# MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

| | |
|---|---|
| TO: | Commissioners Carlson, Mital, Helgeson, Schlossberg and Brown |
| FROM: | Frank Lawson, General Manager |
| DATE: | July 31, 2019 |
| SUBJECT: | Q2 Quarterly Strategic and Operational Report |
| OBJECTIVE: | Information Only |

Commissioners, the Q2 Quarterly Strategic and Operational Report is reformatted to align directly with the 2019 Organizational Goals as approved by the Board in February. Several changes have been made to improve the relevance of the information this quarter, and we will continue to improve and adjust the report going forward.

Chief Workforce Officer, Lena Kostopulos will present the highlights of the quarter during the August meeting, with staff available to assist with questions.

This agenda item is for information only.

# Quarterly Strategic and Operational Report

## Q2 – 2019

## Eugene Water & Electric Board

July 31, 2019

# Quarterly Strategic and Operational Report
# Q2 - 2019
# Eugene Water & Electric Board

## Table of Contents

## Organization

***Frank Lawson (Chief Executive Officer & General Manager)***
Frank joined EWEB in 2010, and became the CEO/GM in 2016. He has over 30 years of technical and management experience in various areas including engineering, marketing, operations, customer service, sales, and finance. He has worked for small entrepreneurial organizations, as well as large companies including Danaher, Pacific Scientific, and JELD-WEN. Frank is a registered Professional Engineer in the State of Oregon. He earned a Bachelor of Science Degree in Electrical and Computer Engineering from Oregon State University, and a Master of Business Administration from Northwest Christian University.

***Susan Fahey (Assistant General Manager/Chief Financial Officer)***
Sue was appointed to the Assistant General Manager position in 2019 after serving as EWEB's Chief Financial Officer for several years. She is responsible for long-term financial planning and developing alternatives to ensure EWEB maintains and enhances its strong financial position. Other areas of responsibility include customer operations and solutions, information services, enterprise and power risk management, procurement, advanced meter services, budgets and rates. Sue serves as EWEB's Treasurer and is a Certified Public Accountant. She received her Bachelor of Business Administration Degree with an emphasis in Accounting and Finance from Pacific Lutheran University. After 20 years in financial management positions at Eugene Public Schools, Sue transitioned from her role as Chief Financial Officer to join EWEB in 2011 as the Fiscal Services Supervisor.

***Susan Ackerman (Chief Energy Officer)***
Susan joined EWEB in 2018, she is responsible for EWEB's resource portfolio, resource planning, and power trading functions. Prior to EWEB, she served on the Oregon Public Utility Commission from 2010 to 2016, the last four years as Chair of the Commission. She served as Chair of the Electricity Committee of NARUC, on the Advisory Committee to EPRI, and as one of NARUC's representatives on the NARUC – U.S. DOE Smart Grid Working Group. Prior to the OPUC, she was a lawyer representing a variety of clients in electricity and natural gas matters, including integrated resource planning, competitive solicitations, transmission services, reliability standards, power sales contracting, and electric and natural gas rate matters. She holds a BA in political philosophy and a J.D. She was admitted to practice law in Oregon, Washington, and California, although she is no longer a member of any bar association.

***Matt Barton (Chief Information Officer)***
Matt joined EWEB in 2012, and became the Chief Information Officer in 2017. He has over 20 years of technical and management experience in various areas including information technology, human resources, project management, and customer service. He has worked in diverse roles for Symantec, Albertsons, and Software Spectrum. Matt earned a Bachelor of Arts Degree in Management and a Master of Business Administration from Northwest Christian University.

***Lena Kostopulos (Chief Workforce Officer)***
Lena joined EWEB in 2009 and was promoted to HR director shortly thereafter. She was appointed to her current role as Chief Workforce Officer in 2016. Lena is responsible for ensuring that employment practices, benefits and compensation packages and all workforce programs are designed to maintain and advance EWEB's position as a competitive and attractive employer. Lena has over 30 years of management experience including holding HR leadership roles for both public and private sector employers, including ABC, Salt Lake City Corporation, Symantec, and Royal Caribbean International. Lena earned a Bachelor of Science Degree in Business Management from the University of Phoenix while working as the HR Director for the SLC International Airport.

***Rodney Price (Chief Operating Officer)***
Rod joined EWEB in 1998 and became the Chief Operating Officer in 2019. Rod has over 30 years of electric utility experience in various areas including engineering, project management, construction, operations and maintenance and management. Besides EWEB, Rod has worked for a variety of utilities including Bonneville Power Administration and Emerald PUD, as well as a five year experience with Stanley Consultants. Rod is a registered Professional Engineer in

Oregon and Washington. He earned Bachelor and Masters of Science Degrees in Electrical Engineering from the University of Idaho.

***Rene Gonzalez (Customer Solutions Manager)***
Rene joined EWEB in 2015 and has held the roles of Customer Service Supervisor, Customer Operations Manager, and Customer Solutions Manager. He has over 20 years of management experience leading dynamic teams in various areas including Business Development, Market Research, Customer Service, Sales and Retention and Emerging Products. He has worked in various industries including utilities, telecommunications and market research. He pursued a Bachelor of Science Degree in Global Business Management from California State University, and is currently enrolled in Harvard University's Joint Degree Program pursuing a Master's Degree in Management and a Bachelor's Degree in Global Studies, in addition to a Graduate Certificate in Strategic Management.

***Deborah Hart (Financial Services Manager)***
Deborah joined EWEB in 2011, and became the Financial Services Manager in 2018. She has 25 years of technical and management experience in finance. Her work experience includes banking, not-for-profits, and healthcare. Deborah is a Certified Public Accountant, licensed by the Oregon Board of Accountancy. She earned a Bachelor of Science Degree in Economics from the University of Oregon, and a Master of Business Administration from Northwest Christian University.

***Karen Kelley (Water Operations Manager)***
Karen joined EWEB in June of 2019 following 5 years as the Water Superintendent for the City of Albany and 18 years regulating public drinking water for the Oregon Health Authority and Linn County Environmental Health. Karen has a Bachelor of Science degree in Environmental Health and Safety from Oregon State University and is a Registered Environmental Health Specialist. Karen approaches water utility management with a focus on public health to assure the Water Division serves our community high quality drinking water they can depend upon.

***Travis Knabe (Information Services Operations Manager)***
Travis graduated from Western Oregon University with a Bachelor of Science degree in Computer Science. He has more than 20 years of experience in information systems and management. Prior to joining EWEB, Travis worked for Datalogic SPA as a Global Infrastructure Manager where he built and managed a diverse, international team and infrastructure. Travis focuses on customer service and key business needs in development of his technology strategies.

***Michael McCann (Electric Generation Manager)***
Mike has been with EWEB since 2002, and has been the Electric Generation Manager since June 2017. Mike is a registered professional engineer in the State of Oregon with 35 years of engineering and operations experience in the public and private sectors. Prior to joining EWEB, Mike worked for Dames & Moore, CH2M HILL, and the Oregon Department of Environmental Quality where he focused on environmental cleanup, compliance and regulatory issues. He has a Bachelor of Science Degree in Chemical Engineering from the University of Notre Dame, and a Master's Degree in Environmental Engineering from Clarkson University.

***Julie McGaughey (Customer Operations Manager)***
Julie joined the EWEB team in 2017, bringing 25 years of experience in customer service, sales, and operations. Julie is responsible for the Customer Service and Meter Reading teams at EWEB. She holds a Bachelor of Science Degree in Business Administration from Oregon State University.

***Tyler Nice (Electric Operations Manager)***
Tyler is a licensed Professional Engineer in Oregon as well as a certified Project Management Professional with a degree in electrical engineering from Oregon State University. He has 13 years of experience in the electric utility industry and has worked with generation systems, transmission and distribution during his time at EWEB. He serves as EWEB's Electric Operations Manager to support Electric Division staff in providing safe, reliable and affordable electricity to customers, with a focus on long term resiliency and system reliability.

## General Information

| | | Electric | Water |
|---|---|---|---|
| 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, in millions | | $212.2 | $19.9 |
| Annual Capital Budget, in millions | | $37.3 | $15.4 |

## Executive Summary

The Management of Eugene Water & Electric Board (EWEB) is pleased to provide the public with this organization update, including preliminary unaudited financial results, operational performance results, and the status of strategic initiatives and annual goals.

The first half of 2019 has provided some challenges for the Electric Utility, including financial pressures brought about by unavailable generation resources at times of high wholesale prices. Contribution margins have driven down net income, resulting in two financial metrics likely to finish the year outside of Board policy, including Debt Service Coverage and Rate of Return.

Additionally, the electric utility is seeing outages trending higher than the 5-year average in both frequency and duration. Some of this trend is a result of the severe storm the region experienced in late February. So far this year, equipment failures are accounting for 36% of our outages.

Several power supply issues are worth noting, including that the Leaburg canal (and generation project) will likely be shut down through 2020. Additionally, the Bonneville Power Administration has announced its intention to join the Western Energy Imbalance Market and several coal plants in the Northwest will be decommissioned earlier than originally scheduled according to several utility announcements. These closures have prompted the region, including the Northwest Power Pool (NWPP) to embark on a Resource Adequacy assessment, of which EWEB is participating.

Water financial metrics are all within Board policy, and projecting a favorable net income versus budget for year-end. Water quality remains within compliance limits, including our proactive cyanotoxin monitoring program within the McKenzie watershed which is showing no toxins present at detectable levels so far this year. In May, EWEB published our 2018 Consumer Confidence Report, which indicated that the water delivered to our customers in 2018 exceeded all state and federal drinking water standards. Delivery metrics continue to track at near American Water Works Association (AWWA) benchmarks.

EWEB continues to make progress on our 2019 strategic goals.

The Smart Meter upgrade project is closing in on the end of year one, and the impact of this project is felt across EWEB and our entire urban Eugene service community. We are currently at 30% of annual target. Project installations have been intentionally lowered to allow for continuous improvement opportunities, quality assurance measures, and ensuring business continuity. Customers for whom EWEB has email contact information are sent a survey after meter installation. We're consistently at a 10% response rate, which is above average for external surveys. Survey results indicate that 92% of respondents had no concerns with their meter upgrade experience.

Multiple risks have been identified to the electric system which can cause damage or outages. There is a total of 15 designs under FEMA Hazard Mitigation Project, with three expected to be completed midway through Q3. RFPs for electricians to convert customer equipment to accommodate overhead to underground conversions are expected to be solicited by end of Q3 for the Oakway and Saratoga locations. Current construction plans are to complete 11

of the 15 projects by the end of the year. Simultaneously, EWEB continues to make progress on neighborhood emergency water sites with two more planned for this year.

EWEB strives to reduce the proportion of a customer's income that is required to cover utility expenses, ensuring that the cost of vital services is manageable to customers. As of June 2019, 1,561 non-pay service disruptions have been performed, compared to 2,901 during the same period in 2018. This represents a reduction of 46%, exceeding the organizational goal of 10% established for 2019.

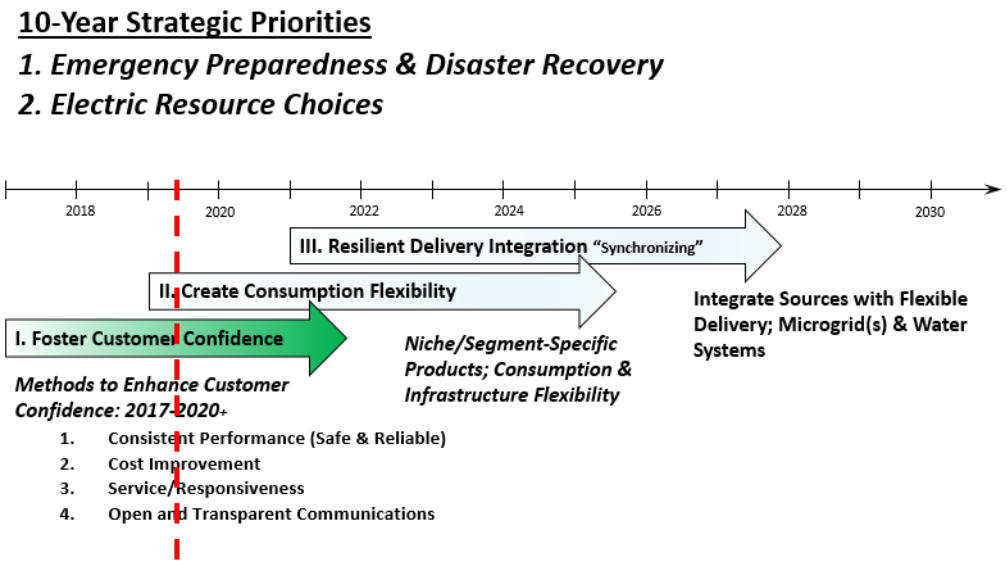
Year-to-date, EWEB has achieved 32% of the carbon emissions reduction annual target. Staff continues cross-functional work to establish and develop a baseline for carbon reduction measurements for primary customer programs in order to track not only consumption and monetary savings, but also the extent to which EWEB programs reduce CO2 at a local and regional level. Carbon emissions reduction comes from a combination of energy conservation in the residential, commercial and industrial sectors, replacements of gas furnaces with ductless heat pumps, electric vehicles sold in Eugene including those that receive EWEB rebates, and fossil fuel reduction and alternative fuel use for EWEB Fleet vehicles.

At the end of June, EWEB employed 462 employees, and overall workforce indicators are good. Safety metrics are indicating a slightly higher number of incidents this year, but with lower severity. The minor nature of these injuries is reflected in the YTD metric for lost days at 11.6 compared to the three-year average of 44.5. Prevention efforts are continuing to be a high priority, with "good catch" reports on the increase compared to recent years. Despite EWEB's safety, health, and wellness efforts, insurance rates, including state fees and taxes, are expected to continue to increase as presented to the Board as part of the Long-Term Financial Plan.

Overall, EWEB continues to work on building organizational and customer confidence through the transparent communication of our results, included those discussed herein. We appreciate your ongoing support.

**Frank Lawson, General Manager**

# Strategic Summary




The *Eugene Water & Electric Board Strategic Plan (2017-2020)* was approved August 2, 2017, revised July 10, 2018, and provides the basis for policies, decisions, and the annual goals established for the organization. This Quarterly Report is organized to provide status and progress information based on those annual goals.

The most significant issues facing EWEB in the next decade involve the sustained delivery of safe, reliable, affordable, and environmentally responsible services in the midst of a changing climate, new technology, developing markets, political and regulatory flux, natural and human threats, and evolving and diverse community expectations.

Prior to 2028, EWEB will need to reassemble an electric supply resource portfolio consistent with our organizational values, potentially including EWEB's contract with Bonneville Power Administration (BPA), and the relicensing and refurbishment of the Carmen-Smith Hydro Project. These decisions are worth billions, and must be optimized for economic, environmental, and social impacts.

Eugene is the largest community in the Pacific Northwest without a second source of drinking water. While ultimately we will need another surface water plant on the Willamette River, using partnerships to diversify our resources, including neighborhood emergency supplies and mobile options that are independent of the condition of our transmission and distribution pipes, will provide the most practical and effective approach.

In order to confront these two priorities, over the next decade EWEB needs more resilient and sustainable infrastructure, finances, people, and processes. This requires improved synchronizing of the changing regional supply (water and electric) with evolving forms of consumption.

***10-Year Strategic Priorities…the two "Big Ones"***

1. *Resiliency (Infrastructure, Finances, People, Process)*
2. *Supply Resources (Electric Portfolio & Alternative Water)*

The eventual result of this strategy will be a refined "synchronized resilient delivery model", which is the integration of enhanced consumption flexibility, resilient delivery, and integrated supplies. This strategy emphasizes the impact of near-term performance and the role of our customers in pursuing our 10-Year strategic priorities.

Based on the Utility's strategy, on February 5, 2019 the EWEB Commissioners approved the annual goals for the organization, including:

***Goal #1 –*** *Manage utility operations in a manner consistent with Board direction and by-laws, implementing resolutions and policies established by the Board, including but not limited to approved budgets and financial policies, strategic direction, and organizational values.*

***Goal #2 –*** *Pursuant to Resolution 1811, execute the Advanced Metering Services (Infrastructure) project in accordance with approved plans and budgets and all applicable EWEB values, policies, and procedures; safely installing 46,000 meters in 2019.*

***Goal #3 –*** *Use Continuous Improvement, Lean Principles, and financial management to improve the customer experience, adding customer self-service capability, avoiding revenue requirement increases through 2020.*

***Goal #4 –*** *Improve emergency preparedness and recovery by enhancing system resiliency, with a near-term focus on distributed emergency options/resources (water and electric), completing two additional emergency sites and an electric system black-start assessment in 2019.*

***Goal #5 –*** *Community (Limited Income): In 2019, reduce non-pay residential service disruptions (disconnects) by 10% from the 2018 benchmark of 6,300 with continuing progress toward a 50% reduction by 2023 (5-year).*

***Goal #6 –*** *Pursuant to GP15 Climate Change Policy, execute Resolution 1827 supporting State carbon pricing policy, and achieve conservation/energy efficiency reductions of 9,500 MWh (annual) in combination with smart electrification to equitably and cost-effectively reduce community/regional carbon emissions by 7,500 MTCO2e1.*

## Quarterly Update – Status and Progress on EWEB's Annual Goals

The Quarterly Report is organized to provide status and progress information based on EWEB's annual goals, as follows.

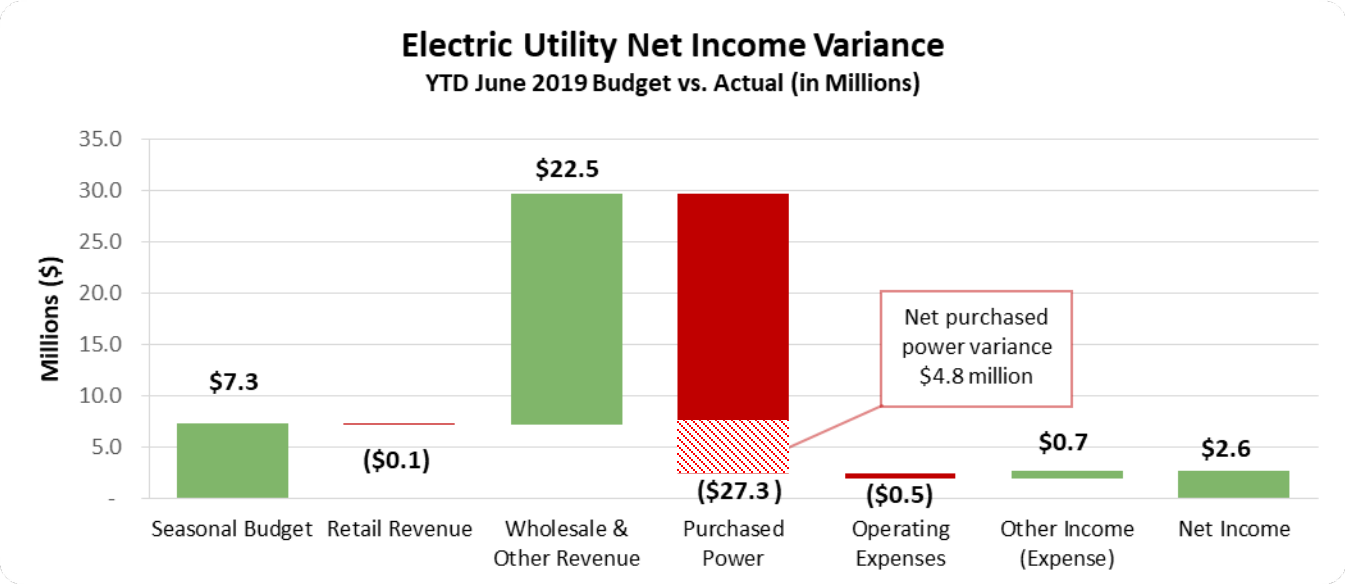
***Goal #1 – Manage utility operations in a manner consistent with Board direction and by-laws, implementing resolutions and policies established by the Board, including but not limited to approved budgets and financial policies, strategic direction, and organizational values.***

### Electric Utility Financial Report

**See Appendix A - Electric Utility Financial Statements.*

Net Income

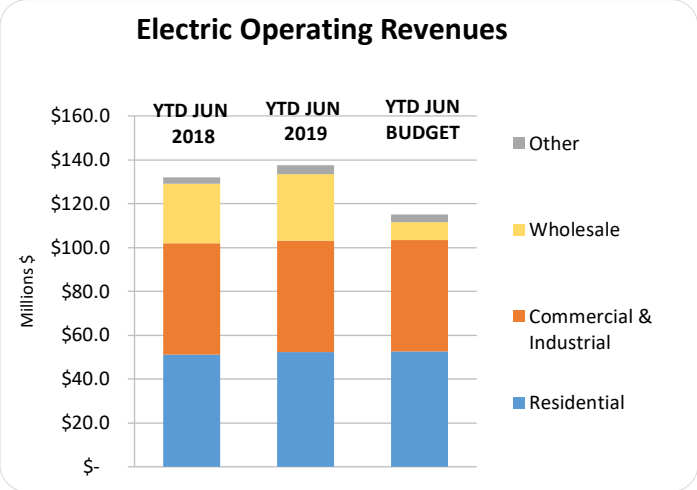
For the six months ended June 30, 2019, net income for the Electric Utility was $2.6 million. This was $4.7 million unfavorable compared to budget. For comparability purposes, the budget has been allocated to reflect seasonal fluctuations in revenue, purchased power, and wheeling. Power trading activity is recorded separately on the financial statements as either a wholesale sale or purchased power expense. However, this trading activity is offsetting and the net year-to-date financial impact is an unfavorable variance of $4.8 million.

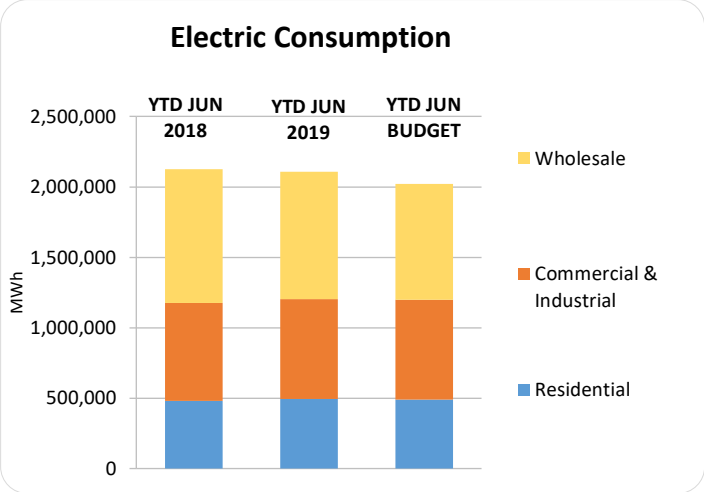



Electric Operating Revenues and Consumption

Total Electric Utility operating revenues exceeded budget by $22.4 million. **Wholesale and other revenue** had a favorable $22.5 million variance driven by higher market prices in Q1, averaging between $34-$72/MWh. The budgeted average price for Q1 was $23/MWh. Prices increased and were volatile in Q1 due to unfavorable hydro conditions, low renewable resource availability and limited natural gas supply in the region, as well as higher than average consumption. Average prices in Q2 were approximately $14-$20/MWh which aligned with budget assumptions.

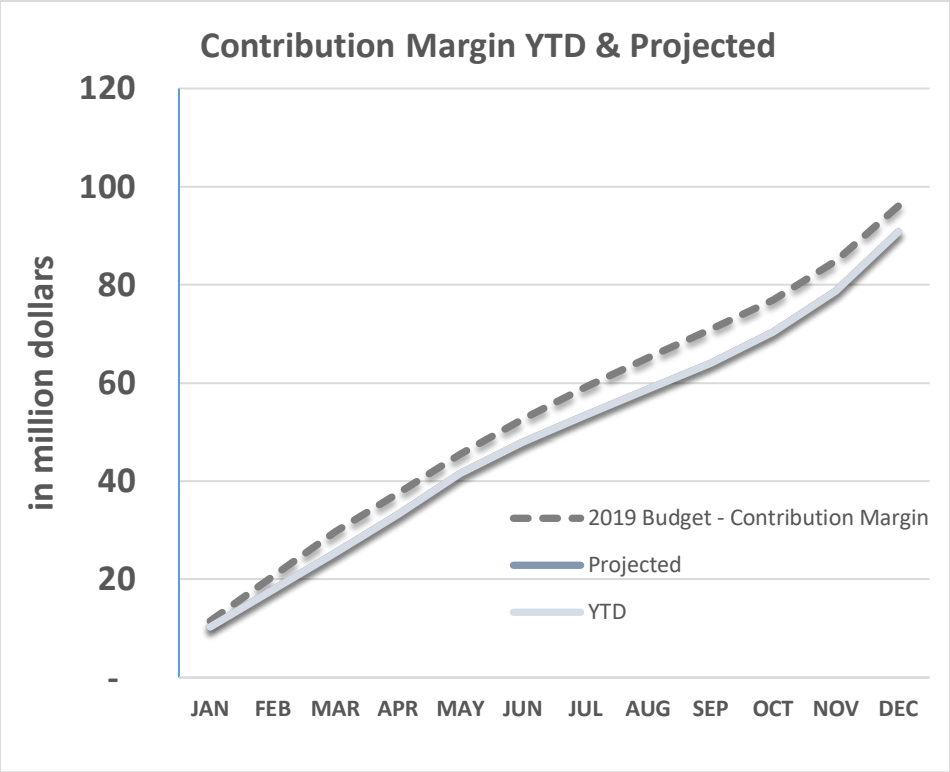
Retail revenue and consumption was tracking with the year-to-date budget assumptions due to offsetting consumption patterns throughout the first half of the year. Q1 was colder than average in February and March which was offset by milder than average temperatures in Q2.



