EWEB

Eugene Water & Electric Board

Independent Auditor's Reports and Financial Statements

December 31, 2018 and 2017

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Eugene Water & Electric Board

Board of Commissioners

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Mr. Steve Mital, Wards 1 & 8, Vice-president

Mr. John Brown, Wards 4 & 5, Member

Mr. Dick Helgeson, Wards 2 & 3, Member

Ms. Mindy Schlossberg, “At Large,” Member

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Mr. Frank Lawson, General Manager, Secretary

Ms. Anne Kah, Assistant Secretary

Ms. Susan Fahey, Treasurer

Ms. Susan Eicher, Assistant Treasurer

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Report of Independent Auditors

The Board of Commissioners
Eugene Water & Electric Board

Report on the Financial Statements

We have audited the accompanying financial statements of the Electric System, Water System and Combined Total Systems of Eugene Water & Electric Board (the "Board"), which comprise the individual and combined statements of net position as of December 31, 2018 and 2017, and the related statements of revenues, expenses and changes in net position, and cash flows for the years then ended, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

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

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the individual and combined financial statements referred to above present fairly, in all material respects, the financial position of the Board as of December 31, 2018 and 2017, and the results of its individual and combined operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matter

Required Supplementary Information

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

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Board's financial statements. The Electric System and Water System long-term bonded debt and interest payment requirements (including current portion) schedules and the Electric System and Water System analysis of certain restricted cash and investments for debt service schedules and sustainability accounting standards disclosures ("supplementary information") are presented for purposes of additional analysis and are not a required part of the financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the financial statements, and accordingly, we do not express an opinion or provide any assurance on it.

Report on Other Legal and Regulatory Requirements

In accordance with the Minimum Standards for Audits of Oregon Municipal Corporations, we have issued our report dated March 18, 2019, on our consideration of the Board's compliance with certain provisions of laws and regulations, including the provisions of Oregon Revised Statues as specified in Oregon Administrative Rules. The purpose of that report is to describe the scope of our testing of compliance and the results of that testing and not to provide an opinion on compliance.

Julie Desimone

For Moss Adams LLP
Portland, Oregon
March 18, 2019

The following discussion provides an overview of the financial results of the Eugene Water & Electric Board (EWEB) for the years ended 2018, 2017, and 2016. This unaudited discussion is intended to be used in conjunction with the financial statements and note disclosures following this section.

EWEB is the largest publicly-owned electric and water utility in Oregon. The City of Eugene (the City) commenced utility operations in 1908 with the purchase of a privately-owned water system. In 1911, upon completion of the City's first municipal hydroelectric power plant, the City organized the Eugene Water Board to operate the City's electric and water utilities. The name of the Eugene Water Board was changed to the Eugene Water & Electric Board in 1949.

EWEB is chartered by the City and supplies electric and water service within the city limits of Eugene and to certain areas outside the city limits. EWEB operates as a primary government, and is not considered a component unit of the City. EWEB is governed by a five member Board of Commissioners who are elected by voters residing in the City. The Board of Commissioners has authority to set prices for water and electric services. Prices are set based on the cost of service delivery, including operating, capital, and debt service expenses.

The Statements of Net Position report assets, deferred outflows, liabilities, deferred inflows and net position as of the end of the financial year, December 31. The Statements of Revenues, Expenses and Changes in Net Position report revenues and expenses occurring during the financial year. The Statements of Cash Flows report cash from operating activities, investing activities, non-capital financing activities as well as capital and related financing activities.

Electric System

The Electric System supplies service to 93,000 residential, commercial, and industrial customers within the City of Eugene and areas along the McKenzie River between the cities of Walterville and Vida where two of EWEB's hydro-power plants are located. The total service area covers 236 square miles. The Electric System owns and operates approximately 1,100 circuit miles of overhead and underground distribution lines, 129 circuit miles of transmission lines, and 38 distribution substations. Power delivered to customers is supplied by Bonneville Power Administration (BPA) contracts, EWEB-owned generation resources, other contracted resources, and purchases from the wholesale energy markets. EWEB's power supply sources are primarily hydro-power, but also includes wind, biomass, steam, and solar.

2018	MWh	
Hydro-power	2,896,785	65%
Wind	192,599	4%
Steam	201,397	4%
Biomass	118,499	3%
Other market purchases	1,104,539	24%
	4,513,819	100%

2018	MWh	
EWEB owned generation	567,185	13%
Contracted generation	2,842,095	63%
Market purchases	1,104,539	24%
	4,513,819	100%

Net Operating Revenue

Electric System net operating revenue for 2018 increased compared to 2016, but decreased compared to 2017. Colder than average weather in early 2017 increased residential electric consumption compared to 2018. Purchased power expenses were the primary driver for increased operating expenses in 2018. As a result of new accounting and financial reporting requirements for Other Post-employment Benefit Plans (OPEB), the 2017 financial statements have been restated for comparability. More information can be found in Note 1.

Electric System - Net Operating Revenue

(in thousands)	2018	*restated* 2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Operating revenue	$ 248,973	$ 254,645	$ 245,250	$ (5,672)	$ 3,723
Operating expense	(232,694)	(227,324)	(229,756)	(5,370)	(2,938)
Net operating revenue	$ 16,279	$ 27,321	$ 15,494	$ (11,042)	$ 785

Operating Revenue

Operating revenue varies from year to year based on customer load, generation available for sale, and the market prices for generation available for sale. Residential customers make up approximately 90% of EWEB's customer base and approximately 50% of customer revenue. Sales to residential customers are variable based on weather trends. Operating revenue from residential customers was impacted by cold weather in the first quarter of 2017, a time when consumption is generally at its peak for the year. The first quarter of 2018 and 2016 were warm compared to historical weather trends.

Recent residential price adjustments have been as follows:

2018	no change
2017	no change
2016 (effective February 2016)	2.5% increase

Commercial and industrial sales make up approximately 10% of the EWEB customer base, and approximately 50% of customer revenue. Commercial and industrial sales are more reactive to economic conditions than weather conditions. Commercial and industrial sales have fluctuated little compared to 2017 and 2016.

Electric System - Sales to Customers

(in thousands)	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Residential	$ 97,673	$ 104,263	$ 94,670	$ (6,590)	$ 3,003
Commercial and industrial	102,214	103,115	100,193	(901)	2,021
	$ 199,887	$ 207,378	$ 194,863	$ (7,491)	$ 5,024

Electric System - Sales to Customers mWh

	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Residential	914,754	986,093	887,738	(71,339)	27,016
Commercial and industrial	1,427,882	1,468,808	1,400,318	(40,926)	27,564
	2,342,636	2,454,901	2,288,056	(112,265)	54,580

Power supply in excess of load is sold into the wholesale markets. The Electric System has an active hedging program to ensure prices for power sold into the wholesale market do not drop below the amount anticipated in the annual budget. Prices for market sales have improved but remain at historic lows, largely due to downward pressure on prices from low cost natural gas powered resources and a favorable supply of hydroelectric generation. However, market prices in 2018 improved significantly compared to 2017. The favorable spring runoff in 2017 increased overall volume of wholesale sales, but the favorable financial impacts were lessened as the increased wholesale supply lowered market prices.

	2018	2017	2016
Retail sales	$ 199,887,212	$ 207,378,148	$ 194,863,130
Retail volume	2,342,636	2,454,901	2,288,056
Average price per mWh	$ 85.33	$ 84.48	$ 85.17
Wholesale sales	$ 41,201,400	$ 39,249,845	$ 42,799,209
Wholesale volume	1,477,941	1,997,333	1,875,668
Average price per mWh	$ 27.88	$ 19.65	$ 22.82

Operating Expenses

Electric System operating expenses include purchased power and wheeling expense. Prices for BPA and contracted resources are set by their respective contracts, which may escalate over time. Market purchases are made at times when resources aren't adequate for customer load or to support the EWEB hedging program, and are subject to price variability to the extent those sales are not fully hedged. Purchased power increased compared to 2017 and 2016 as a result of a BPA rate increase, cost escalations in contracted resources and an increase in market prices. Wheeling increased in 2017 due to a transmission rate increase by BPA as well as additional purchases of transmission for a wind generation project. In 2018, transmission purchases for wind generation decreased due to favorable pricing negotiations.

Other than purchased power, wheeling expense and depreciation, overall operating expenses were comparable to 2017 and less than 2016. Transmission and distribution expense was higher in 2016 due to restoration efforts following a severe ice storm in December 2016. Steam and hydraulic generation costs increased in 2018 due to a large maintenance project for a co-generation plant. Conservation expenses decreased in 2018 due to improved efficiency in the delivery of conservation programs. Depreciation expense decreased primarily due to the sale of the Smith Creek project in 2016 as well as several significant information technology assets becoming fully depreciated in 2017 and 2018.

Electric System - Operating Expenses

(in thousands)	2018	*restated* 2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Purchased Power	$ 125,272	$ 118,166	$ 117,194	$ 7,106	$ 8,078
System control	4,383	4,896	5,658	(513)	(1,275)
Wheeling	13,312	13,915	12,273	(603)	1,039
Steam and hydraulic generation	12,824	11,338	11,486	1,486	1,338
Transmission and distribution	22,585	21,658	24,546	927	(1,961)
Customer accounting	7,990	8,350	8,027	(360)	(37)
Conservation expenses	3,299	4,060	4,720	(761)	(1,421)
Administrative and general	21,892	22,718	21,865	(826)	27
Depreciation on utility plant	21,137	22,223	23,987	(1,086)	(2,850)
Operating expenses	$ 232,694	$ 227,324	$ 229,756	$ 5,370	$ 2,938

Other Non-operating Revenue, Expense, and Capital Contributions

For the Electric System, non-operating revenue is primarily miscellaneous revenue from sources unrelated to core business functions, including investment earnings, gains from the disposal of assets and grant revenue. In 2018, non-operating revenue decreased compared to 2017 and 2016. Non-operating revenue was high in 2016 due to a $4.8 million gain related to the sale of the Smith Creek hydro-electric generation plant. Non-operating revenue remained high in 2017 due to an approximately $3 million interest payment from the Water System and $3.5 million in FEMA grant revenue.

Non-operating expense is primarily interest expense for long-term debt and other revenue deductions including taxes and losses on the disposition of property. In 2018, non-operating expenses included a $4.1 million accounting loss on the disposition of surplus riverfront property. In 2017, non-operating expenses increased due to a $15.7 million accounting loss related to the in-substance defeasance of the 2001A bonds.

Capital contributions represent amounts customers contribute to construct assets that become part of plant in service for the Electric Utility. Capital contributions can fluctuate due to the timing of customer-driven work. In 2016, capital contributions were high due to significant work to upgrade or relocate EWEB lines and services in advance of construction of the Lane Transit District EMX Rapid Transit system.

Electric System - Non Operating Revenue and Expense

(in thousands)	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Non-operating revenue	$ 8,292	$ 12,572	$ 12,843	$ (4,280)	$ (4,551)
Non-operating expense	(12,056)	(25,587)	(11,453)	13,531	(603)
Capital contributions	4,274	5,287	7,595	(1,013)	(3,321)
Total	$ 510	$ (7,728)	$ 8,985	$ 8,238	$ (8,475)

Special Item

In 2017 the Board elected to join the State & Local Government Rate Pool (SLGRP) to mitigate risks related to the employer contribution rates. Previously, the Board's status was as an independent employer participating in the Oregon Public Employees Retirement System (OPERS). As an independent employer, actuarial valuations to determine employer contribution rates used Board specific demographics. As a participant in the SLGRP, valuations to determine employer contribution rates use the demographics of pool participants. The Board's specific demographics generally resulted in contribution rates higher than the SLGRP, and the Board's SLGRP employer contribution rates will be lower once they take effect in July 2019. Based on OPERS actuarial calculations, $32.6 million of the Board's existing actuarial liability was assigned as the transition liability to move from independent to SLGRP status. This maintains future rate equity among other SLGRP participants. During 2018, the Electric System recognized $24.8 million for its portion of the transition liability as a special item expense.

During 2018, the Electric System also recognized $1.5 million as a special item expense to fund the OPEB trust. Board policy requires contribution levels be evaluated when the funded status of the OPEB plan is 70% or less.

Total Assets and Deferred Outflows of Resources

Total assets for the Electric System include utility plant net of depreciation, current assets representing cash and investments, accounts receivable, materials inventory, pre-paid expenses, long term investments, and non-current assets such as jointly-owned companies accounted for under the equity method for investments.

Current assets are influenced by cash balances, investments having maturities one year or less, and changes in balances of customer and other receivables at year end. In 2018, current assets decreased compared to 2017 due to payment of approximately $26.3 million in one-time pension and OPEB expenses. 2016 balance were lower due to use of cash to defease debt.

The investments classified as non-current in 2018 decreased compared to 2017 and 2016. In 2018, non-current assets decreased in 2018 due in part to the disposition of surplus riverfront property. Intersystem receivables from the Water System have also decreased by $9.5 million since 2016. Non-current assets decreased in 2017 due to the removal of a regulatory asset of $7.7 million for accreted interest from capital appreciation bonds.

Deferred outflows of resources represent transactions occurring in future periods and are not classified as assets. Decreases in deferred outflows of resources are primarily due to amortization of changes in actuarial assumptions related to the Board's Public Employees Retirement System (PERS) net pension liability and net OPEB liability.

Electric System - Assets and Deferred Outflows

(in thousands)	2018	restated 2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Net utility plant	$ 367,758	$ 353,877	$ 350,366	$ 13,881	$ 17,392
Current assets	170,448	185,698	153,170	(15,250)	17,278
Non-current assets	150,381	157,451	176,235	(7,070)	(25,854)
Deferred outflows of resources	45,530	46,746	57,024	(1,216)	(11,494)
Total assets and deferred outflows of resources	$ 734,117	$ 743,772	$ 736,795	$ (9,655)	$ (2,678)

Capital Asset Activity

Capital projects for the Electric System are categorized by “type,” with the type representing the category of work in the capital plan. Type 1 projects are ongoing renewal and replacements typically funded through customer rates. Significant Type 1 projects for 2018 included capital replacements of the transmission and distribution system, generation infrastructure, information technology projects, buildings and land, and substations. Work for installation of customer infrastructure, most of which is reimbursed by contributions in aid of construction, is also considered Type 1.

Type 2 projects are rehabilitation and expansion projects greater than $1 million and spanning multiple years. They may be funded by either rates or issuance of bonds. In 2018, Type 2 projects included upgrades to the Downtown Network, Advanced Metering Infrastructure (AMI), and distribution resiliency. In 2018, plant in service increases were driven by resiliency upgrades, including the completion of the Holden Creek Substation and the Microgrid project.

Type 3 projects are strategic projects generally funded by the issuance of bonds. The Carmen-Smith Hydroelectric Project relicensing is the primary Type 3 activity.

Electric System - Capital Assets

(in thousands)	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Plant in service	$ 786,987	$ 760,426	$ 741,377	$ 26,561	$ 45,610
Accumulated depreciation	(436,984)	(422,005)	(403,328)	(14,979)	(33,656)
Property for future use	783	943	827	(160)	(44)
Construction work in progress	16,972	14,513	11,489	2,459	5,483
Net utility plant	$ 367,758	$ 353,877	$ 350,365	$ 13,881	$ 17,393

Ongoing capital improvements by type included:

Electric System - Capital projects

	2018	2017	2016
Type 1			
	Buildings & Land	Buildings & Land	Buildings & Land
	Transmssion & Distribution	Transmssion & Distribution	Transmssion & Distribution
	Transporation Equipment	Transporation Equipment	Transporation Equipment
	Generation	Generation	Generation
	Information Technology	Information Technology	Information Technology
	Substations & Telecom	Substations & Telecom	Substations & Telecom
Type 2			
	AMI	AMI	
	Downtown Network	Downtown Network	Downtown Network
	Holden Creek Substation	Holden Creek Substation	Leaburg Roll Gate Rebuild
	Leaburg Roll Gate Rebuild	Leaburg Roll Gate Rebuild	Lane Transit District EmX Project
		Lane Transit District EmX Project	Information Technology - WAM
		Information Technology - WAM	
Type 3			
	Carmen Smith License Implementation	Carmen Smith License Implementation	Carmen Smith License Implementation
			Roosevelt Operations Center

More detailed information about plant activity can be found in the note disclosures to the financial statements, Note 3 – Utility Plant.

Debt Activity

The Electric System issues revenue bonds or notes payable to fund certain capital projects. During 2018, the Electric System made scheduled debt service payments which decreased outstanding debt compared to 2017 and 2016. In 2017, the Electric System issued $33.8 million in bonds, which will be used primarily for relicensing construction at its Carmen-Smith Hydroelectric Project. The 2017 proceeds replaced funds used to defease the Electric System's 2001A term and capital appreciation bonds. This defeasance allowed the Electric System's amended and restated master bond resolution to take effect. The new resolution significantly modernized the terms of the preceding resolution from 1986. In 2016, the Electric System defeased $23.8 million in bond principal and refunded bonds in the amount of $126.1 million to reduce interest on outstanding debt. No additional debt was issued in 2016. For more detailed information, see Note 12--Long-term Debt and Note 19--Commitments and contingencies.

Electric System bonds are rated Aa2 by Moody's Investors Service, AA- by Standard and Poor's Rating Services, and AA- by Fitch Ratings.

Electric System - Debt Activity

	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
(in thousands)					
Total outstanding debt	$ 209,279	$ 219,934	$ 211,444	$ (10,655)	$ (2,165)

Liabilities and Deferred Inflows of Resources

Current liabilities are primarily accounts payable, accrued payroll, and the current portion of long-term debt. Current liabilities increased in 2018 compared to 2017 due to fluctuations in accounts payable, and balances were high in 2016 as a result of a storm event in mid-December. Beyond the changes in debt mentioned above, total liabilities were influenced by changes in the net pension liability and net OPEB liability.

The increase in deferred inflows of resources in 2018 is primarily due to differences between projected and actual earnings on investments related to EWEB's Public Employees Retirement System (PERS) net pension liability.

Electric System - Liabilities and Deferred Inflows

(in thousands)	2018	*restated* 2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Current liabilities	$ 41,051	$ 36,479	$ 45,080	$ 4,572	$ (4,029)
Total liabilities	336,181	339,042	342,180	(2,861)	(5,999)
Deferred inflows of resources	11,811	8,591	7,294	3,220	4,517
Total Liabilities and deferred inflows of resources	$ 347,992	$ 347,633	$ 349,474	$ 359	$ (1,482)

Net Position

The net investment in capital assets component of net position, which reflects the value of capital assets net of the debt incurred to acquire those assets has increased each year since 2016. Capital assets have been added each year while corresponding debt levels associated to capital improvements have been reduced year-over-year.

Restricted net position is subject to external legal restrictions on its use and is primarily representative of reserves for payments of debt service, customer donations, and amounts deposited in escrow accounts relating to the Harvest Wind Project. Restricted net position is lower compared to 2016. The reduction in restricted net position in 2017 is due to changes in the cash outflows of payments for debt service accounts.

Unrestricted net position represents the accumulation of net assets that are not capital assets, or subject to external restrictions on their use. In 2018, unrestricted net position decreased due to payments made from existing cash reserves for unfunded liabilities related to retirement benefits.

Overall net position has decreased by 2.5% compared to 2017, and is comparable to 2016.

Electric System - Net Position

(in thousands)	2018	*restated* 2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Net investment in capital assets	$ 206,740	$ 195,359	$ 178,261	$ 11,381	$ 28,479
Restricted	6,122	6,367	13,283	(245)	(7,161)
Unrestricted	173,264	194,414	195,777	(21,150)	(22,513)
Total net position	$ 386,126	$ 396,140	$ 387,321	$ (10,014)	$ (1,195)

Reserves and Investment Activity

The Board of Commissioners has established Electric System designated reserve accounts for specific purposes including funding routine capital activity, significant one-time expenses, and to protect customers from the effects of large fluctuations in power prices, generation volume and counterparty risk. The Board has authority to re-evaluate and redirect designated and unrestricted reserves based on current priorities.

During 2018, $5.8 million from the sale of surplus property was placed in the rate stabilization fund to reduce future bond issuances. The Board also used $24.8 million of reserves to pay a transition liability to Oregon PERS, and $1.5 million to fund its OPEB trust in order to reduce employer contribution rates. In 2017, the Board approved the use of $24.2 million in designated funds to defease debt. Each year the Board reviews reserves in excess of target for the highest and best use of cash.

Electric System - Reserve Balances

(in thousands)	Target	2018
Working Cash	$ 36,000	$ 48,219
Designated Funds		
Operating Reserve	2,000	2,083
Self-Insurance Reserve	1,720	1,774
Power Reserve	17,000	17,000
Capital Improvement Reserve	22,000	25,693
Rate Stabilization Fund	5,000	37,049
Business Growth & Retention Loan Fund	-	1,993
Designated Funds Total	$ 47,720	$ 85,592

The Electric System also maintains restricted reserves for purposes including payment of principal and interest on debt, and proceeds from bond issuance restricted for use on capital projects.

