs of the Water System, including costs repairing, replacing, improving and expanding the Water System. Earnings on the Capital Renewal Account will be credited to the Water Enterprise Fund.

Rate Covenant

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 Water 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 Ordinance to all accounts, and to pay any franchise fees or similar charges imposed by the City on the Water System or its operations.

The City further covenants for the benefit of the Owners of all Bonds that it will charge rates and fees in connection with the operation of the Water System which, when combined with other Gross Revenues, are adequate to generate Net Revenues each Fiscal Year at least equal to one hundred twenty-five percent (125.00%) of Annual Debt Service due in that Fiscal Year.

Not later than ninety days after the end of each fiscal year the City will file a certified report with the Director and the City Auditor which demonstrates whether the City has generated adequate revenues as described above during that fiscal year. If the report demonstrates that the City has not generated adequate revenues during that fiscal year, it will not constitute an Event of Default if:

- i. within thirty days after the report is filed, the City engages the services of a Qualified Consultant; and,
- ii. within sixty days after the report is filed, the Qualified Consultant recommends a schedule of rates and charges or other actions which the Qualified Consultant reasonably projects will permit the City to generate adequate revenues for the then current fiscal year; and,
- iii. within ninety days after the report is filed the City implements the recommendations of the Qualified Consultant.

Treatment of Capital Charges

The City may elect to treat Capital Charges in two ways:

- i. the Capital Charges may be treated as Gross Revenues; or,

- ii. the City may exclude the Capital Charges from Gross Revenues, borrow money and issue obligations which are secured by those charges, and treat the net proceeds of the borrowing as Gross Revenues.

Capital Charges which are treated as Gross Revenues are defined as "Capital Charge Revenues;" Capital Charges which are committed to pay obligations, the proceeds of which are treated as a Gross Revenue, are defined as "Committed Capital Charges;" the net proceeds of those obligations which are treated as Gross Revenues are defined as "Capital Charge Proceeds;" and the obligations which produce Capital Charge Proceeds are defined as "Capital Charge Obligations." Capital Charge Revenues and the net proceeds of Capital Charge Obligations shall be deposited in the Water Enterprise Fund.

An election to treat an issue of obligations as Capital Charge Obligations may be made in the proceedings authorizing issuance of the Capital Charge Obligations; if it is not so made, it will be deemed made by the manner in which the proceeds of the obligations are treated in the report filed with the Director and the City Auditor showing compliance with the rate covenant. This election may be changed only if the City demonstrates that the change would not have caused the City to fail to meet the requirements of the rate covenant in any fiscal year prior to the fiscal year in which the change is made, if the change had been made on the date the obligations were issued.

Parity Obligations

The City may issue Parity Obligations to provide funds for any purpose relating to the Water System, only if:

- i. there is no Event of Default under the Master Ordinance or any Supplemental Ordinance;
- ii. there is no deficiency in the Revenue Bond Account and the balance in the Reserve Revenue Bond Reserve Account is at least equal to the Reserve Requirement;
- iii. any Supplemental Ordinance authorizing Parity Obligations contains a covenant requiring the City to charge rates and fees in connection with the operation of the Water System which, when combined with other Gross Revenues, are adequate to generate Net Revenues at least equal to one hundred twenty five percent (125.00%) of annual Debt Service due in that fiscal year, with the proposed Parity Obligations treated as Outstanding;
- iv. there has been filed with the City either:
 - (a) a certificate of the Director stating that Net Revenues for the Base Period were not less than one hundred twenty-five percent (125.00%) of the average Annual Debt Service on all Outstanding Bonds, with the proposed Parity Obligations treated as Outstanding; or,
 - (b) a certificate or opinion of a Qualified Consultant stating the amount of the Adjusted Net Revenues computed as provided in the Master Ordinance is not less than the sum of one hundred twenty-five percent (125.00%) of the average Annual Debt Service on all Outstanding Bonds, with the Proposed Parity Obligations treated as Outstanding.

Net Revenues may be adjusted for purposes of the Director's certificate by adding any Net Revenues the Director calculates the City would have had during the Base Period because of increases in Water System rates, fees and charges which took effect after the beginning of the Base Period. However, no adjustment will be made for these increases unless they have been approved by the Council prior to delivery of the Proposed Parity Obligations and are required to take effect no later than sixty days after the delivery of the proposed Parity Obligations.

Adjusted Net Revenues will be computed by adjusting the Net Revenues for the Base Period in any of the following ways:

- i. if the Bonds are being issued for the purpose of acquiring operating Water System utility properties having an earnings record, the Qualified Consultant may estimate the effect on the Net Revenues for the Base Period if the Water System utility properties had been part of the Water System during the Base Period. The estimate will be based on the operating experience and records of the City and any available financial and records relating to the Water System utility properties which will be acquired;

- ii. to reflect any changes in rates and charges have been adopted by the City Council and which: 1) are in effect on the date of sale and delivery of the Bonds; or, 2) are to go into effect not later than twelve months after such date, and were not in effect during the entire Base Period;
- iii. to reflect any customers added to the Water System after the beginning of the Base Period and prior to the date of the Qualified Consultant's certificate;
- iv. if extensions of or additions to the Water System are in the process of construction on the date of the Qualified Consultant's certificate, or if the proceeds of the Bonds being issued are to be used to acquire or construct extensions of or additions to the Water 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).