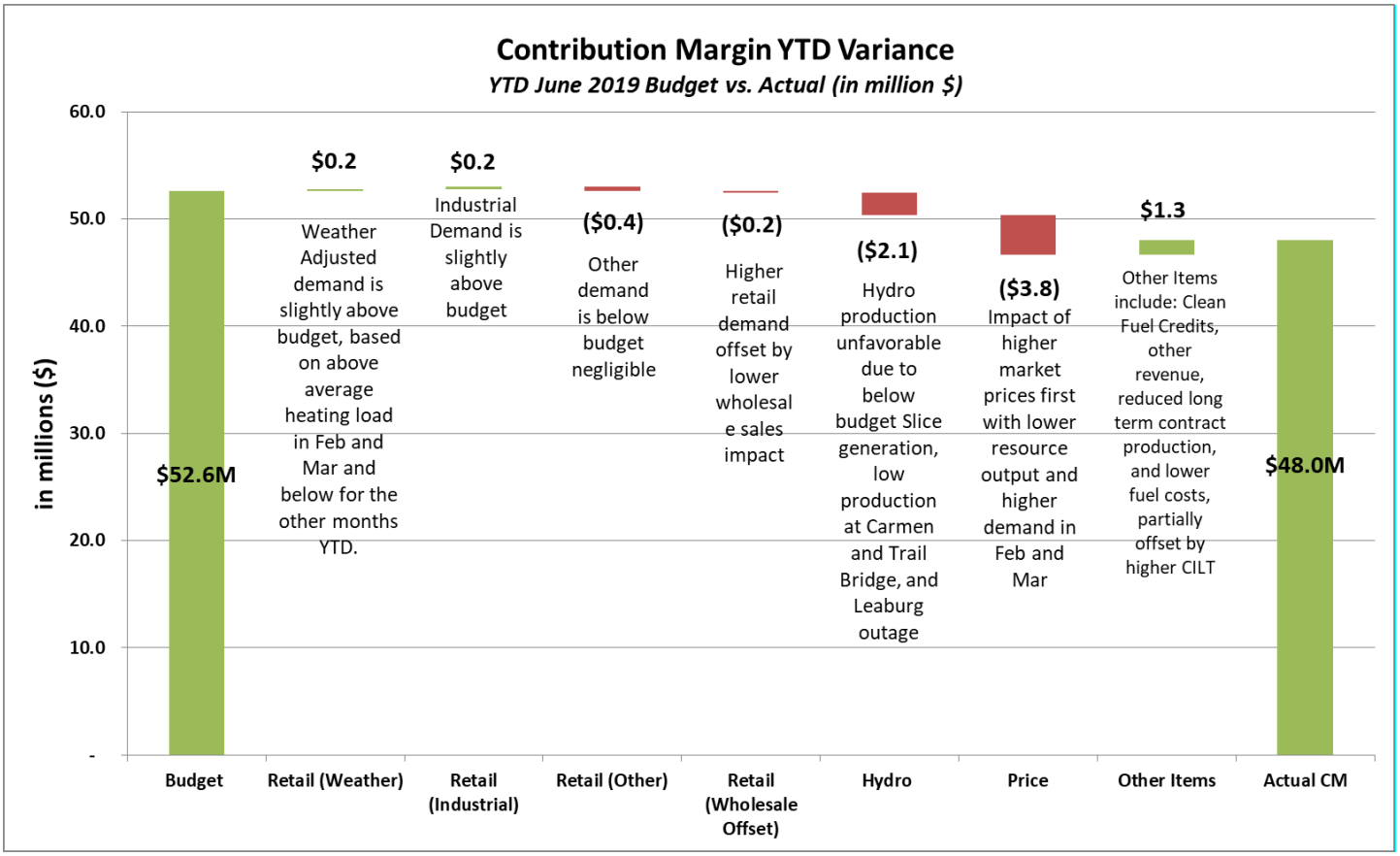

Contribution Margin

The favorable variance in wholesale sales was entirely offset by an unfavorable purchased power variance. EWEB purchased power during periods of increased prices in Q1 when its own hydro generation was reduced and customer consumption was up due to colder than average temperatures.




The Electric Utility contribution margin represents power sales (retail and wholesale) less power costs. The contribution margin based on 1) retail sales, which are dependent on both weather and economic conditions, 2) hydroelectric production and generating resource availability which is dependent on weather conditions and spill requirements, and 3) power prices, which are market driven. The risks and volatility associated with these factors are managed through a variety of mechanisms including conservative budget assumptions, a power hedging program, and power reserves.

The year-to-date contribution margin variance was $4.6 million unfavorable due to several factors including, poor hydro conditions for both EWEB and BPA-owned resources impacting resource availability. The low power production was combined with high prices, primarily in the first quarter of 2019, which exaggerated the impact of the reduced generation. The contribution margin is forecast to remain unfavorable to budget as limited resource availability conditions and unplanned outages are expected to continue through the year.




Financial Outlook and Budget Adherence

The Electric Utility budget initially included a deposit to reserves of $2.5 million. The forecast is now a year-end reduction of reserves by $4.7 million. This is driven by a projected unfavorable contribution margin variance and March snowstorm costs which are partially offset by labor vacancy savings. FEMA assistance will reimburse 75% of eligible storm costs, however, reimbursement is not expected to occur this year.

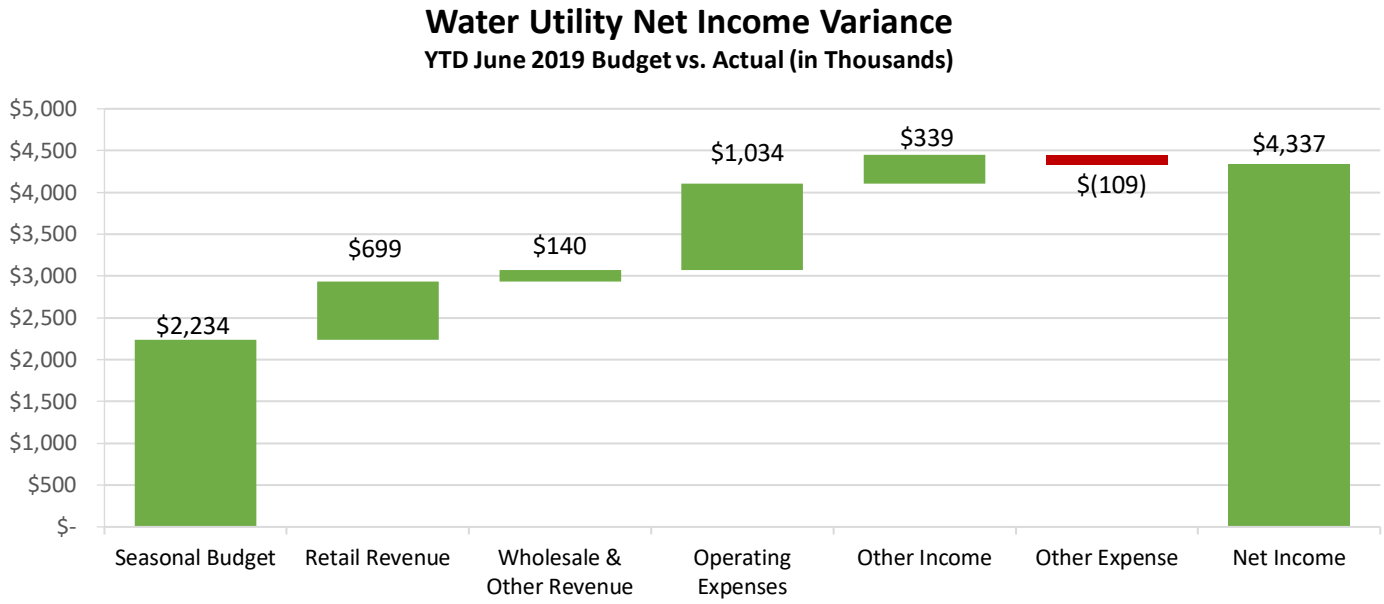
The Electric Utility has capital work which is projected to exceed budget by $3.7 million primarily within 4 projects: Substation, Transmission & Distribution, Consolidation of Operations and Upriver Reconfiguration/Holden Creek. Amendments for both capital and operations & maintenance budgets will likely be required.

## Water Utility Financial Report

**See Appendix B - Water Utility Financial Statements.*

Net Income

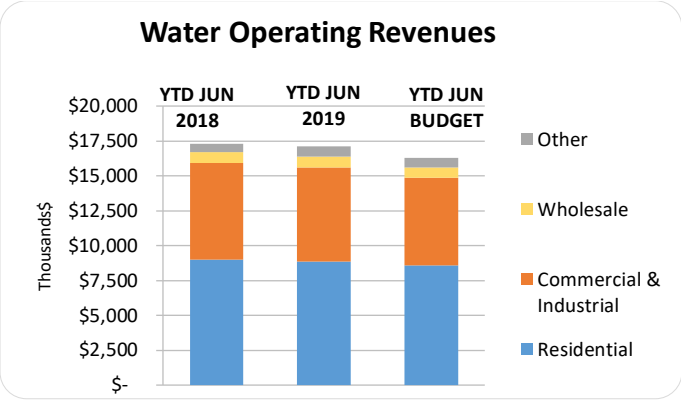
For the six months ended June 30, 2019, net income for the Water Utility was $4.3 million. This was $2.1 million favorable when compared against the budget, which has been seasonally-shaped for revenue. Within the Water Utility, revenue and maintenance activities peak in the summer months, while production and delivery costs remain fairly constant throughout the year.

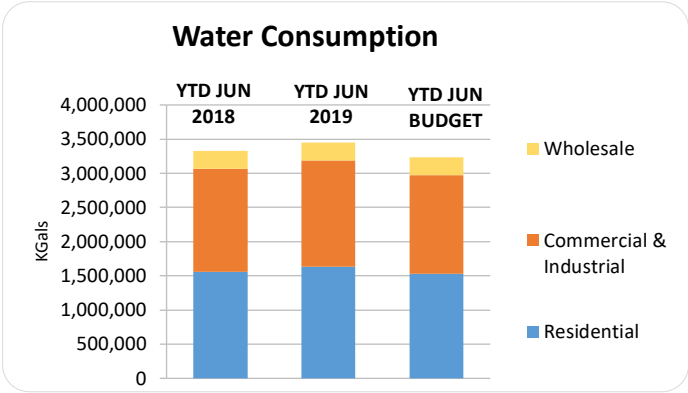



Water Operating Revenues and Consumption

Year-to-date operating revenues were 5% higher than the seasonal budget. **Wholesale and other revenue** was 10% above budget. Wholesale sales includes sales to the Water Districts, City of Veneta, and the Willamette Water Company. Revenues in excess of budget are the result of conservative budgeting and weather during May and June which was warmer and drier than usual.

The annual budget uses conservative assumptions to mitigate risk. For 2019, the budget was set at approximately 95% of the 5-year retail consumption average.



Financial Outlook and Budget Adherence

At year end net income is expected to be approximately $2.1 million favorable with operating expenses projected to be approximately $1.4 million favorable due to unspent contingency funds and vacancy savings. Projected revenues above budget are contingent on water consumption for the remainder of the summer months.

The Water Utility is expecting to exceed its capital budget by approximately $800,000 due to Hayden Bridge Disinfection System work and pipeline replacements in conjunction with the City's plan for road work. Engineering and Finance are monitoring these costs closely.

## Goal #1 Capital Investments & Projects

Type 1 - General Capital is budgeted year-by-year for routine capital expenditures totaling less than $1 million and is funded with rates and customer contributions.

Type 2 – These are capital projects that are discrete, with a defined completion period with lifetime expenditures over $1 million. Depending on the project, this work may be funded with rates, customer contributions, or bond funds.

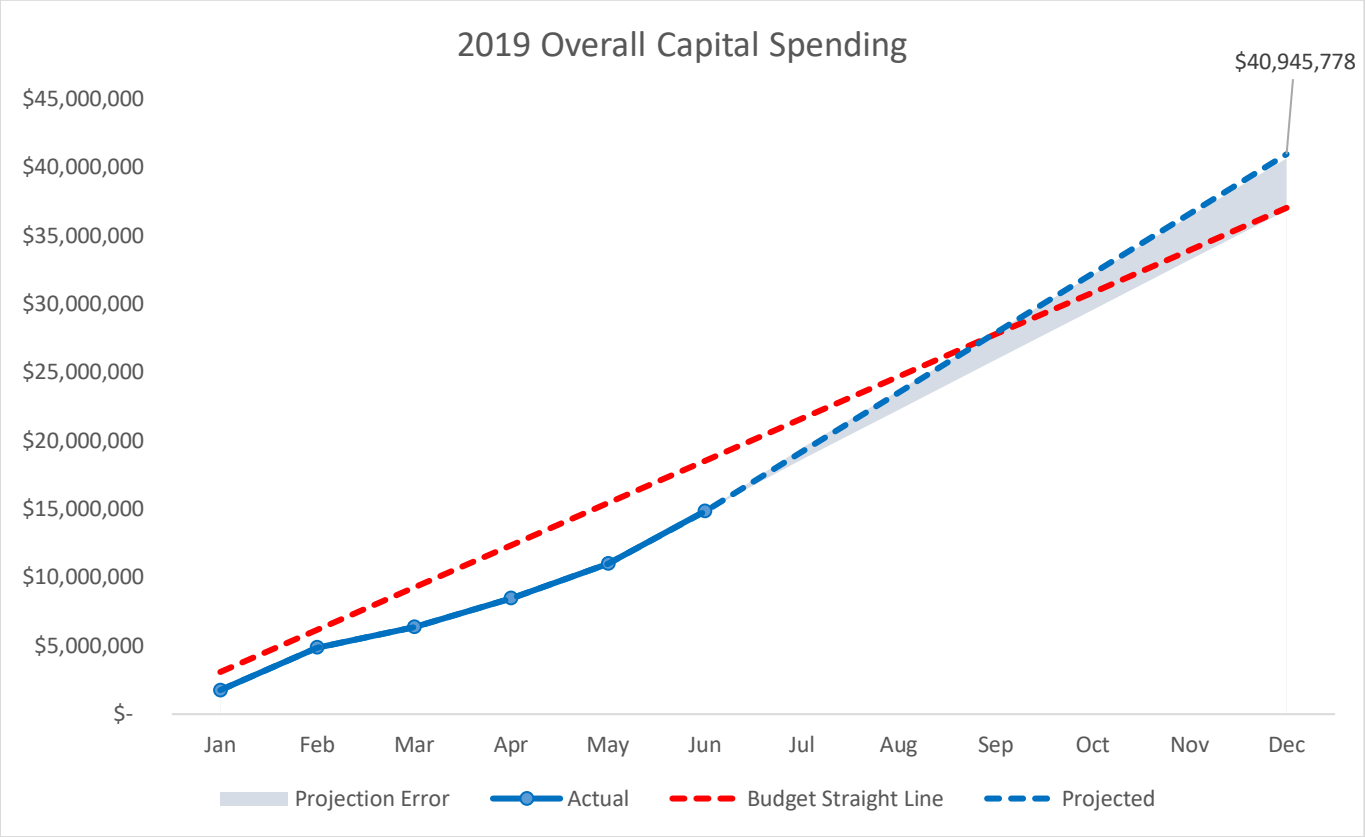
Type 3 – These projects are large strategic programs with long term impacts, and are generally bond-funded.

## Electric Utility and Shared Services Capital Spending Summary & Project Updates

**See Appendix C – Electric Utility EL-1 Capital Report. Shared Services project updates are provided within the Electric Utility Capital section, but the project budget and costs are split between Electric and Water in the appendices.*

**SUMMARY - Electric**

The Electric Capital Improvement plan is currently tracking to be over budget by $3.7 million at year end, or 110% of budget. Progress for Type 1 and 2 work is correlating very closely with the budget straight line approximation, but is expected to end higher than budgeted due to Q3 and Q4 anticipated large expenditures related to contract work and materials procurements. Type 3 Capital Spending for Carmen-Smith is expected to complete at $3 million under budget. Staff will continue to monitor spending trends and assess project progress with available staffing resources and work with Finance to determine if a budget amendment is appropriate.



**TYPE 1 – GENERAL CAPITAL PROJECTS**

**Generation Infrastructure**

Planned work is on schedule. The Stone Creek controls upgrade is complete and the plant returned to service in May. Emergent Leaburg Canal issues triggered unanticipated expenditures on engineering analyses and subsurface investigations. Canal repairs have been delayed to 2020 due to need for additional geotechnical investigation and seismic stability analyses prior to design. The canal repair project will be re-categorized as Type 2 due to potential ultimate dollar value exceeding $1M. Anticipating approximately $600k in unfavorable variance related to emergent project work.

**Substation Infrastructure (Risk Based Improvement)**

Spending for 2019 estimated to be $3.3M of $2M budget, or 65% over budget. This budget overage is partially due to equipment failures during 2019 Q1 increasing project costs compared to Capital projects originally scheduled as well as additional purchases related to the ROC consolidation project ($300k for Dispatch map board). Projects throughout the end of the year include: PT replacements at three (3) substations, the purchase and storage of the spare power transformer, 15kV breaker replacements at Oakway Substation, and parts purchase for the Willakenzie Substation fence replacement, which is scheduled for installation in 2020.

**Transmission & Distribution Infrastructure (Risk Based Improvement and Compulsory)**

Work includes distribution system enhancements, and replacement and renewals as well as customer reimbursable work. Renewal and Replacement (risk based work) Projected to be over budget due to additional costs related to February Snow Storm related repairs. Contractor retainage has been extended longer than originally expected with a second crew added for predicted PUC related work, and a transmission line rebuild on the Alvey to Laurel Transmission line. Customer work has been higher than historical which has caused some internal risk based replacement work to be deferred to 2020. Specific projects in progress are: Live Front Switch Replacements, Emergent Auto Transfer Switch (ATS) replacements for Autzen and Airport, upriver distribution transformer replacements, and Capital PUC & Pole Test & Treat. Transmission and Distribution overall expected to be approximately 20% over budget.

**Telecommunications (Strategic, Risk Based Improvement and Compulsory)**

Budget includes EWEB and Customer Driven Fiber work, and Radio system related capital projects. EWEB driven telecom currently slower than anticipated (expected YE spend at $60k). Customer driven projection was raised from $100k to $180k due to riverfront reconfiguration work. Completion of planned 2019 Riverfront work will be in August. Also includes $100k for various MW radio and comm site work, and $517k for installation of the dispatch radio at the ROC comm tower building to accommodate the ROC Consolidation effort.

**Information Technology (Shared)**

There was an uptick in capital spending in Q2 in support of Stone Creek and the Micro-Grid projects. Capital spending will continue in Q3 and Q4 as EWEB's Wide Area Network is replaced.

**Buildings, Land, & Fleet (Shared)**

Nothing to report at this time.

**TYPE 2 – REHABILITATION & EXPANSION PROJECTS**

Type 2 capital projects are discrete, with a defined completion period, and lifetime expenditures over $1 million. Depending on the project, this work may be funded with rates, customer contributions, or bond funds.

**Downtown Distribution Network (Risk Based Improvement)**

| | | | |
|---|---|---|---|
| Project Initiation: | Sept-2010 | Initial Scope Budget: | $ 15,000,000 |
| Initial Planned Completion: | Dec-2015 | Actual Project Costs To-Date: | $ 7,293,489 |
| Projected Completion: | Dec-2028 | Total Final Cost Projection: | $20,000,000 |

Completed replacement of network transformer, protector and vault lid for vault 9N and began the re-conductoring of the primary feeders down 8th St. to support the installation of the network tie switches to be installed later this year. Adding the tie switches will allow the downtown portions of the Willamette network to connect to the Jefferson network

and enable feeding the entire downtown from either Willamette or Jefferson Substation. An estimated $600,000 will be spent the rest of the year to complete this tie switch project and the associated primary cable upgrades.

**ROC Consolidation (Shared – Electric share only shown) (Strategic)**

| | | | |
|---|---|---|---|
| Project Initiation: | Aug-2018 | Initial Scope Budget: | $ 2,500,000 |
| Initial Planned Completion: | May-2019 | Actual Project Costs To-Date: | $ 2,284,000 |
| Projected Completion: | Dec-2019 | Total Final Cost Projection: | $3,419,000 |

Remodel work is ongoing and planned for completion by year end for ROC. Water consolidation is complete, with electric shop moves in progress for Comm shop and other electric shops. ROC Dispatch center construction is in progress and second floor moves for engineering planned for late Q3. Look for an open house invitation to review the new Dispatch room late fall. Required additions for call center moves to come as well as needed HVAC and related structural upgrades will be completed in the fall.

**Transmission & Distribution - Master Plan**

| | | | |
|---|---|---|---|
| Project Initiation: | Mar-2017 | Initial Scope Budget: | $ 1,250,000 |
| Initial Planned Completion: | Dec-2018 | Actual Project Costs To-Date: | $ 189,949 |
| Projected Completion: | Feb-2020 | Total Final Cost Projection: | $762,949 |

Purchase of property for the Thurston Substation Expansion, as part of Resilient Spine work under the Upriver Reconfiguration Program. Lot line currently in adjustment to purchase reduced acreage per board direction. With lot line adjustment, cost of property anticipated to be approximately 50% of original estimate, with 2019 year end spending expected at $573k. Final sale expected to take place either in December 2019, or January 2020 depending on lot line adjustment timing.

**Grid Edge Demonstration Project**

| | | | |
|---|---|---|---|
| Project Initiation: | May-2016 | Initial Scope Budget: | $ 1,200,000 |
| Initial Planned Completion: | Jun-2017 | Actual Project Costs To-Date: | $ 1,440,744 |
| Projected Completion: | Dec-2019 | Total Final Cost Projection: | $1,590,744 |

Required upgrade to Grid Edge main controller required in order to fully utilize the micro grid system. This effort estimated to cost $150k which bring year-end total project budget estimate to $1.59M or 33% over budget. Engineering working through multiple contracts to see this upgrade completed by end of year.

**Distribution Resiliency Upgrades**

**Refer to the Emergency Preparedness and Recovery Report for a comprehensive update [Goal #4 – Improve Resiliency]*

**Upriver Re-Configuration/Holden Creek Substation (Strategic and Risk Based Improvement)**

| | | | |
|---|---|---|---|
| Project Initiation: | Jan-2014 | Initial Scope Budget: | $3,000,000 |
| Initial Planned Completion: | Oct-2015 | Actual Project Costs To-Date: | $ 6,684,262 |
| Projected Completion: | Jul-2020 | Total Final Cost Projection: | $7,914,250 |

Original Holden Creek project underestimated at $3M as explained in a November 2015 Board Memo. Original construction was $5.75M with $1.66M expansion per Management direction in 2019. Reduction of Leaburg Substation planned for Q4 to bring total cost to $7.96M (projected spending to be within 5% of this amount).

**Advanced Metering Projects (Electric and Shared Services)**

**Refer to the Advanced Metering Report for a comprehensive update [Goal #2 - Advanced Metering]*

**Customer Experience Improvement Project (Shared)**
**Refer to the Customer Experience Improvement Project section for a comprehensive update (Goal #3 – Use Continuous Improvement, Lean Principles, and financial management to improve the customer experience, adding customer self-service capability, avoiding revenue requirement increases through 2020.)*

**Downtown Fiber Network (Strategic and Compulsory)**

| | | | |
|---|---|---|---|
| Project Initiation: | Dec-2015 | Initial Scope Budget: | $2,700,000 |
| Initial Planned Completion: | Dec-2018 | Actual Project Costs To-Date: | $1,350,000 |
| Projected Completion: | Aug-2019 | Total Final Cost Projection: | $1,500,000 |

This project was not initially classified as Type 2. As such, reporting only shows $900,000 as Type 2. Total project costs to date is $1,350,000 and should come to completion in August 2019. Completing project under budget is due in part to buildings that elected not to sign up for service as well as less labor than originally estimated. Delay in completion was due to crew resource constraints associated with mutual aid efforts EWEB participated in during Q4 2018.

**Wide Area Network (Shared)**

| | | | |
|---|---|---|---|
| Project Initiation: | Q4 2018 | Initial Scope Budget: | $ 3,000,000 |
| Initial Planned Completion: | Dec-2022 | Actual Project Costs To-Date: | $ 694,100 |
| Projected Completion: | Dec-2022 | Total Final Cost Projection: | |

IS Operations is in the design and architecture phase of the WAN project. Equipment orders will take place in Q3 and the first substations are scheduled to be migrated in Q4 2019.

**Oracle Enterprise Upgrade (Shared)**

| | | | |
|---|---|---|---|
| Project Initiation: | Q1 2019 | Initial Scope Budget: | $ 1,661,000 |
| Initial Planned Completion: | Dec-2019 | Actual Project Costs To-Date: | $ 1,178,500 |
| Projected Completion: | Dec-2019 | Total Final Cost Projection: | |

The architecture and system design for the Oracle project has been completed and deployed. The project team is in the process of migrating EWEB's databases to the upgraded environment.

**Backup Dispatch Center at Hayden Bridge**
**See Water Utility Capital Projects Update - "Hayden Bridge Lab and Backup Services Building".*

**TYPE 3 – STRATEGIC PROJECTS & PROGRAMS**
Type 3 projects are large strategic programs with long term impacts, and are generally bond-funded.

**Carmen-Smith License Implementation**

| | | | |
|---|---|---|---|
| Project Initiation: | May-2009 | Initial Scope Budget: | $ 135,000,000 |
| Initial Planned Completion: | Dec-2021 | Actual Project Costs To-Date: | $ 58,234,200 |
| Projected Completion: | Dec-2025 | Total Final Cost Projection: | $129,500,000 |

The FERC issued the new Carmen-Smith License in May 2019. Preliminary design of fish passage improvements is underway and planning for other recreation and environmental improvements required by the license is now in progress. Carmen Powerhouse renewal efforts continue with the substation, switchgear, and control system upgrade project starting in April with substantial completion expected in November and return of the Carmen-Smith Project to service in December. Long lead-time equipment for rebuilding the substation has been delivered to EWEB and installation is underway. GE Turbine Generator design work is proceeding on schedule with fabrication of the turbine runners complete and construction of the generator coils starting this summer. The first unit rehab remains on schedule to commence in early 2020. Capital spending in 2019 is anticipated to be approximately $3M less than budgeted due to license issuance taking place later than expected.

