

STATE OF THE UTILITY - 2022

WAHKIAKUM PUD

Introduction

- ▶ 2022 was in many ways coming out of Covid
- ▶ Re-establishing a new “normal”
- ▶ Fresh new challenges from inflation to supply chain challenges that affect each customer and utility
- ▶ Expanded our data collection
- ▶ Recap 2022 and a look forward to 2023
- ▶ Thank you to the Commission for supporting the staff and work we do to serve the community
- ▶ Huge Thank You to all the Staff for help in preparing this Year in Review

Mission

**The Mission of Public Utility District No. 1 of Wahkiakum County
is to provide the most reliable electric and water service at the
most reasonable cost along with quality customer service to the
District's ratepayers**

&

Maintaining a Safe and Healthy Workplace is a Top Priority

PRESENTATION AREAS OF FOCUS

- ▶ Finance
- ▶ Power Supply/BPA
- ▶ Infrastructure
- ▶ Staff
- ▶ System Reliability Statistics
- ▶ Customers

FINANCE

- ▶ Cost Structure
- ▶ Financial Metrics
- ▶ Cash Reserve Policy
- ▶ 5-Year Capital Projects
- ▶ Risks

Cost Structure

Labor & Benefits = 37.9%

Cost of Power & Water = 37.6%

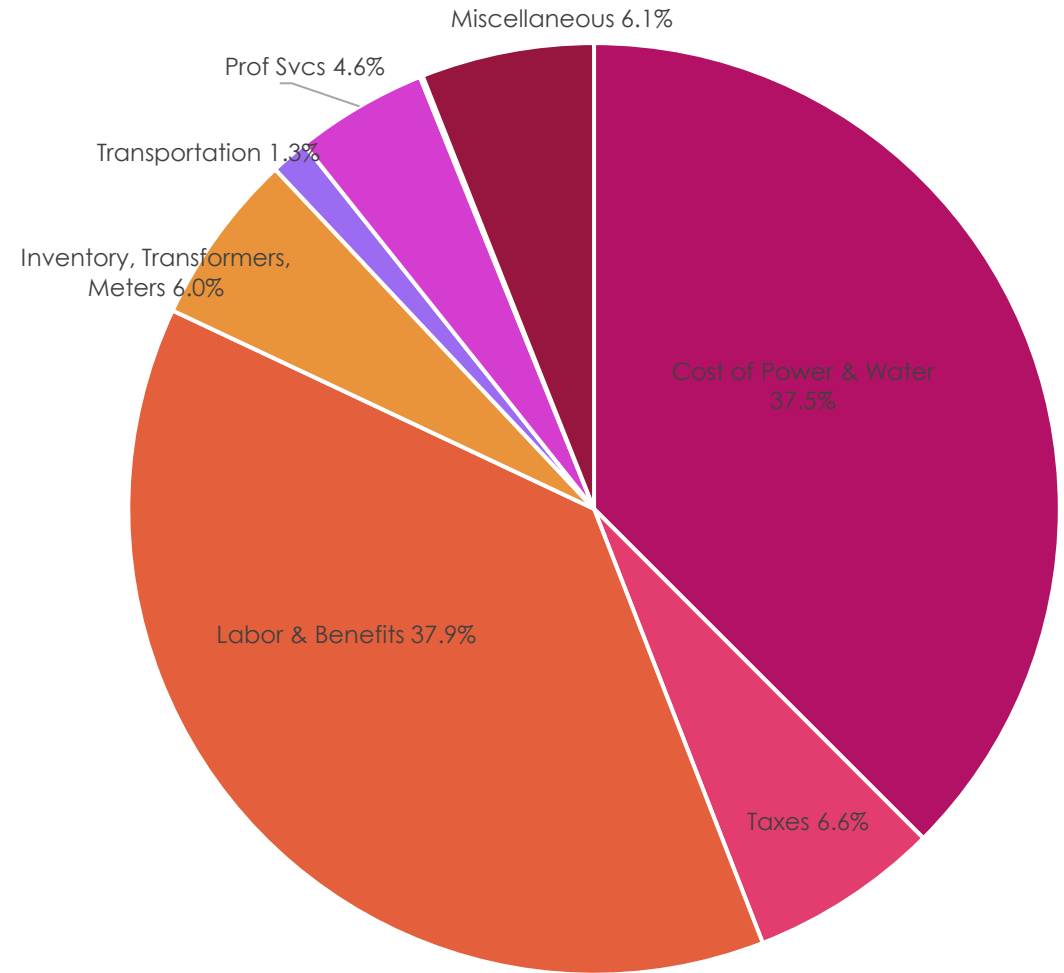
Taxes = 6.6%

Inventory, Transformers, Meters = 6.0%

Professional Services = 4.6%

Transportation = 1.3%

Miscellaneous = 6.1%



FINANCIAL METRICS

Net Power Supply Costs

- 2022 \$33.58 MWh Average (thru Nov)
- 2021 \$35.51 MWh Average
- 2020 \$35.42 MWh Average
- 2019 \$35.95 MWh Average

Completed Work Orders

2022

Electric

Customer = 93 PUD = 40

PIWS

Customer = 7 PUD = 0

WWWS

Customer = 11 PUD = 3

Customer Counts

2022

- Electric 2730 = 1.8% Growth
- Water 957 = .7% Growth

2021

- Electric 2683 = 2.5% Growth
