



**Okanogan County Electric Cooperative
Wildfire Mitigation Plan
March 2022
Version 2**

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I. OVERVIEW

A. COOPERATIVE OVERVIEW

Okanogan County Electric Cooperative serves the beautiful Methow (pronounced Met-How) Valley, the towns of Winthrop, Mazama, and areas surrounding the town of Twisp. Located in the North Cascade Mountains, the deep winter snows add to the challenge of serving this rural area.

Okanogan County Electric Facts (2021)

- 4,018 meters
- 452 miles of line
- 14 employees
- Plant investment: \$16,327,953
- 2021 kWh sales: 65,828,280
- 2021 sales in \$: \$6,335,460

B. PURPOSE DECLARATION

The purpose of Okanogan County Electric Cooperative (OCEC or the Cooperative) is to provide utility services with a high level of reliability for fair and reasonable costs. We are dedicated to operating safe and dependable electric services while striving to improve the quality of life for our member-owners and our local communities.

The Cooperative works proactively to manage and mitigate the risk of wildfire while operating and maintaining its system. The outcome of this approach is diligent stewardship of member-owner investment in the Cooperative as it continues to construct, maintain, and operate its electric distribution system in a manner that minimizes the risk of wildfire posed by its electrical lines and equipment. The Cooperative has applied careful consideration in the development of broad strategies to mitigate utility-posed wildfire risks. This Plan is a “living document” and will be reviewed and modified on an ongoing basis as regulations are updated, advances in technology occur and operational circumstances change.

C. PURPOSE OF THE WILDFIRE MITIGATION PLAN

This Wildfire Mitigation Plan (WFMP or Plan) describes the measures the Cooperative takes to mitigate the threat of Cooperative equipment ignited wildfires.

The goals and activities included in the WFMP focus on a comprehensive and integrated assessment of the risks posed by OCEC's distribution system. This involves an assessment of OCEC's equipment and facilities, weather conditions, the density and condition of potential fuels such as vegetation, and the potential threat to public safety. OCEC's commitment to fire safety, prevention, mitigation, response, and recovery is a crucial element of our mission.

This Plan is subject to approval by the Cooperative's Board of Directors and is implemented by the General Manager.

D. ORGANIZATION OF THE WILDFIRE MITIGATION PLAN

This Wildfire Mitigation Plan includes the following elements:

- Objectives of the Plan
- Roles and responsibilities for executing the Plan
- Description of wildfire prevention strategies
 - Enhanced Vegetation Management
 - Inspections by both Crews and Certified Forester
 - Revised methods of line design
 - Changing Operational Practices during fire season
- Employee Training
- Situational Awareness and Weather Monitoring
- Continuous improvement of the Plan
- Community outreach and public awareness
- Review by independent 3rd party

II. OBJECTIVES OF THE WILDFIRE MITIGATION PLAN

A. MINIMIZING SOURCES OF IGNITION

The primary goal of this Plan is to minimize the possibility the Cooperative's facilities may be an original or contributing, however unlikely, source of ignition. The Cooperative has evaluated the system improvements, operational procedures, and training that can help to meet this objective. Further, the Cooperative is updating best operations management practices to reflect its commitment to sensible system operations management and will explore new opportunities each year for improving the efficacy of the Plan.

B. RESILIENCY OF THE ELECTRIC GRID

Along with creating a WFMP, the Cooperative acknowledges the opportunity to improve resiliency by hardening the system. System resiliency is defined by the National Infrastructure Advisory Council as the ability to reduce the magnitude and/or duration of disruptive events. As part of the development of this Plan, the Cooperative assesses new industry practices and technologies that may reduce the likelihood of a disruption in service or improve the timeline for restoration of service.

III. ROLES AND RESPONSIBILITIES

A. OCEC WFMP ROLES AND RESPONSIBILITIES

The Cooperative utilizes a Board/General Manager governance and reporting hierarchy. Board members are elected by Cooperative member-owners to rotating three-year terms.

The Board President, Vice President, and Secretary/Treasurer are appointed by the Board annually. The Board is responsible for adoption of all policy and delegates the operational implementation of policy to the General Manager.

The General Manager has full operational authority of the Cooperative and reports directly to the Board. The General Manager provides direction and management to all Cooperative staff while implementing Board adopted policy.

The Operations Manager, the Manager of Finance and Administration and the supporting communications staff serve as the Cooperative's public liaisons to outside agencies as well as responding to requests for information, including proactively providing public awareness outreach and emergency information.

The Operations Manager will assume the WFMP operational authority of the General Manager in the absence of the General Manager. The Operations Manager oversees the daily electric utility operations, including construction, maintenance, energy control, fleet, vegetation management, and other ancillary daily duties.

