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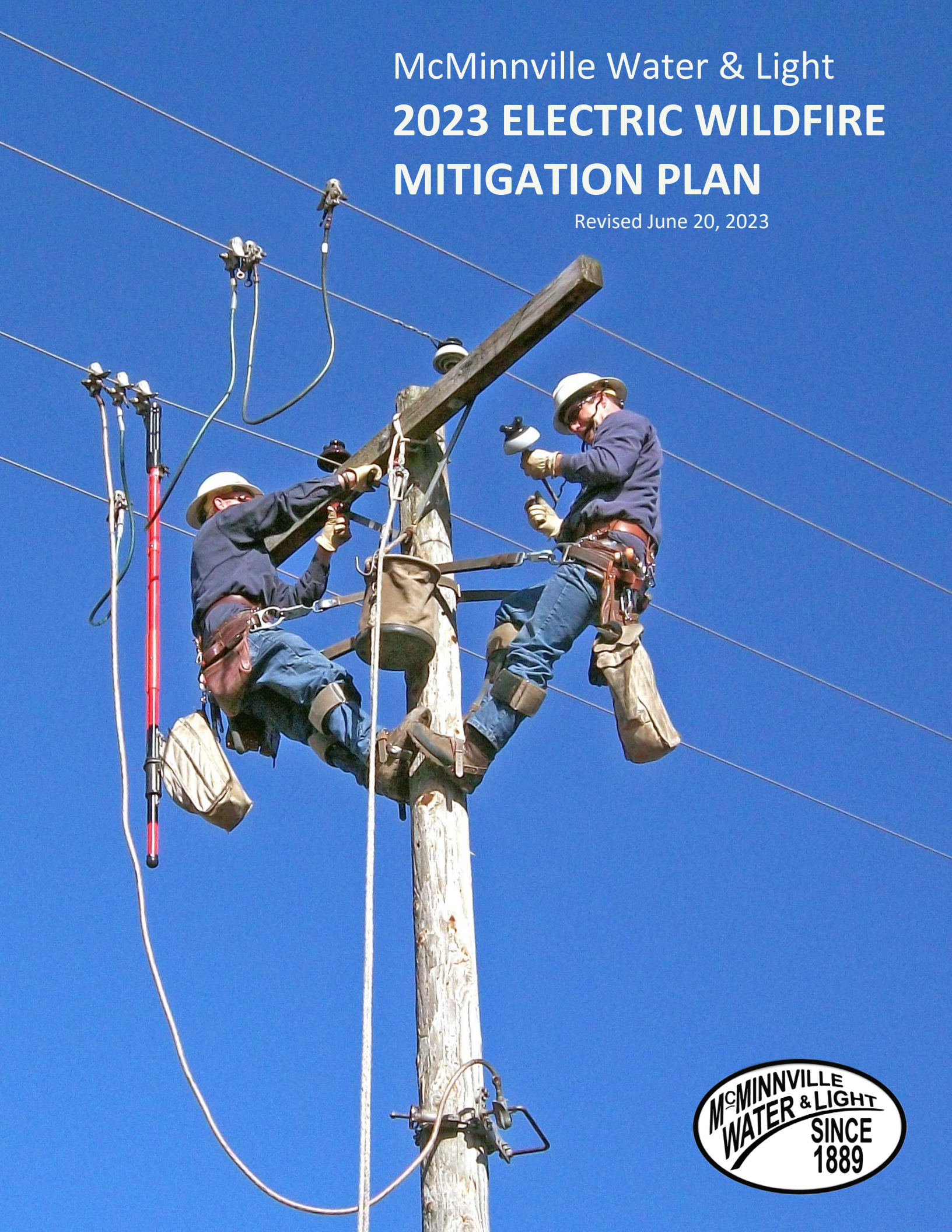
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# McMinnville Water & Light 2023 ELECTRIC WILDFIRE MITIGATION PLAN

Revised June 20, 2023



# MCMINNVILLE WATER & LIGHT ELECTRIC WILDFIRE MITIGATION PLAN

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# 1. INTRODUCTION

In recent years, the western United States has experienced exceptional wildfire seasons in terms of both destruction and duration. According to wildfire historians, the 2018 Camp Fire in Northern California was the deadliest wildfire in the United States in over a century and the most destructive in California history. The cause of the Camp Fire was determined to be Pacific Gas & Electric power lines. In recent years Oregon has experienced a combination of drought, high temperatures and low humidity resulting in catastrophic and deadly wildfires throughout the state, including coastal areas. Elevated wildfire concerns have driven changes in rules and procedures to electric utility operators. Oregon Administrative Rules, Oregon Revised Statutes and Oregon Public Utility Commission mandates require MW&L to have and operate in compliance with a risk-based wildfire mitigation plan approved by the governing body of the utility.

With increasing wildfire risk and both an electric utility and watershed owner, McMinnville Water and Light (MW&L) must document our assessment, mitigation and response strategies for potential fire risk, as well as, adopt new approaches and tools to address this growing concern. This wildfire Mitigation Plan (WMP) documents those efforts for McMinnville Water & Light.

## 1.1 Policy Statement

McMinnville Water & Light's overall goal is to provide safe, reliable and affordable electric service to its ratepayers. As an electric and water utility, we strive to design, construct, operate and maintain our facilities in a manner that minimizes the risk of wildfires.