Working cash and short-term investments are not held in reserve and are available for the day-to-day operations of the utility. They are classified as unrestricted.

All Electric System working cash and reserves are held in depository accounts, the Local Government Investment Pool, or in high quality securities. Investment strategy focuses on the following in priority order: preserving principal, liquidity of funds and investment returns.

Water System

The source of supply for the Water System is the McKenzie River, with headwaters in the Cascade Range east of Eugene. Intake and purification of water is performed at the Hayden Bridge Water Filtration Plant. In addition to the filtration plant, the Water System owns and operates 23 reservoirs, 27 pump stations, and approximately 800 miles of transmission and distribution mains. The Water System provides water service to 54,000 residential, commercial, and industrial customers within the EWEB service territory, and also supplies wholesale water to the River Road and Santa Clara water districts outside Eugene. In addition, EWEB has surplus water contracts with the City of Veneta and the Willamette Water Company.

Net Operating Revenue

Water net operating revenue was comparable to 2017, and decreased by 2% compared to 2016.

Water System - Net Operating Revenue

(in thousands)	2018	*restated* 2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Operating revenue	$ 39,393	$ 39,565	$ 38,958	$ (172)	$ 435
Operating expense	(24,792)	(24,952)	(24,067)	160	(725)
Net operating revenue	$ 14,601	$ 14,613	$ 14,891	$ (12)	$ (290)

Operating Revenue

Consumption of water varies depending on the season and the weather pattern of a particular year. Peak consumption is in the summer months. Consumption increased in 2018 compared to the prior two years. Although, retail consumption was up 4.1% from 2017, and 2.5% from 2016 levels, retail revenue was comparable from 2017 to 2018. Wholesale consumption was up 2.9% from both 2017 and 2016 levels. In 2013, the Board approved a price increase designed to accumulate funds for a Willamette Treatment Plant and the 2018 price decrease suspends the collection of those reserve funds while the Board refines the capacity and timing of the project.

Residential customers make up 90% of the customer base of the Water System, and approximately 60% of retail consumption. Similar to the Electric system, residential consumption is more responsive to weather conditions than commercial and industrial. Water sales revenue for retail customers was consistent compared to 2017, and decreased by 1.8% compared to 2016.

Recent residential price adjustments have been as follows:

2018 (effective February 2018)	4.5% decrease
2017	no change
2016 (effective February 2016)	3.6% increase

Commercial and industrial sales make up 10% of the Water System's customer base, and approximately 40% of retail sales. Commercial and industrial sales have increased since 2016 due to increased consumption and prices for general service customers.

Water System - Sales to Customers

(in thousands)	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Residential	$ 20,419	$ 20,982	$ 20,758	$ (563)	$ (339)
Commercial and industrial	15,315	14,713	14,332	602	983
	$ 35,734	$ 35,695	$ 35,090	$ 39	$ 644

Water System - Sales to Customers Kgal

(in thousands)	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Residential	4,040	3,872	3,925	168	115
Commercial and industrial	3,604	3,473	3,531	131	73
	7,644	7,345	7,456	299	188

Wholesale sales include sales to River Road and Santa Clara Water Districts, the City of Veneta, and the Willamette Water Company.

	2018	2017	2016
Retail sales	$ 35,733,979	$ 35,695,436	$ 35,089,542
Retail volume	7,643,762	7,345,422	7,456,182
Average price per Kgal	$ 4.67	$ 4.86	$ 4.71
Wholesale sales	$ 2,267,375	$ 2,186,021	$ 2,178,764
Wholesale volume	735,292	714,566	714,254
Average price per Kgal	$ 3.08	$ 3.06	$ 3.05

Operating Expenses

The Water System pumps and purifies all water sold and does not have wholesale purchase expense. The largest production expenses are purification and transmission and distribution of water. Other significant expenses are administrative and general, and depreciation. During 2018, water operating expenses were comparable to 2017 and increased 3% compared to 2016. Maintenance work performed during 2018 at pump stations and the treatment plant drove the increases in the source of supply, pumping and purification expense, while 2018 decreases to the Administrative and general expenses were due to larger capital overhead allocations from increased capital spending compared to 2017 and 2016.

Total operating expenses were as follows:

Water System - Operating Expenses					
		restated		Increase (Decrease)	Increase (Decrease)
(in thousands)	2018	2017	2016	2018/2017	2018/2016
Transmission and distribution	$ 6,082	$ 6,256	$ 6,200	$ (174)	$ (118)
Source of supply, pumping and purification	6,876	5,963	5,744	913	1,132
Customer accounting	1,364	1,660	1,494	(296)	(130)
Conservation expenses	344	359	250	(15)	94
Administrative and general	3,906	4,543	4,255	(637)	(349)
Depreciation on utility plant	6,220	6,170	6,124	50	96
Operating expenses	$ 24,792	$ 24,951	$ 24,067	$ (159)	$ 725

Other Non-operating Revenue, Expense, Capital Contributions, and System Development Charges
Non-operating revenue of the Water System consists primarily of miscellaneous revenue not associated with core business activities, as well as interest and investment revenue. Non-operating revenue has increased compared to 2017 and 2016. During 2018, the Board sold property to the City of Eugene, and the Water System recorded a $437,000 gain from the disposition. Investment earnings increased $371,000 compared to 2017 as interest rates have risen, and the Water System has higher cash balances from the investment of the 2016 bond proceeds.

Non-operating expense is primarily interest expense for long-term debt and intercompany debt. During 2018, the Water System transferred $1.8 million to the Electric Utility ($11 million in 2017) as payment on intercompany debt. A lump-sum payment of $1.3 million reduced future interest payments by $823,000.

Capital contributions are related to customer work to extend or relocate water mains and services. During 2018, activity included contributed plant assets associated with roadwork projects and subdivisions.

Water System - Non Operating Revenue and Expense					
				Increase (Decrease)	Increase (Decrease)
(in thousands)	2018	2017	2016	2018/2017	2018/2016
Non-operating revenue	$ 1,744	$ 590	$ 516	$ 1,154	$ 1,228
Non-operating expense	(2,274)	(5,941)	(3,470)	$ 3,667	$ 1,196
Capital contributions	3,071	3,130	2,790	$ (59)	$ 281
Total	$ 2,541	$ (2,221)	$ (164)	$ 4,762	$ 2,705

Special Item

In 2017 the Board elected to join the State & Local Government Rate Pool (SLGRP) to mitigate risks related to the employer contribution rates. Previously, the Board's status was as an independent employer participating in the Oregon Public Employees Retirement System (OPERS). As an independent employer, actuarial valuations to determine employer contribution rates used Board specific demographics. As a participant in the SLGRP, valuations to determine employer contribution rates use the demographics of pool participants. The Board's specific demographics generally resulted in contribution rates higher than the SLGRP, and the Board's SLGRP employer contribution rates will be lower once they take effect in July 2019. Based on OPERS actuarial calculations, $32.6 million of the Board's existing actuarial liability was assigned as the transition liability to move from independent to SLGRP status. This maintains future rate equity among other SLGRP participants. During 2018, the Water System recognized $7.8 million for its portion of the transition liability as a special item expense.

During 2018, the Water System also recognized $480,000 as a special item expense to fund the OPEB trust. Board policy requires contribution levels be evaluated when the funded status of the OPEB plan is 70% or less.

Total Assets and Deferred Outflows of Resources

Total assets for the Water System include utility plant, net of depreciation, current assets representing cash and short-term investments, accounts receivable, materials inventory, and pre-paid expenses, as well as non-current assets such as long-term investments.

During 2018, $8.3 million was used to pay unfunded liabilities related to retirement benefits. Capital project activity also reduced cash reserves from bond proceeds.

Non-current assets have steadily increased since 2016. Amounts classified as preliminary investigations increased by $1.3 million in 2017 due to the deferral of the Willamette Treatment Plant. Other assets related to pensions and OPEB, and investment amounts held at year-end having maturities greater than one year also contribute to the increase in amounts classified as non-current assets each year.

Deferred outflows of resources represent transactions occurring in future periods and are not classified as assets. Decreases in deferred outflows of resources are primarily due to amortization of changes in actuarial assumptions related to the Board's PERS net pension and net OPEB liability.

Water System - Assets and Deferred Outflows

(in thousands)	2018	*restated* 2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Net utiltiy plant	$ 175,611	$ 165,424	$ 160,506	$ 10,187	$ 15,105
Current assets	36,520	41,454	45,562	(4,934)	(9,042)
Non-current assets	21,919	19,365	17,837	2,554	4,082
Deferred outflows of resources	9,648	9,797	11,562	(149)	(1,914)
Total assets and deferred outflows of resources	$ 243,698	$ 236,040	$ 235,467	$ 7,658	$ 8,231

Capital Asset Activity

Capital projects for the Water System are categorized by “type,” with the type representing the category of work in the capital plan. Type 1 projects are ongoing capital renewal and replacements funded primarily by customer rates. Significant Type 1 projects for 2018 included ongoing capital replacements of the water pump stations and distribution system. During 2018, $3.0 million was spent on main replacement and improvement projects. In 2017, the amount was $3.9 million. Installation of customer infrastructure, most of which is reimbursed by contributions in aid of construction, is also considered Type 1.

Type 2 projects are rehabilitation and expansion projects over $1 million and spanning multiple years. They may be funded by either rates or issuance of bonds. In 2018, Type 2 projects included Advanced Metering Infrastructure (AMI) and upgrades at the Hayden Bridge water filtration plant. Capital spending was $2.6 million for AMI, and $2.8 million for Hayden Bridge in 2018.

Type 3 projects are strategic projects generally funded by the issuance of bonds. The Source of Supply project, which includes emergency supply sites, is currently the only Type 3 project for the Water system. Spending on Source of supply was $1.6 million in 2017 and $359,000 in 2018. There are backup water stations being set up strategically around the Eugene area to distribute water in an emergency and in 2018 the first two were constructed.

Water System - Capital Assets

(in thousands)	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Plant in service	$ 289,808	$ 276,661	$ 267,602	$ 13,147	$ 22,206
Accumulated depreciation	(123,146)	(117,297)	(111,344)	(5,849)	(11,802)
Property for future use	2,397	2,397	1,184	-	1,213
Construction work in progress	6,552	3,663	3,063	2,889	3,489
Net utility plant	$ 175,611	$ 165,424	$ 160,505	$ 10,187	$ 15,106

Ongoing capital improvements by type included:

Water System - Capital projects

	2018	2017	2016
Type 1			
	Water Intake and Filtration Plant	Water Intake and Filtration Plant	Water Intake and Filtration Plant
	Water Mains	Water Mains	Water Mains
	Services and meters	Services and meters	Services and meters
	Reservoirs	Reservoirs	Reservoirs
	Transporation Equipment	Transporation Equipment	Distribution system
	Pump stations	Pump stations	Information Technology
Type 2	AMI	AMI	Buildings & Land
	Distribution system	Distribution system	Transporation Equipment
	Filtration Plant Upgrades	Lane Transit District EmX Project	Lane Transit District EmX Project
		Filtration Plant Upgrades	
Type 3			
	Source of Supply	Second source	Second source

More detailed information about plant activity is available in Note 3 – Utility Plant, in the note disclosures to the financial statements.

Debt Activity

During 2018, the Water System made scheduled debt service payments. In addition to the scheduled debt service payments, during 2017 the Water System transferred $11 million to the Electric System for its shared costs of retirement benefits and a portion of construction of the Roosevelt Operations Center, both financed by the Electric System.

The table below shows outstanding balances for bonds. Significant activity occurred in 2016, when the Board refunded existing debt of the Water System to take advantage of market conditions and the low interest rate environment. As part of the same issuance, $16 million in new debt was issued to fund capital projects. Water System bonds are rated Aa2 by Moody's Investors Service, AA by Standard and Poor's Rating Services, and AA+ by Fitch Ratings.

Water System - Debt Activity

	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
(in thousands)					
Total outstanding debt	$ 56,298	$ 58,903	$ 61,113	$ (2,605)	$ (4,815)

More detailed information about debt activity can be found in the note disclosure to the financial statements, Note 12 – Long-term Debt, the unaudited supplementary schedules for bonds, which follow the note disclosures, and Note 13 – Intersystem items.

Liabilities and Deferred Inflows of Resources

While 2018 liabilities are comparable to 2017, total liabilities decreased substantially from 2016 due to the $11 million payment in 2017 on intersystem items and ongoing debt service mentioned above. Water's share of the net pension liability decreased $3.8 million in 2017 also driving the reduction in total liabilities.

Current liabilities are primarily accounts payable, accrued payroll, and the current portion of long-term debt. Current liability balances have increased compared to 2017 and 2016 primarily due to capital projects payable increases.

Water System - Liabilities and Deferred Inflows

(in thousands)	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Current liabilities	$ 6,630	$ 5,503	$ 5,974	$ 1,127	$ 656
Total liabilities	88,541	90,863	101,185	(2,322)	(12,644)
Deferred inflows of resources	2,480	1,877	1,009	603	1,471
Total Liabilities and deferred inflows of resources	$ 91,021	$ 92,740	$ 102,194	$ (1,719)	$ (11,173)

Net Position

The net investment in capital assets component of net position, which reflects the value of capital assets net of the debt incurred to acquire those assets has increased each year since 2016. Capital asset additions such as main replacements and improvements, AMI, and Hayden Bridge improvements have increased plant values and associated debt has decreased.

Restricted net position is subject to external legal restrictions on its use and is primarily representative of reserves for payment of debt service and deposits of System Development Charges (SDC) for work not yet completed. Increases in 2018 are due to SDC activity. Restricted net position decreased in 2017 primarily due to changes in the cash outflows of payments for debt service accounts.

Unrestricted net position represents the accumulation of assets that are not capital assets, or subject to external restrictions on their use. The Water System's unrestricted net position has decreased by 9% and 9.5% compared to 2017 and 2016, respectively reflecting payments made from cash reserves to reduce unfunded liabilities related to retirement benefits.

Overall net position has increased by approximately 7% compared to 2017, and 15% compared to 2016.

Water System - Net Position

(in thousands)	2018	2017	2016	Increase (Decrease) 2018/2017	Increase (Decrease) 2018/2016
Net investment in capital assets	$ 119,474	$ 108,380	$ 97,536	$ 11,094	$ 21,938
Restricted	7,539	6,690	7,369	849	170
Unrestricted	25,663	28,229	28,367	(2,566)	(2,704)
Total net position	$ 152,676	$ 143,299	$ 133,272	$ 9,377	$ 19,404

Reserves and Investment Activity

The Board of Commissioners has established Water System designated reserves for specific purposes including the funding of routine capital activity and significant one-time expenses. In addition, designated reserves accumulate funding for pension and post-retirement benefits. Designated funds are considered unrestricted because the Board has authority to re-evaluate and redirect reserves based on current priorities.

During 2018, the Board used $7.8 million of reserves to pay down its pension liability with Oregon PERS, and $480,000 to fund the OPEB Trust. In 2017, the most significant reserve activity was the use of funds to pay down intersystem debt, as well as continued additions to the Second Source Fund. Each year the Board reviews reserves in excess of target for the highest and best use of cash.

Water System - Reserve Balances

(in thousands)	Target	2018
Working Cash	$ 3,400	$ 10,745
Designated Funds		
Operating Reserve	1,000	1,012
Self-Insurance Reserve	280	289
Capital Improvement Reserve	7,000	10,284
Rate Stabilization Fund	1,000	1,307
Water Stewardship Fund- Septic Repairs	-	82
Business Growth & Retention Loan Fund	-	210
Second Source Fund	-	6,377
Designated Funds Total	$ 9,280	$ 19,561

The Water System maintains restricted reserves for purposes including payment of principal and interest on debt. Restricted reserves also include proceeds from bond issuance restricted for use on capital projects and funds collected through System Development Charges.

Working cash and short-term investments are unrestricted and available for the day-to-day operations of the utility.

All Water System working cash and reserves are held in bank accounts, the Local Government Investment Pool, or in high quality securities. Investment strategy focuses on the following in priority order: preserving principal, liquidity of funds and investment returns.

STATEMENTS OF NET POSITION
December 31, 2018 and 2017

	Electric System		Water System		Total System	
	2018	2017 (as restated)	2018	2017 (as restated)	2018	2017 (as restated)
ASSETS						
Capital assets						
Utility plant in service	$ 786,986,954	$ 760,426,397	$ 289,808,333	$ 276,661,368	$ 1,076,795,287	$ 1,037,087,765
Less accumulated depreciation	436,984,343	422,004,832	123,146,121	117,297,391	560,130,464	539,302,223
Net utility plant in service	350,002,611	338,421,565	166,662,212	159,363,977	516,664,823	497,785,542
Property held for future use	782,512	943,148	2,396,812	2,396,812	3,179,324	3,339,960
Construction work in progress	16,972,396	14,512,880	6,551,690	3,663,042	23,524,086	18,175,922
Net utility plant	367,757,519	353,877,593	175,610,714	165,423,831	543,368,233	519,301,424
Current assets						
Cash and cash equivalents	26,166,176	29,977,821	3,779,089	9,472,000	29,945,265	39,449,821
Short-term investments	13,142,182	8,434,200	4,151,199	783,532	17,293,381	9,217,732
Restricted cash and investments	32,167,547	40,131,600	9,730,458	11,814,440	41,898,005	51,946,040
Designated cash and investments	59,585,413	60,579,102	13,617,354	14,346,678	73,202,767	74,925,780
Receivables, less allowances	33,463,018	40,618,799	3,875,593	3,991,987	37,338,611	44,610,786
Due from Water System	359,313	322,585	-	-	-	-
Materials and supplies	4,220,226	3,940,922	1,231,895	889,713	5,452,121	4,830,635
Prepaids	962,180	1,193,775	134,164	155,829	1,096,344	1,349,604
Option premiums short-term	381,872	498,960	-	-	381,872	498,960
Total current assets	170,447,927	185,697,764	36,519,752	41,454,179	206,608,366	226,829,358
Non-current assets						
Investments - designated	26,005,872	29,808,662	5,943,253	7,123,157	31,949,125	36,931,819
Investments - unrestricted	8,910,455	5,602,780	2,814,530	355,100	11,724,985	5,957,880
Investments - restricted	13,690,675	15,742,137	4,583,871	4,584,541	18,274,546	20,326,678
Receivables, conservation and other	3,861,835	3,426,356	103,152	121,595	3,964,987	3,547,951
Due from Water System	7,133,833	8,791,647	-	-	-	-
Investment in WGA	3,019,316	3,740,726	-	-	3,019,316	3,740,726
Investment in Harvest Wind	21,122,631	22,344,000	-	-	21,122,631	22,344,000
Preliminary investigations	32,797,954	32,522,024	1,302,816	1,302,816	34,100,770	33,824,840
Other assets	33,838,796	35,472,841	7,171,567	5,877,342	41,010,363	41,350,183
Total non-current assets	150,381,367	157,451,173	21,919,189	19,364,551	165,166,723	168,024,077
DEFERRED OUTFLOWS OF RESOURCES						
Deferred outflows of resources	45,530,443	46,745,647	9,648,321	9,796,892	55,178,764	56,542,539
Total assets and deferred outflows of resources	$ 734,117,256	$ 743,772,177	$ 243,697,976	$ 236,039,453	$ 970,322,086	$ 970,697,398

Note: Inter-system obligations and payments are eliminated in the total systems columns.

See accompanying notes

STATEMENTS OF NET POSITION
December 31, 2018 and 2017

	Electric System		Water System		Total System	
	2018	2017 (as restated)	2018	2017 (as restated)	2018	2017 (as restated)
LIABILITIES						
Current liabilities						
Payables	$ 25,063,950	$ 21,071,300	$ 2,073,824	$ 1,112,469	$ 27,137,774	$ 22,183,769
Accrued payroll and benefits	4,238,395	3,881,194	1,041,307	957,143	5,279,702	4,838,337
Due to Electric System	-	-	359,313	322,585	-	-
Payable from restricted assets						
Accrued interest on long-term debt	3,303,289	3,156,540	925,328	950,937	4,228,617	4,107,477
Long-term debt due within one year	8,445,000	8,370,000	2,230,000	2,160,000	10,675,000	10,530,000
Total current liabilities	41,050,634	36,479,034	6,629,772	5,503,134	47,321,093	41,659,583
Non-current liabilities						
Long-term debt	200,833,824	211,563,892	54,068,194	56,743,285	254,902,018	268,307,177
Due to Electric System	-	-	7,133,833	8,791,647	-	-
Net pension liability	73,641,246	69,340,004	16,165,151	15,220,977	89,806,397	84,560,981
Net OPEB liability	19,123,772	20,025,581	4,197,901	4,395,859	23,321,673	24,421,440
Other liabilities	1,531,026	1,633,103	346,374	208,506	1,877,400	1,841,609
Total liabilities	336,180,502	339,041,614	88,541,225	90,863,408	417,228,581	420,790,790
DEFERRED INFLOWS OF RESOURCES						
Deferred inflows of resources	11,810,972	8,590,919	2,480,130	1,876,909	14,291,102	10,467,828
NET POSITION						
Net investment in capital assets	206,740,056	195,358,608	119,474,131	108,379,789	326,214,187	303,738,397
Restricted	6,122,041	6,366,747	7,539,068	6,690,118	13,661,109	13,056,865
Unrestricted	173,263,685	194,414,289	25,663,422	28,229,229	198,927,107	222,643,518
Total net position	386,125,782	396,139,644	152,676,621	143,299,136	538,802,403	539,438,780
Total liabilities, deferred inflows of resources and net position	$ 734,117,256	$ 743,772,177	$ 243,697,976	$ 236,039,453	$ 970,322,086	$ 970,697,398

Note: Inter-system obligations and payments are eliminated in the total systems columns.