## Water Utility Capital Spending Summary and Project Updates

**See Appendix D – Water Utility EL-1 Capital Report. Shared Services project updates are provided within the Electric Utility Capital section, but the project budget and costs are split between Electric and Water in the appendices.*

**SUMMARY-Water**

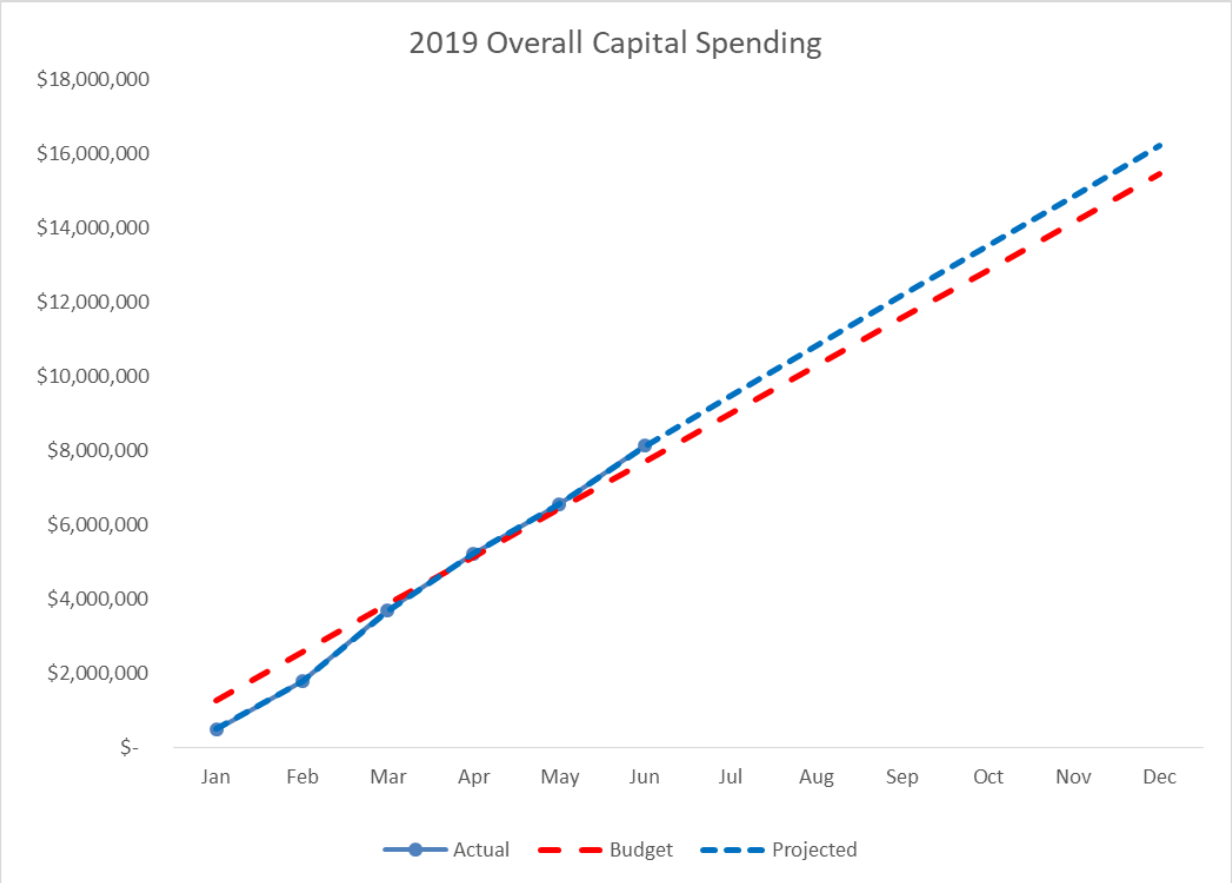
The Water Capital Improvement Plan is currently projected to have an overage of approximately $800,000 or 5% at year end. While the overall projected overage is relatively minor there are a few areas where the difference between anticipated budget and projected year spending is significant.

Spending in the main replacement/improvement area is projected to exceed budget by approximately 40%. This is primarily due to the fact that in 2018 during budget preparation, the spending projections in this area were reduced with the thought that resources would be redirected to the AMI project. This reduction did not materialize and spending in this area is actually near that of previous years.

Conversely, the projected year end spending for AMI meters and deployment reduced by approximately 40% as the work processes were fine-tuned and optimized for the Water Utility. The current anticipated timeline for completion of this project is year-end 2023.

Lastly, the projected spending for the new Disinfection System at Hayden Bridge is expected to exceed the anticipated budget by about 80%. This is due to the fact that 2018 delays in equipment procurement and construction pushed much of the construction cost into 2019.

Staff will continue to monitor spending trends and assess project progress with available resources and will work with Finance to determine if a budget amendment is required.



**TYPE 1 – GENERAL CAPITAL PROJECTS**

Type 1 General Capital is budgeted year-by-year for routine capital expenditures totaling less than $1 million and is funded with rates and customer contributions. Typical examples include "main replacements" as part of Distribution & Pipe Services.

**Source – Water Intakes & Filtration Plant (Risk Based Improvement and Compulsory)**

The bulk of the 2019 spending in this area is due to completion and final costs for 2018 projects occurring in early 2019. This was primarily the Pond/Solids Handling Improvement project. Significant 2019 projects include several emergent projects at Hayden Bridge to replace two failing HVAC systems as well as several large valves in the Filter Gallery.

**Distribution & Pipe Services (Risk Based Improvement and Compulsory)**

Service work is tracking very well to date at approximately 50% spent at mid-year. Main replacements/improvements are projected to have a significant overage as explained in the previous summary.

**Distribution Facilities (Risk Based Improvements)**

Planned 2019 work in this area was reduced to accommodate overages in other areas. Work this year that will occur includes finishing up work at the Santa Clara and Laurel Hill 850 pump stations. In addition design will be completed for a new City View 1150 pump station.

**TYPE 2 – REHABILITATION & EXPANSION PROJECTS**

Type 2 capital projects are discrete, with a defined completion period, and lifetime expenditures over $1 million. Depending on the project, this work may be funded with rates, customer contributions, or bond funds.

**Hayden Bridge Disinfection System Replacement (Risk Based Improvement)**

| | | | |
|---|---|---|---|
| Project Initiation: | 2017 | Initial Scope Budget: | $3,645,000 |
| Initial Planned Completion: | Q4 2018 | Actual Project Costs To-Date: | $3,711,000 |
| Projected Completion: | Q3 2019 | Total Final Cost Projection: | $4,500,000 |

This is a new disinfection system at Hayden Bridge, replacing the gas chlorine system with an on-site liquid hypochlorite system. Equipment delivery and construction delays have pushed project completion later into 2019. All equipment is on-site and building construction is on schedule. Anticipating start-up in early fall.

**Hayden Bridge Lab and Backup Services Building (Risk Based Improvement)**

| | | | |
|---|---|---|---|
| Project Initiation: | Q4 2018 | Initial Scope Budget: | $2,805,000* |
| Initial Planned Completion: | Dec-2017 | Actual Project Costs To-Date: | $245,000 |
| Projected Completion: | Dec-2020 | Total Final Cost Projection: | $3,000,000 |

**32% of project costs will be transferred to Electric for the Dispatch Backup Services Building portion.*

A new water quality lab and backup services building will be constructed at Hayden Bridge, replacing the existing lab which has been in its same location since the 1950s. The lab has been in CIP since 2012. It was consolidated with second source project in 2014 then separated back out in 2017 when the second source project was deferred. The backup services portion was added with the recent ROC consolidation efforts. The project is currently in design with construction to occur in 2020. [Return to Capital Projects Section – Backup Dispatch Center at Hayden Bridge]

**East 40th (Elliot) Reservoir No. 1 (Compulsory)**

| | | | |
|---|---|---|---|
| Project Initiation: | 2018 | Initial Scope Budget: | $10,250,000 |
| Initial Planned Completion: | Dec-2021 | Actual Project Costs To-Date: | $58,000 |
| Projected Completion: | Dec-2021 | Total Final Cost Projection: | $10,250,000 |

In 2018 staff began planning work on the replacement of three of EWEB's base level reservoirs, College Hill, Hawkins, and Santa Clara. These would be replaced with more resilient smaller reservoirs designed to current seismic standards. This work was derived from the Distributed Storage approach presented in the 2015 Water Master Plan. Planning, conceptual

design, and public outreach work is currently occurring for placement of a new reservoir at three locations; East 40th Ave (the Elliot Site), College Hill, and Hawkins. The work for the three sites is being done concurrently and whichever site has permits and approvals compete first will be the first to proceed. The project is titled East 40th Ave. as that site was originally thought to be the first to have permits and approvals in place. This may change as our planning and land use process continues. This first new reservoir is considered compulsory as it is required prior to taking the College Hill Reservoir out of service due to deficiencies identified by the Oregon Health Authority.

**Advanced Meter Upgrade (Water)**

**Refer to the Advanced Metering Report for a comprehensive update (Goal #2 – Advanced Metering)*

**TYPE 3 – STRATEGIC PROJECTS & PROGRAMS**

Type 3 projects are large strategic programs with long term impacts, and are generally bond-funded.

**Emergency Water Supply**

**Refer to the Emergency Preparedness and Recovery Report for a comprehensive update (Goal #4 – Improve Resiliency)*

## Electric & Energy Operations

Transmission Operations Change to BPA

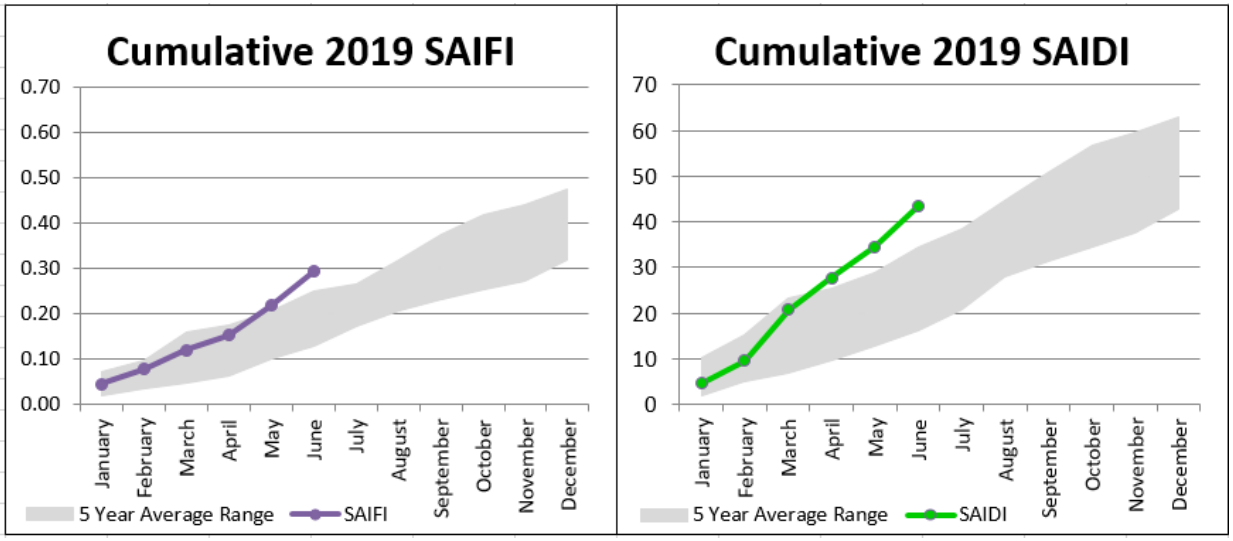
On May 1 of this year, EWEB successfully transferred its transmission operations (TOP) control to Bonneville Power Administration. This was the culmination of about a year's work with BPA to take on a NERC/WECC function for EWEB. Having BPA act as our TOP will increase efficiency for both utilities, freeing up and esteemed four to five EWEB FTE without a yearly net cost.

Electric Delivery Reliability

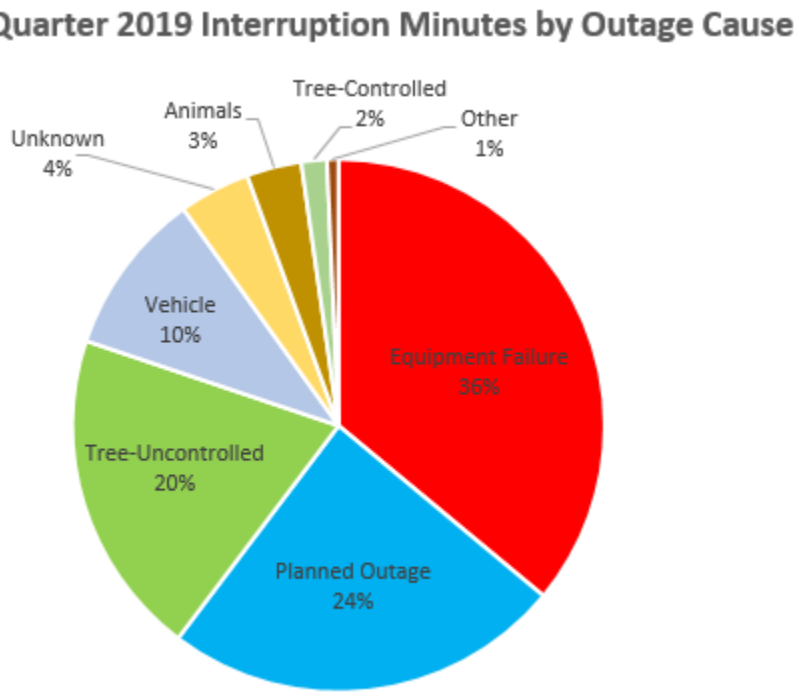
EWEB tracks electric system reliability using Institute of Electrical Electronic Engineers (IEEE) metrics, including System Average Interruption Frequency Index (SAIFI) & System Average Interruption Duration Index (SAIDI). The year-to-date SAIFI and SAIDI numbers are tracking above the five year averages mainly due to interruptions that fell under the "Storm" category that occurred at the tail end of the February snow storm. These outages, accounting for about 16% of the outage data total year to date, occurred on days that were not determined to be "Major Event Days" per the IEEE standard so were included in the outage statistics. If we dropped theses snow storm days, we would fall back into the upper five year averages. Sunday February 24 through Thursday February 28 were determined to be "Major Event Days" so all outages that started on these days were not included in the reliability statistics

***2019 Q2 System Outage Data, System Average Interruption Frequency Index (SAIFI) & System Average Interruption Duration Index (SAIDI)***

| Index | YTD Actual | YTD 5 Year Average | Pacific Northwest APA City Average YTD | Dashboard |
|---|---|---|---|---|
| SAIFI | 0.30 | 0.19 | 0.20 | |
| SAIDI (minutes) | 43.67 | 23.68 | 21.60 | |




Besides the storm, the entire Dillard Substation lost power for about 1.5 hours in June when an outdoor 15 kV circuit breaker failed. Other major outage categories included feeder lockouts due to a variety of causes including trees, animals, car hit pole and failed equipment (including a cross-arm, pad-mount switch and underground cable).




| Total # of Interruptions | Total # of customer interruptions | Total outage minutes |
|---|---|---|
| 240 | 16,233 | 2,121,578 |

Our electric line tree and vegetation management program is well ahead of planned work in line miles worked. We are about double planned work after Q2, the planned work is 140 miles and our yearly total is at 270 miles. Miles completed in Q2 include additional 132 miles of fire audit work in south Eugene and up river areas.

EWEB's owned hydroelectric generating resources did not meet plan during the second quarter due to a combination of continued repair outages (Leaburg), construction outages (Carmen and Stone Creek) and maintenance outages (Walterville). The Leaburg and Carmen projects were offline for the entire quarter. Stone Creek and Walterville were offline for portions of the quarter. As a result, availability and production from EWEB's hydroelectric generation were significantly lower than plan. However, the capital and maintenance outages were planned to take advantage of typically low power prices in the second quarter. Stone Creek and Walterville are both currently operating, and are expected to operate for the remainder of the year. Carmen-Smith will be offline until late in the year for capital work and Leaburg is now expected to remain out of service through the summer of 2020 as we address dam safety concerns with the canal embankment.

EWEB's steam generators were generally available during the second quarter except for a one-month mill maintenance outage that kept the Wauna unit out of service. That out is the only scheduled mill outage for the year and both thermal units are expected to operate for the remainder of 2019.

EWEB's wind plants were generally available and operating during the second quarter. Both Harvest Wind and Foote Creek met plan for availability. Production from the wind farms during the second quarter was close to but slightly below plan due primarily to a lack of sufficient wind during certain periods.

***Q2 2019 Generation Reliability by Fuel Type***

| Generation Type | Availability Factor (AF) | Forced Outage Factor (FOF) | Notes |
|---|---|---|---|
| **Target** | **>90%** | **<3.00%** | |
| Wind | 94.4% | N/A | The wind projects were generally available and operating during the quarter. |
| Hydro | 8.82% | 11.99% | All EWEB-owned hydro plants were offline for part or all of the quarter for either construction or maintenance activities. |
| Thermal | 78.31% | 0.78% | The WGA unit was offline for one month due to a mill maintenance outage. The IP unit was available and operating. |

# June 2019 Generation YTD Report


| Unit | AF | FOF | GCF | GOF |
|---|---|---|---|---|
| Carmen #1 | 31.11 | 18.58 | 1.70 | 66.66 |
| Carmen #2 | 27.17 | 22.06 | 12.30 | 45.66 |
| Trail Bridge | 40.44 | 9.30 | 21.88 | 54.10 |
| Leaburg #1 | 0.00 | 100.00 | 0.00 | 0.00 |
| Leaburg #2 | 0.00 | 100.00 | 0.00 | 0.00 |
| Walterville | 84.15 | 15.85 | 73.96 | 87.89 |
| Stone Creek | 74.27 | 1.35 | 38.73 | 52.15 |
| EWEB Hydro | 33.84 | 26.16 | 13.94 | 58.25 |
| | | | | |
| Foote Creek | 89.58 | n/a | n/a | n/a |
| Harvest Wind | 94.84 | n/a | n/a | n/a |
| EWEB Wind | 91.69 | n/a | n/a | n/a |
| | | | | |
| IP | 91.41 | 5.26 | 74.24 | 81.22 |
| WGA | 82.81 | 0.13 | 44.86 | 54.17 |
| EWEB Thermal | 86.38 | 2.26 | 57.06 | 66.05 |

**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.

## Power Planning

BPA's Energy Imbalance Market Letter to the Region

On June 20, 2019, BPA signaled its intent to sign an Implementation Agreement with the California ISO (CAISO) to join the Western Energy Imbalance Market (EIM). EWEB has worked with BPA and regional stakeholders on these issues for two years. Staff aligned EWEB with strategic partners, and regularly commented about the right principles for BPA's participation and how to improve the process for customers.

EWEB signaled its support of BPA's intent to join the EIM, currently planned for early 2022.

EWEB is unique in the BPA Balancing Authority in that we own and operate flexible generation, and so when BPA joins the Western EIM, we will have the opportunity to participate with our owned resources. Prior to deciding whether EWEB should participate, staff will assess the forecasted costs and benefits of participation, including any required investment in personnel, systems infrastructure, and data management capabilities. EWEB is working with BPA to develop the internal processes and requirements necessary to minimize the impact on EWEB and other potential market participants.

Pacific Northwest Coal Retirements Earlier than Expected

The regional trend towards early retirement of coal generation is accelerating. On June 11, 2019, the early closure of Colstrip Units 1 & 2, totaling about 750MW, was announced for the end of 2019. This is a shift from the expected 2022 retirement previously agreed upon. The generator is currently facing financial challenges, and owners have struggled to make the resource economically viable given rising fuel costs.

Also, on July 12, 2019, Idaho Power announced its plans to decommission Jim Bridger earlier than previously reported, with Unit 1 now scheduled for retirement in 2022 instead of 2028, and Unit 2 in 2026 instead of 2032. They are planning to replace the retired capacity with 220MW of solar in the early 2020s, in addition to proposing roughly 800 MW of new natural gas generation after 2028. However, they will be looking at alternatives to natural gas generation as they remain committed to their carbon objectives.

EWEB's specific resource portfolio is unchanged by this news, as we do not have power purchase agreements with these generators. However, we expect that the earlier than expected closures may cause market prices and volatility to increase. As such, EWEB may see an increase in wholesale revenues and, at times, an offsetting increase in purchase power costs. The impact on EWEB of these changes is expected to be low, although we continue to monitor our generation and load forecasts for the coming winter, and will revisit our strategies as needed and as more information comes available.

From a regional perspective, any potential supply shortage is a concern to EWEB to the extent we are short power and the market becomes illiquid. Such a potential situation is the topic of the Northwest Power Pool's recent Resource Adequacy Evaluation work. The initial phase of this work will be complete by the end of 2019 and funds E3 to:

(1) complete an assessment of recent studies on resource adequacy,
(2) develop a summary report,
(3) survey how other regions with organized markets manage resource adequacy, and
(4) summarize its findings.

Changes to EWEB's Resource Portfolio

EWEB's resource portfolio saw two major changes in July. First, we anticipate closing the sale of EWEB's interest in the Foote Creek 1 project to PacifiCorp by July 31, 2019. Second, the unexpected outage of the Leaburg generator was extended to October 1, 2020.

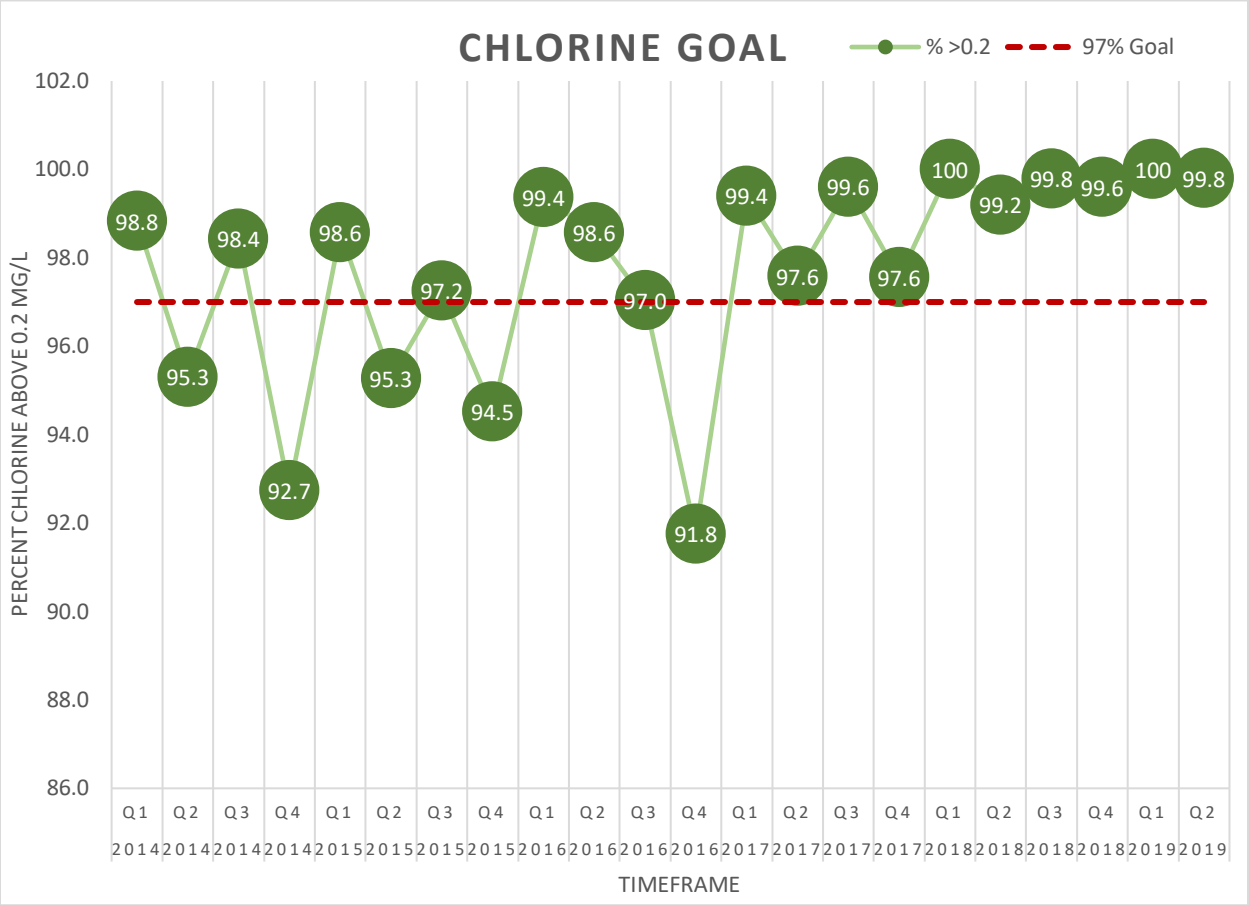
For the periods affected by these changes, EWEB will have either less energy to serve load or less surplus to sell into wholesale markets; the forecasted financial impact is approximately $2-3 million. These changes also impact EWEB's Renewable Energy Credit (REC) portfolio, in the loss of RECs from Foote Creek, and a reduction in the total MWhs generated by Leaburg, an Oregon Renewable Portfolio Standard (RPS) exempt resource, in 2020. The financial impact for the changes to EWEB's REC portfolio is expected to be small.

These estimates do not take into account the non-contribution margin benefits of the sale of Foote Creek 1 or potential capital and O&M cost associated with the anticipated repair work at Leaburg.