## 1.2 Purpose

The Wildfire Mitigation Plan describes the wildfire risk assessment process, mitigation strategies, and response protocols used to minimize the probability of wildfire ignition from MW&L's electric system.

## 1.3 Objectives

The primary objectives of this Wildfire Mitigation Plan are to:

- Ensure public safety through ongoing assessment of potential wildfire risk from utility systems and implementation of strategies to mitigate those identified risks.
- Minimize fire ignitions from fault events by designing, constructing, operating and maintaining hardened and resilient electric systems.



## 2.2 Electric System

MW&L is a load-following customer of the Bonneville Power Administration (BPA), and takes delivery from BPA at five 115kV and one 230kV points of delivery. Approximately 45% of MW&L's load is supplied to one large industrial customer.

## 2.3 Asset Overview

MW&L's infrastructure includes transmission, distribution and fiber

Asset		Quantity
<b>Substations</b> – includes power transformers, disconnect switches, circuit breakers, capacitors, voltage regulators, protective devices, relays, communication equipment and a control building		7
<b>Transmission and Distribution Pole Structures</b> – includes steel and wood poles, cross arms, braces, insulators, distribution transformers, voltage regulators, switches, line protective devices, capacitors, communication equipment and lighting		5329
Asset	OH circuit miles	UG circuit miles
115kV Transmission Lines	11.2	0
Total Distribution Lines	250.2	357.6
Primary Distribution	173.1	160.7
Secondary/Service Wire	77.2	196.9
Total Fiber Optic Cable	25.9	4.8

## 2.4 Fire Protection Zones

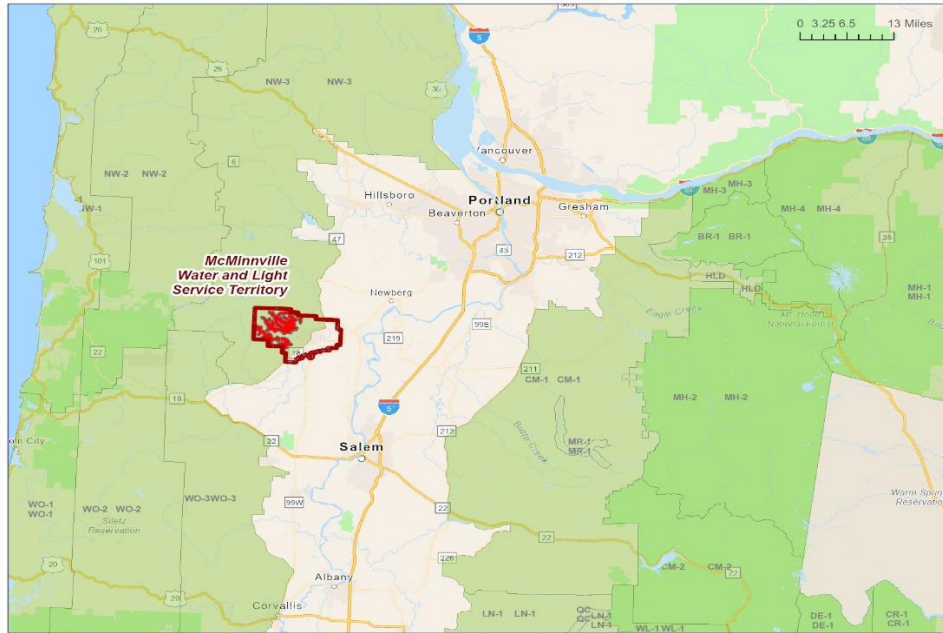
McMinnville Water & Light's service area extends into Oregon Department of Forestry Industrial Fire Precaution Level (IFPL) zone NW-3. IFPL restrictions are primarily based on climatic conditions (temperature, wind speed, relative humidity and likelihood of lightning) as well as local topography, fuel (vegetation) and wildfire resource availability. Each precaution level specifies those activities that are permitted as well as prohibited, and are labeled as:

- IFPL 1 – Fire Season
- IFPL 2 – Limited Shutdown
- IFPL 3 – Restricted Shutdown
- IFPL 4 – Complete Shutdown

During wildfire season, the IFPL restrictions may change daily. McMinnville Water & Light's operations supervisors, field personnel and contractors monitor these conditions to be aware

of the changing restrictions in each zone and shift work protocols as required by each zone authority.

### Oregon Industrial Fire Precaution Level (IFPL) Zones



## 3. RISK PROFILE

“Nearly all areas in Oregon experience some level of wildfire risk. Conditions vary widely with local topography, fuels, and local weather, especially local winds. In all areas, under warm, dry, windy, and drought conditions, expect higher likelihood of fire starts, higher fire intensities, more ember activity, a wildfire more difficult to control, and more severe impacts. “

