PUBLIC SERVICE COMPANY OF COLORADO

WILDFIRE MITIGATION PLAN
2023 ANNUAL REPORT

Proceeding No. 20A-0300E
May 31, 2024

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GLOSSARY OF ACRONYNMS AND DEFINED TERMS

Acronym/Defined Term	Meaning
AI	Artificial Intelligence
Commission	Colorado Public Utilities Commission
DMAs	Distribution Maintenance Areas
DSAP	Defensible Space Around Poles
EEI	Edison Electric Institute
EPRI	Electric Power Research Institute
EMHT	Enhanced Mount Hazard Tree
IRWIN	Integrated Reporting of Wildland Fire Information
KML/KMZ	Keyhole Markup Language
KPIs	Key Performance Indicators
LiDAR	Light Detection and Ranging
MHT	Mountain Hazard Tree
O&M	Operations and Maintenance
OPA	Overhead Pole Assessment
OMS	Outage Management System
PSPS	Public Safety Power Shutoffs
Public Service or the Company	Public Service Company of Colorado
RFW	Red Flag Warnings
ROW	Right-of-Way
UAS	Unmanned Aerial Systems
WCR	Work Completion Ratio
WMP or the Plan	Wildfire Mitigation Plan
WMP Decision or Decision	Recommended Decision No. R21-0109 in Proceeding No. 20A-0300E
WMP Report or Report	Wildfire Mitigation Plan Report
WRZ	Wildfire Risk Zone
WSO	Wildfire Safety Operations
WSS	Wildfire Safety Settings

I. EXECUTIVE SUMMARY

The Company is pleased to submit to the Colorado Public Utilities Commission ("Commission") this annual Wildfire Mitigation Plan ("WMP" or "2020 WMP") Report, updating the Commission and stakeholders on the Company's wildfire mitigation activities for Plan Year 2023.[1] Similar to prior years, the Company again completed a significant amount of wildfire mitigation work. This reflects not only our commitment to ensuring the safety of our communities, customers, and general public, but also the need to address escalating wildfire risk. As discussed below, the Company is addressing the heightened risk by doing more mitigation work and doing it faster.

Since approval of the initial 2020 WMP through the end of 2023, the Company has completed work above and beyond its targets. The Company is ahead of schedule in its inspection work and continues to refine its data collection and analytics.

The primary objective of the 2020 WMP is to promote public safety through programs that construct, maintain, and operate the electric system in a manner that minimizes the risk of a utility asset being the ignition source of a wildfire. In 2023, the Company had several notable achievements in furtherance of this objective, including:

- Exceeded 100 percent work completion for 12 of 16 program areas;
- Achieved a four-year weighted average work completion across all programs of 102 percent;
- Worked with an independent third party to develop a three-tiered, wildfire risk map that covers the Company's entire service territory and has been and will be used to inform future operational and investment decisions;
- Implemented 21 Pano Artificial Intelligence ("AI") cameras; and
- Held or participated in significantly more community and development events.

The Wildfire Mitigation Plan encompasses three main categories of action that promote public safety and systematically mitigate wildfire risk. Those categories include:

Engagement: Engage with local, county, and state entities to facilitate more coordinated planning and mitigation efforts and ensure Public Service customers, communities, and emergency response responders are aware and informed of the Company's operations, existing procedures, and the work being conducted pursuant to this WMP.

Technology: Implement technology-based solutions that help calculate risk, evaluate assets, guide targeted mitigation activities, and enhance situational awareness.

Pano AI Camera

[1] *See* Proceeding No. 20A-0300E, Decision No. R21-0109 (mailed Feb. 26, 2021) (affirmed with modification by Decision No. C21-0237 (mailed Apr. 16, 2021)).

Acceleration: Accelerate the cadence of certain utility practices that mitigate wildfire risk, such as routine pole inspections and replacements in areas designated as Public Service's Wildfire Risk Zone ("WRZ"), which helps promote public safety and environmental stewardship in light of the increasing intensity and frequency of wildfires in Colorado and an expanding wildland-urban interface.

Major Actions Performed:

The major actions performed in calendar year 2023 include:

- Enhanced system protection, including completing the Recloser Pilot which has enabled us in 2024 to begin to operationally deploy Wildfire Safety Settings on our distribution system;
- Expanded incremental vegetation management actions;
- Identified distribution and transmission equipment needing repair or replacement through overhead sight (drone) assessments,[2] annual foot patrol inspections, system protection analysis, and pole loading and clearance inspections;
- Implemented new technologies including Technosylva's industry leading wildfire spread modeling software (Wildfire Analyst Enterprise) which generates millions of simulations to estimate potential wildfire spread scenarios under varying fire weather conditions and Pano AI Cameras that identify the early signs of smoke and then rapidly triangulate the location of that smoke and simultaneously send electronic alerts to our Emergency Management and Public Service emergency response partners;
- Evolved our process for defining our wildfire risk areas and completed a new tiered wildfire risk map,[3] that will be discussed in detail in our updated Wildfire Mitigation Plan filing in the second quarter of 2024.
- Continued community and stakeholder outreach; and
- Assessed new and innovative activities for future consideration.

The Company continues to maintain and update its Wildfire Mitigation Program website (www.xcelenergywildfiremitigation.com) and is exploring other ways to provide information about the Company's wildfire mitigation efforts, including through social media and ongoing community outreach. Since 2020, the website's audience has grown

[2] "Assessments" and "inspections" are used interchangeably throughout this Report.

[3] In 2023, the Company developed three wildfire risk tiers, designated 1, 2, and 3 in order of increasing wildfire risk, to replace the WRZ. The wildfire risk tiers incorporate updated and additional information relative to the WRZ and provide a more fine-grained and accurate evaluation of the wildfire risk associated with the Company's equipment. In 2024, the Company began using the wildfire risk tiers to inform the operational actions it takes in response to days with forecast high wildfire risk conditions. The Company also is using the wildfire risk tiers to inform its updated Wildfire Mitigation Plan proposal and the work it is planning to perform thereunder.

significantly – in 2023 alone, there was 133 percent increase in website visitors from 2022. As the Company's wildfire mitigation program continues to mature and evolve across its broader service area, work is now underway to create more corporate-wide web content to inform a larger audience across our multi-state service area. The new web content will reflect recent efforts and development to support customers impacted by Public Safety Power Shut offs ("PSPS") and Wildfire Safety Operations ("WSO"). The broadened site will further increase our reach and serve as a one-stop digital channel for general awareness, customer resources and informational campaigns.

Overhead Pole Inspection

The Company engages with industry partners, including Electric Power Research Institute ("EPRI") and Edison Electric Institute ("EEI"). The Company is active in EEI's Wildfire Working Group, which consists of other utilities, both investor-owned and co-ops, where information sharing leads to valuable insights. Through its collaborations and partnerships, Public Service continues to learn and lead in its understanding of industry best practices, benchmarking, and emerging wildfire technologies and solutions.

Finally, the Company performed more work than was anticipated under the 2020 WMP and exceeded its 2023 targets. The overall cost of the work performed, however, was greater than amounts estimated in 2020. The exceedance reflects a variety of factors, including expanded mitigation activities (rather than a tapering off assumed in the 2020 WMP), increases in scope of work that was not anticipated at the time the 2020 WMP was filed; as well as supply chain issues (both costs and delays), material shortages, scarcity, inflation, permitting, and the tight labor market conditions discussed in prior Annual Wildfire Mitigation Plan Reports. The Company will present an updated scope of wildfire mitigation activities for the years 2025-2027 as part of an updated Wildfire Mitigation Plan proposal being filed in the second quarter of 2024.