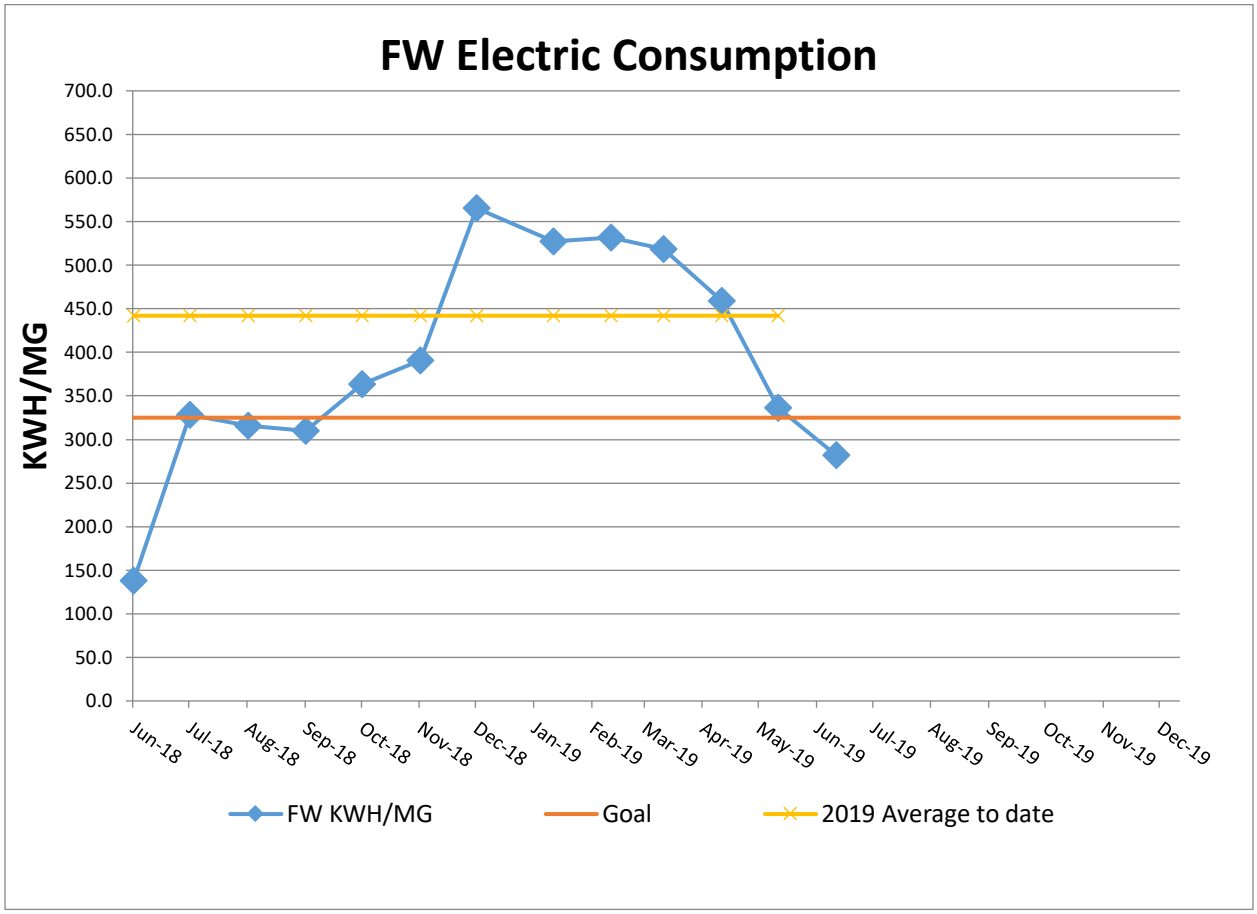
## Water Operations

(Price, Kelley)

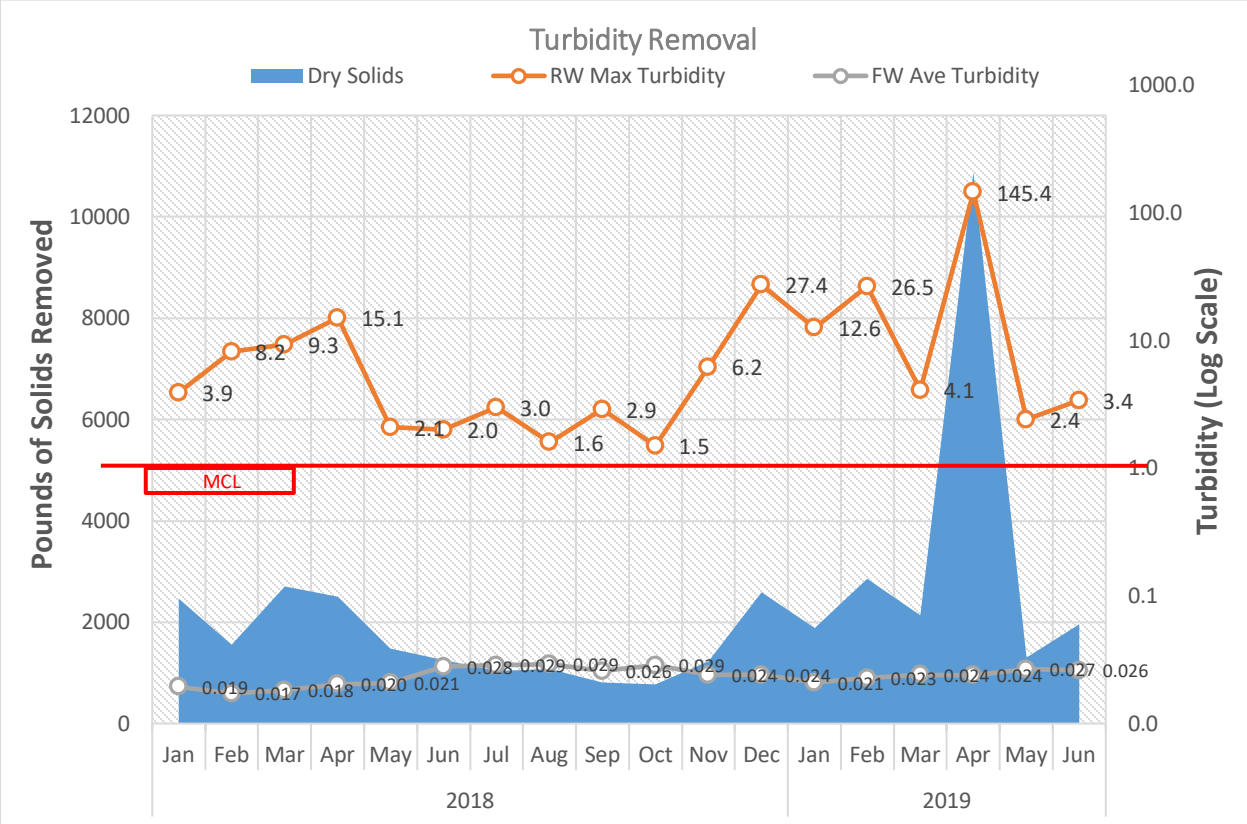
Water production chlorine residual has been optimized since the chlorine system was updated in 2018 and the data indicates that a stable system is in place and continues to operate smoothly. Chlorine is a vital water quality management component of our water system. It's required to inactivate microorganisms coming in from the river in the initial treatment process and must continue to inactivate any microorganisms that may find their way into our 800 miles of distribution piping.




Power savings and chlorine residual optimization are often at odds with each other since cycling reservoirs is the main tool to keep water fresh in the system. In the last quarter trending tools were developed for operators to monitor and reduce finished water energy cost while maintaining stable water quality parameters in the distribution system. Added is the ability to see real time power output and its relationship to flow and the number of pumps that are in operation. This is a function of the new data historian that was implemented last year. A recurring report has also been generated from AMI to correlate recent data to operational decisions. In the next quarter operators will begin utilizing the tools and developing strategies to reduce power consumption while maintaining system chorine residuals. The 'FW Electric Consumption' graph below illustrates the baseline data since AMI was installed at Hayden Bridge in June of 2018 and that we are trending to meeting our target electric consumption level.




Finished water production is within the five year average. Turbidity removal points of interest during the second quarter are the increased solids load during April storm events and the May production increase due to an early warm spell. The last turbidity event of the magnitude seen in April was recorded in January of 2012.

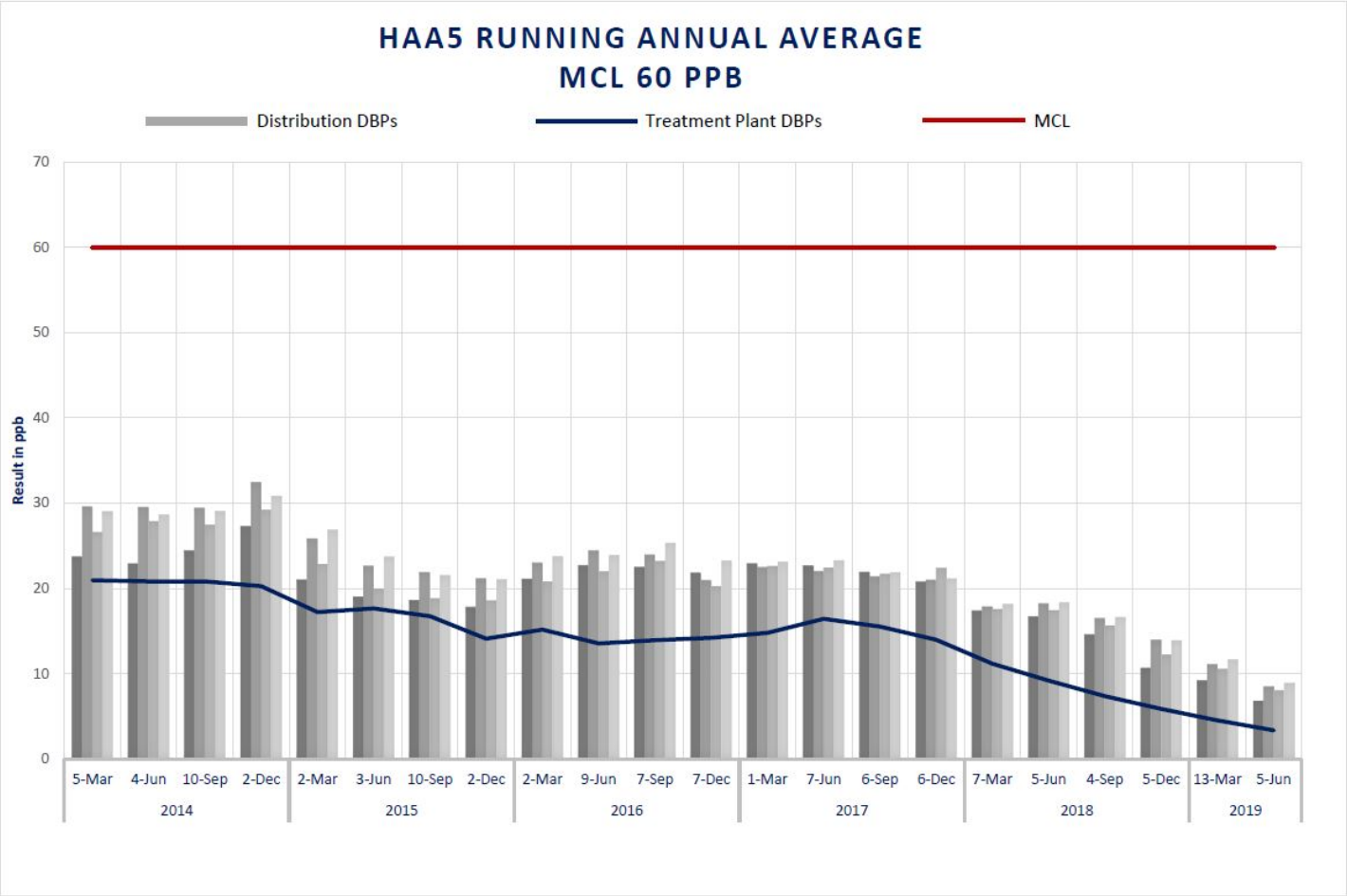



Water Quality

**Disinfection By-Products (DBPs)**

As mentioned above in the Treatment section, Chlorine is a vital water quality management component of our water system. However, chlorine can result in a negative impact to health by forming disinfection byproducts when it reacts with too much organic material in the initial treatment process and when it's in contact with the water for too long in the distribution system. Achieving the right balance of chlorine in our system is a constant challenge for our operators.

Our recent capital project on biofiltration is aimed at managing the byproduct formation at the plant by eliminating chlorine contact with high organic material (pre-chlorination of the raw incoming water) and by reducing the organic load passing through the filters to the final chlorine injection point. In July 2018, the filters became biologically active. The graph of Haloacetic Acids (HAA5) below, shows DBPs have continued to decrease both at the plant and within the distribution system with the introduction of the biofiltration project. All DBP levels are well below the EPA Maximum Contaminant Level (MCL) for HAA5 (60 ug/L), which is the lower of the two DBP MCLs (MCL for Total Trihalomethanes is 80 ug/L).




**EWEB Water Quality Report**

EWEB published the 2018 Consumer Confidence Report in May 2019 and is available online at: http://www.eweb.org/outages-and-safety/water-safety-in-your-home-or-business/drinking-water-quality/water-quality-reports . As indicated in the report, the drinking water EWEB produced and delivered to our customers in 2018 exceeded all state and federal drinking water health standards.

**Water Quality Customer Complaints**

Despite producing and delivering excellent quality drinking water to our customers, there are water quality issues that occur in the system, especially as water temperatures start to increase. Customers experiencing taste, odor, or discoloration problems contact Water Coordinators or Water Quality staff who then walk the customer through a troubleshooting process to determine if it is related to premise plumbing or could be more system wide. If the problem appears to be related to EWEB's distribution system, a troubleshooter is dispatched to flush and/or collect water quality samples. The following is a summary of water quality complaint calls received to year to date.

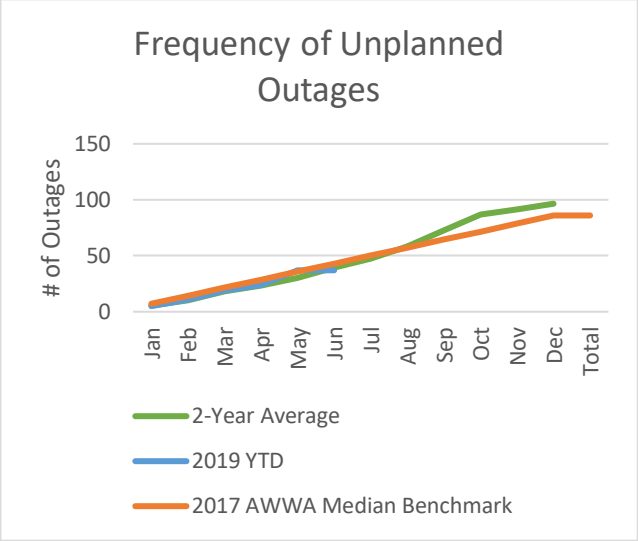
Water Quality inquiries or complaints: 83 customers

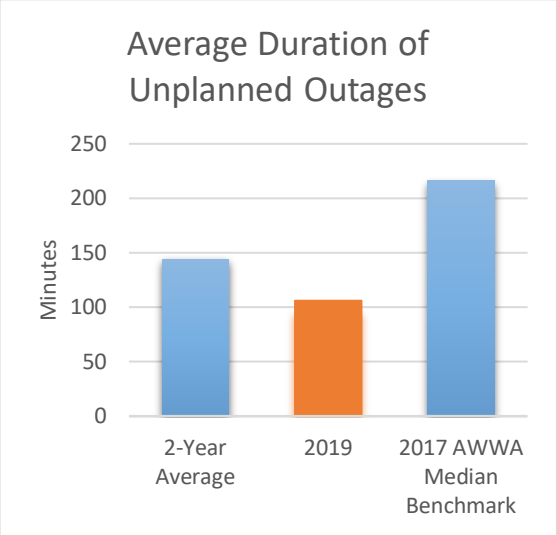
- Dirty water complaints: 52
- Taste & Odor complaints: 25
- Other: 6
- Field response to customer: 17
  - Flushed area piping: 11
  - Sampled at location: 5
  - On-site assistance: 1

Water Delivery Reliability

Water delivery metrics remain at or under our two year EWEB averages and under AWWA benchmarks.

| **Ensuring Reliability** | Unit | AWWA Median Benchmark | YTD Results |
|---|---|---|---|
| Leaks and Breaks per 100 Miles of Pipe | # | 10.2 | 4.8 |
| Minimize Frequency of Unplanned Outages | # | 86 | 37 |
| Average Duration of Unplanned Outages | Minutes | 216 | 106 |
| Percentage of Customers who Experience a Planned or Unplanned Water Outage | % | N/A | 1.04% |
| Boil Water Notices | # of Notices | None caused by EWEB | 1 |



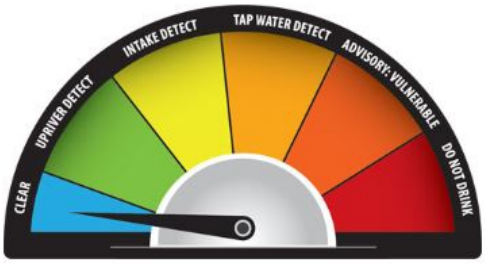

Significant Outages and EWEB Caused Boil Notices

On June 24th, a 4" asbestos concrete water main break occurred. While performing the excavation, the bucket of the backhoe came into contact with the water main requiring the crew to isolate the water main immediately. This required EWEB to issue a water boil notice to 15 customers. The location of this boil notice was on Alva Park Dr. Repairs were made and then the system was flushed and sampled. The boil notice was lifted the next day.

## Program Report: Drinking Water Source Protection

Cyanotoxins

Staff began monitoring for cyanotoxins in Blue River and Cougar Reservoirs, outfalls from these two reservoirs, Keizer Slough, and EWEB's intake in March 2019. In April, EWEB launched its website for our customers to see what levels of toxins we are finding in the watershed and at our intake, see http://www.eweb.org/outages-and-safety/water-safety-in-your-home-or-business/drinking-water-quality/harmful-algae-blooms. Current status for our water system is "Clear" meaning that no levels of cyanotoxins are currently being detected above laboratory reporting limits in the reservoirs, reservoir outfalls, or at our intake.




**Cyanotoxin Detection Status**

Proactive Mitigation of Illegal Camping above Hayden Bridge Intake

Illegal camp surveys started in March and are currently being conducted every other week. Communication and coordination with Willamalane and City of Springfield staff have been excellent with interagency teams conducting the surveys on Tuesdays and cleanup teams following later the same week. Camps identified were put into the LCOG web application to track activity; cleanups occurred within 48 hours of identification.

| Illegal Camps – Inspections above HB Intake* | |
|---|---|
| Inspections | 9 |
| Camps Found | 8 |
| Camps Cleaned Up | 8 |

A note of interest is that the State has new rules that govern how municipalities handle homeless populations and illegal camping. EWEB and our partners are evaluating how these new rules affect our current process for dealing with illegal camps above our intake.

## Information Services Operations

IS Reorganization

Information Services (IS) has completed a reorganization to better align and support EWEB's operating model and structure. In the new structure there are dedicated teams supporting EWEB's Corporate Services and Engineering & Operations functions and projects. An IS Operations Team has been formed to manage daily operations, cyber security, and architectural standards.

The reorganization of the operations team was completed in Q2 2019, which included hiring Travis Knabe as the IS Operations Manager. The operations team includes Enterprise Architecture, Network Services, Cyber Security, and a technical planning team consisting of Business Analysts, a Project Manager and the Budget and License Coordinator.

The Corporate Services and Engineering & Operations teams will be finalized in Q3. These teams will include Project Managers, Business Analysts, Geospatial Staff, and Developers. These dedicated teams will align IS work with business need and manage IS projects for their associated business function.

Other Notable Events

The operations team achieved a major milestone in their effort to reduce cost and complexity of the network infrastructure by eliminating and removing outdated and complicated technology.

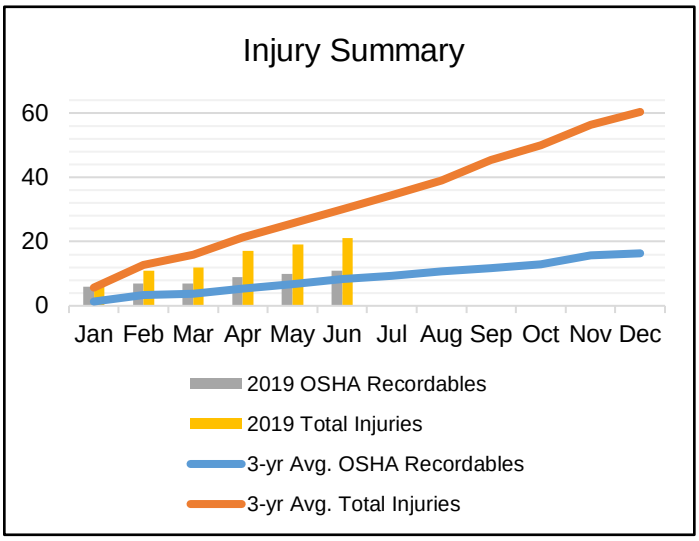
## Workforce Report

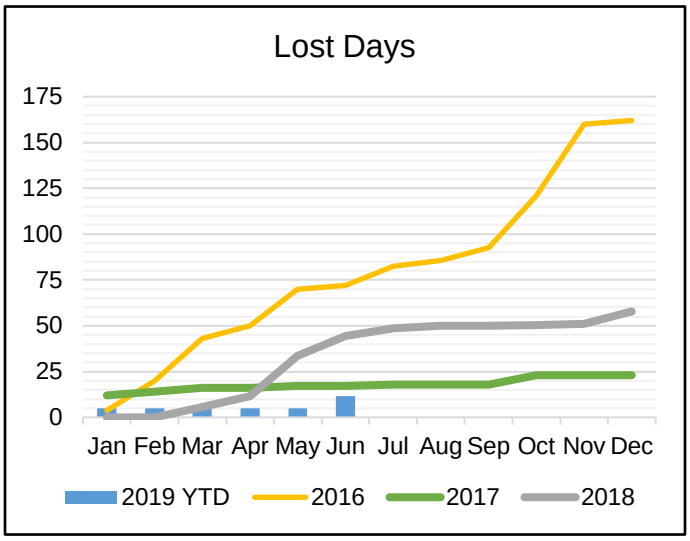
(Kostopulos)

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

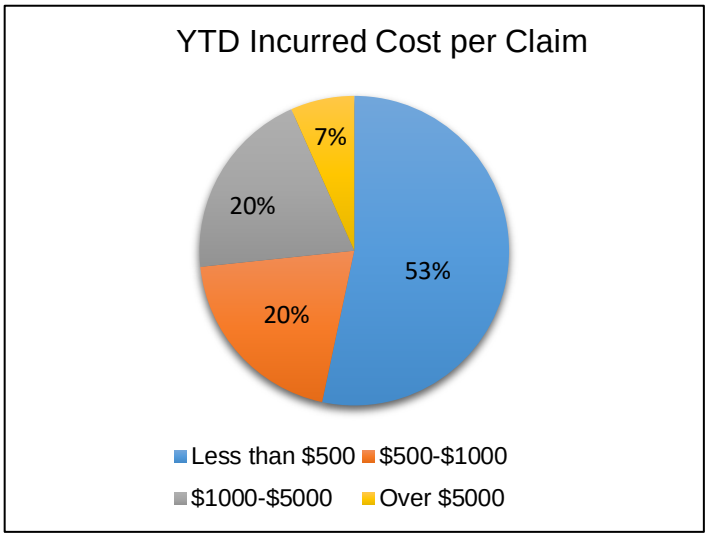
Safety

YTD injuries are at 21, compared to the 3-year average of 16. While within the OSHA standard for reportable injuries (those requiring treatment), the majority were treated with minimal medical intervention. The minor nature of these injuries is reflected in the YTD metric for Lost Days at 11.6, less than 25% of the 3-year average of 44.5. This is notable since February's 9-day snow storm introduced extraordinary conditions which typically drive injuries.

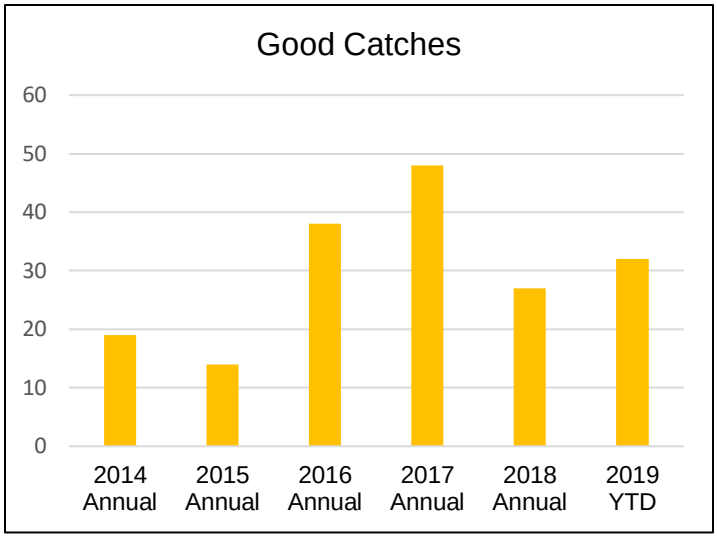



Consistent with the low severity of injuries so far this year, there are only 15 that resulted in Worker's Compensation claims. SAIF's current loss reporting indicates EWEB's total incurred losses for 2019 are projected to be approximately $100,000, less than half the 3-year average of $208,000. Notably, 78% of this year's loss total is attributed to a single injury. This injury is the result of an exposure incident which occurred in 2012 but just presented medical impacts this year. It should also be noted that SAIF's incurred costs do not reflect only the actual year-to-date cost of the injury. Rather, this is a combination of year-to-date costs plus reserves set aside based on the projected balance of lifetime costs. The pie chart below illustrates the breakdown of injury costs.



The low incidence of serious injury and resulting workers' compensation claims can be attributed to EWEB's continuing adherence to safe workplace practices and prevention efforts. The "good-catch" program is a platform enabling employees to provide information on near misses and to make suggestions to improve safety.