Cooperative staff have the following responsibilities regarding fire prevention, response, and investigation:

- Conduct work in a manner that will minimize potential fire dangers
- Take all reasonable and practicable actions to prevent fires resulting from the Cooperative's electric facilities

- Coordinate with Federal, State, and Local fire management personnel to ensure that appropriate preventative measures are in place
- Immediately report fires, pursuant to specified procedures
- Take corrective action when observing or having been notified that fire protection measures have not been properly installed or maintained
- Ensure that data related to the WFMP is appropriately collected
- Maintain adequate training programs for all relevant employees

B. COORDINATION WITH EMERGENCY MANAGEMENT AND OTHER ORGANIZATIONS

The Cooperative will support the Okanogan County Emergency Management Center (EMC) operations, when requested by an emergency manager.

Some of the other local entities that OCEC will work with are:

- Aero Methow Rescue Service
- Methow Salmon Recovery Foundation
- Methow Conservancy
- The Towns of Winthrop and Twisp
- Okanogan County Sherriff's Department
- Okanogan County Fire District #6

In addition, OCEC has an Emergency Management Plan that can be implemented if needed. OCEC also follows the FEMA Incident Command System when working with local organizations during crisis situations.

IV. WILDFIRE PREVENTION STRATEGIES

A. WEATHER MONITORING

The Cooperative monitors current and forecasted weather data from a variety of sources including but not limited to:

- The National Oceanic and Atmospheric Administration (NOAA)
- United States National Weather Service (NWS) Spokane Office
- OCEC staff knowledge of local conditions
- Member reports of current weather observations

The Cooperative will evaluate the cost and benefit of employing other technologies where practicable.

Based on the relevant weather data and knowledge of local conditions, the daily conditions could fall into one of these categories.

- 1) **Normal:** During normal conditions, no changes are made to operations or work procedures.
- 2) **Elevated:** During elevated fire-risk conditions, Cooperative staff will perform normal work with an elevated level of observation for environmental factors that could lead to an ignition.
- 3) **Red Flag Warning:** If the National Weather Service declares a Red Flag Warning (RFW) for any portion of the Cooperative's service territory, the Cooperative may delay all routine work on overhead energized primary lines. The Cooperative may perform necessary work to preserve facilities or property.

B. ENHANCED VEGETATION MANAGEMENT, CLEARANCE PROGRAM, AND INSPECTIONS

OCEC employs a multi-faceted approach to vegetation management that when combined with its inspection program, attempts to minimize the risk that OCEC facilities would be involved in a fire start.

OCEC has a rotating, three-year cycle of tree trimming. Tree trimming is typically performed by OCEC line crews in the winter when normal line construction is not able to be performed.

OCEC currently employs two independent approaches to line inspections and may add or remove approaches as needed. These approaches include but are not limited to:

- OCEC's line crews patrol the overhead lines formally once every three years. The crews may also patrol certain forested areas in the spring outside of the formal inspection cycle.
- The Cooperative also contracts with a certified forester to examine each overhead line and the surrounding forest around the lines. This is done every other year. The result is a Hazard Tree Inspection Report that drives safety-driven maintenance decisions and helps direct the normal vegetation management program. The certified forester looks at the conditions of the forest near the overhead lines to assess the potential fuels or hazards.

The Cooperative also employs mechanical treatment of ground vegetation in certain areas with thick ground cover.

C. REVISED METHODS OF LINE DESIGN

The Cooperative has changed certain aspects of its line design to help mitigate the potential of its facilities being involved in wildfire starts. These are:

- Requiring new facilities to be built underground when in the best interest of the cooperative
- Changing out expulsion fuses to alternative technology and/or equipment in certain areas

D. RECLOSER OPERATIONAL PRACTICE

For a matrix showing the relationship between OCEC's recloser operational practice and the weather monitoring we have created a table attached to the Plan in the appendix.

Elevated Operations

During elevated fire risk times or at the beginning of the fire season (which has historically extended from early summer through late fall), OCEC will alter the operation of the line reclosers that feed OCEC's distribution system by setting them to "non-reclose".

Red-Flag Warning Operations

When a red-flag warning is issued, OCEC will incrementally alter the operations of the substation reclosers that feed OCEC's distribution system by setting them to "non-reclose".

Any outages during this time will require a visual inspection before re-energization.

Effects of Altering the Operation of Reclosers to "Non-Reclose"

Altering the operation of reclosers, either in elevated fire risk or red-flag conditions, has the effect of both lengthening the duration and possibly increasing the number of members affected by outages. An outage that might have been successfully re-energized with a recloser action under normal conditions would now require crews to go out and visually inspect the line before re-energization.

E. FIRE SAFETY SHUTOFFS (FSS)

OCEC has the authority to preemptively shut off power due to fire-threat conditions, however, this option will only be used in extraordinary circumstances. Generally, all planned FSS will go through chain of command decision-making process. However, during an emergency or quickly developing situations, any trained employee can trigger an FSS with Management follow-up.

