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October 20, 2022

VIA ELECTRONIC FILING

Jan Noriyuki, Secretary
Idaho Public Utilities Commission
11331 West Chinden Blvd., Building 8
Suite 201-A
Boise, Idaho 83714

Re: Case No. IPC-E-22-27
In the Matter of Idaho Power Company's Application for Review of the Company's Current Wildfire Mitigation Plan and Authorization to Defer Newly Identified Incremental Wildfire Mitigation Costs

Dear Ms. Noriyuki:

Attached for electronic filing is Idaho Power Company's Application in the above-entitled matter.

If you have any questions about the attached documents, please do not hesitate to contact me.

Very truly yours,

Lisa D. Nordstrom

Lisa D. Nordstrom

LDN:sg
Attachments

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BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION

IN THE MATTER OF THE APPLICATION OF IDAHO POWER COMPANY FOR REVIEW OF THE COMPANY'S CURRENT WILDFIRE MITIGATION PLAN AND AUTHORIZATION TO DEFER NEWLY IDENTIFIED INCREMENTAL WILDFIRE MITIGATION COSTS	)	CASE NO. IPC-E-22-27 APPLICATION AND UPDATE

Idaho Power Company ("Idaho Power" or "Company"), in accordance with *Idaho Code* § 61-524 and -525 and Rule 52, Rules of Procedure[1] of the Idaho Public Utilities Commission ("Commission" or "IPUC"), respectfully submits an updated Wildfire Mitigation Plan ("WMP" or "Wildfire Plan") for review and requests that the Commission issue an order authorizing the Company to defer through 2025—or until the Company's next general rate case goes into effect—newly identified costs associated with expanded wildfire mitigation efforts, as detailed in the updated WMP. In conjunction with this

[1] Hereinafter cited as RP.

request, the Company provides an update on actual insurance costs, which were previously authorized for deferral by the Commission in Order No. 35077.[2]

Idaho Power filed its initial wildfire mitigation cost deferral application in January 2021. Since then, the Company has worked through a full wildfire season in 2021, evaluated the mitigation measures used in that season, and, at the time of filing, is nearly through the 2022 wildfire season. During this time, the Company has gained insights and knowledge on wildfires and wildfire mitigation activities, identified areas for expanded mitigation efforts, and continued to experience cost increases in vital wildfire-related areas such as vegetation management and insurance coverage. In this Application, the Company provides an update on its wildfire mitigation efforts and associated expenses to date and gives the rationale for expanding certain mitigation activities.

The Company respectfully requests the Commission's approval to defer the Idaho jurisdictional share of newly identified incremental operation and maintenance ("O&M") expenses related to wildfire mitigation until identified expenses can be included in base rates or another acceptable collection method. While the Company believes that the newly identified incremental costs reflect wildfire mitigation costs generally approved for deferral by the Commission in Order No. 35077, Idaho Power wishes to provide the Commission with timely review of such incremental costs to ensure transparency and alignment going forward. Consistent with the approach in Idaho Power's prior wildfire cost deferral application, the Company will seek the amortization of these deferred costs, including a review of the actual costs associated with mitigation efforts, in a future

[2] *In the Matter of the Application of Idaho Power Company for an Accounting Order Authorizing the Deferral of Incremental Wildfire Mitigation and Insurance Costs*, Case No. IPC-E-21-02, Order No. 35077 (Jun. 17, 2021).

Commission proceeding. Idaho Power is not seeking to change customer rates at this time.

To assist in the review of this Application and update, Idaho Power provides the following table of contents:

Additionally, accompanying and in support of this Application are Attachments 1 through 3:

- Attachment 1: Idaho Power's 2022 Wildfire Mitigation Plan (Version 4.0)
- Attachment 2: Original Forecast of Incremental O&M Related to Wildfire Mitigation Efforts (2021-2025)
- Attachment 3: Forecast of New Incremental O&M Related to Wildfire Mitigation Efforts (2022-2025)

I. BACKGROUND

1. As Idaho Power first explained in its Application in IPUC Case No. IPC-E-21-02, the Western United States ("U.S.") 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 areas, historical land management practices, and changes in wildland and forest health.