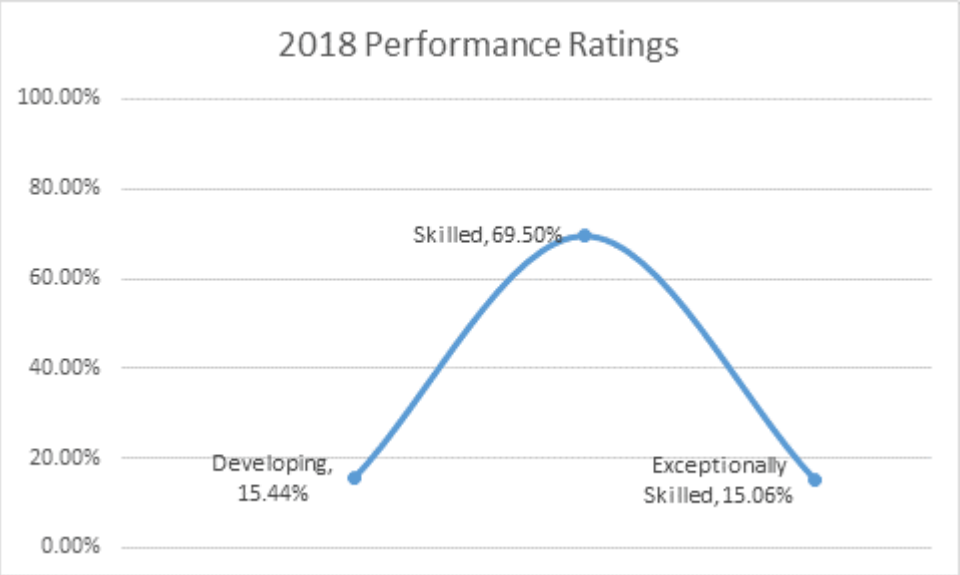

Health & Wellness

As indicated in the recent Long Term Financial Plan update, State and Federally mandated fees and taxes will drive EWEB 2020 health insurance premium rate increases to higher levels than previously experienced. Oregon Reinsurance Program (ORP) fees increased from 1.5 to 2.0% and a 2.5% tax was reinstated to support the Affordable Care Act. Now totaling 4.5%, these taxes are assessed on the employer's total annual premium. Claims experience is the other primary driver, but a full data picture will not be available until late in Q3. Periodic insurance claims data reporting lags the timing of this report, so the following represents data from January through April.

Medical experience represents the greatest share of the benefits plan costs. The "paid/loss" ratio (paid claims against paid premiums) came in at 82.7%, just below target. A 12-month look-back at this ratio for May 2018 through April 2019 is 82.3%, another indicator that health insurance activity is as expected so far this year. To the extent possible, EWEB endeavors to control claims experience numbers through preventative health programming. The largest share of claims experience continues to be driven by retirees under age 65. Dental claims are on track with last year but a modest increase is expected. Vision experience is lower than projected with a premium reduction expected.

Workforce Performance

The annual performance evaluation process concluded in early Q2. Overall workforce performance is as indicated in the diagram below, with nearly 70% of non-probationary employees rated as "fully skilled."



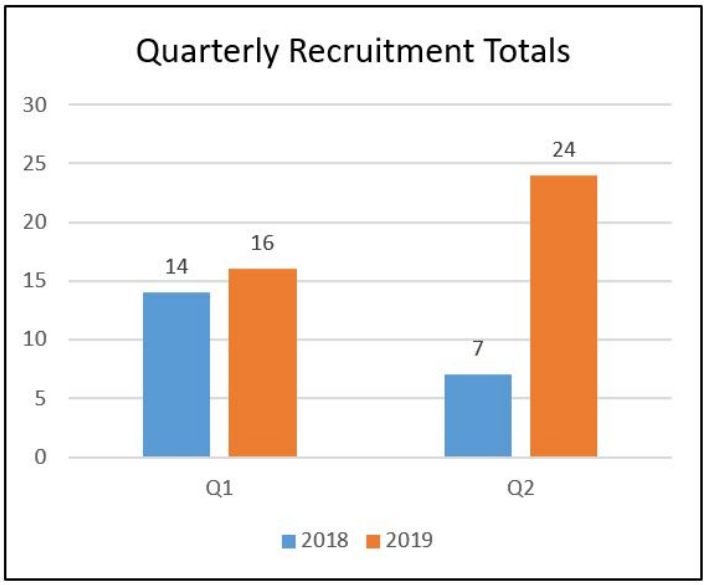

Compensation

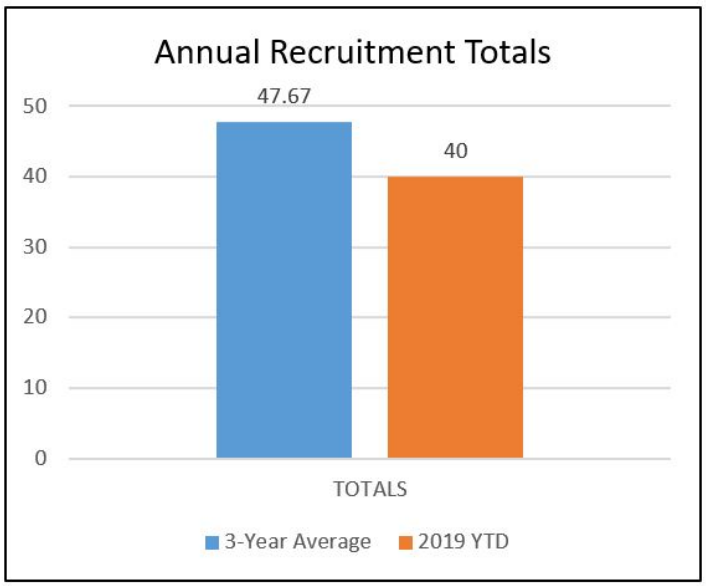
The compensation structure for non-represented (MAPT) employees increased by 2.5% in 2019. MAPT base rate increases and/or one-time awards are performance-based. Base rate increases averaged 3% and one-time cash awards averaged 1%.

Bargaining group increases are scheduled in accordance with the Collective Bargaining Agreement. Following the renegotiation of the scheduled rate adjustment factor, IBEW employees received a 4% increase in April. The West Class B/C index, the negotiated replacement for the discontinued regional CPI index, will be used to determine 2020 increases.

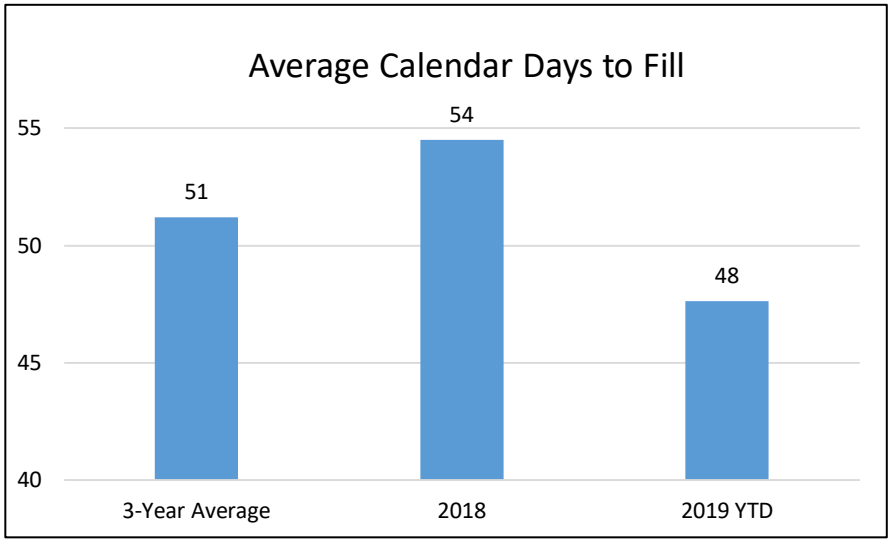
Recruiting

The chart below indicates a Q2 spike in recruitments. YTD Recruitments are at 84% of the 3-year average. The increased recruitment activity is due to continuing reorganization efforts and filling previously-held vacancies coupled with replacement recruitments for regular attrition. The number of recruitments does not align with exits or newly added jobs as there is a cascading effect when internal employees promote or transfer, leaving vacant positions behind them.



The time it takes for EWEB to fill vacancies which are open to both internal and external candidates is measured from the time a time a jobs posts to the time that a candidate has accepted an offer. Time to fill metrics have averaged 51 days over the last three years, with 54 days in 2018. The 2019 average is 48 days YTD. EWEB is seeking a benchmark for NW public utilities.



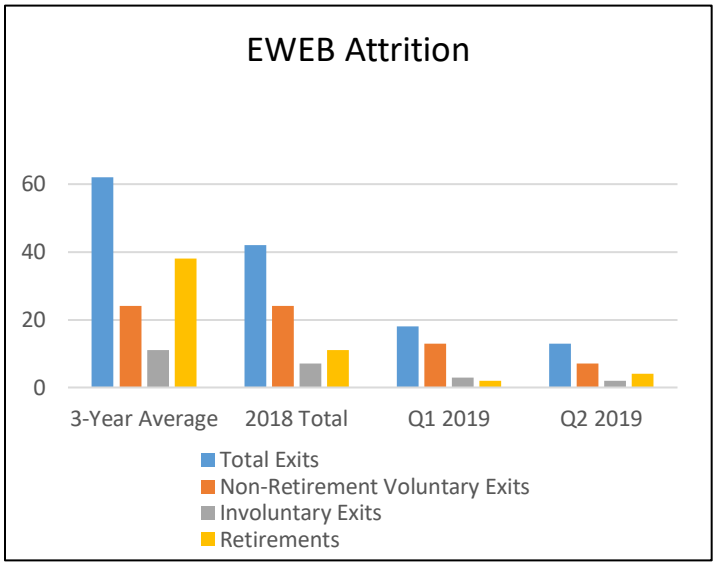

The chart illustrates that the 2019 time-to-fill average is trending somewhat lower than previous years due in part to process improvements and enhancements made to electronic systems which have enabled efficiencies. Negatively impacting this year's average time-to-fill were the three new Operations Manager positions, each of which has taken over 100 days to fill due to internal scheduling challenges. The snow storm earlier this year also affected this metric as selection process work was significantly delayed.

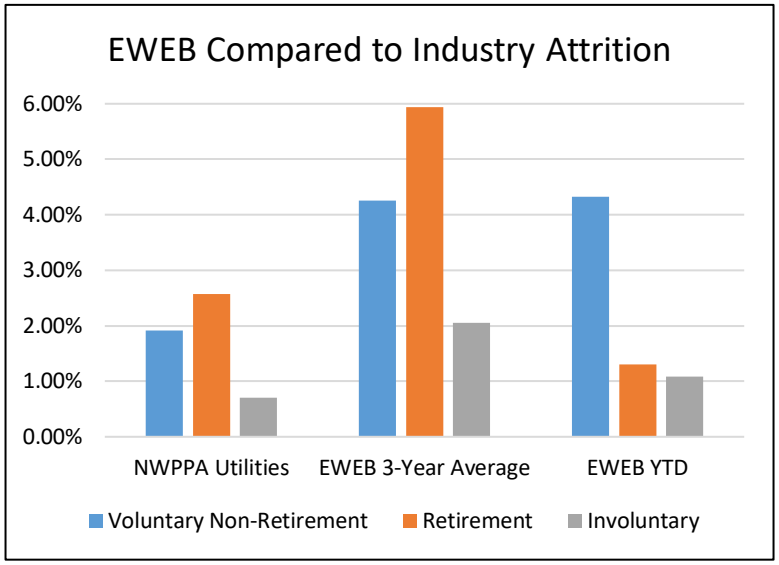
Labor Relations

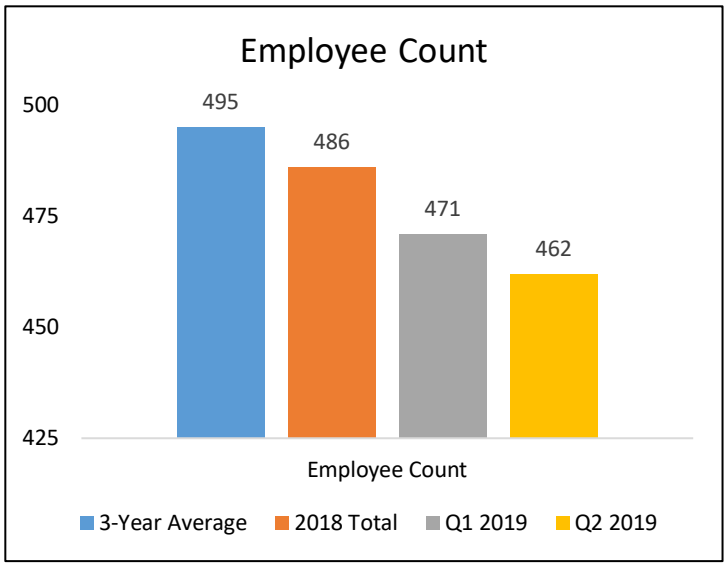
No grievances YTD and no known extraordinary issues with bargained labor.

Workforce Statistics

The following charts illustrate EWEB's attrition trends. The 3-year average is skewed by the effect of the 2017 reduction in force. Total attrition for Q2 is at 6.71%, up from Q2 2018, but tracking with EWEB's 3-year average of 12.24%.

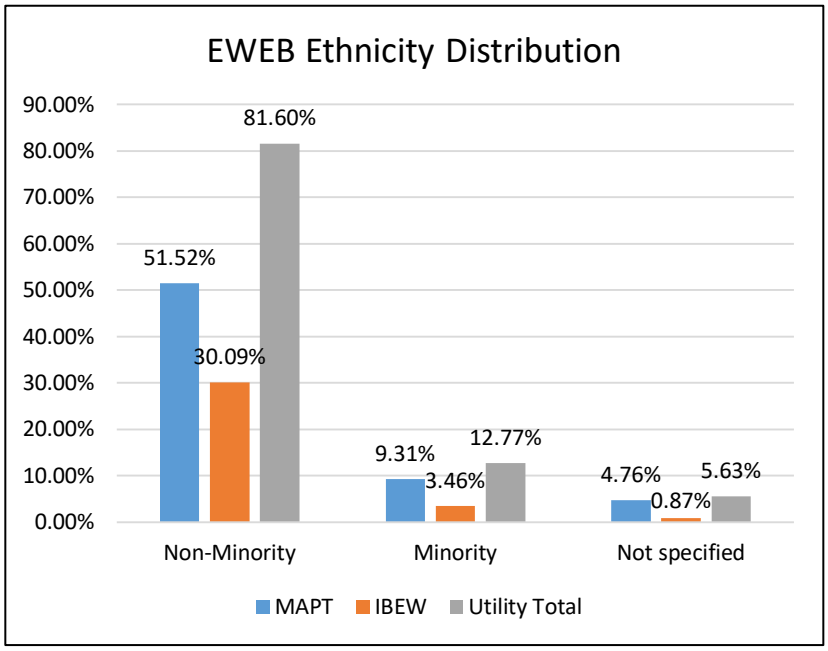


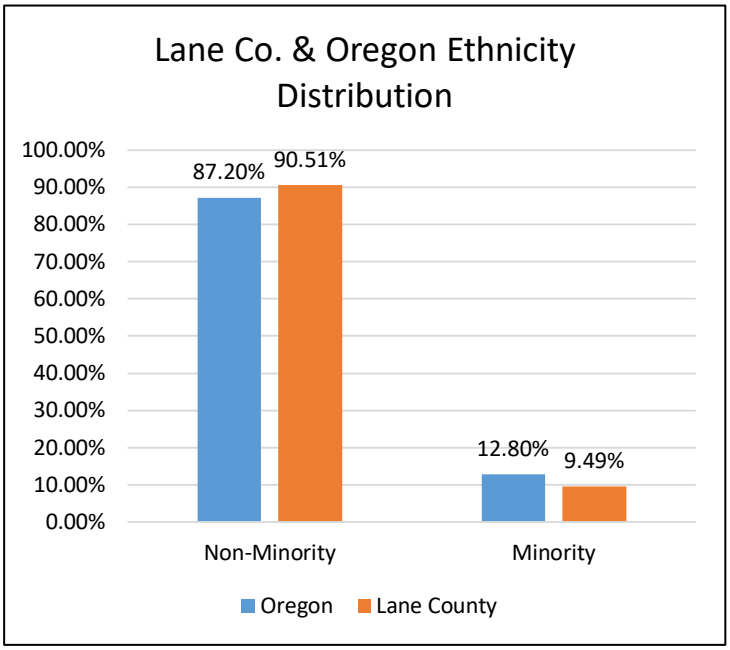



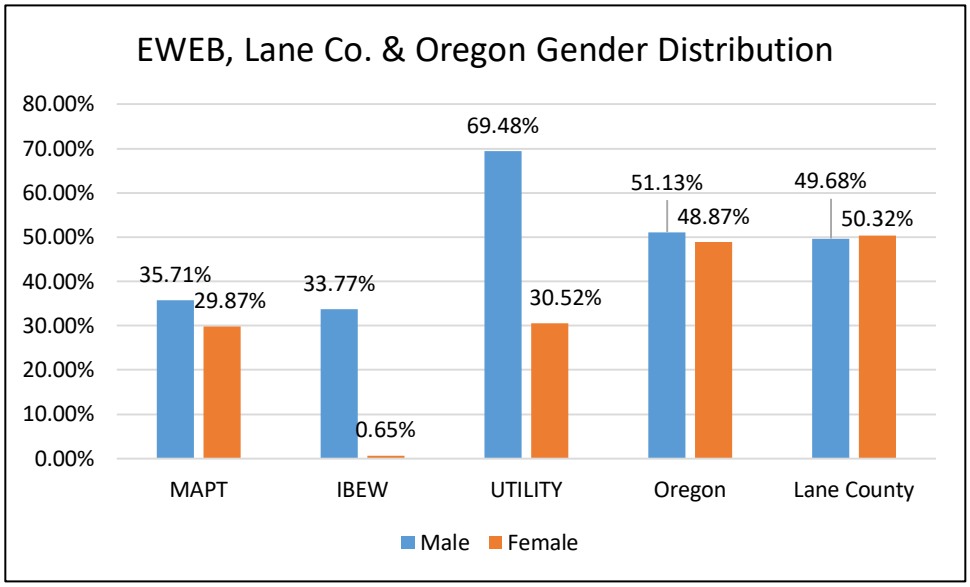



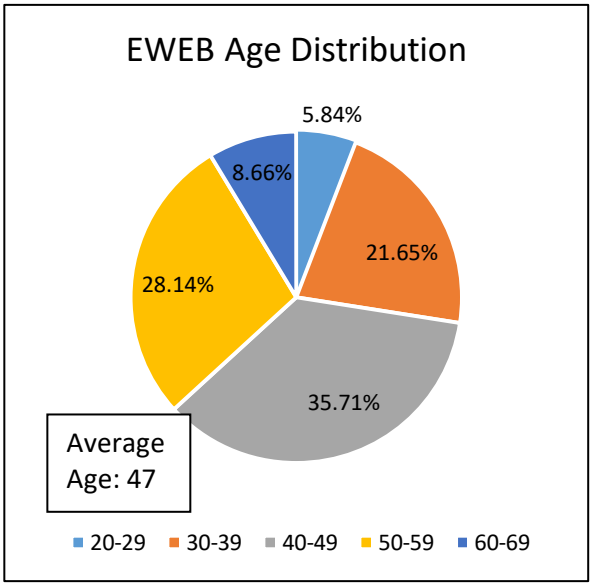
Demographics

The following charts are a demographic snapshot of EWEB's workforce composition.



## Legislative, Legal and Board Activity Report

(Lawson, Heuser, Creighton, Kah)

Legislative Update

The 2019 Oregon Legislature passed the following bills which will have some direct impact on EWEB:

**HB 2769 – Price Consideration in Qualifications Based Selection (QBS) Public Contracting -- PASSED**

HB 2769 allows local public contracting agencies to evaluate and score price as part of a two-step process in procuring professional services such as architects, engineers and land surveyors. Agencies would issue a request for qualifications as step one and select up to three (3) of the highest ranked firms based solely on qualifications. After the initial qualifications-based selection, local public contracting agencies must then provide a detailed statement of work and request pricing information from the three most qualified firms as part of a second evaluation step. To retain a focus on qualifications, the local contracting agency may use pricing information for up to 15 percent of the points used during this second evaluation step.

**SB 408 – Flexibility in Siting Utility Infrastructure in Exclusive Farm Use (EFU) Zone -- PASSED**

This bill will help utility providers reduce their footprints on farm land by allowing the creation of parcels based on the amount of land actually needed for a utility facility, rather than based on the larger minimum lot sizes associated with the Exclusive Farm Use zone. Because of these large minimum lot sizes, properties in the Exclusive Farm Use zone are often larger than what would otherwise be needed for a utility facility.

**SB 1049 – Public Employees Retirement System (PERS) Reform -- PASSED**

The Oregon House and Senate narrowly approved in late May changes to PERS intended to reduce the cost to pay down the system's unfunded liability. The bill was signed by the Governor on June 11th and will be the subject of a legal challenge. Analysis from the state estimates that SB 1049 could mitigate employer PERS rates by 5.4% beginning in 2021. Key components of the plan include: 1) lengthening the payment period for the PERS system's $27 billion liability; 2) compelling public employees to pick up part of the cost of their pensions; and 3) allowing retirees to come back to work but paying the pension payments they might otherwise have earned into the liability.

The bill has many implementation details that remain to be worked out and will be the subject of robust rulemaking once legal challenges have been adjudicated. The state of Oregon has established a website for employees, employers, and retirees to stay informed on the implementation progress and new analysis of SB 1049 as matters progress. The website can be found at: https://www.oregon.gov/pers/MEM/Pages/SB1049.aspx

**SB 27 – Statewide Drinking Water Fee -- PASSED**

SB 27 authorizes the Oregon Health Authority to adopt by rule a schedule for fees assessed on water suppliers to support administration of the Oregon Drinking Water Quality Act. SB 27 does not include any schedule of costs, but based on a preliminary schedule of fees distributed by the Oregon Health Authority (OHA) as they begin the rule making process, it would be estimated that the fees assessed to EWEB due to this bill would be $42,000 per year. SB 27 did include a cap on future increases in fees to three percent annually.

The fees to be paid will fund the State Drinking Water Program and replace general funds that were removed. Services received through the program are anticipated to be the same as existing. These services include completion of the sanitary surveys and other compliance investigations as well as water quality data entry and analysis. According to OHA, without this fee, services would likely decline and the State would be at risk to lose primacy over the Drinking Water Program, which would revert to the Federal EPA.

**HB 2005 – Paid Leave – Passed**

Under House Bill 2005, workers will receive up to 12 weeks of paid time off that they could also use to recuperate from their own serious illness, care for new adopted and foster children and deal with domestic violence. The cost would be split 60-40 between workers and employers, who would begin paying into the fund in 2022. Businesses with fewer than 25 employees would not have to contribute. It's unknown at this writing, how the new paid leave requirements will interact with EWEB's paid leave banks.

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. Following a March 2019 ruling by the arbitration panel that granted EWEB's motion to set the arbitration date after the Lane County Circuit Court trial, MWH offered for the first time to submit to arbitration and allow all claims to proceed in a single forum. EWEB has agreed to allow the defendants to defend all claims in the arbitration proceeding. The parties have stayed the litigation in Lane County Circuit Court and are submitting all claims to a consolidated arbitration, which is anticipated to take place fall 2019. Discovery is now advanced with numerous depositions completed.

*PERS Litigation:* The Oregon Supreme Court issued their decision on June 6, 2019, reversing the decision of the Court of Appeals and remanding the matter for further proceedings with PERS consistent with the Supreme Court opinion. The Supreme Court concluded that the legislature likely intended a person "in the service of a public employer" to mean an employee of the public employer on that employer's payroll – not someone who, in hindsight, was determined to have a common law employment relationship and that those individuals should not be considered PERS eligible. Counsel is currently in conferral with the Oregon Department of Justice on how PERS will handle the proceedings on remand.

*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. Discovery is underway, and the trial date has been scheduled for October 8, 2019.

*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 customer 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. EWEB filed an answer and counter complaint based on misrepresentation, breach of contract, and seeking rescission with restitution for financial damages. EWEB's response to the plaintiff's motions for summary judgment has been filed, and it is anticipated that the court will take the motions under advisement by mid-July 2019. The schedule for discovery and trial will be dependent upon the timing and scope of the court's decisions on the pending motions.

*John G. Schaad and Marie T. Schaad v. EWEB:* The plaintiffs filed suit in Lane County Circuit Court on June 26, 2019 alleging negligence and intentional infliction of emotional distress following a structure fire on June 26, 2017. EWEB's response will be filed in a timely manner, and it is anticipated that a trial date will be scheduled within one year of the filing date.

Compliance

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

1. The fire systems at the on the four hazmat storage buildings at the Roosevelt Operations Center were out of compliance for the required 6-year inspection and maintenance which have since been scheduled. There is no fine anticipated.
2. One final paycheck was not issued within the prescribed period of time as regulated by BOLI. The issue was quickly resolved, and there are no fines or other penalties anticipated.
3. The State of Oregon Audits Division reviewed the December 31, 2017 and 2016 audit and found that the Board of Commissioners information should also include the address where commissioners receive mail. Staff will make this adjustment going forward. There is no monetary impact.
4. A Federal Energy Regulatory Commission (FERC) dam safety Emergency Action Plan (EAP) brochure that was due to be sent to certain property owners in May has not yet been sent due to revisions necessitated by changes in

the dam safety program. This event will be self-reported to FERC in EWEB's year-end EAP status report. There are no monetary impacts or other enforcement actions anticipated.

5. A breach of the small procurement threshold occurred when costs for fish screen cleaning were higher than anticipated as there was more dirt, rock and woody debris than expected. Staff will perform this work going forward.