- Water 950 = 1.9% Growth

2020

- Electric 2,616 = 1.9% Growth
- Water 932 = 3% Growth

Bad Debt Write-offs

The District's bad debt write-offs have historically been less than 1% of revenues.

5-Year Capital Plan and Cash Reserve Targets

- ▶ **We continue to work on a cash reserve methodology and formally develop a 5-Year Capital Plan**
- ▶ Proposed Electric Infrastructure
 - ▶ Pole Replacements from PT&T and aging reports
 - ▶ Underground Distribution Replacements (\$150K/mile per year)
 - ▶ Overhead to Underground Conductor Conversion for Wildfire Mitigation and improve inaccessible areas
- ▶ Proposed Cathlamet Substation Updates
 - ▶ Power Transformer
 - ▶ Substation Security
 - ▶ Metering Transformers
 - ▶ Insulator Replacement
 - ▶ Battery and Charger Replacement

5-Year Capital Plan and Cash Reserve Targets (cont'd)

- ▶ Proposed Water Systems Infrastructure
 - ▶ Water Main Replacements WWWS, SWS, PIWS
 - ▶ PIWS – Water Main Loop Project \$435,000 (60% grant funded)
 - ▶ PIWS – Emergency Water Source (possible partnership with Town of Cathlamet)
 - ▶ Phase 1: Acquire Property and Water Rights
 - ▶ Phase 2: Drill Well
 - ▶ Phase 3: Equip well and Treatment Infrastructure
 - ▶ WWWS – 4000' Water Main Replacement of 6" pipe with 8" HDPE (applied for grant funding)

5-Year Capital Plan and Cash Reserve Targets (cont'd)

▶ Facilities & Fleet

- ▶ Evaluate fleet and material storage
- ▶ Investigate additional asbestos abatements
- ▶ Improve facilities security
- ▶ Small Bucket Truck: 2023 Delivery
- ▶ Digger Derrick: Estimated 2026 – 2028 Delivery timeframe
- ▶ Water Service Truck
- ▶ Foreman Truck

5-Year Capital Plan and Cash Reserve Targets (cont.)