II. BACKGROUND AND PURPOSE OF REPORT

The actions the Company takes pursuant to the WMP protect public safety by mitigating the risk of the Company's equipment being a potential ignition source of a wildfire. The WMP is designed to accomplish this through situational awareness, operational mitigations, system hardening, stakeholder and implementation of new technologies. The WMP also includes proactive exploration of existing and emerging wildfire mitigation tools through the implementation of programs and pilots in targeted parts of Public Service's system. Using our own data and data available through the Colorado Wildfire Risk Assessment Portal developed by the Colorado State Forest Service, we developed the WRZ, which is a targeted area where the Company focused its efforts. In total, the WRZ includes approximately 2,100 miles of overhead distribution feeder (out of 9,500 miles total on the system, more than 25 percent) and over 2,800 miles of transmission lines (of nearly 5,000 total on Public Service's system, more than 50 percent). For the first three years of the WMP, the Company achieved over 90 percent of its vegetation management and work completion key performance indicators ("KPIs") and above a 0.9 Work Completion Ratio ("WCR"). As of the conclusion of 2023, the Company has achieved a four-year average of 102 percent for work completion percentage which is comprised of repair/replacement and system protection programs, 0.82 for the protection WCR, and 0.86 for the replacement WCR. See Section III, KPIs for a full discussion of the WCR and other KPIs.

Linemen replacing a distribution pole

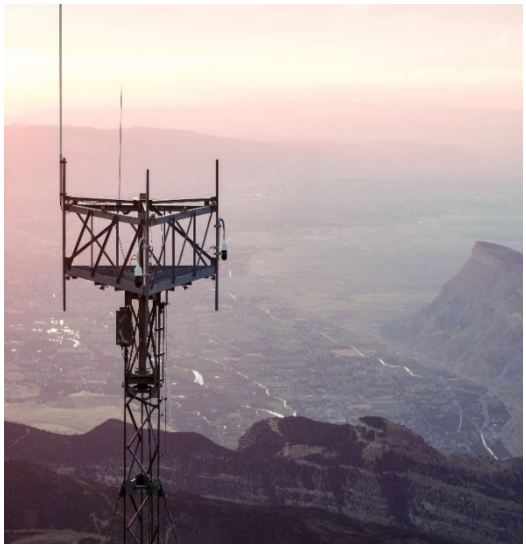
The core components of the WMP are:

- **Repair and Replacement Programs:** These encompass the following subcategories of work: bare secondary conductor replacement, covered conductor installation, accelerated distribution pole repair/replacements, equipment upgrades (non-expulsion fuses, cutouts, arresters, etc.), overhead rebuilds of small conductor, accelerated high priority defect corrections, and accelerated major line rebuilds.

- **Inspection, Modeling, and Asset Data Gathering:** This includes the following subcategories of work: enhanced overhead inspections via unmanned aircraft systems, accelerated distributed pole inspections, risk modeling development, situational awareness tools, structure wind strength reviews, and annual visual inspections.

- **Protection Programs:** These include the following subcategories of work: Advanced Distribution Management System enhanced control, protection studies for feeders, recloser communications, substation relay communications upgrades, substation relay upgrades for Wildfire Safety Settings, and design and install revised protection schemes.

Example of vegetation management



Pano AI camera on tower

- **Expanded Vegetation Management:** This includes Mountain Hazard Tree ("MHT") activities, Defensible Space Around Poles ("DSAP") or pole brushing on equipment poles, secondary voltage line clearance, and Right-of-Way ("ROW") vegetation type conversion.

- **Metrics, Tracking, and Reporting:** To measure performance over time, the Company actively tracks and measures a series of Commission-approved metrics. These include Plan and cost performance metrics in addition to a set of metrics designed to measure Plan efficacy, or wildfire risk reduction, over time as programs are implemented.

- **Assessment for Future Consideration:** In addition to the core components of the Plan described above, the Company continues to study new, emerging, and evolving technologies and practices that it will consider for future implementation. While the Company did not utilize PSPS in 2023, it worked to evaluate the execution of such a plan, considered PSPS plans being implemented by other electric utilities, and adopted initial PSPS strategies. Moreover, on April 6, 2024, the Company implemented its first proactive de-energization through a PSPS, where that activity was made possible due to the Company's efforts in 2023 to establish initial PSPS strategies. The Commission addressed the April 2024 PSPS in Proceeding No. 24M-0173E, and the Company is continuing to refine its PSPS strategy and plan.

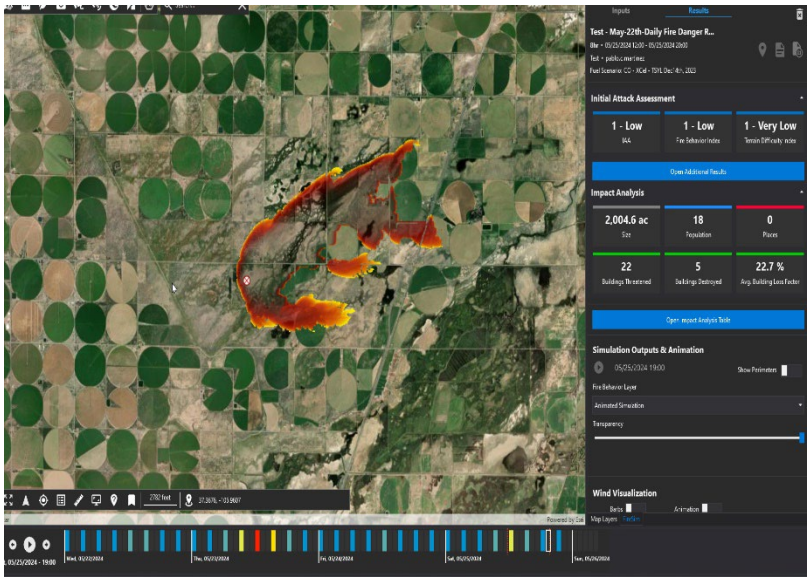
The Company also is studying and/or deploying technologies such as expanded use of covered conductor, microgrids, battery storage, and additional use of drones for asset inspection (both visual and Light Detection and Ranging ("LiDAR")) and patrol. The Company will be undergrounding targeted overhead lines due to extreme wind and fire weather conditions and has secured federal matching funds for this effort.

- **Usage of New Technology:** The Company implemented wildfire risk spread modeling software and is using it to further refine and identify the key areas to focus wildfire mitigation efforts, see Attachment J. The employment of Technosylva's industry leading wildfire spread modeling software (Wildfire Analyst Enterprise) enabled the Company to generate millions of simulations to estimate potential wildfire spread scenarios under varying fire weather conditions. These simulations then estimate the potential consequences of an ignition at the feeder,

and sub feeder, level of detail. This risk modeling software also improves situational awareness through the integration of various sources of wildfire notifications from Integrated Reporting of Wildfire Information ("IRWIN") and FireGuard. FireGuard utilizes advanced satellite technology to detect and then send alerts of probable fire activity based on sensing areas of increased heat.

Another innovative technology that is showing great promise for improving situational awareness is the use of wildfire detection cameras with AI technology for early detection and alerting. In 2023, 21 additional AI enabled camera sites (with two cameras per site) were installed in Colorado to help identify wildfire ignitions. Another 21 sites will be installed in 2024. These advanced wildfire detection cameras utilize AI technology to identify the early signs of smoke and then rapidly triangulate the location of that smoke and simultaneously send electronic alerts to our Emergency Management and our public safety partners. This technology increases situational awareness and allows for emergency responders a new avenue to assess a potential fire, know the location, and evaluate the types of suppression resources to send to an incident.

In 2023, Public Service used high-resolution satellite imagery to improve and enhance its vegetation management efforts. AiDash offers a software and satellite imagery solution that evaluates the clearances of vegetation along overhead lines. This technology can quickly identify the approximate horizontal and vertical distances between power lines and trees and can estimate the growth rates of vegetation along those lines. This analysis is performed annually and allows for risk-based prioritization of projects at a high level based on the vegetation clearances. Public Service intends to explore additional capabilities of the technologies in the future, including tree health analysis, which would allow for identification of trees with declining health and improved prioritization of projects in these areas, as the technology would provide greater efficiency than performing this analysis using foot patrols during traditional tree trimming cycles.



Fire simulation modeling photo

The Company continued its use of LiDAR technology in 2023, inspecting distribution lines and generating data that feed into a three-dimensional model that allows us to re-create the system in the WRZ and precisely identify where pole loading and ground clearance work needs to be performed, saving time and money.

- **Community and Development.** The Company continues to utilize the website, www.xcelenergywildfiremitigation.com as a means of providing the most current WMP information to our customers, including our annual report. The Company frequently meets with communities to share information about the steps it is taking in implementing its wildfire mitigation efforts. The Company hosts community events, and it has provided grant support for multiple communities. Further, the Company was awarded a $100 million grant from the Department of Energy as part of its Grid Resilience Improvement Planning program, and approximately $40M of this is allocated to Colorado. See the following Tables WMP-1A and WMP-1B for additional details on stakeholders that the Company met with during 2023.