See accompanying notes.

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
Years ended December 31, 2018 and 2017

	Electric System		Water System		Total System	
	2018	2017 (as restated)	2018	2017 (as restated)	2018	2017 (as restated)
Residential	$ 97,673,393	$ 104,263,241	$ 20,418,763	$ 20,982,315	$ 118,092,156	$ 125,245,556
Commercial and industrial	102,213,819	103,114,907	15,315,216	14,713,121	117,529,035	117,828,028
Sales for resale and other	49,086,139	47,267,135	3,658,757	3,869,409	52,744,896	51,136,544
Operating revenues	248,973,351	254,645,283	39,392,736	39,564,845	288,366,087	294,210,128
Purchased power	125,271,625	118,166,351	-	-	125,271,625	118,166,351
System control	4,383,217	4,895,559	-	-	4,383,217	4,895,559
Wheeling	13,311,829	13,914,667	-	-	13,311,829	13,914,667
Steam and hydraulic generation	12,823,624	11,337,801	-	-	12,823,624	11,337,801
Transmission and distribution	22,585,431	21,657,770	6,081,694	6,256,258	28,667,125	27,914,028
Source of supply, pumping and purification	-	-	6,875,770	5,963,413	6,875,770	5,963,413
Customer accounting	7,989,867	8,349,578	1,364,150	1,659,524	9,354,017	10,009,102
Conservation expenses	3,299,365	4,060,519	344,131	359,149	3,643,496	4,419,668
Administrative and general	21,892,241	22,718,489	3,906,444	4,543,183	25,798,685	27,261,672
Depreciation on utility plant	21,136,539	22,222,948	6,219,542	6,170,058	27,356,081	28,393,006
Operating expenses	232,693,738	227,323,682	24,791,731	24,951,585	257,485,469	252,275,267
Net operating income	16,279,613	27,321,601	14,601,005	14,613,260	30,880,618	41,934,861
Investment earnings	3,212,715	1,716,025	827,966	456,911	4,040,681	2,172,936
Interest earnings, Water	203,611	3,516,955	-	-	-	-
Other revenue	4,875,885	7,338,979	915,757	133,426	5,791,642	7,472,405
Non-operating revenues	8,292,211	12,571,959	1,743,723	590,337	9,832,323	9,645,341

Note: Inter-system obligations and payments are eliminated in the total systems columns.

See accompanying notes.

STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
Years ended December 31, 2018 and 2017

	Electric System		Water System		Total System	
	2018	2017	2018	2017	2018	2017
		(as restated)		(as restated)		(as restated)
Other revenue deductions	$ 4,815,740	$ 2,945,224	$ 28,549	$ 255,196	$ 4,844,289	$ 3,200,420
Loss on debt defeasance	-	15,739,723	-	-	-	15,739,723
Interest expense and related amortization	7,240,453	6,902,350	2,041,350	2,168,955	9,281,803	9,071,305
Interest expense, Electric	-	-	203,611	3,516,955	-	-
Non-operating expenses	12,056,193	25,587,297	2,273,510	5,941,106	14,126,092	28,011,448
Income before capital contributions and special items	12,515,631	14,306,263	14,071,218	9,262,491	26,586,849	23,568,754
Contributions in aid of construction	2,156,060	3,766,445	784,423	860,727	2,940,483	4,627,172
Contributed plant assets	2,117,536	1,520,376	1,066,499	1,154,689	3,184,035	2,675,065
System development charges	-	-	1,220,040	1,114,564	1,220,040	1,114,564
Capital contributions	4,273,596	5,286,821	3,070,962	3,129,980	7,344,558	8,416,801
Intersystem transfer	531,573	-	(531,573)	-	-	-
Special item - Pension & OPEB	26,271,516	-	8,296,268	-	34,567,784	-
Change in net position	(10,013,862)	19,593,084	9,377,485	12,392,471	(636,377)	31,985,555
Total net position at beginning of year	396,139,644	376,546,560	143,299,136	130,906,665	539,438,780	507,453,225
Total net position at end of year	$ 386,125,782	$ 396,139,644	$ 152,676,621	$ 143,299,136	$ 538,802,403	$ 539,438,780

Note: Inter-system obligations and payments are eliminated in the total systems columns.

See accompanying notes.

STATEMENTS OF CASH FLOWS
Years ended December 31, 2018 and 2017

	Electric System		Water System		Total System	
	2018	2017	2018	2017	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES						
Receipts from customers	$ 265,821,431	$ 264,869,441	$ 39,559,380	$ 38,879,643	$ 305,380,811	$ 303,749,084
Other receipts	6,425,615	4,240,869	930,362	357,885	7,355,977	4,598,754
Power purchases	(124,632,205)	(122,287,513)	-	-	(124,632,205)	(122,287,513)
Payments to employees, employer paid benefits	(72,122,671)	(49,057,337)	(21,278,183)	(13,092,367)	(93,400,854)	(62,149,704)
Payments to suppliers	(37,623,125)	(37,777,463)	(4,927,232)	(5,838,984)	(42,550,357)	(43,616,447)
Contributions in lieu of taxes	(13,699,561)	(13,997,673)	-	-	(13,699,561)	(13,997,673)
Net cash from operating activities	24,169,484	45,990,324	14,284,327	20,306,177	38,453,811	66,296,501
CASH FLOWS FROM INVESTING ACTIVITIES						
Purchases of investment securities	(95,817,376)	(97,525,232)	(25,407,106)	(12,935,342)	(121,224,482)	(110,460,574)
Proceeds from sale and maturities of investments	95,252,500	93,152,024	20,614,502	20,677,560	115,867,002	113,829,584
Interest on investments	1,757,319	2,381,327	370,078	332,934	2,127,397	2,714,261
Distributions from equity investments	3,907,856	2,258,958	-	-	3,907,856	2,258,958
Net cash from investing activities	5,100,299	267,077	(4,422,526)	8,075,152	677,773	8,342,229
CASH FLOWS FROM NON-CAPITAL FINANCING ACTIVITIES						
Intersystem obligations paid to Electric from Water	1,617,788	8,200,112	(1,617,788)	(8,200,112)	-	-
Interest receipts/(payments) to Electric from Water	206,910	3,685,268	(206,910)	(3,685,268)	-	-
Payments to defease debt	-	(36,489,063)	-	-	-	(36,489,063)
Interest payments	-	(518,714)	-	-	-	(518,714)
Net cash from non-capital financing activities	1,824,698	(25,122,397)	(1,824,698)	(11,885,380)	-	(37,007,777)

Note: Inter-system obligations and payments are eliminated in the total systems columns.

See accompanying notes.

STATEMENTS OF CASH FLOWS
Years ended December 31, 2018 and 2017

	Electric System		Water System		Total System	
	2018	2017	2018	2017	2018	2017
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES						
Principal payments	$ (8,370,000)	$ (9,175,000)	$ (2,160,000)	$ (1,840,000)	$ (10,530,000)	$ (11,015,000)
Proceeds from issuance of bonds	-	40,004,723	-	-	-	40,004,723
Additions to plant and non-utility property, net	(30,694,681)	(28,874,349)	(15,445,568)	(12,797,272)	(46,140,249)	(41,671,621)
Interest payments	(7,915,523)	(6,297,449)	(2,282,249)	(2,319,048)	(10,197,772)	(8,616,497)
Additions to preliminary surveys and other	(135,548)	(790,457)	-	-	(135,548)	(790,457)
Capital contributions	4,273,596	5,286,821	3,070,961	3,129,979	7,344,557	8,416,800
Net cash from capital and related financing activities	(42,842,156)	154,289	(16,816,856)	(13,826,341)	(59,659,012)	(13,672,052)
CHANGE IN CASH AND CASH EQUIVALENTS	(11,747,675)	21,289,293	(8,779,753)	2,669,608	(20,527,428)	23,958,901
CASH AND CASH EQUIVALENTS, beginning of year	71,117,695	49,828,402	20,380,020	17,710,412	108,434,485	84,475,584
CASH AND CASH EQUIVALENTS, end of year Including cash and cash equivalents restricted or designated: $33,203,844 and $7,821,178 ($41,139,874 and $10,908,020 in 2017) for Electric and Water, respectively	$ 59,370,020	$ 71,117,695	$ 11,600,267	$ 20,380,020	$ 87,907,057	$ 108,434,485

NON-CASH CAPITAL ACTIVITY:

In 2018, plant assets contributed by developers were $2,117,536 for the electric system, and $1,066,499 for the water system ($1,520,376 for the electric system, and $1,154,689 for the water system in 2017)

Note: Inter-system obligations and payments are eliminated in the total systems columns.

See accompanying notes.

Continued

STATEMENTS OF CASH FLOWS
Years ended December 31, 2018 and 2017

	Electric System		Water System		Total System	
	2018	2017	2018	2017	2018	2017
RECONCILIATION OF NET OPERATING INCOME TO NET CASH FROM OPERATING ACTIVITIES						
Net operating income	$ 16,279,613	$ 27,321,601	$ 14,601,005	$ 14,613,260	$ 30,880,618	$ 41,934,861
Adjustments to reconcile net operating income to net cash from operating activities						
Depreciation, including allocated	22,356,077	23,442,486	6,219,542	6,170,058	28,575,619	29,612,544
Other revenue	2,920,789	6,296,132	1,003,184	366,536	3,923,973	6,662,668
Other revenue deductions	(26,775,445)	(1,230,843)	(8,318,840)	(250,000)	(35,094,285)	(1,480,843)
(Increase) decrease in assets						
Receivables	7,433,807	(5,238,888)	116,394	(693,854)	7,550,201	(5,932,742)
Materials and supplies	(279,305)	(265,305)	(342,181)	11,231	(621,486)	(254,074)
Prepayments and special deposits	231,596	384,355	21,666	(69,741)	253,262	314,614
Conservation loans, net	(713,504)	(807,301)	-	-	(713,504)	(807,301)
Other assets	(257,700)	3,071,686	-	-	(257,700)	3,071,686
(Increase) decrease in deferred outflows of resources						
Decrease in fair value of hedging derivatives	117,088	1,614,800	-	-	117,088	1,614,800
Increase (decrease) in liabilities						
Accounts payable, accrued payroll and benefits	2,486,504	(5,306,374)	983,557	158,687	3,470,061	(5,147,687)
Other liabilities	(102,076)	(637,190)	-	-	(102,076)	(637,190)
Increase (decrease) in deferred inflows of resources	472,040	(2,654,835)	-	-	472,040	(2,654,835)
Net cash from operating activities	$ 24,169,484	$ 45,990,324	$ 14,284,327	$ 20,306,177	$ 38,453,811	$ 66,296,501

See accompanying notes.

Note 1 – Summary of significant accounting policies

Reporting Entity

The Eugene Water & Electric Board (Board or EWEB) is an administrative unit of the City of Eugene, Oregon. However, as established by the Governmental Accounting Standards Board (GASB) definition of a reporting entity, the Board is considered a primary government and is not a component unit of another entity, nor are there any component units of which the Board is financially accountable. The Board is responsible for the ownership and operation of the Electric and Water Systems, and the basic financial statements include these two Systems.

The Board provides energy and water service to residential, commercial and industrial customers located in a 236 square mile area, including the City of Eugene and adjacent suburban areas. The Board has the authority to fix rates and charges. In order to secure power resources, the Board has taken ownership of various generation facilities, and entered into various power purchase agreements.

In addition, the Board has entered into joint ventures, whereby it has taken an equity position in various generation facilities. The operations and sale of energy generated from the Board's relationship with each of the facilities is subject to certain risks. Operations are contingent on various factors, such as regulation, licensing agreements, river flow levels and weather patterns.

The Board is subject to various forms of regulation under federal, state and local laws and is subject to various Federal Energy Regulatory Commission (FERC) regulations. Laws and regulations are subject to change and may have a direct impact on the operations of the Board.

Eliminations

Amounts receivable and payable between the Electric and Water Systems and related interest earnings and expenses are eliminated in the Total Systems columns of the financial statements (see Note 13).

Method of Accounting

The Board maintains its accounting records in accordance with accounting principles generally accepted in the United States of America. The Board applies accounting and reporting standards of the GASB. The financial statements use a flow of economic resources measurement focus to determine financial position and the change in financial position. The accounting principles used are similar to those applicable to businesses in the private sector and are maintained on the accrual basis of accounting. Revenues are recognized when earned, and expenses are recognized when incurred.

Effective January 1, 2018, the Board adopted GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions, which establishes new accounting and financial reporting requirements for Other Post Employment Benefit Plans (OPEB). The statement provides guidance for accounting, including net OPEB liabilities, and the definition of balances to be included in deferred inflows and deferred outflows of resources. The implementation of Statement No. 75 resulted in a restatement of the 2017 financial statements.

	Electric System		
	As Originally Reported	As Restated	Effect of Change
Statement of Net Position			
Prepaids	$ 6,218,429	$ 1,193,775	$ (5,024,654)
Other assets	33,497,085	35,472,841	1,975,756
Deferred outflows of resources	33,411,044	46,745,647	13,334,603
Net OPEB liability	-	(20,025,581)	(20,025,581)
Deferred inflows of resources	(7,855,797)	(8,590,919)	(735,122)
Unrestricted net position	(204,889,287)	(194,414,289)	10,474,998
	$ (139,618,526)	$ (139,618,526)	$ -
Statement of Revenues, Expenses and Changes in Net Position			
Change in net position	$ 19,294,024	$ 19,593,084	$ 299,060
Beginning net position	387,320,618	376,546,560	(10,774,058)
Ending net position	$ 406,614,642	$ 396,139,644	$ (10,474,998)

	Water System		
	As Originally Reported	As Restated	Effect of Change
Statement of Net Position			
Prepaids	$ 1,258,802	$ 155,829	$ (1,102,973)
Other assets	5,443,639	5,877,342	433,703
Deferred outflows of resources	6,869,784	9,796,892	2,927,108
Net OPEB liability	-	(4,395,859)	(4,395,859)
Deferred inflows of resources	(1,715,540)	(1,876,909)	(161,369)
Unrestricted net position	(30,528,619)	(28,229,229)	2,299,390
	$ (18,671,934)	$ (18,671,934)	$ -
Statement of Revenues, Expenses and			
Change in net position	$ 12,326,824	$ 12,392,471	$ 65,647
Beginning net position	133,271,702	130,906,665	(2,365,037)
Ending net position	$ 145,598,526	$ 143,299,136	$ (2,299,390)

Effective January 1, 2018, the Board adopted GASB Statement No. 85, Omnibus 2017, and GASB Statement No. 86, Certain Debt Extinguishment Issues. The accounting and reporting standards established by these statements did not have any impact during the year of implementation.

Effective January 1, 2017, the Board adopted GASB Statement No. 74, *Financial Reporting for Postemployment Benefit Plans Other than Pension Plans*, GASB Statement No. 80, *Blending Requirements for Certain Component Units*, GASB Statement No. 81, *Irrevocable Split-Interest Agreements*, and GASB Statement No. 82, *Pension Issues-Amendment of GASB 67, 68 & 73*. The accounting and reporting standards established by these statements did not have any impact during the year of implementation.

Use of Estimates
The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions affecting the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

(Note 1 – Summary of significant accounting policies, continued)

Reclassifications
Certain reclassifications have been made to the prior year financial statements to conform to the current year presentation. Such reclassifications have no effect on previous net revenue or net position.

Utility Plant in Service and Depreciation
Utility plant is stated at original cost. Costs include labor, materials and related indirect costs, such as engineering, transportation and allowance for funds used during construction (i.e. interest). Additions, renewals, and betterments with a minimum cost of $5,000 or greater per item are capitalized. Repairs and minor replacements are recorded as operating expenses. Depreciation is computed using straight-line group rates. When property is retired, the property cost and any removal costs are charged to accumulated depreciation. The estimated useful lives of assets are those used commonly in the utility industry or they are based on the Board's experience with similar assets.

Asset Class	Estimated Depreciable Lives in Years	
	Electric System	Water System
Land	n/a	n/a
Intangible assets	n/a	n/a
Distribution plant	20-50	-
Hydraulic production	15-50	-
Steam production	15-50	-
Other production	15-50	-
Telecommunications	10	-
Transmission plant	25-50	-
General plant	3-50	3-50
Pumping plant	-	15-50
Supply plant	-	20-50
Treatment plant	-	15-50
Transmission & distribution plant	-	15-50

Cash Equivalents
For purposes of these statements, cash equivalents are defined as short-term, highly liquid investments both readily convertible to known amounts of cash and so near maturity they present insignificant risk of changes in value because of changes in interest rates. Generally, only investments with original maturities of three months or less meet this definition. The Board considers money market accounts and government investment pool holdings to be cash equivalents.

Fair Value of Financial Instruments
The carrying amounts of current assets, including unrestricted, designated and restricted cash and investments, and current liabilities approximate fair value due to the short-term maturity of those instruments. The fair value of the Board's investments and debt are estimated based on the quoted market prices for the same or similar issues.

Restricted Assets
Cash and investments restricted by provisions of bond resolutions and agreements with other parties are identified as restricted assets. When the restricted assets are expendable within the terms of the agreements, it is the Board's policy to spend restricted resources first, then unrestricted resources as needed.

Materials and Supplies
Materials and supplies provide for additions and repairs to utility plant and are stated at weighted average cost.

Preliminary Investigations
At December 31, 2018, the Electric System had $32.8 million ($32.5 million at December 31, 2017) in deferred costs for the preliminary investigation of projects it believes will be viable in the future. Most of the balance was for preconstruction relicensing costs of the Carmen-Smith Project.

At December 31, 2018, the Water System had $1.3 million ($1.3 million at December 31, 2017) in deferred costs for preconstruction activity related to the Willamette River water treatment plant.

(Note 1 – Summary of significant accounting policies, continued)

Regulatory Assets
The Board has other assets to be charged to future periods matching the reporting periods when the expenses are included for rate-making purposes.

Regulatory Assets

- **Conservation Assets**
  Conservation assets for the Electric System represent installations of energy saving measures at customer properties. The conservation asset balance is reduced as costs are recovered, which for the most part represent debt service payments included in rates for related borrowing.

- **Unamortized Bond Issue Costs**
  Unamortized bond issue costs represent the remaining expense related to various debt issuances. The asset is amortized over the duration of the related debt and recognition of these costs is included in the rate making process.

- **Pension debits**
  Pension debits represent a portion of the change in net pension liability, as defined under GASB Statement No. 68. Regulatory accounting is used to recognize pension expense in accordance with the required employer contribution rates set by the Oregon Public Employees Retirement System.

- **Other Post-employment Benefits (OPEB) debits**
  OPEB debits represent a portion of the change in net OPEB liability, as defined under GASB Statement No. 75. Regulatory accounting is used to recognize components of OPEB expense in accordance with employer contributions made by the Board.

Debt Refundings
For current and advance refundings resulting in defeasance of debt, the difference between the reacquisition price and the net carrying amount of the old debt (gain or loss) is deferred and amortized as a component of interest expense over the remaining life of the old debt or the new debt, whichever is shorter. These amounts are reported as a deferred outflow of resources on the statement of net position.

Net Position
Net position consists of:

- **Net investment in capital assets**
  Net investment in capital assets is capital assets, net of accumulated depreciation and outstanding balances of any bonds and other borrowings attributable to the acquisition, construction, or improvement of those assets.

- **Restricted**
  Restricted components of net position have constraints placed on their use. Constraints include those imposed by creditors (such as through debt covenants), contributors, or laws or regulation of other governments or constraints imposed by law through constitutional provisions or through enabling legislation.

- **Unrestricted**
  The unrestricted component of net position includes remaining amounts neither "restricted" nor "net investment in capital assets."