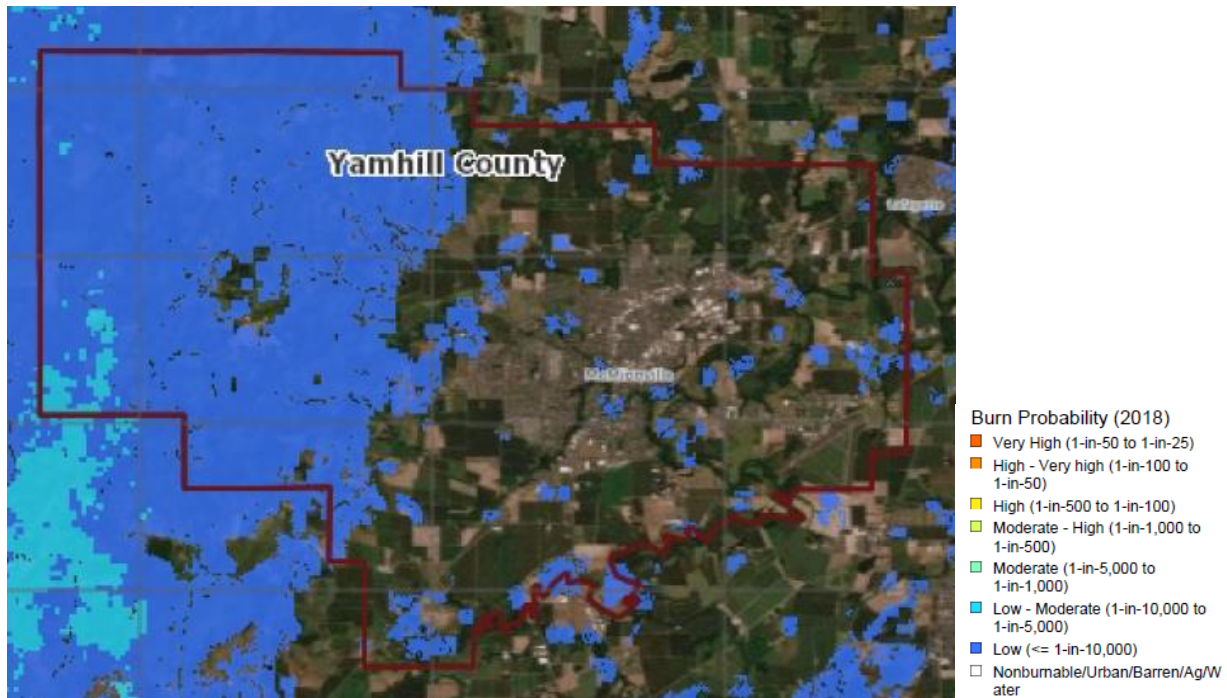
Oregon Wildfire Risk Explorer

### 3.1 Burn Probability

Burn probability shows the annual likelihood of a wildfire greater than 250 acres occurring. The analysis takes into consideration weather, topography, fire history, fuel (vegetation), and disturbed fuels from large wildfires dating back to 2013. Based on historical data, areas within MW&L service territory have a burn probability that varies from Low to Moderate.



## Burn probability from Oregon Wildfire Risk Explorer



Note that maps from the 2018 Quantitative Wildfire Risk Assessment are the best available until the SB762 Statewide Wildfire Risk Map update is completed.

### 3.2 Identified Risks

MW&L categorizes the potential causes for electric system sparks and ignitions from its overhead system into four general areas:

- Contact from Objects
- Equipment Failure
- Conductor to Conductor Contact
- Other

### 3.3 Contact from Objects

The construction of MW&L's overhead power lines are typically bare conductors on top of poles, crossarms and structures. Depending upon the voltage and design criteria, the lines are constructed to meet or exceed minimum clearances as set in the National Electric Safety Code to prevent contact and faults. However, with over 260 miles of overhead line within MW&L's service area, avoiding all contact from objects is unlikely.

*Vegetation:* The western Willamette Valley has favorable growing conditions for vegetation including trees. There is a mix of evergreen and hardwood trees that grow very well. Tree contacts are a contributor to outages. Tree contacts from growth, falling into lines, breakage from wind or ice conditions can contribute to these contacts.

*Vehicles:* Vehicle accidents that contact poles or guy wires can damage or break poles. Broken poles can put stress on conductors or cross arms and cause wires to break and fall to the ground which can cause sparks and arcs.

*Animals:* Birds, squirrels and other animal contact are common with electrical equipment. These contacts may be from nesting or just landing on or traveling across energized parts resulting in arcs or sparks.

*Other:* Other objects can cause faults through contacting conductors like balloons, kites and straw. Many objects that are conductive making contact between conductors or conductor to grounded material can fault and cause arcs or sparks.

### 3.4 Equipment Failure

MW&L employs a maintenance program for system and field equipment to ensure safety and reliability. However, the inherent aging of equipment, as well as environmental conditions, wear on the utility's equipment and can eventually cause it to fail.

Failed equipment components such as connectors and insulators can result in wire failure, causing the energized conductor to fall to the ground. Other equipment such as transformers can have internal shorts, causing the fuse to open which can produce sparks and could ignite a fire under the right conditions.

### 3.5 Conductor to Conductor Contact

Overhead transmission and distribution lines are constructed using up to four conductors. When two or more energized conductors make wire-to-wire contact, sparks can occur prior to the breaker or fuse tripping, creating the potential for fire ignition.

Conductor to conductor contact can also be caused by trees falling into overhead electrical structures or equipment, vehicles hitting a pole, extreme weather conditions or other events. MW&L's service area can experience high winds. The utility's overhead lines are designed to meet these windy conditions; though rare, it is still possible to have conductor to conductor contact due to high winds. Ice from freezing rain can build up on conductors causing them to sag due to the weight and contacting other equipment.

