State of Washington
Department of Natural Resources
Wildland Fire Management

Washington Electric Utility Wildfire Mitigation Plan

City of Richland - Energy Services

October 1, 2024
Version 1.0

1.0 Executive Summary

When the Washington Legislature passed House Bill 1032 in July 2023 it stated that, *it is in the best interest of the state, our citizens, and our natural resources to identify the sources of wildland fires; identify and implement best practices to reduce the prevalence and intensity of those wildland fires; put those practices in place; and by putting those practices in place, reduce the risk of wildland fires and damage and losses resulting from those fires*.

The Legislature directed the Department of Natural Resources (DNR), in consultation with the Energy Resilience and Emergency Management Office of the Department of Commerce, to contract with an independent consultant with experience in developing electric utility wildfire mitigation plans to develop an electric utility wildfire mitigation plan format and a list of elements to be included in electric utility wildfire mitigation plans. The Wildfire Mitigation Plan (WMP) format below achieves the direction of the Legislature.

By October 31, 2024, and every three years thereafter, each consumer-owned utility and investor-owned utility must review, if appropriate revise, and adopt its wildfire mitigation plan. When reviewing or revising a wildfire mitigation plan, utilities must use the recommended format and elements contained in the WMP format. The plan must be submitted to the utility wildland fire prevention advisory committee created in RCW 76.04.780 to be posted on their website.

The template and list of elements included were developed in conjunction with the Wildland Fire Prevention Advisory Committee, electric utilities, the state fire marshal, the Governor's Office of Indian Affairs, and the public. The WMP format is intended to function as a guide and provide utilities with suggested elements for their plan which are informed by best practices demonstrated to reduce the prevalence and intensity of wildfires and which reduce the risk of wildfire and the resulting damage and losses.

Each section of the WMP format provides suggested topics, language, and guidance for its completion. This cover letter provides additional guidance to assist utilities in filling out the WMP format with relevant information. It is recognized that each utility faces unique geography, terrain, vegetation, and other characteristics that will present a variety of risk levels and result in unique and tailored approaches to address that risk. To that end, the WMP format has been designed to accommodate a broad range of recommended elements. It is not expected that all utilities will have practices or even a need to complete all sections or elements to the same degree. There are no statutory requirements directing what utilities must include in their plans. It is at the discretion of each utility to determine the elements applicable to its own wildfire mitigation efforts and the level of detail necessary to describe each element.

The WMP format was developed in recognition that some utilities may have wildfire mitigation programs that are more robust than others. It is acceptable to note these limitations when completing the WMP. For any section where a program overlaps two or more elements of the plan, it is acceptable to select the most applicable element to describe the program and reference that section where applicable for other areas. It is not necessary to repeat the program description multiple times.

City of Richland - Energy Services (RES) provides electric service within the City of Richland boundaries. This includes suburban, industrial, commercial, agricultural, and rural areas. Approximately 75% of the City of Richland's distribution system is underground.

Recognizing Fuel + Ignition = Fire, the purpose of the WMP is to mitigate the risk of wildfire ignitions. The WMP includes communication and coordination with local electric utility and fire agency partners to support collaborative wildfire mitigation efforts.

RES has had a long history of regular vegetation management around overhead power lines. This WMP is an effort to further mitigate risk of wildfires from electrical utility equipment. RES coordinates with Bonneville Power Administration (BPA) and BPA's WMP that includes Public Safety Power Shutoff (PSPS) decisions to RES electrical transmission points of delivery.

RES will continue to assess risk factors for wildfires including climate change, community growth, and its wildfire mitigation program evolves to ensure cost-effective and risk-based solutions are being utilized to best serve City of Richland customers.

Please use Appendix A. as needed to provide additional documentation, illustrations, relevant metrics (see examples in template), or other relevant information that does not fit within the WMP format.

In addition to the guidance in this document, an FAQ document will be created and maintained to document frequent questions and feedback. This will be available on the same site where the WMP format resides.

Additional technical assistance is available from the Department of Natural Resources and Washington State Department of Commerce. Contact information is provided below along with information and instructions for submitting completed Plans.

Your participation in this effort and any feedback to its continuous improvement is appreciated.

Submission: Please email your completed Wildfire Mitigation Plan to:

Bryan Perrenod, Secretary, Utility Wildland Fire Prevention Advisory Committee
Bryan.Perrenod@dnr.wa.gov

Contact information

Washington Department of Natural Resources

Loren Torgerson, Chair, Utility Wildland Fire Prevention Advisory Committee
Loren.Torgerson@dnr.wa.gov

DNR Website: https://www.dnr.wa.gov/

Wildfire Resources: https://www.dnr.wa.gov/programs-and-services/wildfire-resources

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2.0 Wildfire Mitigation Plan Overview

2.1 Purpose of the Wildfire Mitigation Plan

This Wildfire Mitigation Plan describes in detail the range of activities that a Utility or joint Utilities are taking to mitigate the threat of utility involved wildfires, including various programs, policies, and procedures. This plan complies with the requirements of HB1032 for investor and customer owned electric utilities (IOU/COU) to prepare a wildfire mitigation plan by October 31, 2024, and every three years thereafter.

