



Wildfire Mitigation Plan 2021

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Appendix A
The Wildland Fire Preparedness and Prevention Plan

1. INTRODUCTION

1.1. Background

In recent years, the Western United States has experienced an increase in the frequency and intensity of wildland fires (wildfires). A variety of factors have contributed in varying degrees to this trend including climate change, increased human encroachment in wildland land areas, historical land management practices, and changes in wildland and forest health, among other factors.

While Idaho Power Company (Idaho Power) has not experienced the type of catastrophic wildfires within its service area that have occurred in other western states, such as California and more recently central Oregon, millions of acres of rangeland and southern Idaho forests have burned in the last 30 years.¹ In that same time period, the wildfire season has expanded by 70 days.² In light of changing wildfire conditions in the west, Idaho Power evaluated conditions and risks in its service area to determine existing and new practices for mitigation of wildfire risk, establish practices requiring expansion or revision, and identify which new efforts and measures to be implemented.

1.2. Idaho Power Profile and Service Area

Idaho Power is an investor owned utility headquartered in Boise, Idaho, that is engaged in the generation, transmission, and distribution of electricity. Idaho Power is regulated by the Federal Energy Regulatory Commission (FERC) and the state regulatory commissions of Idaho and Oregon. Idaho Power serves more than 570,000 retail customers throughout a 24,000 square mile area in southern Idaho and eastern Oregon (see Figure 1).

¹ Rocky Barker, *70% of S. Idaho's Forests Burned in the Last 30 Years. Think That Will Change? Think Again.*, Idaho Statesman, October 4, 2020.

² *Id.*

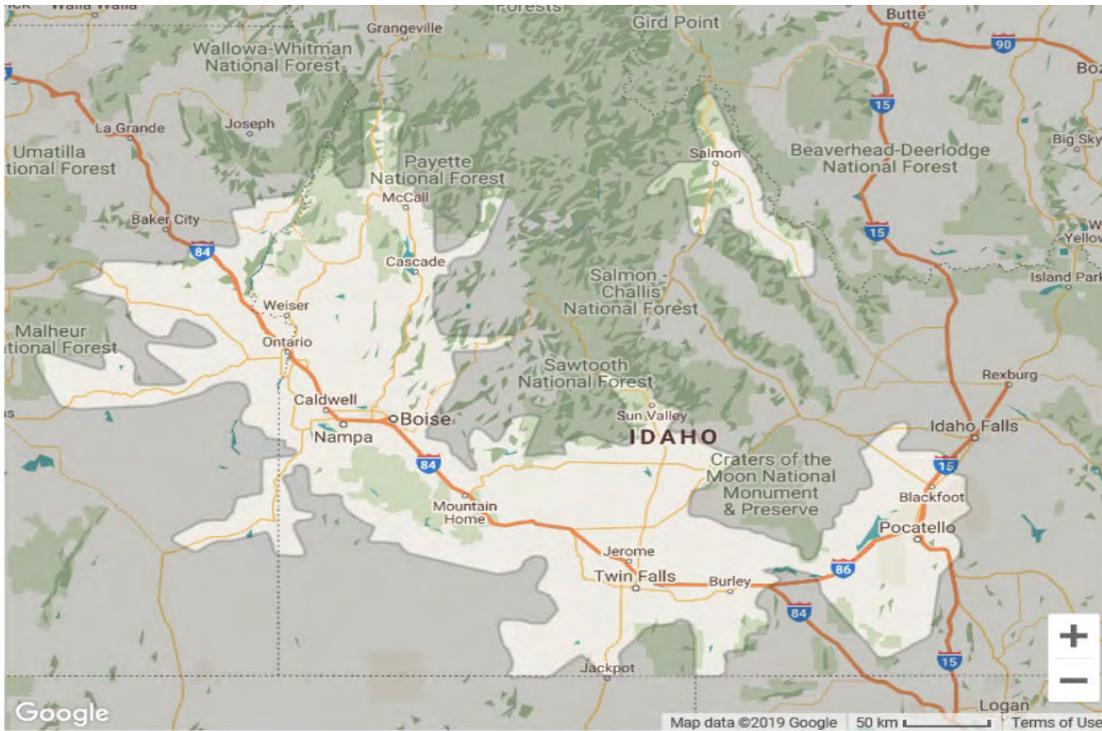


Figure 1
Idaho Power service area

1.3. Asset Overview

Idaho Power delivers electricity to its customers via more than 310 substations, 4,800 miles of overhead transmission lines, and 19,300 miles of overhead distribution lines.

Table 1
Overhead transmission voltage level and approximate line mileage (Dec. 31, 2019)

Transmission Voltage	Line Miles
46 kV	384
69 kV	1,136
115 kV	3
138 kV	1,435
161 kV	84
230 kV	1,144
345 kV	473
500 kV	102

Table 2

Overhead distribution voltage level and approximate line mileage (Dec. 31, 2019)

Distribution Voltage	Pole Miles
12.5 kV	14,300
25 kV	468
34.5 kV	4,548

1.4. Objectives of this Wildfire Mitigation Plan

The primary objectives of this Wildfire Mitigation Plan (WMP) are to identify and implement strategies that accomplish the following:

1. Reduce wildfire risk associated with Idaho Power's transmission and distribution (T&D) facilities and associated field operations.
2. Improve the resiliency of Idaho Power's T&D system to any wildfire event, independent of the ignition source.

Idaho Power's approach to achieving these objectives includes the following actions:

- Engage with government and industry entities and electric utility peers to ensure understanding and commonality of wildfire mitigation plans.
- Utilize a risk-based approach to quantify wildland fire risk that considers *wildfire probability* and *consequence* to identify areas subject to an elevated risk of wildfire relative to Idaho Power's service area. Resulting areas of elevated wildfire risk will be incorporated within Idaho Power's geographic information system (GIS) mapping system.
- Create specific targeted actions in operations and maintenance practices, system hardening programs, vegetation management, and field personnel practices to mitigate wildfire risk.
- Incorporate situational awareness information around current and forecasted weather and field conditions into operational practices.
- Determine public safety power shutoffs (PSPS) strategy for Idaho Power's service area and transmission corridors.
- Evaluate the performance and effectiveness of strategies identified in this WMP through metrics and monitoring. The WMP and all its components will be reviewed prior to fire season each year.

2. GOVERNMENT, INDUSTRY, AND PEER UTILITY ENGAGEMENT

2.1. Objective

Idaho Power recognized the importance of engaging with the Idaho Public Utilities Commission (IPUC) and the Public Utility Commission of Oregon (OPUC) as the company developed its WMP. In addition, Idaho Power partnered with industry entities and peer utilities in the development of its WMP. This collaboration ensured the commonality of core components of the utilities' respective wildfire mitigation plans.

2.2. Government and Industry Engagement

Idaho Power is a member of both the Edison Electric Institute (EEI) and the Western Electric Institute (WEI). The company participated in multiple workshops and conferences with both entities and their member utilities to ensure the Idaho Power WMP is robust and effective. Additionally, the Idaho Power CEO and President, Lisa Grow, is an active member of the EEI Electricity Subsector Coordinating Council Wildfire Working Group. This working group has been partnering with the U.S. Department of Energy and other government agencies to collectively minimize wildfire threats and potential impacts of wildfires.

Idaho Power engaged with both the IPUC and OPUC during development of its WMP. Idaho Power also participated as presenters and panelists in OPUC workshops focused on wildfire mitigation planning.

2.3. Peer Utility Engagement

Although Idaho Power utilized templates developed by several of the California utilities when formulating this WMP, it modified those templates in light of Idaho Power's considerably different risk profile. Idaho Power also participated in multiple workshops with San Diego Gas and Electric, Southern California Edison, Pacific Gas and Electric, Sacramento Municipal Utility District, and PacifiCorp.

Many utilities in the Pacific Northwest worked collaboratively to understand and ensure commonality of their various wildfire mitigation plans, while also understanding each utility's unique service territory. These utilities included Idaho Power, Avista Utilities, Portland General Electric, Rocky Mountain Power, Pacific Power, Chelan County Public Utility District, Puget Sound Energy, and Northwestern Energy.

3. QUANTIFYING WILDLAND FIRE RISK

3.1. Objective

Idaho Power's approach to quantifying wildland fire risk is to identify those geographic areas that are at an elevated risk of wildfire should there be an ignition near a power line. Once elevated wildfire risk areas are identified, mitigation actions and programs can be prioritized in those areas.

3.2. Identifying Areas of Elevated Wildfire Risk

Idaho Power hired an external consultant that specializes in assessing and quantifying the threat of wildfire through a risk-based methodology that leverages weather modeling, wildfire spread modeling, and Monte Carlo simulation. This type of modeling approach is not unique to Idaho Power's WMP. The California Public Utilities Commission (CPUC) used the same modeling approach (and in fact, the same consultant) as part of its development of the CPUC Fire Threat Map. In addition, other utilities in Oregon, Idaho, Nevada, and Utah have utilized similar modeling approaches to identify and quantify wildfire risk.

This modeling methodology is consistent with conventional definitions of *risk*, which is usually taken as an event's *probability* multiplied by its potential negative *consequences* or impacts should that event occur. For Idaho Power's wildfire risk assessment, this formula is:

$$\text{Wildfire Risk} = \text{Fire Probability} \times \text{Consequence}$$

The definition of each component is as follows:

Fire Probability. Fire volume (i.e., spatial integral of fire area and flame length) is used as Fire Probability because rapidly spreading fires are more likely to escape initial containment efforts and become extended fires than slowly developing fires. Data inputs used in the fire spread model to determine the fire volume (Fire Probability) include:

- Historical weather (temperature, wind speed/direction, relative humidity)
- Topography
- Fuel types present
- Fuel moisture content (both dead and live fuels)

Consequence. Number of structures (i.e., homes, businesses, other man-made structures) that may be impacted by a wildfire is used as the Consequence.

Wildfire Risk. Wildfire Risk is the Fire Probability multiplied by the Consequence. The highest Wildfire Risk areas will be those where both the Fire Probability and Consequence are elevated.

Conversely, combinations of low Fire Probability and elevated Consequence, or elevated Fire Probability and low Consequence, will typically indicate lower Wildfire Risk.

3.2.1. Wildfire Risk Modeling Process

The wildfire risk modeling process incorporated the following major steps:

1. A 20-year (2000–2019) fire weather climatology was developed utilizing the Weather Research and Forecasting (WRF) model to recreate historical days of fire weather significance across Idaho Power’s service territory. This analysis generated high-resolution hourly gridded fields of relative humidity, temperature, dead fuel moisture, and wind speed/direction that was used as input to a Monte Carlo-based fire modeling analysis.
2. Estimates of seasonal variation in live fuel moisture across Idaho Power’s service territory were developed. This was accomplished by analyzing historical fuel measurements and/or weather station observations. This step was necessary because live fuel moisture data is needed for fire spread modeling, but the WRF weather model does not provide live fuel moistures.
3. The federal LANDFIRE program was utilized to provide high-resolution (approximately 100 feet) fuel rasters for use in fire spread modeling.³
4. The data developed above (WRF climatology, live fuel moisture, and LANDFIRE data) was used to drive a Monte Carlo⁴ fire spread modeling analysis. This Monte Carlo simulation was accomplished by randomly selecting an ignition location and a randomly selected day from the fire weather climatology developed in step 1 above. Ignition locations were limited in the model to be within a two-kilometer buffer surrounding Idaho Power’s overhead T&D lines (i.e., 1 kilometer on either side). Note that transmission lines jointly owned by Idaho Power and PacifiCorp were included in the analysis. Furthermore, the proposed Boardman-to-Hemingway (B2H) 500kV line route was also included in this analysis. For each combination of ignition location and time of ignition, fire progression was then modeled for 6 hours. For each modeled fire, potential fire impacts to structures were quantified using structure data. This was repeated across Idaho Power’s service territory for millions of combinations of ignition location and time of ignition.
5. The Monte Carlo results were processed, and GIS based data depicting fine grained wildfire risk was developed. This risk was then visually depicted on GIS based wildfire risk maps.