Net position was as follows:

	2018		2017	
	Electric System	Water System	Electric System	Water System
Net investment in capital assets	$ 206,740,056	$ 119,474,131	$ 195,358,608	$ 108,379,789
Restricted for:				
Customer care program	916,139	-	973,914	-
Harvest Wind escrow	2,020,694	-	2,043,333	-
System development charges	-	6,100,233	-	5,294,378
Debt service	3,185,208	1,418,835	3,349,500	1,395,740
Wetland treatment	-	20,000	-	-
	6,122,041	7,539,068	6,366,747	6,690,118
Unrestricted	173,263,685	25,663,422	194,414,289	28,229,229
	$ 386,125,782	$ 152,676,621	$ 396,139,644	$ 143,299,136

Operating Revenue and Expense
Operating revenues are recorded on the basis of service delivered while operating expenses include the cost of sales and services, administrative expenses, and depreciation on capital assets. All revenues and expenses not meeting this definition are reported as non-operating revenues and expenses.

Revenues are derived primarily from the sale and transmission of electricity and from the sale of water. Revenue is recognized when power or water is delivered to and received by the customer. Approximately 11% of 2018 Electric System retail revenues were the result of sales to one industrial customer (10% in 2017). Estimated revenues are accrued for power and water delivered but not yet billed to customers.

At the discretion of management, a deposit may be obtained from the customer. Concentrations of credit risk with respect to receivables for residential customers are limited due to the large number of customers comprising the Board’s customer base. Credit losses have been within management’s expectations. Similar to its evaluation of residential, commercial and industrial customers’ credit reviews, the Board continually evaluates its wholesale power customers (sales for resale revenue) by reviewing credit ratings and financial credit worthiness of existing and new wholesale customers.

(Note 1 – Summary of significant accounting policies, continued)

Receivables are recorded net of the allowance for doubtful accounts. The allowance is determined by an examination of write off experience in the preceding five years, and consideration of other influences as appropriate. Total amounts written off for the year ended December 31, 2018 were $582,000 ($623,000 for 2017) for the Electric System and $72,000 ($55,000 for 2017) for the Water System.

Contributions in Lieu of Taxes
In accordance with ORS 225.270, *Use of surplus earnings*, the Electric System makes contributions in lieu of tax (CILT) payments to the City of Eugene at the rate of 6% of retail sales and a fixed component equal to $866,000 for 2018 ($848,000 for 2017). The fixed amount is subject to certain annual inflationary adjustments. The Board makes CILT payments to the City of Springfield at the rate of 3% of retail sales for a customer within the boundaries of the City of Springfield. Total contributions in lieu of taxes for the year ended December 31, 2018 were $13.6 million ($14.0 million for 2017).

Environmental Expenses
Fish and plant habitat enhancements, as well as pollution prevention improvements are expensed or capitalized depending on their future economic benefits. Most pollution remediation outlays, legal obligations to address existing pollution, do not qualify for capitalization and are accrued as liabilities and expenses according to the estimated remediation costs on a current cost basis (rather than present value of future costs).

Note 2 – Power Risk Management

The Board's Power Risk Management Guidelines set forth policies, limits and control systems governing power purchase and sale activities for the Electric System. The objectives of such policies are to maximize benefits to the customers from wholesale activities while minimizing the risk wholesale activities will adversely affect retail prices. The Board does not enter into contracts for speculative purposes. During periods when resources are in excess of retail load, the Board may sell excess capacity into the wholesale markets, and is exposed to commodity price risk. The Board enters into forward contracts intended to manage the price risk associated with power sales in the wholesale market.

Derivative Financial Instruments
In accordance with policy guidelines, the Board utilizes derivative instruments to minimize its exposure to commodity price risk. Hedging derivatives are reported on the statement of net position at fair value. The fair value of options and swaptions are determined using the Black formula. The fair value of financial swaps is determined by comparing the contract prices with the forecasted market prices.

All potential hedging derivatives were evaluated for effectiveness using the consistent critical terms method. A derivative instrument is effective under criteria for consistent critical terms when the significant terms of the hedging instrument and the hedgeable item are alike. The significant terms for hedging derivatives are the time period, quantity, price index, and point of delivery.

As of December 31, 2018, hedging derivatives with a fair value of $513,000 were reported as other assets and deferred inflows. Hedging derivatives with a fair value of $382,000 were reported as other liabilities and deferred outflows. Changes in fair value are reported as an increase in other assets or other liabilities and deferred inflows or outflows of resources until the time of settlement. When hedging derivatives settle, revenue or expense is recorded as either purchased power or wholesale sales.

Investment Derivatives

Hedging derivatives found through testing to be ineffective are classified as investment derivatives. At that time, the fair value, including any fair value changes previously deferred on the balance sheet, are recorded as investment revenue and a deferred inflow or outflow. As of December 31, 2018 and 2017, there were no investment derivatives or related investment revenue.

	Options and Swaps			
	Hedging Derivatives		Investment Derivatives	
	2018	2017	2018	2017
Notional value	$ 381,872	$ 498,960	-	-
Fair value - asset	$ 512,600	$ 40,560	-	-
Fair value - liability	$ 381,872	$ 498,960	-	-
Cash paid	$ 381,872	$ 498,960	-	-
Reference rates	Mid-C index	Mid-C index	-	-
Dates entered into	2/18 through 9/18	11/16 through 2/17	-	-
Dates of maturity	1/19 through 6/19	1/18 through 6/18	-	-

Credit Risk

The Board enters into forward purchase and sale contracts for electricity with other industry participants such as public and investor owned utilities, financial institutions, gas and oil producers and energy marketers. Through this participation, the utility is exposed to credit risk related to the possibility of non-performance by its counterparties. To limit the risk of counterparty default or non-performance, the Board uses an evaluation process assigning an internal measure of credit worthiness to the Board's counterparties and sets limits to the dollar value of business transacted with counterparties. On a case-by-case basis, the Board may require letters of credit, cash collateral, pre-payment or other forms of credit support to ensure counterparty performance. Other assurances may include accelerated invoicing or pre-payment. In addition, the Board generally establishes netting arrangements with counterparties.

As of December 31, 2018, all derivative instrument assets were with a single counterparty and the aggregate fair value was $513,000. This represents the maximum loss that would be recognized if the counterparty to the derivative instrument assets failed to perform as contracted. The counterparty credit rating is A+. This maximum exposure is reduced by $45,000 of liabilities included in a netting arrangement.

Termination Risk

Hedging derivative contracts may be terminated by mutual agreement of the Board and the counterparty, or upon the occurrence of a termination event. Termination events include non-payment, non-delivery, deterioration of creditworthiness, or other material adverse changes. During the years 2018 and 2017, there were no terminations.

Note 3 – Utility plant

The major classifications of utility plant in service are as follows:

Electric Utility Plant

	Balance at December 31, 2017	Increases	Decreases	Balance at December 31, 2018
Plant in service not subject to depreciation				
Land	$ 8,643,245	$ 326,854	$ (100)	$ 8,969,999
Intangible assets	231,716	-	-	231,716
Plant in service subject to depreciation				
Steam production	10,363,488	-	-	10,363,488
Hydro production	158,157,810	5,781,416	(1,360,056)	162,579,170
Wind production	11,789,767	-	-	11,789,767
Transmission	84,456,973	582,494	(253,801)	84,785,666
Distribution	297,428,233	20,710,570	(4,330,547)	313,808,256
Telecommunications	19,008,899	443,188	-	19,452,087
General plant	155,295,511	5,700,095	(2,968,085)	158,027,521
Completed construction, not yet classified	15,050,755	16,979,283	(15,050,754)	16,979,284
Total utility plant in service	760,426,397	50,523,900	(23,963,343)	786,986,954
Accumulated depreciation	(422,004,832)	(22,358,397)	7,378,886	(436,984,343)
Plant not subject to depreciation:				
Property held for future use	943,148	9,364	(170,000)	782,512
Construction work in progress	14,512,880	30,586,324	(28,126,808)	16,972,396
Net utility plant	$ 353,877,593	$ 58,761,191	$ (44,881,265)	$ 367,757,519

	Balance at December 31, 2016	Increases	Decreases	Balance at December 31, 2017
Plant in service not subject to depreciation				
Land	$ 8,643,245	$ -	$ -	$ 8,643,245
Intangible assets	212,124	19,592	-	231,716
Plant in service subject to depreciation				
Steam production	10,283,972	79,516	-	10,363,488
Hydro production	156,443,694	3,682,116	(1,968,000)	158,157,810
Wind production	11,789,767	-	-	11,789,767
Transmission	84,331,514	294,982	(169,523)	84,456,973
Distribution	282,882,584	17,883,685	(3,338,036)	297,428,233
Telecommunications	18,744,679	264,220	-	19,008,899
General plant	154,754,495	1,548,440	(1,007,424)	155,295,511
Completed construction, not yet classified	13,291,327	15,050,754	(13,291,326)	15,050,755
Total utility plant in service	741,377,401	38,823,305	(19,774,309)	760,426,397
Accumulated depreciation	(403,327,971)	(23,442,486)	4,765,625	(422,004,832)
Plant not subject to depreciation:				
Property held for future use	827,449	115,699	-	943,148
Construction work in progress	11,489,223	37,712,104	(34,688,447)	14,512,880
Net utility plant	$ 350,366,102	$ 53,208,622	$ (49,697,131)	$ 353,877,593

Water Utility Plant

	Balance at December 31, 2017	Increases	Decreases	Balance at December 31, 2018
Plant in service not subject to depreciation				
Land	$ 1,435,733	$ -	$ (177,000)	$ 1,258,733
Intangible assets	58,188	-	-	58,188
Plant in service subject to depreciation				
Source of supply	24,411,213	-	-	24,411,213
Pumping	12,382,998	21,019	-	12,404,017
Water treatment	35,324,695	418,280	-	35,742,975
Transmission & distribution	163,569,125	8,097,346	-	171,666,471
General plant	36,758,474	1,716,228	(626,927)	37,847,775
Completed construction, not yet classified	2,720,942	6,418,961	(2,720,942)	6,418,961
Total utility plant in service	276,661,368	16,671,834	(3,524,869)	289,808,333
Accumulated depreciation	(117,297,391)	(6,514,264)	665,534	(123,146,121)
Plant not subject to depreciation:				
Property held for future use	2,396,812	-	-	2,396,812
Construction work in progress	3,663,042	13,348,202	(10,459,554)	6,551,690
Net utility plant	$ 165,423,831	$ 23,505,772	$ (13,318,889)	$ 175,610,714

	Balance at December 31, 2016	Increases	Decreases	Balance at December 31, 2017
Plant in service not subject to depreciation				
Land	$ 1,435,733	$ -	$ -	$ 1,435,733
Intangible assets	55,950	2,238	-	58,188
Plant in service subject to depreciation				
Source of supply	24,378,556	32,657	-	24,411,213
Pumping	10,790,245	1,592,753	-	12,382,998
Water treatment	30,562,487	4,762,208	-	35,324,695
Transmission & distribution	154,027,775	9,966,103	(424,753)	163,569,125
General plant	36,360,364	437,798	(39,688)	36,758,474
Completed construction, not yet classified	9,990,697	2,720,942	(9,990,697)	2,720,942
Total utility plant in service	267,601,807	19,514,699	(10,455,138)	276,661,368
Accumulated depreciation	(111,343,682)	(6,469,481)	515,772	(117,297,391)
Plant not subject to depreciation:				
Property held for future use	1,184,434	1,212,378	-	2,396,812
Construction work in progress	3,063,265	18,348,947	(17,749,170)	3,663,042
Net utility plant	$ 160,505,824	$ 32,606,543	$ (27,688,536)	$ 165,423,831

(Note 3 – Utility plant, continued)

Capital Contributions
Contributions in Aid of Construction and System Development Charges are paid by developers and customers to cover the cost of new electric and water infrastructure (capital assets). When developers install and cover the costs of the infrastructure directly, those assets are referred to as Contributed Plant Assets.

Note 4 – Cash and investments

The Board maintains cash and investments in several fund accounts in accordance with bond resolutions and Board authorization. Descriptions of these fund account types are as follows:

Restricted Cash and Investments

- **Customer Deposits and Other**
  Used to account for 1) deposits collected from retail customers and held for future refund or application to customer account balances, and 2) donations to the Customer Care Program.

- **Harvest Wind Escrow Accounts**
  Funds include amounts held in escrow related to EWEB's investment in the Harvest Wind Project, consisting of funds deposited to escrow from the receipt of federal energy grant funds in 2010, and a deposit in lieu of letter of credit with regard to the Project's transmission contract with Klickitat PUD.

- **Construction Funds**
  Used to account for legally restricted cash and investments for the purpose of construction of capital projects. Funds include proceeds from the issuance of bonds and notes.

- **System Development Charge Reserves**
  Used to account for charges assessed and collected in conjunction with installation of new water services in the Water System and are restricted by State of Oregon Statutes to system enhancements and other related capital expenditures.

- **Debt Service Reserves**
  Deposits held for debt service coverage pursuant to bond indentures and/or in lieu of bond sureties.

- **Investments for Bond Principal and Interest**
  Used to account for cash and investments restricted by Bond Indentures of Trust for future payment of principal and interest on debt.

Detailed amounts for restricted cash and investments were as follows:

	2018		2017	
	Electric System	Water System	Electric System	Water System
Debt service reserves	$ 6,487,818	$ 2,343,973	$ 6,474,002	$ 2,338,981
Customer deposit and other	2,192,046	20,000	2,210,969	-
Harvest Wind escrow accounts	2,020,694	-	2,043,333	-
Construction funds	35,156,986	5,675,771	45,113,395	8,723,788
System development charge reserves	-	6,274,395	-	5,328,516
Investments for bond principal and interest	678	190	32,038	7,696
Total restricted cash and investments	$ 45,858,222	$ 14,314,329	$ 55,873,737	$ 16,398,981

Designated Cash and Investments

- **Rate Stabilization Fund**
  Used to account for cash and investments the Board has designated to reserve for one time expenditures, with any allocations made at Board discretion.

- **Power Reserve**
  Used to account for cash and investments the Board has designated to reserve for fluctuations in purchased power costs, load, generation levels, or margin requirements.

- **Capital Improvement Reserve**
  Used to account for cash and investments the Board has designated to reserve for capital improvements.

- **Alternate Water Supply Reserve**
  Used to account for cash and investments the Board has designated to reserve for costs incurred to create a secondary water source.

- **Operating Reserves**
  Used to account for cash and investments the Board has designated for payments of emergency operating costs and self-insured claims.

- **Pension and Medical Reserve**
  Used to account for cash and investments the Board has designated to reserve for pension and post-retirement medical costs.

(Note 4 – Cash and investments, continued)

Detailed amounts for designated cash and investments were as follows:

	2018		2017	
	Electric System	Water System	Electric System	Water System
Rate stabilization fund	$ 37,048,759	$ 1,307,263	$ 31,298,759	$ 1,307,263
Power reserve	17,000,000	-	17,000,000	-
Capital improvement reserve	25,692,598	10,283,765	22,414,827	7,889,164
Second source fund	-	6,377,023	-	6,308,060
Operating reserve	5,849,928	1,592,556	5,824,249	1,576,036
Pension and medical reserve	-	-	13,849,929	4,389,312
Total designated cash and investments	$ 85,591,285	$ 19,560,607	$ 90,387,764	$ 21,469,835

Deposits with financial institutions are comprised of bank demand deposits, certificates of deposit, and money market accounts. The total bank balances, as recorded in bank records at December 31, 2018, were $26.8 million. Of the bank balances, $4.0 million were covered by federal depository insurance and $22.8 million were collateralized with securities.

Custodial credit risk for deposits is in the event of failure of a depository financial institution a depositor will not be able to recover deposits or will not be able to recover collateral securities in possession of an outside party. Deposits not covered by depository insurance are exposed to custodial credit risk when collateral for deposits is held by the pledging institution or its trust department or agency, but not in the name of the depositor. Within the Public Funds Collateralization Program (PFCP) in Oregon, securities pledged by financial institutions are required to be held in the name of the pool, and, therefore, cannot be in the Board’s name. However, provided an entity is recognized by the PFCP administrator as an entity covered by the pool, balances in excess of FDIC are covered by the collateral of the pool.

The Board’s investments during the year, which included obligations of the U.S. Government, are authorized by State of Oregon Statutes and bond resolution and by the Board’s investment policy. Authorized investments include the Oregon Local Government Investment Pool (LGIP), U.S. Treasury securities, U.S. Government Agency securities, public funds money market accounts, corporate commercial paper and bonds, and other investments enumerated in and authorized by ORS 294.035, *Investments of surplus funds of political subdivisions*.

The LGIP is included in the Oregon Short Term Fund (OSTF), which was established by the State Treasurer. The OSTF is not subject to SEC regulation. The OSTF is subject to requirements established in Oregon Revised Statutes, investment policies adopted by the Oregon Investment Council, and portfolio guidelines established by the OSTF Board. The Governor appoints the members of the Oregon Investment Council and OSTF Board. The fair value of the Board's position in the pool is the same as the value of the pool shares. Financial statements for the OSTF may be obtained from the Oregon State Treasurer's website.

As of December 31, 2018, the Board held the following investments (Electric and Water Systems combined):

Investment Type	Credit Rating	Carrying Value	Weighted Average Maturity (Years)	% of Portfolio
Local Government Investment Pool	Unrated	$ 48,991,021	0.00	24.2%
U.S. Agency Securities				
FHLB		34,739,120		17.2%
FNMA		13,022,762		6.4%
FHLMC		23,091,909		11.4%
FFCB		17,705,776		8.8%
FAMCA		7,139,032		3.5%
Other Agency		2,052,600		1.0%
Subtotal U.S. Agency	AA	97,751,199	1.03	48.3%
U.S. Treasury Securities	AAA	47,391,498	0.92	23.5%
Municipal Bonds	AA	389,045	0.49	0.2%
Corporate Bonds	AA	7,786,046	0.99	3.8%
Subtotal all securities		153,317,788	1.00	75.8%
Total		$ 202,308,809	0.76	100.0%

(Note 4 – Cash and investments, continued)

As of December 31, 2017, the Board held the following investments (Electric and Water Systems combined):

Investment Type	Credit Rating	Carrying Value	Weighted Average Maturity (Years)	% of Portfolio
Local Government Investment Pool	Unrated	$ 47,291,319	0.00	24.3%
U.S. Agency Securities				
FHLB		21,907,536		11.3%
FNMA		15,293,431		7.9%
FHLMC		12,341,794		6.3%
FFCB		21,423,211		11.0%
FAMCA		7,148,288		3.7%
Other Agency		8,937,568		4.6%
Subtotal U.S. Agency	AA	87,051,828	0.90	44.8%
U.S. Treasury Securities	AAA	48,021,725	1.22	24.7%
Municipal Bonds	AA	525,289	1.47	0.3%
Corporate Bonds	AA	11,659,193	0.79	6.0%
Subtotal all securities		147,258,035	0.55	75.7%
Total		$ 194,549,354	0.42	100.0%

Concentration risk is when investments are concentrated in one issuer. This concentration presents a heightened risk of potential loss. This does not apply for pooled investments or investments directly in the U.S. government. ORS 294.035 limits investment in any single issuer of bonds to 5% of a portfolio; there is not a limit for investment in U.S. Agencies. Many government-sponsored agency securities are not backed by the full faith and credit of the U.S. government, including those held by the Board, although market participants widely believe the government would provide financial support to an agency if the need arose. The Board does not have a policy for investment concentration in those agencies. Regarding the LGIP, with the exception of pass-through funds, the maximum amount of pooled investments to be placed in the pool is limited by ORS 294.810, *Local governments authorized to place limited funds in pool*, to $49.5 million as of December 31, 2018.

The "weighted average maturity in years" calculation assumes all investments are held until maturity.

As a means of limiting its exposure to fair value losses resulting from changes in interest rates, the Board's investment policy limits at least 25% of its investment portfolio to maturities of less than 180 days. Investment maturities are limited as follows:

Maturity	Minimum Investment
Less than 180 days	25%
Less than 1 year	40%
Less than 3 years	100%

Custodial credit risk for investments is in the event of the failure of the counterparty, the Board will not be able to recover the value of its investments or collateral securities in the possession of an outside party because they are neither insured nor registered and they are held by the counterparty or the counterparty's trust department or agent, but not in the investor's name. All of the aforementioned investments, and the investments in the LGIP, which are not evidenced by securities, are held in the Board's name by a third-party custodian.

The Board's policy, which adheres to Oregon statutes, is to limit its investments to the top two ratings issued by nationally recognized credit rating organizations. As a general practice, and in a further effort to minimize credit risk, the Board invests primarily in U.S. agency investments and in the LGIP.