### 3.6 Other

Other sources of ignitions involving MW&L's power lines can be caused by contacts from the public, homeowners and contractors operating equipment or DIY projects. Even though property owners and contractors take precautions, their equipment can come into contact with power lines and cause sparking. The unintentional contact may cause damage to power lines, poles and supporting equipment, which may in turn cause sparks and fire ignition.

MW&L vehicles and tools can be a source of sparks or fire ignition. Crews working in remote areas and driving vehicles over dry grass or brush can cause the vegetation to ignite. MW&L's equipment and power lines can also be subject to vandalism. Depending on the extent of the damage, the damaged equipment can cause sparks, arcs or fire ignition.

## 4. RISK ASSESSMENT

In recent years, electric utilities in the west have experienced the impacts of increasingly variable and extreme weather events – most notably wildfire. These experiences highlight the need for utilities to fully explore the wildfire risks surrounding its distribution and transmission systems. Further, the need to mitigate for those risks is underscored by the public expectation that “lights will remain on” during extreme events and fire starts will not emanate from utility facilities.

MW&L is aware of the need to act on wildfire risk management planning to reduce risk of ignition causing a fire to surrounding property. Oregon has created rules requiring utility operators to develop plans to mitigate wildfire potential. Before incorporating wildfire risk strategies into utility system planning, an assessment of the distribution and transmission systems was necessary. MW&L opted to use in-house experienced personnel to complete its initial distribution and transmission wildfire risk assessments.



#### 4.1 Distribution

McMinnville Water & Light service territory includes forest land where the potential for wild fire exist. These areas do experience outages related to vegetation coming into contact with lines – either due to growth, windblown trees and limbs and dead trees falling into lines. Generally, high winds due to storm events include heavy rain reducing the risk of fire ignition from vegetation contact. However, summer months can be dry and windy with low humidity creating a potential for fire starts.

MW&L recognizes the impact wildfires can have on the community and has sought to identify those areas with the highest risk of wildfire from vegetation contacts. The assessment process utilized experienced MW&L personnel to evaluate the potential wildfire risk for each overhead distribution feeder within the service area.

#### 4.2 Distribution Risk Analysis

Engineering and Operations staff within the utility evaluated distribution lines using system and publicly available data, as well as, personal field experience. Each circuit is looked at from substation to service point. Criteria for wildfire risk considered included: vegetation, access,

outage history and fire season weather. Lines with the highest risk are prioritized for mitigation, either for additional vegetation maintenance or for additional utility system improvements.

### 4.3 Distribution Hardening Progress

System hardening is a description of the design, construction, and operation practices that make a system more resistant to severe weather and wildfire risk. MW&L has made progress in hardening areas identified as higher risk as follows:

- ❖ An additional tree crew has been brought on for more frequent clearing of the most at risk areas.
- ❖ Vegetation management is being tracked using GIS field data collection.
- ❖ Additional reclosers have been installed in higher risk areas to increase system protection and reduce outage impacts.
- ❖ Aging reclosers have been modernized with new controls.

### 4.4 Next Steps – Distribution

The risk analysis provided valuable information to assist in identifying and prioritizing areas of potential fire risk for near and longer term planning. Going forward, McMinnville Water & Light efforts include:

#### 4.4.1 Near Term:

- ❖ Feeders with the highest risk will be trimmed and cleared in a three-year cycle.
- ❖ Feeders with high risk that also experience other issues will be evaluated to determine if it is more cost-effective to underground, rebuild or relocate sections of line, replace protective fusing with non-expulsion type fuses, or install additional system protective devices such as reclosers.

#### 4.4.2 Longer Term:

- ❖ Wildfire risk will be added as a high priority for consideration to the utility's Capital Improvement plan for its transmission, distribution and communication systems.
- ❖ Staff will explore integrating new technologies for vegetation and data management to aid in field data collection, prioritizing asset replacements, and optimizing capital investment for maximum system benefit.

### 4.5 Transmission

McMinnville Water & Light inspects its transmission lines through ground patrols. The ground inspections provide information on the conditions within a transmission right-of-way and inform where vegetation clearing is needed as well as infrastructure maintenance.

To date, vegetation management of the transmission right-of-ways has been included by the utility's three year trimming cycle. Off-cycle vegetation clearing of the right-of-ways and access roads is performed when access is required for maintenance work or pole replacements.

#### 4.6 Transmission Risk Analysis

MW&L staff performed a review of transmission lines using personal experience and information from ground patrols. The review considered:

- ❖ The condition of the access points to transmission structures as well as the accessibility and terrain in the span;
- ❖ The vegetation growth under the line, on the sides, and at the base of structures;
- ❖ The ability to serve customers through an alternate line in the event of a wildfire.

#### 4.7 Next Steps – Transmission

After review of the transmission system, MW&L determined that it was necessary to increase the frequency of vegetation clearing for the transmission right-of-ways and access roads. Additional resources are required as the utility continues need-based maintenance and corrective work while increasing its cycle trimming efforts. Additional vegetation management resources have been allocated to increase the frequency of cycle trimming.

