

# Quarterly Strategic and Operational Report

Q4 – 2018

Eugene Water & Electric Board

January 30, 2019

Quarterly Strategic and Operational Report  
Q4 - 2018  
Eugene Water & Electric Board

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## General Information

		<b>Electric</b>	<b>Water</b>
Service territory	236 square miles		
Miles of line or pipe		1,300	800
Substations/Pump Stations		35	27
Water Storage		-	23 reservoirs (89 MGal, Capacity)
Number of customers	200,000 population served	93,000	61,000
Annual Operating Budget		\$212.7M	\$18.9M
Annual Capital Budget		\$49.7M	\$19.6M

## Executive Summary

The Management of Eugene Water & Electric Board (EWEB) is pleased to report the preliminary, unaudited results of the fourth quarter and 2018 fiscal year-to-date to our governing Commissioners and the public.

EWEB's water and electric utilities are required to report financial performance separately, and both utilities continue to demonstrate more disciplined cost controls, while making strategic investments. Electric operating revenue finished the year at \$249.6 million, which is \$1.2 million favorable to budget, while net income finished at \$13.0 million, \$7.2 million favorable to budget. A plentiful water year spurred electric wholesale revenue, offset by lower than expected retail consumption and sales because of warm winter temperatures. Water operating revenue finished the year at \$39.4 million, which is \$1.9 million favorable to budget, while net income finished at \$14.1 million, \$4.5 million favorable to budget. Wholesale and retail water consumption increased approximately 4% over 2017.

Most financial metrics remain within Board guidelines except for Debt as a percentage of Net Book Value for the Electric Utility and Rate of Return for the Water Utility. Both of these metrics improve as debt-financed capital projects are commissioned, and consumption tracks to normal levels.

Employee and public safety continue to be a value and priority for the Utility. As part of the enhanced strategic value proposition regarding safety, in Q4 EWEB delivered a first installment toward its commitment to ensuring psychological safety. EWEB contracted with the National Council for Behavioral Health for the delivery of their Mental Health First Aid at Work training.

The number and frequency metrics for both total and OSHA recordable injuries is on track with 2017 experience. There were 55 total injuries in 2018, below the 3-year average of 61. OSHA recordable injuries tracked with the 3-year average of 18. Time loss, 57.8 days, came in well below the 3-year average of 93 days. SAIF time & opportunity loss data came in significantly lower than the 3-year average at 315 days against 513. At the time of this report, 2018's average cost per claim is \$4,040, less than half the 3-year average of \$10,684. EWEB remains in SAIF's Select Premium tier, and the renewal process yielded a reduction of \$43,000 in the annual premium.

Electric reliability continues to be within organizational targets, but the frequency and duration of electric outages finished the year slightly above the five-year mean. A substation outage and a couple of feeder lockouts drove the reliability numbers in the fourth quarter. For the year, approximately 30% of the outages were caused by equipment failures, 20% were planned, and 17% from vehicle incidences. Water quality and reliability were well within regulatory guidelines, including turbidity and chlorine residuals. Main pipe breaks were slightly above our industry benchmarks, at 15.1 breaks/100 miles, although the durations of disruptions were well below target.

... Continued

Electric generation had a tough year for production. In total, EWEB-owned hydroelectric facilities did not meet targets for availability (AF) or forced outage factor (FOF) in 2018. AF measures the percentage of time a unit is available to produce electricity, and FOF is the percentage of time a unit is unavailable due to unplanned outages. Individually, only Walterville and Trail Bridge met the annual availability target, and Carmen Unit 2 and Stone Creek met the annual FOF target. While there were a number of factors that led to these results, the primary issues were a seven month maintenance outage at Carmen, an extremely low water year in the McKenzie basin, FERC dam safety driven outages at Leaburg and Carmen Diversion Reservoir, and a month-long construction outage at Stone Creek.

EWEB made progress in strategic areas throughout 2018, including the commissioning of the first distributed neighborhood emergency water/electric station. At Kalapuya H.S., we launched the emergency water site in October, while at Howard Elementary we commissioned our first microgrid energy system. Additionally, EWEB completed our upgrade of our customer service policies and procedures, and installed slightly over 17,500 advanced meters by year-end. Initial customer satisfaction surveys indicate that customers are informed and satisfied with project work, i.e. customer notifications and field work, and meter upgrade activities and related communications have had little impact on Contact Center and Atrium traffic. Overall, customer operations handled over 218,000 direct interactions in 2018, and achieved target response metrics by the fourth quarter.

Overall, EWEB continues to work on building organizational and customer confidence through the achievement of sustainable results. We appreciate your support.

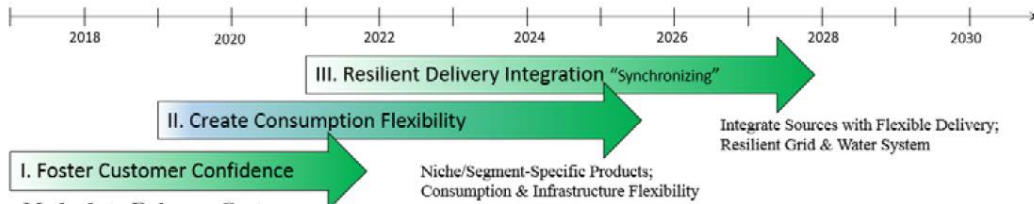
A handwritten signature in blue ink, appearing to read "Frank Lawson".

**Frank Lawson, General Manager**

# Strategic Summary

## **10-Year Strategic Priorities**

1. *Emergency Preparedness & Disaster Recovery*
2. *Electric Resource Choices*



### **Methods to Enhance Customer**

**Confidence: 2017-2020+**

1. **Consistent Performance (Safe & Reliable)**
2. **Cost Improvement**
3. **Service/Responsiveness**
4. **Open and Transparent Communications**

## Preliminary Annual Operating Revenue & Consumption (Unaudited)

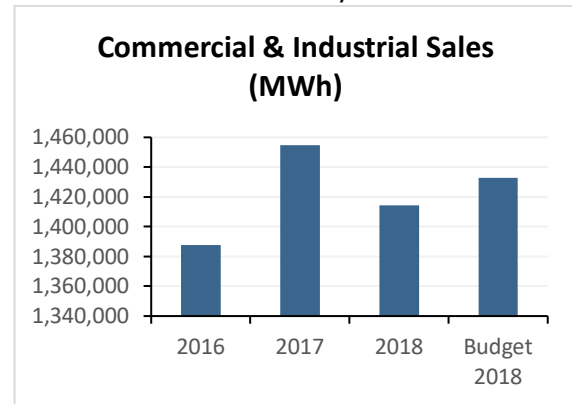
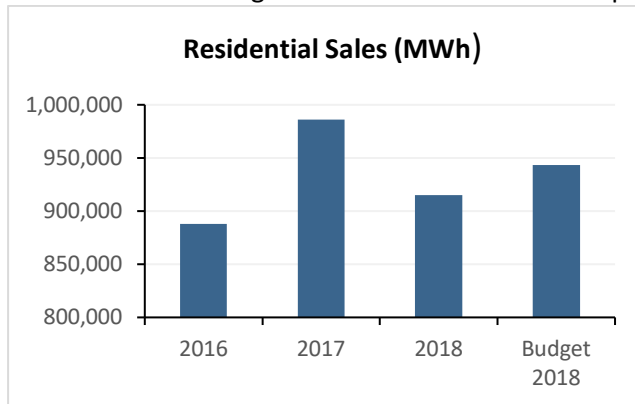
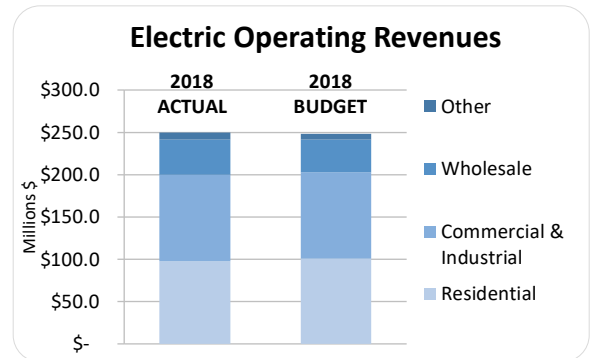
The following annual financial and consumption information is preliminary and unaudited. Audited results will be available April 2, 2019.

### Preliminary Annual Electric Operating Revenues

Total Electric Utility **operating revenue** exceeds budget by \$1.2 million. Retail revenue is slightly unfavorable by 1% (\$2.6 million) compared to year-to-date budget. **Wholesale and other revenue** had a favorable \$3.8 million variance, driven by higher than expected water for hydro generation in the Columbia River Basin and increased prices in Q3 and Q4.

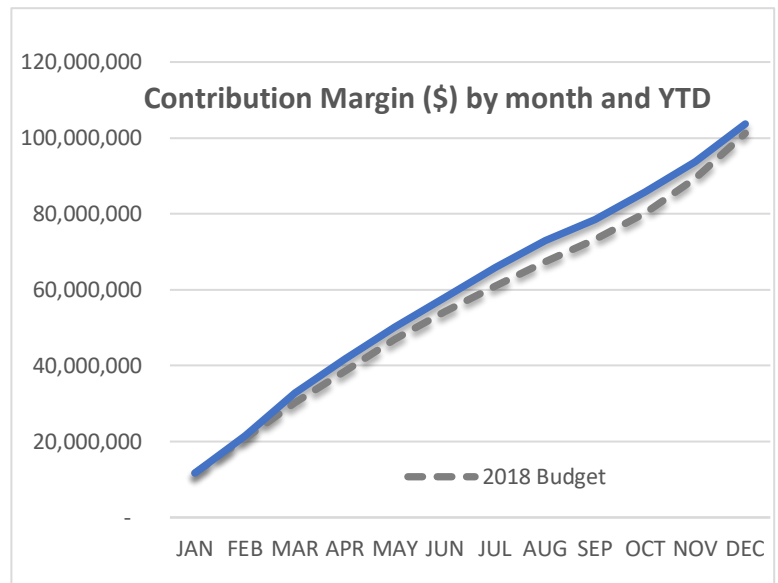
### Electric Retail Sales by Consumption

Annual Retail consumption was lower than budget. The primary driver for unfavorable residential sales were warmer than expected temperatures in January and December. The unfavorable variance in Commercial and Industrial sales was primarily driven by an industrial customer's extended outage. Generally, EWEB is financially indifferent to extended outages from this customer due to contractual requirements. Changes from scheduled usage are valued at market index prices to make EWEB whole on any volumetric variances.

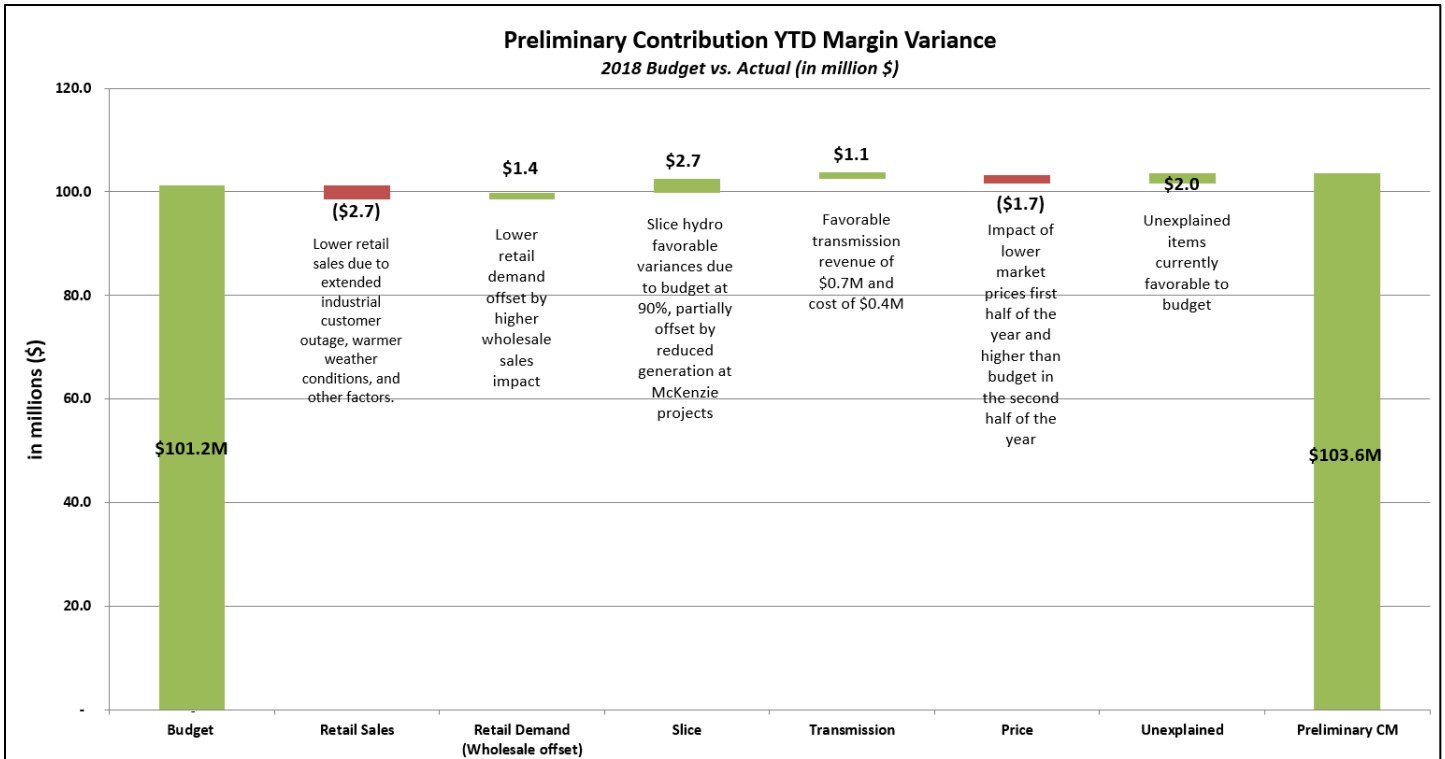


### Preliminary Electric Wholesale & Contribution Margin

The Electric Utility contribution margin represents the amount power sales exceed power expenses. The three main drivers of contribution margin volatility are 1) retail and wholesale sales, which depend largely on weather and economic conditions, 2) hydroelectric production which is weather dependent and subject to spill requirements, and 3) power prices which are market driven. The risks associated with these volatile factors are managed through a variety of mechanisms including conservative budgeting assumptions (which assume revenue that is \$2.7 million less than expected conditions), a power hedging program that ensures fixed prices up to 90% of the expected hydro level, and maintaining power reserves. The year-end contribution margin variance was \$2.4 million favorable to budget primarily due to strong water flows in the Columbia River Basin which resulted in higher revenues from EWEB's Bonneville Power Administration's slice contract. In 2018, the spill injunction was less impactful than originally anticipated due to the strong water supply in the Columbia River Basin. The spill

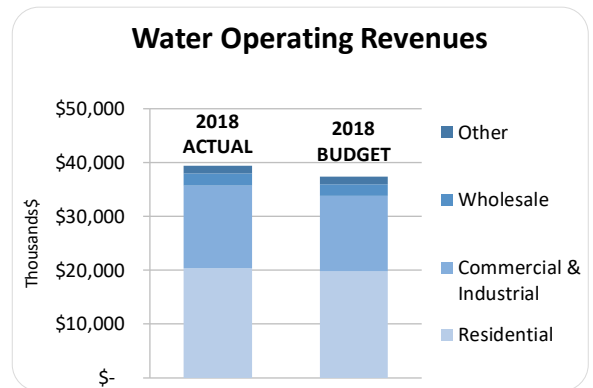


injunction is expected to have more financial impact in lower water supply years when BPA is required to spill when they would otherwise try to store water.

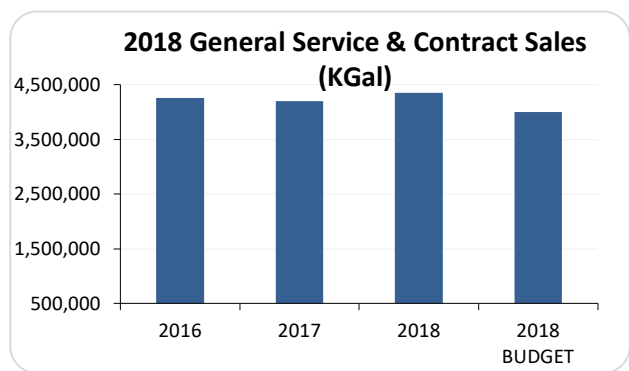
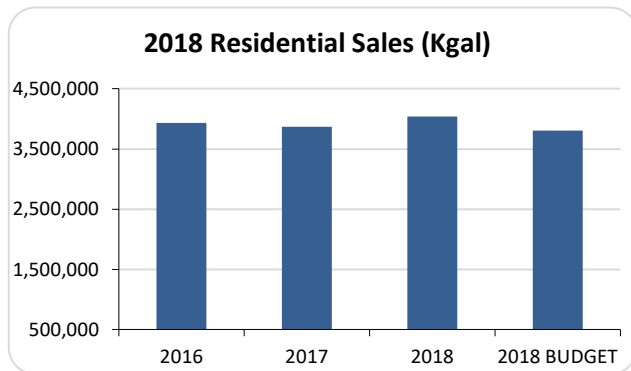


### Preliminary Annual Water Operating Revenues

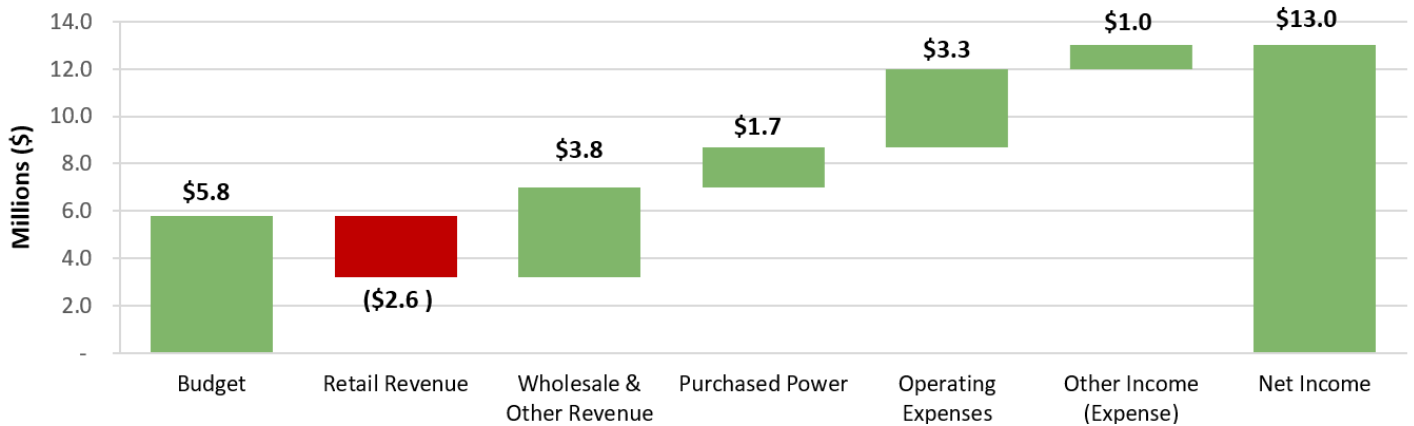
The Water Utility has a favorable \$2 million budget variance in total operating revenues for 2018. **Retail revenue** had a favorable variance of \$1.9 million and is approximately 6% above budget. The annual budget is set using conservative assumptions to help mitigate risk. For 2018, the contribution margin risk tolerance was \$750,000, or approximately 96% of the 5-year retail sales average. **Wholesale and other revenue** includes sales to the Water Districts, City of Veneta, as well as sales to the Willamette Water Company and tracked with budget assumptions in 2018.



### Water Retail Sales by Consumption



**Electric Utility Net Income Variance**  
2018 Budget vs. Actual (in Millions)



Retail revenue was slightly under budget due to lower than average heating degree days. Wholesale revenue was favorable primarily due to the strong hydro year as discussed in the contribution margin section. Operating expenses were under budget primarily due to the reclassification of the downtown fiber work from O&M to capital and unallocated contingency funds. Other income was favorable compared to budget due to investment earnings. At year end, net income for the Electric Utility is \$13 million or 224% of the annual budget. See *Appendix A - Electric Utility Financial Statement for a preliminary, unaudited statement.*

Preliminary Electric Capital

Capital spending for 2018 is \$36 million or 96% of the annual budget. See *Appendix C - EL1 Report*

Electric Reserve Levels

Reserves are at or above board targets. EWEB’s pension and OPEB liabilities were reduced \$34.6 million in December using both Electric and Water Utility Pension & Post-Retirement Medical funds and Working Cash above target. The Board discusses the use of reserves above target each spring after the year-end financial audit. December balances are presented below:

**Electric Utility Schedule of Cash Reserves**

	FINANCIAL POLICY		BALANCE
	REFERENCE	TARGET	12/31/2018
Working Cash	Rate Sufficiency	\$ 36,000,000	\$ 48,318,828

**DESIGNATED FUNDS**

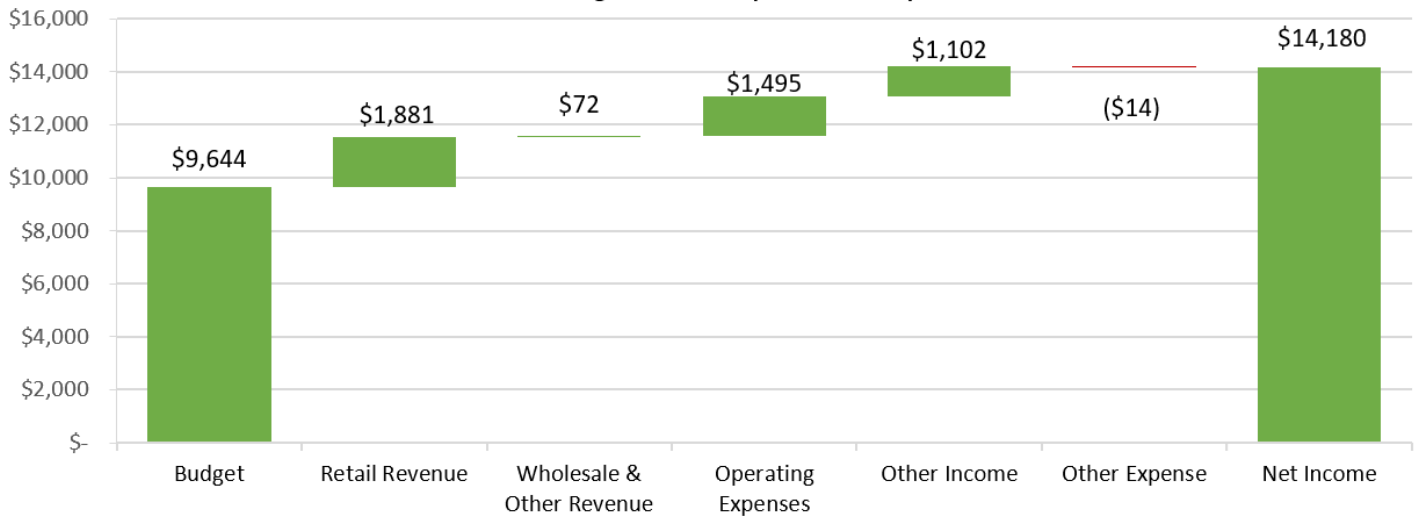
Operating Reserve	Rate Stability	\$ 2,000,000	\$ 2,082,704
Self-Insurance Reserve	Rate Stability	1,720,000	1,773,975
Power Reserve	Rate Stability	17,000,000	17,000,000
Capital Improvement Reserve <sup>(1)</sup>	Capital Reserve	22,000,000	25,692,599
Rate Stabilization Fund <sup>(2)</sup>	Rate Stability	5,000,000	37,048,759
Pension & Post-Retirement Medical Fund		-	-
Business Growth & Retention Loan Fund		-	1,993,249
<b>DESIGNATED FUNDS TOTAL</b>		<b>\$ 47,720,000</b>	<b>\$ 85,591,286</b>
<b>CASH &amp; DESIGNATED FUNDS TOTAL</b>		<b>\$ 83,720,000</b>	<b>\$ 133,910,114</b>

<sup>(1)</sup>The Capital Improvement Reserve includes \$2.2 million designated to fund 2019 meter installation costs.