(Note 4 – Cash and investments, continued)

Cash and investments consisted of the following:

	Restricted Cash and Investments	Cash and Cash Equivalents and Short-term Investments	Designated Funds	Total Carrying Amount 2018	Total Carrying Amount 2017
ELECTRIC SYSTEM					
Cash on hand	$ -	$ 13,560	$ -	$ 13,560	$ 13,560
Cash in bank	2,938,614	17,544,826	-	20,483,440	32,735,729
Investments in the State of Oregon local government investment pool	9,036,323	8,607,790	21,228,907	38,873,020	38,368,406
Investments - U.S. Agencies, Treasuries and Corp.	33,883,285	22,052,637	64,362,378	120,298,300	119,158,607
Total electric system	45,858,222	48,218,813	85,591,285	179,668,320	190,276,302
WATER SYSTEM					
Cash in bank	711	1,481,554	-	1,482,265	11,457,107
Investments in the State of Oregon local government investment pool	2,968,918	2,297,535	4,851,549	10,118,002	8,922,913
Investments - U.S. Agencies, Treasuries and Corp.	11,344,700	6,965,729	14,709,058	33,019,487	28,099,428
Total water system	14,314,329	10,744,818	19,560,607	44,619,754	48,479,448
	$ 60,172,551	$ 58,963,631	$ 105,151,892	$ 224,288,074	$ 238,755,750

Note 5 – Fair Value Measurement

The Board categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The Board determines disclosures related to these investments only need to be disaggregated by major type because investing is not a core part of the Board's mission. The Board has the following recurring fair value measurements:

As of December 31, 2018:

		Fair Value Measurements Using		
	2018	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Investments by fair value level				
Debt securities				
U.S. treasury securities	$ 47,391,498	$ 42,430,928	$ 4,960,570	$ -
U.S. agencies	97,751,199	-	97,751,199	-
Corporate bonds	7,786,046	-	7,786,046	-
Municipal bonds	389,045	-	389,045	-
Total debt securities	$ 153,317,788	$ 42,430,928	$ 110,886,860	$ -
Derivative instruments				
Effective hedge-asset	$ 512,600	$ -	$ 512,600	$ -
Effective hedge-liability	(381,872)	-	(381,872)	-
Total derivatives	$ 130,728	$ -	$ 130,728	$ -

(Note 5 – Fair Value Measurement, continued)

As of December 31, 2017:

		Fair Value Measurements Using		
	2017	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Investments by fair value level				
Debt securities				
U.S. treasury securities	$ 48,021,725	$ 48,021,725	$ -	$ -
U.S. agencies	87,051,828	-	87,051,828	-
Corporate bonds	11,659,193	-	11,659,193	-
Municipal bonds	525,289	-	525,289	-
Total debt securities	$ 147,258,035	$ 48,021,725	$ 99,236,310	$ -
Derivative instruments				
Effective hedge-asset	$ 40,560	$ -	$ 40,560	$ -
Effective hedge-liability	(498,960)	-	(498,960)	-
Total derivatives	$ (458,400)	$ -	$ (458,400)	$ -

Debt securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities.

Debt securities classified in Level 2 of the fair value hierarchy are valued using various market and industry inputs, including institutional bond quotes.

Derivative instruments classified in Level 2 of the fair value hierarchy are valued using an approach considering contract prices with forecast market prices.

Note 6 – Receivables

Significant receivables were as follows:

	2018		2017	
	Electric System	Water System	Electric System	Water System
Current receivables				
Accounts receivable	$ 31,426,390	$ 3,701,181	$ 35,388,776	$ 3,811,717
Allowance for doubtful accounts	(443,356)	(20,868)	(501,883)	(27,787)
Net accounts receivable	30,983,034	3,680,313	34,886,893	3,783,930
Loans to customers	1,788,148	66,067	1,510,122	110,652
Receivable from FEMA	-	-	3,483,162	-
Interest receivable	454,796	129,213	475,293	97,405
Miscellaneous receivables	237,040	-	263,329	-
Receivables, less allowances	$ 33,463,018	$ 3,875,593	$ 40,618,799	$ 3,991,987
Long-term receivables				
Incentive loans to customers	$ 3,861,835	$ 103,152	$ 3,426,356	$ 121,595
Long-term receivables, conservation and other	$ 3,861,835	$ 103,152	$ 3,426,356	$ 121,595

Note 7 – Payables

Current payables were as follows:

	2018		2017	
	Electric System	Water System	Electric System	Water System
Accounts payable	$ 6,220,668	$ 900,660	$ 4,441,497	$ 1,013,722
Accrued purchased power	13,445,457	-	12,923,125	-
Construction payables	1,815,920	518,865	284,249	25,024
Contributions in lieu of taxes	1,283,829	-	1,389,638	-
Customer deposits	1,275,907	-	1,237,055	-
Equipment purchases	850,307	591,854	518,027	-
Miscellaneous payables	171,862	62,445	277,103	73,723
Preliminary investigations payables	-	-	606	-
Total payables	$ 25,063,950	$ 2,073,824	$ 21,071,300	$ 1,112,469

Note 8 – Other assets and other liabilities

Other assets and other liabilities were as follows:

	2018		2017	
	Electric System	Water System	Electric System	Water System
Other assets				
Non-utility property	$ 231,685	$ 181,639	$ 7,830,500	$ 153,888
Research & demonstration projects	-	-	140,989	-
Derivatives at fair value	512,600	-	40,560	-
Joint-use equipment	-	-	4,110	1,732
Prepaid transmission expense - Harvest Wind	964,411	-	1,061,663	-
Regulatory assets				
Pension debits	26,729,643	5,867,481	21,734,133	4,770,907
OPEB debits	2,941,413	645,676	1,975,756	433,703
Conservation assets	1,148,679	-	1,220,854	-
Unamortized bond issue costs	1,310,365	476,771	1,464,276	517,112
Other assets	$ 33,838,796	$ 7,171,567	$ 35,472,841	$ 5,877,342
Other liabilities				
Derivatives at fair value	$ 381,872	$ -	$ 498,960	$ -
Environmental clean up	364,639	-	339,800	-
Sick leave - upon retirement	784,515	172,212	794,343	174,368
System development charge	-	174,162	-	34,138
Other liabilities	$ 1,531,026	$ 346,374	$ 1,633,103	$ 208,506

Note 9 – Deferred outflows of resources and deferred inflows of resources

Deferred outflows of resources and deferred inflows of resources were as follows:

	2018		2017	
	Electric System	Water System	Electric System	Water System
Deferred outflows of resources				
Accumulated decrease in fair value of hedging derivatives	$ 381,872	$ -	$ (796,240)	$ -
Accumulated increase in fair value of investment derivatives	-	-	1,295,200	-
Unamortized losses on bond refunding	8,338,851	1,568,139	9,623,246	1,757,600
Pension-Net difference between projected and actual earnings on investments	-	-	714,364	156,812
Pension-Differences between expected and actual experience	2,505,055	549,890	3,353,312	736,093
Pension-Changes of assumptions	17,121,450	3,758,366	12,639,446	2,774,512
Pension-Differences between Board contributions and proportionate share of contributions	2,489,665	546,513	2,554,210	560,680
Pension contributions subsequent to measurement date	3,961,535	869,605	4,027,506	884,087
OPEB-Net difference between projected and actual earnings on investments	879,033	192,958	-	-
OPEB-Differences between expected and actual experience	2,387,471	524,079	3,231,101	709,266
OPEB-Changes of assumptions	7,465,511	1,638,771	10,103,502	2,217,842
Deferred outflows of resources	$ 45,530,443	$ 9,648,321	$ 46,745,647	$ 9,796,892
Deferred inflows of resources				
Accumulated increase in fair value of hedging derivatives	$ 512,600	$ -	$ 40,560	$ -
Pension-Net difference between projected and actual earnings on investments	3,270,088	717,824	-	-
Pension-Changes in proportion	8,028,284	1,762,306	7,815,237	1,715,540
OPEB-Net difference between projected and actual earnings on investments	-	-	735,122	161,369
Deferred inflows of resources	$ 11,810,972	$ 2,480,130	$ 8,590,919	$ 1,876,909

Note 10 – Investment in WGA

The Board is a party to an Intergovernmental Agency, which is governed equally by the Board and Clatskanie PUD. The Board was obligated to make equity investments in the Western Generation Agency (the Agency) as partial funding for the construction of the Wauna Cogeneration Project (the Project). As of December 31, 1996, the Board had made all required equity investments, totaling $15.1 million, to the Agency. The Project agreements allow the Board to be repaid its equity investment plus a cumulative preferred dividend at 7.875% should the operating revenues of the Project be sufficient to cover operating costs, debt service, plus other reserve requirements. In October 2006, the Agency accomplished a refunding of its debt, which allowed the Board to be repaid a significant portion of its remaining equity investment ($10.4 million was repaid in 2006). The balance of the original investment at December 31, 2006 was $2.2 million. Repayment of the equity investment was restricted from payment until the Agency's Series C 2006 debt was paid off, which was accomplished during 2016, however, it is further contingent upon successful operation of the Project. During 2018, the Board received $1.6 million, full repayment from the Agency of the remaining original equity contribution and the preferred dividend which was in arrears ($2.9 million in 2017). At December 31, 2018, the Board had no receivable for preferred dividends on a remaining original equity investment ($55,000 preferred dividends receivable on the remaining original equity investment of $1.6 million at December 31, 2017). Revenue from preferred dividends is included with investment earnings.

The investment in Western Generation Agency consists of the balance of the initial equity contribution, 50% of the Agency's net income and losses, and distributions from excess cash. Under bond agreements, distributions to the Board are limited to $400,000 per year until the outstanding balance of the Board's original investment is paid in full. During 2018, $629,000 in distributions were received ($254,000 in 2017). The balance of the investment as of December 31, 2018 was $3.0 million including estimated income of $1.5 million ($3.7 million at December 31, in 2017 including estimated income of $1.1 million). Income is reported with investment earnings.

The Board is committed, through a power purchase agreement, to purchase the output from the Project through April 2021. The Board suspended its agreement with the Agency in favor of a separate purchase power agreement between the Agency and BPA, which was in effect through April 2016, after which the Board and Clatskanie PUD each purchase 50% of the output. Financial information for the Project is included in the financial statements of the Agency and may be obtained from the Agency's trustee, US Bank.

Note 11 – Investment in Harvest Wind

The Board is a party to a joint ownership agreement, whereby the Board made an equity investment in the Harvest Wind project, a 98.9 megawatt wind generating facility located in Klickitat County, Washington. The Board's ownership share of Harvest Wind is 20%. Other owners are Peninsula Light Co., 20%, Cowlitz PUD, 30%, and Lakeview Light & Power, 30%. Commercial operations began on December 15, 2009.

During 2009, the joint owners of Harvest Wind elected to classify the project as an association taxable as a corporation. At the time of the election, all project assets were treated as contributed to the corporation. The corporation received a 4% share, and the joint owners received shares in proportion to their ownership. Owners share in power output, income and expenses according to their ownership shares.

The investment in Harvest Wind consists of the Board's share of the costs to develop the project, 20% of the Project's net income and losses, and any distributions. At December 31, 2018, the balance of the Board's investment in Harvest Wind was $21.1 million ($22.3 million at December 31, 2017) including estimated income of $504,000 ($17,000 in 2017) and distributions of $1.7 million ($1.4 million in 2017).

The Board is committed, through an energy purchase agreement, to purchase its share of the output from the Project, and pay its share of project expenses through year 2029. Additionally, the Board is committed, through a transmission service agreement and a transmission payment agreement, to subsidize the initial construction of transmission lines, deposit funds to ensure contract performance, and purchase transmission from the owner of the transmission lines through the year 2029.

Under the terms of a payment agreement, the Board deposited $1,340,000 from 2010 treasury grant proceeds in an escrow account to ensure payment of its share of contingent liabilities of the corporation. If no such contingencies occur, the funds will be released from escrow.

Under the terms of a transmission agreement, the Board has $645,000 as of December 31, 2018 ($677,000 at December 31, 2017) on deposit in an escrow account to ensure the payment of monthly transmission interconnection expenses.

Financial information for the project is included in the financial statements of the project and may be obtained from the Board.

Note 12 – Long-term debt

On June 8, 2017, the Electric System placed $36.5 million in escrow to defease, in substance, its 2001A term and capital appreciation bonds which will mature naturally through year 2027. Paying those debt service costs up-front resulted in an accounting loss of $15.7 million; however, a present value savings of approximately $2.8 million was achieved.

On September 21, 2017, the Electric System issued $33.8 million in revenue bonds to finance relicensing, design and construction of the Carmen-Smith Hydroelectric Project and other projects in the Electric capital improvement plan.

The Board defeased bonds described above by placing proceeds and other sources of cash in an irrevocable trust to provide for all future debt service payments on the old bonds. Accordingly, the trust account assets and the liability for the defeased bonds are not included in the Board's financial statements. At December 31, 2018, $65,693,000 of Electric System bonds are considered defeased ($149,193,000 of Electric System bonds and $12,460,000 of Water System bonds at December 31, 2017).

The resolutions authorizing the issuance of revenue bonds contain various covenants, sinking fund requirements and obligations with which the Board must comply. The principal and interest requirements are reflected in the supplementary schedule "Long-Term Bonded Debt and Interest Payment Requirements." To comply with sinking fund deposit requirements, the Board makes semi-annual deposits with the trustee, less accumulated interest earnings. The interest payments are made semi-annually on February 1 and August 1, and principal payments on August 1. At December 31, 2018 and 2017, no assets were pledged as security for the outstanding bonds of the Electric and Water Systems.

Bonds and notes payable were as follows:

	2018	2017
Electric Utility System Revenue and Refunding Bonds		
2011 Series A, 6-08-11 issue		
Serial bonds 1.90% - 2.85%, due 2017-2020	$ 4,810,000	$ 7,035,000
2011 Series B, 6-08-11 issue		
Serial bonds 1.00% - 4.35%, due 2013-2023	4,560,000	5,375,000
2012 Series, 8-1-12 issue		
Serial bonds 2.00% - 5.00%, due 2013-2032	14,960,000	15,390,000
Term bonds, 5.00%, due 2033-2038	10,165,000	10,165,000
Term bonds, 3.75%, due 2039-2042	8,475,000	8,475,000
2016 Series A, 9-7-16 issue		
Serial bonds 2.00% - 5.00%, due 2017-2036	82,840,000	84,445,000
Term bonds 4.00%, due 2037-2040	8,065,000	8,065,000
2016 Series B, 9-7-16 issue		
Serial bonds .835% - 1.840%, due 2017-2022	15,950,000	19,245,000
2017 Series, 9-21-17 issue		
Serial bonds 5.00%, due 2027-2043	24,450,000	24,450,000
Term bonds 5.00%, due 2047	9,345,000	9,345,000
	183,620,000	191,990,000
Add unamortized premium	25,658,824	27,943,892
Electric System bonds payable	209,278,824	219,933,892
Less current portion	8,445,000	8,370,000
Electric System bonds payable, net of current portion	200,833,824	211,563,892

(Note 12 – Long-term debt, continued)

	2018	2017
Water Utility System Revenue and Refunding Bonds		
Serial bonds, 2.00% - 4.25%, due 2014-2031	$ 7,245,000	$ 7,690,000
Term bonds, 4.50% - 5.00%, due 2032-2040	7,935,000	7,935,000
2016 Series, 5-19-16 issue		
Serial bonds, 2.00% - 5.00%, due 2017-2037	29,200,000	30,915,000
Term bonds 4.00%, due 2038-2045	6,860,000	6,860,000
	51,240,000	53,400,000
Add unamortized premium	5,058,194	5,503,285
Water System bonds payable	56,298,194	58,903,285
Less current portion	2,230,000	2,160,000
Water System bonds payable, net of current portion	54,068,194	56,743,285
Total System long-term debt, net of current portion	$ 254,902,018	$ 268,307,177

The schedule of maturities for principal and interest on bonded debt is as follows:

	Electric System		Water System	
	Principal	Interest	Principal	Interest
2019	$ 8,445,000	$ 7,927,893	$ 2,230,000	$ 2,220,788
2020	8,540,000	7,677,921	2,325,000	2,138,413
2021	6,745,000	7,432,356	2,415,000	2,050,113
2022	8,260,000	7,256,751	2,525,000	1,938,963
2023	9,095,000	7,015,067	1,850,000	1,821,375
2024 - 2028	40,225,000	29,050,695	10,565,000	7,843,900
2029 - 2033	45,740,000	18,711,057	10,615,000	5,361,450
2034 - 2038	25,170,000	10,718,715	11,265,000	3,119,175
2039 - 2043	22,055,000	4,852,326	5,760,000	948,600
2044 - 2047	9,345,000	1,196,500	1,690,000	102,000
	$ 183,620,000	$ 101,839,280	$ 51,240,000	$ 27,544,777

Long-term debt activity for the year ended December 31, 2018 was as follows:

	Outstanding January 1, 2018	Additions	Reductions	Outstanding December 31, 2018	Due Within One Year
Electric revenue bonds	$ 191,990,000	$ -	$ (8,370,000)	$ 183,620,000	$ 8,445,000
Water revenue bonds	53,400,000	-	(2,160,000)	51,240,000	2,230,000
Total bonded debt	$ 245,390,000	$ -	$ (10,530,000)	$ 234,860,000	$ 10,675,000

Long-term debt activity for the year ended December 31, 2017 was as follows:

	Outstanding January 1, 2017	Additions	Reductions	Outstanding December 31, 2017	Due Within One Year
Electric revenue bonds - current interest	$ 183,785,000	$ 33,795,000	$ (25,590,000)	$ 191,990,000	$ 8,370,000
Water revenue bonds	55,240,000	-	(1,840,000)	53,400,000	2,160,000
Total bonded debt	$ 243,092,556	$ 33,795,000	$ (31,497,556)	$ 245,390,000	$ 10,530,000

Note 13 – Intersystem items

1. Obligations

	2018		
	Electric System	Water System	Total Systems
Due from Water, (Due to) Electric			
Current			
Interest	$ 15,246	$ (15,246)	$ -
Roosevelt Operations Center	344,067	(344,067)	-
	359,313	(359,313)	-
Non-current			
Roosevelt Operations Center	7,133,833	(7,133,833)	-
Totals	$ 7,493,146	$ (7,493,146)	$ -

	2017		
	Electric System	Water System	Total Systems
Due from Water, (Due to) Electric			
Current			
Interest	$ 18,544	$ (18,544)	$ -
Roosevelt Operations Center	304,041	(304,041)	-
	322,585	(322,585)	-
Non-current			
Roosevelt Operations Center	8,791,647	(8,791,647)	-
Totals	$ 9,114,232	$ (9,114,232)	$ -

Amounts receivable and payable between the Electric and Water Systems and related interest earnings and expense are eliminated in the Total System columns of the financial statements.

Retirement Obligation

In 2001, the Electric System issued bonds to pay a portion of the Board's unfunded actuarial liability for the Oregon Public Employees Retirement System. The Water System was repaying the Electric System over the life of the debt service for its estimated share. In June 2017, the Electric System defeased in substance the related debt. Accordingly, the Water System paid $5.3 million to the Electric System to pay off the remaining share. The payment included $3.1 million for its estimated share of interest payments, which will be paid from trust through 2027. The interest payment made to the Electric System is included with the Electric System's interest earnings and the Water System's interest expense at December 31, 2017.

Roosevelt Operations Center

The Electric System financed the acquisition and construction of the Board's Roosevelt Operations Center consisting of land, buildings, equipment and personal property placed into service during November 2010. Both the Electric and Water Systems occupy the property. A payment schedule was established in November 2010 whereby the Water System will repay the Electric System for its estimated share of the fair value of the property and the associated financing costs incurred by the Electric System without gain to the Electric System. The Roosevelt Operations Center was recorded in equal amounts as Plant in Service and an obligation for the Water System, along with depreciation expense and a receivable for the Electric System.

Payments are revised for refinancing of underlying debt incurred by the Electric System. The obligation is also revised for capitalized improvements at the facility if they are financed by the Electric System. In June of 2017, the Water System made a lump-sum payment of $5.7 million to the Electric System. In July of 2018, the Water System made a lump sum payment of $1.3 million, which reduced the term of payments by four years. Monthly payments were kept the same after the lump sum payment made in 2018, approximately $44,000 as of December 31, 2018 and December 31, 2017 on a capitalized value of $17.6 million for the Water System.

Annual totals for payments (including interest) as of December 31, 2018 were as follows:

2019	523,173
2020	523,173
2021	523,173
2022	523,173
2023	523,173
2024 - 2028	2,615,863
2029 - 2033	2,615,863
2034 - 2036	1,363,598
	$ 9,211,189

2. Intersystem Transfer

The Electric System has received rental income in part for property occupied by the Electric and Water Systems. The Water System does not have a capitalized interest in certain rental property; however it has made payments to the Electric System for capital improvements and ongoing maintenance of the property. In recognition of those investments, the Electric System transferred approximately $532,000 to the Water System in 2018, which was a measurement of cumulative rental income in proportion to the Water System's outlays.