³ Chris Lautenberger, Mapping areas at elevated risk of large-scale structure loss using Monte Carlo simulation and wildland fire modeling. IAFSS 12th Symposium 2017.

⁴ Ibid.

3.2.2. Wildfire Risk Areas

Based on the previously described modeling, draft risk tiers were generated algorithmically⁵ by establishing threshold values above which an area is considered as Tier 2 and Tier 3. This was accomplished by manually setting threshold values on naturally occurring breaks.

Consequently, the resulting risk tiers reflect risk relative to Idaho Power's service territory only and not absolute risk. As set forth later in this plan, Idaho Power's risk profile is significantly lower than utilities serving California.

An integral part of the consultant's mapping process involved reviewing the tiers and making necessary adjustments to account for unique aspect of certain areas, including factors that may increase or decrease risk, which would not be accounted for in the computer modeling.

Several factors were considered, including the following:

- Topography and resistance to fire control
- Means of ingress and egress
- Presence/absence of defensible space
- Vulnerable populations
- Cell phone coverage
- Non-burnable land cover such as built up urban areas

The final two-tier risk map reflecting relative increased risk Yellow Risk Zones (YRZ) and higher risk Red Risk Zones (RRZ) is shown in Figure 2.

⁵ Ibid.

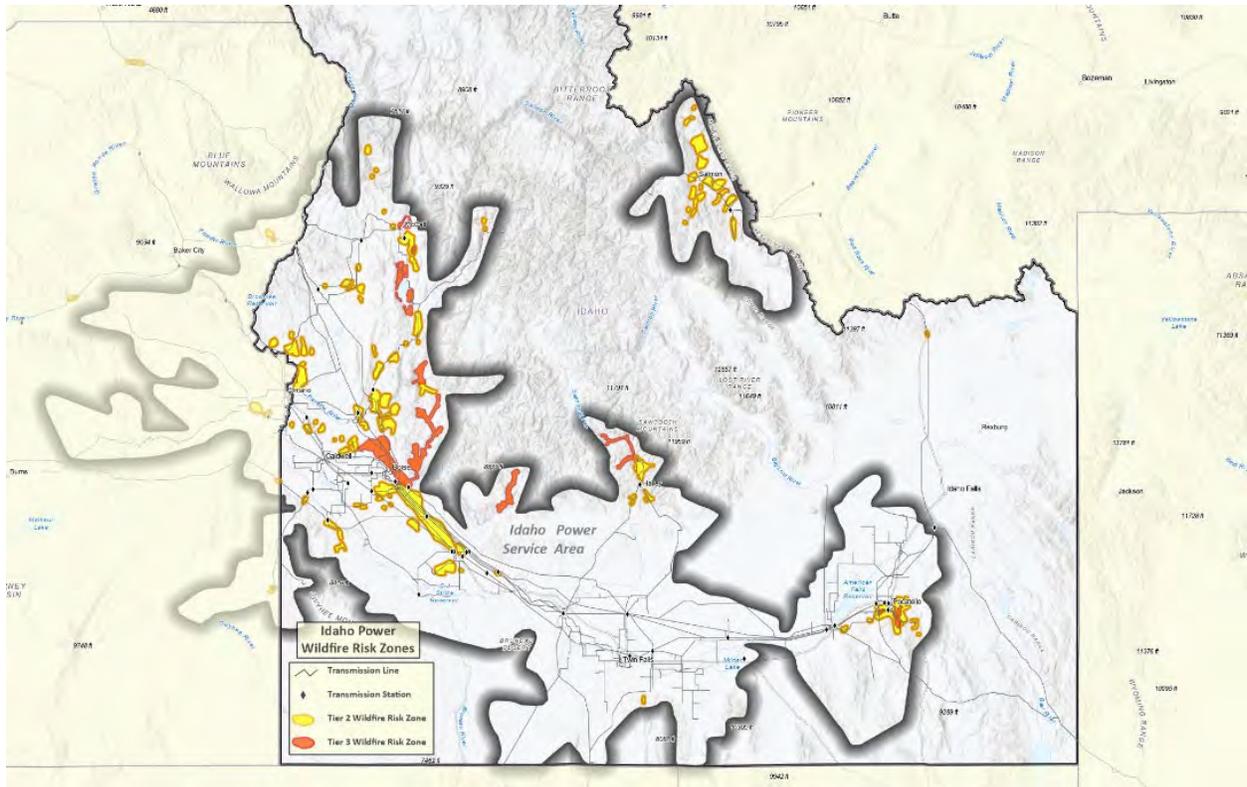


Figure 2
Wildfire Mitigation Plan—Risk Map

3.2.2.1. Boardman to Hemingway Proposed 500kV Transmission Line

Idaho Power specifically considered the proposed route of the B2H 500kV transmission line as part of the WMP. The proposed route was included in the wildfire risk assessment and associated map analysis (see Figure 3). Two locations are identified along the route as having increased wildfire risk (Yellow Risk Zones), and there were no areas of higher risk (Red Risk Zones). Idaho Power plans to address these locations consistent with the mitigation strategy for transmission lines as described in sections 6 and 7 of this WMP.

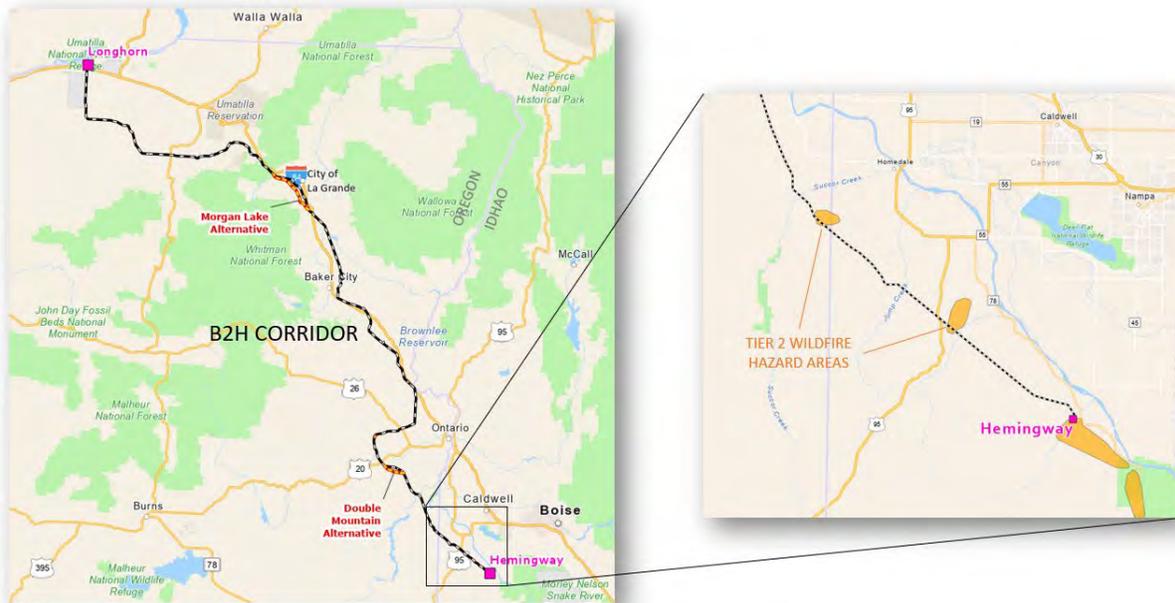


Figure 3
Boardman to Hemingway proposed route risk zones

4. SITUATIONAL AWARENESS

4.1. Overview

Visibility and readily available access to current and forecasted meteorological conditions and fuel conditions is a key aspect of Idaho Power's wildfire mitigation strategy. Meteorological and fuel conditions can vary significantly across Idaho Power's service territory. Idaho Power leverages its internal meteorology department's modeling/forecasting capabilities, its existing field weather stations, and publicly available weather/fuel data to develop projections of current and future wildfire potential across Idaho Power's service territory. This wildfire potential information is then available to operations personnel to factor into their operational decision-making.

4.2. Fire Potential Index

Idaho Power has developed a Fire Potential Index (FPI) tool based upon original work completed by San Diego Gas and Electric, the National Forest Service, and the National Interagency Fire Center and modified for Idaho Power's Idaho and Oregon service territory. This tool is designed to support operational decision-making to reduce fire threats and risks. This tool converts environmental, statistical, and scientific data into an easily understood forecast of the short-term fire threat which could exist for different geographical areas in the Idaho Power service territory. The FPI is issued for a seven-day period to provide for planning of upcoming events by Idaho Power personnel.

The FPI reflects key variables, such as the state of native vegetation across the service territory ("green-up"), fuels (ratio of dead fuel moisture component to live fuel moisture component), and weather (sustained wind speed and dew point depression). Each of these variables is assigned a numeric value and those individual numeric values are summed to generate a Fire Potential value from zero to sixteen, each of which expresses the degree of fire threat expected for each of the 7 days included in the forecast. The FPI scores are grouped into the following index levels:

- **Green:** FPI score of 1 through 11 indicates low potential for a large fire to develop and spread as there is normal vegetation and fuel moisture content as well as weak winds and high relative humidity.
- **Yellow:** FPI score of 12 through 14 indicates an elevated potential for a large fire to develop and spread as there are lower than normal vegetation and fuel moisture content as well as moderate winds and lower than normal relative humidity.
- **Red:** FPI score of 15 through 16 indicates a higher potential for a large fire to develop and spread as there are well below normal vegetation and fuel moisture content as well as strong winds and low relative humidity.

Fire Potential Index (FPI) Category			
	Normal	Elevated	High
FPI Range	1 to 11	12 to 14	15 - 16

The state of native grasses and shrubs, or **Green-Up Component**, of the FPI is determined using satellite data for locations throughout the Idaho Power areas of interest. This component is rated on a 0-to-5 scale ranging from very wet (or “lush”) to very dry (or “cured”). The scale is tied to the Normalized Difference Vegetations Index (NDVI), which ranges from 0 to 1, as follows:

Green-Up Component						
NDVI	Very Wet/Lush: 1.00 to 0.65	0.64 to 0.60	0.59 to 0.55	0.54 to 0.50	0.49 to 0.40	Very Dry/Cured 0.39 to 0.00
Score	0	1	2	3	4	5

The **Fuels Component (FC)** of the FPI measures the overall state of potential fuels which could support a wildfire. Values are assigned based on the overall state of available fuels (dead or live) for a fire using the following equation:

$$FC = FD / LFM$$

Where FC represents Fuels Component in the scale below, FD represents 10-hour Dead Fuel Moisture (using a 1-to-3 scale), and LFM represents Live Fuel Moisture (percentage). This data will be collected from satellite sources and regional databases supported by state and federal agencies.