TABLE WMP-1A: 2023 Community and Development Meetings List

Evergreen Fire Rescue	Chaffee County Board of Commissioners	Lake County	Center for Climate and Energy Solutions
Rotary Wildfire Ready Group Safety Committee	Wildfire Forum	Envision Forrest Health	Chaffee County Emergency Management
Salida	Pikes National Forrest Shared Steward Meeting	Greeley City Council	Larimer County Emergency Management
2023 Colorado Access and Functional Needs Conference	Lake County	Leadville	Summit County
Fairplay	Alma	Glenwood Springs Communities	Garfield County Commissioners
Glenwood Springs Planning Commissioners	Roaring Fork Valley Wildfire Collaborative	Middle Colorado River and Colorado River Wildfire Ready Steering Committee	Two Rivers Coalition

TABLE WMP-1B: 2023 Stakeholder Engagement List

Category	Stakeholders
First Responders	Evergreen Fire Rescue, Elk Creek Fire, Clear Creek Fire, Foothills Fire, West Metro Fire, Indian Hills Fire Rescue, Genesee Fire, Jefferson County Sheriff's Office, Clear Creek County Sheriff's Office, Arvada Fire, Firefighters' Union, Boulder County Sheriff's Department, Palisade Fire, Loveland Rescue Authority, Poudre Fire Authority, Crystal Lakes FPD, Summit Fire and EMS, Golden Fire Department, Red White and Blue Fire, East Grand Lake, Lower Valley Fire, Coal Creek Canyon, Park County Fire, Jefferson County Communications Center, Summit County 911 Center, Mesa County OEM, Larimer County Sheriff's Office, Conejos, Gilpin County Sheriff & OEM, Rio Grande County Park County, Chaffee County OEM, Arvada Fire Marshal, DFPC.
Local, State & Federal Agencies; Forestry Experts, Environmental Interests	Colorado State Forest Service, United States Forrest Service, Jefferson County Open Space, Denver Mountain Park, Envision Forrest Health Chaffee County, Pike National Forest, United States Department of Agriculture, Upper South Platte Partnership, Bureau of Land Management
Utilities & Regulators	CORE Electric Cooperative, PacifiCorp, Portland General Electric, Pacific Gas and Electric, Southern California Edison, San Diego Gas & Electric, Idaho Power, Tri-State Generation and Transmission, United Power, Holy Cross Energy, La Plata Electric Association, Mountain View Electric Association, Colorado Rural Electric Association, National Association of Regulatory Utility Commissioners, Colorado Public Utilities Commission, Trial Staff of the Colorado Public Utilities Commission, the Colorado Office of the Utility Consumer Advocate
Cities, Towns & Counties	Leadville, Town of Alma, Fairplay, Lake County, Summit County, Chaffee County, City of Salida, City of Greeley, Lake County, Evergreen, City and County of Boulder, Glenwood Springs, Garfield County

The Company received written support from Marmon Utility for its 2024 Federal Grant Application for Additional Wildfire Equipment (U.S. Department of Energy's Grid Resilience and Innovation Partnerships Program).

III.KEY PERFORMANCE INDICATORS (KPIs)

The Decision required the Company to track and report certain KPIs for calendar years 2021 and 2022.[4] The Company has continued to track and report on the WMP KPIs for calendar year 2023.

- **Vegetation Management Maintenance Cycle:** Over the course of this inaugural WMP, the Company has completed over 100% of its forecast vegetation management work. In 2023, the Company maintained a 94 percent on-cycle completion of its forecast vegetation management maintenance, once again exceeding the 90 percent KPI target.

Example of a Company right-of-way

- **Work Completion:** Over the course of this inaugural WMP, the Company has completed 100% of its targeted work. In 2023, the Company completed 2,777 Distribution pole replacements compared to a target of 2,750 poles; 20,014 distribution overhead pole inspections compared to a target of 20,000 inspections; 312 Transmission priority defect corrections compared to a target of 259 defect corrections; over 2,800 miles of Transmission visual inspections (the entirety of Transmission overhead lines in the WRZ); and installed 19 substation protection relays within the WRZ. Approximately 5,000 poles were moved from the 2023 distribution overhead safety inspection program to the 2022 distribution overhead safety inspection program, which increased the number of poles inspected in 2022 and decreased the number of poles inspected in 2023. In 2023, the Company exceeded 90 percent work completion in 14 out of the 16 measured categories, resulting in an aggregated work completion of 115 percent of its scheduled work compared to the baseline target of 90 percent. See Tables WMP-2A, WMP-2B and WMP-2C below. This work was completed despite significant challenges faced by the Company as described below.

[4] Decision No. R21-0109, ¶ 94.

TABLE WMP-2A: Inspection, Repair and Replace, and Protection Programs

Program	2020	2021	2022	2023
Transmission Line Visual Inspections (miles)	2,900	2,832	2,832	2,832
Distribution Overhead Pole Inspections*	9,817	16,232	24,893*	20,014
Transmission Line Rebuild (miles)	0	21	9	5.5
Transmission Priority Defect Corrections	225	256	272	312
Distribution Pole Replacements	3,700	4,400	3,051	2,777
Distribution Recloser Installations	43	0	0	0
Substation Protective Relay Installations	7	18	14	19
*Includes both the Overhead Pole Assessment ("OPA")(f/k/a Overhead Safety Inspection ("OHSI") f/k/a Above Ground Level ("AGL") and Pole and Loading and Clearing Programs ("PL&C"). They do not include poles that could not be inspected, often because the poles are in Geographic Information System ("GIS") but do not exist in the field. As a result of excluding these poles and because the numbers are exact rather than rounded, they differ from the numbers reported in previous years for 2020-22				
**Includes 2023 inspections accelerated into 2022				