The City may issue Parity Obligations to refund Outstanding Bonds without complying with the above, if the refunded Bonds are defeased on the date of delivery of the refunding Parity Obligations and if the Annual Debt Service on the refunding Parity Obligations does not exceed the Annual Debt Service on the refunded Bonds in any Fiscal Year by more than \$5,000.

Parity Derivatives

A Derivative Product may be a Parity Derivative Product and a Parity Obligation if the obligation to make City Payments under the Derivative Product qualifies as a Parity Obligation under this Ordinance and after the Reciprocal Payments under the Derivative Product are applied to reduce Annual Debt Service. Any Parity Derivative Product will clearly state that it is a Parity Derivative Product and has qualified as a Parity Obligation under the Master Ordinance.

All Parity Obligations issued in accordance with the Master Ordinance will have a lien on the Net Revenues which is equal to the lien of all other Outstanding Bonds.

Subordinate Obligations

The City may issue Subordinate Obligations only if: 1) the Subordinate Obligations are payable solely from amounts permitted to be deposited in the Subordinate Obligations Account pursuant to the Ordinance; 2) the Subordinate Obligations are not subject to acceleration; and, 3) 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 Bonds.

Separate Utility System

The City may declare property which the City owns and is part of the Water System (but has a value of less than five percent of the Water System at the time of the declaration), and property which the City has not yet acquired but would otherwise become part of the Water 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 Revenue Bond Account or the Revenue 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.

General Covenants

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

- i. that it will promptly cause the principal, premium, if any, and interest on the Bonds to be paid as they become due in accordance with the provisions of the Master Ordinance and any Supplemental Ordinance.
- ii. that it will maintain complete books and records relating to the operation of the Water System and all City funds and accounts in accordance with generally accepted accounting principles, and will cause such books and records to be audited annually at the end of each Fiscal Year, and an audit report prepared by the Auditor and made available for the inspection of Bondowners.

- iii. that it will not issue Bonds or other obligations having a claim superior to the claim of the Bonds upon the Net Revenues.
- v. that it will promptly deposit into all funds and accounts all sums required to be so deposited.
- vi. that it shall cause the Water 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 Water System, and shall cause the Water System to be maintained, preserved, reconstructed, expanded and kept, with all appurtenances and every part and parcel thereof, in good repair, working order and condition, and shall from time to time cause to be made, without undue deferral, all necessary or proper repairs, replacements and renewals so that at all times the operation of the Water System shall be properly and advantageously conducted.
- v. that it will not enter into any agreement to provide Water System products or services at a discount from published rate schedules, and that it will not provide free Water System products or services except for fire suppression and in case of emergencies.
- vi. that it will at all times maintain with responsible insurers all such insurance on the Water 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.
- vii. the net proceeds of insurance against accident to or destruction of the Water System will be used to repair or rebuild the damaged or destroyed Water System, and to the extent not so applied, will be applied to the payment or redemption of the Bonds on a pro rata basis.
- viii. that insurance described in paragraph vi, above, will be in the form of policies or contracts for insurance with insurers of good standing and will be payable to the City, or in the form of self-insurance by the City. The City will establish such fund or funds or reserves which it deems are necessary to provide for its share of any such self-insurance.

Disposition of the Water System

The City will not, nor will it permit others to, sell, mortgage, lease or otherwise dispose of or encumber all or any portion of the Water System, except as provided below.

The City may dispose of all or substantially all of the Water System if the City pays or defeases the Bonds.

The City may dispose of any portion of the Water System that has become unserviceable, inadequate, obsolete, or unfit to be used or no longer necessary for use in the operation of the Water System.

Otherwise, the City will not dispose of any part of the Water System in excess of 5% of the value of the Water System in service unless prior to such disposition 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 the Master Ordinance; or provision is made for the payment, redemption or other defeasance of a principal amount of Bonds equal to the greater of the following amounts:

- i. an amount which will be in the same proportion to the net principal amount of Bonds then Outstanding (defined as the total principal amount of Bonds then Outstanding less the amount of cash and investments in the Sinking Fund) that the Gross Revenues attributable to the part of the Water System sold or disposed of for the 12 preceding months bears to the total Gross Revenues for such period; or
- ii. an amount which will be in the same proportion to the net principal amount of Bonds then Outstanding that the book value of the part of the Water System sold or disposed of bears to the book value of the Water System immediately prior to such sale or disposition.

If the ownership of all or part of the Water System is transferred from the City through the operation of law, the City will 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 Bondowners, in which case any proceeds will be used for the payment, redemption or defeasance of the Bonds.

Leases

The City may enter into operating leases and capital leases for assets relating to the Water 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, Operating Expenses shall be calculated by excluding any capital lease payments.