The product of this equation represents the fuels component that is reflected in the FPI as follows:

Very Wet					Very Dry
0	1	2	3	4	5

The **weather component** of the FPI represents a combination of sustained wind speeds and dew-point depression as determined using the following scale. Regional adjustment to criteria limits for the upper wind speeds may occur after further discussion with subject matter experts from each of the regional operations. This data will be sourced from the weather, research and forecasting (WRF) products produced by Idaho Power using its High-Performance Computing (HPC) system. In addition to the HPC system produced WRF data, several national level

meteorological products will be used. These products will include regional weather observations used to validate model information.

Dewpoint Depression/Wind	≤5 mph	6 to 11 mph	12 to 18 mph	19 to 25 mph	26 to 32 mph	≥33 mph
≥50°F	4	4	4	5	5	6
40°F to 49°F	3	3	4	4	5	5
30°F to 39°F	3	3	3	4	4	5
20°F to 29°F	3	3	3	3	3	4
10°F to 19°F	2	2	2	2	2	3
<10°F	0	1	1	1	1	2

4.3. FPI Annual Process Review

The FPI process will be reviewed annually after completion of the fire season and, with consultation of interested parties (e.g., Load Serving Operator, Line Crews, and others), will be updated to enhance Idaho Power's wildfire preparedness.

5. MITIGATION—FIELD PERSONNEL PRACTICES

5.1. Overview

A component of Idaho Power’s wildfire mitigation strategy is to prevent the accidental ignition and spread of wildfires due to employee work activities. Idaho Power has developed the *Wildland Fire Preparedness and Prevention Plan* (Appendix A) to provide guidance to Idaho Power employees and contractors to help prevent the accidental ignition and spread of wildfires due to company work activities in locations and under conditions where wildfire risk is heightened. All Idaho Power crews and certain field personnel performing work on or near Idaho Power’s facilities will be expected to operate in accordance with the Plan and continue to conduct themselves in a fire-safe manner.

5.2. Wildland Fire Preparedness and Prevention Plan

The *Wildland Fire Preparedness and Prevention Plan* informs Idaho Power personnel and its line construction contractors about the following factors:

- Annual fire season tools and equipment to be available when on the job site
- Daily situational awareness regarding locations of heightened potential for fire risk and weather conditions in those areas
- Expected wildfire ignition prevention actions while working and reporting instructions in the event of fire ignition
- Training and compliance requirements

6. MITIGATION—OPERATIONS

6.1. Overview

A component of Idaho Power’s wildfire mitigation strategy is to continue safe and reliable operation of its T&D lines while also reducing wildfire risk. These operational practices primarily center around the following:

- Temporary operating procedures for transmission lines during the fire season⁶
- An operational strategy for transmission and distribution lines during time periods of elevated wildfire risk during the fire season
- If applicable, a PSPS strategy for Idaho Power’s service area and transmission corridors

6.2. Transmission Line Operational Strategy

6.2.1. Fire Season Temporary Operating Procedure for Transmission Lines

Each year, typically in May, leadership within Idaho Power’s Load Serving Operations (LSO) department updates and issues its Fire Season Temporary Operating Procedure. The purpose of this temporary operating procedure is to provide LSO employees with guidelines for operating transmission lines during the summer fire season. The procedure aims to reduce wildfire risk through practices relating to information collection, notification, and procedures for testing/closing in on locked-out transmission lines.

6.2.2. Red Risk Zone Transmission Operational Strategy

During the fire season, Idaho Power will determine a daily FPI as described in Section 4 of this WMP. The FPI will inform the transmission line operational strategy for those lines owned, operated, and located in the wildfire Red Risk Zones. These lines will be operated in normal settings mode but with no “testing”⁷ of a line that may have “locked out” during the time of red FPI. Essentially, in the event of a fault on the specified transmission lines during the red FPI, the line will operate as normal and may “lock out” at which time the line(s) will either need to be patrolled before “testing,” or the FPI level drops out of the red category.

⁶ The duration of the fire season will be reviewed and defined annually.

⁷ Transmission line “testing” refers to the human act of re-energizing a line without completing a physical field patrol or observation of a line.

6.3. Distribution Line Operational Strategy

6.3.1. Red Risk Zone Distribution Operational Strategy

During the fire season, Idaho Power will determine a daily FPI as described in Section 4 of this WMP. The FPI will inform the Distribution line operational strategy for those lines located in the wildfire RRZs. These lines will be operated in a non-reclosing⁸ state during the time of red FPI. Essentially, in the event of a fault on the specified distribution lines during the red FPI, the line will be automatically de-energized with no reclosing attempts until either the lines have been patrolled, or the FPI level drops out of the red category.

In addition, certain distribution lines may also be operated in a mode of “instantaneous trip.”⁹

6.4. Public Safety Power Shutoff

6.4.1. PSPS Definition

Public Safety Power Shutoff (PSPS), as used in this WMP, is generally defined as the proactive and planned de-energization of lines when extreme wildfire risk conditions (i.e., combinations of very high winds, high temperatures, dry fuels, and low humidity) are forecasted. The concept is, if significant weather events can be predicted far enough in advance, that resulting proactive line de-energization before the forecasted weather conditions materialize could mitigate the risk of a wildfire. A PSPS process has significant customer impact and would necessarily require significant planning.

PSPS is not the practice of de-energizing lines in the following types of situations:

- Unplanned de-energization of lines required for emergencies and during outage restoration situations.
- Planned line or station work activities which requires a planned outage (Idaho Power currently has a planned outage customer notification process in place for this).

Idaho Power will continue its current practices of de-energization in these, and comparable, situations. These outage situations are not defined as PSPS events in the context used here.

6.4.2. PSPS Plan

Idaho Power evaluated whether PSPS would be a reasonable wildfire mitigation tool as part of its wildfire mitigation strategy. Although the wind patterns in Idaho Power’s service territory are of a much lower sustained velocity and often less predictable (i.e., micro-bursts) than other

⁸ Distribution line “non-reclosing” refers to the deactivation of automatic re-energization of a distribution line.

⁹ Instantaneous trip refers to the automatic de-energization of a line with no intended time delay.

utilities' service areas where PSPS has been utilized (i.e., California), the company will develop a PSPS plan—which will evaluate the conditions in Idaho Power's service area—if any, that may warrant Public Safety Power Shutoffs. The PSPS plan is in the early stages of development with anticipation of completion in advance of the 2022 fire season.

7. MITIGATION—T&D PROGRAMS

7.1. Overview

A component of Idaho Power's wildfire mitigation strategy is to manage certain conditions related to its T&D lines such that they continue to operate in a safe and reliable manner thus reducing the risk of igniting a fire. This is accomplished through a portfolio of asset management programs and Idaho Power's vegetation management program.

7.2. T&D Asset Management Programs

Idaho Power has numerous and robust asset management programs intended to reduce the probability of igniting wildfires. Idaho Power plans to continue previously implemented infrastructure management programs in conjunction with new programs. Additionally, Idaho Power continues to research, monitor, and pilot emerging technologies and strategies to manage its T&D infrastructure.

Idaho Power's key asset management programs that support wildfire prevention and mitigation are summarized in the table below.

Table 3

Summarized T&D asset management programs (associated with the WMP)

Transmission

Transmission Asset Management Programs

- Aerial Visual Inspection Program
- Ground Visual Inspection Program
- Detailed Visual (High Resolution Photography) Inspection Program
- Wood Pole Inspection and Treatment Program
- Cathodic Protection and Inspection Program
- Wood Pole Wildfire Protection Program (enhanced)
- Steel Pole (Structures) (enhanced)

Distribution

Distribution Asset Management Programs

- Ground Detail Inspection Program (enhanced)

Wood Pole Inspection and Treatment

Wood Pole Fire Protection Program (enhanced)

Line Equipment Inspection Program

Overhead Primary Harden Program

Replace "small conductor" with new 4acsr or larger conductor (new)

Replace or repair damaged conductor

Re-tension loose conductors including "flying taps" and slack spans as required

Replace wood-stubbed poles with new wood poles (enhanced)

Replace white and yellow square tagged poles with new wood poles

Replace wood pins/wood crossarm with new steel pins/fiberglass crossarms

Replace steel insulator brackets with new steel pins/fiberglass crossarms (new)

Replace wedge deadends on primary taps with new polymer deadend strain insulators

Replace aluminum deadend strain insulators with new polymer deadend strain insulators (new)

Replace porcelain switches with new polymer switches

Replace hot line clamps

Replace aluminum stirrups

Install avian cover

Relocate arresters

Install bird/animal guarding

Update capacitor banks

Replace swelling capacitors

Replace oil-filled switches with vacuum style

Replace porcelain switches with polymer switches

Install disconnect switches on CSP transformers

Install avian cover

Update down guys

Replace/Install down-guy insulators with fiberglass insulators

Tighten down guys

Tighten hardware

Correct 3rd party pole attachment clearances (report to Joint Use Department)

7.2.1. Transmission Asset Management Programs

Several transmission management programs are mature and have been implemented by Idaho Power for decades. These programs include condition-based aerial visual inspections, ground visual inspections, detailed visual (generally using high resolution photography) inspections, transmission wood pole inspection and treatment, and cathodic protection. Additionally, Idaho Power has used various methods and materials to prevent wildfire from damaging wood structures and now intends to use a fire-resistant mesh wraps installed on structures located in the RRZ and YRZs.

7.2.1.1. Aerial Visual Inspection Program

Annually, Idaho Power uses helicopters to assist Idaho Power qualified personnel in the visual aerial inspection of transmission lines identified as Western Electricity Coordinating Council (WECC) Path Lines. This method of line inspection will now be utilized for transmission lines located in the RRZs. In addition, unmanned aerial vehicles with high definition cameras will be used in certain situations to inspect facilities on these lines. These inspections allow personnel to look for potential line defects, which if found, are noted and scheduled for repair.

All noted defects are prioritized as Priority 1, Priority 2, or Priority 3, based on the criteria listed below:

- **Priority 1:** Defects that, depending on the circumstances, require reporting and repair as soon as reasonably possible.
- **Priority 2:** Defects that, depending on the circumstances, generally require reporting and correction within 24 months of identification. The correction of these defects should be scheduled during crews' normal work schedules. Priority 2 defects not assigned a corrective plan within 24 months will be reviewed by the T&D vegetation and maintenance engineering leader.
- **Priority 3:** Potential issues that may need correction but do not pose a threat to the system and should be monitored. A Priority 3 designation may also be used by Idaho Power personnel for tracking of certain line construction practices.

Corrective action plans for Priority 1 and 2 defects are determined by engineering personnel for each prioritized defect and are scheduled and repaired.

7.2.1.2. Ground Visual Inspection Program

Annually, Idaho Power qualified personnel (i.e., trained in transmission line inspection procedures and experienced in transmission line construction) complete ground visual inspections of all transmission lines. Ground patrols are completed using four-wheel-drive vehicles, all-terrain vehicles, utility terrain vehicles, or on foot. These inspections identify potential line defects that are noted and scheduled for repair following the same process as described in 7.2.1.1.