TABLE WMP-2B: Inspection, Repair and Replace, and Protection Programs

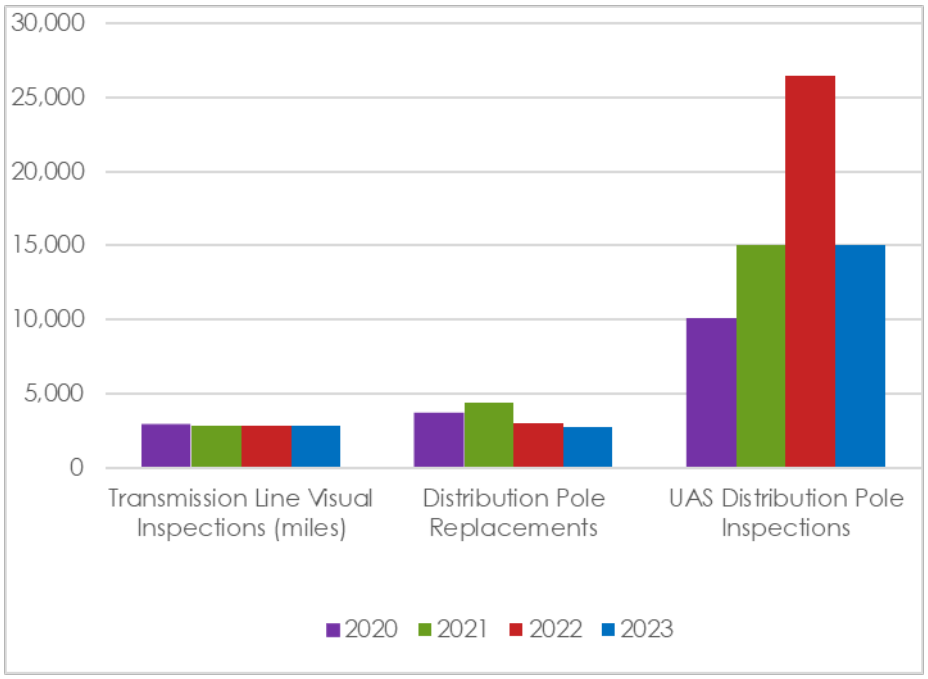
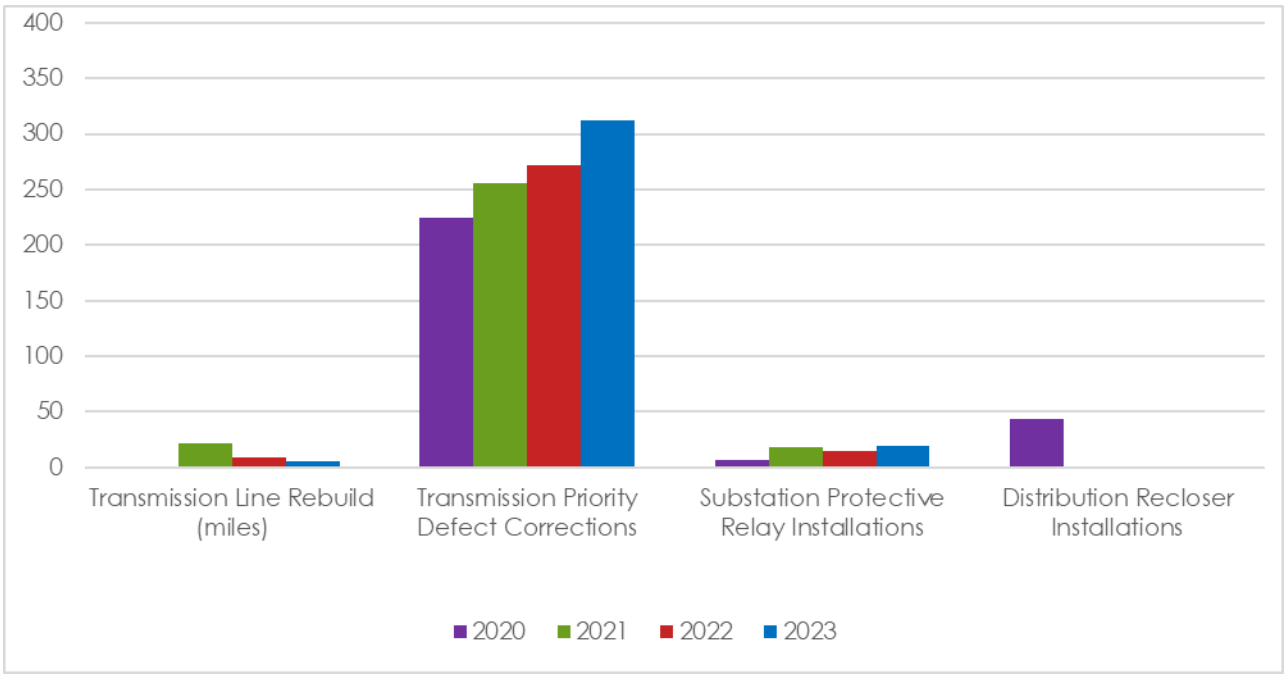


TABLE WMP-2C: Inspection, Repair and Replace, and Protection Programs

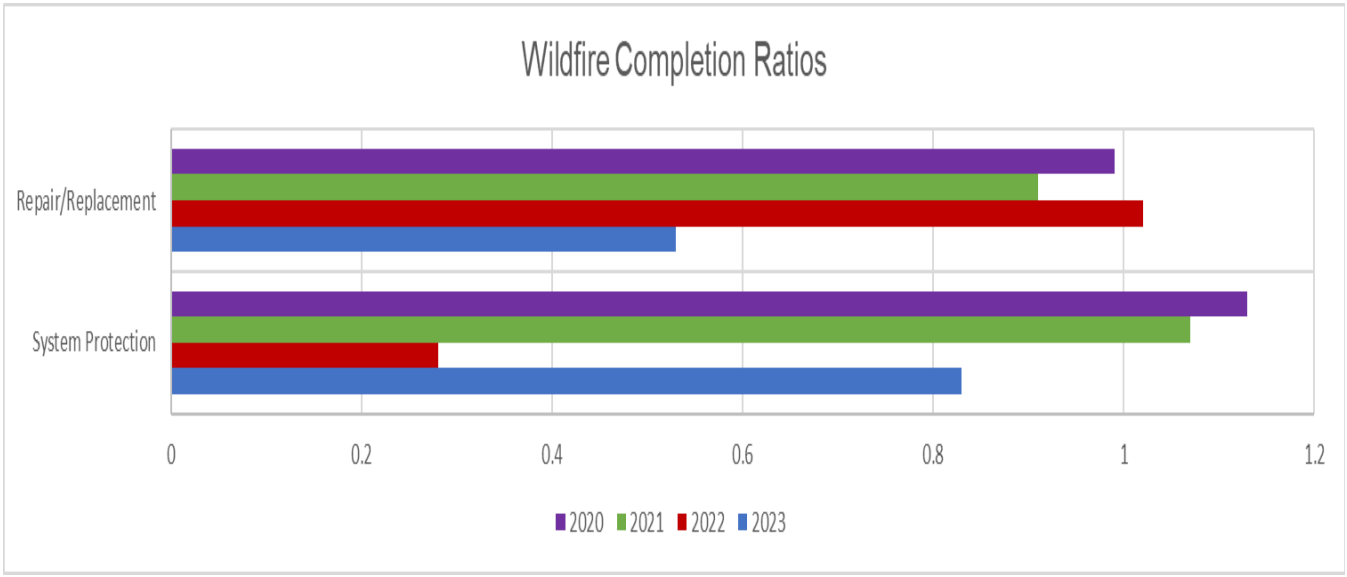


- **Work Completion Ratio:** In 2023, the Company reached a four-year average WCR of 0.86 for its Repair/Replacement program, and a WCR of 0.82 for the System Protection program, which does not meet the 0.90 KPI. The Company exceeded the 90% KPI for Vegetation Management at 180% in 2023. See Tables WMP-3A, WMP-3B and WMP-3C below.

TABLE WMP-3A: Work Completion Ratios[5]

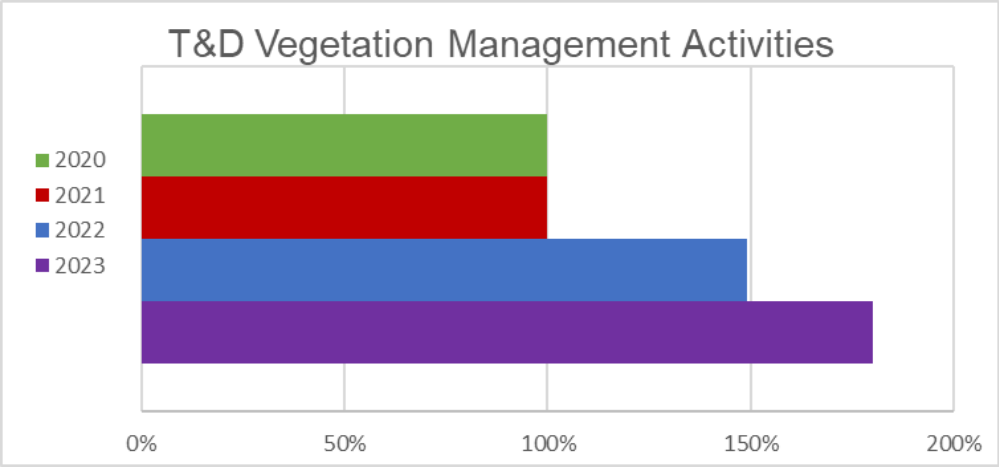
	2020	2021	2022	2023	Four Year Average	KPI Threshold
System Protection (SP) Work Completion Ratios	1.13	1.07	0.28	0.83	0.82	0.90
Repair/Replacement (R/R) Completion Ratio	0.99	0.91	1.02	0.51	0.86	0.90
T&D Vegetation Management (VM) Activities	100%	100%	149%	180%	132%	90%
Work Completion includes SP, R/R, T&D VM and Inspection/Modeling	104%	99%	93%	115%	103%	90%

TABLE WMP-3-B: Work Completion Ratios



[5] See Attachment I for the detailed calculations.

TABLE WMP-3-C: Work Completion Ratios



The Company's calculations for the 2023 WCR are set forth in Attachment I. The WCR is calculated by dividing the percentage of annual work completed as compared to scheduled work and by the percentage of annual actual capital spend as compared to budget from the 2020 WMP, by program.