OCEC will make a case-by-case decision to shut off power based on any one or more of the following considerations:

- Red-Flag Warnings issued by the National Weather Service for fire weather zones that contain OCEC circuits
- OCEC staff assessments of local conditions, including forecasted wind speed (sustained and gust), forecasted humidity, forecasted temperature, and data from weather stations
- Real-time information from staff located in areas identified as at risk of being subject to extreme weather conditions
- Awareness of mandatory or voluntary evacuation orders in place
- Expected impact of de-energizing circuits on essential services
- Other operational considerations to minimize potential wildfire ignitions, including altering the operation of reclosers on the identified circuit(s)
- On-going fire activity throughout the area
- Ability to notify members
- Notifications to local governments and public officials
- Potential impacts to communities and members
- Direct request from Incident Command

F. RESTORATION OF SERVICE AFTER FSS

Conditions during an FSS event are monitored and when thresholds are no longer exceeded, lines are patrolled and re-energized.

Length of an outage depends on several factors and cannot be determined before a specific FSS event occurs.

As experience with FSS is gained, OCEC expects the Plan to evolve incorporating lessons learned to improve the process.

V. WORKFORCE TRAINING

OCEC believes that an important line of defense against the ignition of fires is a well-trained and alert workforce. Internally, OCEC has created a culture of fire prevention. To that end, OCEC is developing training programs designed to minimize the likelihood that OCEC facilities or field work would be the source of ignition for a fire.

The Cooperative is developing training programs for its workforce to become familiar with the WFMP. All field staff will be:

- Trained in the content of the WFMP
- Trained in proper use and storage of fire extinguishers

- Trained to be aware of high-risk environmental conditions
- Trained in the community outreach components included in this Plan

Workforce training additionally will include obtaining feedback from employees for possible incorporation into the Plan.

VI. CONTINUOUS IMPROVEMENT OF THE PLAN

Achieving a robust, effective plan to mitigate wildfire risk is the primary objective of this document. Staff has the role of vetting current procedures and recommending changes or enhancements to build upon non-optimized strategies in the Plan. Either due to unforeseen circumstances, regulatory changes, emerging technologies, or other rationales, deficiencies within the Plan will be sought out and reported to the Board in the form of an updated Plan on an annual basis.

The Operations Manager, or their designee, will be responsible for spearheading discussions to address deficiencies when updating the Plan for its annual presentation to the Board. All stakeholders are empowered to suggest improvement opportunities. These stakeholders may include but are not limited to:

- Employees
- Management
- Auditors
- Fire safety professionals
- Emergency Management personnel
- Members of the public

VII. COMMUNITY OUTREACH AND PUBLIC AWARENESS

A. COMMUNICATIONS WITH MEMBERS ON THE WFMP

OCEC employs various methods of communicating with its members and the public. These forms of communications each have their use in terms of differing levels of immediacy and the amount of information one can supply. These forms of communications to the members include:

- Newsletter articles
- Methow Valley News articles
- OCEC Website
- E-Mail

- Text messages
- OCEC sponsored Member Forums
- Community meetings
- Okanogan County Emergency Management System

Each of these may be used in some part depending on the urgency of the communications needed and the amount of information that needs to be conveyed.

B. OUTREACH TIMELINE

Below is a matrix of the content, media employed and recipients of the different potential communications during fire season.

Content	Media	Recipients
Update of program at the beginning of fire season	<ul style="list-style-type: none"> • Newsletter articles • Methow Valley News Articles • OCEC Website • E-Mail • OCEC sponsored Member Forums • Community meetings 	<ul style="list-style-type: none"> • Members • Local Government Entities • Fire District 6 • County Emergency Management • Local Community Agencies
Alert that conditions are approaching critical levels	<ul style="list-style-type: none"> • OCEC Website • Text messages • Okanogan County Emergency Management System 	<ul style="list-style-type: none"> • Members • Local Government Entities • Fire District 6 • County Emergency Management • Local Community Agencies
Forecasted FSS Alert (if possible)	<ul style="list-style-type: none"> • OCEC Website • Text messages • Okanogan County Emergency Management System 	<ul style="list-style-type: none"> • Members • Local Government Entities • Fire District 6 • County Emergency Management • Local Community Agencies
Notice to membership that Resource Center is set up at the Barn	<ul style="list-style-type: none"> • OCEC Website • E-mail • Text messages • Okanogan County Emergency Management System 	<ul style="list-style-type: none"> • Members • Local Government Entities • Fire District 6 • County Emergency Management • Local Community Agencies
Imminent De-energization Alert	<ul style="list-style-type: none"> • OCEC Website • Text messages • Okanogan County Emergency Management System 	<ul style="list-style-type: none"> • Members • Local Government Entities • Fire District 6