7.2.1.3. Detailed Visual (High-resolution Photography) Inspection Program

In addition to the annual inspections and associated maintenance, Idaho Power also completes detailed visual inspections generally utilizing high resolution photography. This detailed inspection is typically completed using helicopters, unmanned aerial vehicles, and contracted professionals operating high definition cameras and, if potential line defects are noted, they are scheduled for repair following the same process as described in 7.2.1.1. The detailed inspections are completed on a 10-year cycle in conjunction with the 10-year cycle of wood pole ground line inspection and treatment (see 7.2.1.4).

7.2.1.4. Wood Pole Inspection and Treatment Program

All wood poles are visually inspected, sounded, and bored for defects and decay on a 10-year cycle. The poles are categorized according to the following:

- **Reported:** Any wood pole inspected and found to be installed within 10 years of the manufactured date or last inspection date.
- **Treated:** Any wood pole inspected and found to be installed 11 years or more prior to the inspection date and is determined to be in sound enough condition to warrant treatment.
- **Rejected:** Any wood pole determined to fit the following criteria:
 - Have less than 4 inches of shell at 48 inches above the ground line; and/or
 - Less than 2 inches of shell at 15 inches above the ground line; and/or
 - Less than 2 inches of shell at the ground line; or
 - Is deteriorated and does not meet minimum strength criteria; or
 - Fails a visual inspection.

Rejected poles are categorized as: reinforceable with steel, non-reinforceable and are to be replaced.

- **Visually Rejected:** Any wood pole that has been damaged (i.e., burned, split, broken, hit by a vehicle, damaged by animals, etc.) above the ground line to such an extent as to warrant rejection and that cannot be further tested to determine priority status.
- **Sounded, Bored, and Treated:** Any wood pole set in concrete, asphalt, or solid rock 11 years or more prior to the inspection date is internally treated. Internal treatment involves fumigating the good wood and flooding the voids with fumigant.

7.2.1.5. Cathodic Protection and Inspection Program

Cathodic protection systems are employed on select steel transmission towers. These systems use either an impressed current corrosion protection system (ICCP) or direct-buried sacrificial magnesium anodes. Included in Idaho Power's tower maintenance plan, every 10 years, structure-to-soil potential testing is performed on select towers with direct-buried anodes. For ICCP systems, rectifiers and ground-beds are tested to ensure they are functioning properly. Based on test results repairs and adjustments are completed. Each year all rectifiers are inspected, and direct current (DC) voltage and DC current readings noted.

7.2.1.6. Thermal Imaging (Infra-red) Inspections

Idaho Power will complete annual inspections of lines and equipment using thermal imaging (infra-red) cameras. This inspection methodology, although not new to Idaho Power, is being

expanded to specifically include the RRZs. Compromised electrical connections and overloaded equipment may be identified using thermal imagery. Identified risks will be prioritized and mitigated using the prioritization methodology noted in 7.2.1.1 of this WMP.

7.2.1.7. Wood Pole Wildfire Protection Program

Idaho Power has utilized numerous technologies to minimize the damage to wood poles that have been exposed to wildfires. The current technology of “mesh wraps” will be utilized on transmission wood poles located in the RRZs and YRZs.

7.2.1.8. Transmission Steel Poles

To minimize damage from wildfires, beginning on January 1, 2021, Idaho Power will generally utilize steel poles or structures for construction of all new and major rebuild projects on all transmission voltages of 138kV and greater that are located in undeveloped lands (whether Federal, State, or private). The use of steel-pole construction will be considered, but is not required, in developed areas, regardless of whether the development is agricultural, residential, commercial, or some other form of development. The choice of pole material will be made based on the specific engineering requirements for each individual project. Because of inconsistencies in structural framing dimensions between wood and steel 138kV H-frame structures, Idaho Power will continue to utilize wood H-frame structures for maintenance replacement structures on existing 138kV wood H-frame lines, as necessary. Idaho Power will continue to utilize steel construction for all structure replacements and new lines at voltages of 230kV and above.

7.2.2. Distribution Asset Management Programs

Idaho Power has several distribution asset management programs that are mature, have been implemented for decades, and will continue to be utilized in the RRZs. These programs include condition-based, detailed, and ground visual inspection; distribution wood pole inspection and treatment; and line equipment inspection.

Idaho Power will also create an enhanced overhead distribution “hardening” program to implement in the RRZs. Examples of specific work included in the hardening program include replacement of small conductors and associated hardware and replacement of wooden pins and associated wooden crossarms.

7.2.2.1. Ground Detailed Visual Inspection Program

Annually, qualified line patrol personnel (trained in distribution line inspection procedures and experienced in distribution line construction) complete detailed ground inspections of the distribution lines located in the RRZs. The ground patrols are completed using four-wheel-drive vehicles, all-terrain vehicles, utility terrain vehicles, or on foot. These inspections identify potential line defects that are noted and scheduled for repair.

All noted defects are prioritized as Priority 1, Priority 2, or Priority 3, based on the criteria listed below:

- **Priority 1:** Defects that, depending on the circumstances, require reporting and repair as soon as reasonably possible.
- **Priority 2:** Defects that, depending on the circumstances, generally require reporting and correction within 24 months of identification. The correction of these defects should be scheduled during crews' normal work schedules. Priority 2 defects not assigned a corrective plan within 24 months will be reviewed by the T&D Vegetation and maintenance engineering leader.
- **Priority 3:** Potential issues that may need correction but do not pose a threat to the system and should be monitored; or tracking of certain line construction practices.

Corrective action plans for Priority 1 and 2 defects are determined by engineering personnel for each prioritized defect and are scheduled and repaired.

7.2.2.2. Wood Pole Inspection and Treatment Program

All wood poles are visually inspected, sounded, and bored for defects and decay. The procedure is noted in 7.2.1.4.

7.2.2.3. Line Equipment Inspection Program

Line equipment, particularly distribution system protection line equipment, is inspected annually by line operations technicians. The inspection includes a visual inspection and, when electronic reclosers are present, data is retrieved from controls and analyzed for proper operation.

7.2.2.4. Overhead Primary Hardening Program

Overhead distribution infrastructure located in the RRZs will be analyzed and may be inspected and hardened depending upon proximity to fuels conducive to wildfires in the unlikely event of failure of the line infrastructure. It is expected to take multiple years to inspect and harden all applicable overhead distribution lines.

The Overhead Primary Hardening program is intended to upgrade or repair certain overhead distribution infrastructure. Criteria as outlined in Table 3 drives the program work. Notable criteria are further explained in the following sections of this WMP.

7.2.2.4.1. Conductor "Small" Replacement

Idaho Power is implementing a new focus on replacement of small conductors in the RRZs. Small conductors are those in sizes less than that of 4ACSR conductor. Examples of small wires include 6Cu, 6-3SS, 8A, 8A CW, 9IR, etc. These small conductors will be replaced with standard larger conductors, primarily with 4ACSR conductor.

7.2.2.4.2. Wood Pin and Crossarm Replacement

Wooden crossarms installed with wooden pins will continue to be replaced with fiberglass crossarms and steel pins. This work will be coordinated and included in the overhead primary hardening program. And, whenever work is being completed on a structure that requires replacement of wooden crossarms, Idaho Power will, generally, install fiberglass crossarms.

7.2.2.4.3. Porcelain Switch Replacement

Porcelain switches located in the RRZs will continue to be replaced with polymer switches. Additionally, associated hot clamps and stirrups will be replaced. This work will be coordinated and included in the overhead primary hardening program.

7.2.2.4.4. Fuse Options

Idaho Power is investigating reasonable alternatives for the replacement of certain expulsion fuses and expulsion arrestors. A pilot program was initiated in 2020 to replace several expulsion fuses with non-expulsion fuses in the vicinity of the Boise foothills. The non-expulsion fuses are being reviewed for proper operation, feasibility of handling, storage capability, and overall safety of use.

7.2.2.4.5. Thermal Imaging (Infra-red) Inspections

Idaho Power will complete annual inspections of lines and equipment using thermal imaging (infra-red) cameras. This inspection methodology, although not new to Idaho Power, is being expanded to specifically include the RRZs. Compromised electrical connections and overloaded equipment may be identified using thermal imagery. Identified risks will be prioritized and mitigated using the prioritization methodology noted in 7.2.2.1 of this WMP.

7.2.2.4.6. Wood Pole Wildfire Protection Program

Idaho Power has utilized numerous technologies to minimize the damage to wood poles that have been exposed to wildfires. The current technology of “mesh wraps” will be utilized on certain distribution wood poles located in the RRZs.

7.3. T&D Vegetation Management

Idaho Power’s T&D vegetation management program (VMP) addresses public safety and electric reliability and helps to safeguard T&D lines from trees and other vegetation that may cause an outage or damage to facilities. Specifically, the lines are inspected periodically, and trees and vegetation are cleared away from the line while certain trees are removed entirely. In addition, the VMP addresses the clearing of vegetation near the base of certain poles and line structures. The responsibilities of the VMP include the planning, scheduling, and quality control of VMP associated work. The VMP is active year-round and complies with applicable NESC, federal, and state requirements. Additional vegetation monitoring tools are in various stages of development, and Idaho Power will evaluate such tools for potential future implementation.

Idaho Power’s key components of its VMP, relative to the WMP, are summarized in the table below.

Table 4
VMP summary

Vegetation Management

Transmission

Pre-Fire Season Inspection and Mitigation
 Line Clearing Cycle Goal: 3-year cycle for valley areas & 6-year cycle for mountain areas
 Tree Removals - Hazard Trees
 Targeted Pole Clearing
 100% Quality Assurance/Quality Control Auditing in RRZs and YRZs

Distribution

Pre-Fire Season Inspection and Mitigation
 Line Clearing Cycle Goal: 3-year cycle in all areas with mid-cycle pruning occurring in 2nd year in RRZs and YRZs*
 Tree Removals - Cycle Busters/Hazard Trees
 Targeted Pole Clearing
 100% Quality Assurance/Quality Control Auditing in RRZs and YRZs

*Distribution line clearing cycles vary by utility. Idaho Power has set a goal of achieving a 3-year cycle of distribution line clearing.

7.3.1. Definitions

Applicable Transmission Lines—Each overhead transmission line operated within the WMP RRZ at 46 kilovolts (kV) or higher.

Cycle Buster—Trees that grow at a rapid rate, requiring a more frequent trimming schedule than the normal trim cycle.

Hazard Tree—Any vegetation issue that poses a threat of causing a line outage but has either a low or medium risk of failure in the next month. Hazard trees will be further defined as posing either a medium hazard or low hazard.

High-Priority Tree—Any vegetation condition likely to cause a line outage with a high risk of failure in the next few days or weeks. High-priority trees could also be vegetation that is in good condition but has grown so close to the lines that it could be brought into contact with the line through a combination of conductor sag and/or wind-induced movement in the conductor or the vegetation.

Line Clearing Cycles—Transmission and Distribution clearing of lines defined on a periodic basis.

7.3.2. Transmission Vegetation Management

Maintaining a zone near transmission lines that is free of vegetation has long been a priority for Idaho Power. The clearance zone is voltage level dependent and defined by federal and state regulations.