Events of Default and Remedies

Continuous Operation Essential. The City Council of the City hereby finds and determines that the continuous operation of the Water System and the collection, deposit and disbursement of the Net Revenues in the manner provided in the Master Ordinance and in any Supplemental Ordinance are essential to the payment and security of the Bonds, and the failure or refusal of the City to perform the covenants and obligations contained in the Master Ordinance or any such Supplemental Ordinance will endanger the necessary continuous operation of the Water System and the application of the Net Revenues to the operation of the Water System and the payment of the Bonds.

The following will constitute "Events of Default":

- i. if the City fails to pay any Bond principal or interest when due, either at maturity, upon exercise of a right of tender, by proceedings for redemption or otherwise;
- ii. if the City defaults in the observance and performance of any other of its covenants, conditions and agreements in the Master Ordinance, and if such default continues for ninety (90) days after the City receives a written notice, specifying the Event of Default and demanding the cure of such default, from the Bondowners Committee or from the Owners of not less than 20% in aggregate principal amount of the Bonds Outstanding (however, it will not constitute an Event of Default if the default cannot practicably be remedied within ninety 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);
- iii. if the City sells, transfers, assigns or conveys any properties constituting the Water System in violation of the Master Ordinance.;
- iv. if an order, judgment or decree is entered by any court of competent jurisdiction, appointing a receiver, trustee or liquidator for the City or the whole or any part of the Water System; 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 assuming custody or control of the City or of the whole or any part of the Water 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
- v. if the City will 1) admit in writing its inability to pay its debts generally as they become due; 2) file a petition in bankruptcy or seeking a composition of indebtedness under any state or federal bankruptcy or insolvency law; 3) make an assignment for the benefit of its creditors; 4) consent to the appointment of a receiver of the whole or any part of the Water System; or 5) 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 Water System.

Remedies

If an Event of Default occurs, any Bondowner may exercise any remedy available at law or in equity. However, the Bonds will not be subject to acceleration.

The City covenants that if an Event of Default occurs and has not been remedied, the books of record and accounts of the City and all other records relating to the Water System will at all reasonable times be subject to the inspection and use of the Bondowners Committee and any persons holding at least twenty percent (20%) of the principal amount of Outstanding Bonds and their respective agents and attorneys.

The City covenants that if the Event of Default occurs and has not 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 the Master Ordinance.

Waivers of Event of Default

A Bondowner may exercise any right or power they have arising from an Event of Default at any time. Any delay or omission to act by any Bondowner will not be construed to be a waiver of the Event of Default or an acquiescence to an Event of Default.; Every power and remedy given by this Ordinance to the Bondowners may be exercised from time to time and as often as may be deemed expedient by the Bondowners.

The owners of at least fifty percent (50%) of the Outstanding principal amount of the affected Bonds, or their attorneys-in-fact duly authorized, may, waive any past default under the Master Ordinance with respect to such Bonds and its consequences. This does not apply to a default in the payment of the principal, premium, or interest on any of the Bonds. No such waiver will extend to any subsequent or other default or impair any right consequent which may arise.

No remedy by the terms of the Master Ordinance conferred upon or reserved to the Bondowners is intended to be exclusive of any other remedy. Each and every remedy will be cumulative and will be in addition to every other remedy given under the Master Ordinance or existing at law or in equity or by statute on or after the date of adoption of the Master Ordinance.

Amendment of Master Ordinance

The Master Ordinance may be amended by Supplemental Ordinance without the consent of any Bondowners for any one or more of the following purposes:

- i. To cure any ambiguity or formal defect or omission in the Master Ordinance;
- ii. To add covenants and agreements of the City to the Master Ordinance, which are not contrary to or inconsistent with the Master Ordinance;
- iii. To authorize issuance of Bonds or Subordinate Obligations;
- iv. To authorize Parity Derivative Products, and specify the rights and duties of the parties to a Parity Derivative Product;
- v. To modify, amend or supplement the Master Ordinance or any Supplemental Ordinance to qualify the Master Ordinance under the Trust Indenture Act of 1939, or any similar federal statute;
- vi. To confirm, as further assurance, any security interest or pledge created under the Master Ordinance or any Supplemental Ordinance;
- vii. 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 Bonds;
- viii. To make any other change which is consented to in writing by the issuer of such Credit Facility other than any change which: 1) would result in a downgrading or withdrawal of the rating then assigned to the affected Bonds by the Rating Agencies; 2) changes the maturity (except as permitted in the Ordinance), the Interest

Payment Dates, interest rates, redemption and purchase provisions, and provisions regarding notices of redemption and purchase applicable to the affected Bonds or diminishes the security afforded by such Credit Facility; 3) materially and adversely affects the rights and security afforded to the Owners of any Outstanding Bonds not secured by such Credit Facility; or, 4) modifies any of the provisions of the Master Ordinance or any Supplemental Ordinance in any other respect whatever, as long as the modification will take effect only after all affected Outstanding Bonds cease to be Outstanding

The Master Ordinance may be amended for any other purpose only upon consent of Bondowners who own at least fifty-one percent 51% in aggregate principal amount of the Bonds outstanding. However, no amendment will be valid without the consent of Bondowners of 100 percent of the aggregate principal amount of the Bonds outstanding which:

- i. Extends the maturity of any Bond, reduces the rate of interest upon any Bond, extends the time of payment of interest on any Bond, reduces the amount of principal payable on any Bond, or reduces any premium payable on any Bond, without the consent of the affected Bondowner; or
- ii. Reduces the percent of Bondowners required to approve amendatory Ordinances.