2. While 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

Oregon, millions of acres of rangeland in Southern Idaho's forests have burned in the last 30 years.[3] In that same time period, the wildfire season has expanded by 70 days.[4] At the time of this filing, the 2022 wildfire season remains active, and Idaho leads the nation in the number of large wildfires and acres burned.[5] In light of evolving wildfire conditions in the West, Idaho Power continues to evaluate its service area and wildfire mitigation activities to determine which practices should be proactively expanded or revised and identify potential new efforts and measures that should be implemented.

3. Case No. IPC-E-21-02. On January 22, 2021, Idaho Power filed its first WMP[6] with the Commission, along with a request to defer incremental wildfire-related costs.[7] In that application, the Company provided an overview of wildfires in the West, discussed the evolving nature of wildfire risk, introduced the structure and function of the WMP, and estimated costs of wildfire mitigation efforts between 2021 and 2025. Specifically, the Company sorted estimated incremental wildfire mitigation-related O&M expenditures into six categories: (A) Quantifying Wildland Fire Risk; (B) Situational Awareness; (C) Mitigation—Field Personnel Practices; (D) Mitigation—Transmission and Distribution ("T&D"); (E) Enhanced Vegetation Management; and (F) Communications.

4. Idaho Power's application in Case No. IPC-21-02 estimated $46.6 million in incremental O&M to implement wildfire mitigation measures. The Company requested the

[3] 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.
[4] *Id*.
[5] Information retrieved October 14, 2022, from *National Interagency Fire Center. (n.d.). National Fire News*
https://www.nifc.gov/fire-information/nfn
[6] Idaho Power Company's Wildfire Mitigation Plan 2021 (Jan. 2021 (V1.0)).
[7] *See* Case No. IPC-E-21-02, Application (Jan. 22, 2021).

authority to defer the Idaho jurisdictional share of incremental wildfire costs above a base of 2019 actual costs, escalated annually at 1.81% for inflation.

5. This application also addressed other wildfire-related costs, namely insurance. The Company noted that it had experienced a marked increase in insurance costs in recent years, largely due to the impact of larger and more frequent wildfires and natural disasters across the U.S. Idaho Power stated its expectation that insurance costs would continue to rise but also stated that insurance costs tend to be volatile, making it difficult to estimate costs more than a year in advance. As a result, the Company did not provide out-year estimates of insurance but requested the authority to defer the Idaho jurisdictional share of annual insurance costs above 2019 levels.

6. Finally, Idaho Power identified capital investments it would make to "harden" its system and infrastructure to wildfire events. The Company did not seek deferral of those investments, but rather requested the authority to defer actual depreciation expenses associated with incremental capital investments made under the WMP.

7. On April 8, 2021, Commission Staff filed comments in support of the Company's application, stating:

> Staff reviewed the Company's Wildfire Plan to reduce the risk posed by wildfires and the proposed accounting treatment and believes they are reasonable. Staff recommends the Commission approve the Company's Application to allow the deferral of prudently incurred incremental O&M costs and depreciation expenses associated with wildfire mitigation.[8]

8. On June 17, 2022, the Commission issued Order No. 35077 approving the Company's deferral request. In particular, the Commission acknowledged enhanced

[8] Case No. IPC-E-21-02, Comments of the Commission Staff (Apr. 8, 2021) at 2.

vegetation management as a critical component of the Company's wildfire mitigation efforts:

> We have reviewed the Company's forecast of incremental O&M expenses for wildfire mitigation during 2021-2025. The largest portion of this is attributed to incremental vegetation management expenses. We agree that the Company should operate its proposed three-year cycle of enhanced vegetation management activities for four to five years to verify the cycle can be beneficially maintained. As the Company increases its vegetation management activities, we find it reasonable for it to defer its Idaho jurisdictional share above its 2019 actual costs.[9]

9. With respect to insurance, the Commission found it reasonable for the Company to defer the Idaho jurisdictional share of incremental insurance costs above the 2019 base level, noting that "[i]nsurance protects the Company and its customers from unforeseen wildfire-related costs which have caused utility bankruptcy in recent years."[10]

10. The Commission also found it reasonable for Idaho Power to defer actual depreciation expense associated with incremental capital investments and record such investments in appropriate plant accounts as assets are placed in service.