The Company encountered challenges with the WCR in 2023, with the most significant hurdle arising from the program's evolution since the initial 2020 WMP filing. The 2020 WMP envisioned that certain programs would be near or reach completion by 2023. However, in practice, programs continue to be executed due to challenges in completing work in prior years (as a result of labor and supply chain issues discussed in prior annual reports) as well as a recognition that wildfire risk is evolving (and growing). Additionally, the Company has intensified focus on program enhancements, such as equipment upgrades and defect repairs, based on the insights gained over the past three years. Overall, the Company continues to execute on the programs outlined in the original 2020 WMP, while consistently integrating expanded scopes of work, new technologies, and insights gained into our current and future wildfire mitigation efforts.

Linemen working on a distribution pole

Materials and Supply Chain Issues: In 2023, the Company continued to experience delays and supply chain issues for common utility construction materials such as poles, arresters, and transformers. Similar to 2022, the material and supply chain issues were driven by continued national demand for utility and wildfire materials as utilities looked to harden their system against storms, extreme weather, and wildfire events. While delays and shortages persisted through 2023, the Company was able to overcome many issues by utilizing lessons learned from previous years and proactively identifying and addressing issues as they arose. Examples of successes include finding alternate manufacturers of critical materials, purchasing production slots of known long lead and critical materials, and placing large, one-time purchases to ensure adequate supply throughout 2023.

Transmission Pole

The Company has taken the necessary precautions to manage materials and supply issues, but issues are forecasted to last through 2024 and beyond as lead times for equipment continue to hold but are still extended from 2020 lead times as of the filing of this report. Key materials include, but are not limited to, reclosers, transformers, conductor, wood poles, pole hardware (insulators and cutouts). The Company will continue to manage through these issues, but mitigation strategies may result in taking different approaches to complete work, such as refurbishing transformers instead of replacing them, which may result in increased capital and Operations and Maintenance (“O&M”) costs.

Inflationary Pressures: Inflationary pressures also have affected costs, and therefore the Company’s ability to meet the protection work WCR KPI. For example, poles have increased in price by approximately 28 percent in 2023 and cross arms prices have increased approximately 20 percent in 2023. These cost pressures are expected to last into 2024 and beyond. Across most material commodity groups, inflation has impacted materials cost at an aggregate of 8 percent for the years 2022 and 2023, which is also expected to continue in 2024.

Labor Constraints: Labor markets are significantly tighter than when the 2020 WMP was developed, and labor costs have also been impacted by inflationary growth. For example, electric distribution line construction crew labor saw a 6 percent increase in 2023 and is expected to see a 4 percent increase in 2024. Increased labor costs contributed to actual program costs exceeding original 2020 WMP estimates, which put

pressure on the WCR. This inflationary growth is anticipated to continue at this rate over the next several years, which may have a negative impact on the Company's contracted labor services costs.

Permitting Challenges: The electric system in Colorado serves a wide range of loads throughout a diverse geographical profile which includes many different local, state, and federal jurisdictions and land management agencies. Many lines cross multiple jurisdictions and permitting can also include various federal agencies which makes permitting projects in certain areas challenging. The duration of the permitting process can vary widely based on which agencies are involved and the type of work being performed. These delays slowed the progress of the Transmission Major Lines rebuild program, which impacted the 2023 mileage. The Company is working closely with a wide range of local, state, and federal agencies to address these challenges moving forward.

Impact for 2024 and Beyond: These challenges have yielded opportunities to create better practices and procedures around wildfire repair and replacement work. Lessons learned from the challenges encountered in 2020-2023 are being utilized in 2024 and beyond. Some specifics are outlined below:

- The Company has begun to secure production slots and pre-order materials with known long lead times to soften the impacts of material and supply chain issues.

- The Company's service territory was assessed by an independent third party, who updated the wildfire risk map with three geographic tiers of wildfire risk: Tier 1 (lower risk), Tier 2 (moderate risk), and Tier 3 (highest risk). This three-tier geographic risk system will provide for a prioritized use of risk-reducing resources and program rollout on a service-territory wide basis, including under the updated Wildfire Mitigation Plan. The system is already being utilized in 2024 for risk reducing operational actions, such as WSO.

Throughout the course of this initial WMP, the Company has learned that certain measurements are more reliable than others with respect to tracking progress for the Plan. For example, the vegetation management cycle and the work completion percentages measure the Company's progress toward targets and the actual work being accomplished. WCR has experienced more problems, for example, with work that spans multiple years. It also is influenced by the original 2020 WMP budgets and scopes of work. Wildfire risk and the required response has grown in the interim, which also has affected WCR. The Company believes that work completion and WCR may provide future value, particularly with certain refinements. The Company will address these issues further in its upcoming updated Wildfire Mitigation Plan filing.

IV. METRICS REPORTING

The Company reports on a series of metrics as set forth in the approved WMP.[6]

A. Number of ignitions associated with electric overhead power lines within the WRZ;

B. Number of downed transmission and distribution wires within the WRZ;

C. Number of Red Flag Warning ("RFW") Days in Colorado;

D. Communities or areas which experienced Red Flag Warnings and the dates they occurred;

E. Total number of wildfires in the Company's service territory;

F. Annual WCR for 2023, as set forth in paragraph 94 of the WMP Decision;

G. Annual budgeted and planned distribution and transmission spend by WMP program for each county in the WRZ;

H. Total actual annual distribution and transmission investment by WMP program for each county in the WRZ;

I. Balances and monthly detail of the deferred accounts authorized in the WMP Decision;

J. Company's progress on executing equipment upgrades, major line rebuilds, small conductor replacement, covered conductor, and overhead rebuilds with a summary of work completed and remaining work to be completed; and,

K. Percentage on-cycle vegetation management activities for transmission and distribution assets in WRZ.

Public Service addresses each of these metrics below.

A. & B. IGNITIONS & DOWNED TRANSMISSION AND DISTRIBUTION WIRES WITHIN THE WRZ

Although the word "ignition" is used throughout the Company's underlying WMP, Public Service notes that the use of the term has resulted in confusion and misunderstanding, as some interpret "ignition" as synonymous with "fire." To clarify, the term does not, and was never intended to, refer to a fire where the ignition source was Company equipment. Instead, the term broadly covers any situation where there is some evidence of a potential incident, or "risk event," that may or may not have resulted in an actual fire because a fire requires an ignition **plus** fuel, **plus** oxygen. For the Company's

[6] Decision No. R21-0109, ¶¶ 94-96.

tracking purposes, it records any evidence of a potential ignition incident, based on an analysis of the outage record details from the Outage Management System ("OMS"). This analysis identifies if there were any notations in an outage record related to fire, sparking, arcing, burning, charring, or other indications of overheating or symptoms that could have resulted in a potential ignition. The vast majority of these potential ignition incidents do not result in a fire. However, it is important to capture evidence of these events, to best assess risk and inform future mitigation efforts.

The OMS is a common method for utilities to track electric outage data. Public Service continues to refine its methodology for reviewing the thousands of entries in its OMS to identify actual and potential risk events. Public Service field personnel who respond to reports of equipment issues and outages are able to document any other observed incidents of abnormal wire conditions and potential ignition events. These responders, typically linemen and troublemen, complete the appropriate repairs, and if necessary, they complete a form. The information collected includes any evidence of downed or displaced conductors, or any sign of a potential ignition.

The Company also uses the term "Wires-Down" when a wire is physically touching the ground. "Displaced Conductor" events capture instances where a wire is displaced from its normal position, but is neither broken or in contact with the ground. Both of these are included in the Downed Wire Events in the table below. It is important to capture any downed or displaced events that could result in potential risk events. Notably, potential risk events are not always associated with downed wires and vice versa.

The Company continuously improves its wildfire data collection and analytics. Tables WMP-4-A, WMP-4-B and WMP-5-A and WMP-5-B summarize the 2023 data and compare it with 2022 data.