Except as otherwise expressly provided in a Supplemental Ordinance, as long as a Credit Facility (other than a Reserve Credit Facility) securing all or a portion of any Outstanding Bonds is in effect, the issuer of such Credit Facility shall be deemed to be the Bondowner of the Bonds secured by such Credit Facility.

Notwithstanding the foregoing, the issuer of such Credit Facility shall not be deemed to be a Bondowner secured thereby with respect to any such Supplemental Ordinance or of any amendment, change or modification of the Master Ordinance which: would result in a downgrading or withdrawal of the rating then assigned to the affected Bonds by the Rating Agencies; or, 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 Bonds or diminishes the security afforded by such Credit Facility; or, reduces the percentage or otherwise affects the classes of affected Bonds, the consent of the Bondowners of which is required to effect any such modification or amendment.

In addition and notwithstanding the foregoing, no issuer of a Credit Facility given as security for any Bonds shall be entitled to exercise any rights as a Bondowner during any period where: the Credit Agreement or Credit Facility to which such Credit Provider is a party shall not be in full force and effect; such Credit Provider shall have filed a petition or otherwise sought relief under any federal or state bankruptcy or similar law; such Credit Provider shall, for any reason, have failed or refused to honor a proper demand for payment under such Credit Facility; or 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.

For purposes of determining the percentage of Bondowners consenting to, waiving or otherwise acting with respect to any matter that may arise under the Master Ordinance, the Owners of Bonds which pay interest only at maturity, and mature more than one year after they are issued will be treated as Owners of Bonds in an aggregate principal amount equal to the accreted value of such Bonds as of the date the Registrar sends out notice of requesting consent, waiver or other action as provided herein.

Defeasance

The City may defease and deem all or any portion of the Outstanding Bonds to be paid by:

- i. irrevocably depositing cash or noncallable, nonprepayable Direct Obligations in escrow with an independent escrow agent which are calculated to be sufficient for the payment of Bonds which are to be defeased;
- ii. filing with the escrow agent an opinion from a Qualified Consultant to the effect that the money and the principal and interest to be received from the Direct Obligations are calculated to be sufficient, without further reinvestment, to pay the defeased Bonds when due; and,
- iii. filing with the escrow agent an opinion of nationally recognized bond counsel that the proposed defeasance will not cause interest on the defeased Bonds to be includable in gross income under the Code.

If Bonds are defeased, all obligations of the City with respect to those defeased Bonds will cease and terminate. The City, the escrow agent and the Registrar will pay the defeased Bonds from the amounts deposited in escrow. The Registrar will continue to transfer bonds as provided in the Master Ordinance.

2000 Series A Bonds

The aggregate principal amount of the 2000 Series A Bonds shall not exceed THIRTY FIVE MILLION DOLLARS (\$35,000,000) and the true interest cost shall not exceed eight percent (8%) per annum. The 2000 Series A Bonds shall be "Bonds" and "Parity Obligations" as defined in the Master Ordinance.

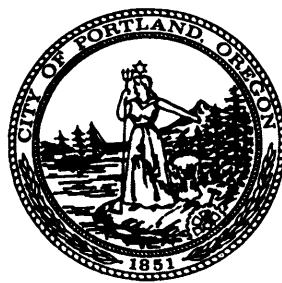
The 2000 Series A Bonds shall be special obligations of the City, and shall be payable solely from the Net Revenues and amounts required to be deposited in the Revenue Bond Account and Revenue Bond Reserve Account as required and as provided by the Master Ordinance.

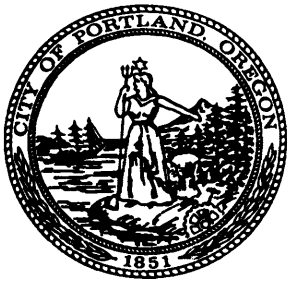
The City covenants for the benefit of the Owners of the 2000 Series A Bonds to comply with all provisions of the Code which are required for interest on the 2000 Series A Bonds to be excluded from gross income for federal taxation purposes. In determining what actions are required to specific covenants with respect to the Code:

- i. The City will not take any action or omit any action if it would cause the 2000 Series A Bonds to become "arbitrage bonds" under Section 148 of the Code.
- ii. The City shall operate the facilities financed with the 2000 Series A Bonds so that the 2000 Series A Bonds do not become private activity bonds within the meaning of Section 141 of the Code.
- iii. The City shall pay, when due, all rebates and penalties with respect to the 2000 Series A Bonds which are required by Section 148(f) of the Code.