2.2 Description of Where WMP Can be Found Online

The latest revision of the RES WMP may be found at the City's website: *Community News | City of Richland, WA (www.ci.richland.wa.us).*

2.3 Best Practices Cross-Reference Table

Standard or Best Practice Name and Description	**Document, page number, or citation**
HB 1032 – By October 31, 2024, and every three years thereafter, each Investor-owner and Consumer-owned Utility must review, if appropriate revise, and adopt its wildfire mitigation plan	RCW 76.04 RCW 19.29A

3.0 City of Richland – Energy Services Overview

3.1 Utility Description and Context Setting Table

Richland Energy Services (RES) is the City-operated public power utility that provides reliable, safe, not-for-profit electric service to City of Richland customers. We are directly accountable for service to our customers through the City Council, which governs the management and operations of the utility. The Utility Advisory Committee (UAC) serves as an advisory group to the City Council for policy and planning the overall management, financing, and operations of all Richland utilities. We operate with openness in all of our operations and encourage you to contact us with questions or feedback.

Table 1. Context-Setting Information Table

Utility Name	City of Richland – Energy Services
Service Territory Size (sq miles)	48
Service Territory Make-up	49.6% Urban 16.9% Agriculture 5.1% Barren/Other 0.0% Conifer Forest 0.0% Conifer Woodland 0.0% Desert 0.0% Hardwood Forest 1.0% Hardwood Woodland 0.9% Herbaceous 19.6% Shrub 6.9% Water
Service Territory Wildland Urban Interface (based on total area)	1.0% Wildland Urban Interface 3.0% Wildland Urban Intermix
Customers Served	27,048 through 2023
Account Demographic [*Note: Please provide as a percent of total customers served*]	93.3% Residential 0% Agricultural 6.7% Commercial/Industrial

Utility Equipment Make-up (circuit miles) [*Note: Please provide brief description of how line miles are measured or calculated*] Line miles calculated from ESRI through EOY 2023.	Overhead Dist.: 477.9 miles Overhead Trans.: 0 miles Underground Dist.: 146.9 miles Underground Trans.: 0 miles
Has developed protocols to pre-emptively shut off electricity in response to elevated wildfire risks?[1]	Yes ☐ No [X] A summary or description of protocols can be provided in section 7.
Has previously pre-emptively shut off electricity in response to elevated wildfire risk?	Yes ☐ No [X] If yes, then provide the following data for the three trailing calendar years: Number of shut-off events: [ ] Customer Accounts that lost service for >10 minutes: [ ] For prior response, average duration before service restored: [ ]

[1] For many utilities this will be a reference to a Public Safety Power Shutoff (PSPS) event. These events, whether through a formally defined PSPS program or not, are recognized as a safety measure of last resort initiated by utilities to pre-emptively de-energize specific powerlines during critical fire weather to reduce the risk of the electric system being involved in an ignition. The decision to either have or not have this type of practice is at the operational discretion of the individual utility.

4.0 Objectives of the Wildfire Mitigation Plan

The objective of RES's Wildfire Mitigation Plan is to reduce the probability that the utility's distribution system assets are the source of ignition or contribute to a wildfire. The plan attempts to balance this concern with providing safe, reliable, and affordable service to our customers.

4.1 Minimizing likelihood of ignition

RES has construction standards and specifications that are reviewed periodically to allow for best practice improvements that include material and component specifications for construction and design.

Prevention

Prevention attempts to minimize the possibility of wildfire, including tree trimming, pole maintenance, etc.

Detection

Detection aims to limit the occurrence of a wildfire by identifying hazards before a failure occurs. This may include increasing the frequency of line patrols beyond our standard pole inspection program and using new technology as it becomes available (e.g. drones or other imaging).

Response

Response time aims to reduce the impact of wildfires. RES has four servicemen and four-line crews available during normal working hours. After-hours, the two standby linemen are provided with a service truck at their residence to quickly respond to outages or any system issue.

4.2 Resiliency of the electric grid

While our service territory experiences minimal wildfire risk, RES recognizes the importance of preparedness. Our infrastructure is designed and maintained to withstand typical weather conditions in this region. In the unlikely event of a wildfire impacting our facilities, established protocols ensure a swift and coordinated response to minimize service disruptions and restore power as quickly as possible.

5.0 Roles and Responsibilities

5.1 Utility Roles and Responsibilities

Wildfire preparedness is integrated into our Community Wildfire Protection Plan (CWPP).

This approach ensures a swift and coordinated response should a wildfire event occur. We are committed to continually evaluating our wildfire preparedness and will adapt as needed to maintain service reliability.

5.2 Coordination with local utility and infrastructure providers

RES coordinates operational responses through Bonneville Power Administration (BPA), City fire agencies, and Benton County Emergency Management.