<sup>(2)</sup>The Rate Stabilization Fund includes \$21.5 million designated to reduce future borrowing.



**Water Utility Net Income Variance**  
2018 Budget vs. Actual (in Thousands)



At year-end, net income for the Water Utility is \$14.2 million or 147% of the annual budget. As discussed in the Preliminary Annual Water Operating Revenues section, retail revenue is favorable compared to conservative budget assumptions. Operating expenses are favorable compared to budget due to unallocated contingency funds and favorable variances in professional services and contracted labor. Other income has a favorable variance primarily due to the difference between the sales proceeds and recorded value of the riverfront property. See *Appendix B - Water Utility Financial Statement for a preliminary, unaudited statement.*

Preliminary Water Capital

Year-to-date capital spending is \$15.8 million or 100.5% of the annual budget. The Water Utility’s preliminary capital spending is approximately \$75,000 over the budgeted authority for 2018. See *Appendix C - EL1 Report* for further details.

Water Reserve Levels

EWEB’s pension and OPEB liabilities were reduced \$34.6 million in December using both Electric and Water Utility Pension & Post-Retirement Medical funds and Working Cash above target. The Board discusses the use of reserves above target each spring after the year-end financial audit. December balances are presented below:

**Water Utility Schedule of Cash Reserves**

	FINANCIAL POLICY		BALANCE
	REFERENCE	TARGET	12/31/2018
Working Cash	Rate Sufficiency	\$ 3,400,000	\$ 10,664,802
<b>DESIGNATED FUNDS</b>			
Operating Reserve	Rate Stability	\$ 1,000,000	\$ 1,012,184
Self-Insurance Reserve	Rate Stability	280,000	288,712
Capital Improvement Reserve <sup>(1)</sup>	Capital Reserve	7,000,000	10,283,765
Rate Stabilization Fund	Rate Stability	1,000,000	1,307,263
Pension & Post-Retirement Medical Fund		-	-
Alternate Water Supply Fund		-	6,377,023
Other Designated Funds		-	291,660
<b>DESIGNATED FUNDS TOTAL</b>		<b>\$ 9,280,000</b>	<b>\$ 19,560,607</b>
<b>CASH &amp; DESIGNATED FUNDS TOTAL</b>		<b>\$ 12,680,000</b>	<b>\$ 30,205,409</b>

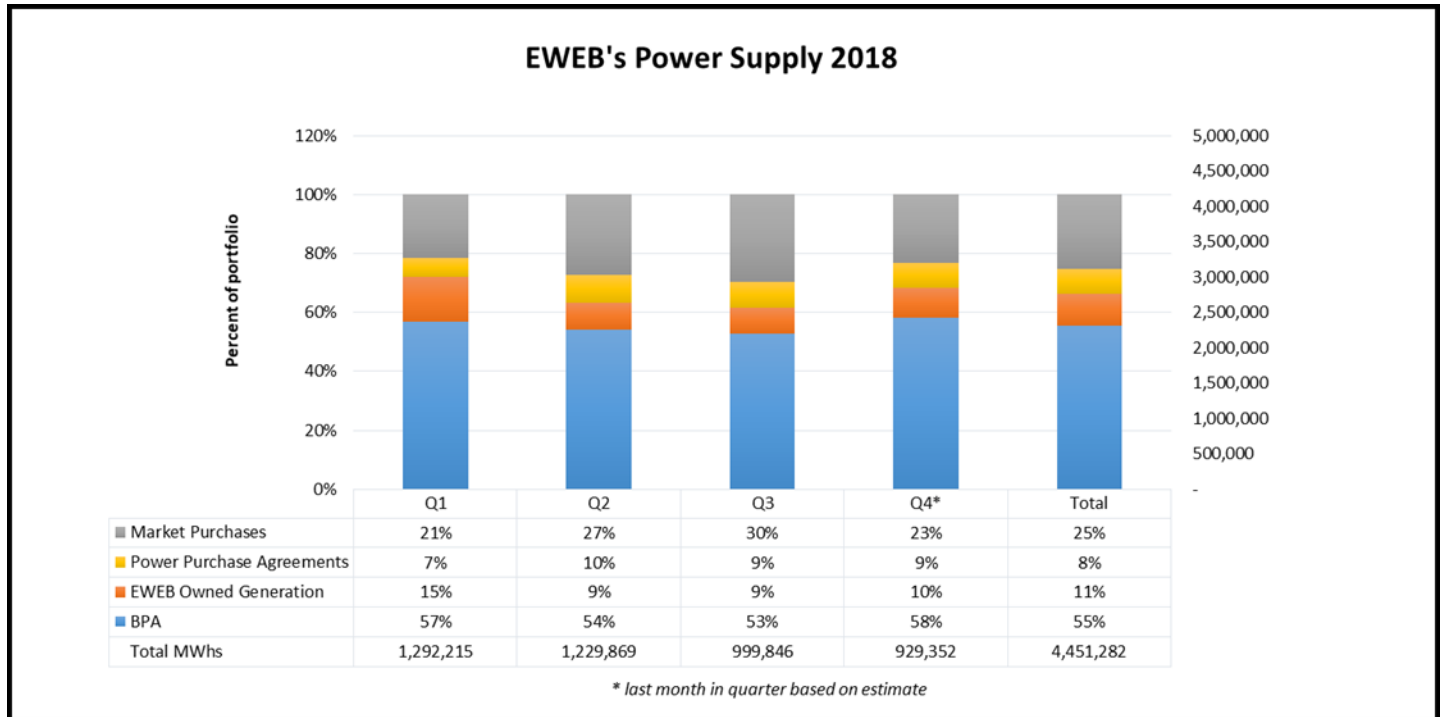
<sup>(1)</sup>The Capital Improvement Reserve includes \$2.5 million designated to fund meter installation costs in 2019 and 2020.

## Energy & Electric Operations

EWEB owns and operates generation, transmission, and distribution equipment and systems for the sale and delivery of electricity to our customer-owners (local consumers) and other electricity resellers (wholesale). Continuing to provide electricity safely, reliably, and affordably is our operational priority.

### Energy Production/Generation

In the fourth quarter, EWEB generation totaled 929,352 MWhs with 58% supplied by the Bonneville Power Administration (BPA), 10% from EWEB-owned generation, 9% from power purchase agreements and the remainder from market purchases.



The fourth quarter of 2018 was a challenging one for EWEB-owned electric generating resources. The quarter was abnormally dry across the Pacific Northwest with few typical winter storms. As a result, stream flows remained well below average and wind output was below normal. In addition, the Leaburg project was offline for almost the entire quarter to address dam safety concerns identified in a September FERC inspection of the project. The Carmen power plant was returned to service in early November, following the substantial completion of turbine shutoff valve replacement work. However, concerns over the potential for sinkholes at Carmen Diversion Reservoir limited the amount of water that could be routed to the Carmen power plant through the end of the quarter. The thermal plants were operating well going into the quarter, but a natural gas pipeline explosion in British Columbia in early October affected gas availability and price for the remainder of the quarter. As a result both steam generation units were curtailed or offline for portions of the quarter. Our wind turbines were generally available during the quarter, but due to a lack of wind, production of energy fell short of our targets.

### Q4 2018 Generation Reliability by Fuel Type

Generation Type	Availability Factor (AF)	Forced Outage Factor (FOF)	Notes
<b>Target</b>	<b>&gt; 90%</b>	<b>&lt; 3.00%</b>	
Wind	93.95%	N/A	Meeting plan.
Hydro	41.69%	12.66	Carmen plant available for ½ of Q4. Leaburg units are offline due to canal outage. Trail had limited availability due to low water.
Thermal	83.38%	15.04	Both thermal plants experienced planned and unplanned outages during Q4. Output affected by natural gas price and availability.

In total, EWEB-owned hydroelectric facilities did not meet targets for availability (AF) or forced outage factor (FOF) in 2018. AF measures the percentage of time a unit is available to produce electricity, and FOF is the percentage of time a unit is unavailable due to unplanned outages. Individually, only Walterville and Trail Bridge met the annual availability target, and Carmen Unit 2 and Stone Creek met the annual FOF target. While there were a number of factors that led to these results, the primary issues were a seven month maintenance outage at Carmen, an extremely low water year in the McKenzie basin, FERC dam safety driven outages at Leaburg and Carmen Diversion Reservoir, and a month-long construction outage at Stone Creek.

## December 2018 Generation YTD Report



Parms: Plant Management Control = No, Include Deratings = Yes, Gross = Yes, Data Last Loaded Date: 1/23/2019

Unit	Year	Month	AF	FOF	GCF	GOF
CSU1	2018	12	34.16	7.00	12.47	53.85
CSU2	2018	12	37.04	0.32	5.42	49.48
TBU1	2018	12	90.77	8.07	43.22	49.84
LBU1	2018	12	50.27	44.51	41.06	81.68
LBU2	2018	12	64.50	30.86	57.43	89.05
STCU1	2018	12	83.82	0.05	48.91	58.36
WVU1	2018	12	92.02	4.14	63.11	68.58
<b>EWEBHydro</b>	2018	12	<b>44.01</b>	<b>4.45</b>	15.19	59.20
IPU4	2018	12	71.56	11.20	58.45	81.67
WGAU1	2018	12	87.06	9.41	44.03	50.58
<b>EWEBTherm</b>	2018	12	<b>80.63</b>	<b>10.15</b>	50.02	62.04
HW	2018	12	95.85			
FC	2018	12	93.13			
<b>EWEBWind</b>	2018	12	<b>94.56</b>			

**AF:** Availability Factor. Multiplied by 100, this factor indicates the percentage of time that the generating units were available for operation.  
**FOF:** Forced Outage Factor. Multiplied by 100, this factor indicates the percentage of time that the generating units were forced offline due to an unplanned event.  
**GCF:** Gross Capacity Factor. Multiplied by 100, this factor indicates the percentage of megawatt hours generated relative to the maximum number of megawatt hours that could have been generated if the generating unit had been operating continuously at full capacity.  
**GOF:** Gross Output Factor. Multiplied by 100, this factor indicates the percentage of megawatt hours generated relative to the maximum number of megawatt hours that could have been generated if the generating unit had been operating at full capacity when available to generate.

The two steam turbine generators also had difficult years in 2018. Annual AF and FOF for the steam turbine generator at International Paper were well below targets due to both the extended mill outage in March and the planned major maintenance overhaul of the unit in May. The Wauna (WGA) turbine did not meet plan due to a maintenance outage during Q2 and the linger impacts of the natural gas pipeline explosion in Q4.

The 2018 capacity factor, which is the ratio of the energy produced to the total energy that could have been produced, for our hydro facilities was 15.19, largely affected by the Carmen and Leaburg outages and lack of water across the system, and for our thermal facilities it was 50.02, largely driven by the extended IP outages and natural gas curtailments. We expect 2019 to be another challenging year for EWEB-owned hydroelectric generation due to the ongoing outage at Leaburg, the second year of Carmen power plant work and a poor start to the hydrologic year in Oregon. The coming year should be productive for the steam generators, with gas prices stabilizing and no major maintenance outages scheduled.

Both wind farms operated well over the course of the year, and both exceeded plan for availability. Production was down during the fourth quarter due to a lack of wind.



**Electric Delivery Reliability**

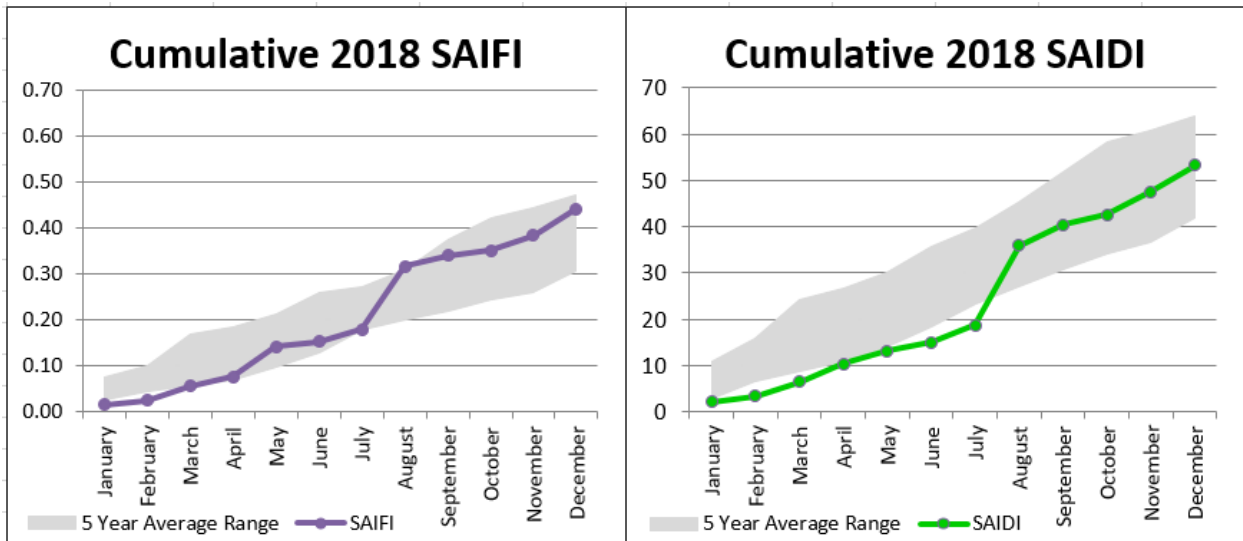
EWEB tracks electric system reliability using Institute of Electrical Electronic Engineers (IEEE) metrics, including System Average Interruption Frequency Index (SAIFI) & System Average Interruption Duration Index (SAIDI). A substation outage and a couple of feeder lockouts drove the reliability numbers in Q4. About half of the outage minutes were caused by the failure of a voltage regulator on the Prairie Substation transformer tripping the entire substation offline resulting in almost 2,300 customers being out of power for about 90 minutes until all of the feeders were switched over to back-up feeders. An underground cable termination failure and a broken crossarm caused the other two feeder lockouts. The SAIFI and SAIDI numbers for the year ended up slightly above the 5 year averages.

**2019 Q4 System Average Interruption Frequency Index (SAIFI) Outage Performance Details**

Total # of Interruptions	Total # of customer interruptions	Total outage minutes
54	5,395	539,246
<i>See attached 2018-12 Reliability Index Report for more details</i>		

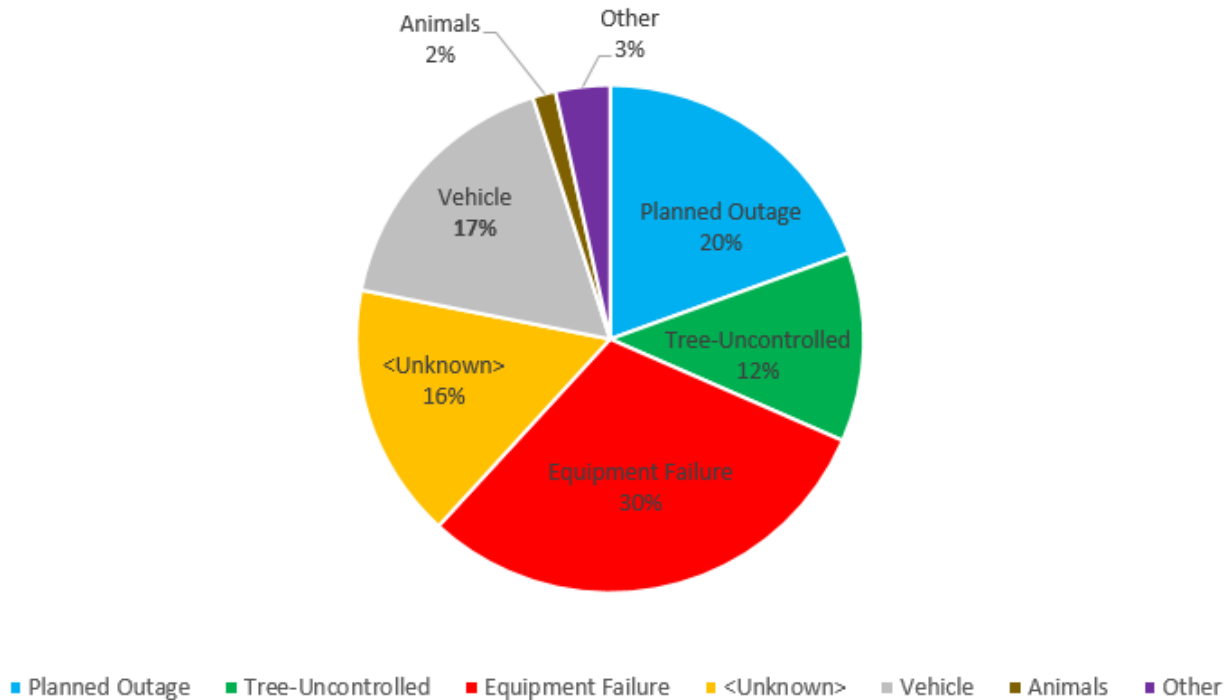
**2019 System Average Interruption Frequency Index (SAIFI) & System Average Interruption Duration Index (SAIDI) Outage Performance Details**

Index	YTD Actual	YTD 5 Year Average	Pacific Northwest APA City Average YTD	Dashboard
SAIFI	0.442	0.379	0.40	
SAIDI (minutes)	53.38	50.85	43.20	



Below is a chart of the year end interruptions by causes. Equipment failure is the largest percentage of failures. Our Capital Improvement Plan will be focusing on substation and distribution improvements to reduce equipment failure and aging assets over the next five years. This chart represents 689 interruptions for the year 2018.

### 2018 Year to Date Interruption Minutes by Outage Cause



**Electric Line Tree and Vegetation Management  
PCOP = Potential Customer Outages Prevented**

Month	Planned (line miles)	Completed (line miles)	% Completed	PCOP	Status
September	23.3	24.0	103%	4,350	●
October	23.3	36.83	158%	7,996	●
November	23.3	18.14	78%	1,976	●
*December	23.3	13.68	59%	1,540	●
2019 Q4 totals	93	93	100	15,862	●
<b>YTD totals</b>	<b>280</b>	<b>275</b>	<b>98%</b>	<b>44,329</b>	●
*Number are low due to sending 4 tree crews to California to assist with fire clean up. <b>PCOP = Potential Customer Outages Prevented</b>					

Asset Management & Planning

As of December 2017, the Electric Utility manages approximately \$760 million of assets (plant-in-service), including generation, transmission, and distribution infrastructure.

During 2018, staff coordinated regularly around changes to project, scope, schedule and budgets of active and upcoming projects. Through this process, budget owners were able to collaborate around budget changes throughout the year by utilizing available projects with budget flexibility. This resulted in yearend spending to be very close to budgeted with a very slight overage of 0.07%, or approximately \$17,000 (according to available financial reporting data).

Project Execution – 2018 Capital Improvement Plan performance (Data through Dec. 31st, 2018)

Total Type 1 and Type 2:

\$23.8M spent (budget \$23.78M) 100.07% dollars spent

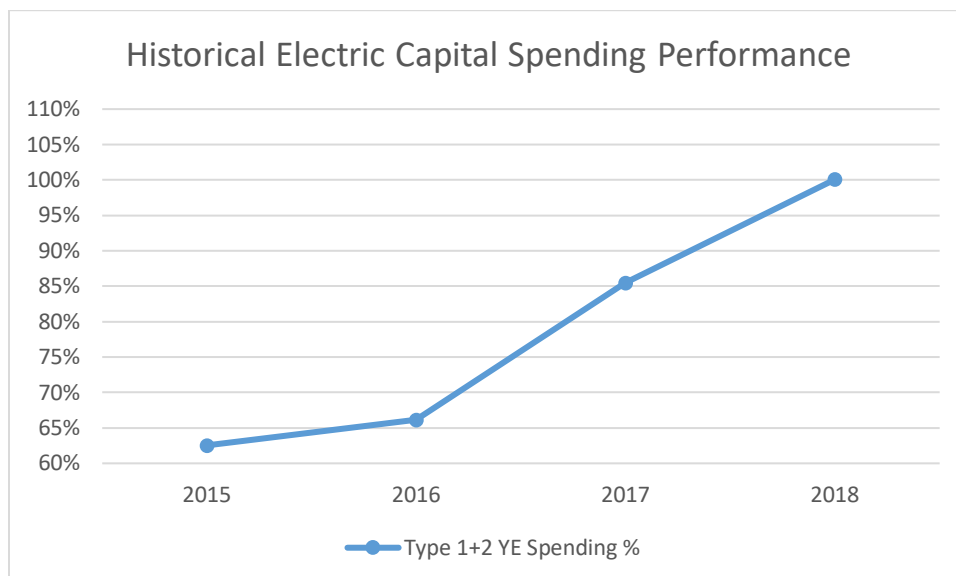
Type 3: Carmen-Smith

\$12.1M spent year to date (budget \$13.8M) 88% dollars spent.

Total:

\$35.96M spent year to date (budget \$37.9M) 96% dollars spent

2018 capital budget spending percentage has increased substantially in the past 4 years as seen in the figure below.



## **Integrated Electric Resource Planning**

The Power Planning group provides both qualitative and quantitative coordination and analysis, with the goal of achieving the synchronized load resource balance envisioned in EWEB's long term strategic plan. As a part of this work, staff will produce the next Integrated Resource Plan (IRP) in late 2021. Between now and 2021, several of EWEB's power supply resources are eligible for renegotiation or renewal/expiration. Power Planning is in the process of determining the value and "fit" of these resources in the EWEB's supply portfolio. As of Q4, Power Planning has accomplished the following:

- Benchmarked its analytical framework and tools against three other large public utilities in the northwest.
- Completed initial configuration of its production cost model to represent EWEB-specific resource attributes, costs, current legislation, and policy. It is anticipated that these models will be used in all future IRP analytics.
- Initiated work on an optimization module to create a series of portfolios that can be looked at from a risk and reward basis. This will be valuable to evaluate the impacts of potential futures (scenarios).
- Developed an end-use load forecasting model to forecast energy efficiency, distributed energy resource (DER), and electrification penetration to predict and evaluate the impact of different futures (scenarios) on hourly consumption.
- Contracted with Arne Olson at E3 to provide strategic guidance to staff as they develop assumptions and scenarios to model in the next plan.

This work builds on the feedback Commissioners provided to staff regarding suggested resource planning principles and the Pacific Northwest's supply adequacy situation, which has the potential to impact EWEB's future resource strategy. In the next quarterly report, Power Planning will include additional information to track our progress toward the next IRP and work related to optimizing our power and renewable energy credits (REC) portfolios.

### **Trading Floor Business Analysis**

During the last two quarters of 2018, the Energy Division engaged a consultant for the purpose of doing a business case analysis of the feasibility of outsourcing some or all of the functions currently performed for EWEB by its real-time Trading Floor. The question of whether the Trading Floor's business and operational functions can be performed more cost-effectively by an outside entity is a question that has been frequently asked, as many public power utilities in the area (such as SUB or Blachley-Lane) are full requirements customers of BPA and therefore do not need a similar business function.