TABLE WMP-4-A: 2022 and 2023 Estimated Heating/Ignitions Events

2021-2023 Estimated Ignitions Events									
	2021 Ignitions			2022 Ignitions			2023 Ignitions		
	Non-WRZ	WRZ	Total	Non-WRZ	WRZ	Total	Non-WRZ	WRZ	Total
Distribution	560	220	780	659	128	787	744	91	835
Transmission	6	0	6	2	0	2	1	0	1
Total	566	220	786	661	128	789	745	91	836

TABLE WMP-4-B: 2022 and 2023 Estimated Heating/Ignitions Events

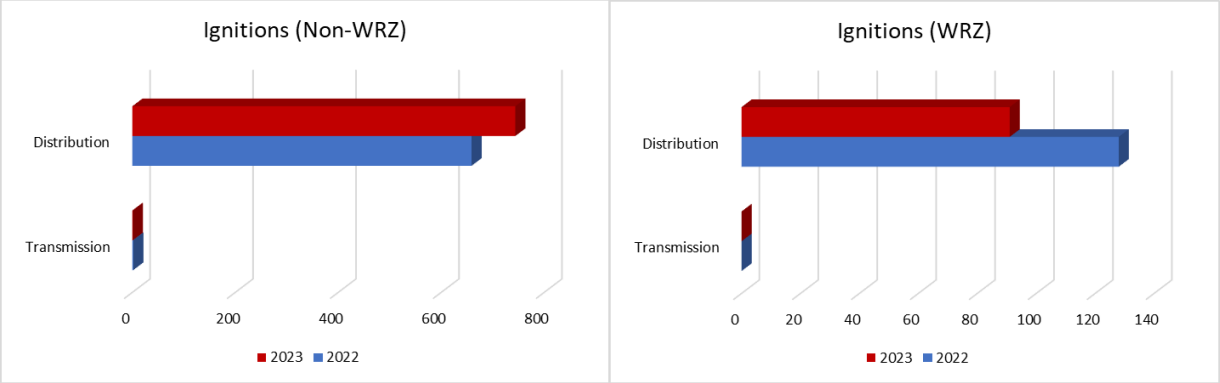
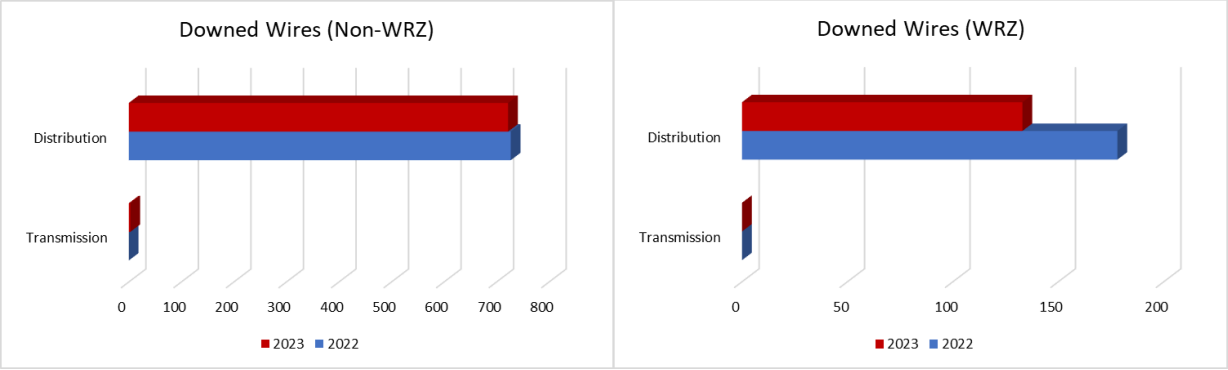


TABLE WMP-5-A: 2022 and 2023 Estimated Downed Wire Events

2021-2023 Estimated Downed Wires Events									
	2021 Downed Wires			2022 Downed Wires			2023 Downed Wires		
	Non-WRZ	WRZ	Total	Non-WRZ	WRZ	Total	Non-WRZ	WRZ	Total
Distribution	746	335	1,081	727	178	905	722	121	843
Transmission	20	1	21	3	0	3	3	0	3
Total	766	336	1,102	730	178	908	725	121	846

TABLE WMP-5-B: 2022 and 2023 Estimated Downed Wire Events



As is evidenced in the table above, the number of downed wires within the WRZ decreased by approximately 32 percent from 2022 to 2023. Further, the number of ignitions within the WRZ also decreased by approximately 29 percent during this same time period.

The Company tracks downed wires ignition data by cause categories and has more than 30 cause categories that are associated with ignition events. Three primary cause categories for ignition events in 2023 were vegetation, conductor related, and connector related. A full breakdown of events by cause is set forth in Attachment A.

C. NUMBER OF RED FLAG WARNING DAYS IN COLORADO

There were 114 days in 2023 where a Red Flag Warning was issued in one of the 51 fire weather zones in the State of Colorado. In 2022, there were a total of 90 RFW days. Please see Attachment B for details. Please see Attachment H for Red Flag Warning Criteria & Fire Weather Watch.

D. COMMUNITIES AFFECTED BY RED FLAG WARNINGS

The Company retains data on which specific communities are under a RFW and the dates they occurred. The National Weather Service establishes fire weather zones. There are 51 fire weather zones in Colorado. 27 of those are within the Company's WRZ. The Company tracks which zones are impacted by RFW days and compiled a list of the communities within those zones. Attachment B provides the dates of Colorado RFWs and the communities under the RFW.

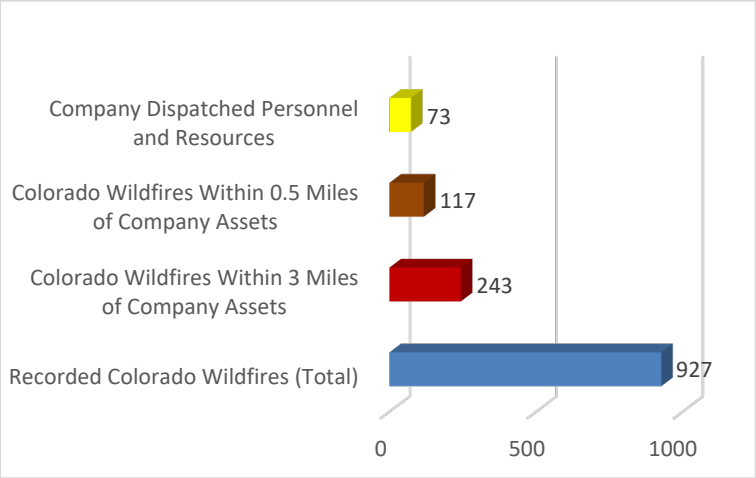
E. TOTAL NUMBER OF REPORTED WILDFIRES IN THE COMPANY'S SERVICE TERRITORY

The Company actively monitors wildfires throughout the State of Colorado. In 2023, actual fire information was collected from a variety of sources, including:

- IndjiWatch – displays all Company asset layers (https://www.indji.net/client/);
- Dataminr – Social media monitoring tool (https://corp.dataminr.com/login);
- WildCAD – Public sector fire dispatch logs (http://www.wildcad.net/WildCADWeb.asp);
- Intterra – National Interagency Fire (https://maps.nwcg.gov/sa/#/%3F/%3F/38.2598/-105.2423/7) ;
- InciWeb (https://inciweb.nwcg.gov/);
- Colorado Division of Homeland Security and Emergency Management (http://www.coemergency.com/2012/06/map-of-current-colorado-fires.html);
- Colorado Forest Atlas Informational Portal (Colorado Forest Atlas - Portal);
- Google Earth Pro – Secondary tool to used display Company assets and various Keyhole Markup Language ("KML"/"KMZ") files;

- NC4 Email Notifications – Incident notifications from outside vendor and with information from local media and government sources;
- FS360 Camera network – Look out towers located strategically throughout Colorado; primary ownership is through the Forest Service;
- Company Security Cameras – located on buildings in substations;
- Company Personnel; and,
- News Outlets/Media.

Public Service uses those sources to determine if any wildfires have the potential to impact its assets. The Company has guidelines for wildfire monitoring, initial decision making, initial notification, classification, and communication. We use these sources to identify wildfires and use the information provided to investigate and determine the potential impact to Company assets. Once that assessment is complete, the response process begins, and plans are made to respond efficiently to the specific incident. After an initial notification is received, and only once a wildfire is within 10 miles of a Company asset or has the potential to encroach a Company asset within 96 hours, the Company actively monitors the event. In 2023, throughout the entire State of Colorado, the Company recorded 927 fires based on information obtained from the sources identified above. Of the 927 fires investigated, 243 came within three miles of Company assets. Of those 243, there were 117 wildfires within 0.5 miles of Company assets that required immediate notification and action from the Company. In this situation, the Enterprise Command Center calls the control centers that are responsible for those Company assets immediately and an e-mail correspondence requesting additional information is sent to the appropriate recipient on the Operations team. The Company dispatched personnel and resources to 73 wildfire events. The dispatch to an active fire is done when Operations determines that they need field personnel dispatched to confirm the impact of the fire and assess what, if any, response measures the Company needs to take.