#### 4.8 Transmission and Distribution – Incremental Approach

MW&L manages vegetation for its transmission and distribution systems concurrently. Adding resources to enhance vegetation clearing for both will be done to balance the need to act on wildfire mitigation with the need to deliver affordable electricity to customers.

### 5. MITIGATION STRATEGIES

MW&L uses a variety of proactive measures to mitigate for fire ignitions on its transmission and distribution systems. The mitigation strategies for wildfire prevention intersect with the utility's engineering principles and operating practices for overall system resiliency.

#### 5.1 System Hardening

MW&L systems are designed and constructed for safety and reliability. Meeting or exceeding standards of the National Electric Safety Code. The utility's construction standards not only address extreme weather conditions, they also mitigate for potential fire ignitions from wire-to-wire contact due to high winds, failed equipment or structures. The utility's system hardening strategies are summarized below:

##### 5.1.1 Transmission

- Pole structures are designed to National Electric Safety Code Standards.

- Steel poles are considered for construction.
- Overhead wire spacing is increased vertically and horizontally to reduce wire to wire contact in high winds.
- Circuits are over insulated to reduce tracking and potential fire ignition due to contamination.
- Transmission lines are looped and have an alternate route for overall resiliency.

### 5.1.2 Distribution

- Larger class poles and shortened span lengths are used to address high winds. In high fire-risk areas, a steel or alternate material pole may replace a wood pole.
- Non-expulsion devices may replace conventional equipment.
- Conductors are installed with extra ground and tree clearance for wind and loading.
- Covered (insulated) service wire is used throughout the system. The covered wire is designed to withstand inadvertent contact with vegetation or other objects without fire ignition.
- Overhead lines are considered for undergrounding in areas prone to repeated outages due to high winds and tree exposure.
- MW&L bias is for all new line extensions to underground where feasible.

### 5.1.3 Substations

- Perimeter fencing is installed at all sites for substation security and public safety.
- Defensible space is maintained around substation perimeter fencing for fire mitigation.
- Main and auxiliary bus configurations are used for all-hazard resiliency in new construction.
- Relays are standardized for ease of operation, maintenance and integration with other devices.
- A fiber optic network connects utility operations facilities and substations ensuring SCADA-enabled control and high-speed communication between devices.
- The utility's fiber network has physical redundancy ensuring reliability during critical events.



## 5.2 System Protection

### 5.2.1 Non-reclose Settings

Under normal operating conditions, the utility’s relays and reclosures are set to open and close for incidental faults (such as an object blowing into the line) before opening for a more significant fault. During high fire-risk days, MW&L may set the relays to “nonreclose”. Which means the device, if open due to a fault, will not reclose which could contribute to wildfire. While disabling the reclose function does not fully eliminate ignition events from contacts with the line, it does reduce the number of potential ignitions (sparks).

This setting retains the function to coordinate in-series devices for the purpose of opening the device closest to a fault. Opening the device closest to a fault confines the outage to a small section of the line rather than de-energizing the entire line. The de-energized portion of the line must be inspected by ground patrols for vegetation contacts or equipment failure before it is re-energized. Ground level inspection of a de-energized line may take hours to complete depending on the length of the line and location. In a wind event, if there are multiple circuits de-energized, restoration efforts could take days.



### 5.2.2 Non-expulsion Devices

Fuses protect the distribution system from faults and damaged lines and equipment. Conventional fuses, when operated, expel hot particles and gases, which can ignite fires. MW&L primarily uses conventional expulsion fuses to protect its overhead circuits. However, staff is identifying expulsion devices in highest fire-risk areas and considering replacement with non-expulsion current-limiting fuses or other cut-out mounted devices to mitigate for fire ignition.

## 5.3 Operational Tools and Practices

During time of potential high fire risk, staff increases patrol of lines to identify potential hazards. SCADA (supervisory control and data acquisition) is used to monitor, operate and remotely control devices including substation reclosures and to isolate a line or line section. Operations supervisors monitor weather using a variety of sources including MW&L's weather station, NOAA, National Weather Service, weather apps and various websites. During fire season, work procedures are adjusted based on the Industrial Fire Precaution Levels (IFPL). Crews carry fire suppression equipment (firefighting tools, water, fire extinguishers) and follow a fire-watch protocol after work is completed.

## 5.4 Infrastructure Inspection and Maintenance

### 5.4.1 Transmission

Transmission pole and line detailed inspections are performed on a 10-year cycle. Ground-based inspections of the transmission lines occur every year. A driving or walking visual inspection is performed to detect any damage to the overhead line, structures or attachments. Inspectors are also looking for conductor clearances and hazard trees. Information from the ground-based inspection of transmission line access roads and right-of-ways are used to determine and prioritize immediate and future vegetation work. The utility seeks a clearance on either side of the transmission line with no vegetation overhang. Minimum distance can vary due to the terrain or easement agreements. Vegetation growth and encroachment for transmission right-of-ways are primarily addressed by the utility's established trim cycle. MW&L trims the electric system on a three-year trim cycle. The more frequent mowing and trimming minimizes the potential for fire-ignitions from vegetation contacts. MW&L uses contracted tree crews to complete the system trimming work. Off-cycle trimming is performed prior to construction or maintenance of a transmission line or pole structure replacement and also after a weather event that resulted in vegetation issues on the access road or in the right-of-way. Off-cycle trimming is performed by MW&L's contractors and in-house crews. The inspections provide information on facility conditions for planning and prioritization of future maintenance work necessary to maintain system reliability as well as mitigate for fire ignition.