EWEB's Trading Floor performs the following functions for the Electric Utility: (1) remotely dispatches the Carmen-Smith and Trail Bridge hydro generation to load and manages water flows from the project; (2) continuously meets customer load demands using EWEB's owned generation and contracted-for generation, including the BPA Slice product; (3) schedules all purchases, sales, transmission losses, and remote generation in and out of EWEB's system; (4) negotiates and executes hedges for EWEB's long resource position through five years into the future; (5) performs a number of functions for the Utility's generation function such as meeting licensing requirements for the McKenzie River Projects and managing compliance with certain NERC (North American Electric Reliability Corporation) reliability standards; (6) manages EWEB's short and long positions for the next day; and (7) balances and schedules EWEB's generation and loads on an hourly basis in compliance with BPA Transmission rules.

The consultant (selected through a competitive solicitation) was EES Consulting of Kirkland, Washington. EES has completed work for EWEB previously, is a regional consultant with high familiarity of the Pacific Northwest electric grid and markets, and was also the lowest cost bid. EES spent two days onsite with the Trading Floor personnel, Finance, and Information Services. Additionally, they sought and received much data from the Utility.

The following are EES's high level conclusions (provided in a final written report in December, 2018):

- EWEB's Floor should be retained as the lowest cost option for providing all of the functions the Floor provides the Utility.
- The Floor provides necessary services at a net cost to EWEB of \$0.7/MWh. Alternative scenarios would cost EWEB from \$0.9/MWh to \$1.4/MWh, a 40 to 115% increase.
- EWEB would have to find an alternative scheduler willing to accept less than \$0.45/MWh in order to improve the cost of providing these services, something EES thought was unlikely.

- EWEB trade strategy compares very favorably (equal to or better than) other utilities in terms of getting value from EWEB's resources.

EES's final report stated that it was the complexity of EWEB's owned and purchased generation portfolio that made it difficult to find comparators or alternative service providers at a lower cost. They stated that if EWEB were not a Slice Customer of BPA, that fact might have changed their conclusions. EWEB's next chance to evaluate the Slice purchase will come with BPA's next product offerings, for an effective date in 2028.

### **Carmen-Smith**

Replacement of the two turbine shutoff valves in the Carmen Power Plant reached substantial completion in late October, and the plant was returned to limited service in November. Staff continue to work with the valve supplier and construction contractor on closeout items related to valve operation, but we expect the project to be completely wrapped up by Q2/2019. The Carmen plant will be taken out of service again in April 2019 for the second year of powerhouse reconstruction work. The 2019 work focuses on the electrical portion of the facility and includes the replacement of switchgear and a rebuild of the project substation. We expect the Carmen plant to return to service in November 2019. Our turbine/generator contractor continues to make good and appropriate progress on the production of the new turbine runners and preparation for the rewind of the generators at the Carmen Powerhouse. Single unit outages for the turbine/generator work are scheduled for 2020 and 2021.

During a site inspection in July, FERC dam safety staff from Portland documented a concern regarding sinkholes present in the native material that forms the bottom of Carmen Diversion Reservoir. EWEB subsequently completed a bathymetric survey of the lake bottom and found minor changes in several sinkholes from the previous survey conducted in 2016, and the addition of a new sinkhole that wasn't identified in 2016. EWEB also completed two types of geophysical testing at the reservoir and conducted a dye test at the sinkholes using divers.

During the fourth quarter, staff lowered the elevation of the diversion reservoir as low as possible following a FERC order to do so. A disagreement and miscommunication regarding what actions were safely possible at the diversion spillway led to the FERC issuing EWEB a Notice of Violation in November. FERC subsequently indicated that they considered the matter resolved and would not assign penalties related to the issue. During Q4/2018, EWEB generally operated Carmen Diversion at an elevation of 2615 feet. Normal pool is 2625 feet, and for most of the year we operated at 2626 feet or above due to the Carmen power tunnel outage. Late in December, FERC approved EWEB's winter operations plan for Carmen Diversion and we were able to raise the elevation of the diversion reservoir to above 2616, which allows us to capture most of the water in the McKenzie for power generation. We continue to work with the FERC on a plan to investigate the sink holes and develop a long-term mitigation plan for the reservoir. This work is expected to continue through 2019 before resolving.

FERC continues to actively process our license application for Carmen-Smith with issuance expected in the first half of 2019. It is not clear how the current federal government partial shutdown is affecting the license, but it is unlikely that FERC will issue the license while the federal resource agencies are furloughed. Staff are currently planning for the engineering and deployment of several major environmental and aquatic improvements required by the license.

### **Walterville**

In April 2018, staff determined that 2018 was likely to be a below median flow year on the lower McKenzie River. In accordance with a Record of Decision (ROD) signed by General Manager Lawson, staff subsequently implemented a low flow operating regime for the Walterville Hydroelectric Project. In accordance with the ROD, operational staff left ten percent more flow in the Walterville bypass reach of the McKenzie than we put in the Walterville power canal. The license requirement for instream flow in this reach is 1,000 cubic feet per second (cfs), and EWEB tries to maintain a minimum of 1,050 cfs throughout the year. This low flow procedure was put into place following the June maintenance outage for the Walterville plant (when the canal was offline) and continued through October. Based on the 2019 hydrologic year to date, it is likely that 2019 will also be a low-flow year on the McKenzie, triggering a similar operational approach for this coming summer.



### **Leaburg**

Following the annual FERC dam safety inspection of the Leaburg project in September, FERC dam safety personnel from the Portland Regional office directed EWEB to dewater the Leaburg Canal in response to their concerns regarding seepage and sediment piping along a stretch of the canal downstream of Cogswell Creek. Responding to FERC's directive, EWEB notified residents in the area of FERC's concerns and EWEB's planned dewatering. Staff worked extensively with the nearby ODFW salmon hatchery as they assessed their operational water needs and planned for the inevitable reduction in flow to the hatchery which would result from the FERC-mandated dewatering of the canal. EWEB staff conducted twice-daily inspections of the seepage area, and planned for the dewatering of the canal. Canal dewatering took place in early October. Staff are currently working with FERC to investigate, design a mitigation and repair the canal. This work is expected to continue through the first half of 2019.

### **Electric Master Planning**

A draft master plan is underway and was targeted for completion by Q2 2019. After review of scope and available resources, the scope has been paired down to model a single asset (underground cable) and build on that model for other assets in 2019. A consultant has been contracted and will begin work in Q1, 2019.

### **Holden Creek Substation**

The Holden Creek substation, located on Hwy 126 near Leaburg, construction and commissioning has been completed, and tie into the Bonneville Power Administration's Thurston-Cougar 115kV transmission line completed in late April. The substation will remain in this state until mid-2019. Planning and procurement is underway to add an additional distribution power transformer to the station to increase resiliency of this site and to provide a backup source in the event of a transformer failure to the upriver customers. Following this addition, the Leaburg Substation will be re-configured with load added, and generator circuits fed to Holden Creek. This work is currently designed and under contract and will be completed Q2/Q3 2019.

### **Improving Distribution Customer Design Process**

In February of 2018, the Distribution Engineering group started a new work process designed to improve customer experience and reduce project delivery times. Measurements for the new process were put in place and the new work process has been successful overall, both in reducing turnaround times (from around three weeks to one week) and in providing clearer points of contact for our customers.

Distribution Engineering Project work flow summary for the year –

- 1127 customer inquiries
- 385 new projects requested by customers after inquiries
- 269 projects released for construction
- 118 projects currently waiting on customer information and money to precede
- Average wait time for jobs in design que is 1 week.

*See Appendix C - EL1 Report for Electric, Water & Shared Services for capital project details.*

## Water Operations

EWEB owns and operates intake, treatment, transmission, and distribution equipment and systems for the sale and delivery for clean drinking water to our customer-owners (local consumers) and other water resellers (wholesale, water districts). Continuing to provide water safely, reliably, and affordably is our operational priority.

### Source Protection, Water Quality and Public Safety

The main focus areas for source protection and water quality in 2018 were responding to toxic algal blooms and new Oregon Health Authority rules, completing the new Oregon Watershed Emergency Response System web application as a public-private partnership, launching the Pure Water Partners Program, and assessing the effects of the Terwilliger fire on water quality.

Bi-weekly routine cyanotoxin sampling was completed on 10/31/2018. Water Quality (WQ) Lab staff successfully ran multiple batches of environmental samples using the new ELISA cyanotoxin analytical testing equipment with good results that met method and quality assurance requirements. Source Protection staff will continue monthly monitoring of reservoirs over the winter allowing the WQ Lab to continue to analyze environmental samples ahead of the 2019 bloom season. The final cyanotoxin monitoring rules from Oregon Health Authority were released in late December 2018, which removed some of the onerous requirements in earlier drafts of using genetic testing and doing winter monitoring. As a result, EWEB can meet its regulatory requirements using the WQ Lab once accredited on the ELISA method by ORELAP (Oregon Lab Accreditation Program).

The new Oregon Watershed Emergency Response System (OWERS) web application was completed and successfully tested with the International Paper oil spill in March 2018. In addition, EWEB, Region 2 HazMat, McKenzie Fire & Rescue, Lane County Sheriff, Springfield Utility Board, City of Springfield, Oregon DEQ, and Army COE staff participated in a live drill on the river responding to a fictitious 5,000 gallon diesel fuel spill at Hendricks Bridge from a tanker truck accident that led to shutting down the Hayden Bridge intake for a few hours to allow the main slug of the plume to flow by the intake. OWERS was used as part of the drill to provide spill notice and updates to the response community and EWEB management and resources. The spill drill was well covered by media.

EWEB continues working with a number of partner agencies and organizations to develop a McKenzie Watershed Conservation Fund as part of the Pure Water Partners (PWP) program using grant funds from the U.S Endowment for Forests and Communities. Over 35 landowners are participating in the PWP program with 14 landowners having signed PWP agreements or entered into conservation easements as part of this effort totaling over 150 acres of riparian forest.

EWEB staff sampled three storm events to assess pollution runoff and water quality impacts from urban areas and the lower watershed, as well as water quality impacts from the Terwilliger fire in the upper watershed. The first major storm was focused on first flush of pollutants from urban areas in east Springfield and lower watershed tributaries like Cedar Creek, Camp Creek, and Keizer Slough. Two additional storms were sampled as part of the OSU fire study to assess water quality impacts in the upper watershed and determine if wildfires influence harmful algal bloom dynamics in subsequent years. Preliminary data shows significantly higher levels of turbidity, sediment, organic carbon, and to a lesser degree nutrients being mobilized off burned areas when compared to reference sites. EWEB/OSU sampling teams will target two more major storm events in 2019 to assess impacts from the fire.

### Water Production

The progress during the first stage of the biofilter project consisted of construction and commissioning of the test pilot filter which was completed at the end of November. The purpose of the biofilter project is to study biological activity in water treatment filters to optimize and increase our ability to treat algae toxins and reduce dissolved organics that reach our distribution system.

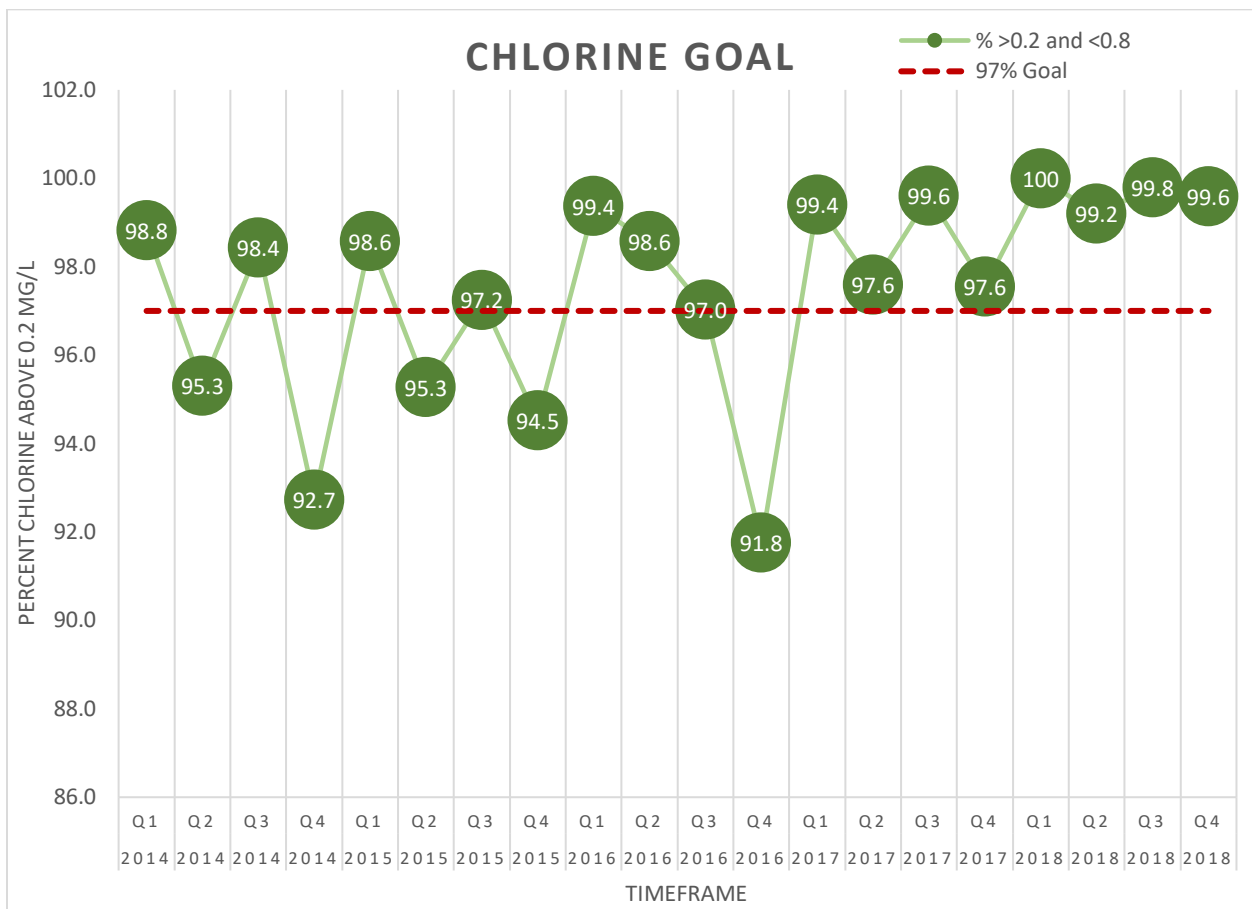
Subsequent testing and baseline monitoring of the test pilot filter indicated the sample locations needed to be changed. These modifications took place in December. The primary objective of the next reporting period is to begin operation of

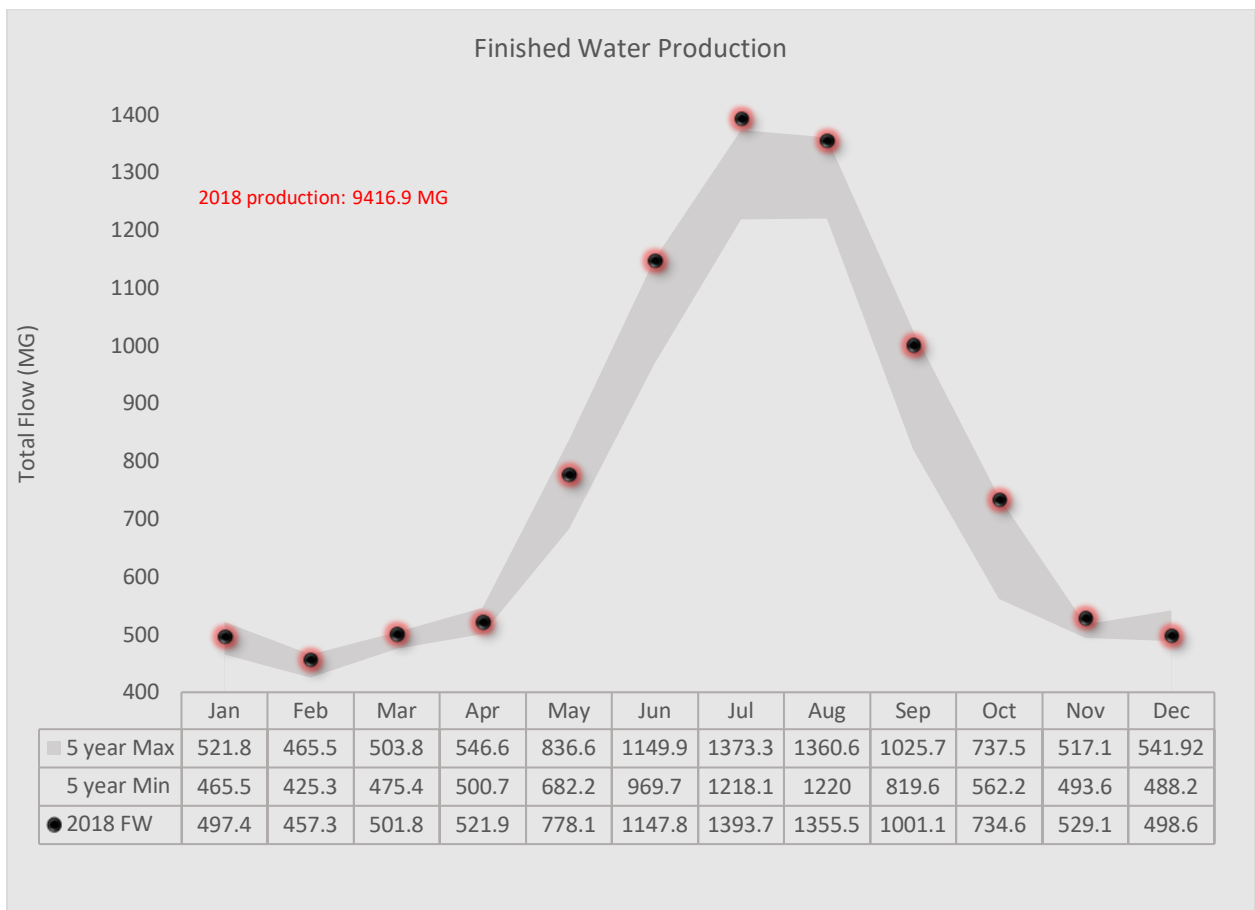
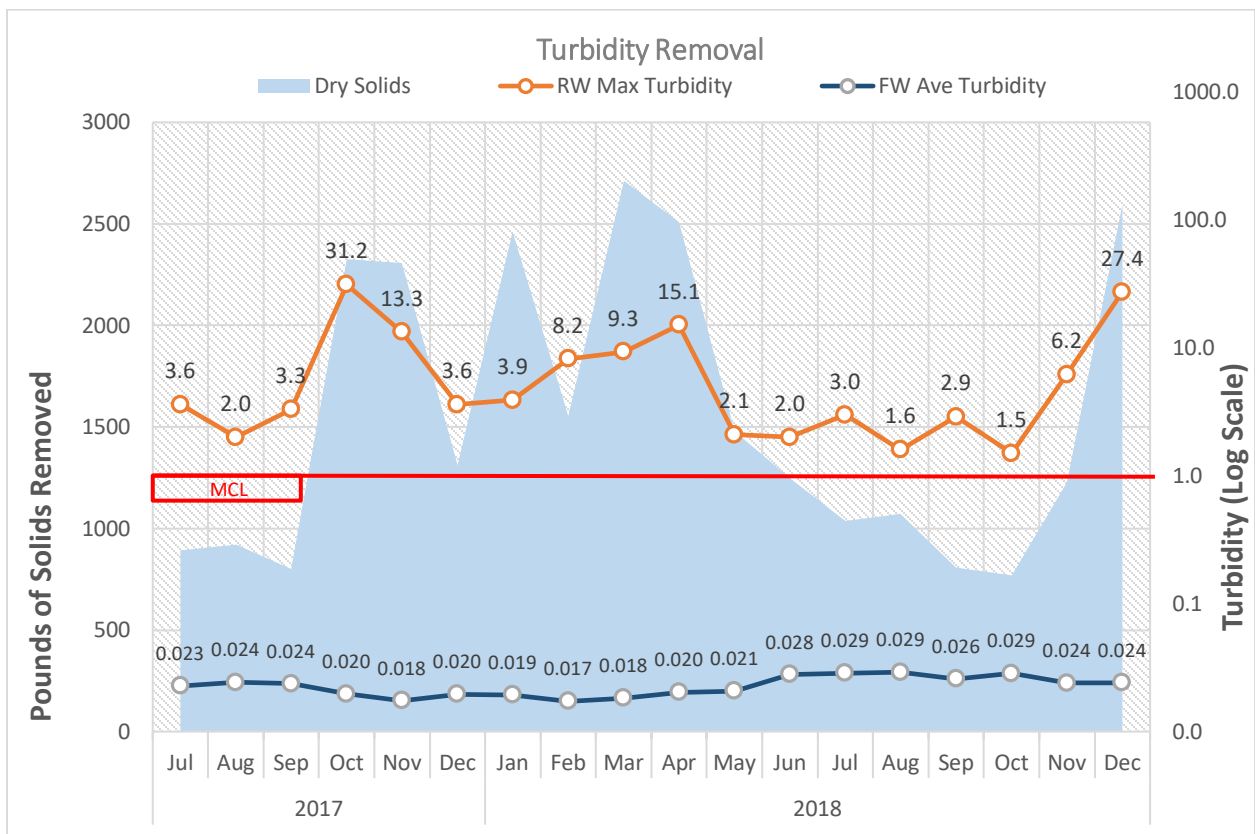
the experimental pilot filter with varying shutdown durations. Shutdown duration impacts on biological activity in the filter will help determine how to support biological activity during long filter shutdown periods seen at the Hayden Bridge Filtration Plant.

Water production ended the year with the highest production since 2009, at 9.4 billion gallons. In late November and December several storm events moved through the area. The anticipated debris flow from fire damage in the watershed has yet to be seen. Turbidity levels during the weather events were normal but very flashy. Dissolved organic load did increase, however it is still to be determined what can be attributed to the fire. No discernable impacts to treatment or chemical usage have been realized.

EWEB tests certain areas for chlorine (Cl<sub>2</sub>) residual in our distribution system as a measurement of water quality for operations. 97% of all samples taken for Cl<sub>2</sub> residual should be between 0.2 parts per million and 0.8 parts per million of Cl<sub>2</sub>. EWEB has modified its operations to achieve higher effectiveness in Cl<sub>2</sub> residual over the past 24 months.