Attachment C to this Report provides a list of the actual fires tracked in 2023, as derived from the sources listed above.

F. ANNUAL WCR FOR 2023

For discussion of the annual WCR, please see the discussion under Section III.

G. & H. ANNUAL BUDGETED/PLANNED AND ACTUAL DISTRIBUTION & TRANSMISSION SPEND

The following tables provide information on the Company's budgeted/planned and actual WMP spending for calendar year 2023, with the county level budgeted values derived from the estimates the Company provided to the Commission. Actual spend by county was executed to maximize efficiencies and progress toward year end targets. The Company historically has not done workplans or budgets by county. A breakout of the Company's 2023 O&M by county and 2023 capital by county are in Attachments D and E respectively.

Tables WMP-6A, WMP-6B, WMP-6C and Tables WMP-7A, WMP-7B and WMP-7C, below, provide the actual spend versus budgeted cost. Tables WMP-6A, WMP-6B and WMP-6C provide a breakdown between Transmission, Distribution and Vegetation Management, while Tables WMP-7A, WMP-7B and WMP-7C provide the breakdown by Program Area.

Helicopter flying in a pole

The drivers of these variances are explained in Section III. As shown in Tables WMP-7A, WMP-7B and WMP-7C the largest capital variance is within the Repair and Replace activity. That variance is the result of: (1) different scope in original budgets; and (2) inflationary pressures. As explained, the original proposed budgetary estimates are outdated. They were based off of only replacing conductor and not completely rebuilding the line. The Company had to shift its strategy from only replacing conductor to doing full rebuilds to maintain our safety standards. Also, inflationary costs, including supply chain issues, have caused our rebuilds to be more expensive than originally anticipated, as the budget was prepared in late 2019/early 2020. Since that time, we have experienced many unprecedented factors that put upward pressure on costs, including a global pandemic.

TABLE WMP-6-A: 2023 Actual and Budgeted Costs

2023 Actual Investment Compared to Budget ($ million)						
Business Unit	**O&M**			**Capital Expenditures**		
	Budget	**Actual**	**Variance**	**Budget**	**Actual**	**Variance**
Distribution	$5.5	$4.6	($0.9)	$46.3	$119.6	$73.3
Transmission	$0.5	$1.3	$0.8	$31.7	$42.8	$11.1
Vegetation Management	$2.6	$5.7	$3.1	----	----	----
Total	**$8.6**	**$11.6**	**$3.0**	**$78.0**	**$162.4**	**$84.4**

TABLE WMP-6-B: 2023 Actual and Budgeted Costs

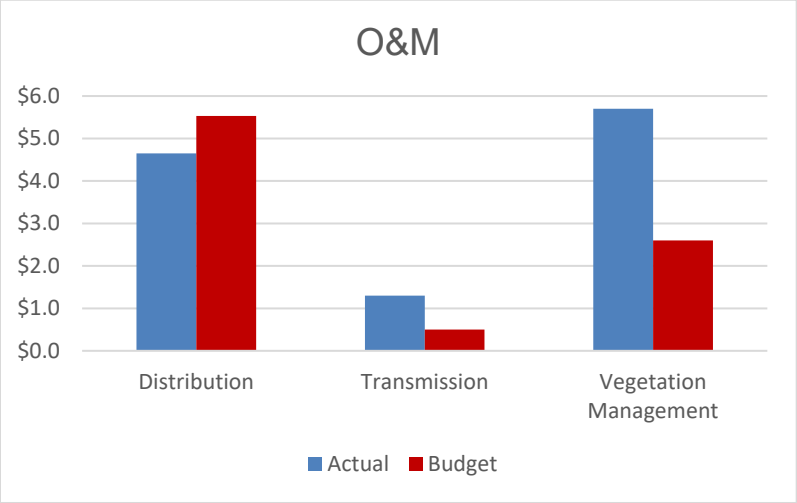


TABLE WMP-6-C: 2023 Actual and Budgeted Costs

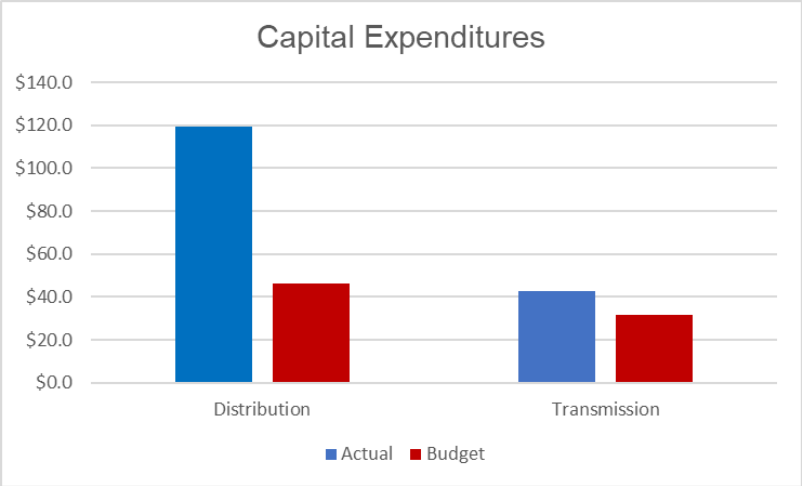


TABLE WMP-7-A: 2023 Actual and Budgeted Costs by Program Area

2023 Actual Investment Compared to Budget by Program ($ million)						
Activity	**O&M**			**Capital Expenditures**		
	Budget	**Actual**	**Variance**	**Budget**	**Actual**	**Variance**
Community and Development	$1.3	$0.1	($1.2)	$0.1	$0.0	($0.1)
Inspection / Modeling	$3.2	$4.7	$1.5	$0.1	$4.1	$4.0
Protection	$0.0	$0.0	$0.0	$11.8	$13.5	$1.7
Repair and Replace	$1.5	$1.1	($0.4)	$66.1	$144.8	$78.7
Vegetation Management	$2.6	$5.7	$3.1	$0.0	$0.0	$0.0
Total	**$8.6**	**$11.6**	**$3.0**	**$78.0**	**$162.4**	**$84.4**

TABLE WMP-7-B: 2023 Actual and Budgeted Costs by Program Area

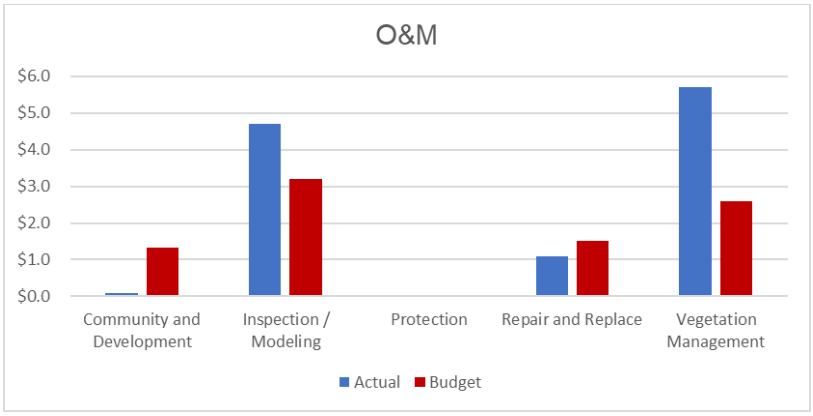
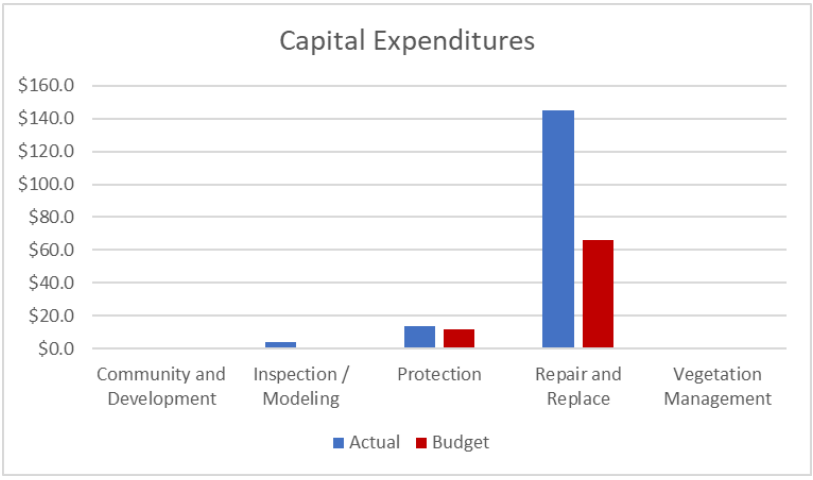