Public Records Requests

During Q2 2019 EWEB received and responded to 11 public record requests. One request was for human resources information, one for water meter information, two for vegetation records, one for an engineering report, three for customer solutions records, one for accounting records, and two for Purchasing records.

Board Activity Report

During Q2 2019 the Board of Commissioners made a number of significant decisions including but not limited to the following Board actions:

In April, Commissioners approved an IGA with the Bonneville Power Administration to provide Transmission Operator Services (TOP). This action will result in reduced staff work, eliminated contracts and reduced WECC audit costs, thereby resulting in a net savings of approximately $2M over the course of the 5 year agreement.

A revision to the Business Growth & Retention Rate Credit policy was approved in June. The modification intends to make it easier to conduct business with EWEB by simplifying program administration, establishing clear eligibility requirements, increasing flexibility and accessibility to participants while managing financial risk to EWEB.

The Board conducted its annual allocation of funds to reserve and designated fund accounts. Congruent to this action was an increase to the Electric Operating Reserve target which bolsters financial resiliency.

Also in June, Commissioners authorized the General Manager to enter into a Purchase and Sale Agreement and Termination of a Power Purchase Agreement for Foote Creek Wind I. The Board's decision supports EWEB's strategic priority to better synchronize resources used to serve customer load while delivering an economic improvement to EWEB's customer-owners. This transaction is expected to close in early July 2019.

In addition to the aforementioned significant actions, meaningful discussions were held around the 2018 Year-end Audited Financial Statements and Management Letter as well as the 10-year Capital Improvement and Long-Term Financial Plans.

Also of note in Q2, Commissioners held their annual Upriver Meeting with McKenzie Valley customers. Conducting the meeting early this year afforded the timely opportunity to listen to customer feedback concerning EWEB's response to the February snow storm and related outages. Attendees were also provided with updates on projects, products and services relevant to their community.

## Program Report: Security

(Price, Barton)

Cyber Security

A Cyber Security Charter was presented to and signed by the Executive Team. The document calls for a holistic approach for Cyber Security addressing Cyber risk throughout the Utility.

Physical Security

The Physical Security team coordinated with the Lane County Sherriff's Office and Springfield Police in early June to formally trespass the illegal campers from the EWEB second water source site. EWEB's Property department scheduled a clean-up of the site, which took approximately two work weeks to complete.

We are currently in discussions with St. Vincent DePaul regarding their trailer program. This trailer program would give up to three displaced community members the ability to store and live in their trailer on EWEB property. In turn, they will ensure that unauthorized people don't camp illegally by reporting issues to the EWEB Physical Security team.

Physical Security apprehended a felony suspect in May and turned over to Eugene Police. The suspect was responsible for breaking into three different vehicles belonging to employees in the ROC parking lot. Some of the items taken were recovered by police and returned to the owners.

## Program Report: Dam Safety

(Ackerman, McCann)

At the request of the FERC, a peer review team evaluated EWEB's dam safety program between November 2018 and February 2019. This third-party team provided a variety of recommendations for improving the program and EWEB has developed a plan for implementing those recommendations. The plan includes the creation of a new department with three FTE that is focused on refining and implementing the dam safety program. Two of existing FTE will transfer to the Dam Safety Department from the Generation Engineering Department and one FTE will be new. EWEB also created a new position, the Chief Dam Safety Engineer, to lead the new department. EWEB was successful in recruiting a seasoned dam safety engineer from Seattle Public Utilities for the position, Daniel Huang, and he is expected to start work in September. Part of Daniel's responsibilities will be to provide the Board with quarterly updates on the dam safety program and highlight dam safety issues that warrant Board attention.

***Goal #2 – Pursuant to Resolution 1811, execute the Advanced Metering Services (Infrastructure) project in accordance with approved plans and budgets and all applicable EWEB values, policies, and procedures; safely installing 46,000 meters in 2019.***

## Advanced Metering Report

(Fahey, Price)

### 2019 Smart Meter Upgrade Status (Goal = 46,000 meters)

| | ELECTRIC | WATER |
|---|---|---|
| Total Upgraded Meters | **26,268** | **10,196** |
| Smart Meters Installed on EWEB System | **28%** *(excludes McKenzie Valley (cycle 18), which is not part of route-based deployment)* | **16%** *(includes Santa Clara & River Road Water Districts)* |
| Installed in Q1 | 5,173 | 2,768 |
| Installed in Q2 | 5,689 | 2,906 |
| Total Installed 2019 | 10,862 | 5,674 |
| | *2.3% of customers have opted-out of 1 or more accounts.* | |

The Smart Meter upgrade project is closing in on the end of year one. The impact of this project is felt across EWEB and our entire urban Eugene service community. We are currently at 30% of annual target. Project installations have been intentionally lowered to allow for continuous improvement opportunities, quality assurance measures, and ensuring business continuity. Project management has also been refined to smooth cross-functional processes and improve data integrity.

The process includes several customer communication points to ensure they are informed of the meter upgrade timing and options available to them. The communications success is evidenced by only 1% (less than 800) of Contact Center calls answered being associated with "Smart Meters", and several customers were calling as requested in the advance communications. Customers for whom EWEB has email contact information are sent a survey after meter installation. We're consistently at a 10% response rate, which is above average for external surveys. Survey results indicate that 92% of respondents had no concerns with their meter upgrade experience.

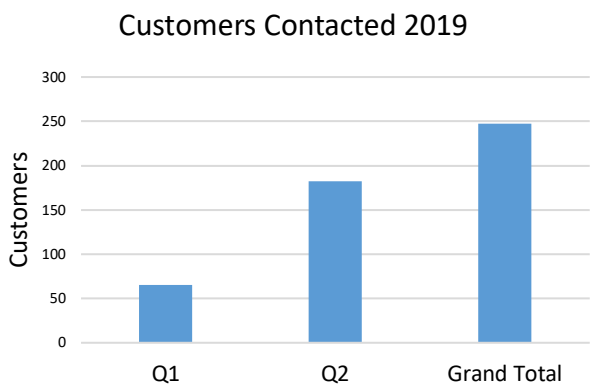
The following are a few comments received in Q2:

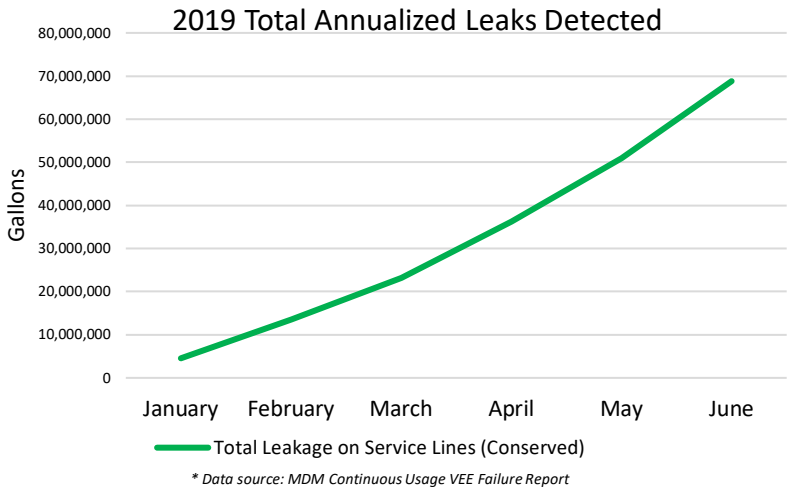
- "I appreciate that you made every effort to make certain I was well aware in advance so when the technician arrived I was well prepared and knew exactly what was being done."
- "Glad the installer contacted me with a friendly knock on my front door before he began the install. I appreciated that."
- "Delighted that the new system will notify EWEB if my electricity goes off."
- "The gentleman came to the door. He was very friendly and explained what he was going to do. The power was off for less than 1 minutes. We always seem to get excellent service from EWEB. Thank You for making this painless."
- "CREW VERY GOOD PEOPLE FRIENDLY WORKED FAST HARDLY KNEW THE WATER WAS OFF AND ON AGAIN. DID VERY NEAT AND CLEAN INSTALL. PAT THEM ON THE BACK!"

In addition to upgrading meters, staff is creating processes to utilize benefits enabled by the new technology for both customers and staff. The second quarter focused on **leak detection and notification**. Based on monitoring hourly

consumption data, customers now receive a "digital door hanger" that is similar in content to what Meter Readers have historically left for customers and is being delivered in a more timely manner via additional communication channels.

The following graphs summarize growth in this area this year.




**See Appendix C – Electric Utility EL-1 Capital Report. Shared Services project updates are provided in the Advanced Metering Report, but the project budget and costs are split between Electric and Water in the appendices.*

**Advanced Meter Upgrade (Water)**

| | | | |
|---|---|---|---|
| Project Initiation: | Oct-2013 | Initial Scope Budget: | $1,295,140 |
| Initial Planned Completion: | Dec-2021 | Actual Project Costs To-Date: | $5,301,100 |
| Projected Completion: | Dec-2025 | Total Final Cost Projection: | $18,800,000 |

The Water Utility has used the first year of the meter deployment project to focus on improving processes, training staff, and managing impacts on other operational work - in addition to upgrading meters. Smart water meters have several parts needed for them to function correctly; this changes the inventory and asset management strategy for meters and impacts many areas of the company. The process for upgrading meters in both water districts started in Q2 2019.

**Advanced Metering Projects (Electric)**

| | | | |
|---|---|---|---|
| Project Initiation: | Oct-2013 | Initial Scope Budget: | $11,818,560 |
| Initial Planned Completion: | Dec-2021 | Actual Project Costs To-Date: | $ 9,981,200 |
| Projected Completion: | Dec-2021 | Total Final Cost Projection: | $16,850,000 |

The Electric Utility has used the first year of the meter deployment project to focus on training staff, improving/developing new processes, and understanding the data coming from the meters. In addition to the meter deployment project, staff is also incorporating EWEB's new standard meter into all areas of the business including new meter sets and other O&M work flows.

Advanced Metering Communication Infrastructure Improvement (Shared)

In April 2015, EWEB contracted with Sensus to install meter communication equipment and software to accommodate advanced meter deployment under an "opt-in" approach. EWEB installed seven base stations with associated infrastructure and antennas. In February 2018, the deployment approach changed from "opt-in" to "opt-out". This change increased the anticipated total installed meters from 25,000 to nearly 150,000. As deployment efforts under the new approach increased, communication issues such as data latency and data loss also increased.

A cross-functional team is working on a multi-phased approach to address this aspect of the metering infrastructure. Tuning and optimizing the performance of the existing base stations is in progress. Areas are being evaluated and prioritized for additional base stations to consistently serve the urban Eugene service territory. Once the additional base stations are installed and upgraded meters are fully deployed, ongoing performance and O&M operational best practices will be implemented for this critical infrastructure.

AMI Technology (Shared)

The project objectives include supporting remote meter reading, improving power outage response, allowing for efficient start/stop service, supporting leak detection and mass deployments, improving system error handling and ensuring that the AMI system meets EWEB's business needs and customer-owner expectations.

The project is divided into two phases. The first phase includes reviewing and updating business processes and requirements, generating technical and functional requirements as well as a high level design detailing out the core components of the AMI systems and the integrations that connect them. The second phase will include, finalizing the design, coding, configuring and testing of the AMI Development, Test and Production environments. Work throughout the second phase will be divided into logical work blocks allowing for incremental releases and system improvement.

In the second quarter of 2019 Information Services (IS) and Purchasing have been working with Sensus to develop a Statement of Work (SOW) for the first phase of the AMI IS Improvement Project. As part of this effort, a project charter, and draft project schedule were created. Also during this time, EWEB's IS staff have reviewed and updated existing AMI use case scenarios. It is expected that the statement of work for the first phase of the project will be completed by August 2019, and project workshops will start early September, 2019.

[Return to Capital Projects Section – Advanced Metering/Electric & Shared Services]
[Return to Capital Projects Section – Advanced Meter Upgrade/Water]

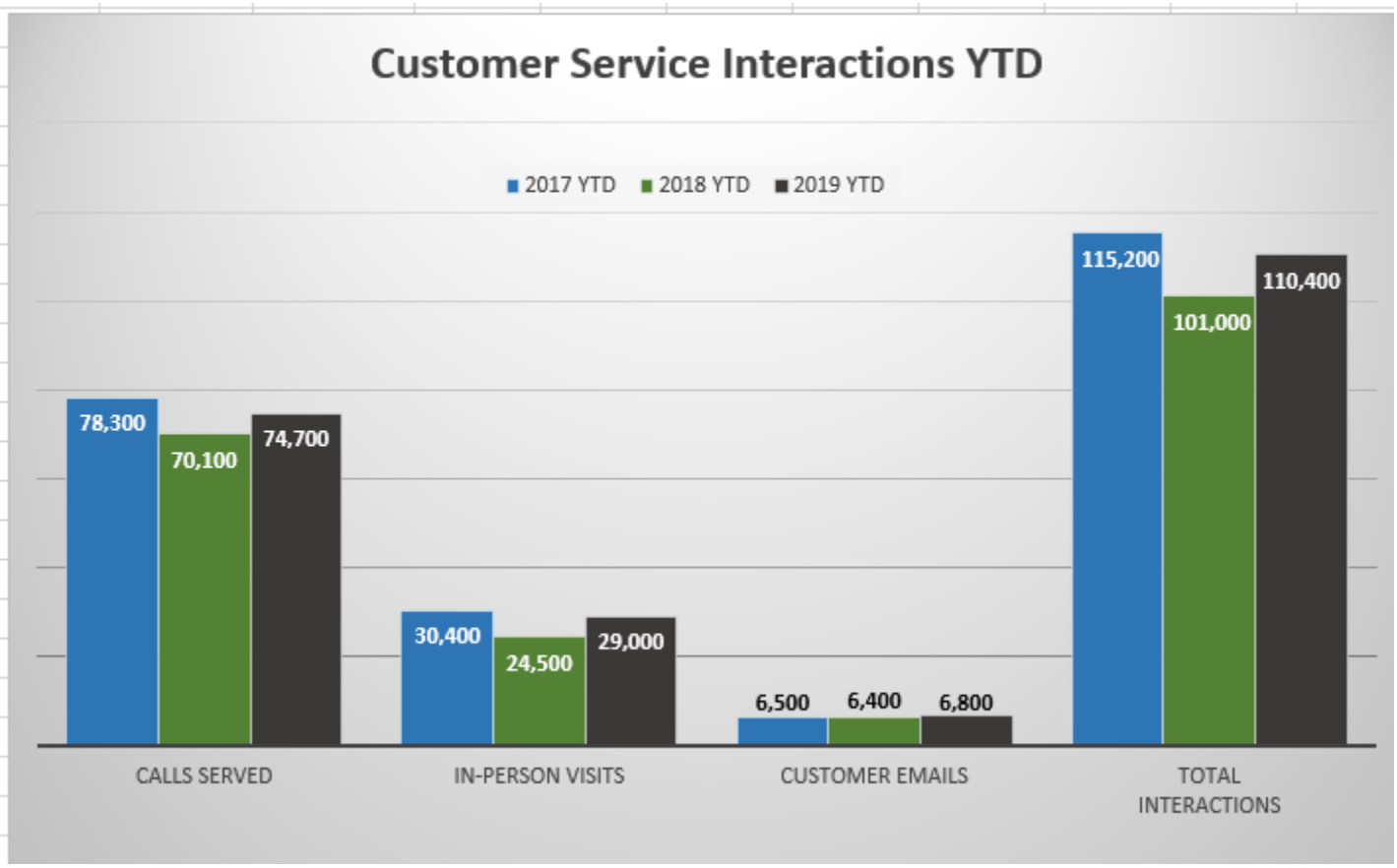
***Goal #3 – Use Continuous Improvement, Lean Principles, and financial management to improve the customer experience, adding customer self-service capability, avoiding revenue requirement increases through 2020.***

## Customer Report

(Fahey, Gonzalez)

Customer Contact Information

While customer operations contacts are still trending below the 2017 interactions caused by estimated bills from the December 2016 ice storm, there was a slight uptick in 2019 YTD customer interactions across phones, lobby visits, and email primarily due to the February-March storm event.




Communications

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. EWEB's primary channels for communicating with customers continue to be website (eweb.org), social media, earned media and the Pipeline newsletter.

Communications staff continues to integrate all digital channels as well as traditional media outreach to communicate with customers, community leaders, commissioners and staff. Both the number of users and page views are up over the same quarter last year. EWEB staff created 66 social media posts related to emergency preparedness & resiliency that resulted in over 150,000 impressions. Staff also created 38 social media posts about conservation and energy efficiency, which resulted in over 60,000 social media impressions.

eweb.org

| Quarter | Users | Total Page Views | Ave. Time on Page | Bounce Rate* |
|---|---|---|---|---|
| Q2 2019 | 83,070 | 301,884 | 1:38 | 49% |
| Q2 2018 | 75,601 | 289,630 | 1:35 | 47% |

*Bounce rate tracks how many users enter and exit the site on the same page. Forty percent and below is considered excellent, with 40-55% roughly average for most websites.

Social media

| | # Social posts | | Social impressions | | Emails delivered | | Website pageviews | | Media releases | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Q1 | Q2 | Q1 | Q2 | Q1 | Q2 | Q1 | Q2 | Q1 | Q2 |
| Goal 4: Emergency Preparedness & Resiliency | 46 | 20 | 75,674 | 77,459 | 9 | 12 | 3,225 | 1,641 | 2 | 2 |
| Goal 4: Community/Limited Income | - | 7 | - | 11,599 | 1 | - | 612 | 2,392 | - | - |
| Goal 6: Conservation/EE | 19 | 19 | 26,580 | 37,435 | 10 | 6 | 9,555 | 9,402 | - | 1 |

Update for Customer Experience Improvement Project

| | | | |
|---|---|---|---|
| Project Initiation: | Sep-2019 | Initial Scope Budget: | $1,915,000 |
| Initial Planned Completion: | Dec-2020 | Actual Project Costs To-Date: | $0 |
| Projected Completion: | Dec-2020 | Total Final Cost Projection: | |

Over the last year, Management and staff have been reviewing and implementing ways to improve our customers' experience through the Customer Experience Improvement Project (CEI) as part of the Strategic Plan Phase I to Enhance Customer Confidence. The project has the following goals:

1. Provide customers with more choice and control over managing their EWEB accounts.
2. Increase customer trust and confidence in EWEB as their publicly-owned utility.
3. Set the stage for changing the relationship with customers in order to create programs and offerings that drive consumption flexibility.

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 us at a time and with a method that is convenient for them. As part of the CEI Project, EWEB has the opportunity to redesign the customer bill and update it to a modern, user friendly communication tool providing information regarding consumption patterns and opportunities for customers to better manage their usage.

Second quarter activities included:

- Visiting utilities with updated CSS and EBPP systems to review current market offerings
- Issuing a Request for Proposals to provide any or all of the CSS, EBPP and bill print & mail services
- Reviewing proposals and selecting finalists who demonstrated their proposed solution

The project is currently on schedule with system implementations scheduled the first half of 2020. Approximately $1,900,000 was planned for these services in the Information Services 2019 and 2020 Capital budget. Variances will be managed within the budget process and Board policy.
[Return to Capital Projects Section – Customer Experience Improvement Project/Shared Services]

Customer Confidence, Service Responsiveness and Transparent Communication

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. Evidence for the success in restoring Customer Confidence comes from the collaboration of EWEB staff and agency partners in community resiliency projects, collaboration on carbon and smart growth projects, customer interaction feedback, and the many small successes going untold every day.

Coordination with the Santa Clara and River Road Water Districts to participate in water meter upgrades is progressing. Intergovernmental agreements defining District and EWEB roles and responsibilities regarding the upgrades have been signed, customer communications have been updated and meter installations will begin in both Districts in July. For Santa Clara Water District, the estimated project cost is $1.3M and for River Road Water District it is $800,000.

During the second quarter of 2019, staff began the planning process of a cross functional continuous improvement initiative regarding EWEB's priority customers and critical facilities for outage management and FEMA reporting. Stakeholders and subject matter experts have been identified and will work on a number of deliverables that includes lists of priority customers and critical facilities, a communication plan to those customers during planned and unplanned outages, and documented procedures.

Community Involvement

In accordance with Board Policy EL3 - Public Requests for Board Expenditures, the following information and attachment outlines the sponsorships, donations, grants and in-kind services, efforts and events of EWEB's Community Investment Program.

Recent reports have focused more narrowly on board directed education grants and the small annual budget that is allocated for "discretionary" giving in the form of sponsorships, donations and grants provided to the community. To better reflect the full impact of EWEB's Community Investment Program, information around EWEB's mandated investments and budgeted energy efficiency, water conservation and limited income programs have also been included.

EWEB has invested more than $8.3 million back into the community year-to-date, not including additional community benefits such as our energy efficiency and water conservation loan programs, water truck deployments, volunteer and ambassador efforts, events and fundraising.

For example, we have issued nearly $820,000 in zero-interest loans to over 150 residential customers for energy efficiency and water conservation improvements thus far in 2019.

In May, EWEB staff raised over $18,000 as a part of our annual Employee Giving Program which offers employees the opportunity to donate to their favorite causes and charities, including the United Way of Lane County and EarthShare of Oregon, through automatic payroll deduction or one-time giving.

Additionally, staff organized and participated in the 4th annual Golf Scramble (off-hours) which raised nearly $600 for EWEB's Customer Care Program.

Looking ahead to the future of education grants, the board initiated a conversation to prioritize topics for education grant funding to better reflect current EWEB strategic priorities. Staff vetted these priority topics with the District grant coordinators and will bring the revised topics for Board adoption in July.

*Appendix F – EL3 Community Investment Report lists contributions through Q2 2019, categorized by type of giving.*

Ease of Doing Business

A cross-functional team has reviewed the Business Growth & Retention Program and developed process improvements to simplify administration, increase access to customer financing options, and provide a clear framework for eligibility in alignment with EWEB's Strategic Plan. Proposed policy changes and associated public hearings for consideration of price modifications consistent with these goals were held and the updated program was approved in June.

Work continues to implement development-related improvements specific to the underlying policy and methodology for a Downtown Network Service Connection Charge. The change is intended to establish more predictability in network infrastructure costs, reduce price disparity between similarly-sized projects, and enable staff to be more responsive to developer requests for high level cost estimates early in their project scoping. Since all customers adding capacity would pay a proportional service connection charge, EWEB's up-front capital investments would be repaid over time. Progress is also being made to establish a reduced water System Development Charge (SDCs) for housing units under 800 square feet and develop a formalized policy enabling EWEB to waive SDCs for qualifying low income development projects.

Recent improvements to EWEBs Budget Billing payment plan, have made a Level Pay program more accessible to EWEB customers. Enrollment is open year round, customers do not need to live a year at a new address to enroll, and annual true-ups will be spread across the next program year in order to smooth bill impact.

## Program Report: 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, emergentconditions

Progress made on the goals in Q2 include:

- Developed a training program for managers and supervisors focused on exploring the "Essential Qualities of a True Leader" as it relates to CI and team development (Classes will be offered during the months of August, September and October, 2019)
- Hired a CI Analyst to expand our capabilities and better serve the CI needs of the business units

Cohorts A & B completed all eight sessions in Q2 and D & E completed seven of the eight sessions. The curriculum consists of eight sessions which address the following topics: CI principles & culture, 8 wastes, root cause analysis, brainstorming, process mapping, problem solving, critical thinking, kaizen, 5S and visual management. Participants are provided the unique opportunity to work with a CI coach between sessions in an effort to gain hands-on practical use of tools and methods learned inclass. The enthusiasm continues to grow as we encourage team members to question the way things have always been done. 2019 program goals are on pace for expected completion by the end of theyear.

| | **2018** | **2019** |
|---|---|---|
| CI - Level I Certified | 48 | 79 |
| Attended sessions (missing a requirement for certification) | 12 | 13 |
| Attending active Cohort 2019 | | 33 |
| Signed up & scheduled to attend in 2019 | | 89 |
| Seats Left open in current schedule | | 0 |
| **GOAL - LEVEL I CERTIFICATIONS ISSUED** | **60** | **214** |

EWEB staff self-reported 87 Continuous Improvement Projects completed in Q2 of 2019. This is slightly up from a total of 81 projects in Q1 and a significant improvement from 2018. The CI dashboard continues to be an indicator of CI engagement.

## CI DASHBOARD


| DIVISION | 2018 Total | 2019 Q1 | 2019 Q2 | 2019 Q3 | 2019 Q4 | 2019 YTD | Grand Total |
|---|---|---|---|---|---|---|---|
| Customer Operations | 17 | 8 | 16 | | | 24 | 41 |
| Customer Solutions | 0 | 35 | 20 | | | 55 | 55 |
| Electric | 5 | 0 | 4 | 1 | | 5 | 10 |
| Energy | 0 | 0 | 0 | | | 0 | 0 |
| Finance | 25 | 11 | 21 | | | 32 | 57 |
| GM | 0 | 1 | 1 | 1 | | 3 | 3 |
| Human Resources | 0 | 5 | 0 | | | 5 | 5 |
| Information Systems | 2 | 19 | 18 | 4 | | 41 | 43 |
| Water | 0 | 2 | 7 | | | 9 | 9 |
| TOTAL | 49 | 81 | 87 | 6 | 0 | 174 | 223 |

***Goal #4 – Improve emergency preparedness and recovery by enhancing system resiliency, with a near-term focus on distributed emergency options/resources (water and electric), completing two additional emergency sites and an electric system black-start assessment in 2019.***

## Emergency Preparedness and Recovery Report

(Price, Nice, Kelley)

**Distribution Resiliency Upgrades (FEMA mitigation)**

| | | | |
|---|---|---|---|
| Project Initiation: | Jan-2019 | Initial Scope Budget: | $1,862,000 |
| Initial Planned Completion: | Dec-2020 | Actual Project Costs To-Date: | $75,556 |
| Projected Completion: | Jan-2021 | Total Final Cost Projection: | $1,739,025 |

The FEMA Hazard Mitigation Project #406 design work to address system resiliency improvements have been ongoing.