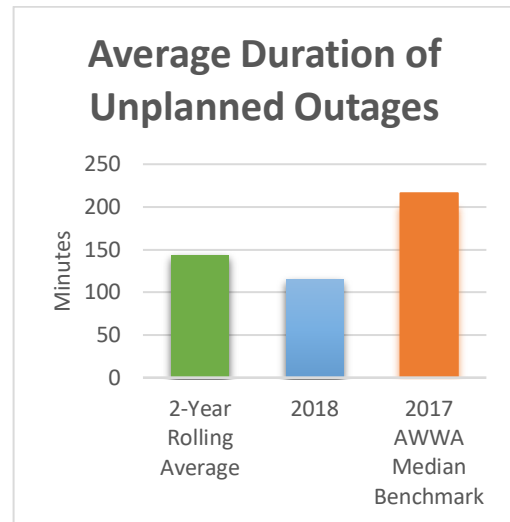
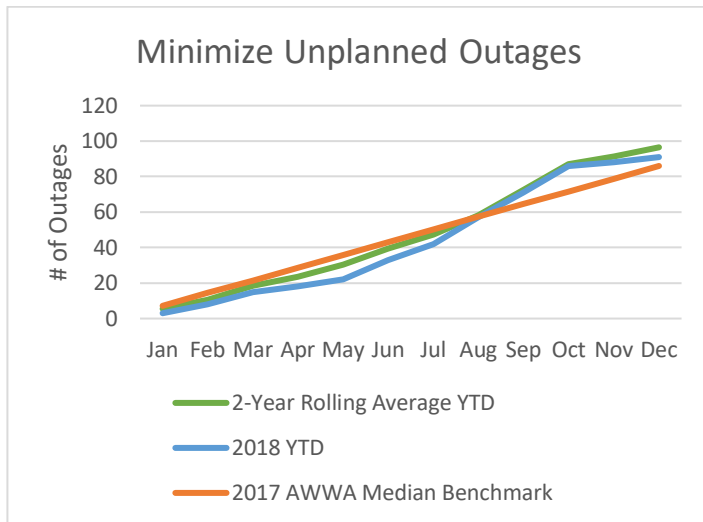
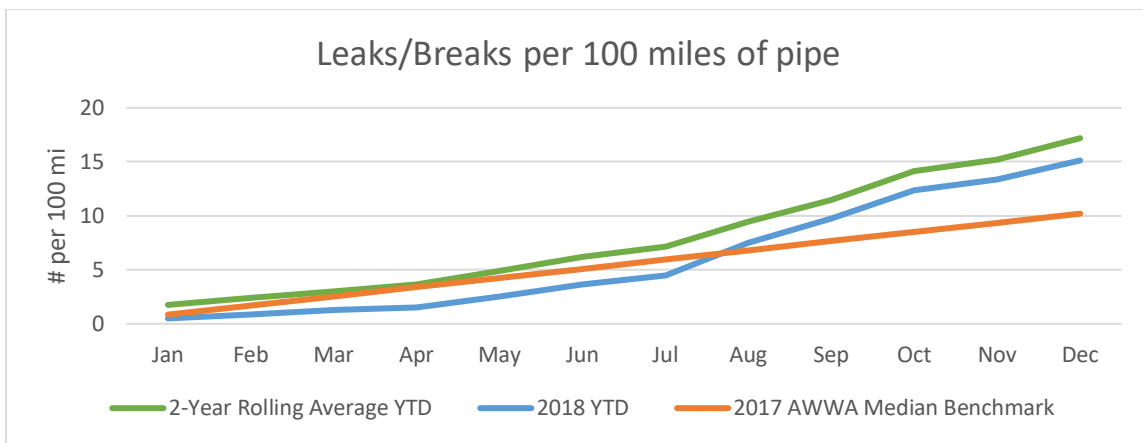
Performance charts for treatment efficiency and finished water output for the Hayden Bridge Filtration Plant are shown below.





Water Delivery Reliability

Goal	Unit	AWWA Median Benchmark	YTD Results
<b>Ensure Reliability of Water Products</b>			
Leaks and Breaks per 100 Miles of Pipe	#	10.2	15.1
Minimize Unplanned Outages	#	86	91
Average Duration of Unplanned Outages	Minutes	216	115
Boil Water Notices	# of Notices	None caused by EWEB	2



Affected Cust By Quarter	2018-01	2018-02	2018-03	2018-04	Total
EMERGENCY	58	237	110	69	474
PLANNED	105	107	190	83	485
<b>Total</b>	<b>163</b>	<b>344</b>	<b>300</b>	<b>152</b>	<b>959</b>

Total customers served by EWEB: 62,889

Percentage of Customer who experienced an outage in 2018 = 959/62,889 = 1.52%

#### Significant Outages and EWEB Caused Boil Notices-Year in Review

There were 2 significant outages in 2018.

- A main break on Donald near Fox Hollow caused an unplanned outage and then boil notice for 182 customers in the late afternoon on June 16<sup>th</sup>. Water Operations was able to get the break isolated and repaired by early morning on June 17<sup>th</sup>. The boil notice was lifted on June 18<sup>th</sup>.
- A main break occurred on Norckenzie Road just north of Beltline on July 5<sup>th</sup>. Water Operations was able to get the break isolated and repaired by end of business on the same day. The break was initially large enough that water pooled up in a neighboring parking lot and eventually entered the building at 1040 Green Acres Road.

There were 2 boil notices caused by EWEB in 2018.

- As part of a scheduled water outage on September 12<sup>th</sup> for a main replacement, a mapping error for one service caused us to depressurize a section of main with one customer connected, before the customer's service was shut down. The customer was notified of the boil water procedure and the notice was lifted within 24 hours.
- EWEB crews performed a main tie-in overnight on November 15<sup>th</sup> to change the piping configuration relating to the Valley River Center (VRC) expansion project. Between the construction engineer/contractor and EWEB staff, there was a service connection on the private side piping that was overlooked that feeds 4 businesses inside VRC. Because the section of main was depressurized before the customer side piping was isolated, they were issued a boil water notice that was lifted the next morning.

All boil notices were reported to Oregon Health Authority and were executed following Oregon Administrative Rules requirements and best management practices.

#### Smart Meter Deployment update

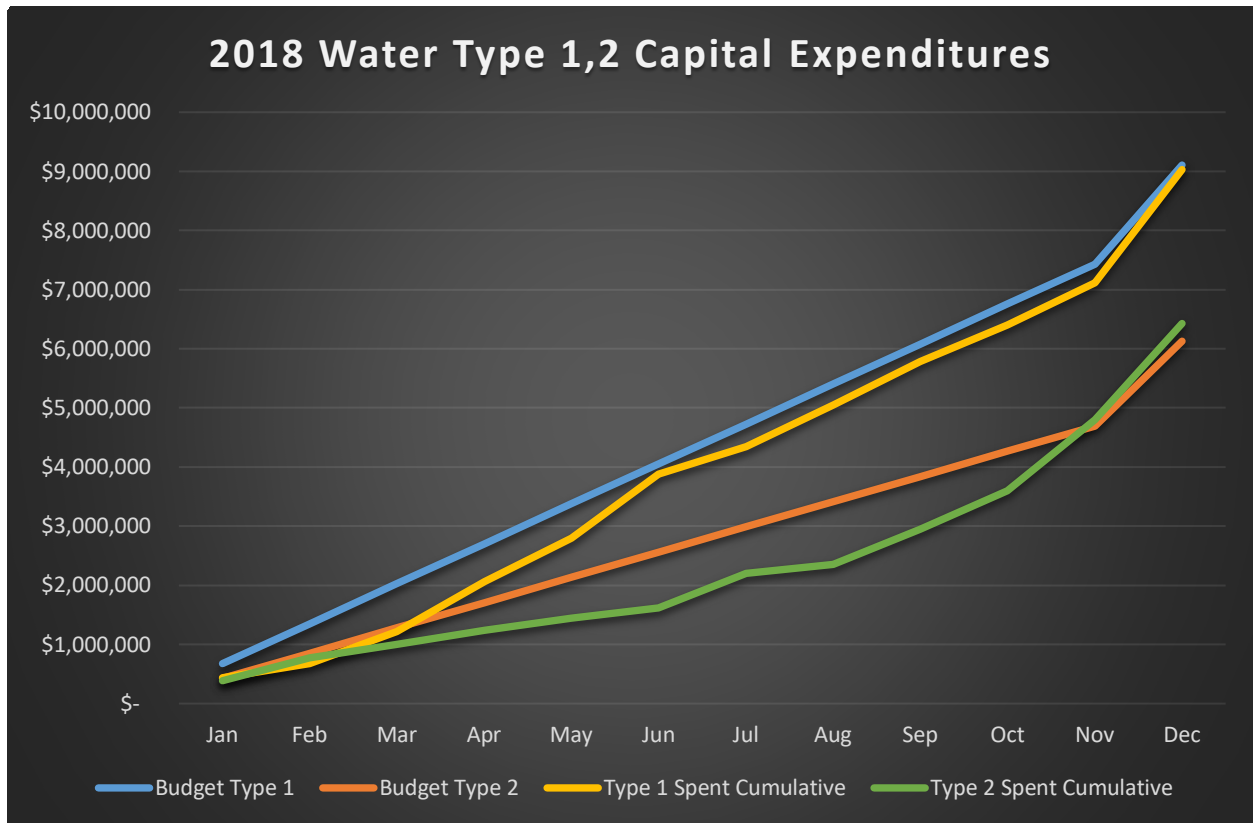
Water Operations has been working closely with the Advanced Meter Services (AMS) team in Q4 for the first 3 months of smart meter deployment. We hired additional staff to help Water get through the project. We spent the quarter honing processes and procedures for the most efficient roll out with the highest level of customer service possible. We installed 1,664 smart meters in Q4 bringing our total to 2,946 for 2018. We also achieved an average of 3 meters installed per staff hour by December, surpassing our initial goal of 2 and giving us confidence that the pace required for the 2021 deadline can be met.

#### Asset Management & Planning

Both Type 1 and Type 2 costs increased at an accelerated rate in the fourth quarter. For Type 1, this accelerated rate was due to a large pipeline project and a project at Hayden Bridge both wrapping up at year end. For Type 2, the accelerated rate was principally due to equipment arriving for the new disinfection system at Hayden Bridge. Projecting an overage, an amendment was prepared in December increasing the budget for both Types of work.

The cumulative costs for the year and the budget reflecting the December amendment are shown in the graph below. Type 1 costs at year end were approximately 99% under budget. Type 2 costs conversely were slightly over budget at year

end. For total water capital including Type 3 work, costs exceeded budget by approximately 0.5% (about \$70K over in a \$15.8M budget). This overage was primarily due to costs for main replacements and AMI meters/equipment exceeding the projections prepared in November for the budget amendment.



### **Blackstart Assessment - Lower McKenzie River projects**

During Q1/2018, a consultant to EWEB completed an assessment of both the Leaburg and Walterville hydroelectric plants for their ability to accommodate blackstart capabilities. The consultant found that the Leaburg plant currently has blackstart capability, but the study also identified that emergency loads identified by EWEB were slightly higher than the output available from Leaburg. Further studies to determine capabilities of the Weyco #4 generator for black start and load capabilities have been scoped with the study to be completed in Q1/2019. The Weyco #4 generator is owned by EWEB and operated cooperatively with International Paper (IP).

### **Outage Management**

In 2018 the Outage Management Core Team (OMCT) demonstrated significant gains regarding Incident Command System (ICS) officer work flows, divisions of team responsibility, training, and ICS officer / team bench strength. Additionally, further improvements included the integrated use of the “Responder” tool for system outage and transfer of customer outage information. The “Responder” tool has proven fair, but software breakdowns are proving difficult for the Planning team to overcome. Two functional drills of the new system were completed in the fall of 2018 and provided information for more improvements in 2019.

In the fall, a new and improved external website including a new customer-facing Outage Map was implemented. The Outage Map allows customers to view information and estimated time of restoration about their outage. Giving customers the ability to find information on their own will make our outage restoration process more efficient and help with overall restoration messaging to the public.

### **Distributed/Neighborhood Emergency Stations**

Over the next five years, EWEB will deploy at least five (5) distributed “neighborhood” emergency stations for water distribution and independent electric operation (a.k.a. microgrid). In 2018, EWEB worked with two local school districts to design and construct two “neighborhood” emergency stations, including both water and electric infrastructure. Two stations were installed in 2019, at Kalapuya Experimental Farm (Bethel) and Howard Elementary (4J). Both sites have existing solar, are relatively new construction in excellent condition, and have water well availability on site. Both sites are up and running. The Howard site micro grid is operational and collecting data, but lacks remote access making it difficult to collect and analyze data. Connection and software will be updated in 2019 and a public event is planned to be held at Howard Elementary during Spring Break 2019.

### **Mobile Treatment**

In conjunction with distributed neighborhood emergency stations, water engineering and production are working on a mobile treatment trailer that underwent initial raw water testing at the Hayden Bridge intake during the first quarter. Preliminary results indicated that a few changes were required in the equipment which were implemented during the third quarter. A second round of testing began in Q4 to fine tune the process and understand its constraints. This testing will continue into 2019.

### **Hayden Bridge Emergency Generators**

In 2018, construction was completed placing two emergency back-up generators at Hayden Bridge, one at the Treatment Plant and the second at the raw water Intakes. These back-up generators are of sufficient capacity to deliver about 20 mgd, and have fuel capacity to run 24 hours (full load) without being re-fueled.

### **Proactive Mitigation of Illegal Camping above Hayden Bridge Intake**

In 2018 EWEB staff focused efforts on areas immediately upstream of the intake and increased coordination with local partners to mitigate illegal camping activities. Illegal camping activity above EWEB’s intake has significantly decreased as a result of weekly inspections/cleanups during warmer months. A large part of this decrease in camping activity is due to Willamalane and City of Springfield staff efforts. Illegal camp inspections were reduced to every other week then monthly



in the 4<sup>th</sup> quarter in close coordination with Willamalane and City of Springfield. Camps were identified and put into the LCOG web application to track activity; cleanups occurred within 48 hours of identification.

(Data is for camps only above HB intake, not EWEB property overall)

# of EWEB inspections: 24

# of camps found: 35

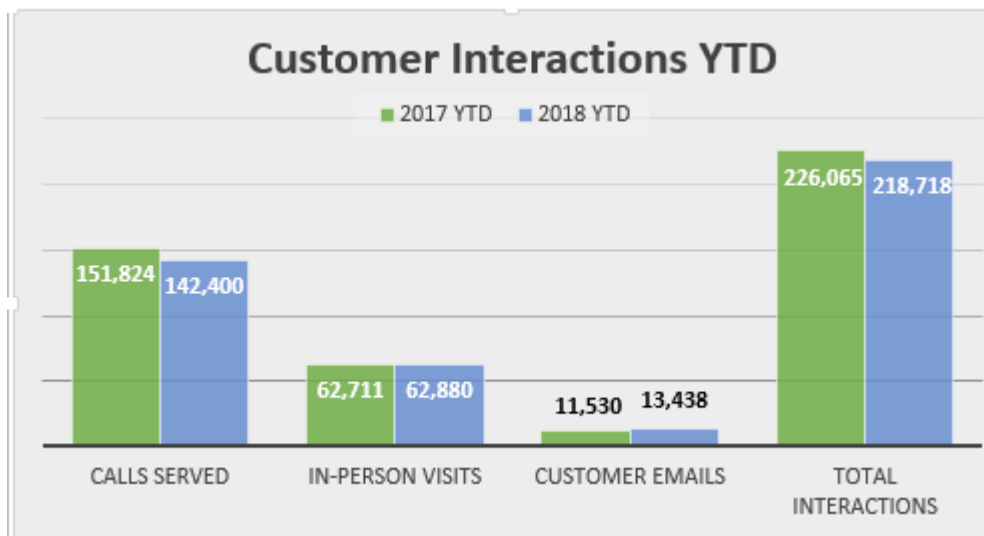
# of camps cleaned up: 35

## Customer Services & Programs

EWEB serves approximately 200,000 people in the Eugene metro area and the McKenzie River valley. Customer Operations manages responsive services including customer initiated support using telephone, email, digital media, or in-person contact; and includes the development and support of products and services including energy/water efficiency, limited income support, design services, and special programs like GreenPower™.

### Operational Metrics

In the fourth quarter EWEB supported 51,000 customer interactions; approximately 825 per day. The Call Center team was not meeting service level goals during the first half of the year. After hiring additional staff to support customer interactions, the team is now meeting targets for Average Speed of Answer and Abandon Call Rate.



### Customer Response Metrics

Measure			Comments
GOAL	TARGET	Q4	
<b>Call Center</b>			
Maintain/Improve Call Center Average Speed of Answer	< 90 seconds	●	Avg Speed Answer Q4: <b>85 sec</b> Avg Speed Answer 2018: <b>117 sec</b>
Maintain/Improve Call Center Abandonment Rate	< 7%	●	Abandon rate Q4: <b>5.7%</b> Abandon rate 2018: <b>8.0%</b>
<b>Meter Reading</b>			
Maintaining or improving the meter reading accuracy rate	>99.96	●	YTD accuracy Jan-Nov: <b>99.96</b>

### Credit & Collections

Net write-offs through the end of December 2018 totaled \$452,000 compared to a budget of \$480,000 and 2017 amount of \$311,000. Collection efforts were down in 2017 for two primary reasons. After the December 2016 ice storm, collection efforts were suspended for a few months due to the high volume of estimated bills, and in September 2017 through December 2017 credit and collections staff were assisting with the implementation of a new connect/disconnect process. The 2018 budget for uncollectible accounts was \$480,000, and we came in under budget.

### Meter Infrastructure Upgrade Project

EWEB is upgrading meters through 2021 in order to provide customers with better service, build a more resilient community and create a cleaner energy future. Advanced Meter Services is working with both utilities to secure needed inventory and refine meter deployment work processes. These were the primary areas of focus for the second half of 2018. The installation rate has ramped up, teams are fully staffed, and meter related inventory is ready for 2019. All customer facing communications, including bill stuffers, deployment maps, door hangers, informational brochures and website are being actively managed to support customer choice and timeliness to meter upgrades occurring.

## **2018 Smart Meter Summary Report**

	<b>ELECTRIC</b>	<b>WATER</b>
Installed as of Q3	9,751	2,076
Installed as of Q4	13,991	3,740
Early October Weekly Total	251	65
Late December Weekly Total	490	263
Weekly Deployment Target	520	369
Smart Meters Installed on EWEB System	15% <i>(includes cycle 18, which is not part of route-based deployment at this time)</i>	6% <i>(includes Santa Clara &amp; River Road Water Districts)</i>

The average percentage of register reads retrieved from opt-in meters each day was 97.1%, this is up slightly from the third quarter due to operational tuning. The total percentage of automatic billing reads automatically delivered to the customer information system last month was 97.9%, similar to the third quarter. The end of year totals for opt-out by meter and customer is 1.64%.

The following characteristics are representative of the work completed in the second half of 2018:

- Initial customer satisfaction surveys indicate that customers are informed and satisfied with project work, i.e. customer notifications and field work.
- Meter upgrade activities and related communications have had little impact on Contact Center & Atrium traffic.
- Electric operations staff implementing improvement opportunities to reduce duration of customer outages with smart meters and existing outage applications.
- Staff is prototyping leak detection notifications to customers resulting from smart meter analytics.
- All front line staff in Customer Operations, Water Operations, & Electric Operations continue to be educated on deployment customer experience expectations.

### Customer Experience Improvement Project

The Customer Experience Improvement Project began in the second quarter of 2018. The goal of the project is to improve our customers' experience by making efficiency improvements and expanding our capabilities to deliver services in a manner that meets customers' expectations and makes it easier to transact business with EWEB.

While several improvements have been, and will be, made without significant software changes, EWEB currently has limited customer self-service options, and customers have indicated that the on-line bill system is not intuitive. Implementing a Customer Self-Service solution (CSS) and updating the Electronic Bill Payment and Presentment System (EBPP) will allow customers to view and manage their account online and interact with EWEB at a time and with a method that is convenient for them. In addition to these two systems, the scope of work includes bill redesign. EWEB's bill was last updated approximately 20 years ago, and customers frequently have billing questions.

A consultant has been selected to review existing business processes and assist in the development of requirements and system specifications to use for selecting the system(s). This work will commence at the end of January, and the goal is to implement a CSS in late 2019 and an EBPP in 2020 as indicated below.



### Customer Confidence

Determined to align practices and policy with the Customer Confidence initiative of the Strategic Plan, staff continue to improve the day-to-day interactions with customers, increasing responsiveness, being innovative, and adapting to the ever changing landscape of customer needs and values. By working cooperatively with customers, making well informed-strategic decisions, and honoring our commitments, EWEB has begun the long and essential process of becoming a trusted asset of the community. Evidence for the success in restoring Customer Confidence comes from the cooperation of key accounts in resiliency projects, collaboration on carbon and smart growth projects, and the many small successes going untold every day.

### Business Growth & Retention

EWEB Customer Relationship Managers are working with a cross functional team to recommend updates to the Business Growth & Retention Program in order to simplify and increase access to customer financing options, and provide a clear framework for the rate rider credit in terms of project eligibility and alignment with EWEB's overall Strategic Plan.

### Service, Responsiveness and Transparent Communication

EWEB continues integrated communication and public information campaigns aimed at building and enhancing customer trust and confidence, supporting EWEB's strategic initiatives, and keeping customers informed of Utility events and news.

### Public Relations and Community Involvement

The Board requested that management provide a quarterly report of donations, sponsorships and grants.

Through Q4, we have provided almost \$500,000 to the community, primarily through board approved intergovernmental agreement education grants.

Notably, the Lane Community College grant was amended this year to create a scholarship program with funds directed towards individual tuition scholarships that support students up to \$5,000 with their first year program expenses. Four of the available five scholarships were awarded for the 2018/2019 school year.

Additionally, EWEB staff have volunteered over 700 hours of their time providing much needed support to various causes in the community such as the McKenzie River Clean-Up efforts, the Special Olympics of Oregon, and EWEB's own Run to Stay Warm event which raised over \$25,000 in proceeds benefitting our Customer Care Program.

Additionally EWEB employees donated hundreds of pounds of essential items and gifts during the annual holiday drive supporting local charities and events. This year we took a different approach and supported four different worthy organizations – Bags of Love, Food for Lane County, St. Vincent de Paul's Holiday Joy Drive and the 40<sup>th</sup> Annual Senior Dinner sponsored by Lane County Human Services.

The attached spreadsheet lists sponsorships, donations, grants, event participation and other contributions through Q4 2018, categorized by interest area and type of giving.

*Appendix E – EL3 Community Investment Report*

### EWEB Communications and Marketing Content, Channels and Metrics:

EWEB's primary channels for communicating with customers continue to be website (eweb.org), social media, earned media and the Pipeline newsletter. Content focused primarily on the following topics:

#### Smart Meters

Communications staff continued to support smart meter deployment efforts. In Q4, staff refined communications processes in order to improve the customer experience for commercial and industrial customers, as well as key accounts. Throughout 2018 Customer Relationship staff developed print materials (brochure, postcards, and door-hangers), created automated call messages, updated website content, led customer experience training for EWEB staff, and conducted several meetings to discuss the inclusion of water district customers. Both water districts have tentatively agreed to participate with EWEB in transitioning their customer's water meters beginning in 2020, which allows for a more efficient roll-out in these neighborhoods, and promotes service parity between EWEB and water district customers.

#### Run to Stay Warm

The 12<sup>th</sup> annual Run to Stay Warm in conjunction with Eugene Marathon. The event raised over \$25,000 for EWEB's Customer Care program, a 40% increase over 2017 proceeds. Contributing to the increase was a 14% increase in registrants and 10% decrease in expenses.

#### Customer Open House

A Customer Open House, focused on the theme "Get Winter Ready", was held in October. The event was attended by over 100 EWEB customers, approximately a 40% increase over the 2017 Customer Open House.

### Emergency preparedness

EWEB continued to promote personal preparedness messaging through all of our available channels. In addition, staff developed a new campaign to launch January 2019. “Pledge to Prepare” is a 12-month blueprint to help community members end the year with a two week emergency kit.

Other 2018 topics included:

- Outage updates
- Online outage map
- Winter tips for energy efficiency and preventing frozen pipes
- 2019 pricing and tier collapse for residential electric prices
- Public Power Week
- Emergency Water Station at Bethel Farm
- Electric vehicles/electrification/carbon reduction
- Mutual aid assistance for Northern California wildfires

Metrics by channel (*End-of-Year 2018*):

#### **Social Media**

	<b>Facebook</b>	<b>Twitter</b>
Total posts	368	242
Total Impressions	629,610	442,300

#### **eweb.org**

<b>Users</b>	<b>Total Page views</b>	<b>Ave. Time on Page</b>	<b>Bounce Rate*</b>
282,000	1,223,461	1:32	48%

\*Bounce rate tracks how many users enter and exit the site on the same page. Forty percent and below is considered excellent, with 41-55% roughly average for most websites.