Note 14 – Special items

In 2017 the Board elected to join the State & Local Government Rate Pool (SLGRP). Previously the Board's status was as an independent employer participating in the Oregon Public Employees Retirement System (OPERS). As an independent employer, actuarial valuations to determine employer contribution rates used Board specific demographics. As a participant in the SLGRP, valuations to determine employer contribution rates use the demographics of pool participants. Based on OPERS actuarial calculations, $32.6 million of the Board's existing actuarial liability was assigned as the transition liability to move from independent to SLGRP status. This maintains future rate equity among other SLGRP participants. The Board recognized the expense as a special item in 2018 and used cash reserves to pay the full amount.

The Board also made a one-time contribution of $2 million to the OPEB trust in an effort to pay down its net OPEB liability. The contribution is significant to the plan and due to the infrequent nature, it is reported as a special item ($1,520,000 for the Electric System and $480,000 for the Water System).

Note 15 – Power supply resources

Bonneville Power Administration

- **Bonneville Power Administration Contracts**
  A contract was signed on December 4, 2008 providing power to EWEB from October 1, 2011 through September 30, 2028. The Board reselected a combination of both Block and Slice System power products from those offered by Bonneville Power Administration (BPA) in the previous contract which ended September 30, 2011. While Slice and Block are still the offered products, BPA implemented new policies on how it sells power and what it will charge to meet customer's future load growth. Under BPA's tiered rate methodology policy, BPA has allocated the power output and operational costs of the existing low-cost federal resources into a tier 1 pool. The tier 1 power was allocated to public power customers like EWEB based on each customer's 2010 actual weather-adjusted load. The allocation determined the maximum planned amount of tier 1 power.

  Each product provides attributes bringing different kinds of flexibility to the Board's power portfolio. The Slice product provides a percentage of BPA's resources rather than a guaranteed amount of power and in exchange the Board pays its Slice contract percentage share of BPA's costs. Slice output, in combination with the Block and other EWEB resources, may be more or less than what is needed to serve EWEB's hourly retail loads. In the spring months, available must-run water in the Columbia system is typically high due to the runoff from snow melting, and the increased power generation may require BPA to rely on spilling water as a tool to balance generation with demand. However, in order to maintain safe water conditions to protect fish, spills are limited. The risk associated with the Slice product is managing the water variability and available Slice storage to economically meet hourly load obligations and to optimally dispatch the value of the surplus portion of the Slice product.

The Slice product consists of a Slice share of BPA's Federal Base System generation. Under the contract, the Board's initial Slice percentage share is 1.81%, compared to the historical 2.40% in the previous Requirements contract. The amount of actual power received under the Slice product will vary with seasonal water year conditions, the performance of the Columbia Generating Station (CGS) nuclear plant and the performance and availability of all other Federal Base System resources. In years of heavy water flow and lack of overall storage in the Federal System, the Board may have rights to power in excess of their needs, and in low water years the Board would need to augment its share of Slice output with its own generation, market purchases, or storage releases from EWEB's share of Slice storage.

The second BPA product purchased is the Block, which provides a fixed hourly amount for the month, and varies by month. The value of the Block product is the certainty of a fixed volume of power shaped to monthly load requirement and the monthly predictability of prices for the known quantity of power.

The annual amount of power the Board is entitled to under this contract is based on the actual weather adjusted load during the period between October 1, 2009 and September 30, 2010, with some adjustments specified in BPA's tiered rate methodology, is approximately 250 aMW.

- **BPA Transmission Contract**
  In 2001, the Board signed the Network Integration Transmission Service contract with BPA to provide transmission for the Board's generation projects and BPA power to serve EWEB's load. The current contract term extends through September 30, 2028. EWEB has firm roll-over rights with this contract.

EWEB-Owned Resources

- **Carmen-Smith and Trailbridge Hydroelectric Project**
  EWEB owns and operates the Carmen-Smith Hydroelectric Project (Carmen-Smith Project) within the McKenzie River basin. The Carmen-Smith Project includes the Carmen Power House with two generating units with a nameplate capacity of 52 MW each. The Carmen-Smith Project also includes the Trail Bridge re-regulating facility, with an additional generating unit with a nameplate capacity of 10 MW.

  The federal operating license for the Carmen-Smith Project expired on November 30, 2008. The Board submitted an application to relicense the facility to the FERC in 2006, and supplemented the application with a comprehensive settlement agreement, signed by state and federal agencies, Native American tribes and non-governmental organizations, in 2008. A revised and restated Settlement Agreement was filed with the FERC in November 2016.

  FERC action on EWEB's license application as amended by the revised Settlement Agreement is pending. Since 2008, EWEB has received, and will continue to receive, an annual operating license from FERC until the new license is ultimately issued. EWEB expects that the new license will be issued in 2019.

(Note 15 – Power supply resources, continued)

- **International Paper Industrial Energy Center Cogeneration Project**
  The Board and International Paper Company jointly operate a cogeneration facility at the International Paper Springfield plant. The unit, which has a nameplate capacity of 25.4 MW (average output is approximately 20 aMW), is owned by the Board, with International Paper providing operation and fuel. Under terms of the current agreement (which expires in September 2019), the project costs and output for this unit are shared equally by the parties. The Board and International Paper are negotiating the terms of a revised/extended agreement to cover operations beyond September 2019.

- **Leaburg Walterville Hydroelectric Project**
  The Board owns and operates the Leaburg Walterville Hydroelectric Project (L-W Project) on the McKenzie River in Lane County, Oregon. The L-W Project is comprised of two run-of-river facilities located at different points on the McKenzie River. The Leaburg facility includes a

  diversion dam on the McKenzie River, a canal and two generating units with a combined nameplate capacity of 15.9 MW. The Walterville facility includes a canal diverting water from the McKenzie River and one generating unit with a nameplate capacity of 8 MW. In April 2000, FERC granted the Board a new hydroelectric license for the L-W Project. The license is for a term of 40 years.

- **Stone Creek Hydroelectric Project**
  The Stone Creek Project has one turbine with a peak capacity of 12 MW. The facility is on the Clackamas River approximately 45 miles southeast of Portland. The project is a run-of-the-river development located between two hydroelectric facilities that are owned and operated by Portland General Electric (PGE). The Stone Creek facility is operated and maintained for EWEB by PGE and is licensed through August 2039.

Jointly-Owned Resources

- **Foote Creek I Wind Project**
  The Board and PacifiCorp are the joint owners of the Foote Creek I Wind Project with the Board having a 21.21% ownership, which translates to 8.8 MW of the project capacity. The project is located along the Foote Creek Rim in Carbon County, Wyoming. EWEB has sold 26% or 2.3 MW of its share to BPA under terms of a 25 year power purchase agreement, pursuant to which BPA has committed to purchase 15.3 MW of the Project's total capacity. Net of sales to BPA, the Board receives approximately 2.5 aMW per year from the Foote Creek I Project.

- **Harvest Wind Project**
  The Board, Cowlitz PUD, Lakeview Light and Power, and Peninsula Light Company are the joint owners of the Harvest Wind Project, with the Board having a 20% ownership share. The project has a nameplate capacity of 98.9 MW and is located in Klickitat County, Washington. All project assets are held by a corporation formed by the owners. The Board and other owners have committed to purchase power from the corporation in proportion to their ownership shares through December 2029.

- **Western Generation Agency**
  The Board and Clatskanie People's Utility District (CPUD) equally govern the Western Generation Agency, which owns a 36 MW nameplate cogeneration project at the Georgia Pacific mill in Wauna, Oregon. The generation facility includes a steam turbine and a fluidized bed boiler. EWEB and CPUD each purchase 50% of the output. The power purchase agreement expires in April 2021.

Contract Resources

- **Stateline Wind Project**
  In 2002, the Board agreed to purchase 25 MW from Phase 1 of the Stateline Wind Project located in Walla Walla County, Washington and Umatilla County, Oregon. The project consists of 454 wind turbines with a total project nameplate capacity of 300 MW. The contract for this power expires on December 31, 2026.

- **Klondike III Wind Project**
  In 2006, the Board agreed to purchase 25 MW from Phase 3 of the Klondike Wind project located near the town of Wasco in Sherman County, Oregon. The project consists of 125 wind turbines with a total nameplate capacity of 224 MW. The contract for this power expires on October 31, 2027.

- **Seneca Sustainable Energy**
  In 2010, the Board entered into a Renewable Power Purchase Agreement with Seneca Sustainable Energy LLC to purchase the total output of the biomass fueled electric cogeneration facility located in Eugene, Oregon. Nameplate capacity is 19.8 MW. Expected average output is approximately 14 aMW. The contract for this power expires on April 5, 2026.

- **Priest Rapids and Wanapum Hydroelectric Projects**
  The Board purchases power from the Priest Rapids Project composed of the Priest Rapids Dam and the Wanapum Dam, two large hydroelectric developments on the Columbia River in Washington owned by Public Utility District No. 2 of Grant County, Washington (Grant County PUD). Under this contract, EWEB's share of purchased physical power from Grant County PUD is 0.14% of the project output or about 1.4 aMW per year. The contract for this power continues through March 31, 2052.

- **Smith Creek Hydroelectric Project**
  The Smith Creek project is a run-of-the-river hydroelectric project on Smith Creek, a tributary of the Kootenai River in Northern Idaho. It is comprised of three units with a combined nameplate capacity of 38.3 MW. The Board sold this project for $22.3 million in May of 2016, entering into a three year power purchase agreement with the new owner. The current contract for this power expires on June 30, 2019.

(Note 15 – Power supply resources, continued)

- **Energy Northwest**
  Energy Northwest is a Washington municipal corporation, engaged in the construction of five nuclear generation facilities (Projects Nos. 1,2,3,4 and 5), of which EWEB purchased a 0.061 percent share of Project No 1. The Board is not a member of Energy Northwest. EWEB, Energy Northwest, and Bonneville entered into a separate Net Billing Agreement, under which EWEB purchased from Energy Northwest, and in turn, assigned to Bonneville, EWEB's share of the capability. Construction of Project No 1 was terminated in 1994. However, under the Net Billing Agreement, Bonneville is responsible for EWEB's percentage share of the total annual cost of Projects No 1, including debt service on revenue bonds issued to finance the cost of construction, whether or not the Project was completed. This has resulted in zero payments by, or credits to EWEB under the Net Billing Agreement. In the event that Bonneville fails to make a payment, or the parties terminate the agreement to directly pay, the original obligations of the Net Billing Agreements would resume. Bonneville has always met all of its obligations to Energy Northwest.

- **Solar PV Purchases**
  EWEB supports the development of Solar PV generation in Eugene through the provision of net metering rates to those customers with small systems that wish to self-generate power and renewable generation rates for customers with larger systems. To date, EWEB's Net Metered program has a total installed capacity of slightly over 4 MW and 0.51 aMW of energy and direct generation contracts with a total capacity of just over 2 MW and .30 aMW of energy.

Note 16 – Retirement benefits

1. Pension Plan

Plan Description
Board employees are provided with pensions through OPERS. It is a cost sharing multiple-employer defined benefit pension plan. All Board employees are eligible to participate in OPERS after six months of employment. Oregon PERS, a component unit of the State of Oregon, issues a comprehensive annual financial report, which may be obtained from the OPERS website, www.oregon.gov/pers.

Description of Benefit Terms
All benefits of the OPERS are established by the legislature pursuant to ORS Chapters 238 and 238A.

- **Tier One/Tier Two Retirement Benefit (Chapter 238)** Tier One/Tier Two Retirement Benefit plan is closed to new members hired on or after August 29, 2003.

Pension Benefits
The PERS retirement allowance is payable monthly for life. It may be selected from 13 retirement benefit options. These options include survivorship benefits and lump-sum refunds. Retirement benefits are determined as 1.67 percent of the employee's final average salary times the employee's years of retirement credit. Benefits may also be calculated under either a formula plus annuity (for members who were contributing before August 21, 1981) or a money match computation if a greater benefit results**.**
A member is considered vested and will be eligible at minimum retirement age for a service retirement allowance if he or she has had a contribution in each of five calendar years or has reached at least 50 years of age before ceasing employment with the Board. General service employees may retire after reaching age 55. Tier One general service employee benefits are reduced if retirement occurs prior to age 58 with fewer than 30 years of service. Tier Two members are eligible for full benefits at age 60. The ORS Chapter 238 Defined Benefit Pension Plan is closed to new members hired on or after August 29, 2003.

Death Benefits
Upon the death of a non-retired member, the beneficiary receives a lump-sum refund of the member's account balance (accumulated contributions and interest). In addition, the beneficiary will receive a lump-sum payment from employer funds equal to the account balance, provided one or more of the following conditions are met:

- the member was employed by a PERS employer at the time of death,
- the member died within 120 days after termination of PERS-covered employment,
- the member died as a result of injury sustained while employed in a PERS-covered job, or
- the member was on an official leave of absence from a PERS-covered job at the time of death.

Disability Benefits
A member with 10 or more years of creditable service who becomes disabled from other than duty-connected causes may receive a non-duty disability benefit. A disability resulting from a job-incurred injury or illness qualifies a member (including PERS judge members) for disability benefits regardless of the length of PERS-covered service. Upon qualifying for either a non-duty or duty disability, service time is computed to age 58 (55 for police and fire members) when determining the monthly benefit.

Benefit Changes After Retirement
Members may choose to continue participation in a variable equities investment account after retiring and may experience annual benefit fluctuations due to changes in the market value of equity investments.
Under ORS 238.360 monthly benefits are adjusted annually through cost-of-living changes. Under current law, the cap on the COLA in fiscal year 2015 and beyond will vary based on 1.25 percent on the first $60,000 of annual benefit and 0.15 percent on annual benefits above $60,000.

(Note 16 – Retirement benefits, continued)

- **OPSRP Pension Program (OPSRP DB)**

  Pension Benefits

  The Pension Program (ORS Chapter 238A) provides benefits to members hired on or after August 29, 2003.

  This portion of OPSRP provides a life pension funded by employer contributions. Benefits are calculated with the following formula for members who attain normal retirement age:

  General service: 1.5 percent is multiplied by the number of years of service and the final average salary. Normal retirement age for general service members is age 65, or age 58 with 30 years of retirement credit.

  A member of the OPSRP Pension Program becomes vested on the earliest of the following dates: the date the member completes 600 hours of service in each of five calendar years, the date the member reaches normal retirement age, and, if the pension program is terminated, the date on which termination becomes effective.

  Death Benefits

  Upon the death of a non-retired member, the spouse or other person who is constitutionally required to be treated in the same manner as the spouse, receives for life 50 percent of the pension that would otherwise have been paid to the deceased member.

  Disability Benefits

  A member who has accrued 10 or more years of retirement credits before the member becomes disabled or a member who becomes disabled due to job-related injury shall receive a disability benefit of 45 percent of the member's salary determined as of the last full month of employment before the disability occurred.

  Benefit Changes After Retirement

  Under ORS 238A.210 monthly benefits are adjusted annually through cost-of-living changes. Under current law, the cap on the COLA in fiscal year 2015 and beyond will vary based on 1.25 percent on the first $60,000 of annual benefit and 0.15 percent on annual benefits above $60,000.

Contributions

PERS funding policy provides for monthly employer contributions at actuarially determined rates. These contributions, expressed as a percentage of covered payroll, are intended to accumulate sufficient assets to pay benefits when due. This funding policy applies to the PERS Defined Benefit Plan and the Other Postemployment Benefit Plans.

Employer contribution rates during the period were based on the December 31, 2015 actuarial valuation. The rates based on a percentage of payroll, first became effective July 1, 2017. Employer contribution rates during the first six months of 2017 were based on the December 31, 2013 actuarial valuation. The state of Oregon and certain schools, community colleges, and political subdivisions have made lump sum payments to establish side accounts, and their rates have been reduced. The Board has elected to make lump-sum payments to OPERS, during 2007 and 2001, which has had the effect of lowering the employer contribution rate. The Board's contribution rates effective July 1, 2017 were 27.51% for Tier One/Tier Two members and 21.33% for OPSRP General service members. The Board's contribution rates effective prior to July 1, 2017 were 21.99% for Tier One/Tier Two members and 16.94% for OPSRP General service members. Employer contributions for the year ended December 31, 2018 were $9.5 million ($9.2 million in 2017), excluding amounts to fund employer specific liabilities.

Pension liability, pension expense, deferred outflows of resources and deferred inflows of resources related to pensions

At December 31, 2018, the Board reported a net pension liability of $89,806,397 for its proportionate share of the OPERS net pension liability ($84,560,981 in 2017). The net pension liability was measured as of June 30, 2018 and the total pension liability for each plan used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2016 rolled forward to June 30, 2018 using standard update procedures. The Board's proportion of the net pension liability was based on a projection of the Board's long-term share of contributions to the plan relative to the projected contributions for all participating employers, actuarially determined. The Board's proportionate share of the net pension liability as of June 30, 2018 was 0.59283304%.

For the year ended December 31, 2018, the Board's proportionate share of system pension expense was $17.4 million ($18.2 million in 2017). The Board has elected to use regulatory accounting to recognize pension expense in conjunction with the required employer contribution rates. Accordingly, the Board recognized pension expense related to Tier One/Tier Two and OPSRP of $9.5 million.

As of December 31, 2018, the Board reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Net difference between projected and actual earnings on plan investments	$ -	$ 3,987,912
Differences between expected and actual experience	3,054,945	-
Changes in assumptions	20,879,816	-
Changes in employer proportion	-	9,790,590
Differences between employer contributions and proportionate share of contributions	3,036,178	-
Pension contributions subsequent to measurement date	4,831,140	-
	$ 31,802,079	$ 13,778,502

(Note 16 – Retirement benefits, continued)

$4.8 million reported as deferred outflows of resources related to contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended December 31, 2019.

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions are to be amortized as pension debits and pension credits as follows:

Fiscal Year	Net difference between projected and actual earnings on investments	Differences between expected and actual experience	Changes of assumptions	Changes in proportion	Differences between employer contributions and proportionate share of contributions
2019	$ 4,580,100	$ 1,343,840	$ 7,803,525	$ (3,267,412)	$ 1,137,191
2020	(99,591)	1,009,250	7,462,323	(3,106,135)	877,417
2021	(6,528,833)	524,572	2,551,805	(2,234,467)	646,698
2022	(1,939,588)	165,383	2,551,805	(1,046,911)	329,784
2023	-	11,900	510,358	(135,665)	45,088
	$ (3,987,912)	$ 3,054,945	$ 20,879,816	$ (9,790,590)	$ 3,036,178

Actuarial Methods and Assumptions Used in Developing the Total Pension Liability
The total pension liability in the December 31, 2016 actuarial valuations were determined using the following actuarial assumptions.

Valuation date	December 31, 2016
Measurement date	June 30, 2018
Actuarial cost method	Entry age normal
Actuarial Assumptions:	
Discount rate	7.20%
Inflation	2.50%
Payroll growth	3.50%
Projected salary increase	3.50%
Investment rate of return	7.20%

Mortality rates for healthy retirees and beneficiaries were based on the RP-2014 sex-distinct tables, as appropriate. Mortality rates for active members are a percentage of healthy retiree rates that vary by group, as described in the valuation. For disabled retirees, mortality rates are based on the RP-2014 generational disabled mortality sex-distinct table.

Actuarial valuations of an ongoing plan involve estimates of the value of projected benefits and assumptions about the probability of events far into the future. Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. Experience studies are performed as of December 31 of even numbered years. The methods and assumptions shown above are based on the 2016 Experience Study which reviewed experience for the four-year period ending on December 31, 2016.

Discount Rate

The discount rate used to measure the total pension liability was 7.20 percent for the Defined Benefit Pension Plan. The projection of cash flows used to determine the discount rate assumed contributions from plan members and those of the contributing employers are made at the contractually required rates, as actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments for the Defined Benefit Pension Plan was applied to all periods of projected benefit payments to determine the total pension liability.

Long-Term Expected Rate of Return

To develop an analytical basis for the selection of the long-term expected rate of return assumption, in July 2015 the PERS Board reviewed long-term assumptions developed by both Milliman's capital market assumptions team and the Oregon Investment Council's (OIC) investment advisors. The table below shows Milliman's assumptions for each of the asset classes in which the plan was invested at that time based on the OIC long-term target asset allocation. The OIC's description of each asset class was used to map the target allocation to the asset classes shown below. Each asset class assumption is based on a consistent set of underlying assumptions, and includes adjustment for the inflation assumption.

These assumptions are not based on historical returns, but instead are based on a forward-looking capital market economic model.