		<ul style="list-style-type: none"> • County Emergency Management • Local Community Agencies
Notification of actual de-energization	<ul style="list-style-type: none"> • OCEC Website • Text messages • Okanogan County Emergency Management System 	<ul style="list-style-type: none"> • Members • Local Government Entities • Fire District 6 • County Emergency Management • Local Community Agencies
De-energization Updates	<ul style="list-style-type: none"> • OCEC Website • Text messages • Okanogan County Emergency Management System 	<ul style="list-style-type: none"> • Members • Local Government Entities • Fire District 6 • County Emergency Management • Local Community Agencies
Intent to Restore Alert	<ul style="list-style-type: none"> • OCEC Website • Text messages • Okanogan County Emergency Management System 	<ul style="list-style-type: none"> • Members • Local Government Entities • Fire District 6 • County Emergency Management • Local Community Agencies
Restoration is Complete Notification	<ul style="list-style-type: none"> • OCEC Website • E-Mail • Text messages • Okanogan County Emergency Management System 	<ul style="list-style-type: none"> • Members • County Emergency Management • Local Community Agencies

C. POSSIBLE NEGATIVE EFFECTS OF FSS

Because of the way the electric circuits are constructed, all power will be out in the area where the FSS occurs. Loss of power to critical loads cannot be avoided. Some of the effects of an FSS include:

- Possible loss of power to high-risk fire areas
- Possible loss of power to members who have medical equipment that runs on power
- Unavailability of domestic or irrigation water, due to
 - Loss of power to critical equipment such as well pumps and irrigation
 - Loss of pressure on pumped water systems
- Loss of power to refrigeration
- Electric garage doors and gates may be inoperable

D. ASSISTING VULNERABLE MEMBERS DURING FSS EVENTS

While all OCEC members affected by an FSS will experience the effects of loss of power, OCEC is aware of vulnerable groups for whom a loss of power would be a greater hardship or who live in an area where customary communication channels are lacking. These groups include:

- Members reliant on medical devices
- Members who lack mobility
- Members in areas that do not have cell phone service
- Members in areas that do not have internet service

OCEC will request access from the Town of Winthrop to the Barn in Winthrop as a resource center to assist these vulnerable members during a predicted FSS. However, it is critical that these members establish their own loss of power emergency plan in the case of an FSS event.

E. MEMBERSHIP HELP DURING FSS EVENTS

As part of our plan to support members during Fire Safety Shutoffs, OCEC may request to establish a general community resource center at the Barn in Winthrop, in addition to the assistance of vulnerable members.

This resource center will provide members affected by power shutoffs a place to go for information. It is intended that members will have access to water, snacks, ice, and cell phone charging, but these may be unavailable on a case-by-case basis.

These resource centers may not be immediately available if the FSS is an emergency and there is no lead time to set it up. If an emergency FSS outage looks prolonged, OCEC will request to establish the resource center. If an FSS is predicted, OCEC will request to open the resource center and have it ready in case an FSS occurs.

There may be events out of the control of OCEC, such as Covid-19 restrictions or another entity already utilizing the Barn in Winthrop, that will not allow for a resource center to be established. It is critical that members establish their own loss of power emergency plan in the case of an FSS event.

F. WHAT MEMBERS CAN DO TO PREPARE

Members will need to self-supply energy needs, if desired, during an FSS event. Generators are an excellent way to self-generate power during electrical outages. Please contact an

electrician or OCEC for more information. Among other things, a member can do the following to prepare:

- Have a back-up source of power. Loss of power to critical equipment such as well pumps, medical equipment, and irrigation cannot be avoided without self-generation or battery back-up
- Have a plan for household items/medications that need refrigeration or freezing
- Sign up for OCEC text messages
- Sign up for the Okanogan County Emergency Management Alert System

VIII. REVIEW BY INDEPENDENT THIRD PARTY

Brown and Kyser, Inc, an engineering services company with experience in preparing wildfire mitigation plans, assisted in the initial development of this plan. OCEC plans to have a third-party review of this document periodically as changes are implemented.

Appendix – Weather Conditions and System Operations Matrix

Weather Conditions	Communicated “Level” to Membership	Field Recloser Status	Substation Recloser Status	Changes in OCEC Work or Processes?
Normal	None	Normal	Normal	None
Elevated	Yellow	Altered to “non-reclose” or “one-shot” status	Normal	Increased awareness of fire risk in the field, daily tracking of current and forecast weather
Red Flag Warning	Red	Altered to “non-reclose” or “one-shot” status	Altered to “non-reclose” or “one-shot” status	May delay all overhead equipment work depending on location and conditions, daily tracking of current and forecast weather