#### **Earned Media**

	<b>TV/radio</b>	<b>Print</b>
Discreet news stories	58	27

### Ease of Doing Business

Significant progress has been made to help a smooth roll out of smart meters for key account customers, and to help identify quality assurance measures to ensure accuracy and continuity of billing.

Additional efforts are being focused on implementing development-related process improvements. Performance Bond requirement changes have been successfully adopted, improving the customer’s experience when dealing with most electric service extension projects. A capacity heat map was developed that shows, at the substation level, where capacity exists to serve new large loads. Work continues on a reduced water System Development Charge for housing units under 800 square feet, easing the cost burden for new capacity in the downtown network, and establishing criteria for a community development fund to support local agencies serving limited income customers with utility costs.

### Financial Products

In order to increase customer participation, Greenpower Grants eligibility has been expanded to include projects focused on reducing or offsetting carbon emissions, including projects that support conversion from fossil fuel to clean energy sources. Three local nonprofits were awarded Greenpower grants in 2018. Projects have begun in earnest, and Friends of Trees has completed multiple events with half of the grant money distributed. During Q4 2018, Greenpower customers contributed over \$57,000 to EWEB’s Greenpower Program, bringing the annual total up to nearly \$235,000.

*2018 GreenPower™ Grant Winners*

**Eugene Science Center:** 32.5-kilowatt photovoltaic array with battery back-up  
**Friends of Trees:** Volunteers will plant 600 trees in west Eugene for cooling and carbon sequestration  
**Pearl Buck Center, Inc.:** 24-kilowatt photovoltaic array

### Limited Income Support

EWEB offers several types of support as part of our limited income program. During the first 3 quarters of the year, an in-depth review and analysis of existing Limited Income offerings was conducted. Significant operational progress was made in the 4<sup>th</sup> quarter.

- Successful termination and close-out of one program, culminating in over 750 customers receiving a final program credit at the beginning of the peak heating season.
- Implementation of categorical income verification
- Productive negotiation of services with Lane County
- Mail-in application options for senior and disabled customers
- Development of enhanced educational content and program delivery which will commence in Q1 of 2019.

As of year-end, EWEB disbursed 92% of Customer Care and 163% of Customer Care Plus (ECCP) funds relative to the original allocation. This includes \$147,000 in ECCP payouts to effectuate program termination. With these funds, EWEB has provided year-to-date assistance to 3,500 customers through the customer care program and 1,100 under ECCP.

#### 2018 Limited Income Payments to Customers

	Q1	Q2	Q3	Q4	Total	Allocated	YTD
Customer Care	\$ 233,695	\$ 65,151	\$ 61,264	\$ 445,360	\$ 805,470	\$ 873,781	92%
Customer Care Plus	\$ 51,646	\$ 44,900	\$ 42,650	\$ 186,980	\$ 326,176	\$ 200,000	163%
Total Payments	\$ 285,341	\$ 110,051	\$ 103,914	\$ 632,340	\$ 1,131,646	\$ 1,073,781	

### Electrification / Smart Load Growth / Carbon Reduction / Climate Change

EWEB revamped its “Commitment to the Environment” and “Power Resources” web pages with the objective of increasing community awareness of EWEB’s clean power resources and to improve customer opinions of EWEB’s ongoing efforts to protect the environment, specifically related to carbon and fossil fuel reduction. In early 2018, EWEB launched a new marketing campaign and promotion aimed at encouraging customers to convert from fossil fuels. Under the “A Fossil-free World Starts at Home” campaign, the “Clean Power Promotion” was created, offering customers additional incentives for switching to an energy efficient heat pump system. In addition, a pilot program was developed to provide additional incentives for carbon reduction efforts to non-profits and government institutions. Participants of this program have been the City of Eugene and the University of Oregon with projects including the boiler replacement to a heat pump at the Police Forensics Lab. In addition, EWEB increased residential new construction incentives aimed at efforts to reduce carbon and conserve energy. EWEB representatives consistently participate in the City of Eugene’s Climate Action Plan strategic meetings which address challenges and opportunities around transportation and building and energy workgroups.

Throughout 2018, EWEB continued the development of incentives aimed to make electric vehicles more accessible to increase adoption rate. As of June 2018, 744 vehicles were registered in EWEB territory. This is an increase from 403 vehicles in 2017. EWEB partnered with Nissan to promote adoption of electric vehicles in an ongoing and continued campaign. The campaign now provides EWEB customers \$3,500 off MSRP for the purchase of a 2018 or 2019 Nissan LEAF EV. EWEB also partnered with the University of Oregon on the rEV UP Eugene EV workshops to provide education about electric vehicles. These workshops were part of the ongoing Clean Ride rebate, which continues to provide customers with incentives to purchase electric vehicles. The Clean Ride Program had 77 participants in 2018 compared to 14 in 2017. EWEB also took the lead in the creation of an EV Coalition with neighboring utilities and local agencies and entities. A total of eight utilities are part of this coalition with the purpose of coordinating efforts regarding Electric Vehicles and EV infrastructure adoption in the region. EWEB continues to collaborate with local and regional organizations to promote electric vehicles and the installation of EV charging stations within EWEB’s service area. Additional activities include:



- EWEB re-adjusted residential new construction incentives, completing 14 projects YTD.
- In partnership with Forth and Lane Regional Air Protection Agency (LRAPA), EWEB hosted an EV ride and drive event to promote the adoption of EVs. Several dealerships from the area participated.
- Initiated conversations with Tesla on their residential battery system to begin work on interconnection guidelines in cooperation with engineering. This work is ongoing.
- 1,829 Clean Fuels credits were sold for \$182,900. As of June 2018, EWEB had generated 2,720 additional credits. DEQ will provide final numbers for 2018 in Q2 2019.
- EWEB staff is exploring incentive options for the conversion of the City of Eugene’s Echo Hollow Pool upgrade to a more efficient heat pump system. This potential partnership would involve all three pool projects the City has announced during the next 2 years.
- EWEB is also exploring targeting EV adoption for limited income customers by partnering with limited income housing agencies and Envoy to provide on-demand shared electric vehicles to qualified customers.
- EWEB is beginning work on new electrification approaches, including a new construction campaign for an “All Electric Home”. This work has already begun with UO Builds, a program under the UO focused on building homes for limited income families. The work will also involve showcasing these homes at the Lane County Tour of Homes.
- Work with Forth Mobility, Plug-In America and local dealerships has started in the creation of a dealership incentive program to increase the adoption of electric vehicles. This will be a comprehensive program that will provide dealership trainings and ongoing support to sales representatives.
- EWEB staff is exploring the potential installation of DC fast charging in a partnership with City of Eugene and the Oregon Department of Transportation.
- Commercial programs for conversions and new construction are also being upgraded to provide more competitive incentives. This also involves looking at manufacturing in the industrial side.
- EWEB is exploring creating incentives for at-work and public electric vehicle charging infrastructure.
- EWEB is creating a standard electrification and energy efficiency incentive for new multi-family, low income apartments.
- Current and future electrification and energy efficiency programs are beginning to be evaluated in a more comprehensive approach that addresses regional impacts of carbon emissions, coincident peak and its potential management through various strategies. Through this approach electrification and energy efficiency programs can work together to address potential negative impacts of electrification.

Finally, EWEB looks forward to the completion of several large Smart Growth projects in 2018-2019 including the removal of a gas boiler at a large retirement facility and replacing it with high efficiency variable refrigerant flow heat pumps. EWEB staff is pursuing multiple electrification and conversion opportunities, including several smaller commercial conversion and new construction projects, and collaboration with multi-tenant housing projects to help developers choose low carbon, efficient electric heating options

Customer Solutions Field Services (Conservation & Energy/Water Efficiency)

EWEB spends over \$2.5 million annually on energy and water conservation and efficiency projects. We continue to increase efficiencies and to simplify energy efficiency processes to save time, reduce overhead and deliver more conservation dollars directly to customers.

EWEB reached both its Energy and Peak savings targets for 2018. In 2018, 1,800 energy efficiency projects, 169 load growth projects, 150 Home Energy Scores and 82 electric vehicle rebates were completed.

In 2018 EWEB received \$2.4 million in reimbursements from BPA, and achieved a total of 13,238 MWh in reportable savings.

	Q1	Q2	Q3	Q4	Total	Target	% YTD
Energy Savings, MWh	3,377	3,234	1,831	4,796	13,238	11,850*	112%
Peak Savings, MW	0.97	0.84	0.54	1.16	3.51	1.20	292%

BPA reimbursements		\$ 424,556	2,005,927		\$ 2,430,483	\$ 2,437,604	100%
BPA reimbursed MWh		1,219	6,629		7,847		
Growth, MWh	(94)	(110)	(99)	(352)	(655)	no target	
Peak Growth, MW	(0.05)	(0.04)	(0.04)	(0.38)	(0.51)	no target	

A total of 530 loans were funded in 2018 (\$3 million), including 497 energy efficiency or growth, 28 water, 1 septic and 4 electric service upgrades. In addition, over 200 toilet, hand valve and septic maintenance rebates and 4 limited income leak repair grants were processed.

### Strategic Projects and Initiatives Currently Underway

#### Strategic Projects

##### **Automated Meter Infrastructure (AMI)**

In 2018 several automations were completed to support teams working on the meter infrastructure upgrade. The scope to enhance AMI related IS infrastructure was finalized in the fourth quarter of 2018. The end result will be improvements to EWEB's AMI test environment, upgrades and improvements to the Regional Network Interface (RNI) and a rewrite of the Start/Stop Application.

Work began mid-December, 2018 on the improvements to EWEB's AMI test environment which should be completed by the end of the first quarter of 2019. The projects associated with RNI and the Start/Stop application will begin early/mid 2019.

#### IS Operations

##### **Cyber Security and Infrastructure Improvements**

In 2018, Information Services completed several projects to improve the reliability and increase the cyber security protection for our systems.

The first improvement focused on our Local Area Network and Wide Area Network. This effort simplified the networks while increasing their reliability and security. Reliability was improved by simplifying the network and reducing the number of networking devices. Simplification and reduction of networking devices improves security by reducing the burden of applying patches so patching occurs more frequently without causing disruption. Finally, the network architecture was improved to help isolate a cyber-attack if one were to occur. In other words, the chances an attacker could compromise all systems was reduced.

The second improvement was to virtualize physical servers. Additionally, virtualization capacity extended to Carmen Smith and Hayden Bridge. This allows for greater flexibility in the event of a hardware failure or network interruption as servers can be moved from site to site almost instantly. This also allows sites like Carmen Smith and Hayden Bridge to have operational IT systems in the event they lose communication with the ROC or HQ data centers.

##### **Compliance**

The North American Electric Reliability Corporation's (NERC) audit of our Critical Infrastructure Protection (CIP) program was performed by the Western Electricity Coordinating Council (WECC) in December. WECC uses a risk-based compliance and enforcement program. During the audit WECC not only looked for evidence of compliance, they also looked for evidence that EWEB is managing risk and has implemented strong internal controls.

EWEB is on a three year cycle for NERC audits. The overall audit, that included Operations and Planning, covered the period beginning January 14, 2015 and ending September 11, 2018.

The WECC Audit covered the following standards:

- Bulk Electric (BES) Cyber System Categorization
- Personnel & Training
- Electronic Security Perimeter(s)
- Physical Security of BES Cyber Systems
- System Security Management
- Configuration Change Management & Vulnerability Assessments
- Information Protection

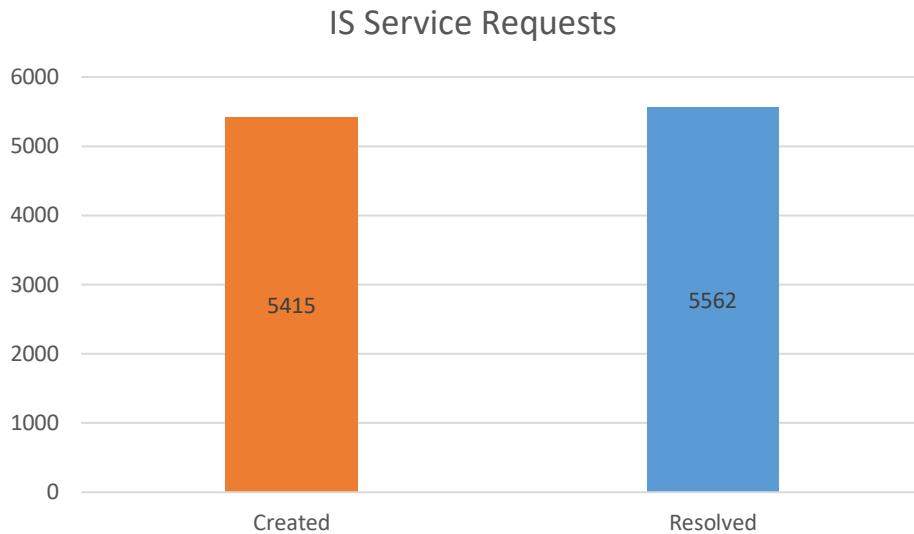
WECC began the audit remotely and were onsite from December 10<sup>th</sup> through the 20<sup>th</sup>. During this focused effort EWEB fulfilled over 80 data requests, 49 of which were specific to the CIP program, and included 7 interviews with EWEB’s NERC CIP Team. Representatives from Electrical Engineering, Cyber Security, and Physical Security escorted WECC auditors through the data centers, Dispatch, and Trading Floors, and responded to questions.

EWEB’s NERC CIP Team did an excellent job providing evidence and explaining EWEB’s compliance program. At the conclusion of the audit WECC submitted, for further review by NERC, the following Potential Non-Compliance issues:

1. EWEB was unable to locate evidence that proved that all BES Cyber Systems were identified and reviewed within the required 15 calendar months for the period between March 1, 2017 and May 31, 2018.
2. EWEB was unable to prove, to WECC’s satisfaction, that access to BES Cyber System Information was revoked by the end of the next calendar day for all employees and contractors who left EWEB’s employment during the compliance period.

### IS Service Operations

One of the most basic, but important, metrics for IS is how well the division is responding to service requests from users. These requests range from a new laptop to the creation of a report. The following chart shows the amount of service requests created and resolved for 2018:



Overall, in 2018 IS was able to keep up with service requests. On average it took 15 days to resolve requests which is down from 17 days in 2017.

### Asset Management & Capital Planning

IS partnered with the Electric and Water utilities to reallocate unspent Capital to IS maintenance projects. This is why the amount spent is higher than the original budget. More detail contained in *Appendix C - EL1 Report for Electric, Water & Shared Services*.

## Property Management

### **Headquarters Building**

In late December, staff completed negotiations with EGI/Philips on the terms of a new multi-year lease agreement for portions of the EWEB Headquarters building, and the new lease was signed. This agreement is currently in place and staff are working with Philips on the facility changes required by the new lease.

### **Riverfront Property**

Staff conveyed the Riverfront Park parcel to the City in December. This conveyance was authorized at the May Board meeting. Transfer of the Riverfront property to the City is now complete, with the possible exception of the headquarters building and the former manufactured gas plant site (MGP site). Negotiations with the City on those two properties are ongoing and will likely continue through 2019.

## Utility Support Services

EWEB's Utility Support Services group staged roughly 1,900 projects and located exactly 11,652 locate requests for the 2018 calendar year. Those totals reflect only EWEB internal work forces.

## Fleet Services

Carbon reduction goal; back in 2010, the Utility put in place goals to reduce our fossil fuel usage, carbon emissions and waste.

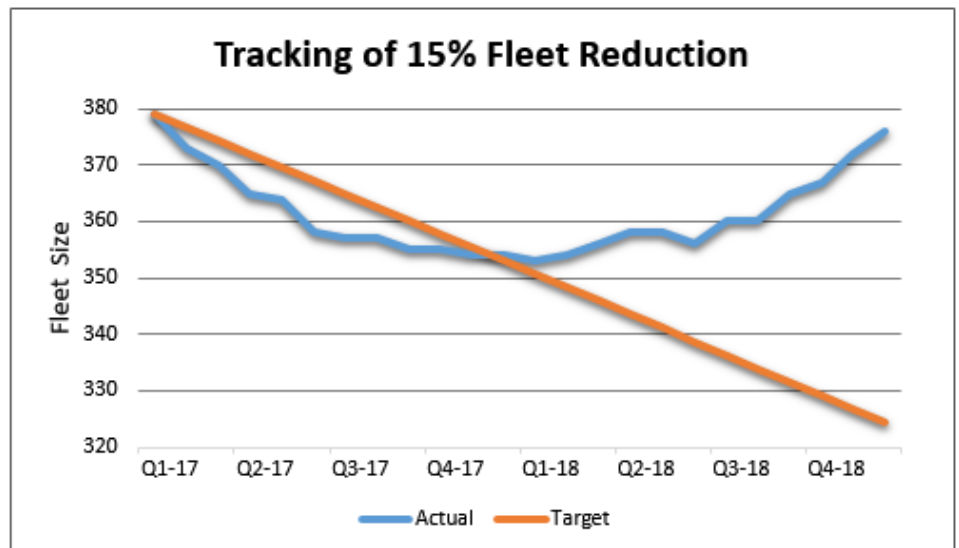
EWEB's Fleet Services identified ways to reduce the negative impacts of using fossil fuels by improving the efficiency of our fleet and the services that we provide. We recognize that by using alternative fuels that were readily available, the total amount of carbon emissions omitted will be lessened.

Since then, EWEB's Fleet Services has been blending higher levels of low carbon, alternative fuels such as ethanol, bio-diesel, and hydrogenation-derived renewable diesel in support of the Utility's sustainability goals.

Operations greenhouse gas (GHG) reduction goal- Fleet Services

- By 2020, reduce all EWEB operations emissions by 25% below 2009 levels
  - 2018, our overall percentage of CO<sup>2</sup> Reduction was 24.3% (a reduction of 555.7 metric/tons of CO)
- By 2030, reduce fossil fuel use 50%
  - 2018, our overall percentage of reduction of fossil fuel – 39.4% (62,874 gallons)
- The cost to use alternative fuels in our fleet, averaged an increase of \$ .125 a gallon

Asset optimization/Fleet Reduction; as part of our affordability initiative, by Q4-2018, EWEB had targeted a 15% reduction to the size of its fleet, as compared to Q1-2017 levels. At the end of Q4-2018, the Utility has obtained .8% of that goal. While the fleet was able to reduce in some areas, other areas had increased due to department realignments and the recent ramp-up of AMI. Fleet Services continues to monitor vehicle and equipment use and provides utilization and fuel usage reports to the user departments on a quarterly basis.



## Continuous Improvement

Continuous Improvement Program goals include:

- Create a proactive and sustainable Continuous Improvement (CI) culture at EWEB that is focused and driven by the voice of the customer
- Develop a CI centered culture and capabilities through awareness, desire, knowledge, ability and reinforcement
- Embed a CI culture into the organization's DNA, which will allow it to remain current and nimble enough to successfully change with, rather than react to, market conditions.

The first portion of 2018 was spent planning and communicating to create awareness and desire in the organization. The CI (Level I) curriculum development includes 8 sessions to be taught over a three month period including classes on CI principles, culture, 8 wastes, root cause analysis, brainstorming, process mapping, problem solving, critical thinking, kaizen, 5S and visual management. Students are provided the unique opportunity to work with a CI mentor between sessions to gain hands on practical use of tools and methods learned in class.

### 2018 CI Accomplishments

- CI level I curriculum developed and in use
- 126 employees signed up and scheduled for Continuous Improvement training (Level I) cohorts to be complete by end of Q1 2019, which is 26.6% of the total EWEB staff
- 65 employees prescheduled for 2019 CI level I training slots
- CI Champion level roadmap developed to help provide a path for individuals with an interest in developing expert level skills in Continuous Improvement
- Noticeable growth of enthusiasm and engagement for CI within EWEB as team members are educated, supported, and challenged to question the way things have always been done

	2018	2019
CI - Level I Certified	48	
Attended sessions (missing a requirement for certification)	27	
Started level I training 2018 to complete Q1 of 2019		51
Signed up & scheduled to attend in 2019		65
Additional open slots in 2019		85
<b>GOAL - LEVEL I CERTIFICATIONS ISSUED</b>	<b>75</b>	<b>201</b>

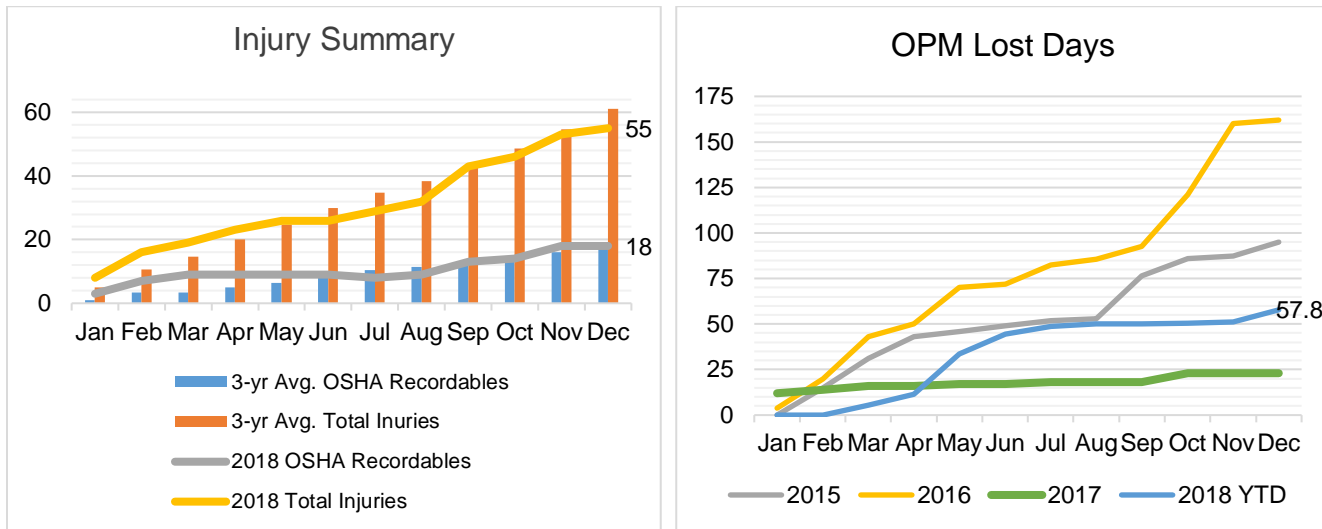
In late 2018 EWEB began tracking how many continuous improvement projects had been completed. These improvements ranged from developing templates to ensure consistent processes to improving a cross function department process. 49 of these efforts were completed.

## Workforce

Overall, Human Resources performance indicators are positive. Operational plans progressed as scheduled with good results. HR metric indicators were positive and there are no extraordinary or unanticipated developments driving concerns in any particular HR functional area or in the workforce arena in general.

### Safety

The number and frequency metrics for both total and OSHA recordable injuries is on track with 2017 experience. There were 55 total injuries in 2018, below the 3-year average of 61. OSHA recordable injuries tracked with the 3-year average of 18. Time loss, 57.8 days, came in well below the 3-year average of 93 days.