- ▶ Information Technology
 - ▶ Investigate AMR to AMI Meter Replacement Consideration at AMR End of Life
 - ▶ Computer Upgrades/Replacement (replace end of life equipment)
- ▶ Mapping
 - ▶ Multi-year Implementation
 - ▶ Interns to Assist With Mapping Inputs
- ▶ Accounting/Finance
 - ▶ Cost of Service Analysis
 - ▶ Clean Energy Transformation Act (CETA) Study and Implementation

RISKS – Financial and Operational

- ▶ Cost of Power/BPA (Next Slide)
- ▶ Secondary Source of Water for PIWS
- ▶ CETA Costs – Clean Energy and Carbon
- ▶ Tree Trimming/Wildfire Mitigation
- ▶ Cyber Security
- ▶ Succession Planning
- ▶ Inventory/Supply Chain
- ▶ Aging Assets, Facilities and Fleet

BPA - Opportunities

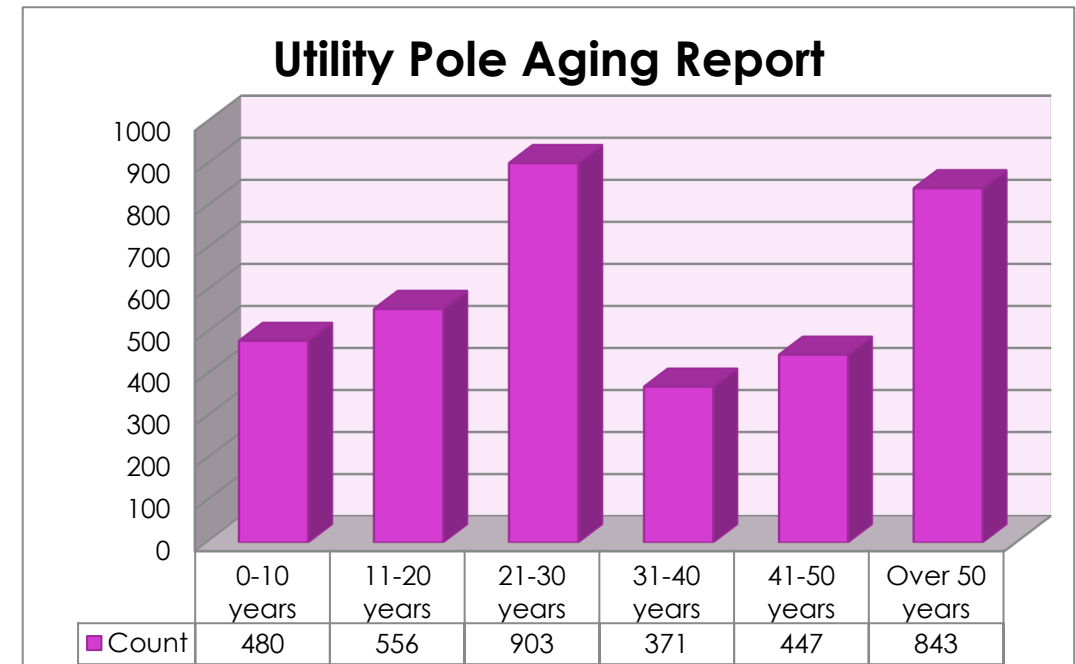
- ▶ In 2022, concept papers from PPC and BPA regarding Provider of Choice
 - ▶ This will establish the base policies for the actual 2028 BPA contract
- ▶ Discussing system size, allocation, high water marks
 - ▶ This is for maximizing the low-cost Tier 1 power. Utilities responsible for load growth – Tier 2
- ▶ Wahkiakum PUD is a full-requirements, load following customer.
 - ▶ BPA serves all of WPUD load. WPUD has no generation resources.
- ▶ Customers generally want low, stable, and certain rates
 - ▶ Some utilities have special interests such as self-funded conservation
- ▶ Other areas of concern
 - ▶ Electrification (load growth), AHW, Environmental attributes, LDD, Non-federal generation resource integration
- ▶ Shifting costs - Growth, flat, etc.
- ▶ Other BPA Costs – Program/Capital costs, Fish and Wildlife, etc.
- ▶ Contracts for 20 years
- ▶ Importance of being engaged. One voice – public power

INFRASTRUCTURE

- ▶ ELECTRIC
- ▶ WATER
- ▶ FACILITIES

Electric - POLES

- ▶ The PUD has 3600 poles
 - ▶ 23% are over 50 years old
 - ▶ 36% are over 40 years old
- ▶ The District's plan is to test poles on a 10-year cycle.
- ▶ Industry average is 40 year service life but extended with PT&T
- ▶ The District's goal is to replace at least 75 poles per year.