Pole test and treat on the utility's wood transmission poles is performed on a ten-year cycle for proactive maintenance to mitigate for infrastructure failure. Steel poles are also inspected for corrosion on the pole and for cracks.

#### 5.4.2 Distribution

Distribution pole and line detailed inspections are performed on a 10-year cycle. Inspectors perform a visual inspection of poles, cross arms, attachments, conductor, service wire, ground rods and any other components associated with the pole as well as communication line and vegetation clearances. The inspectors look for signs of defects, structural damages, broken or loose hardware, sagging lines, condition of conductor, service and ground wires, condition of guy wires and anchors, condition of insulators, fuse holders, disconnects, risers, transformers, reclosers and other equipment as well as any clearance violations. Inspectors use a combination of walking and driving to complete the inspection.

Off-cycle inspections of distribution lines occur through notifications from a variety of sources including tree crews doing drive-by visual inspections, engineers planning for construction or maintenance work, adjacent land owners, first responders, customers and operations. Operations and engineering staff perform periodic drive by assessments of overhead distribution facilities and equipment and provide information to inform of system maintenance. MW&L seeks clearance on either side of the conductor and above the line at time of trim to obtain requirement for three-year cycle. Before trimming, tree crews consider location, line voltage, importance of line, height of structures, growth habit of tree species, movement of trees and conductor in adverse weather, as well as, sag of conductor at elevated temperatures or under high load demand.

Tree removal is encouraged if the trees are a fast growing species, leaning heavily toward the line, are dead or dying, heavily topped with no chance of reasonable development, or are easily climbable trees that are near the lines.

During fire season, tree crews carry firefighting tools and equipment, water, and chain saws are equipped with spark arresters. Tree crews adjust their work to comply with the Industrial Fire Protection Level conditions.

#### 5.4.3 Substations

Substation and equipment are inspected monthly. Switches, breakers, insulators, bus, structures and other hardware, as well as lines exiting the substation, are inspected to ensure all components are in good condition and functioning as intended. Transformers that are de-energized may undergo a complete inspection of all electrical, relay and bushing components to ensure proper functionality and reliability. A defensible space beyond the perimeter fence line

is maintained with vegetation trimming and clearing. Herbicide is used to maintain a vegetation-free zone inside the fence line.

## 5.5 Interagency Collaboration

MW&L collaborates with the McMinnville Fire District, City of McMinnville, county emergency management, Oregon Department of Forestry, Bonneville Power Administration, and neighboring utilities through meetings, and other forums throughout the year to prepare for high fire-risk events. MW&L coordinates with local emergency responders, county and state road departments, and communication providers on smaller incidents throughout the year. Operation supervisors are familiar with the local agency representatives and benefit from the established relationships during a larger event with enhanced situational awareness and established communication paths. MW&L has mutual assistance agreements with American Public Power Association and the Bonneville Power Administration. MW&L has provided mutual assistance to neighboring utilities on multiple occasions and benefits from these shared relationships.

## 5.6 Next Steps – Mitigation

- Expand the number of relays on the distribution system that are pre-programmed for the non-reclose setting in order to retain the functionality to coordinate with fuses, relays and circuit breakers during a critical event.
- Expand on the deployment of non-expulsion devices in identified high fire-risk areas. Installation work could be coordinated with other line work in the area for increased efficiency.
- Expand the use of fiberglass cross arms as a means to mitigate for fire ignition in select areas.
- Explore the use of thermal imagery to discover abnormal conditions (hot spots) on substation and transmission facilities related to loose connections, splicing, arrestors or other hardware.
- Explore digital technologies to identify encroaching trees and vegetation growth around power lines and document completed vegetation trimming and clearing work as a GIS layer in the utility's data base. Year-over-year data showing tree trimming progress and current encroachments would benefit vegetation management planning and budgeting.