7.3.2.1. Transmission Vegetation Inspections

Utility arborists annually conduct aerial and/or ground patrols on each applicable transmission line to identify and mitigate vegetation hazards. In addition, transmission patrol personnel inspect all applicable transmission lines once a year to identify any transmission defects and vegetation hazards. During these inspections, the patrol personnel will identify hazardous vegetation, within or adjacent to the Right of Way (ROW), that could fall in or onto the transmission lines or associated facilities. The patrol personnel will evaluate the hazardous vegetation as to the level of threat posed by categorizing the vegetation as a *high priority*, *medium hazard*, or *low hazard*. Any hazardous vegetation found is reported to the utility arborist and documented. Any hazardous vegetation categorized as a *high priority* and that presents a risk to cause an outage at any moment shall also be reported without any intentional time delay to the Grid Operator. The utility arborist will conduct a follow-up inspection if potential hazard trees or grow-ins are identified. The utility arborist prioritizes and schedules any remedial action for all reported vegetation issues.

7.3.2.2. Transmission Line Clearing Cycles

Transmission lines will be cleared on long-term cycles based on 3 years for urban and rural valley areas and 6 years for mountain areas. However, shorter clearing cycles may occur if conditions dictate out-of-cycle trimming. In most cases, vegetation is cleared primarily through manual cutting of targeted trees and tall shrubs. However, when appropriate and in compliance and permission with federal and state requirements, tree-growth regulators and spot herbicide treatments are applied as effective techniques for reducing re-growth of sprouting deciduous shrubs and trees and extending maintenance cycles.

7.3.2.3. Transmission Line Clearing Quality Control and Assurance

When line clearing work is required either a utility arborist or a contracted notifier completes field inspections to make sure the clearing work meets requirements. A line clearing audit form is completed and retained.

7.3.3. Distribution Vegetation Management

Subject to regulatory approval, Idaho Power will strive to clear distribution lines throughout Idaho Power's service territory on a 3-year cycle.¹⁰ In the RRZs and YRZs, Idaho Power will complete annual vegetation line inspections, complete mid-cycle clearing of the lines in the

¹⁰ Subject to regulatory approval, Idaho Power proposes testing the 3-year cycle for a period of 4 or 5 years to verify that such a cycle can be maintained and that the expected benefits are realized.

second year, increase the number of trees removed, and complete 100% quality control reviews of contractor line clearing work by certified arborists.

7.3.3.1. Distribution Line Clearing Cycles

Idaho Power will strive to clear distribution lines on a year cycle. In RRZs and YRZs, Idaho Power's goal is to perform mid-cycle pruning in the second year to remove faster growing vegetation to ensure the lines are clear of vegetation for the full pruning cycle. In addition, Idaho Power clears lines based upon "special request" in the situations that fast growing, unexpected growth occurs and is reported by any employee or customer.

7.3.3.2. Distribution Vegetation Inspections

In addition to regular cycle pruning activities, utility arborists will annually conduct ground patrols to identify potential vegetation hazards of each distribution line identified in the RRZs and YRZs. In addition, distribution patrol personnel also inspect the lines in the RRZs annually. During these inspections, the patrol personnel will identify infrastructure defects and hazardous vegetation, within or adjacent to the ROWs, that could fall in or onto the distribution lines or associated facilities. The patrol personnel will evaluate the hazardous vegetation as to the level of threat posed by categorizing the vegetation as a *high priority*, *medium hazard*, or *low hazard*. Any hazardous vegetation found is reported to the utility arborist and documented. Any hazardous vegetation categorized as a *high priority* and that presents a risk to cause an outage at any moment shall also be reported without any intentional time delay to the Grid Operator. The utility arborist will conduct a follow-up inspection if potential hazard trees or grow-ins are identified. The utility arborist prioritizes and schedules any remedial action for all reported vegetation issues.

7.3.3.3. Distribution Line Clearing Procedures

In most cases, vegetation is cleared as scheduled work and includes, but is not limited to, the removal of dead branches overhanging power lines, weak branch attachments, damaged root base or dead or dying trees leaning toward Idaho Power facilities. Vegetation clearing methods include crews using chain saws or specialized pruning machines. Trees are cleared using a pruning procedure called directional or natural pruning, a method recommended by the International Society of Arboriculture, and the ANSI A300 standards.

However, when appropriate and in compliance and permission with federal and state requirements, tree-growth regulators and spot herbicide treatments are applied as effective techniques for reducing re-growth of sprouting deciduous shrubs and trees and extending maintenance cycles.

Through its vegetation management program, Idaho Power intends to maintain clearance distance between vegetation and conductors as follows:

- Five feet for conductors energized at 600 through 50,000 volts.
- Clearances may be reduced to 3 feet if the vegetation is not considered to be readily climbable because the lowest branch is greater than 8 feet above ground level.

- New tree growth that is no larger than ½ inch in diameter may intrude into this minimum clearance area provided it does not come closer than 6 inches to the conductor. This new growth will be identified during line patrols and removed.
- For conductors energized below 600 volts, vegetation will be pruned to prevent the vegetation from causing unreasonable strain on electric conductors.

7.3.3.4. Distribution Line Clearing Quality Control and Assurance

When line clearing work is required, either a utility arborist or a contracted notifier completes field inspections to make sure the clearing work meets requirements. A line clearing audit form is completed and retained.

7.3.4. Pole Clearing of Vegetation

Idaho Power has historically cleared vegetation from the base of certain transmission wood poles and a limited number of distribution wood poles. This clearing of vegetation has been found to be a very effective method of minimizing wildfire damage to existing wood poles.

Where acceptable and permissible, vegetation is removed (i.e., cleared) in a 20-foot radius surrounding the wood poles and the application of a 10-year weed-control ground sterilant (SpraKil SK-26 Granular) is applied. However, some property managers (e.g., Bureau of Land Management in the State of Oregon) where Idaho Power facilities exist do not allow the application of this sterilant. This program will be implemented in certain situations in the RRZs and YRZs (e.g., capacitor bank poles).

8. WILDFIRE RESPONSE

8.1. Overview

Idaho Power responds to wildfire events that have resulted in an outage and, depending upon the situation, to wildfire events that potentially may result in an outage. The response, as used in this wildfire context, refers to Idaho Power's actions in:

- Responding to active fire situations and taking appropriate steps, where safe to do so, to protect Idaho Power-owned facilities from experiencing fire damage
- Restoring electrical service following wildfire caused outages
- Communicating and informing customers

These actions are taken on a 24-hour basis.

8.2. Response to Active Wildfires

Idaho Power field crews are trained to respond to active wildfire scenes with the intent to monitor the situation regarding Idaho Power's facilities. The employees are not professionally trained firefighters and have been instructed not to place themselves in any hazardous situation with respect to any fire situation. When responding to any active fire situation, Idaho Power personnel immediately report to, and take appropriate direction from, the Incident Commander (IC) or the official jurisdictional fire response entity. However, when reasonable, responding field crews have the capability to extinguish small fires.

8.3. Restoration of Electrical Service

Idaho Power personnel provide restoration of electrical service whenever it is safe to do so. Trained field crews report to the outage areas and patrol and assess the situation. Field crews with appropriate equipment and materials remove damaged facilities and repair or rebuild the lines.

8.4. Emergency Line Patrols

At certain times, unplanned de-energization of lines requires qualified line personnel to conduct "emergency" patrols (inspections) of the de-energized lines. These patrols identify outage causes, damaged facilities, ingress/egress routes, and requirements for restoration (number of crews, crew sizes, and necessary materials).

8.5. Construction Activities

Idaho Power personnel provide restoration of electrical service whenever it is safe to do so. Trained field crews report to the site where damage has occurred with equipment and new materials and develop a plan to remove and rebuild damaged facilities. Depending upon the situation, contracted field crews—such as line crews and vegetation management crews—are also deployed to assist in restoration efforts. Restoration work may take hours or, in some rare cases, days to complete. Depending on the extent of damage, customers may need to perform repairs on their facilities and pass inspections by local agencies prior to having full electric service restored.

Due to the unique construction, need for specialized equipment, and—in many cases—remote location of many of Idaho Power’s transmission lines, a *Transmission Emergency Response Plan* has been developed. This plan includes restoration process information relating to all transmission voltage classes from 46 through 500 kV. The plan outlines the basic approach and certain details about notification, materials, damage assessment, coordination, and preparedness.

8.5.1. Mutual Assistance

Idaho Power is a member of the Western Region Mutual Assistance Agreement (WRMAA). The great majority of western United States electric utilities are members of this group. As members, utilities will provide emergency repair and restoration assistance to a peer member that requests such assistance when their electric facilities are damaged by a significant event. In the event of a catastrophic wildfire that causes widespread damage to Idaho Power’s system, it is an option for Idaho Power to request restoration assistance via the WRMAA. This is a last resort option after utilizing all available internal and contracted personnel.

8.6. Public Outreach and Communications

Idaho Power maintains an *Emergency Response Communication Plan*. The intent of this communication plan is to provide consistent and reliable internal and external communication in large outage or emergency situations that have wide-ranging impacts on Idaho Power’s service areas. Procedures for internal and external communications driven by a wildfire situation will be in accordance with this plan. Idaho Power reviews and updates the plan annually.

9. COMMUNICATING THE PLAN

9.1. Objective

Idaho Power intends to communicate about this WMP internally to employees and externally to the public. The company will provide related fact sheets and maps depicting areas of elevated wildfire risk. Additionally, the company will provide online resources, which will include the following information specific to Idaho Power's WMP:

- Demonstrate Idaho Power's focus on the integrity and reliability of its systems and their impacts on the public
- Ensure the confidence of the IPUC and the OPUC that Idaho Power is proactively and responsibly addressing wildfire risk
- Inform and collaborate with federal, state, and local government and agencies
- Inform Idaho Power customers
- Inform and guide Idaho Power employee and contractor behaviors

9.2. Idaho Power External Communications

9.2.1. Regulatory Entities

Idaho Power will file its WMP with both the IPUC and the OPUC. In addition, Idaho Power will continue to inform and discuss the WMP with the IPUC and OPUC. Idaho Power provided an overview of its Wildfire Mitigation Plan to the IPUC in 2019. Idaho Power has also been a participating member with other investor owned utilities and the OPUC in the Oregon Wildfire and Electric Collaborative (OWEC) workshops and Wildfire Mitigation Rulemaking Docket AR 638.

9.2.2. Government Agencies

Idaho Power intends to present and distribute information regarding its WMP to a wide variety of stakeholders (e.g., the Bureau of Land Management (BLM), U.S. Forest Service, county and city officials). Presentations will be tailored to the specific audiences and their areas of interest.

Idaho Power has worked with the BLM in a collaborative manner (e.g., extend a firebreak along Hwy 93 in Jerome County). The company also worked collaboratively with the Boise City Fire Department in development of certain portions of the Boise City Fire Code-043019.

9.2.3. Idaho Power Customers

Safety is Idaho Power's most important value. Attention to the detail of safe operations permeates our workplace and interactions with customers. This standard is applied to protecting Idaho Power's equipment from wildfire, reducing the likelihood of wildfire and informing the public about the likelihood of wildfire and ways customers should respond.