Electric - SUBSTATIONS

- ▶ The District has 3 electric substations
 - ▶ Cathlamet – 72 Years old
 - ▶ Wahkiakum – 10 years old
 - ▶ Grays River – 54 Years old (\$935,000 improvement completed in 2019)
- ▶ Cathlamet Substation should have the previous proposed listed upgrades within the next 5 years

INFRASTRUCTURE - Water Systems

▶ **Reservoirs**

- ▶ Malone Creek Reservoir: 44 Years Old
- ▶ Deep River Reservoir: 44 Years Old
- ▶ Salmon Creek Reservoir: 15 Years Old
- ▶ Skamokawa Water System Reservoir: 27 Years Old
- ▶ Industry service life of water reservoirs is 75 to 100 years
 - ▶ Reservoir inspections were completed in the fall of 2022 with no major deficiencies found

▶ **Meters**

- ▶ In 2019 the District completed a multi-year water meter replacement program and replaced all meters with an Automated Meter Reading system

▶ **Water Mains**

- ▶ Approximately 70 miles of water mains serving 950+ customers

INFRASTRUCTURE – Water System Major Projects

- ▶ Water infrastructure grants
 - ▶ Congressional Direct Spending (CDS) – 60% Assistance in the looping of radial fed water mains on Puget Island. This project is waiting for Congressional budget approval
 - ▶ Department of Health – Application for a 4,000-foot mainline replacement along SR 4 from the water treatment plant to Fairview Road.
- ▶ Continuing discussions on the PIWS emergency water source

TREE TRIMMING

- ▶ District crews spends an average of 1,895 hours each year trimming trees
- ▶ To increase reliability and reduce outages, reduce wildfire exposure, and mitigate potential future legislation, the District will budget \$100K per year on contracted vegetation management

FACILITIES

- ▶ Currently evaluating the facility in our long range plans
- ▶ Current and future projects
 - ▶ Commission room remodel/upgrade
 - ▶ Improve facilities security
 - ▶ Potential covered fleet and material storage

RELIABILITY STATISTICS

Electric System

- ▶ Based on IEEE Standard 1366 which is to facilitate uniformity in distribution service reliability indices and to aid in consistent reporting practices related to distribution systems, substations, circuits, and defined regions
- ▶ Reliability statistics are relevant to our utility (compare to ourselves)
- ▶ Outage tracking now allows us identify areas that are more greatly affected

Water System

- ▶ Loss Goals – Industry norm is 10%. Very rural is 20%
- ▶ Puget Island (PIWS) 6.83% annual avg
- ▶ Skamokawa (SWS) 37.06% annual avg*
- ▶ Western Wahkiakum (WWWS) 37% annual average

*Recent infrastructure improvements should greatly improve losses

Reliability (cont'd)

*SAIDI: "system average interruption duration index" - system wide average of length in minutes - average length of an outage among all district customers

*SAIFI: "system average interruption frequency index" - system wide average of frequency - average number of outages during the year among all district consumers

*CAIDI: "customer average interruption duration index" - specific only to customers affected - average length of time to restore the last customer affected by an outage