Asset Class	Target	Compound Annual Return (Geometric)
Core Fixed Income	8.00%	3.49%
Short-Term Bonds	8.00%	3.38%
Bank/Leveraged Loans	3.00%	5.09%
High Yield Bonds	1.00%	6.45%
Large/Mid Cap US Equities	15.75%	6.30%
Small Cap US Equities	1.31%	6.69%
Micro Cap US Equities	1.31%	6.80%
Developed Foreign Equities	13.13%	6.71%
Emerging Market Equities	4.13%	7.45%
Non-US Small Cap Equities	1.88%	7.01%
Private Equity	17.50%	7.82%
Real Estate (Property)	10.00%	5.51%
Real Estate (REITS)	2.50%	6.37%
Hedge Fund of Funds - Diversified	2.50%	4.09%
Hedge Fund - Event-driven	0.63%	5.86%
Timber	1.88%	5.62%
Farmland	1.88%	6.15%
Infrastructure	3.75%	6.60%
Commodities	1.88%	3.84%
Assumed Inflation - Mean		2.50%

(Note 16 – Retirement benefits, continued)

Sensitivity of Net Pension Liability to Changes in the Discount Rate (in Millions)
As of June 30, 2018

Employers' Net Pension Liability	1% Decrease (6.2%)	Current Discount Rate (7.2%)	1% Increase (8.2%)
Defined Benefit Pension Plan	$ 150,083,391	$ 89,806,397	$ 40,052,393

Pension plan fiduciary net position

Detailed information about each pension plan's fiduciary net position is available in the separately issued OPERS financial reports.

Payable to the pension plan

The Board had $466,000 in contributions payable to the pension plan for the year ended December 31, 2018.

Changes in plan provisions during the measurement period

There were no changes in plan provisions during the measurement period.

Changes in plan provisions subsequent to the measurement period

There were no changes in plan provision subsequent to the measurement period.

Defined contribution pension - OPSRP Individual Account Program (OPSRP IAP)

Pension Benefits

Participants in the OPERS defined benefit pension plan also participate in the OPERS defined contribution plan. An IAP member becomes vested on the date the employee account is established or on the date the rollover account was established. If the employer makes optional employer contributions for a member, the member becomes vested on the earliest of the following dates: the date the member completes 600 hours of service in each of five calendar years, the date the member reaches normal retirement age, the date the IAP is terminated, the date the active member becomes disabled, or the date the active member dies.

Upon retirement, a member of the OPSRP Individual Account Program (IAP) may receive the amounts in his or her employee account, rollover account, and vested employer account as a lump-sum payment or in equal installments over a 5-, 10-, 15-, 20-year period or an anticipated life span option. Each distribution option has a $200 minimum distribution limit.

Death Benefits

Upon the death of a non-retired member, the beneficiary receives in a lump sum the member's account balance, rollover account balance, and vested employer optional contribution account balance. If a retired member dies before the installment payments are completed, the beneficiary may receive the remaining installment payments or choose a lump-sum payment.

Recordkeeping

PERS contracts with VOYA Financial to maintain IAP participant records.

Contributions

Covered employees are required to contribute 6% of their salary to the plan. The Board has chosen to pay the employees' contributions to the plan. For 2018, the Board contributed $2.5 million for employees.

2. Postemployment Benefits Plan Other than Pensions

Plan Description

The Board provides postemployment health care and life insurance benefits to certain employees who retire under OPERS or OPSRP with at least 11 years of service at EWEB. The plan is administered by a board of trustees as the Eugene Water & Electric Board Retirement Benefits Trust (The Trust). The plan is a single-employer plan.

The life insurance benefit is a fixed amount of $5,000 per retiree. Health care coverage is provided in the form of a subsidy toward insurance premiums. The subsidy varies with years of service and the benefits offered by the Board at the time of an employee's hire and retirement. Medicare eligible retirees choose from Medicare supplement plans offered through OPERS. The subsidy for Medicare supplement coverage is established by the Board; however, the coverage is administered by OPERS as a cost sharing plan. Early retirees receive coverage under the group plan the Board offers to its active employees, until such time as retirees reach Medicare eligibility. Those group benefit provisions are established by the Board, and coverage is generally 80% of eligible medical costs. Dental and/or vision benefits are offered through the group plan for retirees with earlier hire and retirement dates.

During 2016, a change in plan provisions was negotiated with the International Brotherhood of Electrical Workers (IBEW) for active IBEW employees hired on or after January 1, 2003. During 2017, the same change in benefits was made for management and unrepresented employees hired on or after January 1, 2003 and retired after October 1, 2017. At retirement, those employees will not receive a subsidy toward health care coverage. Early retirees and their families continue to have access to EWEB healthcare insurance offered to the active employees; however, the retirees pay the insurance premiums in full. This access to coverage before age 65 is also required by Oregon law.

The obligation for payment of insured benefits rests with the insurance companies providing coverage. The Board does not guarantee benefits in the event of an insurance company's insolvency.

Plan Membership

The plan's latest actuarial valuation dated December 31, 2017, rolled forward to December 31, 2018 included 549 retirees or surviving spouses of retired employees and 458 active employees.

Contributions

Contributions toward premiums required from retirees are established in the plan and may be amended by the Board. Contributions from participating retirees are either a flat rate or a percentage of premium costs and vary by participant according to the benefits in place when the participant was hired and/or retired. The Board's subsidies toward premiums are capped for the more recent retirees. The cap is expressed as a percentage of the Board's share of premium increases each year compared to premiums beginning in a base year of 2003. The cap was 6% beginning in 2017 and is to remain that amount each year thereafter.

During 2018, the plan recognized $775,344 in contributions from retirees who had insurance coverage under the Board's group plan for active employees. The contributions are applied to insurance premiums. Retirees with Medicare Supplement coverage also pay a portion of their premiums, however, those contributions are recognized by the OPERS OPEB plan.

(Note 16 – Retirement benefits, continued)

Funding
It is the Board's intent to pay the actuarially determined contribution (ADC) to the trust annually.

The ADC for year 2018 was approximately $1.3 million. The Board contributed the ADC and recognized it in administrative and general expenses ($1,025,087 for the Electric System and $323,711 for the Water System). The Board also made a one-time contribution of $2 million to the trust in an effort to pay down its net OPEB liability. This was reported as a special item ($1,520,000 for the Electric System and $480,000 for the Water System). The plan recognized the total of these contributions from the Board for 2018: $3,348,798. This differs from the Board's OPEB expense determined on an actuarial basis, which was $5,342,636. The Board has elected to apply regulatory accounting to recognize OPEB expense based on the timing and amount of contributions included in the rate-making process.

Components of the actuarially determined OPEB expense are shown below:

	2018
Service cost	$ 279,685
Interest cost	1,747,818
Expected earnings	(1,248,809)
Administrative expenses	106,096
Change in benefits	-
Recognition of deferred outflows	4,681,969
Recognition of deferred inflows	(224,123)
	$ 5,342,636

At December 31, 2018 the Board reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Change in assumptions (gain)/loss	$ 9,104,282	$ -
Experience (gain)/loss	2,911,550	-
Earnings (gain)/loss	1,071,991	-
Total	$ 13,087,823	$ -

Amounts recorded as deferred inflows and outflows of resources will be subject to amortization and regulatory deferral in future years as follows:

	Net Deferred Outflows/(Inflows) Amortization
2019	$ 4,457,846
2020	4,457,846
2021	3,736,042
2022	436,089
2023	-
	$ 13,087,823

Net OPEB Liability

The Board's total net OPEB liability of $23,321,673 was measured as of December 31, 2018, and was determined by a roll forward of an actuarial valuation dated December 31, 2017.

Changes in Net OPEB Liability:

	Total OPEB Liability	Fiduciary Net Position	Net OPEB Liability
Beginning of year 1/1/2018	$ 41,880,135	$ (17,458,695)	$ 24,421,440
Employer contributions	-	(3,348,797)	(3,348,797)
Expected investment income	-	(1,248,809)	(1,248,809)
Difference between expected and actual investment income	-	2,180,449	2,180,449
Benefit payments	(3,402,142)	2,585,933	(816,209)
Administrative and trust expenses	-	106,096	106,096
Service cost	279,685	-	279,685
Interest on total OPEB liability	1,747,818	-	1,747,818
End of year 12/31/18	$ 40,505,496	$ (17,183,823)	$ 23,321,673

Actuarial Assumptions

The total OPEB liability as of December 31, 2018 was determined using the following significant actuarial assumptions and inputs:

Discount rate	4.32%
Inflation rate	2.50%
Salary increases	3.50%
Healthcare cost trend rates	3.00% - 10.00%

Mortality rates used are the same as those used in the December 31, 2016 Oregon PERS Actuarial Valuation and are based on the RP-2014 tables for general service employees.

Retirement and termination rates are based on an experience study covering data from 2010 through 2014.

Projected cash flows into the Trust include an assumption that the Board will pay the ADC each year.

The discount rate used to measure the total OPEB liability was 4.32%. Based on an expected 7.0% long-term rate of return on plan assets, the fiduciary net position was projected to be available to make projected OPEB payments for plan participants through 2032. Therefore, the expected long-term rate of return is a blended rate including the long-term expected rate of return of 7.0% and the December 31, 2017 rate of 3.44% from the 20-year General Obligation Municipal Bond Index as published by the Bond Buyer.

(Note 16 – Retirement benefits, continued)

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

Fund Type	% of Total Portfolio	Expected Long-Term Real Rate of Return
Domestic equity	37%	5.9%
Hedged equity	3%	4.1%
Foreign equity	10%	6.3%
Emerging equity	6%	8.0%
Fixed income	34%	1.5%
Real estate	7%	5.4%
Commodities	2%	5.4%
One month treasury bills	1%	-0.9%
	100%	4.4%

The following table presents the sensitivity of the net OPEB liability to changes in the discount rate, assuming the current rate, and rates that are one percentage point lower, and one percentage point higher than the current rate as of December 31, 2018:

	1% Decrease (3.32%)	Current rate (4.32%)	1% Increase (5.32%)
Total OPEB liability	$ 45,426,708	$ 40,505,496	$ 36,451,845
Fiduciary net position	(17,183,823)	(17,183,823)	(17,183,823)
Net OPEB liability	$ 28,242,885	$ 23,321,673	$ 19,268,022

The following presents the sensitivity of the net OPEB liability to changes in the healthcare cost trend rates assuming the current rate, rates that are one percentage point lower, and one percentage point higher than the current rate:

	1% Decrease	Current rates	1% Increase
Total OPEB liability	$ 36,048,323	$ 40,505,496	$ 45,858,324
Fiduciary net position	(17,183,823)	(17,183,823)	(17,183,823)
Net OPEB liability	$ 18,864,500	$ 23,321,673	$ 28,674,501

The actuarial funding method used to determine the plan cost is the entry age normal cost method. Under this method the actuarial present value of the projected benefits of each active employee included in the valuation is allocated on a level percentage of pay basis over the service life of the employee between entry age (date of hire) and assumed exit age.

Trust Financial Statements
The Trust publishes audited standalone financial statements bi-annually. Audited financial statements for the OPEB plan are obtainable by writing to the Board.

Note 17 – Deferred compensation

The Board offers all employees a deferred compensation plan created in accordance with Internal Revenue Code (IRC) Section 457. The plan permits them to defer a portion of their salary until future years. Participation in the plan is optional. Payment from the plan is not available to employees until termination, retirement, death, or unforeseeable emergency.

The Board works with separate investment providers who also provide third-party administration for all deferred compensation program funds. Participating employees have several investment options with varying degrees of market risk. The Board has no liability for losses under the plan, but does have the duty to administer the plan in a prudent manner.

The Board has little administrative involvement with the plan and does not perform the investing function. Therefore, in accordance with GASB No. 32, Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans, the plan assets are not included in the accompanying Statements of Net Position.

Note 18 – Trojan nuclear plant

The Trojan Nuclear Plant (Project) is jointly owned by Portland General Electric Company (PGE), 67.5%; the City of Eugene, acting by and through Eugene Water & Electric Board, 30%; and Pacific Power and Light Company, 2.5%; as tenants in common. The Project ceased commercial operation in 1993 and is decommissioned. In accordance with GASB No. 14, The Financial Reporting Entity, the Project is reported as a joint venture on the equity method of accounting.

Under the terms of the Net Billing Agreements, executed in 1970, BPA is obligated to pay the Board amounts sufficient to pay all of the Board’s costs related to the Project including decommissioning and debt service, notwithstanding the termination of plant output. BPA pays those costs primarily by issuing credits against the Net Billing Participant’s purchases of electricity from BPA, but in some cases also makes payments in cash. The Board is required to transfer from its Electric System Fund to the Trojan Project Fund an amount equal to all net billing credits received through this agreement. The Board is then responsible for making payments from the Trojan Project Fund to the Trojan Project for the Board’s share of decommissioning costs.

(Note 18 – Trojan nuclear plant, continued)

Since BPA is obligated to pay the Board's share of all Trojan Project costs and has provided the Board with legally binding written assurances of its commitment to that obligation, the Board does not expect the closure and decommissioning of the Trojan Project to have any adverse effect on the Board's Electric or Water Systems. As such, the equity interest in the Project is zero. However, under the terms of the original agreements, if one of the tenants in common fails to perform on their obligation for decommissioning costs, the other tenants may be liable. This obligation may not be covered under the Net Billing Agreement mentioned previously. However, the Board believes this risk is minimal.

A summary of the balance sheets for EWEB's share of the Trojan Project as of September 30, 2018 and September 30, 2017 is as follows.

	Unaudited September 30, 2018	Unaudited September 30, 2017
Assets		
Current assets	$ 2,042,697	$ 1,999,390
Long-term receivable, BPA, net	33,487,238	34,339,729
Total assets	$ 35,529,935	$ 36,339,119
Liabilities		
Current liabilities	$ 1,910,000	$ 1,543,953
Accumulated provision for decommissioning costs	33,619,935	34,795,166
Total liabilities	$ 35,529,935	$ 36,339,119

The Trojan Nuclear Plant financial statements can be obtained from the Board.

Note 19 – Commitments and contingencies

Electric Projects

- **Construction**
  Design and construction contracts, primarily for powerhouse upgrades at Carmen-Smith, were $22.7 million. Committed purchases and upgrades for substation transformers and a radio system were $1.6 million ($3.8 million at December 31, 2017 for Carmen-Smith powerhouse).

- **Carmen-Smith Relicensing**
  Preconstruction contracts for engineering, wildlife, and historic evaluation services were approximately $210,000 at December 31, 2017.

The Board has an arrangement with the U.S. Forest Service is to provide for maintenance and enhancement measures on the National Forest Service land where the project is located. The Board expects to make annual payments of varying, prescheduled amounts to the Forest Service in accordance with settlement provisions. The payments are to total approximately $1.5 million before inflation indexing over the life of the license.

A revised settlement agreement effective November 30, 2016 contains interim measures to accomplish while the license application is under review by FERC. Under terms of the agreement, the Board will finalize improvements at Ice Cap Creek Campground during 2019. (Commitments at December 31, 2017 were to install gravel at fish passage and spawning areas and to construct recreational improvements at campsites and a parking area.)

Water Projects
Construction contracts for a disinfection system were approximately $565,000 ($680,000 at December 31, 2017 for reservoir rehabilitation and a disinfection system).

Other Projects
Contractual commitments for software were $300,000 ($105,000 for advanced metering and $6.1 million for a customer billing system at December 31, 2017).

Self-Insurance
The Board is exposed to various risks of loss because of the Board's self-insurance retention, up to the first $2,000,000 of exposure, per occurrence. Excess liability coverage protects the Board after the Board's self-insured limit is exhausted. However, public entities are also protected under State of Oregon tort limits ORS 30.260 – 30.300, *Tort actions against public bodies*, which reduce the liability to any single claimant to approximately $119,000 for property damage and approximately $727,000 for personal injury. Consequently, except in extreme cases, the Board's exposure is mitigated by law. The limit is subject to change by State of Oregon legislation.

Claims liabilities recorded in the financial statements are based on the estimated ultimate loss as of the statement of net position date, adjusted from current trends through a case-by-case review of all claims, including incurred but not reported claims. Non-incremental claims adjustment costs such as salaries are not included in the claims estimates. At December 31, 2018 a total claims liability of approximately $206,855 is reported in the financial statements. All prior and current-year claim liabilities were fully reserved and have not been discounted.

		Liability Balance at Beginning of Year	Current Year Claims and Changes in Estimates	Claim Payments	Liability Balance at End of Year
2016	General Liability	$ 9,500	$ 267,561	$ (207,511)	$ 69,550
2017	General Liability	$ 69,550	$ 311,845	$ (215,847)	$ 165,548
2018	General Liability	$ 165,548	$ 146,426	$ (105,119)	$ 206,855

(Note 19 – Commitments and contingencies, continued)

Claims and Other Legal Proceedings

The Board is involved in various litigations. In the opinion of management, the ultimate outcome of these claims will not have a material effect on the Board's financial position beyond amounts already accrued as of December 31, 2018.

Required Supplementary Information

SCHEDULE OF PROPORTIONATE SHARE OF THE NET PENSION LIABILITY
As of June 30, 2018
Last Ten Years*

	2014	2015	2016	2017	2018
Proportion of the net pension asset	0.86138989%	0.79250364%	0.70531024%	0.62730522%	0.59283304%
Proportionate share of the net pension asset/(liability)	$ 19,525,251	$ (45,501,290)	$ (105,883,444)	$ (84,560,981)	$ (89,806,397)
Covered - employee payroll	$ 41,130,143	$ 45,250,685	$ 44,141,193	$ 44,353,971	$ 39,905,750
Proportionate share of the net pension asset/(liability) as percentage of covered-employee payroll	47%	101%	240%	191%	225%
Plan's fiduciary net position	$ 65,401,492,664	$ 64,923,626,094	$ 62,082,059,102	$ 66,371,703,247	$ 69,327,500,445
Plan's fiduciary net position as a percentage of the total pension liability	103.60%	91.90%	80.50%	83.10%	82.10%

*10 year trend information will be presented prospectively.

SCHEDULE OF CONTRIBUTIONS
As of June 30, 2018
Last Ten Years*

	2014	2015	2016	2017	2018
Contractually required contribution (actuarially determined)	$ 9,544,586	$ 9,734,173	$ 8,189,904	$ 8,256,069	$ 9,413,237
Contributions in relation to the actuarially determined contribution	$ 9,544,586	$ 9,734,173	$ 8,189,904	$ 8,256,069	$ 9,413,237
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -
Covered employee payroll	$ 41,130,143	$ 45,250,685	$ 44,141,193	$ 44,353,971	$ 39,905,750
Contributions as a percentage of covered-employee payroll	23.21%	21.51%	18.55%	18.61%	23.59%

Notes to Schedule

Valuation date:	12/31/2012, rolled forward to June 30, 2014	12/31/2013, rolled forward to June 30, 2015	12/31/2014, rolled forward to June 30, 2016	12/31/2015, rolled forward to June 30, 2017	12/31/2016, rolled forward to June 30, 2018
Methods and assumptions used to determine contribution rates:					
Single and agent employers	Entry age normal	Entry age normal	Entry age normal	Entry age normal	Entry age normal
Experience study report	2012, published September 18, 2013	2012, published September 18, 2013	2014, published September 23, 2015	2014, published September 23, 2015	2016, published July 26, 2017
Amortization method	Level percentage of payroll, closed	Level percentage of payroll, closed	Level percentage of payroll, closed	Level percentage of payroll, closed	Level percentage of payroll, closed
Remaining amortization period	Tier one/tier two - 20 year; OPSRP - 16 years	Tier one/tier two - 20 year; OPSRP - 16 years	Tier one/tier two - 20 year; OPSRP - 16 years	Tier one/tier two - 20 year; OPSRP - 16 years	Tier one/tier two - 20 year; OPSRP - 16 years
Asset valuation method	Market value of assets	Market value of assets	Market value of assets	Market value of assets	Market value of assets
Inflation	2.75%	2.75%	2.50%	2.50%	2.50%
Salary increases	3.75%	3.75%	3.50%	3.50%	3.50%
Investment rate of return	7.75%	7.75%	7.50%	7.50%	7.20%
Retirement age	55 for Tier 1/Tier 2; 65 for OPSRP	55 for Tier 1/Tier 2; 65 for OPSRP	55 for Tier 1/Tier 2; 65 for OPSRP	55 for Tier 1/Tier 2; 65 for OPSRP	55 for Tier 1/Tier 2; 65 for OPSRP
Mortality	RP-2000 Sex-distinct tables	RP-2000 Sex-distinct tables	RP-2000 Sex-distinct tables	RP-2000 Sex-distinct tables	RP-2014 Sex-distinct tables
Discount rate	7.75%	7.75%	7.50%	7.50%	7.20%

*10 year trend information will be presented prospectively.