The covenants contained in the Section describing the 2000 Series A Bonds of the Master Ordinance and any covenants in the closing documents for the 2000 Series A Bonds shall constitute contracts with the Owners of the 2000 Series A Bonds, and shall be enforceable by them.

APPENDIX B
AUDITED FINANCIAL STATEMENTS





CITY OF PORTLAND

OFFICE OF FINANCE AND ADMINISTRATION

Vera Katz, Mayor
Timothy Grewe, Director

Bureau of Financial Management
Kenneth L. Rust, Acting Director
1120 S.W. Fifth Avenue, Rm. 1250
Portland, Oregon 97204
(503) 823-5288
FAX (503) 823-5384
TDD 823-6868

February 24, 2000

Honorable Mayor and Council
City of Portland, Oregon
Portland, Oregon

The financial statements for the Portland Water Bureau of the City of Portland, Oregon, for the fiscal years ending June 30, 1995 through June 30, 1999 are presented on the attached. The financial statements are based on independent examinations conducted by Coopers and Lybrand for fiscal year 1995 and by KPMG Peat Marwick LLP for fiscal years 1996 through 1999.

The examinations for such years by the accounting firms were made in accordance with generally accepted auditing standards and the Minimum Standards for Audits of Oregon Municipal Corporations and, accordingly, included such tests of the accounting records and such other auditing procedures as were considered necessary under the circumstances.

The financial statements presented hereafter set forth fairly the financial position of the Portland Water Bureau for each of the fiscal years shown, and the results of the Bureau's financial operations and the changes in financial position set forth for such years, in conformity with generally accepted accounting principles which have been applied on a basis consistent with that of the preceding years.

Additionally, the City of Portland has been awarded the Certificate of Achievement for Excellence in Financial Reporting for each of the years noted above. This national award recognizes conformance with the highest standard for accounting and financial reporting for state and local government. Said award gives added assurance that the information disclosed in the aforementioned statements are appropriate and complete.

Respectfully,

Lena H. Ellis
City Accounting Manager



CITY OF PORTLAND, OREGON
Portland Bureau of Water Works
Consecutive Statement of Revenues, Expenditures and Changes in Retained Earnings
Generally Accepted Accounting Principles Basis
for Fiscal Years Ended June 30

	FY 1994-95	FY 1995-96	FY 1996-97	FY 1997-98	FY 1998-99
Revenues					
Service charges and fees	\$53,011,019	\$53,542,349	\$58,437,113	\$59,653,049	\$63,245,985
Total Operating Revenues	53,011,019	53,542,349	58,437,113	59,653,049	63,245,985
Expenditures					
Salaries and wages	18,622,897	19,683,149	21,249,000	21,902,814	23,621,404
Operating supplies	1,474,134	1,858,429	2,702,949	3,411,203	3,921,424
Professional services	5,611,503	5,778,647	9,625,736	8,791,096	10,116,787
Utilities	1,530,512	1,521,180	1,422,365	1,225,339	1,712,079
Utility license fees	3,187,267	3,152,189	3,330,832	3,320,868	3,281,649
Depreciation and amortization	9,453,368	10,076,148	9,716,587	10,386,184	11,632,849
Miscellaneous	4,299,245	4,846,626	4,219,582	4,006,602	4,141,886
Total Operating Expenses	44,178,926	46,916,368	52,267,051	53,044,106	58,428,078
Operating Income	8,832,093	6,625,981	6,170,062	6,608,943	4,817,907
Non-Operating Revenues (Expenses)					
Interest on investments	2,043,800	2,541,071	2,397,516	3,028,140	2,684,969
Reimbursement from water districts	906,807	526,525	495,041	451,156	412,680
Other miscellaneous revenues (expenses)	1,092,240	799,705	812,933	1,021,408	1,220,842
Gain (loss) on disposal of fixed assets	---	---	222,527	48,154	8,809
Interest expense	(4,148,971)	(4,315,691)	(4,123,508)	(4,006,602)	(5,098,161)
Total Non-Operating Revenues (Expenses)	(106,124)	(448,390)	(195,491)	(376,785)	(770,861)
Net Income	8,725,969	6,177,591	5,974,571	6,232,158	4,047,046
Retained Earnings, Beginning of Year	111,120,920	119,846,889	124,079,490	130,054,061	137,527,259
Adjustment - Fixed Assets	---	(1,944,990)	---	---	---
Residual equity transfer	---	---	---	1,241,040	---
Retained Earnings, End of Year	\$119,846,889	\$124,079,490	\$130,054,061	\$137,527,259	\$141,574,305

Source: Derived from City of Portland audited financial statements.