District Trends - Electric

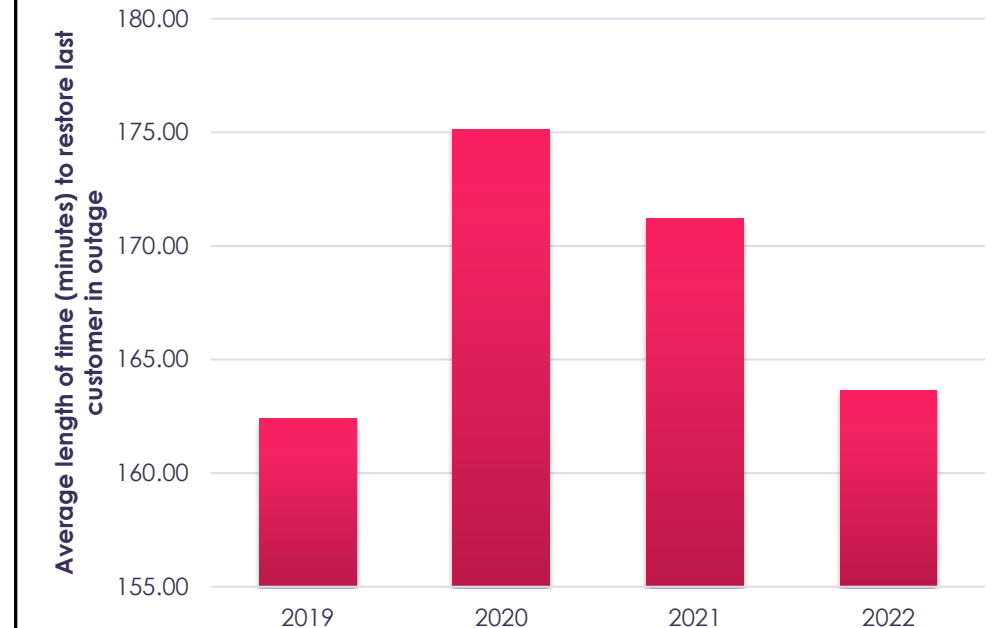
Year	Total Events	SAIDI* (minutes)	SAIFI* (interruptions)	CAIDI* (minutes)
2019	47	2.92	0.018	162.77
2020	38	2.57	0.015	177.24
2021	44	7.41	0.017	446.36
2022	60	4.70	0.022	213.93