There is a total of 15 designs under Project #406. Design for 3 projects are expected to be completed midway through Q3. RFPs for electricians to convert customer equipment to accommodate overhead to underground conversions are expected to be solicited by end of Q3 for the Oakway and Saratoga locations. Current construction plans are to complete 11 of the 15 projects by the end of the year.

**Electric Resiliency and Resilient Spine Update**

Multiple risks have been identified to the electric system which can cause damage or outages. These can range from localized issues that cause impacts to isolated groups of customers or regions, to widespread outages due to extensive damage or disruption to the electric system. In all cases, planning and execution of efforts to mitigate these risks can be undertaken. Below are the main threats EWEB is currently targeting along with summaries of efforts which are underway:

| Threat | Impact | Restoration | Frequency | EWEB Progress |
|---|---|---|---|---|
| Storms (ice, snow, wind, etc.) | Damaged transmission and distribution lines. | Multiple days up to two weeks (historical average). | 1-3 years | Improvements to distribution system and ICS response processes. |
| Earthquake (i.e.: Cascadia Subduction Zone) | Damaged electrical equipment (transformers, control buildings, etc.); damaged operations centers and transportation constraints (bridges, roads, etc.). | Initial restoration to critical facilities 3-6 weeks, full system repair and restoration 6-9 months. | 300-400 years; next occurrence expected in 50-100 years based on recent studies. | Seismic upgrades to critical transformers; deployment of Battery Backup for Emergency Water Support; Reconfiguration of upriver system to provide critical cranking path to Eugene Metro loads from upriver generation. |
| Wildfire | Damaged transmission lines, substations and surrounding infrastructure. | Electric system restoration 3-6 weeks, community load restoration months to years depending on extent of damage. | Historically Low for NW region; Increasing risk due to climate change (yearly in California). | Currently in process of developing fire season operating plan and adjustment of automatic operation of equipment based on risk (location and conditions). |
| Grid Attack (cyber security, EMP, targeted infrastructure damage) | Low impact to damaged equipment if localized; high outage impact to community if widespread outages result from a successful centralized system attack. | Minutes to months depending on extent of attack and damage suffered, or complexity of remedy required for restoration. | High frequency; many attacks mitigated before impact realized; Frequency and complexity of attacks is increasing. | Cyber security practices in place with increased cyber protection program development in progress. |

Under EWEB's strategic plan, staff are planning for, and underway on several efforts to mitigate risk of long term outage to customers by *Increasing Resiliency* of the power system. Some increases in resiliency can be made from operational or process changes (i.e.: ICS Process Improvements), some from use of emerging or new technology (i.e.: Advanced Meter Upgrade), and some from infrastructure upgrades to "harden" critical infrastructure to decrease the scope of repair needed after an event to restore service (i.e.: substation power transformer seismic anchoring).

For cases where more widespread outages are possible due to loss of external system source (i.e.: earthquake, wildfire), additional measures must be taken for alternate supply. In order to divert power to critical loads in an emergency from available generation, a resilient and reliable path (Resilient Spine) must be developed in the power system to allow for direct feed to these loads. This requires improvements of power lines, substation equipment, and additional switching and automation to be developed on a specific path of the system which links source generation to load. Improvements can range from re-routing to avoid damage, overhead to undergrounding, seismic upgrades, or upgrade of control equipment for automatic isolation or switching to protect the equipment. EWEB is terming this critical path within the system as the Resilient Spine. This path allows for power to be isolated from non-critical loads, and to be available after a natural disaster or system event, even if other parts of the system are damaged. In order to feed this load upon disconnection from the BPA system, the local generation must also be available. Staff are currently working on studies which will inform scope of work for improvement of local generation for use in such an event when islanded from the bulk BPA system and system improvements on the transmission and distribution system are in planning process to meet these needs. [Return to Capital Projects Section – Distribution Resiliency Upgrades]

**Water Resiliency progress**

EWEB is currently planning and constructing distributed "neighborhood" emergency stations for water distribution. The original goal was to complete 5 stations over five years. In 2018 EWEB completed its first site at Kalapuya High School in West Eugene. In the first quarter of 2019 EWEB completed its second site at Howard Elementary near River Road with a public event to showcase the site occurring in May.

Work for the rest of 2019 includes the planning and design phases for three additional sites. These are tentatively to be located near Sheldon High School, at the Science Center near Autzen Stadium, and at the Lane County Fairgrounds. A new groundwater well will be constructed soon at the Sheldon site while existing wells are being tested for use at the two other 2019 sites.

**Mobile Treatment**

In conjunction with distributed neighborhood emergency stations, water engineering and production completed work on a mobile treatment trailer in 2018. In Q1 of 2019, field testing of the trailer was completed that identified its capabilities and constraints. This testing showed that the trailer was better suited for low turbidity surface water or groundwater under the influence of surface water.

Work for the rest of 2019 will including researching and potentially acquiring equipment to treat higher turbidity surface water. An application was submitted in 2019 for a grant that would potentially provide this equipment however the results of this application are unknown at this time.

Plans continue towards building a second treatment plant, either as and EWEB project or a shared project. Current project focus is on the maintenance of the Glenwood second source property and discussions with SUB about a joint treatment plant project.

**Emergency Water Supply**

| | | | |
|---|---|---|---|
| Project Initiation: | Q1 2018 | Initial Scope Budget: | N/A |
| Initial Planned Completion: | Q4 2028 | Actual Project Costs To-Date: | $607,500 |
| Projected Completion: | Q4 2028 | Current Total Estimated Cost Projection: | $400,000/yr |

[Return to Capital Projects Section – Emergency Water Supply]

***Goal #5 – Community (Limited Income): In 2019, reduce non-pay residential service disruptions (disconnects) by 10% from the 2018 benchmark of 6,300 with continuing progress toward a 50% reduction by 2023 (5-year).***

## Limited Income Report

(Fahey, Gonzalez)

Through Q2 of 2019, EWEB provided Customer Care bill assistance to over 3,000 customer accounts at an administrative cost of 18%, meeting the organizational goal of 18.5% or less ($74,000 year-to-date). Bill Assistance recipients are encouraged to participate in EWEB's Efficiency Education Program.

Customer Care Assistance

2019 Limited Income Payments to Customers

| | Allocated | Annual Budget | % of Budget |
|---|---|---|---|
| Customer Care Assistance | $412,000 | $850,000 | 48% |

Limited Income programs provided by EWEB have undergone realignment with the Strategic Plan. EWEB educational program content for limited income customers has been redesigned with a focus on conservation, pricing, available programs and resiliency and emergency preparedness.

EWEB strives to reduce the proportion of a customer's income that is required to cover utility expenses, ensuring that the cost of vital services is manageable to customers. As of June 2019, 1,561 non-pay service disruptions have been performed, compared to 2,901 during the same period in 2018. This represents a reduction of 46%, exceeding the organizational goal of 10% established for 2019.

Write offs are another metric that EWEB uses to gauge the severity of financial challenges customers face. Net write offs are 23% lower than through the first half of 2019 when compared to 2018. Weatherization incentives were expanded to promote energy efficiency in rentals, and limited income occupied properties are now eligible to receive the same incentives as owner occupied dwellings.

Starting in Q3, customers at risk for service disruption will be encouraged to participate in the Level Pay program, as a means to reduce bill volatility and promote stable payment history.

***Goal #6 –Pursuant to GP15 Climate Change Policy, execute Resolution 1827 supporting State carbon pricing policy, and achieve conservation/energy efficiency reductions of 9,500 MWh (annual) in combination with smart electrification to equitably and cost-effectively reduce community/regional carbon emissions by 7,500 MTCO2e1.***

## Climate Change Report

(Fahey, Price, Gonzalez)

Staff continues cross-functional work to establish and develop a baseline for carbon reduction measurements for primary customer programs in order to track not only consumption and monetary savings, but also the extent to which EWEB programs reduce CO2 at a local and regional level. Carbon emissions reduction comes from a combination of energy conservation in the residential, commercial and industrial sectors, replacements of gas furnaces with ductless heat pumps, electric vehicles sold in Eugene including those that receive EWEB rebates, and fossil fuel reduction and alternative fuel use for EWEB Fleet vehicles. Year-to-date, EWEB has achieved 32% of the carbon emissions reduction annual target, however this does not include most EVs purchased in Eugene, which have not yet been reported by DEQ. Updates will be provided as DEQ data becomes available.

State Carbon Legislation and Power Markets Landscape

This past session, Oregon was not successful in its attempt to pass its version of Carbon Cap-and-Trade; HB 2020. However, throughout the NW states and provinces, multiple Carbon Pricing or Clean Energy Policies exist or are currently under development. As these efforts continue to evolve, there is a risk that carbon policies may not be regionally linked, or may differ in design such that multiple differentiated "carbon zones" may develop, potentially with disparate carbon prices. Lack of consistency between policies thwarts accurate GHG accounting, and prevents consistent pricing of the clean attributes of EWEB's generation portfolio.

These issues may create challenges to a successful marriage of carbon accounting and organized markets/regionalization in the electric sector, and complicate efforts to eliminate or reduce the issue of "secondary dispatch" we currently see in California's organized market. The forward march of regional carbon pricing will improve the prospects of a successful integration of carbon reduction goals and the least cost dispatch of the Energy Imbalance Market (EIM), but equally important will be regionally consistent state policies.

EWEB staff will continue to make the case to our regional stakeholders, as well as in Salem, for the benefits of regional consistency, as well as reach out and dialogue with other regional utilities on the value of same.

Energy and Water Conservation and Efficiency

EWEB has an annual budget of approximately $2.5 million for energy and water conservation and efficiency projects. In Q1 EWEB increased limited income incentives for weatherization in rentals to match that for owner-occupied. EWEB made moderate increases to non-limited income heat pump and heat pump water heater incentives in Q2. Staff continues to evaluate and adjust incentives in order to provide the best overall value for EWEB and its customers.

EWEB continues to work to make doing business with EWEB easier for our customers. Staff is in the process of updating and simplifying web pages, forms and applications for customer programs, and in Q2 six programs were added to the online application, so customers may apply for these programs directly on our web site.

BPA energy efficiency program reimbursements are reported quarterly. At the close of Q2, EWEB completed just over $1 million in reimbursement requests. The remaining $1.4 million reimbursement available in 2019 is expected to be applied for and received in Q3. In addition, BPA has made available to utilities a total of just over $1.0 million in unassigned account funds. Staff has requested EWEB's share of these funds to submit for conservation projects many of which were planned in the existing budget. EWEB's share should be finalized in August.

Through Q2 of 2019, EWEB annual energy savings, including peak, are on pace to meet established goals, while under budget. Year to date, residential savings acquired in Limited Income households are ahead of the 2019 target, and 13% of

residential savings were in rentals. Year-to-date, EWEB has achieved 29% of the carbon emissions reduction target, however this does not include most EVs purchased in Eugene, which have not yet been reported by DEQ. Updates will be provided as DEQ data becomes available.

In partnership with the University of Oregon interns, 112 Home Energy Scores in rental homes were completed in Q2, for a year-to-date total of 141. This result is consistent with previous years, when an average of 150 homes were completed.

In order to align EWEB's Limited Income Energy Efficiency Education program with its strategic plan, a program re-design was completed during Q1, resulting in delayed program implementation. To close the existing gap to meet EWEB's goal of 500 audits, additional promotion was successful in increasing participation resulting in a sharp increase from Q1. To reach additional customers, staff are actively pursuing opportunities to complete groups of Home Efficiency Audits in housing communities operated by agencies such as Homes for Good and St. Vincent de Paul.

| | Q1 | Q2 | YTD | Annual Target | % YTD |
|---|---|---|---|---|---|
| Energy Savings, MWh | 1,816 | 2,106 | 3,923 | 9,500 | 41% |
| Peak Savings, MW | 0.4 | 0.6 | 1.0 | 1.20 | 83% |
| Limited Income MWH | 89 | 98 | 187 | | |
| % of Residential MWh | 26% | 19% | 22% | 17% | |
| BPA reimbursements | $1,006,927 | In Process | | $2,420,688 | 42% |
| BPA reimbursed MWh | 1,884 | In Process | | | |
| Home Energy Scores | 29 | 112 | 141 | Up to 240 | |
| LI Energy Ed Visits | 26 | 98 | 124 | 500 | 25% |
| Carbon Reduction, $MTCO_2e$* | 1,132 | 1,294 | 2,426 | 7,500 | 32% |

*Does not include carbon emissions reduction from EVs (except those that a EWEB rebate) as these have not yet been reported from DEQ.

Smart Electrification and Carbon Mitigation

Current and future electrification and energy efficiency programs continue to be evaluated in a comprehensive approach that addresses regional impacts of carbon emissions, coincidental 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 while maximizing benefits. These efforts are under the umbrella of "Smart Electrification."

Customer Solutions staff developed a program portfolio that comprises dozens of value-added efficiency, conservation, technical and financial support products and services managed by the Customer Solutions team. Some of these are long-standing with a broad reach across our customer base, such as weatherization programs, while others support new initiatives with a more targeted audience, like transportation electrification related rebates.

- Staff participated and was involved in several local and regional efforts on energy efficiency and transportation electrification, including: Meetings with City of Eugene for continued discussion on the city's future transportation electrification strategy.
- Roadmap 12 Conference on transportation electrification. Topics include vehicle to grid, dealership engagement, approaches to EV charging, heavy duty vehicle electrification and access to EV technologies for limited income customers.
- Annual meeting with Pacific Northwest and California utilities on transportation electrification strategies.
- Utility meeting with heat pump water heater manufactures to support universal communication port adoption (CTA2045). This port has the potential to become the standard for communications with various electronics, providing a universal and simpler methodology for future demand response efforts for utilities.

- RTF Policy Advisory Committee meeting on funding proposal for gas companies for RTF to include gas efficiency measures to its scope of work. The RTF is technical advisory committee to the Northwest Power and Conservation Council established in 1999 to develop standards to verify and evaluate energy efficiency savings.
- Meeting with other local utilities for Instant rebate approach for heat pump water heaters.

Staff continues to work on the development of effective programs and incentives to support smart electrification through energy efficiency and transportation electrification that align with EWEB's strategic direction. Programs and efforts include:

- EWEB partnered with Electric car Guest Drive (ECGD), the City of Eugene and Emerald People Utility District to host a Ride and Drive event on June 22nd. The event provided 171 (goal was 125) attendees access to 12 electric vehicles and 367 test drives. ECGD will provide ongoing follow-up to each driver during their EV purchase journey. Historically, about 30% of attendees purchase or lease EV's after participating in an ECGD event. The purchase of new EV's will generate additional Clean Fuel credits to support transportation electrification efforts.
- A new $500 Residential Level 2 charging rebate program with an education component about off-peak charging will be rolled out in Q3. This program will help customers install Level 2 charging equipment in their homes. Charging is new behavior that the Utility can influence by informing customers of the benefits of charging when clean energy is available. Ongoing education will be provided to participants.
- A new $1,000 Commercial Level 2 charging rebate program will be rolled out in Q3. Public and at-work chargers can help with off-peak charging and increase the adoption of electric vehicles. Public EV chargers also adds benefits to EV owners in multi-dwelling units with easier access to charging.
- Nissan MSRP markdown for EWEB customers continues and has been renewed. $3,500 for 2019 LEAF and $2,500 for LEAF Plus. These markdowns are funded by Nissan.
- Staff is finalizing a simpler approach for commercial customers to access energy efficient variable refrigerant flow (VRF) systems (a large scale and versatile ductless HVAC system that performs at high capacity) through EWEB's VRF program. The program's incentives structure is designed as $/square foot, making it simpler for customers and contractors and for internal staff. Through an EWEB-driven agreed method with Bonneville Power Administration, the initial complexity of the process (hourly load simulation for new construction projects and statistical load modeling for existing buildings) has been reduced saving staff up to 80 hours per project.
- EWEB is exploring partnering with EPUD, Lane Electric and possibly SUB to provide instant rebates on heat pump water heaters (HPWH) for contractors. This unified approach would make it simpler for utilities and contractors to offer heat pump water heaters to customers. HPWH reduce customer's energy consumption and help address peak issues.
- A pilot generator loan program was implemented to assist customer's resiliency efforts. To date, 34 customers have participated.

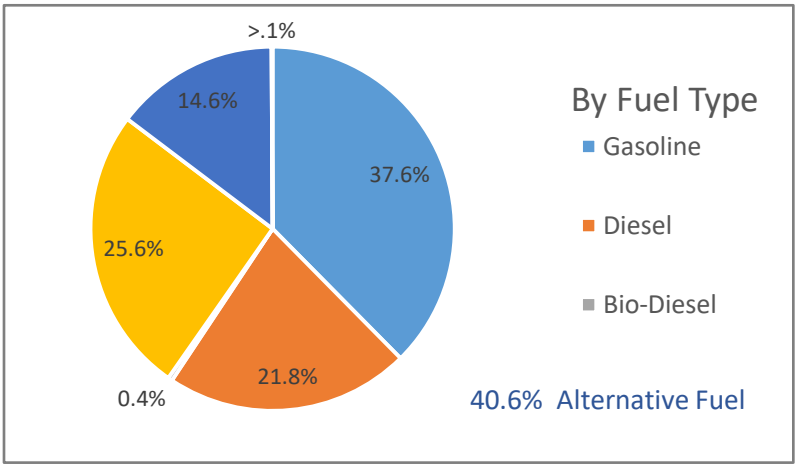
Fleet Service – Sustainability Goals

As the Utility continues to be fundamentally responsible for supporting a sustainable fleet operation, EWEB's Fleet Services continues to track our fleet-related sustainability goals that the Utility introduced back in 2010 by reducing our fossil fuel usage, carbon emissions and environmental waste.

Year To Date - 2019, Fleet Services continues to blend higher levels of low carbon, alternative fuels such as ethanol, biodiesel, and hydrogenation-derived renewable diesel in the transportation fuels that we use in support of those goals.

Over the last 6 months, we continue to experience a noticeable increase in demand for low-carbon intensity (CI) fuels as Oregon's Department of Environmental Quality, Clean Fuels Program continues to mature. In June, we experienced the average volume-weighted average price of a CFP credit in June, at $158.95. This is up 55% of what the CFP credits were going for in December of 2018. With this shift in credit values, the demand for those Lower CI fuels has increased both in volume and pricing.

The following chart demonstrates the diversity of different types of fuels in our fleet.



## 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

# Appendices

Appendix A: Electric Utility Financial Statement
Appendix B: Water Utility Financial Statement
Appendix C: Electric Utility and Shared Services EL-1 Report
Appendix D: Water Utility EL-1 Report
Appendix E: Contracts Awarded Report
Appendix F: Community Investment Report (EL-3)

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

[Return to Table of Contents]

**APPENDIX A**

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

(In millions)

| | Six Months Ended June 30, | | YTD Budget Comparison | |
|---|---|---|---|---|
| | 2019 | 2018 | Budget $ | Variance |
| Operating revenues | $ 137.5 | $ 131.9 | $ 115.1 | $ 22.4 |
| Operating expenses | 135.3 | 118.6 | 107.5 | (27.8) |
| Net operating income (loss) | 2.2 | 13.3 | 7.6 | (5.4) |
| Non-operating revenues | 4.1 | 3.4 | 4.0 | 0.1 |
| Non-operating expenses | 3.7 | 6.7 | 4.3 | 0.6 |
| Income before capital contributions | 2.6 | 10.0 | 7.3 | (4.7) |
| Capital contributions | 2.9 | 3.8 | 1.3 | 1.6 |
| Increase/(Decrease) in net position | $ 5.5 | $ 13.8 | $ 8.6 | $ (3.1) |

## ELECTRIC CONDENSED STATEMENT OF NET POSITION (Unaudited)

(In millions)

| | June 30, | | December 31, |
|---|---|---|---|
| | 2019 | 2018 | 2018 |
| Current assets | $ 213.6 | $ 250.2 | $ 170.4 |
| Net utility plant | 390.1 | 356.5 | 367.8 |
| Other assets | 80.8 | 99.0 | 150.4 |
| Total assets | 684.5 | 705.7 | 688.6 |
| Deferred outflows of resources | 44.7 | 46.0 | 45.5 |
| Total assets and deferred outflows | $ 729.2 | $ 751.7 | $ 734.1 |
| Current liabilities | $ 32.5 | $ 31.6 | $ 41.1 |
| Long-term debt | 199.8 | 210.4 | 200.8 |
| Other liabilities | 93.9 | 91.2 | 94.3 |
| Total liabilities | 326.2 | 333.2 | 336.2 |
| Deferred inflows of resources | 11.4 | 8.6 | 11.8 |
| Total net position | 391.6 | 409.9 | 386.1 |
| Total liabilities, deferred inflows, and net position | $ 729.2 | $ 751.7 | $ 734.1 |

## ELECTRIC CONDENSED CAPITAL BUDGET COMPARISON (Unaudited)

(In millions)

| | YTD | Annual Working Budget | |
|---|---|---|---|
| | 6/30/2019 | Budget $ | % of Budget |
| Type 1 - General capital | $ 5.0 | $ 11.6 | 43.1% |
| Type 2 - Rehabilitation and expansion | 6.4 | 10.7 | 59.8% |
| Type 3 - Strategic projects | 2.9 | 15.0 | 19.3% |
| Total capital | $ 14.3 | $ 37.3 | 38.3% |

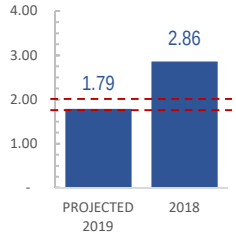
## FINANCIAL STRENGTH MEASUREMENTS

Target line

### Debt service coverage

Target: 1.75 to 2.0x

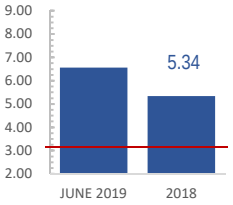
Measures the utility's ability to meet its annual long-term debt obligation.




### Current ratio

Target: Minimum of 3.250x

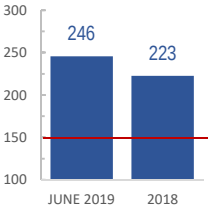
Measures the utility's short-term liquidity (ability to pay bills).




### Working capital days cash

Target: Greater than 150 days

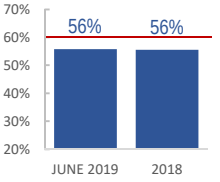
Estimates the number of days the utility can pay its daily O&M before running out of cash.




### Age of system

Target: Less than 60 percent

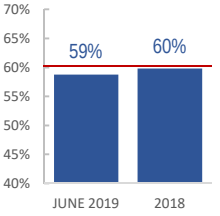
Measures age of system compared to how much has been depreciated.




### Debt as a % of NBV

Target: Less than or equal to 60 percent.

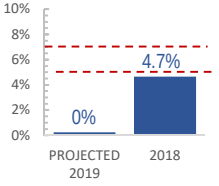
Measures overall leverage of the system by aligning debt service with the useful lives of assets.




### Rate of return

Target: 5 - 7%.

Measures the utility's ability to pay current and future infrastructure costs.



**APPENDIX B**

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

(In thousands)

| | Six Months Ended June 30, | | Budget Comparison | |
|---|---|---|---|---|
| | 2019 | 2018 | Budget $ | Variance |
| Operating revenues | $ 17,110 | $ 17,313 | $ 16,271 | $ 839 |
| Operating expenses | 12,393 | 11,559 | 13,427 | 1,034 |
| Net operating income (loss) | 4,717 | 5,754 | 2,844 | 1,873 |
| Non-operating revenues | 808 | 1,097 | 469 | 339 |
| Non-operating expenses | 1,188 | 1,148 | 1,079 | (109) |
| Income before capital contributions | 4,337 | 5,703 | 2,234 | 2,103 |
| Capital contributions | 2,713 | 1,955 | 810 | 1,903 |
| Increase/(Decrease) in net position | $ 7,050 | $ 7,658 | $ 3,044 | $ 4,006 |

## WATER CONDENSED STATEMENT OF NET POSITION (Unaudited)

(In millions)

| | June 30, | | December 31, |
|---|---|---|---|
| | 2019 | 2018 | 2018 |
| Current assets | $ 49.2 | $ 57.0 | $ 49.9 |
| Net utility plant | 181.4 | 168.7 | 175.6 |
| Other assets | 8.6 | 7.1 | 8.6 |
| Total assets | 239.2 | 232.8 | 234.1 |
| Deferred outflows of resources | 9.6 | 9.7 | 9.6 |
| Total assets and deferred outflows | $ 248.8 | $ 242.5 | $ 243.7 |
| Current liabilities | $ 5.1 | $ 4.7 | $ 6.6 |
| Long-term debt | 60.8 | 65.1 | 61.2 |
| Other liabilities | 20.7 | 19.8 | 20.7 |
| Total liabilities | 86.6 | 89.6 | 88.5 |
| Deferred inflows of resources | 2.5 | 1.9 | 2.5 |
| Total net position | 159.7 | 151.0 | 152.7 |
| Total liabilities, deferred inflows, and net position | $ 248.8 | $ 242.5 | $ 243.7 |

## WATER CONDENSED CAPITAL BUDGET COMPARISON (Unaudited)

(In thousands)

| | | Annual Working Budget | |
|---|---|---|---|
| | 6/30/2019 | Budget $ | % of Budget |
| Type 1 - General capital | $ 3,531 | $ 6,053 | 58.3% |
| Type 2 - Rehabilitation and expansion | 4,355 | 8,972 | 48.5% |
| Type 3 - Strategic projects | 249 | 412 | 60.5% |
| Total capital | $ 8,135 | $ 15,437 | 52.7% |

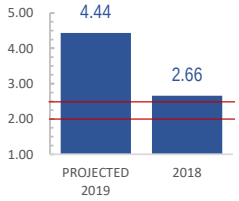
## FINANCIAL STRENGTH MEASUREMENTS

Target line

### Debt service coverage

Target: 2.0 - 2.50x

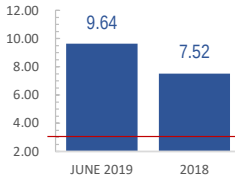
Measures the utility's ability to meet its annual long-term debt obligation.