Idaho Power will distribute information regarding its WMP to its customers via the following tools:

- Fact sheets
- Mass media articles/video
- Community and/or individual presentations/discussion
- Social media
- Idaho Power online website
- Customer email/mailings

9.2.3.1 Prior to Wildfire Season

Idaho Power will communicate to customers and the public what steps the company is taking, such as vegetation management and equipment maintenance, to reduce the likelihood of wildfires. Various communication mediums include:

- *Connections* (This monthly newsletter is an effective way to give customers nuanced information about the work Idaho Power does, but its planning and development takes months, so it is not an effective way to communicate urgent information.)
- eNews (video stories about a variety of topics, such as vegetation management)
- Emails
- Social media
 - Posts on Facebook, Instagram, Twitter and other platforms are an efficient way to reach large numbers of customers and the public. They are less intrusive than newsletters or phone calls.

Idaho Power will also monitor long-term weather forecasts and fuel conditions and communicate to customers and the public our assessment of the likelihood of wildfires.

Again, various communication mediums are:

- *Connections*

- Emails telling customers how to prepare for wildfires, the potential loss of power and potential evacuation.
- Social media
- News media (news releases, appearances on broadcast TV and radio shows, interviews, etc.)
- Idaho Power website

9.2.3.2 During Wildfire Season

Idaho Power will monitor weather forecasts and fuel conditions near Idaho Power equipment and communicate to customers and the public plans for reducing wildfire risk and protecting company equipment should a wildfire occur. Various communication mediums include:

- Emails (If the likelihood of wildfire is elevated, these messages would take on greater urgency, though they would contain much of the same information as pre-wildfire season messages.)
- Social media (this is the quickest way to spread word of safety concerns, potential loss of power, evacuations, etc. This communication likely would contain up-to-date information from organizations like National Interagency Fire Center, USFS, BLM.)
- News media
- Idaho Power website
- Phone calls and text messages to customers

9.2.3.3 After Wildfire Season

Idaho Power will communicate to customers and the public the scope of wildfires that approached Idaho Power equipment, how Idaho Power communicated safety messages to customers and the public, measures Idaho Power took to keep power lines safe, and the status of any ongoing recovery measures, such as replacement of poles, lines, and other equipment. Various communications mediums include:

- Connections
- eNews
- Social media
- News media
- Idaho Power website

9.3. Idaho Power Internal Communications—Employees

Idaho Power communicates with its employees in a variety of ways:

- *News Scans* for all employees
- Leader communications
- GIS-based visual communication of risk zones and affected overhead lines
- Online training for employees influenced by the WMP
- In-person, hands-on, training for certain field employees

10. PERFORMANCE MONITORING AND METRICS

10.1. Wildfire Mitigation Plan Compliance

The Chief Operating Officer (COO) is the designated oversight officer for the Idaho Power WMP. The Vice President of Planning, Engineering and Construction (VP) is responsible for compliance monitoring, necessary training, and annual review of this WMP.

10.2. Internal Audit

Idaho Power's internal audit department, Audit Services, provides an independent and objective assurance and consulting function that reviews corporate activities and furnishes management and the Audit Committee with evaluations and recommendations. As determined through its annual risk assessment process, Audit Services will periodically review the WMP and provide reasonable assurance regarding the achievement of the Plan's objectives and adherence to policies and procedures. Further, Idaho Power's Compliance department will perform periodic reviews of Idaho Power's compliance with federal reliability standards as they pertain to vegetation management.

10.3. Annual Review

Each year the WMP will be reviewed, updated, and approved prior to start of the fire season.

10.4. Wildfire Risk Map

The Wildfire Risk Map was established in 2020 by an external consultant. As noted in Section 2 of this report, the 2020 analysis was based, in part, on population census data from 2010. The national census is being conducted again in 2020. Therefore, to improve the Wildfire Risk Map information, Idaho Power will update the map after the information is available. Thereafter, Idaho Power will update the map periodically.

10.5. Situational Awareness

The Fire Potential Index will be shared regularly and broadly with Idaho Power personnel during the fire season to help ensure employees and contractors are alerted to operating requirements in-effect.

10.6. Wildfire Mitigation—Field Personnel Practices

Idaho Power crews and certain personnel are required to follow the *Field Personnel Practices* when working on lines in the Red and Yellow Risk Zones at times of red Fire Potential Index. The *Field Personnel Practices* document should be consulted for information regarding the specific requirements.

10.7. Wildfire Mitigation—Operations

Each year in preparation for the fire season Idaho Power reviews and establishes:

- Temporary operating procedures for transmission lines during the fire season
- An operational strategy for distribution lines during time periods of elevated wildfire risk during the fire season
- Ongoing evaluation of the use PSPS and whether it continues to be a reasonable wildfire mitigation tool for Idaho Power

10.8. Wildfire Mitigation—T&D Programs

This section lists metrics used to evaluate Idaho Power’s asset management and vegetation management programs. Work is identified and prioritized each year and approved by executive management. Idaho Power’s goal is to complete 100% of the work plan each year; however, emergencies or other unplanned events can occur and disrupt the annual work plan. All work is completed in accordance with safety and applicable requirements and industry standards.

Table 5
T&D programs metrics

Transmission	
Transmission Asset Management Programs	Description
Aerial Visual Inspection Program	Perform annual patrols and document identified defects according to priority. Complete repairs according to priority definition.
Ground Visual Inspection Program	Perform annual patrols and document identified defects according to priority. Complete repairs according to priority definition.
Detailed Visual (High Resolution Photography) Inspection Program	Perform 10-year cycle patrols and document identified defects according to priority. Complete repairs according to priority definition.
Wood Pole Inspection and Treatment Program	Perform 10-year cycle patrols and document identified defects according to priority. Complete repairs according to priority definition.
Cathodic Protection and Inspection Program	Perform 10-year structure-to-soil potential testing on select towers with direct-buried anodes. Perform 10-year rectifier and ground-bed testing on ICCP systems. Annually inspect and record DC voltage and current readings of rectifiers. Complete repairs and adjustments.
Wood Pole Wildfire Protection Program	Inspect and install wraps on selected poles.
Distribution	
Distribution Asset Management Programs	Description
Wood Pole Inspection and Treatment Program	Perform 10-year cycle patrols and document identified defects according to priority. Complete repairs according to priority definition.
Line Equipment Inspection Program	Complete annual inspections and data analysis and mitigate defects
Ground Detailed Inspection Program	Perform annual patrols and document identified defects according to priority. Complete repairs according to priority definition.
Distribution Infrastructure Hardening Program	Complete annual work plan

Replace "small conductor" with new 4acsr or larger conductor

Replace or repair damaged conductor

Re-tension loose conductors including "flying taps" and slack spans as required

Replace wood-stubbed poles with new wood poles

Replace white and yellow square tagged poles with new wood poles

Replace wood pins/wood crossarm with new steel pins/fiberglass crossarms

Replace steel insulator brackets with new steel pins/fiberglass crossarms

Replace wedge deadends on primary taps with new polymer deadend strain insulators

Replace aluminum deadend strain insulators with new polymer deadend strain insulators

Replace porcelain switches with new polymer switches

- Replace hot line clamps
- Replace aluminum stirrups
- Install avian cover
- Relocate arresters

Install bird/animal guarding

Update capacitor banks

- Replace swelling capacitors
- Replace oil-filled switches with vacuum style
- Replace porcelain switches with polymer switches

Replace certain expulsion arrestors

Install disconnect switches on CSP transformers

- Install avian cover

Update down guys

- Replace/Install down-guy insulators with fiberglass insulators
- Tighten down guys

Tighten hardware

Correct 3rd party pole attachment violations (report to Joint Use Department)

Replace certain expulsion fuses

Vegetation Management

Transmission

Pre-Fire Season Inspection and Mitigation

Description

Perform annual pre-fire season inspections and mitigate noted "hot spots"

Line Clearing Cycles: Strive to maintain 3-year cycle for valley areas & 6-year cycle for mountain areas

Complete annual cycle pruning work plan

Tree Removals - Hazard Trees

Remove targeted hazard trees

Targeted Pole Clearing

Complete annually targeted structures

100% QA/QC Audits in RRZs and YRZs

Complete annually QA/QC audits

Distribution

Description

Pre-Fire Season Inspection and Mitigation

Perform annual pre-fire season inspections in RRZs and YRZs and mitigate noted "hot spots"

Line Clearing Cycle: Strive to maintain 3-year cycle

Complete annual cycle pruning work plan

Mid-Cycle Pruning in RRZs and YRZs

Complete annual mid-cycle pruning work plan in RRZs and YRZs

Tree Removals - Cycle Busters/Hazard Trees

Complete annual cycle pruning work plan

Targeted Pole Clearing

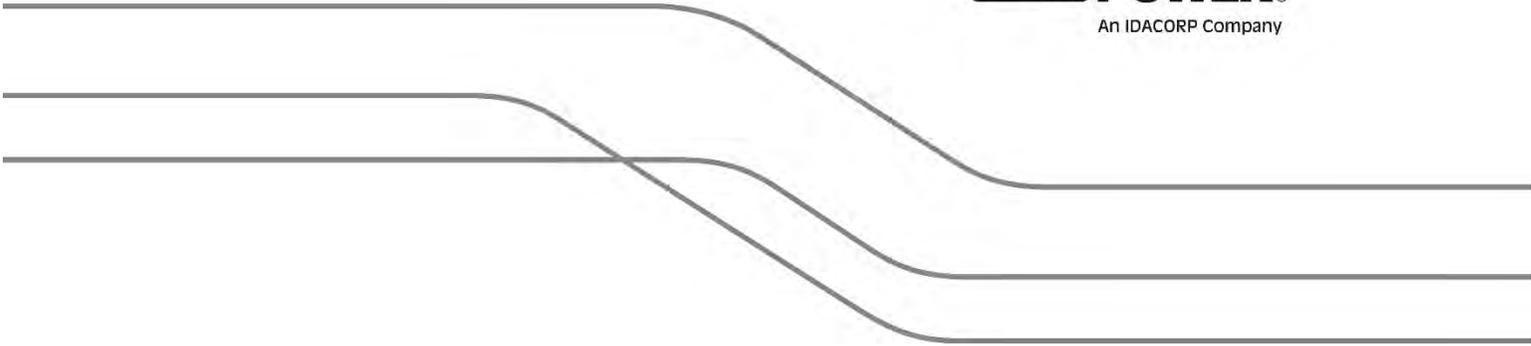
Complete annually targeted structures

100% QA/QC Audits in RRZs and YRZs

Complete annually QA/QC audits

Appendix A

The Wildland Fire Preparedness and Prevention Plan



Wildland Fire Preparedness and Prevention Plan

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1. Plan Overview

A. Intent of Plan

The purpose of this Wildland Fire Preparedness and Prevention Plan (Plan) is to provide guidance to Idaho Power Company (IPC) employees to help prevent the accidental ignition and spread of wildland fires (wildfires) due to employee work activities in locations and under conditions where wildfire risk is heightened. It is expected that all IPC employees be aware of the provisions of this Plan, operate in accordance with the Plan and conduct themselves in a fire-safe manner.

B. Scope of Plan

The scope of this Plan includes tools, equipment, and field behaviors IPC employees should incorporate when working in locations and under conditions where wildfire ignition is heightened.

Operations of Transmission and Distribution (T&D) lines facilities, vegetation management, and T&D lines programs that mitigate wildfire risks are not included in this Plan; they are referenced in the separate Wildfire Mitigation Plan.