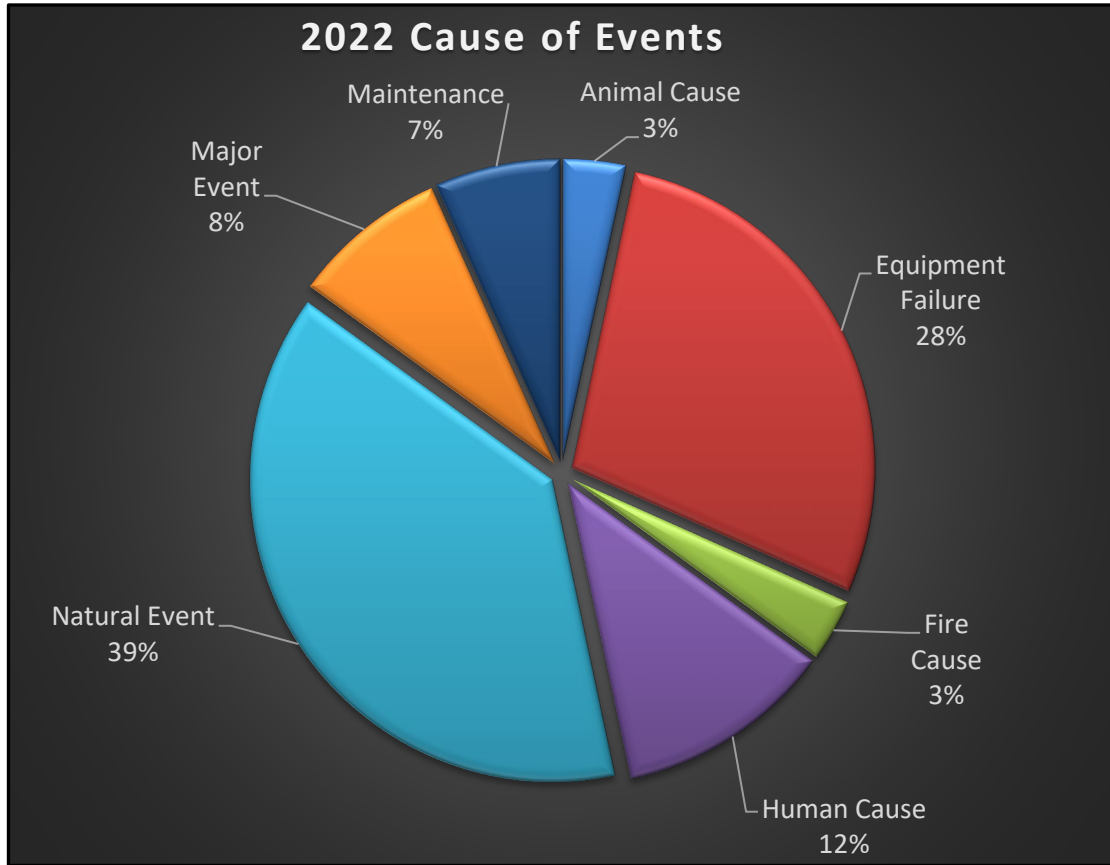
District Trends - Electric

Excluding Major Events* (>10% of District Customers)

Year	Total	SAIDI	SAIFI	CAIDI
2019	46	2.85	0.018	162.39
2020	37	2.48	0.014	175.14
2021	41	2.65	0.015	171.22
2022	55	3.29	0.020	163.65

CAIDI (excluding major events)





Definition of Events

- **Equipment Failure**: underground or overhead splice failure; conductor failure, etc.
- **Human Cause**: car hit pole; customer dig in, etc.
- **Natural Event**: snow load, wind, flood, landslide, etc.