The total SAIF recorded workers' compensation injuries were fewer than SAIF's 2018 projection:

- Projected for 2018 = 32
- Actual YTD 2018 = 25
- 3-year average = 23

SAIF time & opportunity loss data came in significantly lower than the 3-year average at 315 days against 513. *(Note - this time loss figure differs from actual lost days in that it considers time loss in increments of as little as 30 minutes as full days and also includes a calculation for lost opportunities, i.e. overtime).*

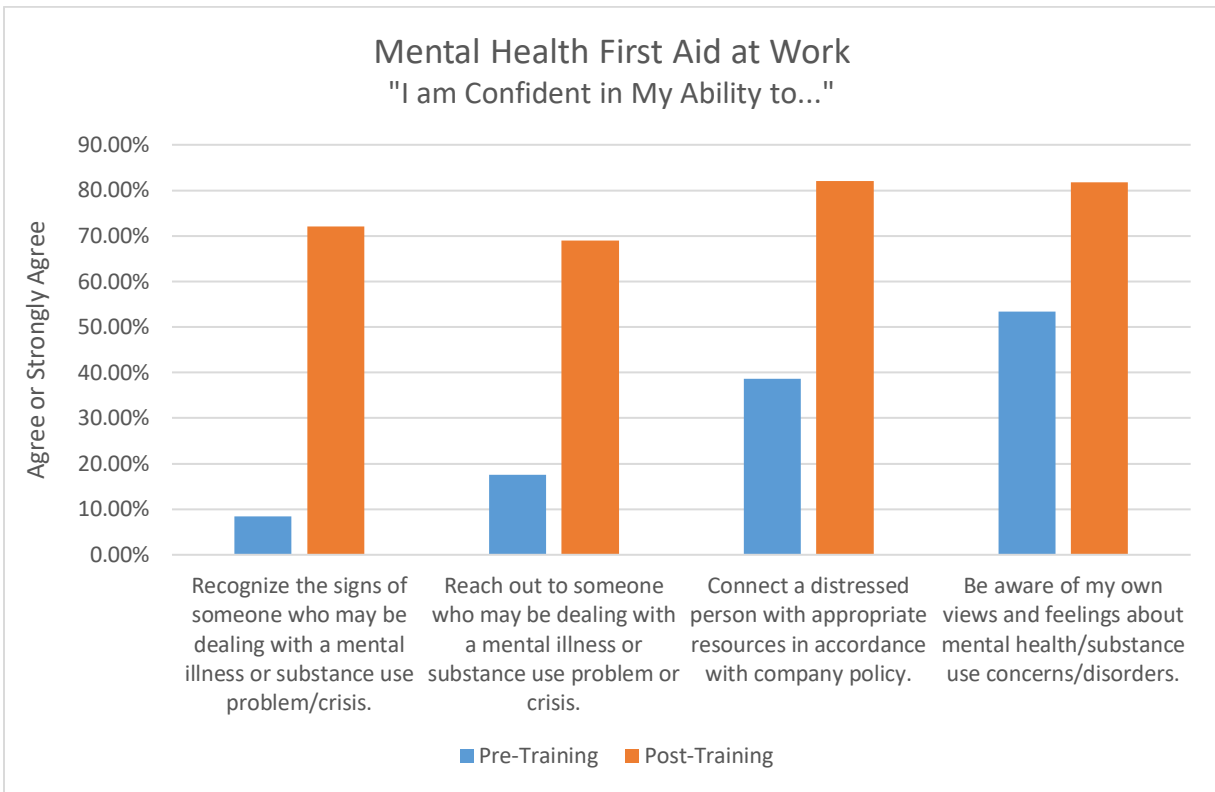
At this writing, 2018's average cost per claim is \$4,040, less than half the 3-year average of \$10,684. The actual cost figure is anticipated to rise some as medical expenses incurred in late 2018 will be billed in 2019. However, the final total is expected to be lower than the 3-year average.

In the annual workers' compensation claims and insurance renewal review, these results along with EWEB's safety and wellness preventative programming, delivered an annual modifier rate 1.02, within goal. EWEB remains in SAIF's Select Premium tier. The renewal process yielded a reduction of \$43,000 in the annual premium.

### Psychological Safety

As part of the enhanced strategic value proposition regarding safety, in Q4 EWEB delivered a first installment toward its commitment to ensuring psychological safety. EWEB contracted with the National Council for Behavioral Health for the delivery of their Mental Health First Aid at Work training. The voluntary half-day class teaches participants how to recognize and support individuals who may be experiencing a substance use or mental health crisis and connect them to appropriate resources. Registration was at capacity within days of announcing the training with sixty participants, primarily Managers and Supervisors, and there is a long waiting list for deliveries planned in 2019. The class was very well-

received. A survey of attendees regarding their level of confidence in their ability to recognize signs or symptoms, enter into dialogue, and provide support to those individuals in crisis indicates the course was effective as illustrated in the chart below:



Representatives from EWEB’s Employee Assistance Provider (EAP) provider were invited to attend both sessions of the training to ensure their understanding of the information that was being shared with employees. Their attendance was part of EWEB’s continuing effort to create awareness around EAP benefits and provided a platform and context for EAP practitioners to describe their crisis intervention services. A series of wellness workshops through the EAP is scheduled throughout 2019.

### Safety Training

Indicator	Q1	Q2	Q3	Q4	2018 Total	2017 Total
<b>Training Hours Delivered</b>	1288	890	647	752	<b>3577</b>	<b>3228</b>
<b>Good Catch Reports</b>	3	8	7	4	<b>22</b>	
<b>Executive Site Visits</b>	-	47	13	11	<b>71</b>	
<b>Safety Meetings</b>	-	17	3	3	<b>23</b>	
<b>Site Visits</b>	-	30	10	8	<b>48</b>	

Safety training for the year tracked with operational plans and also included added topics designed to support emerging organizational initiatives. A few examples from this quarter follow:

Following physical functional risk assessment and analysis conducted in Q3, body mechanics training and field visits by EWEB’s physical therapy contractor occurred in Q4. Assessment, training and exploration and implementation of other injury prevention measures will continue at regular intervals in 2019 as installation activities increase.



Planned DOT/CDL Compliance Audit activities were completed with the delivery of onsite CDL operator training, both classroom and hands-on, which was conducted as planned in Q4. Driver files and EWEB’s documentation processes were reviewed and updated in preparation for a DOT/CDL compliance audit to occur in 2019.

The Safety group was actively involved in the Outage Management Core Team ICS improvement process and completed the development of ICS documentation forms, and identified and trained staff 3-deep for the role of ICS Safety Chief. Safety also assumed responsibility for timely notification of adverse weather alerts to key Utility staff.

EWEB is proud to have earned the 2018 Wendell R. LaDue Utility Safety Award, awarded by the American Water Works Association to recognize distinguished Water Utility safety programs. EWEB was selected first in its class of 100-500 employees. Evaluation of award nominees includes a review of a utility’s safety record over the past five years, safety and health program best practices, the scope of systemic safety training initiatives at all levels, and the breadth of safety culture throughout the organization.

Employment trends & Workforce Composition

Higher than average numbers for new hires, promotions, job reclassifications (not previously tracked) were anticipated as the result of job restructuring, redistribution of duties, and a greater focus toward strategic and compulsory activities following 2017’s affordability measures.

Workforce Statistics						
	Q1 2018	Q2 2018	Q3 2018	Q4 2018	YTD Total	2017 Year End
<b>No. of Employees</b>	466	470	474	484		459
<b>New Employee Hires</b>	15	16	13	23	67	40
<b>Promotions</b>	7	5	11	6	29	15
<b>Reclassifications</b>	7	2	3	10	22	*
<b>Total Employee Exits</b>	8	12	9	13	42	94
<b>Non-Retirement Voluntary Exits</b>	6	7	6	5	24	31
<b>Involuntary Exits</b>	1	2	2	2	7	13
<b>Retirements</b>	1	3	1	6	11	50
<b>Total Attrition Rate</b>	1.70%	2.56%	1.90%	2.71%	8.84%	19%

*\*Did not track reclassifications in 2017 due to the reorganization as a result of the affordability initiative*

Gender & Minority Demographics				
	EWEB	IBEW	Oregon**	Lane County**
<b>Female</b>	29%	2%	49%	51%
<b>Male</b>	71%	98%	51%	49%
<b>Minority</b>	13%	10%	13%	10%
<b>Non-Minority</b>	82%	88%	87%	90%
<b>Non-Classified*</b>	5%	2%	-	-

*\*Disclosure of minority status is voluntary; “Non-Classified” represents those employees who did not disclose minority status.*

*\*\*As of Q1 2018*

Age Demographics	Age Range	% Empl.
	20 - 29 years	6.82%
	30 - 39 years	22.73%
	40 - 49 years	34.71%
	50 - 59 years	28.51%
	60+ years	7.23%
Average Worker Age	46 years	

### Attrition

At 8.84% for 2018, EWEB's total attrition is slightly higher than reporting NWPPA-member utilities. Categorical attrition rates against the same comparators appear in the table below. EWEB's internal data indicates a general stability with the exception of 2017, driven by reductions and the early retirement incentive. The Center for Energy Workforce Development reports non-retirement attrition is on the rise, ranging from 10 to 15% across all energy sectors across the country (a national or regional figure, specifically for Electric and Water Utilities has not been identified).

3-year Average Attrition Rate (2015-2017)				
	Voluntary Non-Retirement	Retirement	Involuntary	Total
NWPPA Utilities	1.92%	2.57%	0.70%	<b>7.56%</b>
EWEB 3-year avg*	4.25%	5.94%	2.05%	<b>12.47%</b>
EWEB YTD 2018	5.05%	2.32%	1.47%	<b>8.84%</b>

\*EWEB's 3-year average includes 2017 reductions and early retirements from EVRI

### Compensation & Benefits/Oregon Pay Equity Act Compliance

BOLI's final rules regarding pay equity were issued in late November. An analysis consisting of a classification-by-classification review coupled with a review of the pay rates and salary trajectories of all employees having any known protected category status was completed in December 2018. The results of that analysis identified the need for only 6 individual pay adjustments, having a combined total of only \$8,400. This is an extremely positive result and demonstrates that EWEB's compensation system (redesigned in 2012) and its governing policies and practices have been effective in ensuring equitable pay. Notwithstanding this positive outcome and as a matter of due diligence, EWEB compensation policies and guidelines will be reviewed and amended as necessary in 2019. An accompanying tool to assist managers and supervisors in salary setting and to ensure ongoing compliance will also be developed in 2019.

Compensation and benefit programs remain competitive. MAPT Compensation mid-points and benefit packages are within 5% +/- the comparator average. Survey data and comparator information derived through published labor agreements indicates that IBEW-represented jobs remain well within 5% +/- the comparator average. A cursory review of select job classifications also indicates that MAPT jobs continue to track well with the regional employment market. A job-by-job review of MAPT jobs is conducted every 3 years and is scheduled for Q4 of 2019.

### Workforce Management

#### **Employee Relations; BOLI Complaints**

EWEB received disposition from BOLI regarding two discrimination complaints, one filed in Q4 of 2017 and another filed in Q1 of this year. BOLI dismissed both complaints, citing insufficient evidence to support the complainants' allegations.

#### Workforce Performance

2018 Annual reviews are underway and overall data will be available in Q2, 2019.

There were a total of 20 corrective performance interventions in 2018, tracking below 2017 which concluded with 28 for the year and, which is well below the 3-year average of 37 annually.

### IBEW Labor Relations

The primary focus for 2018 was on increased and better communication between labor and management. Increased dialogue between supervisors across represented labor groups, both in formal quarterly contract compliance meetings and informally between supervisors, yielded much more consistency in contract interpretation and application. Labor Management Committee meetings were also productive with the Union using those forums to surface issues, providing management opportunities to problem-solve and address concerns before grievances materialized. Only two grievances were filed in 2018 and both were withdrawn. This was the lowest grievance rate recorded since 2009, when this metric was introduced.

EWEB and IBEW successfully worked through multiple contract language amendments and were equally successful in negotiating substantive contract amendments related to required clothing, language pertaining to the new prohibition of mandatory union membership and the payment of dues, and a new wage escalation factor to replace the discontinued CPI index.

### Major Workforce Initiatives

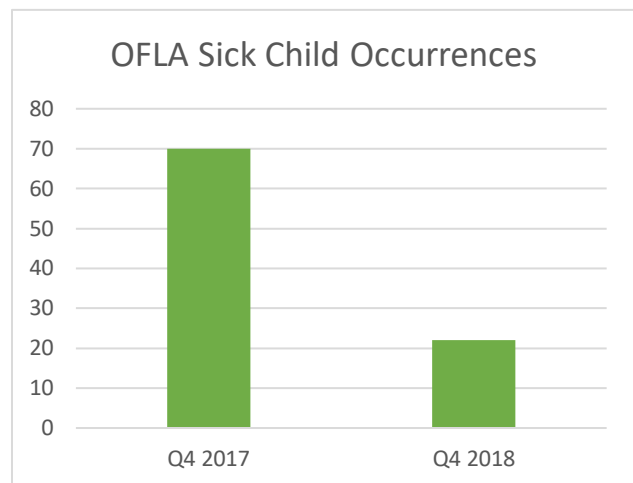
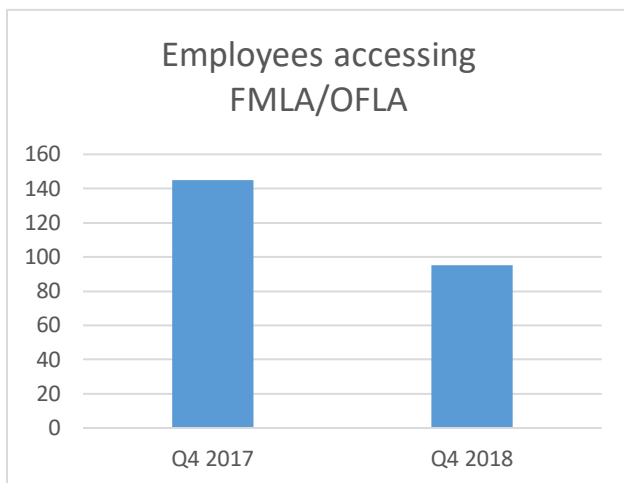
#### Wellness

The new 2018 Wellworks for You program ended the year with 39% of the Utility completing program requirements and receiving VEBA contributions totaling \$128,000. EWEB now has access to aggregated health risk data which will enable targeted programming and support future health insurance plan design. The data should grow more robust over time as the program will repeat in 2019. Enhancements make the program and record keeping more user-friendly. The closure of on-site fitness facilities was mitigated by negotiating significantly discounted membership rates with local fitness centers, including access for dependents.

#### Outsource Leave Management

FMLA/OFLA/OSLA Leave Management was outsourced to The Standard on September 1, 2018. Outsourcing these leaves comes at a very low cost, \$15,000 per year, and enables better legal compliance and protects employee confidential medical conditions while ensuring that employees receive the appropriate entitlement to legally-protected leave. The transition to The Standard was facilitated by a comprehensive communications plan and is working well, with very few and minor issues which are resolved as they surface.

The Standard will provide periodic metric reporting regarding leave usage, the use of their reporting system, etc. The chart below represents the last quarter of 2018 since our go-live was implemented on 9/1/18. You will note a sharp decline in our claims filed in the last quarter of the year as well as our OFLA Sick Child utilization. We suspect this is due to The Standard's ability to manage the recertification process for recurring, chronic health conditions and certification for above-average sick-child leave usage. Additional time is required to gather sufficient data to draw a more certain conclusion.



### **UltiPro (HR information management system)**

In Q4, Ultipro delivered a new Import Tool. We utilized this tool to automate the load of retiree deduction rates, load secondary jobs/rates and load new deductions. For 2019 we configured and tested passive open enrollment to simplify employee benefits. The procedures for payroll and benefits year end were updated to reflect the UTM changes. Employee requested changes to simplify FMLA/OFLA date entry were built and tested for rollout 1/1/2019.

Maintenance of retiree benefits are very labor intensive and we therefore focused efforts on improvements. The process for calculating and loading retiree benefit rates was automated and improved. We also worked on an automated process to reconcile BHS invoices in order to ensure accurate record keeping and billing.

### Organizational Development

EWEB has partnered with Cascade Health to provide a 7 week Leadership/Supervision Training Series to be held at EWEB from January through the end of February. The goal of the series is to help supervisors prevent employee relations problems and support resolution of job performance issues. Enrollment is limited to 25 EWEB participants per delivery. EWEB employees will have an opportunity attend future deliveries hosted by other local employers.

Rotational assignments and job-shadow opportunities described in last quarter's report continue to work well. EWEB's BOLI-endorsed Joint Apprentice Training Committee (JATC) is functioning well and is actively governing the progress of 3 indentured apprentices.

### Benefits Utilization

Health insurance utilization data lags EWEB reporting timelines, therefore the following reflects Q3 results. Plan utilization remains positive with paid premiums outpacing paid claims. As expected, retirees continue to drive up plan utilization as compared to active employees. We closely watch utilization for wellness opportunities to change behavior, allowing EWEB to continue offering a plan with low out of pocket costs and premiums. EWEB has had good success with health plan management strategies, including new wellness programming. This is evidenced in 2018's premium renewal process which occurred in Q3 and yielded a 2019 premium rate increase of only 2% versus the 6% projection.

### Healthiest Employer

Our Safety, Health and Wellness team is proud of the recognition received as we recently became one of Oregon's Healthiest Employers and are also recognized nationally as 47<sup>th</sup> among the nation's top 100 Healthiest Employers.

## Government & Legislative Affairs

The 2019 Oregon Legislative Session convened on January 22nd. It has been announced that the Clean Jobs Bill, a proposal to implement a state Carbon Cap and Trade Program will be introduced on February 1st.

The March Board Meeting packet will include memo summarizing the progress of state legislative issues important to EWEB.

### Q4 2018 Quarterly Contracts

The following contracts exceeded \$150,000 in the past quarter and were approved or authorized by the Board:

1. Cascade Health Solutions (\$400,000)-Health, Safety, and Wellness Program Services (5 years)
2. Electrical Power Products (\$405,000)-Carmen Substation Equipment (One Time)
3. GE Prolec (\$734,800)-Substation Transformer for Holden Creek (One Time)
4. MWA Architects (\$205,000)-Water Quality Laboratory and Backup Services Building Design at Hayden Bridge (One Time)
5. Real Estate Broker and Consulting Services (Each contract has a not to exceed amount of \$150,000)
  - o Commercial Quest NW, Inc.
  - o Cushman & Wakefield
  - o Evans, Elder, Brown and Seubert
  - o Windermere Real Estate
6. WESCO Distribution (\$437,000)-Equipment to expand the Holden Creek Substation (One Time)
7. United States Geological Survey (\$830,345)-Hydrological Surveillance Maintenance, Monitoring, and Reporting Services on the McKenzie River (6 years)
8. USI Insurance Services (\$250,000)-Health and Wellness Benefits Broker and Consulting Services (5 years)
9. Key operational contracts for maintenance, repairs, and capital projects work including:
  - o Badger Meters Inc. (\$425,000)-AMI Water Meters and Registers (5 year)
  - o L.R. Brabham Inc.(\$300,000)-Electrical Services (5 years)
  - o OEG (\$300,000)-Electrical Services (5 years)
  - o Rosemount, Inc. (\$240,000)-Free-Chlorine Measuring Systems (5 years)

The Quarterly Contract Report includes all contracts valued between \$40,000 and \$150,000, and is attached as *Appendix D – Contracts Awarded Report*.

### 2018 Contracts

In 2018, organization initiatives required contracts to support work completion. The following contracts were negotiated that support:

- Smart Meter deployment including contracts to purchase water meter boxes and lids, vehicles, and meters
- Upgrading equipment at the Carmen and Holden Creek Substations, contracts included purchases of transformers, switchgear, and control house equipment
- Emerging concerns for piping at Leaburg Canal and for sinkholes at Carmen Diversion Reservoir, initial contracts were awarded for evaluation, upon completion of the evaluation, design contracts were negotiated. Additional contracts will be developed to remedy the issues in 2019
- Consolidation of staff from Headquarters to the Roosevelt Operations Center, contracts included construction, design, and specialized equipment required at the new site
- Standby power upgrades at Leaburg and Hayden Bridge

### Key Metric-Limiting Increases to Contract Pricing

Purchasing tracks the annual changes in contract pricing. The goal was to limit contract changes to a 1% increase, and the actual change was an increase of 1.74%. Several contracts have had substantial price increases due to labor, metals, chemicals, and wood product industry increases. When prices are requested to be increased, Purchasing staff require substantiating documentation demonstrating the reason for the price change.

### Legal Matters

*EWEB v. MWH et al*: In 2015 EWEB filed a complaint claiming breach of contract and negligence by contractors responsible for the design, engineering and construction of certain upgrades to the roll gates and hoists at Leaburg Dam. In July the Court of Appeals ruled in EWEB's favor on the question of venue and that the case should proceed in trial court with all

parties. In December 2018, the Lane County Circuit Court directed the parties to schedule a trial date to commence no later than September 1, 2019. Parties were engaged in discovery through an appointed Special Master while the Court of Appeals deliberated.

*PERS Litigation:* The hearing of EWEB's case before the Oregon Supreme Court was postponed until mid-January, 2019.

*Central Lincoln PUD v. Oregon Department of Energy et al.:* EWEB has joined with other utilities, including cooperatives and people's utility districts, to challenge aspects of the Energy Supplier Assessments imposed by the Oregon Department of Energy (ODOE). ODOE has appealed the trial court's decision; oral arguments were presented to the Court of Appeals in December 2018, and the matter has been taken under advisement. The Court of Appeals commonly issues written decisions within 12-18 months.

*James Zelenka v. EWEB:* On November 12, 2018, EWEB was sued for personal injury damages alleged by the plaintiff driver, James Zelenka, arising from a motor vehicle accident involving an EWEB employee which occurred on December 12, 2016. EWEB's answer has been filed. Plaintiff's counsel has been advised that EWEB will be substituted as the sole defendant in the matter in accordance with the Oregon Tort Claims Act. A trial date has not yet been scheduled.

*N. Harris Computer Corporation v. EWEB:* In May 2018, EWEB issued a letter notice of termination on a vendor contract with Cayenta, a division of N. Harris Computer Corporation, relating to the installation and configuration of a replacement computer information system (CIS). Despite efforts to resolve the conflict by mediation, N. Harris Computer Corporation filed a lawsuit against EWEB on December 17, 2018, asserting Breach of Contract, seeking approximately \$740,000. A trial date has not yet been set.

### Compliance

During the past quarter, the following compliance violations were discovered and/or self-reported.

#### ***Compliance Violations***

1. In October 2018, FERC notified staff that ramping rate deviations that occurred in August 2018 were deemed to be violations of the Carmen-Smith license. A miscalculation of level limits in the river resulted in this ramping rate deviation, and staff created additional tools to help eliminate this issue from arising again. While the violation was noted on the Carmen-Smith license, there was no monetary impact or other enforcement action taken.
2. In November 2018, FERC issued a Notice of Violation (NOV) to EWEB related to EWEB's response to FERC's earlier order to remove all of the stop logs and completely dewater Carmen Diversion Reservoir. EWEB believes that this NOV resulted primarily through a miscommunication between EWEB staff and FERC staff. FERC subsequently notified EWEB that there would be no fines associated with this NOV, and that they considered the situation resolved.
3. Two violations of procurement thresholds were self-reported separately to the Board on the quarterly contract report.

### Public Records Requests

During Q4 2018 EWEB received five public record requests, and all have been fulfilled. One request was for policies and procedures, one for historic records, one for a letter, and two for Purchasing records.

### **WECC/NERC Audit**

The Western Electricity Coordinating Council (WECC) 2-week Audit concluded December 20<sup>th</sup>. The 2018 Audit Scope included (15) Critical Infrastructure Protection (CIP) Requirements and (10) Operations and Planning (O&P) requirements, and spans the 45-month period January 14, 2015 through September 11, 2018. EWEB SME's processed (85) Data Requests from the WECC Audit Team, (32) O&P and (53) CIP, (15) of which were face-to-face interviews with the Auditors.