2. Situational Overview and Applicability

A. Wildfire Season

The provisions of this Plan shall be applicable during wildfire season. Within IPC's service area, wildfire season is defined as the closed fire season of May 10 through October 20 of each year, as established by Idaho State Law, Title 38-115.

Should any local, state, or federal government land management agency (i.e., the Bureau of Land Management [BLM], U.S. Forest Service, Oregon Department of Forestry, Idaho Department of Lands, etc.) issue any wildfire related order that extends wildfire season beyond that specified above, then compliance with that agency's order shall govern.

Many variables—such as drought conditions, weather, and fuel moisture—can cause the wildfire season to begin and/or end earlier or later. In summary, flexibility, judgment, attention to current and forecasted field conditions, and attention to governmental agency issued wildfire orders are necessary such that operational practices can be adjusted accordingly.

B. Wildfire Risk Zones

IPC's Wildfire Mitigation Plan includes a Wildfire Risk Map of IPC's service area. This Wildfire Risk Map may be accessed at the Idaho Power SharePoint site. All lands in the vicinity of IPC facilities are mapped as Red Zone, Yellow Zone or areas of minimal wildfire risk (i.e., not within a Red or Yellow Zone). Red and Yellow Zones are designated as Wildfire Risk

Zones (WRZ). The provisions of this Plan shall apply to work activities taking place during wildfire season in these WRZs.

Should any local, state, or federal government land management agency (i.e., BLM, U.S. Forest Service, Oregon Department of Forestry, Idaho Department of Lands, etc.) issue any wildfire related order, then compliance with that agency's order shall govern if their order is more restrictive than that set forth in this Plan.

C. Fire Potential Index

Idaho Power's Atmospheric Sciences department has developed a Fire Potential Index (FPI) rating system that forecasts wildfire potential across IPC's service territory. The FPI considers many current and forecasted elements such as meteorological (winds-surface and aloft, temperatures, relative humidity, precipitation, etc.) and fuel state (both live and dead). The FPI is designed and calibrated for IPC's service area; specifically, those areas in proximity to IPC transmission, distribution, and generation facilities.

The FPI consists of a numerical score ranging from 1 (very green, wet fuels with low to no wind and high humidity) to 16 (very brown and dry, both live and dead dry fuels with low humidity and high temperatures). The FPI scores are grouped into the following 3 index levels:

- **Green:** FPI score of 1 through 11
- **Yellow:** FPI score of 12 through 14
- **Red:** FPI score of 15 through 16

The FPI is updated daily during wildfire season and will provide information for the next 5 to 7 days via a wildfire weather forecast and FPI dashboard. This weather forecast and FPI dashboard is contained within the IPC Enviro Viewer that is available to all IPC employees.

A conceptual depiction of how this FPI dashboard will look is shown below.

Issued: 12:00L, August 1, 2020	1-Aug	2-Aug	3-Aug	4-Aug	5-Aug	6-Aug	7-Aug	8-Aug
FPI (00-06L)		12	13	13	14	14	15	13
Min Temp (f)		70	75	75	76	77	79	75
Average RH (%)		36	31	31	25	24	10	31
Average Wind (mph)		5	6	5	5	5	10	6
Max Wind (mph)		8	8	8	7	5	20	8
6-hr Precipitation (in)		0	0	0	0	0	0	0
Cloud Cover (% coverage)		20	20	10	10	20	35	85
Lightning Possible		N	N	N	N	N	N	N
FPI (06-12L)		12	13	13	14	14	15	13
Min Temp (f)		70	75	75	76	77	82	75
Average RH (%)		36	31	31	25	24	9	31
Average Wind (mph)		5	6	5	5	5	13	6
Max Wind (mph)		8	8	8	7	5	21	8
6-hr Precipitation (in)		0	0	0	0	0	0	0
Cloud Cover (% coverage)		20	20	10	15	20	45	10
Lightning Possible		N	N	N	N	N	Y	N
FPI (12-18L)	12	13	13	14	14	15	16	
Max Temp (f)	102	101	103	105	105	106	107	
Average RH (%)	12	13	11	10	9	6	5	
Average Wind (mph)	5	8	9	8	8	18	20	
Max Wind (mph)	6	10	11	10	10	30	30	
6-hr Precipitation (in)	0	0	0	0	0	0	0	
Cloud Cover (% coverage)	10	10	10	10	20	45	55	
Lightning Possible	N	N	N	N	Y	Y	Y	
FPI (18-24L)	12	13	13	14	14	16	16	
Max Temp (f)	102	101	103	105	105	107	108	
Average RH (%)	12	13	11	10	9	6	5	
Average Wind (mph)	5	8	9	8	8	18	25	
Max Wind (mph)	6	10	11	10	10	30	35	
6-hr Precipitation (in)	0	0	0	0	0	0	0	
Cloud Cover (% coverage)	10	10	10	10	25	50	90	
Lightning Possible	N	N	N	N	Y	Y	Y	

D. Decision Making for Field Work Activities

Employees working in the field shall be cognizant of current and forecasted weather and field conditions. Awareness of these conditions, and exercising appropriate judgment, is essential when considering whether to undertake work activities when combinations of high temperatures, low humidity, dry fuels, and/or wind are present or forecasted to be present.

The following process steps shall apply to employees and crews contemplating field work during wildfire season:

Planned or Scheduled Work Activities:

1. Fire Potential Indices:

a) Employees working in the field—NOT working on transmission or primary distribution lines should:

i. Be aware of the current and forecasted weather and the FPI level for the area in which the work will be performed, through the FPI dashboard.

- ii. Once the FPI level for the work zone is identified, proceed with work but consider utilizing Prevention—Practices of Field Personnel (see section 4 of this Plan).
- b) Employees working in the field—working on transmission or primary distribution lines should:
- i. Be aware of the current and forecasted weather and the FPI level for the area in which the work will be performed.
 - ii. Once the FPI level for the work zone is identified, proceed as follows for each FPI level:
 1. **Green FPI in All Zones:** Proceed with the work.
Consider utilizing Prevention—Practices of Field Personnel (see section 4 of this Plan)
 2. **Yellow FPI in All Zones:** Proceed with the work.
Consider utilizing Prevention—Practices of Field Personnel (see section 4 of this plan)
 3. **Red FPI**
 - a) **In Normal Zone:** Proceed with the work.
Consider utilizing Prevention—Practices of Field Personnel (see section 4 of this plan)
 - b) **In Medium Zone:** Proceed with the work. However, it is a requirement to follow the Prevention—Practices of Field Personnel (see section 4 of this plan)
 - c) **In High Zone: STOP.** No planned work activities shall take place unless approved by operations level manager. Work consideration will be restoration of electric service or work deemed critical to providing safe, reliable electric service. If work is approved to proceed it is a requirement to follow the Prevention—Practices of Field Personnel (see section 4 of this plan).

Fire Potential Index (FPI)	High	15 to 16 (Red)	Proceed with work Utilize Prevention/ Practices of Field Personnel (Optional)	Proceed with work Utilize Prevention/ Practices of Field Personnel REQUIRED	STOP/NO WORK
	Elevated	12 to 14 (Yellow)	Proceed with work Utilize Prevention/ Practices of Field Personnel (Optional)	Proceed with work Utilize Prevention/ Practices of Field Personnel (Optional)	Proceed with work Utilize Prevention/ Practices of Field Personnel (Optional)
		Normal	1 to 11 (Green)	Proceed with work Utilize Prevention/ Practices of Field Personnel (Optional)	Proceed with work Utilize Prevention/ Practices of Field Personnel (Optional)
			None	Yellow (Tier 2)	Red (Tier 3)

2. Land Management Agency Restrictions: Follow the requirements and restrictions of any wildfire restrictions related order that is issued by local, state, or federal land management agencies.
 - a) Immediately upon receiving knowledge of an order, The Environmental Services department will notify, via email, operations leadership within Power Supply, Customer Operations and Business Development, and T&D Engineering and Construction of wildfire related requirements and restrictions orders that are issued by local, state, or federal land management agencies.

Emergency Response and Outage Restoration Work Activities:

Follow the same steps as identified above for planned work activities. However, it is recognized that the nature of emergency response and outage restoration situations will often require exceptions to the above. In these situations, leadership should be consulted, and appropriate judgment should be used given the nature of the emergency or outage at hand.

3. Preparedness—Tools and Equipment

A. Required Personal Protective Equipment

Standard IPC Personal Protective Equipment (PPE) shall be worn in accordance with the IPC Safety Standard.

When entering a designated fire area being managed by the BLM or the U.S. Forest Service, additional PPE requirements may be in force by those agencies. These typically include:

- Hardhat with chinstrap
- Long sleeve flame-resistant (FR) shirt and FR pants
- Leather gloves
- Exterior leather work boots, 8” high, lace-type with Vibram type soles
- Fire shelter

B. Required Tools and Equipment

Employees NOT working on transmission or distribution lines: Standard tools and equipment in accordance with the IPC Safety Standard and Fleet Services.

Employees working on transmission or distribution lines: IPC and the State of Idaho BLM entered into a March 2019 Master Agreement that governs various IPC and BLM interactions, including wildfire prevention related provisions. In addition to State of Idaho BLM lands, IPC has elected to apply these requirements to all work activities taking place on all WRZ in Idaho, Nevada, Montana, and Oregon. These requirements include:

- During the wildfire season (May 10–October 20) or during any other wildfire season ordered by a local, state, or federal jurisdiction, IPC, including those working on IPC’s behalf, will equip at least 1 on-site vehicle with firefighting equipment, including, but not limited to:
 - a) Fire suppression hand tools (i.e. shovels, rakes, Pulaski’s, etc.),
 - b) a 16-20-pound fire extinguisher,
 - c) a supply of water, sufficient for initial attack, with a mechanism to effectively spray the water (i.e. backpack pumps, water sprayer, etc.). This requirement to carry water is dependent on the vehicle type and weight restrictions. For example, a mini-excavator would not be required to carry water since there is no safe way to do so, or a loaded bucket truck may not be required to carry water because of weight limitations.
- At a minimum, equip each truck that will be driven in the WRZs during wildfire season with at least:
 - a) One round, pointed shovel at least 8-inches wide, with a handle at least 26 inches long
 - b) One axe or Pulaski with a 26-inch handle or longer
 - c) A combination of shovels, axes, or Pulaskis available to each person on the crew
 - d) One fire extinguisher rated no less than 2A:10BV (5 pounds)
 - e) 30-200 gallons of water in a fire pumper and 5-gallon back packs

IPC personnel will be trained to use the above tools and equipment to aid in extinguishing a fire ignition before it gets out of control and take action that a prudent person would take to control the fire ignition while still accounting for their own personal safety.