- **Major Event** (>10% of district customers affected by outage): severe storm, BPA feed failure, etc.
- **Maintenance (planned events)**: pole replacements, underground line maintenance, etc.

Number of Events

Events		Unscheduled						Planned
Year	Total	Animal Cause	Equipment Failure	Fire Cause	Human Cause	Natural Event	Major Event	Maintenance
2022	60	2	17	2	7	23	5	4

STAFF

THEN



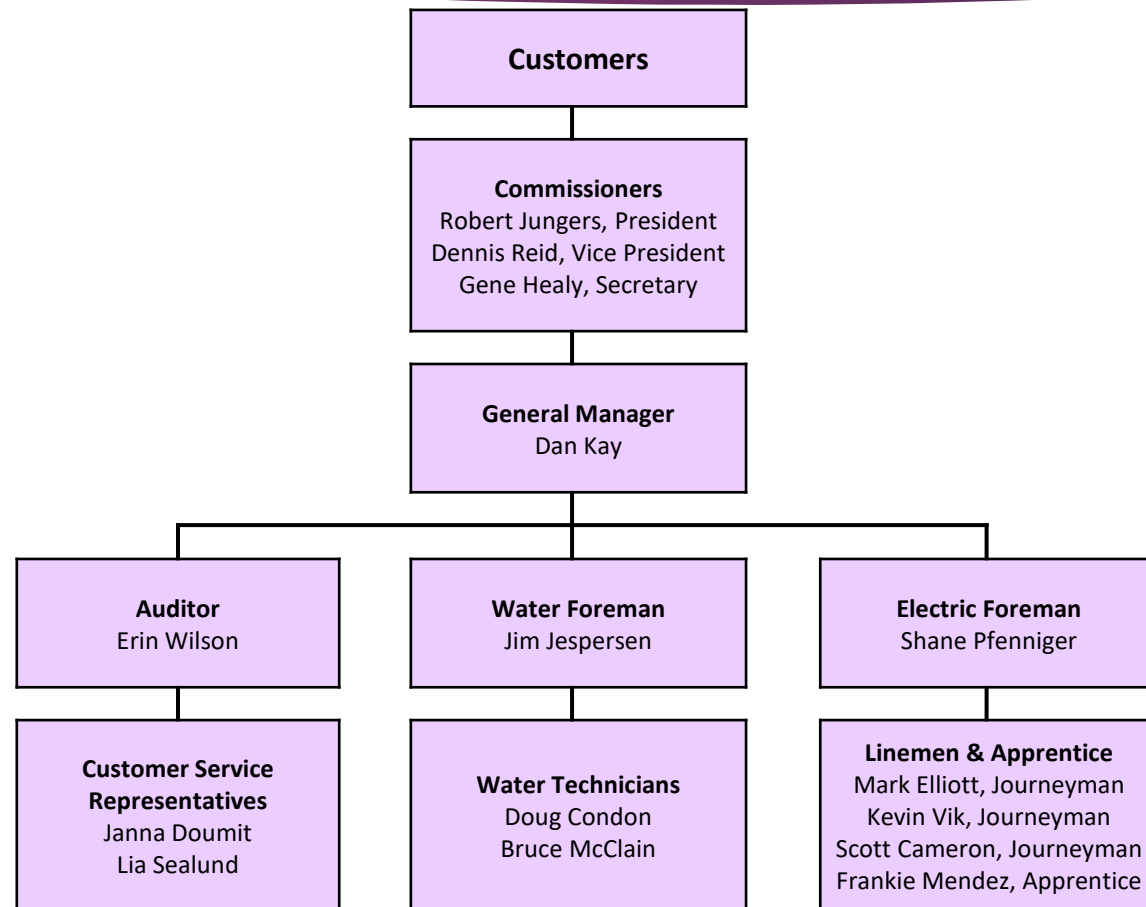
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STAFF