The Auditors Preliminary findings report states that

O&P has:

- (1) Recommendation (PRC-004-5(i) R5)
- (1) Potential Non-Compliance (TOP-001-4 R13).

CIP has:

- (6) Recommendations (CIP-002-5.1 R2, CIP-004-6 R5, CIP-006-6 R1, CIP-010-2 R1 & R4, CIP-011-2 R1)
- (2) Potential Non-Compliance (CIP-002-5.1 R2, CIP-004-6 R5).

WECC Management will review the Auditors Preliminary Findings report, make their final determinations regarding the Potential Non-Compliance and submit the final report to EWEB.

#### **PUC Work**

PUC operational goals for the Electric Line crews in 2018 are:

- 1400 Compliant poles
- 3000 poles tested and treated
- 10% of the overhead T&D system inspected and corrected.



## Glossary

**AF:** Availability Factor. Multiplied by 100, this factor indicates the percentage of time that the generating units were available for operation.

**BLM:** Business Line Manager

**CI:** Continuous Improvement

**CIA:** Contributions in Aid of Construction

**CIS:** Customer Information System

**CIP:** Capital Improvement Plan

**CIP:** Critical Infrastructure Protection

**CRM:** Customer Relationship Manager

**CSU1 and CSU2** - Carmen-Smith unit 1 & 2

**FC** - Foot Creek

**FERC:** Federal Energy Regulatory Commission

**FCRPS:** Federal Columbia River Power System

**FOF:** Forced Outage Factor. Multiplied by 100, this factor indicates the percentage of time that the generating units were forced offline due to an unplanned event.

**GCF:** Gross Capacity Factor. Multiplied by 100, this factor indicates the percentage of megawatt hours generated relative to the maximum number of megawatt hours that could have been generated if the generating unit had been operating continuously at full capacity.

**GIS:** Geographical Information System

**GOF:** Gross Output Factor. Multiplied by 100, this factor indicates the percentage of megawatt hours generated relative to the maximum number of megawatt hours that could have been generated if the generating unit had been operating at full capacity when available to generate.

**HW** - Harvest Wind

**ICS:** Incident Command System

**IP:** International Paper

**KPI:** Key Performance Indicator

**LBU1 and LBU2** - Leaburg unit 1 & 2

**NERC:** North American Electric Reliability Corporation

**PERS:** Public Employees Retirement System

**PUC:** Public Utility Commission

**RCP:** Retail Cash Payment

**RMC:** Risk Management Committee

**SAIDI:** System Average Interruption Duration Index

**SAIFI:** System Average Interruption Frequency Index

**STC** - Stone Creek

**TB** - Trail Bridge

**WGA:** Western Generation Agency (WGA) is the name of the intergovernmental entity formed by EWEB and Clatskanie People's Utility District (CPUD). The WGA steam turbine generator is located at the Georgia Pacific paper mill named Wauna.

**WV** – Walterville

## Appendix

Appendix A: Electric Financial Statements

Appendix B: Water Financial Statements

Appendix C: EL1 Report for Electric, Water & Shared Services

Appendix D: Contracts Awarded Report

Appendix E: EL3 Report Community Investment Sponsorships

*Disclaimer: The unaudited financial statements provided in this report are intended for management purposes only.*

## APPENDIX A

### PRELIMINARY ELECTRIC CONDENSED STATEMENT OF REVENUES, EXPENSES, & CHANGES IN NET POSITION (Unaudited)

(In millions)

	Year Ended December 31,		Budget Comparison	
	2018	2017	Budget \$	Variance
Operating revenues	\$ 249.6	\$ 254.6	\$ 248.4	\$ 1.2
Operating expenses	232.7	227.3	237.7	5.0
Net operating income (loss)	16.9	27.3	10.7	6.2
Non-operating revenues	8.3	12.6	8.0	0.3
Non-operating expenses	12.2	25.6	12.9	0.7
Income before capital contributions	13.0	14.3	5.8	7.2
Capital contributions	5.6	5.4	3.6	2.0
Special pension and OPEB payments	26.3	-	26.3	-
Intersystem transfer to Water	0.5	-	-	0.5
Increase/(Decrease) in net position	\$ (8.2)	\$ 19.7	\$ (16.9)	\$ 8.7

### PRELIMINARY ELECTRIC CONDENSED STATEMENT OF NET POSITION (Unaudited)

(In millions)

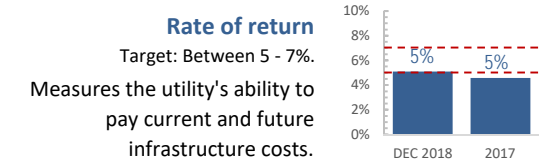
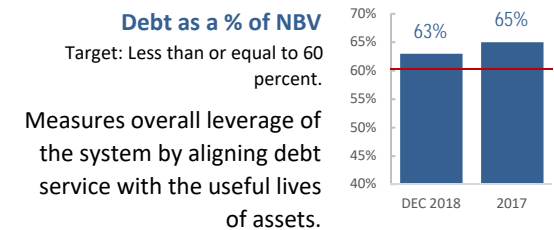
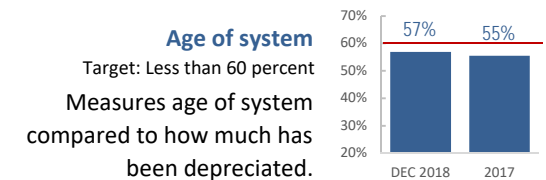
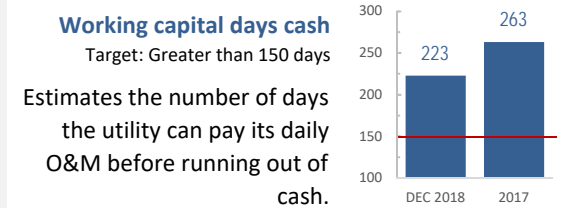
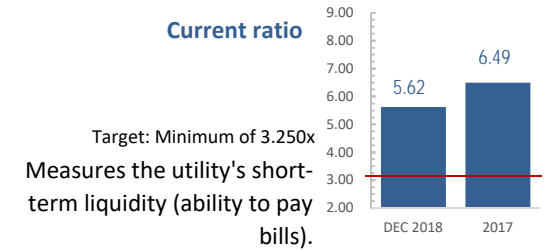
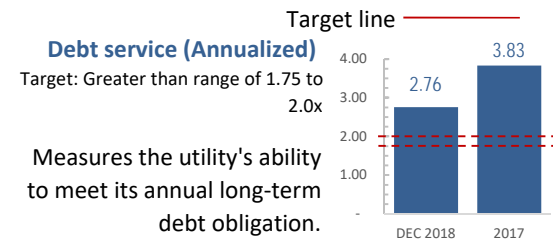
	December 31,	
	2018	2017
Current assets	\$ 220.1	\$ 185.7
Net utility plant	365.5	353.9
Other assets	97.2	157.5
Total assets	682.8	697.1
Deferred outflows of resources	45.3	46.7
Total assets and deferred outflows	\$ 728.1	\$ 743.8
Current liabilities	\$ 39.2	\$ 36.5
Long-term debt	200.8	211.6
Other liabilities	91.0	91.0
Total liabilities	331.0	339.1
Deferred inflows of resources	9.1	8.6
Total net position	388.0	396.1
Total liabilities, deferred inflows, and net position	\$ 728.1	\$ 743.8

### PRELIMINARY ELECTRIC CONDENSED CAPITAL BUDGET COMPARISON (Unaudited)

(In millions)

	12/31/2018	Annual Working Budget	
		Budget \$	% of Budget
Type 1 - General capital	\$ 15.9	\$ 12.3	129.3%
Type 2 - Rehabilitation and expansion	7.9	11.4	69.3%
Type 3 - Strategic projects	12.2	14.0	87.1%
Total capital	\$ 36.0	\$ 37.7	95.5%

### FINANCIAL STRENGTH MEASUREMENTS



## APPENDIX B

### PRELIMINARY WATER CONDENSED STATEMENT OF REVENUES, EXPENSES, & CHANGES IN NET POSITION (Unaudited)

(In thousands)

	Year Ended December 31,		Budget Comparison	
	2018	2017	Budget \$	Variance
Operating revenues	\$ 39,393	\$ 39,565	\$ 37,440	\$ 1,953
Operating expenses	24,683	24,952	26,178	1,495
Net operating income (loss)	14,710	14,613	11,262	3,448
Non-operating revenues	1,744	590	642	1,102
Non-operating expenses	2,274	5,941	2,260	(14)
Income before capital contributions	14,180	9,262	9,644	4,536
Capital contributions	3,181	3,130	1,545	1,636
Special pension and OPEB payments	8,296	-	8,300	(4)
Intersystem transfer from electric	532	-	-	532
Increase/(Decrease) in net position	\$ 9,597	\$ 12,392	\$ 2,889	\$ 6,708

### PRELIMINARY WATER CONDENSED STATEMENT OF NET POSITION (Unaudited)

(In millions)

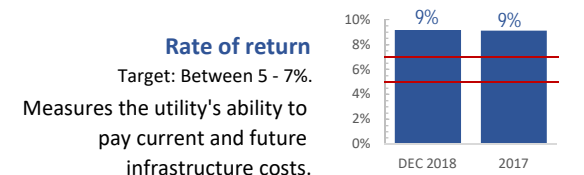
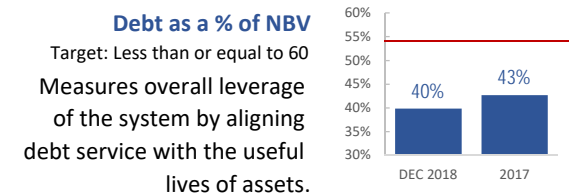
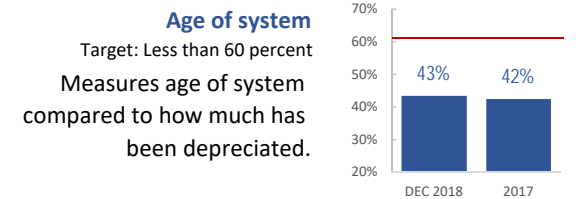
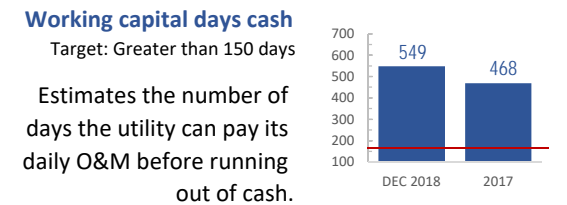
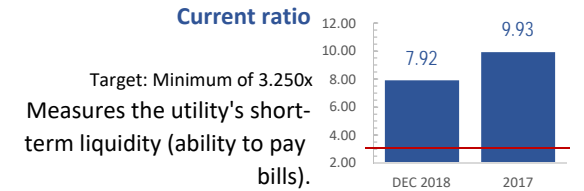
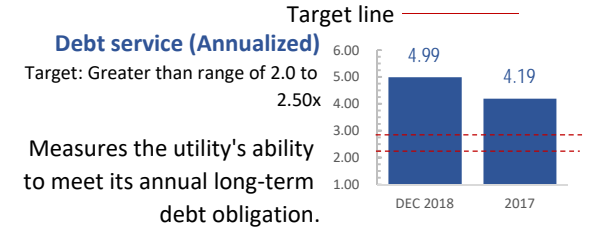
	December 31,	
	2018	2017
Current assets	\$ 49.8	\$ 41.5
Net utility plant	175.6	165.4
Other assets	7.3	19.4
Total assets	232.7	226.3
Deferred outflows of resources	9.6	9.8
Total assets and deferred outflows	\$ 242.3	\$ 236.1
Current liabilities	\$ 6.3	\$ 5.6
Long-term debt	61.2	65.5
Other liabilities	20.0	19.8
Total liabilities	87.5	90.9
Deferred inflows of resources	1.9	1.9
Total net position	152.9	143.3
Total liabilities, deferred inflows, and net position	\$ 242.3	\$ 236.1

### PRELIMINARY WATER CONDENSED CAPITAL BUDGET COMPARISON (Unaudited)

(In thousands)

	12/31/2018	Annual Working Budget	
		Budget \$	% of Budget
Type 1 - General capital	\$ 9,031	\$ 9,107	99.2%
Type 2 - Rehabilitation and expansion	6,420	6,228	103.1%
Type 3 - Strategic projects	358	400	89.5%
Total capital	\$ 15,809	\$ 15,735	100.5%

### FINANCIAL STRENGTH MEASUREMENTS



**Capital "EL1" Report: Electric, 2018-Q4**

Type 1 - General Capital		2018 - Q4		Note - Changes from previous report(s) are in <b>BOLD</b>					
Capital Category	Budget	YTD Actual	Status/Comments						
Electric Infrastructure - Generation	\$1,900,000	\$1,747,086	LB lake debris boom installation completed in April; LB forebay sluice gate replacement completed in September; Stone Creek relay/exciter completed in October; LB dam replacement emergency generator completed in December; Stone controls upgrade and Smith Dam log boom construction postponed to 2019. -ZINNIKER						
Electric Infrastructure - Substations	\$1,550,000	\$1,593,198	Major projects completed include Spring Creek Substation overhaul (~\$1M), three substation RTUs (~\$150K/ea.) and emergent parts and equipment (i.e.: Thurston PT failure, Jefferson Transformer Bushings). No major roll over of projects to 2019 expected, and some design costs for 2019 execution is included. - NICE						
Electric Infrastructure - Telecom	\$225,000	\$240,335	Consists of EWEB driven and Customer Driven fiber work as well as upgrades associated with LRIG. EWEB driven work finished above projections by completing projects to add redundancy options as well as replace legacy testing equipment. Customer Driven work finished below budget amount due to decrease in typical capital extensions and an increase in new circuits on existing paths (O&M work). LRIG work included purchases and replacement of batteries for comm sites. - NICE						
Electric Infrastructure - Transmission & Distribution	\$7,100,000	\$7,713,239	Customer Reimbursable work ended slightly over budget due to customer demand, with a favorable variance in the distribution enhancement and additions projects (Spring Creek Feeder Construction delayed and will have some minor roll over into 2019). Additionally, transformer purchases were below historical trends. Renewal and replacement projects ended over budget as the main driver to the overage due to an aggressive switch replacement program for 2018, additional pole inspections and replacements and several underground cable failures throughout the year as well as an additional substation get away cable replacement at Spring Creek Substation executed in the summer. - RUDLER						
<b>Type 2 Rehabilitation &amp; Expansion Projects</b>		2018 - Q4		Project Total			Schedule		
Project	Budget	YTD Actual	Initial Plan	To-Date Actual	Project-End Projection	Start	Initial Planned Completion	Projected Completion	Status/Comments
Leaburg Dam Roll Gate Hoists	\$0	\$55,157	\$5,150,000	\$6,754,711	\$7,000,000	Jul-2012	Nov-2014	Oct-2018	All three hoist systems released for full automatic operation in 2017. Final punch list items and payments to contractor completed in 2018. -ZINNIKER
Downtown Fiber Network	\$1,400,000	\$613,320	\$2,100,000	\$1,133,423	\$2,100,000	Mar-2017	Dec-2018	Apr-2019	In-street backbone installation was completed in 2018 as well as roughly half of the building service laterals. Multiple delays, for various reasons, due to staffing constraints associated with line crew and comm shop availability slowed progress. Approximately 40 buildings remain to be connected in Q1 of 2019. -NICE
Advanced Meters (Electric)	\$1,900,000	\$3,035,369	\$6,638,000	\$3,992,369	\$15,600,000	Oct-2013	Dec-2025	Dec-2021	Project implementation has been accelerated from an 8 year deployment to a 3 year to accomplish strategic objectives by EOY 2021. Additional spending above previous plan approved by management to accomplish project deployment goals. Additional meters have been procured to mitigate risk of supplier lead time fluctuations. 10,722 meters have been installed in 2018; with 4,240 installed after Oct. 1 (when deployment rate was increased). The project is on target with the planned deployment rate. -MCELROY
Electric Master Plan	\$50,000	\$49,536	\$1,250,000	\$178,749	\$700,000	Jul-2016	Dec-2016	Mar-2019	Spending shown accounts for coordination and planning associated with purchase of property for Thurston substation expansion. Purchase expected to occur in 2019. Some spending for lot line adjustments are expected to occur in 2018. Delay in purchase does not effect critical path of the substation expansion. Also shown are costs for surveying of future Willow Creek to Jessen line for preparation of execution within the 10 year plan. -NICE
Upriver Re-Configuration/Holden Ck. Substation	\$810,000	\$515,127	\$3,000,000	\$5,907,862	\$8,000,000	Jan-2014	Oct-2015	Sep-2019	Holden Creek substation construction and commissioning has been completed, and tie into the Thurston-Cougar 115KV transmission line was completed in late April. Planning is in progress now for addition of a second distribution system transformer to increase reliability for upriver customers for this station. Switchgear expansion and a new transformer procurements are underway. Follow up work to complete commissioning, tie in with Holden Creek, and reconfiguration of Leaburg Substation will occur Q2-Q3, 2019. New increased end of project total accounts for additional transformer, switchgear expansion, and Leaburg substation reconfiguration. 2018 underspend is associated with deferral of Leaburg Substation Reconfiguration work, now to take place in Q3/4 2019. -NICE
Downtown Distribution Network	\$1,500,000	\$1,166,171	\$15,000,000	\$6,834,289	\$20,000,000	Sep-2010	Dec-2015	Dec-2028	Replacement of a failed vault at 10th and Pearl has been completed. Costs came in under expected, resulting in an underspend. This vault was found during inspections to have visible cracking, and has functionally failed. Work included re-conductoring the supply feed, re-configuration of the system to allow for de-energization of the vault, replacement of the vault, and repair of the roadway and underground facilities in the vicinity. A majority of this work has been accelerated from future plans and completed as an opportunity with the emergent failed vault replacement. -NICE
Grid Edge Demonstration Project	\$1,250,000	\$1,248,956	\$1,200,000	\$1,389,944	\$1,250,000	May-2016	Jun-2017	Oct-2018	Site will be part of EWEB's emergency water supply program by tying this backup power source in with an onsite well for community water distribution after a large scale disaster or long term outage. Installation of a 500kW output, 1MWh battery system was completed in Oct. 2018. Staff are working on final punch list items with targeted completion early Spring 2019, including water supply elements. A site functional drill is being planned for Spring 2019. -NICE
ROC Consolidation	\$700,000	\$859,706	\$2,000,000	\$859,706	\$2,500,000	Mar-2018	Dec-2020	Dec-2019	ROC consolidation remodel efforts are underway by the contractor with crew space construction and reconfigurations underway with a bulk of moves to be completed in Q1 with some final moves going into Q2 2019. Final spending depends on realized scope changes and actual contractor execution rates, however project appears to be on track at current trajectory. Overall project end cost has been increased to account for additional construction associated with additional staff moves. Costs also include a parking lot expansion at ROC to accommodate additional vehicles after consolidation completed in 2018. -NICE
Distribution Resiliency Upgrades	\$0	\$8,765	\$1,860,000	\$8,765	\$1,860,000	Aug-2018	Dec-2020	Dec-2020	Approval has been received for FEMA 406 Hazard Mitigation work reimbursement. Designs for all overhead work has been completed with designs in progress for overhead to underground conversion at Oakway. Construction will be occur in 2019 for the bulk of projects. An additional \$190k of non reimbursable will be completed as an opportunistic efficiency while FEMA work is in progress. -RUDLER
<b>Type 3 - Strategic Projects &amp; Programs</b>		2018 - Q4		Project Total			Schedule		
Project	Budget	YTD Actual	Initial Plan	To-Date Actual	Project-End Projection	Start	Initial Planned Completion	Projected Completion	Status/Comments
Carmen Smith License Implementation	\$13,850,000	\$12,165,721	\$135,000,000	\$55,305,003	\$129,500,000	May-2009	Dec-2021	Dec-2025	The FERC is still reviewing the Final License Application and to date there are no outstanding issues. We anticipate license issuance during first half of 2019, however there is really no way to accurately forecast the actual issuance timing. Carmen Powerhouse renewal efforts continue with turbine shut-off valve commissioning complete and the generating units returning to operation in November. Fabrication of long lead-time equipment for rebuilding the substation is nearing completion and the installation contract bids were opened in December and approved by the Board in January. GE Turbine Generator design work is proceeding on schedule with factory inspections starting in 2019 in preparation for the first unit rehab in 2020. Alternatives analysis for upstream fish passage design is complete and planning for other recreation and environmental improvements required by the license is now in progress. -ZINNIKER, BOYLE
<b>Total Electric Capital (Excluding Shared Services)</b>	<b>\$32,235,000</b>	<b>\$31,011,686</b>	<b>\$173,198,000</b>						

1. Budget amounts are adjusted to reflect changes presented and approved by the Board on May 1, 2018 (May True Up)

Management Notes: The overall Electric Capital Budget (excluding shared services) ended for 2018 on target both in spending and completion of projects (% complete). Type 1 expenditures ended at 105% of budget vs. actual. Type 2 spending ended at 99% of budget at year end. Carmen Smith spending ended at 88% of budgeted. Year end expenditures vs. budget for Type 1 & Type 2 work combined ended at \$18.85M (102.5% of budget) excluding Shared Services and Type 3. The 2.5% unfavorable variance is covered by under spending on the CIS replacement project due to cancellation, and underspending on the Type 3 Carmen Work. The overall year end spending ended at 96% of budget including Type 3 (Carmen) for the overall Electric Division budget (with precap materials included, not including shared services).

**Capital "EL1" Report: Shared Services, 2018-Q4**

**Type 1 - General Capital**

Capital Category	2018 - Q4		Note - Changes from previous report(s) are in <b>BOLD</b>	
	Budget	YTD Actual	Status/Comments	
General Plant - Information Technology (I.T.)	\$1,210,000	\$3,204,168	●	Type II funds were reallocated for infrastructure and security improvements. (Barton)
General Plant - Buildings & Land Management	\$476,000	\$575,403	●	The HQ Elevator Upgrade is complete and the work order is to be closed out early Q1, 2019. (Wahto) ROC Comm Tower will be completed in Q1, 2019. (Wolfe)
General Plant - Electric & Water Fleet Capital	\$386,000	\$1,592,517	●	All projects completed - \$1,206,517 was advanced from 2019/2020 vehicle budget in preparation of AMI and ROC remodel projects. (Lentsch)

*In the future, these categories will match the Capital Improvement Plans (CIPs) submitted by Water & Electric.*

*Type 1 - General Capital is budgeted Year-by-Year for recurring capital expenditures from January through December. Type 1 Capital includes categorized collections of projects of less than \$1 million. Typical examples include "pole replacements" as part of Transmission & Distribution. This work typically involves many small projects that add up to \$1.2-\$1.7 million per year.*

*Type 2 projects have "discrete" scopes, schedules (launch through completion), and cost over \$1MM during the project life.*

**Type 2 Rehabilitation & Expansion Projects**

Project	2018 - Q4		Project Total			Schedule			Status/Comments
	Budget	YTD Actual	Initial Plan	To-Date Actual	Project-End Projection	Start	Initial Planned Completion	Projected Completion	
AMI Information Technology & Integration	\$113,000	\$76,612	\$6,475,700	\$5,446,671	\$6,475,700	May-2015	Dec-2017	May-2018	● New Assets are being put in place to support the change from opt in to opt out. (Barton)
Customer Information System (CIS) Replacement	\$3,815,000	\$0	\$9,700,000	\$0	\$0	Sep-2016	Aug-2018	Apr-2018	● The project was cancelled April 2018 and all costs shifted to O&M. (Barton/Moe)
Information Technology Type 2	\$768,000	\$694,092	\$700,000	\$694,092	\$750,000				● Improvements to Local and Wide Area Network (Barton)

**Total Shared Services Capital (This Report)**

\$ 6,768,000.00 \$6,142,792 90.76%

Appendix C

**Capital "EL1" Report: Water, 2018-Q4**

**Type 1 - General Capital**

Project	2018 - Q4		Status/Comments
	Budget	YTD Actual	
Source - Water Intakes & Filtration Plant	\$815,000	\$1,189,570	● Three primary projects at Hayden Bridge for 2018: Solids/Pond Improvements, Basin Railing and Access Improvements, and Finished Water Flow Meter Replacements. The 2018 Capital True-Up provided additional budget due to revised estimates and carryover.
Mains - Replacements, Improvements, & Trans.	\$4,069,001	\$4,007,040	● Largest component in this area is main replacements.
Services	\$2,045,001	\$2,171,439	● Includes both reimbursable and non reimbursable service work. The December budget amendment provided additional funds in this area.
Pump Stations and Reservoirs	\$1,674,001	\$1,621,842	● Work this year includes upgrades at Santa Clara, Dillard 975, and Crenshaw pump stations and well as improvements to the Crest 800 and 975 reservoirs. The 2018 Capital True Up and the December Budget Amendment provided additional budget in this area.