# 6. RESPONSE STRATEGIES

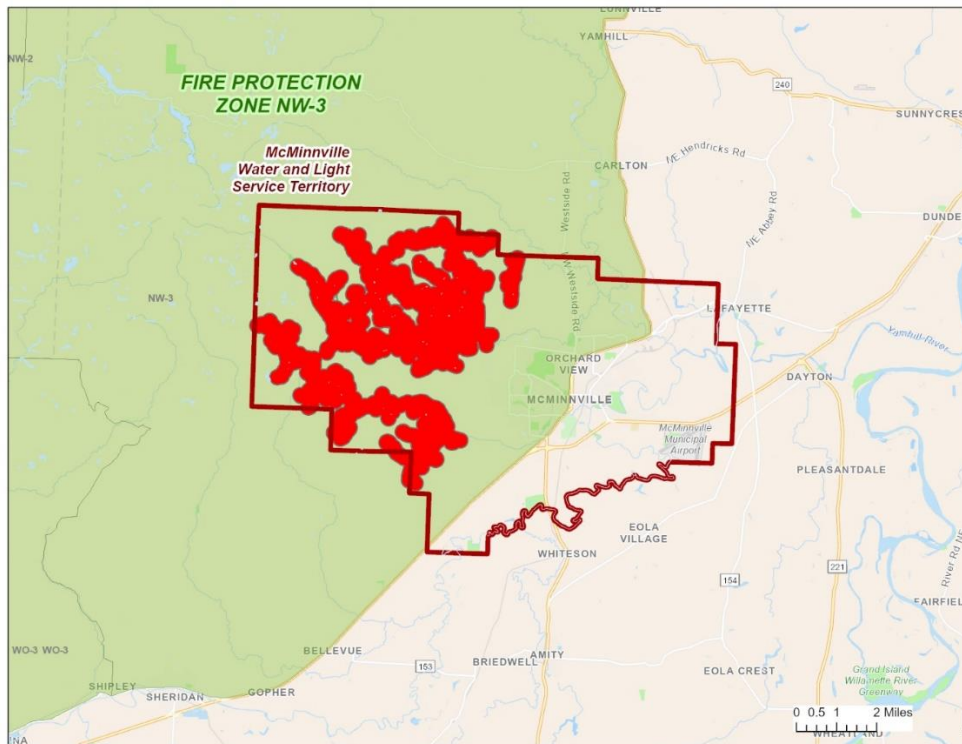
## 6.1 Situational Awareness

MW&L operations supervisors regularly monitor incoming weather using NOAA's National Weather Service data, weather apps and various websites. MW&L has installed fixed weather

monitoring stations that provide localized weather information. During fire season tree trimming crews and operations supervisors monitor weather conditions daily for fire risk in the field. During fire season, operations supervisors communicate with local wildfire management offices regarding IFPL restrictions and share relevant operational information. Operations supervisors notify field personnel and contractors of the changing restrictions in each zone and shift work protocols to meet each precaution level.

Red Flag Warnings and wildfire threat notifications are received by management as well as operations supervisors. Additional resources may be deployed to an area to further assess and monitor conditions at the local level. If an unusual weather event is expected, the General Manager, Electric Superintendent, as well as engineering and operations supervisors may attend weather briefings hosted by county emergency management or joint fire command.

Areas subject to heightened risk of wildfire



## 6.2 Employee Readiness

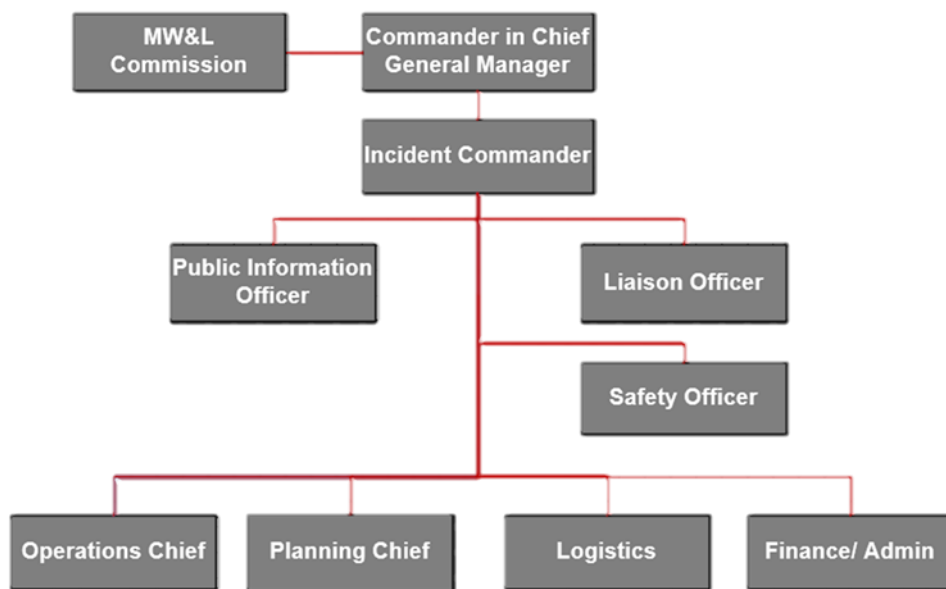
### 6.2.1 Incident Command System

McMinnville Water & Light emergency response protocols reflect the national Incident Command System (ICS) framework and referenced in MW&L's Continuity of Operations Plan. Emergency events impacting the utility are managed using ICS. Supervisors and managers are

expected to complete ICS 100, 200, 700, 800, 300 and 400 as well as any other role specific courses needed for their pre-assigned ICS position.

The utility's COOP plan specifies roles and responsibilities for each ICS position and is tailored to MW&L's organizational structure and operations. During heightened fire conditions or Red Flag Warning Days, the utility monitors conditions and employees are notified. As the situation escalates, employees follow the readiness protocols. When the potential for fire ignition increases, MW&L considers likely scenarios based on environmental, locational and weather conditions and develops an overall strategy.

### MW&L Incident Command Team



#### 6.2.2 Incident Command System

During an emergency event, ICS ensures clear lines of authority as well as the centralized dissemination of information. The Public Information Officer is responsible for preparing the communication plan based on information from the Incident Command Team. Consistent internal and external messaging is prioritized as well as timely updates to customers and the community. Communication may be done through the utility website, via social media, by push notifications to SmartHub users, press releases, liaison to local agencies, and personal contact with key account representatives.

#### 6.3 Operational Response

MW&L understands that the availability of electricity during an emergency event is critical. First responders' communication systems, emergency medical services and community water

systems all require electricity to operate. For those times when a potential for wildfire exists, the utility has a variety of measures and tools it can implement to deliver power safely.