- ▶ Current Staff
- ▶ POTENTIAL Retirements
- ▶ Succession Plans
- ▶ Internships/Summer Help

CURRENT STAFF

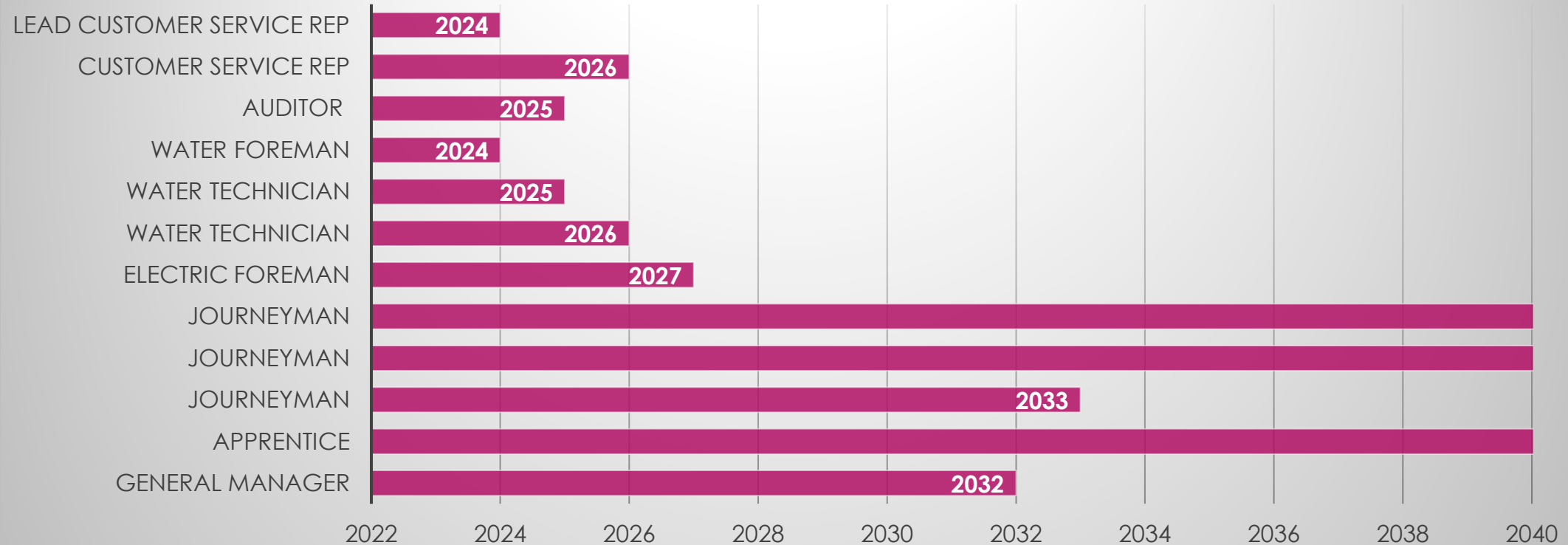


SUCCESSION PLANS

- ▶ Currently there is **217** years of combined industry and institutional knowledge at the District!!
- ▶ Assess current District needs, staffing levels, jobs descriptions, processes.
- ▶ Assess existing staff career objectives
- ▶ Continue to train employees for potential advancement opportunities
- ▶ Develop processes for outside employment opportunities – be the employer of choice
- ▶ Replace electric department Journey Line workers with Apprentices
- ▶ Expect some funding double-up during the transition and training process
- ▶ Potentially use internships/summer positions to augment short term District needs

POTENTIAL Retirements

Wahkiakum PUD POTENTIAL Retirement Dates



CUSTOMERS

- ▶ Customers
 - ▶ 2,120 Residential Electric and/or Water
 - ▶ 610 Small Commercial/General Service Electric and/or Water
 - ▶ 45 Water-Only (approx.)
- ▶ Relative Prices/Rates
 - ▶ Rates have remained stable since January 2020

Customers (cont'd)

- ▶ Conservation Programs (Heat pumps, Windows, Insulation, Lighting, Heat pump Water Heaters, Custom Projects, etc.)
 - ▶ 2022 = \$27,644 Rebated to Customers (Through November)
 - ▶ 2021 = \$16,007 Rebated to Customers
 - ▶ 2020 = \$38,496 Rebated to Customers
- ▶ Collections
 - ▶ Customer COVID Arrearages Were \$53,5761 on 01/31/2022 and are \$6,366 as of 12/19/2022; The District received \$18,948 Coronavirus State Fiscal Recovery Funds to assist with arrearage balances and will receive an additional \$2,340 by year end

2022 Completed Projects GSD

▶ ***Celebrate Wins – Got Stuff Done!***

- ▶ Completed West County Pole Test and Treat program
- ▶ 40 Poles Replaced
- ▶ 1,060 feet on Underground Primary Line Replaced
- ▶ 400 Feet of Water Mainline Replaced on Covered Bridge Road
- ▶ All 3 Water reservoirs inspected with no major deficiencies found
- ▶ 72 New Customer Installations
 - ▶ 58 Electric
 - ▶ 14 Water
- ▶ Collected \$511,962 in Advance for Construction Funds Through November
 - ▶ Electric = \$408,953
 - ▶ Water = \$103,009

2022 Completed Projects (cont'd)

- ▶ 154 Total Work orders completed
- ▶ Internal Training (ongoing)
 - ▶ Employee Awareness, Electric Apprentice, Departmental Cross-Training
- ▶ Began Long-Term Financial Planning
- ▶ Began Building Transformer Tracking Database
- ▶ Began Building Outage Tracking Database
- ▶ Applied for Grants for Water Main Replacements on PIWS & WWWS
- ▶ Assisting Wahkiakum West in over 3 miles of fiber expansion
- ▶ **Approved 2023 Budget With No Rate Increases**

What about 2023? – Our Roadmap Ahead

- ▶ **Continue to serve our customers – Our #1 Priority!**
- ▶ Continue to invest in infrastructure and harden the system both in water and electric
 - ▶ To improve our customer experience and improve reliability statistics
- ▶ Continue to navigate the BPA Provider of Choice and contract discussions
- ▶ Continue to train our employees and prepare for upcoming retirements
- ▶ Continue to navigate supply chain issues
- ▶ Begin our mapping program and asset inventory
- ▶ Continue to collect data to enhance this presentation for next year
- ▶ Continue to process pole attachment applications to support broadband expansion
- ▶ Continue to research and apply for funding opportunities
- ▶ And continue to monitor cost pressures



"It takes all of us to
get the job done
right. What's
important is
recognizing everyone
on the team and
what they bring to
the table."

.....
- Lt. Gen. Maria Gervais,
TRADOC Deputy Commanding General