CITY OF PORTLAND, OREGON
Portland Bureau of Water Works
Consecutive Balance Sheets
for Fiscal Years Ended June 30

	FY 1994-95	FY 1995-96	FY 1996-97	FY 1997-98	FY 1998-99
Assets					
Current Assets:					
Cash and investments	\$10,022,647	\$14,995,021	\$22,442,971	\$26,126,508	\$25,666,513
Receivables:					
Accounts	5,081,955	4,919,594	5,159,332	4,723,117	5,236,621
Advances	18,521	11,642	4,363	13,918	13,357
Accrued Interest	175,197	194,300	182,577	263,165	384,485
Due from other funds	609,295	353,355	210,544	92,645	75,536
Inventories	1,111,091	1,232,237	1,118,625	1,090,427	1,303,405
Other assets	159,514	47,406	39,654	27,832	13,308
Total Current Assets	\$17,178,220	\$21,753,555	\$29,158,066	\$32,337,612	\$32,693,225
Restricted Assets:					
Construction:					
Cash and investments	\$18,018,042	\$26,393,460	\$11,054,842	\$30,580,684	\$15,603,589
Accounts receivable	526,590	374,171	---	306,676	227,327
Accrued interest	512,481	467,165	139,995	298,604	295,012
Growth Impact Trust:					
Cash and investments	1,090,657	1,160,478	1,232,073	1,304,267	1,366,941
Accrued Interest	16,006	14,536	10,824	12,097	20,355
Bonded Debt Service:					
Cash and investments	1,032,813	1,378,969	22,956	13,505	8,625
Accounts receivable	975,995	1,068,264	1,166,291	1,265,845	1,370,755
Accrued interest	---	1,402	244	876	1,764
Total Restricted Assets	22,172,584	30,858,445	13,627,225	33,782,554	18,894,368
Fixed Assets					
Land	8,736,359	9,264,415	11,936,651	11,936,651	13,151,581
Plant, buildings and improvements	346,172,365	361,404,092	388,384,332	406,516,932	434,001,050
Machinery and equipment	8,987,781	3,277,957	3,932,141	14,385,541	18,950,524
Construction in progress	9,106,804	14,343,868	9,271,476	12,734,017	12,247,582
Capitalized lease	3,134,128	3,134,128	3,134,128	3,134,128	3,134,128
Subtotal	376,137,437	391,424,460	416,658,728	448,707,269	481,484,865
Accumulated depreciation	(113,718,229)	(118,353,397)	(126,886,344)	(139,249,029)	(149,496,380)
Total Fixed Assets	262,419,208	273,071,063	289,772,384	309,458,240	331,988,485
Water rights	63,800	63,800	63,800	63,800	63,800
Total Assets	\$301,833,812	\$325,746,863	\$332,621,475	\$375,642,206	\$383,639,878

CITY OF PORTLAND, OREGON
Portland Bureau of Water Works
Consecutive Balance Sheets
for Fiscal Year Ended June 30

	FY 1994-95	FY 1995-96	FY 1996-97	FY 1997-98	FY 1998-99
Liabilities					
Current Liabilities (Payable from Unrestricted Assets)					
Warrants and accounts payable	\$2,451,565	\$2,924,284	\$4,306,938	\$3,293,650	\$4,438,432
Accrued vacation pay	2,082,605	2,168,335	2,207,738	2,308,780	2,408,424
Other accrued liabilities	568,148	457,382	691,662	520,468	592,574
Capital lease obligations - current portion	86,955	94,160	101,961	110,409	119,556
Subtotal	5,189,273	5,644,161	7,308,299	6,233,307	7,558,986
Current Liabilities (Payable from Restricted Assets)					
Bonds payable - matured and payable within one year	7,045,000	7,682,811	7,546,900	7,414,881	7,610,000
Interest payable	1,284,642	1,608,985	1,529,268	2,060,503	1,972,748
Other liabilities	663,318	785,287	1,237,070	1,411,549	1,475,358
Subtotal	8,992,960	10,077,083	10,313,238	10,886,933	11,058,106
Deferred revenues	59,575	---	---	---	---
Notes payable	668,079	---	---	---	---
Revenue bonds payable	---	42,874,845	42,896,058	71,188,900	69,034,699
General Obligation bonds payable	87,725,903	57,632,712	50,143,256	44,235,150	38,871,691
Long-term obligation under capital lease	1,591,382	1,497,222	1,395,261	1,284,852	1,475,358
Subtotal	90,044,939	102,004,779	94,434,575	116,708,902	109,071,686
Total Liabilities	104,227,172	117,726,023	112,056,112	133,829,142	127,688,778
Fund Equity					
Contributed capital	77,759,751	83,941,350	90,511,302	104,285,805	114,376,795
Retained Earnings:					
Reserve for bonded debt service	6,138,754	7,628,449	---	---	---
Unreserved	113,708,135	116,451,041	130,054,061	137,527,259	141,574,305
Total Fund Equity	197,606,640	208,020,840	220,565,363	241,813,064	255,951,100
Total Liabilities and Fund Equity	\$301,833,812	\$325,746,863	\$332,621,475	\$375,642,206	\$383,639,878

Source: Derived from City of Portland audited financial statements.