5.3 Coordination with local Tribal entities

There are no tribal lands within the City. However, the City does coordinate with local tribes for cultural evaluations primarily associated with excavations.

5.4 Emergency Management / Incident Response Organization

RES is a department within the City of Richland with a professionally staffed full-time fire department. RES participated with the Richland Fire Department in the completion and communication of a Community Wildfire Protection Plan (CWPP). The City's CWPP is available at: City of Richland Community Wildfire Protection Plan (arcgis.com). The City also coordinates, as needed, with the Benton County Emergency Services for Incident Management.

6.0 Wildfire Risks and Drivers Associated with Design, Construction, Operation, and Maintenance

6.1 Risks and risk drivers associated with topographic and climatological risk factors

Risk drivers may include:

- High winds are the greatest risk;
- Limited regular rainfall;
- Dry natural vegetation;
- Limited access to terrain;
- High ambients;
- Low humidity.

6.2 Enterprise-wide Safety Risks

Risk areas may include:

- Operational
- Procedural
- System Sensitivities

Risk drivers may include:

- Contact from Object (i.e., animal, balloon, vegetation, vehicle);
- Equipment / Facility Failure (i.e., Capacitor Bank, Conductor, Crossarm, Fuse, Insulator, Transformer, etc.);
- Wire to Wire Contact

7.0 Wildfire Preventative Strategies

7.1 Weather Monitoring

7.1.1 Current Strategy Overview

The City uses the National Weather Service (NOAA) Pendleton for weather monitoring.

7.1.2 Planned Updates

No changes to weather monitoring are anticipated in the next three years.

7.2 Design and Construction Standards

7.2.1 Current Strategy Overview

There are certain areas around the city being converted from overhead to underground on an as-needed basis. The City's electrical distribution system is currently over 75% underground.

7.2.2 Planned Updates

No changes to design or construction standards are planned at this time.

7.3 Fuel & Vegetation Management

7.3.1 Current Strategy Overview

The City has an existing right-of-way vegetation management program. This program includes tree trimming by zone on a three-year rotation or as needed.

7.3.2 Planned Updates

There are no anticipated or planned changes in the City's vegetation management program.

7.4 Asset Inspections and Response

7.4.1 Current Strategy Overview

The City currently does not engage in inspection practices for the purposes of wildfire mitigation.

7.4.2 Planned Updates

There are no anticipated or planned changes in the next three years.

7.5 Workforce training

7.5.1 Current Strategy Overview

See the City's CWPP. Energy Services coordinates with the Fire Department as needed. Employees are annually trained on wildfire smoke.

7.5.2 Planned Updates

There are no anticipated or planned changes in the next three years.

7.6 Relay and Recloser Practices

7.6.1 Current Strategy Overview

RES implements a standard two shots to lockout for a system fault. The SEL-351S relay controls and protects the medium voltage (12.47kV) circuit breakers for substation feeders. The settings in the SEL-351S are designed to deenergize the line for a system fault for a specified time period (0.2 seconds for newer style breakers and 0.8 seconds for older style breakers) for the first shot and reclose the breaker. If the fault is still detected, the relay will again deenergize the line by opening the breaker and attempt another reclose after a specified time period (5 seconds for newer style breakers and 10 seconds for older style breakers). If the fault is detected again, the breaker will operate to lockout and will not attempt another reclose attempt.

7.6.2 Planned Updates

There are no proposed changes to relay and recloser practices associated with wildfire mitigation.

7.7 De-energization / Public Safety Power Shutoff

7.7.1 Current Strategy Overview

RES will deenergize circuits as requested by BPA's wildfire mitigation plan and Public Safety Power Shutoff plans.

7.7.2 Planned Updates

RES will deenergize circuits as requested by BPA's wildfire mitigation plan and Public Safety Power Shutoff plans.

8.0 Community Outreach and Public Awareness

8.1 Current Community Outreach and Public Awareness Program

See the CWPP.

8.2 Planned Updates

There are no anticipated or planned changes in the next three years.

9.0 Restoration of Service

The City follows BPA's switching restoration process for a wildfire or a PSPS event.

10.0 Evaluating the Plan

10.1 Metrics and Assumptions for Measuring Plan Performance

There is no information available to evaluate currently.

10.2 Identifying and Addressing Areas of Continued Improvement in the Plan

There is no information available to evaluate currently.

10.3 Monitoring the Performance of Inspections

There is no information available to evaluate currently.

Appendix A.

External Risk Metrics:

- Red Flag Warning / High Wind days
    - National Weather Service (NOAA) from Pendleton, OR for advisory events at Tri-Cities Airport (KPSC): 7-Day Forecast 46.25N 119.08W (weather.gov).
    - Historical National Weather Service advisory events from Iowa State University for Washington (Pendleton Weather Forecast Office): IEM : NWS Watches Warnings Advisories Download (iastate.edu).