C. Land Management Agency Restrictions and Waivers

The Environmental Services department will notify operations leadership within Power Supply, Customer Operations and Business Development, and T&D Engineering and Construction of any wildfire related requirements and restrictions orders that are issued by local, state, or federal land management agencies. Typical orders issued each fire season include:

- BLM. During BLM's Stage II Fire Restrictions, IPC's Environmental Services department will obtain an appropriate waiver. Field personnel shall take appropriate precautions when conducting work activities that involve an internal combustion engine, involve generating a flame, involve driving over or parking on dry grass, involve the possibility of dropping a line to the ground, or involve explosives. Precautions include a Fire Prevention Watch Person who will remain in the area for 1 hour following the cessation of that activity. Also, IPC personnel will not smoke unless within an enclosed vehicle, building, or designated recreation site or while stopped in an area at least 3 feet in diameter that is barren or cleared of all flammable materials. All smoking materials will be removed from work sites. No smoking materials are to be discarded.
- State of Oregon Department of Forestry (ODF). Prior to each summer fire season, the ODF issues a "Fire Season Requirements" document that specifies required tools, equipment, and work practices. In addition to State of Oregon lands, IPC has elected to apply these requirements to all work activities taking place on all WRZ, BLM lands, and Forest Service lands within the State of Oregon. Go to <https://www.oregon.gov/ODF/Fire/Pages/Restrictions.aspx> for ODF's Fire Season Requirements order.
- Other sites for reference that contain fire restriction orders include:
 - Oregon— Blue Mountain Interagency Fire Center at <http://bmidc.org/index.shtml>
 - Nevada—Fire Information at <https://www.nevadafireinfo.org/restrictions-and-closures>
 - Montana—<https://firerestrictions.us/mt/>

4. Prevention—Practices of Field Personnel

A. General Employee Practices

The below listing includes, but is not limited to, practices and behaviors employees shall incorporate depending on the FPI and level of WRZs during fire season.

1. Daily tailboards must include discussion around fire mitigation planning. Discussion topics include, but are not limited to:
 - a. Items 2 through 7 below

- b. Water suppression
 - c. Hand tools
 - d. Welding blankets
 - e. Mowing high brush areas (weed wacker)
 - f. Watering down the worksite before setting up equipment
2. Weather conditions and terrain to be worked shall be considered and evaluated. Items to be considered include, but are not limited to:
 - a. Identify the FPI for the area being worked (see Section 3.C)
 - b. Monitor weather forecasts and wind and humidity conditions
 - c. Identify surroundings. i.e., wildland-urban interface, BLM lands, Forest Service lands, proximity to any homes and structures, etc.
 - d. Identify local fire departments and locations
 - e. Evaluate the terrain you are working in (steep or flat)
 - f. Consider whether the work will occur during the day or at night
3. Work procedures and tools that have potential to cause a spark or flash shall be considered and evaluated. Items to be considered include, but are not limited to:
 - a. Performing energized work
 - b. Grinding or welding
 - c. Trees contacting electrical conductors
 - d. Hot saws
 - e. Chainsaws
 - f. Weed wackers
 - g. Sawzalls
4. Monitoring the worksite throughout the project.

It is imperative that all crews and equipment working in the WRZs areas are continuously monitoring and thoroughly inspecting the worksite throughout the project. This includes prior to leaving the work area for the night or before moving on to the next structure.
5. Employee cooking stoves.

When working in remote locations, often employees bring food that needs to be cooked. Open flames should not be allowed. Cook stoves may be permitted by leadership but special precautions must be followed to use:

 - a. The stove or grill must be in good repair and of sturdy construction
 - b. Stoves must be kept clean, grease build up is not allowed
 - c. Fueling of the stove must follow the fueling procedures when liquid fuels are used
 - d. Cooking must be in areas free of combustible materials
6. Smoking on the job site.

Carelessly discarded smoking materials can result in wildfire ignition. The following practices shall be followed:

 - a. Do not discard any tobacco products from a moving vehicle.

- b. Smoking while standing in or walking through forests or other outdoor areas when IPC's FPI rating is above a Green level is prohibited.
 - c. All employees must smoke **only in designated areas** and smoking materials must be disposed of in half filled water bottles or coffee containers half filled with sand. Smoking materials shall not be discarded on any site.
7. Post job site inspection.
- Final inspection or post-checking the work site for any ignition hazards that may remain is essential to the proper completion of the work and true mitigation of the hazards. Post-checking the work will help ensure the hazards were mitigated and provide a final chance to see if any new hazards or hot spots exist before leaving the work site.

B. Behaviors Relating to Vehicles and Combustion Engine Power Tools

It is important to consider work procedures, equipment conditions, employee actions, potential causes, and other sources that could lead to fire ignition. Some work practices may be performed on roadways that have little to no risk of fire ignition. Leadership should consider scheduling off-road equipment use during times of green fire risk. Employees should also consider alternative tools, work methods or enhanced suppression tools to reduce the risk or spread of fire.

1. Additional heat may bring vegetative materials to an easier point of ignition. This includes, but is not limited to, the following vehicles:
 - a. Pickups, crew cabs, line-beds, buckets trucks (large and small), backhoes, excavators and rope trucks, and any other motorized equipment.
2. Vehicle Procedures:
 - a. Inspect all engine exhaust, spark arresters and electrical systems of vehicles used off road, daily for debris, holes or exposed hot components and to ensure that heat shields and protective components are in place.
 - b. Conduct inspections of the vehicle undercarriage before entering or exiting the project area to clear vegetation that may have accumulated near the vehicle's exhaust system.
 - c. Vehicles shall be parked overnight in areas free from flammable vegetation at a minimum distance of 10 feet.
 - d. Vehicles and equipment will not be stationary or in use in areas where grass, weeds or other flammable vegetation will be in contact with the exhaust system.
 - e. If there is no other workable option for the location that doesn't include weeds, grass or other flammable vegetation, the vegetation and debris will need to be removed.
 - f. Consider using a fire-resistant material such as a welding blanket to cover flammable material to act as a heat shield; fire blankets may be a suitable option to avoid removal of vegetation.

3. Hot brakes on vehicles and equipment:
 - a. Park vehicles in areas free of combustible materials.
 - b. Hot brake emergency parking, during times of yellow or red FPI shall be cleared of combustible materials for a distance of at least 10 feet from the heat source.

4. Fueling procedures:
 - a. Tools or equipment should NOT be fueled while running.
 - b. Cool down period must be given to allow equipment time to no longer be considered a fire risk.
 - c. Allow for a ten-foot radius from all ignition sources.
 - d. Any combustible debris should be cleared from the immediate area.
 - e. Never smoke while fueling.
 - f. Designate fueling areas for all gas-powered tools.

5. Combustion engine power tools:

Poorly maintained or missing spark arrester screens may allow sparks to escape and cause ignition of vegetation. Ensure proper spark arrester screens are in place for the following tools:

 - a. Generators
 - b. Pony motors
 - c. Pumps
 - d. Chain saws
 - e. Hot saws
 - f. Weed eaters
 - g. Brush hog

Inspect spark arresters daily; clean or replace when clogged, damaged or missing or remove from service until repaired.

5. Reporting

A. Fire Ignition

All fire ignitions shall be immediately reported to regional or system dispatch. Dispatch will notify local fire authorities. All work shall immediately stop and necessary steps taken to extinguish the fire with available tools, water, and equipment. If the fire gets too large to safely contain or extinguish, ensure all employees are accounted for and get to a safe location.

B. Fire Reporting

When reporting a fire ignition to regional or system dispatch provide the following information:

1. Your name
2. Location-reference points including an address, road or street name, cross streets, mountain range, GPS coordinates, as applicable

3. Fire information
4. Size and behavior of the fire
5. Weather conditions

6. Training

Each employee who performs work in wildland fire designated zones shall be trained on the content of this document and be required to complete annual refresher courses through the Learning Management System (LMS). Employees are required to complete fire extinguisher and fire shelter training annually as part of the lineman safety compliance. Documentation of all training shall be retained in the LMS.

7. Roles and Responsibilities

Individual	Roles and Responsibilities
Employee	<ol style="list-style-type: none"> 1. Be familiar with the requirements specified in this Plan and operate in accordance with this Plan. 2. Be aware of daily weather forecast and FPI level. 3. Be aware of whether field work will be performed in a WMZ.
Crew Foreman and Front-Line Leaders	<ol style="list-style-type: none"> 1. Establish expectations to direct report employees they are to be familiar with, and follow, Plan requirements. 2. Ensure the crew or team conducts field operations in accordance with this Plan. 3. Be aware of daily weather forecast and FPI level (by viewing the FPI dashboard or by calling into dispatch or a leader): <ol style="list-style-type: none"> a) Ensure employees are aware of the FPI level. b) Ensure work practices comply with this Wildland Fire Preparedness and Prevention Plan when the FPI is "Red" and the WMZ is Yellow. c) Ensure no work takes place when FPI is "Red" and the WMZ is Red. Any exceptions to be discussed with manager. 4. Ensure annual training of employees is completed prior to wildfire season. 5. Ensure required tools and equipment are in place prior to wildfire season.
Manager (Regional Operations Manager, Area Manager, T&D Construction Manager)	<ol style="list-style-type: none"> 1. Establish expectations to Crew Foremen and Front-Line Leaders they are to operate in accordance with Plan requirements. 2. Support Crew Foremen and Front-Line Leaders in scheduling training and making required tools and equipment available. 3. View daily weather forecast and FPI dashboard: <ol style="list-style-type: none"> a) Authorize any exceptions to working when FPI is "Red" and the WRZ is Red. b) Ensure specified audits are timely completed.
Meteorology Department	<ol style="list-style-type: none"> 1. Provide daily weather forecast and update the FPI dashboard contained within the IPC Enviro Viewer.
Environmental Services Department	<ol style="list-style-type: none"> 1. Monitor local, state, and federal land management agencies for any wildfire restriction orders that are issued. 2. Communicate content of any orders issues to Power Supply, COBD, and PEC operations leadership.
Operations Procurement Department	<ol style="list-style-type: none"> 1. Ensure contractors have a copy of this Plan and that contractual requirements are in place to ensure adherence to the Plan.
Vice-President of Planning, Engineering and Construction (VP of PEC)	<ol style="list-style-type: none"> 1. Ensure annual review/update of this Plan is conducted following the completion of each wildfire season.

8. Audit

Prior to the start of wildfire season (May 10), all vehicles will be audited by leadership to ensure that those working in WRZs are properly equipped with firefighting equipment. The following checklist must be completed, dated, and signed by a member of leadership (front-line supervisor or above) and kept with the crew or individual until fire season has ended (Oct 20). A copy of each audit checklist shall be sent to the respective manager and senior manager.

Wildland Fire Preparedness Audit Checklist:

Inspector: _____

Signature: _____

Date: _____

Crew: _____

Crew:

At least 1 vehicle will be equipped with the following:

- Fire suppression hand tools (shovels, Pulaski, axes, etc.) for each member of the crew
- A 16–20-pound fire extinguisher (2-10-pound fire extinguishers)
- A supply of water, sufficient for initial attack, with an effective spraying mechanism (i.e., backpack pumps, water sprayer, etc.)
- 30–75-gallon mechanical fire pumper

Individual Truck:

- One round, pointed shovel at least 8-inches wide, with a handle at least 26 inches long
- One axe or Pulaski with a 26-inch handle or longer
- A combination of shovels, axes, or Pulaskis to each person on the crew
- One fire extinguisher rated no less than 2A:10BV (5 pounds)
- 30-200 gallons of water in a fire pumper and 5-gallon back packs

Personal protective equipment (PPE) IPC and BLM standards: Each employee will be required to have the following PPE:

- Hard hat with a chin strap
- Safety glasses
- Hearing protection
- Long sleeve FR shirt FR pants
- Leather gloves
- Exterior leather work boots 8" high lace type with Vibram type soles
- Fire shelter