APPENDIX C
LEGAL OPINION



April 17, 2000

City of Portland
1221 S.W. Fourth Avenue, Room 120
Portland, Oregon 97204

PaineWebber Incorporated
1285 Avenue of the Americas, 10th Fl.
New York, NY 10019

Subject: \$35,000,000 City of Portland, Oregon, Water System Revenue Bonds, 2000 Series A

We have acted as bond counsel in connection with the issuance by the City of Portland, Oregon (the "City") of its Water System Revenue Bonds, 2000 Series A (the "Bonds"), in the aggregate principal amount of Thirty-Five Million Dollars (\$35,000,000), pursuant to Section 12-201 of the City Charter, Ordinance No. 173611, enacted on August 4, 1999 and Ordinance No. 174241, enacted on March 15, 2000, (the "Master Ordinance"). We have examined the law and such certified proceedings and other documents as we deem necessary to render this opinion. Capitalized terms used in this opinion and not defined herein have the meanings defined for such terms in the Master Ordinance.

As to questions of fact material to our opinion, we have relied upon representations of the City contained in its certified proceedings and other certifications of public officials furnished to us, without undertaking to verify the same by independent investigation.

We have not been engaged or undertaken to review the accuracy, completeness or sufficiency of any the preliminary official statement, the official statement or other offering materials relating to the Bonds, and we express no opinion relating thereto.

Based on our examination, we are of the opinion, under existing law, as follows:

1. The Bonds have been legally authorized, sold and issued under and pursuant to the Constitution and Statutes of the State of Oregon and the Charter of the City. The Bonds constitute valid and legally binding special obligations of the City in accordance with their terms. The Bonds are payable solely from the Net Revenues of the City's Water System and amounts deposited in the Revenue Bond Reserve Account, as provided in the Master Ordinance.
2. The rights of the holders of the Bonds and the enforceability thereof may be limited by or rendered ineffective by (i) bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other similar 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.
3. Interest on the Bonds is excluded from gross income for purposes of federal income taxation under Section 103(a) of the Internal Revenue Code of 1986, as amended (the "Code"). We are also of the opinion that the Bonds are not private activity bonds.
4. Interest on the Bonds is not an item of tax preference for purposes of the federal alternative minimum tax imposed on individuals or corporations, but is taken into account in the computation of adjusted current earnings for purposes of the corporate alternative minimum tax under Section 55 of the Code.

5. The opinions set forth in the preceding two paragraphs are subject to the condition that the City comply with all requirements of the Code that must be satisfied subsequent to the issuance of the Bonds for the interest thereon to be, or continue to be, excluded from gross income for federal income tax purposes. The City has covenanted to comply with all such requirements. Failure to comply with certain of such requirements may cause interest on the Bonds to be included in gross income for federal income tax purposes retroactive to the date of issuance of the Bonds.

6. The City has not designated the Bonds as "qualified tax-exempt obligations" pursuant to Section 265(b)(3) of the Code.

7. Interest on the Bonds is exempt from State of Oregon personal income taxes.

Except as stated herein, we express no opinion regarding any federal, state or local tax consequences arising with respect to ownership of the Bonds. Owners of the Bonds should be aware that the ownership of tax-exempt obligations may result in collateral tax consequences.

Respectfully submitted,

PRESTON GATES & ELLIS LLP

Lawyers

APPENDIX D

CONTINUING DISCLOSURE CERTIFICATE



CONTINUING DISCLOSURE CERTIFICATE

\$35,000,000

**City of Portland, Oregon
Water System Revenue Bonds
2000 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 Water System Revenue Bonds, 2000 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), (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.

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

"NRMSIR" means a nationally recognized municipal securities information repository.

"Official Statement" means the final official statement for the Bonds dated March 30, 2000.

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

"SID" means a state information depository for the State of Oregon (if one is created).

Section 3. Financial Information. The City agrees to provide or cause to be provided to each NRMSIR and to the SID, if any, in each case as designated by the Commission in accordance with the Rule, the following annual financial information and operating data for the prior fiscal year (commencing no later than March 1, 2001 for the fiscal year ended June 30, 2000):

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 official statement for the Bonds under the heading "Annual Disclosure Information."

The information described in paragraphs A and B, above, shall be provided on or before nine months after the end of the City's fiscal year. 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 each then existing NRMSIR and the SID, if any. In lieu of providing such annual financial information and operating data, the City may cross-reference to other documents provided to the NRMSIR, the SID or to the Commission and, if such document is a final official statement within the meaning of the Rule, available from the MSRB.

The City agrees to provide or cause to be provided, in a timely manner, to each NRMSIR or to the MSRB, and to the SID, if any, notice of its failure to provide the annual financial information described in this Section 3 on or prior to the date set forth in the preceding paragraph.

Section 4. Material Events. The City agrees to provide or cause to be provided, in a timely manner, to the SID, if any, and to each NRMSIR or to the MSRB notice of the occurrence of any of the following events with respect to the Bonds, if material:

1. Principal and interest payment delinquencies;
2. Non-payment related defaults;
3. Unscheduled draws on debt service reserves reflecting financial difficulties;
4. Unscheduled draws on credit enhancements reflecting financial difficulties;
5. Substitution of credit or liquidity providers or their failure to perform;
6. Adverse tax opinions or events affecting the tax-exempt status of the Bonds;
7. Modifications to the rights of Bondowners;
8. Bond calls;
9. Defeasances;
10. Release, substitution or sale of property securing repayment of the Bonds; and
11. Rating changes.

