



**Okanogan County Electric Cooperative  
Wildfire Mitigation Plan  
June 2021**

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## I. OVERVIEW

### A. COOPERATIVE OVERVIEW

Okanogan County Electric Co-op 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. In 1999 they added propane distribution to better serve their members' energy needs.

### Okanogan County Electric Facts

- 3,911 meters
- 376 miles of line
- 19 employees (including propane)
- Plant investment: \$15,454,032
- 2020 kWh sales: 62,083,740
- 2020 sales: \$6,046,042

### 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 aggressively and proactively to manage and mitigate the risk of wildfire while operating and maintaining its system. The outcome of this approach is diligent stewardship of customer/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 catastrophic 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 (WMP or Plan) describes the measures the Cooperative takes to mitigate the threat of Cooperative equipment ignited wildfires.

The goals and activities included in the WMP 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
  - Building Resiliency into Existing Facilities
  - Changing Operational Practices during fire season
- Employee Training
- Situational Awareness and Weather Monitoring
- Identifying areas for improvement and incorporating into the Plan
- Community outreach and public awareness
- Review by independent 3<sup>rd</sup> 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 management practices to

reflect its commitment to sensible system 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 WMP, the Cooperative realizes 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 WMP 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 CFO/Office Manager and the Communications lead 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 WMP 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 wildfire data 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. Support could include the exchange of information, supplying resources, or staffing at the EMC.

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

- Aero Methow Rescue Service
- The Cove
- Methow Salmon Recovery Foundation
- Methow Conservancy
- Methow Recycles
- Room One
- Winthrop Auditorium
- 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. IDENTIFICATION OF HIGH-RISK AREAS

The following are the high-risk areas of OCEC's service territory:

- Upper Twisp River
- Upper Chewuch River
- Upper Beaver Creek Area
- Certain areas near Mazama

### B. WEATHER MONITORING

The Cooperative monitors current and forecasted weather data from a variety of sources including:

- The National Oceanic and Atmospheric Administration (NOAA)
- United States National Weather Service (NWS)
- United States Forest Service Wildland Fire Assessment System
- National Fire Danger Rating System
- Internal knowledge of local conditions
- The Cooperative will evaluate the cost and benefit of employing other technologies where practicable

In addition, the cooperative is exploring the purchase of its own weather monitoring system.

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. When operating on public lands during an RFW, OCEC will provide a one-hour fire watch.

### **C. 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 usually performed by OCEC line crews in the winter when normal line construction is not able to be performed.

OCEC also employs two independent approaches to line inspections. These are:

- 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 tree maintenance 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.

### **D. 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
- Changing out expulsion fuses to Current Limiting fuses (CLF) in certain areas

The Cooperative has already moved towards requiring new facilities to be built underground in certain areas. During the line design phase, the design team considers the terrain and decides whether to require underground.

The changing out of fuses from expulsion fuses to CLFs has just started. Funds were allocated in the 2021 budget to start this process.

## **E. BUILDING RESILIENCY INTO EXISTING FACILITIES**

Along with creating a WMP, the Cooperative realizes 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.

To accomplish this, the Cooperative utilizes heavy-loading construction design standards per the Rural Utility Service (RUS) guidelines. The Cooperative's facilities are designed to withstand sustained heavy wind, and snow and ice loading.

Aggressive vegetation management continues to be a high priority. The Cooperative is treating the bottom of certain key poles with a silicon-based product for protection during fast moving, low-level fires. The Cooperative is also requiring new lines to be underground in certain forest areas where trees outside the easement may fall into the line.

## **F. RECLOSER OPERATIONAL PRACTICE**

### **Non-Red Flag Warning 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 disable the reclosing on reclosers that feed the following areas:

- Upper Twisp River
- Upper Chewuch River
- Beaver Creek Area
- Certain areas near Mazama

These reclosers will be off until the end of fire season.

### **Red-Flag Warning Events**

When a red-flag warning is issued, OCEC will disable all other reclosers except for the Town of Winthrop.

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

### **Effects of Disabling Reclosers**

Disabling reclosers, either in elevated fire risk or red-flag conditions, has the effect of both lengthening the duration and increasing the number of outages. An outage that might have

been successfully re-energized with a recloser action would now require crews to go out and visually look at the line before re-energization.