These categories will match the Capital Improvement Plans (CIPs) submitted by Water & Electric.

Type 1 - General Capital is budgeted Year-by-Year for recurring capital expenditures from January through December. Type 1 Capital includes categorized collections of projects of less than \$1 million. Typical examples include "main replacements". This work typically involves dozens of jobs that add up to \$3.5-4.5 million per year.

Type 2 projects have "discrete" scopes, schedules (launch through completion), and cost over \$1MM during the project life, and project life can span multiple years

Type 3 projects are large strategic programs with long term impacts.

**Type 2 Rehabilitation & Expansion Projects**

Project	2018 - Q4		Project Total			Schedule			Status/Comments
	Budget	YTD Actual	Initial Plan	To-Date Actual	Project-End Projection	Start	Initial Planned Completion	Projected Completion	
Hayden Bridge Disinfection System Replacement	\$2,052,000	\$1,563,476	\$3,645,000	\$1,864,420	\$4,500,000	2017	YE-2018	Q2-2019	● Replacement of gas chlorine system with on-site liquid hypochlorite system. Project in construction at year end. Equipment delivery and construction delays resulted in 2018 year end to fall short of projection. Budget reduction included in 2018 Capital True Up (Initial Plan - 2015 CIP)
Distribution System Scada/PLC Upgrades	\$156,001	\$6,617	\$3,079,780	\$597,726	\$650,000	2013	YE-2016	YE-2018	● Multi-Year upgrade project to upgrade communications and control at pump stations. Going forward this work will be incorporated into planned standard pump station Type 1 work. (Initial Plan 2013 CIP)
Hayden Bridge Standby Power Improvements	\$1,150,000	\$1,115,771	\$1,728,000	\$1,227,437	\$1,300,000	2015	YE-2017	Q3-2018	● Project complete at year end. Budget addition/carryover included in 2018 Capital True Up. (Initial Plan - 2015 CIP)
40th Ave (Elliot) Reservoir No. 1	\$100,000	\$22,741	\$10,250,000	\$22,741	\$10,250,000	2018	Q4-2021	Q4-2021	● Design of new base level reservoir on EWEB property off 40th St (Elliot Site). This is the first of a series of new seismically robust reservoirs to be built and is part of the distributed storage concept recommended in the 2015 Water Master Plan. (Initial Plan - 2019 CIP)
Advanced Meters (Water)	\$1,607,000	\$2,630,863	NA	\$2,630,863	TBD	2018	YE-2026	YE-2026	● New Subproject to reflect shift to Opt-Out Advanced Meter Infrastructure. Includes cost of pre-capitalized meters. 2018 unit costs will be used to fine tune accurate long term projections. Budget increase included in 2018 Capital True-Up although this increase fell short of actuals.
ROC Consolidation	\$335,000	\$243,863	NA	\$243,863	\$600,000	Q1-2018	YE-2020	YE-2020	● New sub-project for the ROC Consolidation. 2018 costs include a parking lot expansion at ROC to accommodate additional vehicles and design efforts for a new building at Hayden Bridge for backup dispatch, trading, and data. Costs for facilities at Hayden Bridge are very preliminary and will be further refined as design progresses. Budget increase included in 2018 Capital True-Up.

**Type 3 - Strategic Projects & Programs**

Project	2018 - Q4		Project Total			Schedule			Status/Comments
	Budget	YTD Actual	Initial Plan	To-Date Actual	Project-End Projection	Start	Initial Planned Completion	Projected Completion	
Emergency Water Supply	\$400,001	\$357,879	TBD	\$357,879	TBD	Q1-2018	YE-2028	YE-2028	● New Sub-Project for Emergency Water Supply Program. In 2018 an emergency water station was completed at Kalapuya High School and second at Howard Elementary was near completion. Budget reduction included in 2018 Capital True-Up.

Total Water Capital (Excluding Shared Services)	\$14,403,004	\$14,931,099	104%	year end actual to budget
Type 1, 2 Capital (Excluding Shared Services)	\$14,003,004	\$14,573,220	104%	year end actual to budget
Total Water Capital (Including Shared Services)	\$15,725,000	\$15,800,000	100.5%	

Management Notes: Water's Type 1 and 2 projects ended 2018 slightly over budget at a project level. When included with shared services, the water utility capital spending ended 2018 at approximately 0.5% over budget. Primary causes for this overage were higher than projected costs for main replacements, service work, and materials for advanced metering.

Q4 2018, Quarterly Contracts Awarded Report

Appendix D

Contract Execution	Contractor	City, State	Description	Contract Amount	Contract Term	Contract Process	Executive Team Manager
12/13/2018	US Bank	Portland, OR	Trustee and Custodial Services	\$ 107,500	12/12/2023	Formal Request for Proposals	Sue Fahey
10/25/2018	Holt Services	Vancouver, WA	Boring Drilling	\$ 40,595	One-time	Invitation to Bid	Susan Ackerman
10/30/2018	NW Energy Efficiency Alliance, Inc. (NEEA)	Portland, OR	Funding Agreement	\$ 40,000	9/30/2023	Memo of Understanding	Susan Ackerman
12/26/2018	Cornforth	Portland, OR	Emergency Geotechnical Svs for Leaburg Canal	\$ 208,000**	2/28/2019	Emergency Declaration	Susan Ackerman
12/4/2018	BLX Group LLC	Mesa, AZ	Arbitrage Rebate Consulting Services	\$ 60,000	10/31/2023	Direct Negotiation	Sue Fahey
8/30/2018	Schnabel Engineering	Seattle, WA	Safety Inspection Report for Carmen-Smith	\$ 262,082**	6/30/2019	Emergency Declaration	Susan Ackerman
10/29/2018	Gallagher	Eugene, OR	Real Estate Legal Counsel for Board	\$ 50,000	Board Ratification	Direct Negotiation	Frank Lawson
10/10/2018	Kleinschmidt Associates	Portland, OR	Carmen Diversion Dam Breach Modeling	\$ 48,835	12/31/2019	Direct Negotiation-QBS*	Susan Ackerman
12/10/2018	Alstom Grid LLC c/o Carlson Sales	Vancouver, WA	Potential Transformers	\$ 108,270	One-time	Informal Quote	Rod Price

EWEB association for all above contracts = None

\*Qualification Based Selection (QBS) is required based on current statutes and EWEB Public Contracting Rules for consultants who provide architectural, engineering, land surveying, and related services. The selection process for contracts on this report requires selection from pre-qualified firms. Contract values are based on negotiations and reviewed for appropriate effort and rate schedules.

\*\*Contracts with Cornforth and Schnabel Engineering are over \$150,000, the contracts were awarded under an Emergency Declaration and were reported as correspondence at the January 8, 2019 Board Meeting.

**Procurement Overage Report**

In October 2018, EWEB had a breach of the formal procurement threshold on a contract with Osmose Utilities Services for inspection and repairs on steel lattice towers. The initial contract was awarded based on an informal quote that was for \$134,687, the actual repairs exceed the initial contract amount and increased the total to \$158,722, which exceeds the formal threshold of \$150,000.

Questions? Please contact: Sarah Gorsegner, 541-685-7348



## Sponsorships, Donations, Grants

QTR	AGENCY	EVENT/DESCRIPTION	PAYMENT DATE	EVENT DATE	AMOUNT	INVESTMENT AREA	CATEGORY	NOTES	
Q4	Friends of Trees	Greenpower grant winner - will receive up to \$28,000	12/27/18	N/A	\$14,000	ENVIRONMENTAL: Greenpower Program	Customer Voluntary	West Eugene Living Roadways Project - volunteers will plant and care for 600 trees and native shrubs along major roadways in areas of West Eugene to provide cooling and carbon sequestration. First installment payment = \$14,000. Subsequent installments will be made as project progresses.	
	McKenzie River Guides Association	Appreciation and assistance for costs associated with river clean-up	12/13/18	11/19/2018	\$500	ENVIRONMENTAL: Water Quality/Reliability	Discretionary	Board request - 12/04/18	
					<b>Q4 SUBTOTAL</b>	<b>\$14,500</b>			
Q3	Bromiley Family	Donation to family of deceased utility worker	10/10/18	N/A	\$590	PEOPLE: Safety Net	Discretionary	\$1000 total donated between employee donations and CI fund.	
	Foundation for Water & Energy Education / Grant Recipient	Hydropower and STEM Career Academy Travel and Registration - Student Grant	08/30/18	06/18 - 06/22	\$300	ECONOMIC: Education	Discretionary	<a href="http://www.eweb.org/about-us/news/a-week-at-a-hydropower-and-stem-career-academy">http://www.eweb.org/about-us/news/a-week-at-a-hydropower-and-stem-career-academy</a>	
	Bethel School District	Jul-Dec 2018 Education Grant	08/09/18	N/A	\$38,500	ECONOMIC: Education	Board Directed		
	McKenzie School District	Jul-Dec 2018 Education Grant	08/09/18	N/A	\$10,500	ECONOMIC: Education	Board Directed		
	Springfield School District	Jul-Dec 2018 Education Grant	08/09/18	N/A	\$23,500	ECONOMIC: Education	Board Directed		
	McKenzie Watershed Council & Salmon Stewards of Lane County	Salmon Watch Program - Field trips to Carmen-Smith spawning channel	N/A	Sept	N/A	ECONOMIC: Education	Discretionary	EWEB provides access to the Carmen-Smith spawning channel in support of the Salmon Watch program. Field trips occur in the last 2 weeks of September. EWEB provides \$8000 every two years which pays for these field trips, bus drivers and port-a-potties (last payment was made in Sept 2017). Topics include: water quality, macroinvertebrates, salmon biology and riparian habitat.	
	Lane Community College	Scholarship Grant	07/27/18	N/A	\$25,000	ECONOMIC: Education	Board Directed	4 scholarships have been awarded for 2019 totaling \$20,000. \$5,000 remains to be awarded.	
	BRING reThink Education Program	2018 Community Education	07/23/18	N/A	\$2,000	ECONOMIC: Education	Discretionary	In-classroom Presentations and Field Trip Tours of Lane County's Glenwood Central Receiving Station and Short Mountain Landfill. Sponsorship for this program will discontinue in 2019.	
	Eugene 4J School District	Jul-Dec 2018 Education Grant	07/17/18	N/A	\$123,500	ECONOMIC: Education	Board Directed		
	Lane Education Service District (ESD) (Q3)	Construction and Utilities Career Day	07/12/18	09/27/18	\$1,000	ECONOMIC: Education	Discretionary		
Oregon Environmental Council (Q3)	50th Anniversary Celebration	07/05/18	10/05/18	\$2,500	ENVIRONMENTAL: Water Quality/Reliability	Discretionary			
					<b>Q3 SUBTOTAL</b>	<b>\$227,390</b>			
Q2	Eugene 4J School District	Solar Challenge Grant for 4J, Bethel and Springfield School Districts	04/19/18	06/09/18	\$19,550	ENVIRONMENTAL: Greenpower Program	Customer-Funded	Previously funded from Education Grants but in response to Greenpower participant survey results, this project is now funded by the Greenpower program.	
	Howard Elementary	Annual Tech Trot	04/19/18	05/10/18	\$500	ECONOMIC: Education	Discretionary	Proceeds are used to lower or eliminate the technology fee for students at Howard Technology Immersion School.	
	Equity & Community Consortium	Communities of Color Networking Event (EWEB Sponsored First Friday)	04/19/18	05/04/18	\$1,335	PEOPLE: Diversity	Discretionary (Diversity)	Food and Entertainment provided by EWEB.	
					<b>Q2 SUBTOTAL</b>	<b>\$21,385</b>			
Q1	Willamette High School	EWEB Electrathon Race	02/01/18	03/17/18	\$1,225	ECONOMIC: Education	Discretionary		
	Lane County Fair	Co-Sponsorship of Lane County Fair Comfort Station Water Booth	02/08/18	07/18-07/22	\$900	ENVIRONMENTAL: Water Quality/Reliability	Discretionary	Booth Fee / Use of EWEB drinking water fountain w/chiller.	
	BRING reThink Education Program	2018 Community Education	02/01/18	N/A	\$2,000	ECONOMIC: Education	Discretionary	In-classroom Presentations and Field Trip Tours of Lane County's Glenwood Central Receiving Station and Short Mountain Landfill.	
	Bethel School District	Jan-June 2018 Education Grant	01/02/18	N/A	\$38,500	ECONOMIC: Education	Board Directed		
	Lane Community College	Jan-June 2018 Education Grant	01/02/18	N/A	\$35,000	ECONOMIC: Education	Board Directed		
	McKenzie School District	Jan-June 2018 Education Grant	01/02/18	N/A	\$10,500	ECONOMIC: Education	Board Directed		
	Springfield School District	Jan-June 2018 Education Grant	01/02/18	N/A	\$23,500	ECONOMIC: Education	Board Directed		
	Eugene 4J School District	Jan-June 2018 Education Grant	01/02/18	N/A	\$123,500	ECONOMIC: Education	Board Directed		
					<b>Q1 SUBTOTAL</b>	<b>\$235,125</b>			
					<b>Q1 - Q4 TOTAL</b>	<b>\$498,400</b>			

## Upcoming and/or committed

## Sponsorships, Donations, Grants

AGENCY	EVENT/DESCRIPTION	PAYMENT DATE	EVENT DATE	AMOUNT	INVESTMENT AREA	CATEGORY	NOTES
Oregon Environmental Council	World Water Day 2019	01/17/19	03/22/19	\$500	ENVIRONMENTAL: Water Quality/Reliability	Discretionary	
Eugene Science Center	Greenpower grant winner - will receive up to \$50,000	01/10/19	N/A	\$25,000	ENVIRONMENTAL: Greenpower Program	Customer Voluntary	Installation of 32.5-kilowatt photovoltaic array coupled with lithium ion batteries to showcase solar energy through education and exhibits, provide energy cost savings and reduce emissions. First installment payment = \$25,000. Subsequent installments will be made as project progresses.
Pearl Buck Center	Greenpower grant winner - will receive up to \$50,000	01/10/19	N/A	\$25,000	ENVIRONMENTAL: Greenpower Program	Customer Voluntary	West First Street facility will receive a 24-kilovolt solar array to reduce carbon dioxide emissions, lower operating costs and provide educational value. First installment payment = \$25,000. Subsequent installments will be made as project progresses.
St. Vincent de Paul	Infrastructure Grant: Dawn-to-Dawn Site on Hwy 99	TBD	N/A	\$20,000	PEOPLE: Safety Net	Discretionary	General Manager Grant up to \$20,000
Friends of Trees	Greenpower grant winner - will receive up to \$28,000	TBD	N/A	\$14,000	ENVIRONMENTAL: Greenpower Program	Customer Voluntary	West Eugene Living Roadways Project - volunteers will plant and care for 600 trees and native shrubs along major roadways in areas of West Eugene to provide cooling and carbon sequestration. First installment payment = \$14,000. Subsequent installments will be made as project progresses.
				<b>Total</b>	<b>\$84,500</b>		

### Water Truck Deployment

AGENCY	EVENT/DESCRIPTION	PAYMENT DATE	EVENT DATE	AMOUNT	INVESTMENT AREA	CATEGORY	NOTES
EWEB Customer Care Program	Run to Stay Warm	N/A	11/18/18	Staff Time	ENVIRONMENTAL: Water Quality/Reliability	Discretionary (Water Ops)	
EWEB	Customer Open House	N/A	10/16/18	Staff Time	ENVIRONMENTAL: Water Quality/Reliability	Discretionary (Water Ops)	
Bethel School District & Kalapuya High School	Emergency Water Station Event at Bethel Farms	N/A	10/06/18	Staff Time	ENVIRONMENTAL: Water Quality/Reliability	Discretionary (Water Ops)	
Eugene Marathon	Eugene Marathon	N/A	04/29/18	Staff Time	ENVIRONMENTAL: Water Quality/Reliability	Discretionary (Water Ops)	

### Volunteer Efforts and Events (Unpaid)

AGENCY	EVENT/DESCRIPTION	PAYMENT DATE	EVENT DATE	AMOUNT	INVESTMENT AREA	CATEGORY	NOTES
Bags of Love	Holiday Giving Drive - Employee Donations	N/A	11/19-12/7	N/A	PEOPLE: Safety Net	N/A	138 pounds of needed items donated to Bags of Love
Food for Lane County	Holiday Giving Drive - Employee Donations	N/A	11/19-12/7	N/A	PEOPLE: Safety Net	N/A	128 pounds of food donated to FFLC
St. Vincent de Paul	Holiday Giving Drive - Employee Donations	N/A	11/19-12/7	N/A	PEOPLE: Safety Net	N/A	
40th Annual Senior Citizen Holiday Dinner (LC HSD)	Holiday Giving Drive - Employee Donations	N/A	11/19-12/7	N/A	PEOPLE: Safety Net	N/A	
EWEB Customer Care Program	Run to Stay Warm	N/A	11/17-11/18	N/A	PEOPLE: Safety Net	N/A	60 staff/family and commissioner volunteers = 150 hrs.
McKenzie Watershed Alliance	McKenzie River Clean-Up	N/A	07/07/18	N/A	ENVIRONMENTAL: Water Quality/Reliability	N/A	16 volunteers = 48 hrs.
Butte to Butte	Butte to Butte	N/A	07/04/18	N/A	ENVIRONMENTAL: Water Quality/Reliability	N/A	18 volunteers = 45 hrs. (\$150 in supplies)
Special Olympics Oregon	Bocce Regional Competition	N/A	06/16/18	N/A	PEOPLE: Diversity	N/A	74 volunteers = 301 hrs.
Lane Blood Center	Blood Drive	N/A	05/24/18	N/A	PEOPLE: Emergency Preparedness	N/A	At ROC
United Way & Connected Lane County	BookFest Book Drive	N/A	04/16-04/30	N/A	ECONOMIC: Education	N/A	BookFest provided 913 kids with 5,478 donated books to take home with them to encourage reading over the summer.
Food for Lane County	FFLC Volunteer Night	N/A	Ongoing	N/A	PEOPLE: Safety Net	N/A	160 volunteer hours (Q1 - 39, Q2 - 28.75, Q3 - 55.25, Q4 - 36.5)

**EWEB employees, commissioners, friends and families have volunteered over 700 hours YTD**

### EWEB Ambassador Efforts and Events (Paid)

AGENCY	EVENT/DESCRIPTION	PAYMENT DATE	EVENT DATE	AMOUNT	INVESTMENT AREA	CATEGORY	NOTES
EWEB Customer Care Program	Run to Stay Warm	N/A	11/17-11/18	\$35,000	PEOPLE: Safety Net	N/A	650 Staff Hours
McKenzie Watershed Council & Salmon Stewards of Lane County	Salmon Watch Program	N/A	11/09-11/20	N/A	ECONOMIC: Education	N/A	3 EWEB Ambassadors = approx. 6 hrs.
Elevate Lane County	Middle School Career Expo	N/A	10/25/18	N/A	ECONOMIC: Education	N/A	Free to participate - HR will staff.
EWEB	Customer Open House	N/A	10/16/18	N/A	ECONOMIC: Education	N/A	Approximately 50 Staff and Commissioners provided information and services to attendees at EWEB's Fall Open House from 5 to 7 pm = approx. 100 hrs.
N/A	Public Power Week 5th Grade Poster Contest	N/A	10/08-10/15	N/A	ECONOMIC: Education	N/A	Staff and Commissioners presented awards to 5 students who submitted the top 5 winning entries. 1 EWEB Ambassador + Commissioner at each presentation = approx. 5 hrs.
Various Neighborhood Associations	Neighborhood Association meeting presentations	N/A	Ongoing	N/A	ECONOMIC: Education	N/A	Multiple staff members attending and presenting at various neighborhood organizations to share info on EWEB latest projects, initiatives and programming. 12 different general meetings to date - 1-3 EWEB Ambassadors + Commissioner at each meeting = approx. 12 to 36 hrs. to date.
Friendly Area Neighbors	Map Your Neighborhood Meeting	N/A	09/30/18	N/A	ECONOMIC: Education	N/A	Emergency Preparedness - 1 EWEB Ambassador = 1 hr
Academy of Arts & Academics High School	Hydro power presentation	N/A	09/27/18	N/A	ECONOMIC: Education	N/A	1 EWEB Ambassador - 3 hrs.
University of Oregon	Generation staff presentation to U of O Geophysics class	N/A	09/28/18	N/A	ECONOMIC: Education	N/A	2 EWEB Ambassadors = 4 hrs.
McKenzie Watershed Council & Salmon Stewards of Lane County	Salmon Watch Program	N/A	09/17-09/26	N/A	ECONOMIC: Education	N/A	3 EWEB Ambassadors = approx. 21 hrs.
University of Oregon	Generation staff presentation at Carmen-Smith to U of O student hikers program through Office of Sustainability	N/A	09/17/18	N/A	ECONOMIC: Education	N/A	1 EWEB Ambassador - 1 hrs.
BRING	Home & Garden Tour and EV Expo	N/A	09/09/18	N/A	ECONOMIC: Education	N/A	3 EWEB Ambassadors = approx. 12 hrs.
Friendly Area Neighbors Picnic	Neighborhood Organization Picnic	N/A	07/22/18	N/A	ECONOMIC: Education	N/A	Booth with info on Emergency Preparedness, Electric Vehicles and more. 1 EWEB Ambassador = 4 hrs.
Lane County Fair	Co-Sponsorship of Lane County Fair Comfort Station Water Booth	N/A	07/18-07/22	N/A	ENVIRONMENTAL: Water Quality/Reliability	N/A	Co-host Comfort Station - distribute water to fair-goers. 19 EWEB Ambassadors (3 hr. shifts) = 57 hrs.
Springfield Public Schools	Solar Car Race and Renewable Energy Source Presentations (Hamlin Middle School)	N/A	06/08/18	N/A	ECONOMIC: Education	N/A	Host EWEB booth about renewables and Power Portfolio. 1 EWEB Ambassador = 2 hrs.
University of Oregon	Generation staff provided a tour of the Leaburg project and Q&A to a U of O student group interested in generation and renewable energy	N/A	05/18/18	N/A	ECONOMIC: Education		2 EWEB Ambassadors = 6 hrs.
Bethel School District	KidWind Challenge	N/A	04/20/18	N/A	ECONOMIC: Education	N/A	Interview/Judge Entries - 5 EWEB Ambassadors = 17.5 hrs.

**EWEB Ambassadors have provided over 270 hours of educational and other services to the Community YTD**