Section 5. Termination/Modification. The City's obligations 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 such provision, are invalid, have been repealed retroactively or otherwise do not apply to the Bonds; and (b) notifies each then existing NRMSIR and the SID, if any, of such opinion and the cancellation of this Certificate.

Section 6. Amendment. Notwithstanding any other provision of this Certificate, the City may amend this Certificate, and any provision of this Certificate may be waived, provided that the following conditions are satisfied:

A. If the amendment or waiver relates to the provisions of Sections 3 or 4 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. The undertaking, as amended or taking into account such waiver, 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 or waiver either (i) is approved by the Bondowners 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 or waiver of a provision of this Certificate, the City shall describe such amendment in the next annual report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver 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 such change shall be given in the same manner as for a material event under Section 4 hereof, and (ii) the annual report for the year in which the change is made should 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 7. 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 hereunder. Bondowners may take such actions as may be necessary and appropriate, including seeking mandamus or specific performance by court order, to cause the Issuer 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 Ordinance authorizing issuance of the Bonds or 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 Issuer to comply with this Certificate shall be an action to compel performance.

Section 8. 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 this 17th day of April, 2000.

City of Portland, Oregon

Eric H. Johansen, Debt Manager



APPENDIX E
BOOK-ENTRY SYSTEM



BOOK-ENTRY SYSTEM

DTC will act as securities depository for the Bonds. The Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee). One fully-registered bond certificate will be issued for each maturity of the Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC 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 securities that its participants ("Participants") deposit with DTC. DTC also facilitates the settlement among Participants of securities transactions such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in Participants' accounts, thereby eliminating the need for physical movement of securities certificates. Direct Participants include securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations ("Direct Participants"). DTC is owned by a number of its Direct Participants and by the New York Stock Exchange, Inc., the American Stock Exchange, Inc., and the National Association of Securities Dealers, Inc. Access to the DTC system is also available to others such as securities brokers and dealers, banks, and trust companies that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). The Rules applicable to DTC and its Participants are on file with the Securities and Exchange Commission.

Purchases of the Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser of each Bond ("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, but Beneficial Owners are 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 Bonds are to be accomplished by entries made on the books of Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in the Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co. The deposit of Bonds with DTC and their registration in the name of Cede & Co. effect no change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Participants will remain responsible for keeping account of their holdings on behalf of their customers. 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. Redemption notices shall be sent to Cede & Co. If less than all of the Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. will consent or vote with respect to the Bonds. Under its usual procedures, DTC mails an Omnibus Proxy to the City 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 the Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the Bonds will be made to DTC. DTC's practice is to credit Direct Participants' accounts on the payable date in accordance with their respective holdings shown on DTC's records unless DTC has reason to believe that it will not receive payment on the payable date.

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, the Paying Agent, or the City, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest to DTC is the responsibility of the City or the Paying Agent, disbursement of such payments to Direct Participants shall be the responsibility of DTC and disbursement of such payments to the Beneficial Owners shall be the responsibility of Direct and Indirect Participants.

DTC management is aware that some computer applications, systems, and the like for processing data ("Systems") that are dependent upon calendar dates, including dates before, on, and after January 1, 2000, may encounter "Year 2000 problems." DTC has informed its Participants and other members of the financial community (the "Industry") that it has developed and has implemented a program so that its Systems, as the same relate to the timely payment of distributions (including principal and income payments) to bondholders, book-entry deliveries, and settlement of trades within DTC ("DTC Services"), continue to function appropriately. This program includes a technical assessment, a remediation plan and a testing phase, each of which is complete.

However, DTC's ability to perform properly its services is also dependent upon other parties, including but not limited to issuers and their agents, as well as third-party vendors from whom DTC licenses software and hardware, and third-party vendors on whom DTC relies for information or the provision of services, including telecommunication and electrical utility service providers, among others. DTC has informed the Industry that it has contacted third-party vendors from whom DTC acquires services to: (i) impress upon them the importance of such services being Year 2000 compliant; and (ii) determine the extent of their efforts for Year 2000 remediation (and, as appropriate, testing) of their services. In addition, DTC is in the process of continually developing and updating such contingency plans as it deems appropriate.

According to DTC, the foregoing information with respect to DTC has been provided to the Industry for informational purposes only and is not intended to serve as a representation, warranty, or contract modification of any kind.

DTC may discontinue providing its services as securities depository with respect to the Bonds at any time by giving reasonable notice to the City or the Paying Agent. Under such circumstances, in the event that a successor securities depository is not obtained, Bond certificates are required to be printed and delivered. The City may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered.

The information in this section concerning DTC and DTC's book-entry system has been obtained from sources that the City believes to be reliable, but the City takes no responsibility for the accuracy thereof.