### 6.3.1 Field Work

During high fire-risk days, work procedures are adjusted to mitigate for potential fire ignitions. Crews carry firefighting tools and water as well as refrain from the use of equipment that may spark. Upon completion of vegetation work, trimming crews remain in the area for a prescribed amount of time to ensure there are no ignitions as a result of their work.

### 6.3.2 System Monitoring

During normal operations, MW&L has an overnight/weekend on-call Lineman that receives SCADA alarms and other alerts for both the transmission and distribution systems.

### 6.3.3 Adjusting Resources

For high fire-risk days, operation supervisors are able to adjust recloser settings from normal to non-reclose setting. This setting preserves the ability for devices (fuse, recloser, circuit breaker) to coordinate and permits the device closest to a fault to open, de-energizing that section of line. Once a line is de-energized, ground patrols, looking for vegetation in the line or damaged equipment, must inspect the line before re-energizing.

## 6.4 Public Safety Power Shut Off (PSPS)

The potential for proactive de-energization of power to MW&L customers in order to mitigate for fire ignition is extremely remote. However, in the event that the utility is compelled - due to extraordinary conditions - to proactively shut power off to specific sections of the system, or due to BPA's system MW&L's goal is to provide as much advance notice as possible.

### 6.4.1 Customer Notification

In advance of peak fire season, MW&L will communicate with customers regarding the possibility of proactive de-energization. The advance messaging to customers and talking points for customer service include the conditions which may trigger de-energizing a line, the means by which the customer will be notified and the expected duration of an event.

In the event of a PSPS, MW&L will notify Public Safety Partners with as much notice practical. During such events, MW&L will keep lines of communication open and update situations before, during and after the event.

### 6.4.2 De-energizing Lines

Under normal operating conditions, operations supervisors have the authority to proactively de-energize sections of transmission and distribution lines to make safe for employee/contractor work as well as during isolated emergency events when requested by

local law enforcement or fire officials to ensure public safety. In the event of a wildfire, operations supervisors are authorized to de-energize at the request of the jurisdiction's unified Incident Command.

### 6.4.3 PSPS Protocol

- ❖ Triggers: MW&L will consider weather conditions that are forecasted for extreme fire conditions that exceed thresholds for humidity, wind and temperature.
  - Directive from Public Safety Partners or serving Utility.
- ❖ The General Manager will activate the COOP plan and schedule regular briefings for the Incident Command Team. The utility will move to Alert status for internal readiness.
- ❖ The Emergency Response Team will develop a proactive plan which contains timing details, area or circuits impacted and anticipated duration of event, if known.
- ❖ The Emergency Response Team will authorize a notification plan, prioritizing local emergency services, local law enforcement, fire departments and key accounts for early notice.
- ❖ As conditions become more certain, the decision to proactively de-energize a line will be based on feedback from local emergency services, operational personnel and weather forecasts.
- ❖ If a decision is made to implement a Public Safety Power Shutoff, the Emergency Response Team will execute the COOP plan including:
  - Notification to local emergency services, law enforcement, fire departments and other public partners as listed in MW&L's COOP plan.
  - Pre-positioning of crews in preparation to patrol lines before re-energizing when conditions warrant. Crews will patrol the entire line to look for vegetation in the line and obvious damage that may prevent safe re-energization. Depending on the length of lines, number of circuits impacted and repairs required, the patrols may take hours to days to complete.
- ❖ If conditions abate, the proactive de-energization event will be canceled and local emergency services, law enforcement, fire departments, other public partners, key accounts and customers will be notified.

### 6.5 Interagency Coordination

During a wildfire event, McMinnville Water & Light will coordinate with the McMinnville Fire District, City of McMinnville, emergency management personnel, first responders, and forestry staff. MW&L may also send a liaison to represent the utility at another entity's Emergency Operations Center. The utility's use of the Incident Command System to interface with first responders, agencies and local governments is key to two-way communication, effective coordination and a successful overall response.

## 6.6 Industry Collaboration

During fire season, if MW&L de-energizes lines proactively, or as a result of a wildfire, crews will patrol each line section prior to re-energizing. If there are more lines to patrol than the utility has resources to complete the inspections in a timely manner. MW&L may call for mutual assistance from other utilities.

## 7. PLAN EVALUATION

MW&L will track the following metrics to measure the performance of this WMP:

- ❖ Number of vegetation related outages, including location by feeder.
- ❖ Number of wire down events and causes.
- ❖ Number of known fire ignitions associated with the utility's electric infrastructure.
- ❖ McMinnville Water & Light staff will annually evaluate modifying or adding new metrics in future years as more data becomes available and situational awareness continues to improve.

## 8. PLAN MANAGEMENT

This Wildfire Mitigation Plan is subject to review by the McMinnville Water and Light Commission. Mitigating for wildfire risk is the primary objective of this document. Staff has the role of vetting current procedures and recommending changes or enhancements to build on strategies to meet the objective. Deficiencies due to industry developments, technology adoption, modified operational practices, or unforeseen circumstances, will be addressed in the form of an updated WMP and presented to the McMinnville Water & Light Commission on an annual basis. The annual review will align with the utility's existing planning process.