## **G. 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. 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 wind speed (sustained and gust), humidity and temperature, fuel moisture, fuel loading 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 the blocking 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

## **H. RESTORATION OF SERVICE AFTER FSS**

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

Lines need to be patrolled in daylight so the patroller can visually see that the lines are clear to be re-energized.

Length of outages 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 WMP. All field staff will be:

- Trained in the content of the WMP
- Trained in proper use and storage of fire extinguishers
- Trained in environmental conditions (current and forecasted weather that coincides with the duration of work for the day)

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.

The training will also review member communications strategy with employees.

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

## **VI. IDENTIFYING AND CORRECTING DEFICIENCIES IN 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 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 WMP**

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
- Neighborhood meetings
- Okanogan County Emergency Management System

Each of these will 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 timeline of the content, media employed and recipients of the different potential communications during fire season.

<b>Content</b>	<b>Media</b>	<b>Recipients</b>
Update of program at the beginning of fire season	<ul style="list-style-type: none"> <li>• Newsletter articles</li> <li>• Methow Valley News Articles</li> <li>• OCEC Website</li> <li>• E-Mail</li> <li>• OCEC sponsored Member Forums</li> <li>• Neighborhood meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Members</li> <li>• Local Government Entities</li> <li>• Fire District 6</li> <li>• County Emergency Management</li> <li>• Local Community Agencies</li> </ul>
Alert that conditions are approaching critical levels	<ul style="list-style-type: none"> <li>• OCEC Website</li> <li>• Text messages</li> <li>• Okanogan County Emergency Management System</li> </ul>	<ul style="list-style-type: none"> <li>• Members</li> <li>• Local Government Entities</li> <li>• Fire District 6</li> <li>• County Emergency Management</li> <li>• Local Community Agencies</li> </ul>
Forecasted FSS Alert (if possible)	<ul style="list-style-type: none"> <li>• OCEC Website</li> <li>• Text messages</li> <li>• Okanogan County Emergency Management System</li> </ul>	<ul style="list-style-type: none"> <li>• Members</li> <li>• Local Government Entities</li> <li>• Fire District 6</li> <li>• County Emergency Management</li> <li>• Local Community Agencies</li> </ul>
Notice to membership that Resource Center is set up at the Barn (Implemented in 2022)	<ul style="list-style-type: none"> <li>• OCEC Website</li> <li>• E-mail</li> <li>• Text messages</li> <li>• Okanogan County Emergency Management System</li> </ul>	<ul style="list-style-type: none"> <li>• Members</li> <li>• Local Government Entities</li> <li>• Fire District 6</li> <li>• County Emergency Management</li> <li>• Local Community Agencies</li> </ul>
Imminent De-energization Alert	<ul style="list-style-type: none"> <li>• OCEC Website</li> <li>• Text messages</li> <li>• Okanogan County Emergency Management System</li> </ul>	<ul style="list-style-type: none"> <li>• Members</li> <li>• Local Government Entities</li> <li>• Fire District 6</li> <li>• County Emergency Management</li> <li>• Local Community Agencies</li> </ul>
Notification of actual de-energization	<ul style="list-style-type: none"> <li>• OCEC Website</li> <li>• Text messages</li> <li>• Okanogan County Emergency Management System</li> </ul>	<ul style="list-style-type: none"> <li>• Members</li> <li>• Local Government Entities</li> <li>• Fire District 6</li> <li>• County Emergency Management</li> <li>• Local Community Agencies</li> </ul>

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

**C. POSSIBLE NEGATIVE EFFECTS OF FSS**

Because of the way the electric circuits are set up, all power may 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 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 utilize 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 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. Members will have access to water, snacks, ice, and cell phone charging.

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 establish the resource center. If an FSS is predicted, OCEC will open the resource center and have it ready in case an FSS occurs.

Because of COVID-19 restrictions, the resource center at the Barn will not be implemented until 2022.

## **F. WHAT MEMBERS CAN DO TO PREPARE**

Members will need to self-supply energy needs if desired during an FSS. 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 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 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 development of this plan.