TABLE WMP-7-C: 2023 Actual and Budgeted Costs by Program Area



I. BALANCES AND MONTHLY DETAIL OF THE DEFERRED ACCOUNTS

In 2023, the Company in-serviced $83.14 million of Distribution WMP plant additions. These costs are primarily for reconductoring, pole replacements, and substation relay work. In 2023, Public Service incurred $6.9 million in Distribution WMP O&M and $2.3 million in Transmission WMP O&M. Please see Attachment F for the monthly Distribution plant additions and O&M detail. The Company is currently recovering $4.6 million of Distribution WMP O&M and $3.6 million of depreciation and return related to Distribution WMP capital in base rates. The monthly detail of the 2023 Distribution deferred balances awaiting recovery is included as Attachment G.

J. COMPANY'S PROGRESS ON EQUIPMENT UPGRADES

Public Service exceeded the majority of its targets in 2023. Bare secondary conductor replacement, covered conductor installation, equipment upgrades, high priority defect corrections, and small conductor replacements were above the targets. Pole replacements and relay upgrades were on target while recloser installations and major line rebuilds fell short of expectations. Table WMP-8 outlines the Company's progress on executing equipment upgrades, major line rebuilds, small conductor replacement, covered conductor installation, and overhead rebuilds, with a summary of work completed and work to be completed in 2024.

TABLE WMP-8: Equipment Upgrades Progress

Progress on System Protection and Replacement Projects								
Project	2019 Completed	2020 Completed	2021 Completed	2022 Completed	2023 Target	2023 Completed	Total	2024 Target
High Priority Defect Correction	72	225	256	272	259	312	1,137	274
Major Line Rebuilds [Miles]	NA	E&P for 2 circuits	22	9.3	9.5	5.5	37	29.8
Pole Replacement	2,305	3,697	4,302	3,051	2,750	2,777	16,132	2,160
Recloser Installation[1]	NA	43	13	N/A	10	0	56	42
Relay Upgrade	Engineering	7	18	14	20	19	58	22
Bare Secondary Conductor Replacement	NA	NA	6	18	10	15	39	4
Small Conductor Replacement	NA	NA	21	72	60	66	159	9
Covered Conductor	NA	NA	4	13	4	5	22	0
Equipment Upgrades[2]	NA[1]	NA	2,400	11,202	9,000	11,165	24,767	7,000

1. The Company does not have a formal recloser installation plan for 2024 but has identified an ongoing need for the replacement legacy reclosers or the addition of new reclosers based on enhanced protection studies.

2: Equipment Upgrades in 2019, 2020, and 2021 occurred with new pole replacements and conductor replacement efforts. Specific cases and were not tracked separately as individual pieces of equipment.

The relay replacement program continues to execute its workplan. The Company anticipates achieving a total of relay upgrades on 80 feeders by the end of 2024. This work will need to continue in the future.

PROGRESS ON VEGETATION MANAGEMENT ACTIVITIES

In 2023, we continued the adjustment from 2022 of aligning DSAP with cycle maintenance program areas.

The secondary voltage clearance program was aligned with cycle maintenance and achieved 92% percent completion from an overall perspective, including partially completed projects at yearend. The work associated with the shortfall was incorporated into the 2024 work plan.

The Company completed approximately twice the original target of miles for the Mountain Hazard Tree program. This equated to approximately 12,900 trees cleared.

Since the transmission ROW Conversion program areas are aligned with cycle maintenance, we exceeded original targets due to locating favorable locations and equipment utilization. This additional work included proactively removing smaller trees and other types of vegetation from the ROW. By not allowing the smaller vegetation to grow, the program reduces the potential fuel levels in the ROW, and therefore, reduces ignition risk. The program provides fire breaks and additional access for maintenance, inspections, and emergency situations. It also improves operational safety and reliability.

Company right-of-way with requisite clearances

Table WMP-9 provides the Company's progress on vegetation management. The table below identifies the percentage of work completed relative to the work planned for vegetation management activities for transmission and distribution assets in the WRZ.

TABLE WMP-9: Percentage of On-Cycle Vegetation Management Activities

Program	2023 YE Goal	2023 YE Actual	WC % Status
DSAP	3,065 poles	3,742 poles	122% of pole target
Dist. Secondary Clearance	29 Distribution Maintenance Areas ("DMA") (~Circuits) on 2023 work plan in WRZ	19 of the 29 DMAs fully completed (66%). When including partially completed projects, completion is 92%	66%
Dist. MHT / Enhanced MHT ("EMHT")	MHT: 545 miles	MHT: 1,101 miles	202%
	EMHT: in MHT total	EMHT: in MHT total	
Trans. MHT / Enhanced MHT	MHT: 208 miles	MHT: 461 miles	222%
	EMHT: in MHT total	EMHT: in MHT total	
Trans. ROW Conversion	35 acres	263 acres	751%

V. 2024 FORECAST

In 2023, we continued to implement several strategic lessons we learned from previous wildfire mitigation experiences. We continued to secure additional production slots and pre-ordered long lead time materials to mitigate material delays to the best of our abilities. We also have refined our budgets by performing thorough assessments of project scopes and have incorporated recent historical costs. As mentioned above, the Company will continue to further align wildfire work streams to be more efficient to promote the maximizing of resource utilization and the minimizing of customer impact. Overall, the Company anticipates meeting or exceeding its work completion KPI.

At the end of 2023, a concerted effort was made to enhance the integrity of our infrastructure through remediating equipment identified by the Overhead Pole Assessment (“OPA”) initiative. The OPA program revealed that approximately 50% of the poles assessed exhibited defects necessitating remediation – a value significantly larger than originally anticipated. In response to the volume of defects identified, the Company adopted a proactive approach to expedite the repair process. The Company

is committed to diligently conducting assessments and addressing the defects uncovered by the OPA program, thereby hardening our system and reinforcing our commitment to mitigation of wildfire risk.

In the closing months of 2023, the Company initiated a plan to extend our Wildfire Safety Settings ("WSS") program to new feeders. Informed by industry benchmarking and our accumulated experience, we recognized the imperative to amplify our strategic measures within this domain. To this end, we have procured 50[7] distribution line reclosers, an important component with extensive lead times, to facilitate the expansion of WSS across approximately 25 additional feeders in 2024. This proactive procurement underscores our commitment to advancing our wildfire safety capabilities in the forthcoming years.

Annually, the Transmission High Priority Defects Correction program's scope is developed based on the previous year's inspection results. Approximately 2,800 miles of transmission line are inspected every year to identify defects and other areas of concern. This past year 2023 represented the Company's fourth year performing these detailed visual inspections of the transmission line assets in the WRZ, and the Company anticipated there would be a decrease in the number of new defects that would be identified in 2023. That has not materialized, in part due to delays on major line rebuilds. The Company found 274 new priority defects in the WRZ that will need to be addressed in 2024.

In early 2023, the vegetation management team hired a program manager dedicated solely to activities in the WRZ, which should assist in continuing to achieve the work completion percentages that team has reached historically. Looking ahead to 2024, the Company plans to selectively expand clearance distances on distribution and increase the frequency of hazard tree patrols. Also, other vegetation management activities such as DSAP will continue. The evolution of the vegetation management program will continue to reduce overall risk by mitigating tree growth and tree mortality.

The Company is thankful for the opportunity to share this information and provide more context behind some of the metrics reported herein.

[7] The Company is targeting 42 locations in 2024. However, 50 reclosers were purchased last year due to the long lead time to support installs this year.