SCHEDULE OF EMPLOYER CONTRIBUTIONS
POST-EMPLOYMENT HEALTH CARE BENEFITS
As of December 31, 2018
Last Ten Years*

	2018	2017
Actuarially determined contribution	$ 1,284,204	$ 1,348,797
Contributions in relation to the actuarially determined contribution	3,348,797	980,298
Contribution deficiency (excess)	$ 2,064,593	$ (368,499)
Covered employee payroll	$ 44,880,815	$ 44,353,971
Contributions as a percentage of covered payroll	7.46%	2.21%

*10 year trend information will be presented prospectively

Valuation date: December 31, 2017 and rolled forward to December 31, 2018

Methods and assumptions used to determine contribution rates:

Actuarial cost method	Entry age normal
Amortization method	Level percentage of payroll, closed
Amortization period	10 years
Asset valuation method	Market value
Inflation	2.5%
Healthcare cost trend increases	
EWEB group medical	10% initial, decreasing to ultimate rate of 4% by 2025
OPERS Medicare and Medicare Supplemental Rx	5%
Dental	3%
Vision	3%
Salary increases	3.5%
Investment rate of return	4.32%
Retirement age	Based on experience study years 2010-2014
Age 55-58	10%
Age 59-64	15%
Age 65	100%
Withdrawal age	
Age 18-29	6.3%
Age 30-49	4.7%
Age 50-54	3.7%
Mortality	RP-2014 general service employees

SCHEDULE OF CHANGES IN TOTAL OPEB LIABILITY AND RELATED RATIOS
POST-EMPLOYMENT HEALTH CARE BENEFITS
As of December 31, 2018
Last Ten Years*

Total OPEB Liability	2018	2017
Service cost	$ 279,685	$ 270,227
Interest	1,747,818	977,047
Changes in benefit terms	-	(263,950)
Differences between expected and actual experience	-	4,969,184
Changes in assumptions	-	15,538,406
Benefit payments	(3,402,142)	(3,280,201)
Net change in OPEB liability	(1,374,639)	18,210,713
Total OPEB liability - beginning	41,880,135	23,669,422
Total OPEB liability - ending	$ 40,505,496	$ 41,880,135
Plan fiduciary net position		
Contributions	$ (3,348,797)	$ (980,298)
Net investment income	931,640	(2,253,913)
Benefit payments	2,585,933	2,645,640
Administrative expense	106,096	152,537
Net change in plan fiduciary net position	274,872	(436,034)
Plan fiduciary net position - beginning	(17,458,695)	(17,022,661)
Plan fiduciary net position - ending	$ (17,183,823)	$ (17,458,695)
Net OPEB liability	$ 23,321,673	$ 24,421,440
Plan fiduciary net position as a percentage of the total OPEB liability	42.4%	41.7%
Covered employee payroll	$ 44,880,815	$ 44,353,971
Net OPEB liability as percentage of covered payroll	52.0%	55.1%

*10 year trend information will be presented prospectively

Notes to schedule:

Benefit changes: During 2016 and 2017, the subsidy for employees hired on or after January 1, 2003 was discontinued.

Changes in assumptions beginning with year 2017: The discount rate decreased from 6% to 4.32%. The assumed rate at which the Oregon PERS Medicare plans and the EWEB Supplemental Rx premiums increase annually increased from 4% to 5%. The mortality table, RP-2000, projected to 2016 using Scale AA, was replaced with RP-2014.

ELECTRIC SYSTEM (Unaudited)
Long-term bonded debt and interest payment requirements, including current portion
Year ended December 31, 2018

	Revenue and Revenue Refunding 2011 A Series 6/8/2011		Revenue Refunding 2011B Series 6-29-11		Revenue and Revenue Refunding 2012 Series 8-01-12		Revenue Refunding 2016 A Series 9-7-16	
	Principal	Interest	Principal	Interest	Principal	Interest	Principal	Interest
2019	$ 2,335,000	$ 215,750	$ 840,000	$ 188,323	$ 450,000	$ 1,433,269	$ 1,275,000	$ 4,147,800
2020	2,475,000	99,000	875,000	155,983	470,000	1,415,269	900,000	4,109,550
2021	-	-	915,000	120,983	485,000	1,396,469	1,215,000	4,073,550
2022	-	-	945,000	83,010	515,000	1,377,069	2,345,000	4,024,950
2023	-	-	985,000	42,848	1,810,000	1,351,319	6,300,000	3,931,150
2024	-	-	-	-	1,040,000	1,278,919	6,625,000	3,616,150
2025	-	-	-	-	1,085,000	1,237,319	6,875,000	3,284,900
2026	-	-	-	-	1,135,000	1,183,069	6,675,000	2,941,150
2027	-	-	-	-	1,195,000	1,126,319	6,000,000	2,607,400
2028	-	-	-	-	1,255,000	1,066,569	6,400,000	2,307,400
2029	-	-	-	-	1,315,000	1,003,819	6,615,000	1,987,400
2030	-	-	-	-	1,360,000	962,725	6,945,000	1,656,650
2031	-	-	-	-	1,400,000	918,525	7,290,000	1,309,400
2032	-	-	-	-	1,445,000	873,025	6,935,000	1,017,800
2033	-	-	-	-	1,495,000	826,063	5,175,000	740,400
2034	-	-	-	-	1,570,000	751,313	1,685,000	533,400
2035	-	-	-	-	1,650,000	672,813	1,755,000	466,000
2036	-	-	-	-	1,730,000	590,313	1,830,000	395,800
2037	-	-	-	-	1,815,000	503,813	1,900,000	322,600
2038	-	-	-	-	1,905,000	413,063	1,975,000	246,600
2039	-	-	-	-	2,005,000	317,813	2,050,000	167,600
2040	-	-	-	-	2,080,000	242,625	2,140,000	85,600
2041	-	-	-	-	2,155,000	164,625	-	-
2042	-	-	-	-	2,235,000	83,813	-	-
2043	-	-	-	-	-	-	-	-
2044	-	-	-	-	-	-	-	-
2045	-	-	-	-	-	-	-	-
2046	-	-	-	-	-	-	-	-
2047	-	-	-	-	-	-	-	-
	4,810,000	314,750	4,560,000	591,147	33,600,000	21,189,938	90,905,000	43,973,250
Less current portion	2,335,000	-	840,000	-	450,000	-	1,275,000	-
	$ 2,475,000	$ 314,750	$ 3,720,000	$ 591,147	$ 33,150,000	$ 21,189,938	$ 89,630,000	$ 43,973,250

ELECTRIC SYSTEM (Unaudited)
Long-term bonded debt and interest payment requirements, including current portion
Year ended December 31, 2018

	Revenue and Revenue Refunding 2016 B Series 9-7-16		Revenue 2017 9-21-17		Total Electric System Payments		
	Principal	Interest	Principal	Interest	Principal	Interest	Totals
2019	$ 3,545,000	$ 253,001	$ -	$ 1,689,750	$ 8,445,000	$ 7,927,893	$ 16,372,893
2020	3,820,000	208,369	-	1,689,750	8,540,000	7,677,921	16,217,921
2021	4,130,000	151,604	-	1,689,750	6,745,000	7,432,356	14,177,356
2022	4,455,000	81,972	-	1,689,750	8,260,000	7,256,751	15,516,751
2023	-	-	-	1,689,750	9,095,000	7,015,067	16,110,067
2024	-	-	-	1,689,750	7,665,000	6,584,819	14,249,819
2025	-	-	-	1,689,750	7,960,000	6,211,969	14,171,969
2026	-	-	-	1,689,750	7,810,000	5,813,969	13,623,969
2027	-	-	945,000	1,689,750	8,140,000	5,423,469	13,563,469
2028	-	-	995,000	1,642,500	8,650,000	5,016,469	13,666,469
2029	-	-	1,045,000	1,592,750	8,975,000	4,583,969	13,558,969
2030	-	-	1,095,000	1,540,500	9,400,000	4,159,875	13,559,875
2031	-	-	1,150,000	1,485,750	9,840,000	3,713,675	13,553,675
2032	-	-	1,205,000	1,428,250	9,585,000	3,319,075	12,904,075
2033	-	-	1,270,000	1,368,000	7,940,000	2,934,463	10,874,463
2034	-	-	1,330,000	1,304,500	4,585,000	2,589,213	7,174,213
2035	-	-	1,400,000	1,238,000	4,805,000	2,376,813	7,181,813
2036	-	-	1,465,000	1,168,000	5,025,000	2,154,113	7,179,113
2037	-	-	1,540,000	1,094,750	5,255,000	1,921,163	7,176,163
2038	-	-	1,620,000	1,017,750	5,500,000	1,677,413	7,177,413
2039	-	-	1,700,000	936,750	5,755,000	1,422,163	7,177,163
2040	-	-	1,785,000	851,750	6,005,000	1,179,975	7,184,975
2041	-	-	1,875,000	762,500	4,030,000	927,125	4,957,125
2042	-	-	1,965,000	668,750	4,200,000	752,563	4,952,563
2043	-	-	2,065,000	570,500	2,065,000	570,500	2,635,500
2044	-	-	2,170,000	467,250	2,170,000	467,250	2,637,250
2045	-	-	2,275,000	358,750	2,275,000	358,750	2,633,750
2046	-	-	2,390,000	245,000	2,390,000	245,000	2,635,000
2047	-	-	2,510,000	125,500	2,510,000	125,500	2,635,500
	15,950,000	694,945	33,795,000	35,075,250	183,620,000	101,839,280	285,459,280
Less current portion	3,545,000	-	-	-	8,445,000	-	8,445,000
	$ 12,405,000	$ 694,945	$ 33,795,000	$ 35,075,250	$ 175,175,000	$ 101,839,280	$ 277,014,280

WATER SYSTEM (Unaudited)
Long-term bonded debt and interest payment requirements, including current portion
Year ended December 31, 2018

	Revenue 2011 Series 6-29-11		Revenue and Revenue Refunding 2016 Series 5-19-16		Total Water System Payments		
	Principal	Interest	Principal	Interest	Principal	Interest	Totals
2019	$ 455,000	$ 659,338	$ 1,775,000	$ 1,561,450	$ 2,230,000	$ 2,220,788	$ 4,450,788
2020	470,000	647,963	1,855,000	1,490,450	2,325,000	2,138,413	4,463,413
2021	480,000	633,863	1,935,000	1,416,250	2,415,000	2,050,113	4,465,113
2022	495,000	619,463	2,030,000	1,319,500	2,525,000	1,938,963	4,463,963
2023	510,000	603,375	1,340,000	1,218,000	1,850,000	1,821,375	3,671,375
2024	530,000	585,525	1,415,000	1,151,000	1,945,000	1,736,525	3,681,525
2025	550,000	566,975	1,470,000	1,094,400	2,020,000	1,661,375	3,681,375
2026	570,000	546,350	1,530,000	1,035,600	2,100,000	1,581,950	3,681,950
2027	590,000	524,975	1,610,000	959,100	2,200,000	1,484,075	3,684,075
2028	610,000	501,375	1,690,000	878,600	2,300,000	1,379,975	3,679,975
2029	635,000	476,975	1,770,000	794,100	2,405,000	1,271,075	3,676,075
2030	660,000	451,575	1,860,000	705,600	2,520,000	1,157,175	3,677,175
2031	690,000	423,525	1,125,000	631,200	1,815,000	1,054,725	2,869,725
2032	720,000	394,200	1,175,000	586,200	1,895,000	980,400	2,875,400
2033	755,000	358,875	1,225,000	539,200	1,980,000	898,075	2,878,075
2034	795,000	321,975	1,270,000	490,200	2,065,000	812,175	2,877,175
2035	830,000	283,250	1,320,000	439,400	2,150,000	722,650	2,872,650
2036	875,000	241,750	1,375,000	386,600	2,250,000	628,350	2,878,350
2037	920,000	198,000	1,430,000	331,600	2,350,000	529,600	2,879,600
2038	965,000	152,000	1,485,000	274,400	2,450,000	426,400	2,876,400
2039	1,010,000	103,750	680,000	215,000	1,690,000	318,750	2,008,750
2040	1,065,000	53,250	710,000	187,800	1,775,000	241,050	2,016,050
2041	-	-	735,000	159,400	735,000	159,400	894,400
2042	-	-	765,000	130,000	765,000	130,000	895,000
2043	-	-	795,000	99,400	795,000	99,400	894,400
2044	-	-	830,000	67,600	830,000	67,600	897,600
2045	-	-	860,000	34,400	860,000	34,400	894,400
	15,180,000	9,348,327	36,060,000	18,196,450	51,240,000	27,544,777	78,784,777
Less current portion	455,000	-	1,775,000	-	2,230,000	-	2,230,000
	$ 14,725,000	$ 9,348,327	$ 34,285,000	$ 18,196,450	$ 49,010,000	$ 27,544,777	$ 76,554,777

ELECTRIC SYSTEM (Unaudited)
Analysis of certain restricted cash and investments for debt service
Year ended December 31, 2018

	Investments for Bond Principal & Interest	Debt Service Reserve	Construction Funds	Customer & Escrow Deposit Reserve	Total All Funds
Ending balance - December 31, 2017	$ 32,038	$ 6,474,002	$ 45,113,395	$ 4,254,302	$ 55,873,737
Deposits from general fund	16,253,271	-	-	493,929	16,747,200
Investment earnings	892	13,816	755,876	9,434	780,018
Other transfers	-	-	-	42,309	42,309
Receipts	16,254,163	13,816	755,876	545,672	17,569,527
Principal payments	8,370,000	-	-	-	8,370,000
Interest payments	7,915,523	-	-	-	7,915,523
Transfers to general fund	-	-	10,712,285	587,234	11,299,519
Disbursements	16,285,523	-	10,712,285	587,234	27,585,042
U.S. securities, at market	-	6,486,716	26,643,384	753,185	33,883,285
Cash in bank	678	1,102	-	2,936,834	2,938,614
State of Oregon Local Government Investment Pool	-	-	8,513,602	522,721	9,036,323
Ending balance - December 31, 2018	$ 678	$ 6,487,818	$ 35,156,986	$ 4,212,740	$ 45,858,222

WATER SYSTEM (Unaudited)
Analysis of certain restricted cash and investments for debt service
Year ended December 31, 2018

	Investments for Bond Principal & Interest	Debt Service Reserves	SDC Reserves	Construction Funds	Total All Funds
Ending balance - December 31, 2017	$ 7,696	$ 2,338,981	$ 5,328,516	$ 8,723,788	$ 16,398,981
Deposits from general fund	4,434,496	-	1,267,754	-	5,702,250
Investment earnings	249	4,992	109,577	139,227	254,045
Receipts	4,434,745	4,992	1,377,331	139,227	5,956,295
Principal payments	2,160,000	-	-	-	2,160,000
Interest payments	2,282,250	-	-	-	2,282,250
Transfers to general fund	-	-	431,452	3,187,244	3,618,696
Disbursements	4,442,250	-	431,452	3,187,244	8,060,946
U.S. securities, at market	-	2,343,452	4,754,990	4,246,258	11,344,700
Cash in bank	191	521	-	-	712
State of Oregon Local Government Investment Pool	-	-	1,519,405	1,449,513	2,968,918
Ending balance - December 31, 2018	$ 191	$ 2,343,973	$ 6,274,395	$ 5,675,771	$ 14,294,330

The following metrics are standardized disclosures recommended by the Sustainability Accounting Standards Board for electric and water utilities. The disclosures are voluntary and are not meant to demonstrate compliance with laws or regulations.

Electric System

Topic	Metric	2018	2017	2016
Greenhouse Gas Emissions & Energy Resource Planning	Number of customers served in markets subject to renewable portfolio standards (RPS). (All retail customers)	93,000	93,000	92,000
	RPS target before exemptions	361,808 MWh	378,936 MWh	354,265 MWh
	Percentage fulfillment of RPS target by market	Greater than 100%	Greater than 100%	Greater than 100%
Water Management	Number of incidents of non-compliance with water quality and/or quantity permits, standards, and regulations	None	None	None
Workforce Health & Safety	Total recordable injury rate	4	2.62	3.36
	Fatality rate	0	0	0
End-Use Efficiency	Customer electricity savings from efficiency measures (In total across all customer types)	13,238 MWh 3.5 MW reduction in peak demand	8,715 MWh 2.6 MW reduction in peak demand	12,794 MWh 4.7 MW reduction in peak demand
Grid Resiliency	System Average Interruption Duration Index (SAIDI), per customer	53.63 minutes	52.85 minutes	64.01 minutes
	System Average Interruption Frequency Index (SAIFI), per customer	0.44 outages	.36 outages	.51 outages
	Customer Average Interruption Duration Index (CAIDI), per outage	121.19 minutes	148.87 minutes	125.74 minutes

RPS compliance information above is preliminary. Final information is published to eweb.org annually by June 1.

Savings from efficiency measures are calculated based on the Regional Technical Forum of the Northwest Power and Conservation Council as adopted by Bonneville Power Administration for its regional resource acquisitions.

(Electric System, Continued)

During December 2016, there was a significant ice storm affecting approximately 22,500 customers, requiring up to 8 days to restore service to some customers. Interruption results above are consistent with Institute of Electrical and Electronics Engineers (IEEE) standard 1336.2003, whereby 7 of the storm days were above the major event threshold and were excluded from the indices.

Water System

Topic	Metric	2018	2017	2016
Water Scarcity	Total fresh water sourced from regions with high or extremely high baseline water stress	None	None	None
	Fresh water purchased from a third party	None	None	None
	Volume of recycled water delivered	None	None	None
Drinking Water Quality	Number of acute health-based, non-acute health-based, and non-health-based drinking water violations	None	None	None
Distribution Network Efficiency	Water pipe replacement rate	.3% of 811 miles or 2.6 miles	.2% of 805 miles or 1.8 miles	.2% of 804 miles or 1.7 miles
Network Resiliency & Impacts of Climate Change	Water treatment capacity located in FEMA Special Flood Hazard Areas	Treatment plant is outside of flood zone, intake is within	Treatment plant is outside of flood zone, intake is within	Treatment plant is outside of flood zone, intake is within
	Number of service disruptions, population affected, and average duration	268 973 customers 99 minutes	279 1,349 customers 257 minutes	340 1,996 customers 134 minutes

Water pipe is distribution pipe for potable water measuring 2 inches to 60 inches in diameter. Replacements do not include new construction. Total miles for these pipelines is all pipe including new construction.

Audit Comments

(Disclosures and comments required by state regulations)

Oregon Administrative Rules 162-10-050 through 162-10-320, *the Minimum Standards for Audits of Oregon Municipal Corporations,* prescribed by the Secretary of State in cooperation with the Oregon State Board of Accountancy, enumerate the financial statements, schedules, comments and disclosures required in audit reports. The required financial statements and schedules are set forth in preceding sections of this report. Required comments and disclosures related to the audit of such statements and schedules are set forth following.

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MOSSADAMS

Report of Independent Auditors on Compliance and on Internal Control Over Financial Reporting Based on an Audit of Financial Statements Performed in Accordance with *Oregon Minimum Audit Standards*

Board of Commissioners
Eugene Water & Electric Board

We have audited the individual and combined financial statements of the Eugene Water & Electric Board (the "Board") as of and for the year ended December 31, 2018 and have issued our report thereon dated March 18, 2019. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the provisions of the Minimum Standards for Audits of Oregon Municipal Corporations, prescribed by the Secretary of State. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement.

Compliance

As part of obtaining reasonable assurance about whether the Board's basic financial statements are free of material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, grants, including provisions of Oregon Revised Statutes as specified in Oregon Administrative Rules OAR 162-10-0000 to 162-10-0330, as set forth below, noncompliance with which could have a direct and material effect on the determination of financial statement amounts:

- The accounting records and related internal control structure.
- The use of various depositories to secure the deposit of public funds.
- The requirements relating to the preparation, adoption, and execution of the annual budgets for fiscal years 2019 and 2018.
- The requirements relating to insurance and fidelity bond coverage.
- The appropriate laws, rules and regulations pertaining to programs funded wholly or partially by other governmental agencies.
- The statutory requirements pertaining to the investment of public funds.
- The requirements pertaining to the awarding of public contracts and the construction of public improvements.

However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance that are required to be reported under *Minimum Standards for Audits of Oregon Municipal Corporations*, prescribed by the Secretary of State.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Board's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Board's internal control. Accordingly, we do not express an opinion on the effectiveness of the Board's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Purpose of the Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Minimum Standards for Audits of Oregon Municipal Corporations*, prescribed by the Secretary of State, in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

Julie Desimone

Julie Desimone, Partner
for Moss Adams LLP
Portland, Oregon
March 18, 2019

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EWEB

Eugene Water & Electric Board
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Eugene OR 97401

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