### Current ratio

Target: Minimum of 3.25x

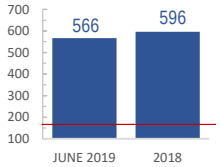
Measures the utility's short-term liquidity (ability to pay bills).




### Working capital days cash

Target: Greater than 150 days

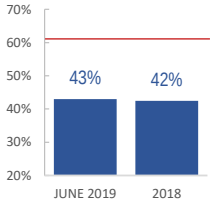
Estimates the number of days the utility can pay its daily O&M before running out of cash.




### Age of system

Target: Less than 60 percent

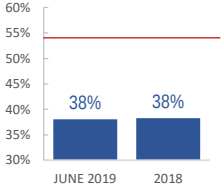
Measures age of system compared to how much has been depreciated.




### Debt as a % of NBV

Target: Less than or equal to 60 percent.

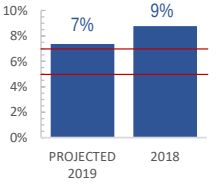
Measures overall leverage of the system by aligning debt service with the useful lives of assets.




### Rate of return

Target: 5 - 7%.

Measures the utility's ability to pay current and future infrastructure costs.



# EUGENE WATER & ELECTRIC BOARD
# ELECTRIC UTILITY EL-1 CAPITAL REPORT
## Q2 2019

| | ANNUAL BUDGET | | YEAR-TO-DATE | % OF | YEAR-END |
|---|---|---|---|---|---|
| | APPROVED | WORKING | ACTUAL | BUDGET | PROJECTION |
| **TYPE 1 - GENERAL CAPITAL** | | | | | |
| Generation Infrastructure | $ 1,657,000 | $ 1,657,000 | $ 991,300 | 60% | $ 2,300,000 |
| Substation Infrastructure | 2,000,000 | 2,000,000 | 1,002,500 | 50% | 3,300,000 |
| Transmission & Distribution Infrastructure | 6,700,000 | 6,500,000 | 3,643,600 | 56% | 8,113,000 |
| Telecommunications | 379,000 | 379,000 | 114,200 | 30% | 857,000 |
| Information Technology | 954,000 | 500,400 | 44,300 | 9% | 474,000 |
| Buildings, Land, & Fleet | 545,000 | 545,000 | 75,700 | 14% | 506,000 |
| **TOTAL TYPE 1 PROJECTS** | **$ 12,235,000** | **$ 11,581,400** | **$ 5,871,600** | **51%** | **$ 15,550,000** |
| **TYPE 2 - REHABILITATION & EXPANSION PROJECTS** | | | | | |
| Downtown Network | $ 800,000 | $ 1,000,000 | $ 459,200 | 46% | $ 1,000,000 |
| Consolidation of Operations | 750,000 | 750,000 | 1,425,500 | 190% | 2,432,000 |
| Electric T&D - Master Plan | - | - | 11,200 | 0% | 573,000 |
| Grid Edge Demonstration Project | - | - | 50,800 | 0% | 200,000 |
| Distribution Resiliency Upgrades | 1,354,000 | 1,181,000 | 59,500 | 5% | 708,600 |
| Upriver Reconfiguration/Holden Creek | 600,000 | 600,000 | 776,400 | 129% | 2,333,000 |
| Electric Meter Upgrade | 4,565,000 | 4,565,000 | 2,479,600 | 54% | 4,490,000 |
| Telecommunications | 300,000 | 300,000 | 207,600 | 69% | 300,000 |
| Information Technology | 1,690,000 | 2,143,600 | 44,500 | 2% | 1,232,000 |
| Hayden-Bridge Lab & Backup Services Building | - | 173,000 | - | 0% | 141,000 |
| **TOTAL TYPE 2 PROJECTS** | **$ 10,059,000** | **$ 10,712,600** | **$ 5,514,300** | **51%** | **$ 13,409,600** |
| **TYPE 3 - STRATEGIC PROJECTS & PROGRAMS** | | | | | |
| **Carmen-Smith Relicensing** | **$ 14,980,000** | **$ 14,980,000** | **$ 2,929,200** | **20%** | **$ 12,000,000** |
| **TOTAL ELECTRIC CAPITAL PROJECTS** | **$ 37,274,000** | **$ 37,274,000** | **$ 14,315,100** | **38%** | **$ 40,959,600** |

*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, and typically involves dozens of individual projects 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 and are typically bond-funded.*

## EUGENE WATER & ELECTRIC BOARD
## WATER UTILITY EL-1 CAPITAL REPORT
**Q2 2019**

| | ANNUAL BUDGET | | YEAR-TO-DATE | % OF | YEAR-END |
|---|---|---|---|---|---|
| | APPROVED | WORKING | ACTUAL | BUDGET | PROJECTION |
| **TYPE 1 - GENERAL CAPITAL** | | | | | |
| Source - Water Intakes & Filtration Plant | $ 216,000 | $ 216,300 | $ 543,000 | 251% | $ 640,000 |
| Distribution & Pipe Services | 4,214,000 | 4,212,701 | 2,934,000 | 70% | 6,080,000 |
| Distribution Facilities | 999,000 | 999,100 | 144,400 | 14% | 405,000 |
| Information Technology | 146,000 | 32,601 | 1,600 | 5% | 26,000 |
| Buildings, Land, & Fleet | 592,000 | 592,201 | 138,100 | 23% | 142,000 |
| **TOTAL TYPE 1 PROJECTS** | **$ 6,167,000** | **$ 6,052,903** | **$ 3,761,100** | **62%** | **$ 7,293,000** |
| **TYPE 2 - REHABILITATION & EXPANSION PROJECTS** | | | | | |
| Hayden Bridge Disinfection System Replacement | $ 1,493,000 | $ 1,493,499 | $ 1,846,800 | 124% | $ 2,750,000 |
| Hayden-Bridge Lab & Backup Services Building | 309,000 | 309,000 | 189,700 | 61% | 300,000 |
| Hayden Bridge Standby Power Improvements | - | - | 3,600 | 0% | 3,600 |
| Elliot Reservoir No. 1 | 515,000 | 515,000 | 34,800 | 7% | 340,000 |
| Transmission Improvements | 103,000 | 103,000 | 700 | 1% | 1,000 |
| Water Meter Upgrade | 5,768,000 | 5,784,199 | 1,689,900 | 29% | 4,000,000 |
| Information Technology | 420,000 | 517,400 | 7,300 | 1% | 284,000 |
| Consolidation of Operations | 250,000 | 250,000 | 356,400 | 143% | 832,000 |
| **TOTAL TYPE 2 PROJECTS** | **$ 8,858,000** | **$ 8,972,099** | **$ 4,129,200** | **46%** | **$ 8,510,600** |
| **TYPE 3 - STRATEGIC PROJECTS & PROGRAMS** | | | | | |
| **Emergency Water Supply** | **$ 412,000** | **$ 412,000** | **$ 249,500** | **61%** | **$ 400,000** |
| **TOTAL WATER CAPITAL PROJECTS** | **$ 15,437,000** | **$ 15,437,002** | **$ 8,139,800** | **53%** | **$ 16,203,600** |

*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, and typically involves dozens of individual projects 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 and are typically bond-funded.*

**Quarterly Contract Report for Q2 2019** **APPENDIX E**

**Contracts between $40,000-$150,000**

| Contract Execution Date | Contractor | City, State | Description | Contract Amount | Contract Term | Contract Process | ET Manager |
|---|---|---|---|---|---|---|---|
| 4/24/2019 | Ausland Group | Grants Pass, OR | Carmen Diversion Tunnel Bulkhead Redesign | $ 49,890 | 12/31/2019 | QBS* | Susan Ackerman |
| 6/6/2019 | BC Fabrication | Junction City, OR | Emergency Water Station Fabrication Services | $ 49,000 | 6/5/2022 | Informal ITB | Rod Price |
| 4/25/2019 | Cascade Pacific Resource Conservation & Development | Corvallis, OR | 2019 Assistance Activities for the Pure Water Partners program | $ 55,000 | 3/24/2020 | Direct Negotiation | Rod Price |
| 4/8/2019 | Cascade Utilities, Inc. (Reliance Connects) | Estacada, OR | Fiber Connection | $ 40,203 | 4/30/2038 | Direct Negotiation | Susan Ackerman |
| 5/21/2019 | Cornforth | Eugene, OR | Geotechnical On-call Services | $ 90,000 | 4/30/2022 | Direct Negotiation | Susan Ackerman |
| 4/25/2019 | Kleinschmidt Associates | Portland, OR | Leaburg Canal Modeling | $ 62,500 | 10/31/2019 | QBS* | Susan Ackerman |
| 4/10/2019 | Legacy Contracting Inc | Stayton, OR | Hurd Bridge Improvements | $ 98,986 | One-time | Formal ITB | Susan Ackerman |
| 4/30/2019 | Open Systems International | Medina, MN | Monarch Software Upgrade Implementation | $ 104,500 | 5/31/2020 | Direct Negotiation | Rod Price |
| 6/26/2019 | RMG Financial | Colbert, WA | Credit Analysis of Power Trading Counterparties | $ 50,000 | 5/31/2024 | Direct Negotiation | Susan Ackerman |
| 5/13/2019 | SEL Engineering Services | Pullman, WA | Power Protection Consulting | $ 75,000 | 12/31/2020 | QBS* | Rod Price |
| 5/21/2019 | Stillwater Sciences | Berkley, CA | Carmen-Smith License Review | $ 45,000 | 12/31/2020 | Direct Negotiation | Susan Ackerman |
| 5/8/2019 | Telvent USA | Ft Collins, CO | Software Extended Support and Maintenance Services | $ 46,300 | 4/30/2020 | Direct Negotiation | Matt Barton |
| | | | | | | | |

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.

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

## Community Investment through Q2 2019

Total investment year to date - $8,329,314 (not including Energy Efficiency loans, Water Truck deployments, or volunteer/ambassador efforts and events)

**APPENDIX F**

Community Investment Program guidelines are in place to ensure consistency and transparency for how we invest our customers' dollars for the betterment and well-being of the community we serve. Requests that provide strong alignment between EWEB's discretionary community investment criteria and the Strategic Plan are vetted through the General Manager's office for consideration. Sponsorship dollars are focused on initiatives that are both closely connected to EWEB's core mission and provide the broadest benefit to our customers.

### Sponsorships, Donations, Grants

| | AGENCY | EVENT/DESCRIPTION | PAYMENT DATE | EVENT DATE | AMOUNT | INVESTMENT AREA | CATEGORY | NOTES |
|---|---|---|---|---|---|---|---|---|
| Q2 | St. Vincent de Paul | Dusk-to-Dawn Site on Hwy 99 | 06/01/19 | N/A | $20,000 | PEOPLE: Safety Net | Discretionary | Grant issued in beginning of June; work to be complete the week of 07/08/19. |
| | The Eugene Science Center | 2018 Greenpower grant winner - will receive up to $50,000 | 05/17/19 | N/A | $7,045 | ENVIRONMENTAL: Greenpower | Customer Voluntary | Installation of 32.5-kilowatt photovoltaic array project - Third installment payment. Total year-to-date = $36,910. Subsequent installments will be made as project progresses. |
| | BRING | BRING Home & Garden Tour | 05/08/19 | 09/08/19 | $6,000 | ENVIRONMENTAL: Energy Efficiency/Renewable | Discretionary | EWEB is once again a sponsor for this community event aimed at showcasing adaptable, resiliency, energy/water efficient living. Event will also include an EV test drive event. EWEB staff educate and recruit energy efficiency and conservation opportunities. |
| | The Pearl Buck Center | 2018 Greenpower grant winner | 04/09/19 | N/A | $25,000 | ENVIRONMENTAL: Greenpower | 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. Second and final installment payment. Total $50,000 awarded. |
| | | | | **Q2 SUBTOTAL** | **$58,045** | | | |
| Q1 | Lane County Fair | Co-Sponsorship of Comfort Station Water Booth | 03/21/19 | 07/24-07/28 | $810 | ENVIRONMENTAL: Water Quality/Reliability | Discretionary | Booth Fee / Use of EWEB drinking water fountain w/chiller. |
| | Eugene 4J School District | 22nd Annual EWEB Solar Challenge | 03/12/19 | 06/01/19 | $19,550 | ENVIRONMENTAL: Greenpower | Customer Voluntary | |
| | Friends of Trees | 2018 Greenpower grant winner - $28,000 awarded | 02/21/19 | N/A | $7,000 | ENVIRONMENTAL: Greenpower | Customer Voluntary | West Eugene Living Roadways Project - Third and final installment payment. Total $28,000 awarded. |
| | The Eugene Science Center | 2018 Greenpower grant winner - will receive up to $50,000 | 02/21/19 | N/A | $4,865 | ENVIRONMENTAL: Greenpower | Customer Voluntary | Installation of 32.5-kilowatt photovoltaic array project - Second installment payment. Total year-to-date = $29,865. Subsequent installments will be made as project progresses. |
| | Friends of Trees | 2018 Greenpower grant winner - will receive up to $28,000 | 01/24/19 | N/A | $7,000 | ENVIRONMENTAL: Greenpower | 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 of $14,000 was made in Q4 2018. Second of three installment payments. |
| | Oregon Environmental Council | World Water Day 2019 | 01/17/19 | 03/22/19 | $500 | ENVIRONMENTAL: Water Quality/Reliability | Discretionary | |
| | Bethel School District | Jan-June 2019 Education Grant | 01/17/19 | N/A | $38,500 | ECONOMIC: Education | Board Directed | |
| | McKenzie School District | Jan-June 2019 Education Grant | 01/17/19 | N/A | $10,500 | ECONOMIC: Education | Board Directed | |
| | Springfield School District | Jan-June 2019 Education Grant | 01/17/19 | N/A | $23,500 | ECONOMIC: Education | Board Directed | |
| | Eugene 4J School District | Jan-June 2019 Education Grant | 01/17/19 | N/A | $123,500 | ECONOMIC: Education | Board Directed | |
| | The Pearl Buck Center | 2018 Greenpower grant winner - will receive up to $50,000 | 01/10/19 | N/A | $25,000 | ENVIRONMENTAL: Greenpower | 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. Subsequent installments will be made as project progresses. |
| | The Eugene Science Center | 2018 Greenpower grant winner - will receive up to $50,000 | 01/10/19 | N/A | $25,000 | ENVIRONMENTAL: Greenpower | 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. Subsequent installments will be made as project progresses. |
| | | | | **Q1 SUBTOTAL** | **$285,725** | | | |
| | | | | **YTD TOTAL** | **$343,770** | | | |

### Customer Solutions Products and Services

| AGENCY | EVENT/DESCRIPTION | PAYMENT DATE | EVENT DATE | AMOUNT | INVESTMENT AREA | CATEGORY | NOTES |
|---|---|---|---|---|---|---|---|
| EWEB Energy Efficiency Programs | Energy Efficiency Incentives - Residential | YTD | N/A | $372,000 | ENVIRONMENTAL: Energy Efficiency/Renewable | Discretionary | 720 residential customers took advantage of energy efficiency incentives (30% limited income and 20% non-limited income) |
| EWEB Energy Efficiency Programs | Energy Efficiency Incentives - Non-residential | YTD | N/A | $374,000 | ENVIRONMENTAL: Energy Efficiency/Renewable | Discretionary | 71 non-residential customers took advantage of energy efficiency incentives. 99% of non-residential incentives were for lighting projects with the remaining for HVAC and weatherization. Non-residential customers include businesses, schools, city and county facilities, hospitals, etc. |
| EWEB Energy Efficiency Programs | Electric Vehicle (EV) Clean Ride Rebate Program | YTD | N/A | $32,700 | ENVIRONMENTAL: Energy Efficiency/Renewable | Discretionary | 108 qualifying electric vehicle received a rebate through the Clean Ride Rebate Program. |
| EWEB Greenpower Program | Solar Electric Incentives | YTD | N/A | $45,385 | ENVIRONMENTAL: Energy Efficiency/Renewable | Customer Voluntary | 23 residential and 1 non-residential(Eugene Waldorf School) net-metered projects received incentives funded by the Greenpower Program. |
| EWEB Water Conservation Programs | Hand Valve and Toilet Rebates, Septic Maintenance Incentives | YTD | N/A | $10,000 | ENVIRONMENTAL: Water Quality/Reliability | Discretionary | 57 customers received hand valve rebates, 14 toilet rebates and 18 septic maintenance program. |
| | | | **YTD TOTAL** | **$834,085** | | | |
| EWEB Customer Care Program | Limited Income Energy Assistance | YTD | N/A | $412,000 | PEOPLE: Safety Net | Board Directed | The EWEB Customer Care (ECC) program credited a total of $412,000 YTD to 2,007 customer accounts. EWEB also credited federal LIHEAP funds to 1,069 accounts. 2,596 customers were served through these programs - many customers participated in both. |
| EWEB Water Conservation Programs | Water Line Repair Grants (Income eligible) | YTD | N/A | $9,000 | ENVIRONMENTAL: Water Quality/Reliability | Discretionary | 5 customers received water line repair grants. |
| | | | **YTD TOTAL** | **$421,000** | | | |
| EWEB Energy Efficiency Programs | Energy Efficiency Loans - Residential | YTD | N/A | $785,573 | ENVIRONMENTAL: Energy Efficiency/Renewable | Discretionary | 135 residential customers took advantage of energy efficiency loan programs. (No non-residential loans were issued.) |
| EWEB Water Conservation Programs | Water Line Repair & Septic Repair/Replacement Loans | YTD | N/A | $33,584 | ENVIRONMENTAL: Water Quality/Reliability | Discretionary | EWEB continues to monitor and detect continuous flow through AMI data and makes approximately 10 customer contacts per week to advise of leaks. 7 customers received water line repair loans, 1 customer received a septic repair/replacement loan. |
| | | | **YTD TOTAL** | **$819,157** | | | |

### Contributions in Lieu of Taxes (CILT)

| AGENCY | EVENT/DESCRIPTION | PAYMENT DATE | EVENT DATE | AMOUNT | INVESTMENT AREA | CATEGORY | NOTES |
|---|---|---|---|---|---|---|---|
| City of Eugene | Contribution in lieu of taxes (CILT) | Q2 | N/A | $2,915,458 | Required | Mandated | |
| City of Springfield | Contribution in lieu of taxes (CILT) | Q2 | N/A | $132,289 | Required | Mandated | |
| | | | **Q2 SUBTOTAL** | **$3,047,747** | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| City of Eugene | Contribution in lieu of taxes (CILT) | Q1 | N/A | $3,534,618 | Required | Mandated | |
| City of Springfield | Contribution in lieu of taxes (CILT) | Q1 | N/A | $148,094 | Required | Mandated | |
| | | | **Q1 SUBTOTAL** | **$3,682,712** | | | |
| | | | **YTD TOTAL** | **$6,730,459** | | | |

## EWEB Ambassador Efforts and Events (Paid)

| | AGENCY | EVENT/DESCRIPTION | PAYMENT DATE | EVENT DATE | AMOUNT | INVESTMENT AREA | CATEGORY | NOTES |
|---|---|---|---|---|---|---|---|---|
| Q2 | Cascade to Coast Subsection of PNWS-AWWA | Emergency Preparedness Workshop | N/A | 05/23/19 | N/A | PEOPLE: Emergency Preparedness | N/A | Staff members presented emergency preparedness topics to approximately 30 attendees from around the state. 7 hours of continuing education units were earned by attendees. |
| | City of Eugene | Public Safety Forum in Spanish | N/A | 05/21/19 | N/A | PEOPLE: Emergency Preparedness | N/A | Staff participated in the Community Public Safety Forum presenting emergency preparedness and safety material in Spanish. Safety themed goodie bags and opportunities to engage with bilingual staff were provided. |
| | Oregon Tradeswomen | Oregon Tradeswomen's 2019 Career Fair | N/A | 05/16/19 | N/A | ECONOMIC: Education | N/A | Oregon Tradeswomen promotes success for women in the trades through education, leadership and mentorship. Staff showcased EWEB and the work we do to over 1,100 students attending the career fair. |
| | The Pearl Buck Center Vocational Academy | HQ (05/15/19) and ROC Facility Tours (07/26/19) | N/A | 05/15/19 | N/A | PEOPLE: Diversity | N/A | Staff provided a tour of Headquarters and information about EWEB, what we do in and for our community, and the volunteer and job opportunities we offer, to the students of the Pearl Buck Vocational Academy. |
| | Willamette High School | Career and College Knowledge Night | N/A | 05/15/19 | N/A | ECONOMIC: Education | N/A | Represented EWEB and shared knowledge and enthusiasm with students and families as students explore potential career paths. |
| | EWEB | Howard Elementary - Emergency Water Station Grand Opening | N/A | 05/11/19 | N/A | PEOPLE: Emergency Preparedness | N/A | Ribbon-cutting event for the 2nd of at least 5 emergency water stations that will supply water in case of natural disaster or other emergency. Emergency preparation information and emergency water storage containers provided. 250+ containers provided to customers = approx. $2500. |
| | Eugene Marathon | Eugene Marathon | N/A | 04/27-04/28 | N/A | ENVIRONMENTAL: Water Quality/Reliability | N/A | Staff provided & promoted EWEB tap water at finish line (reusable bottles). |
| | Bethel School District | KidWind Challenge | N/A | 04/24/19 | N/A | ENVIRONMENTAL: Energy Efficiency/Renewable | N/A | Students from area middle-schools bring wind turbines that they have designed, to compete against their peers. Staff volunteers interview students, help with wind tunnel testing, or supervise energy-centered games to promote Clean Energy Education. |
| | Crow High School | Mock Interview Experience | N/A | 04/05/19 | N/A | ECONOMIC: Education | N/A | |
| | Climate Town Hall Planning Team - Various Agencies | 2nd Climate Town Hall | N/A | 04/11/19 | N/A | ENVIRONMENTAL: Energy Efficiency/Renewable | N/A | Passenger Vehicle Electrification presentation and discussion. |
| | South Hills Neighborhood Association | Meeting | N/A | 04/07/19 | N/A | PEOPLE: Emergency Preparedness | N/A | Presented and promoted Pledge to Prepare. |
| | Newcomers Club | Meeting | N/A | 04/04/19 | N/A | PEOPLE: Emergency Preparedness | N/A | Presented and promoted Pledge to Prepare. |
| | American Red Cross Cascades Region & Community Partners | Prepare Out Loud @ South Eugene HS | N/A | 04/04/19 | N/A | PEOPLE: Emergency Preparedness | N/A | Booth to promote Emergency Management/Resiliency Efforts. |
| Q1 | 350 Eugene | Home Energy Solutions | N/A | 03/21/19 | N/A | ENVIRONMENTAL: Energy Efficiency/Renewable | N/A | EWEB Efficiency Programs presentation and promotion. |
| | P.E.O Oregon | Chapter Meeting | N/A | 02/11/19 | N/A | PEOPLE: Emergency Preparedness | N/A | Presented and promoted Pledge to Prepare. |
| | GreenLane Sustainable Business Network | Luncheon | N/A | 02/06/19 | N/A | PEOPLE: Emergency Preparedness | N/A | Presented and promoted Pledge to Prepare. |
| | | Good Earth Home, Garden and Living Show | N/A | 01/18-01/20 | N/A | ENVIRONMENTAL: Energy Efficiency/Renewable | N/A | Booth to promote EWEB Efficiency Programs. |

**EWEB Ambassadors have provided over 200 hours of educational and other services to the Community through Q2**

## Volunteer Efforts and Events (Unpaid)

| | AGENCY | EVENT/DESCRIPTION | PAYMENT DATE | EVENT DATE | AMOUNT | INVESTMENT AREA | CATEGORY | NOTES |
|---|---|---|---|---|---|---|---|---|
| Q2 | Bloodworks Northwest | Onsite Blood Drive | N/A | 04/23/19 | N/A | PEOPLE: Safety Net | N/A | |
| Q1 | Webelos Boy Scout Group | Presentation: Emergency Preparedness & EWEB Information | N/A | 01/30/19 | N/A | PEOPLE: Emergency Preparedness | N/A | 1 volunteer = 1.5 hrs. preparation and presentation |
| | Bloodworks Northwest | Onsite Blood Drive | N/A | 01/28/19 | N/A | PEOPLE: Safety Net | N/A | |
| | Friends of Trees | Beltline South Greenspace Planting | N/A | 01/12/19 | N/A | ENVIRONMENTAL: Energy Efficiency/Renewable | N/A | 3 volunteers = 9 hrs. |
| | Food for Lane County | FFLC Volunteer Night | N/A | Ongoing | N/A | PEOPLE: Safety Net | N/A | 31.5 volunteer hrs. ytd |

**EWEB employees, friends and families have volunteered over 40 hours through Q2**

## Water Truck Deployment

| AGENCY | EVENT/DESCRIPTION | PAYMENT DATE | EVENT DATE | AMOUNT | INVESTMENT AREA | CATEGORY | NOTES |
|---|---|---|---|---|---|---|---|
| Eugene Marathon | Eugene Marathon | N/A | 04/27-04/28 | Staff Time | ENVIRONMENTAL: Water Quality/Reliability | Discretionary | Provide and promote EWEB tap water at finish line (reusable bottles) |

## Upcoming and/or committed Sponsorships, Donations, Grants

| AGENCY | EVENT/DESCRIPTION | PAYMENT DATE | EVENT DATE | AMOUNT | INVESTMENT AREA | CATEGORY | NOTES |
|---|---|---|---|---|---|---|---|
| 350 Eugene (co-sponsorship with City of Eugene) | Carbon Free Challenge | | N/A | $5,000 | ENVIRONMENTAL: Energy Efficiency/Renewable | Discretionary | Grant to support 350 Eugene's efforts in launching the Eugene Carbon Free Challenge website. The website is designed to motivate individuals (and teams) to take specific actions to reduce personal carbon emissions using a challenge/competition format. |
| | | | **TOTAL** | **$5,000** | | | |