11. Post-Order No. 35077 Experience. Based on the measures outlined in the Company's 2021 application, Idaho Power implemented new mitigation measures during the 2021 wildfire season. Following wildfire season, the Company reviewed its 2021 WMP, consulted with other utilities and industry groups on wildfire mitigation, and identified several areas for refinement and expansion of the Company's mitigation efforts.

12. PSPS. One significant addition for the 2022 wildfire season was the introduction of a Public Safety Power Shutoff ("PSPS") plan, which governs how the

[9] Case No. IPC-E-21-02, Order No. 35077 at 7-8.
[10] *Id*. at 8.

Company would implement and manage pro-active de-energization events in extreme weather conditions. The Company considers PSPS a last-resort action in times of extreme conditions such as high wind and low humidity. This kind of outage is an effort to protect Idaho Power's customers, communities, employees, and equipment from wildfire. To date, the Company has never issued a PSPS, although it sometimes shuts off power lines after fires start to protect firefighters working in a certain area. Idaho Power worked with its wildfire consultant to identify a narrow set of areas across its service area that could face extreme wildfire weather conditions that necessitate a PSPS event.

13. Idaho Power's PSPS plan, including considerations for calling such events and the detailed protocols during the events, is an appendix to the Company's current WMP,[11] which is filed as Attachment 1 to this Application. Additionally, Idaho Power developed a dedicated PSPS page on its website, with an explainer video, map of potential PSPS zones, status of current events, notification protocols, and other frequently asked questions. This information is located at www.idahopower.com/outages-safety/wildfire-safety/what-is-a-psps/.

14. Current Application. In the sections that follow, Idaho Power presents for the Commission's review the 2022 WMP, explains the need for certain new and expanded mitigation measures, and provides an update on actual insurance costs. The Company recognizes that this filing comes three-quarters of the way through 2022. While the identification of new and updated wildfire mitigation costs began early in the year, it was only recently completed. With this filing, the Company seeks to balance regulatory efficiency and transparency through review of its current and planned wildfire mitigation

[11] Idaho Power Company's Wildfire Mitigation Plan 2022 (Oct. 2022 – Version 4.0).

efforts and associated costs.

II. UPDATES TO IDAHO POWER'S WILDFIRE MITIGATION PLAN[12]

15. Following lessons learned and feedback on the 2021 wildfire season, Idaho Power's 2022 WMP includes more in-depth descriptions and detail about certain activities and the locations of those activities. These changes were made to enhance understanding of the Company's wildfire-related efforts and to introduce new procedures and protocols around PSPS.

16. Regulatory Background: Idaho Power's wildfire efforts cover its service area in Idaho and Oregon. Regulatory activities and actions are different across the two states. For clarity, the Company has added an introduction to the 2022 WMP with regulatory background on wildfire mitigation activities and requirements pertinent to each state.

17. Wildfire Risk Assessment: Idaho Power did not modify its approach to wildfire risk assessment for the 2022 WMP but enriched information in the WMP to help readers understand relative risk across the Company's Idaho and Oregon service areas. Changes include Idaho- and Oregon-specific asset information, as well as detailed maps of elevated risk zones in Idaho and Oregon. Additionally, and as referenced earlier, the Company also published on its website a searchable map of risk zones across its service area.

[12] Wildfire Mitigation Plan Review/Revision History: Version 1 was filed with the Commission in January 2021; Version 2, dated December 29, 2021, included an expanded cost-benefit discussion, plan progress and updates, and inclusion of the PSPS; and Version 3, dated June 28, 2022, includes information added to comply with the Public Utility Commission of Oregon's conditions of approval of Idaho Power's 2022 WMP. Version 4.0 is the current version that references and reflects costs in this Application. By requirement in Oregon, Idaho Power must file an updated WMP with the Public Utility Commission of Oregon ("OPUC") by the end of each calendar year. As such, Idaho Power will file its 2023 WMP with the OPUC in December 2022. Following that filing, Idaho Power will supplement this Application with the new WMP to ensure the Commission has the latest version.

18. Costs and Benefits of Wildfire Mitigation: The 2022 WMP includes a new chapter (Chapter 4) on the costs and benefits of wildfire mitigation. The information in this chapter is not new to the Commission, as it was included in the Company's 2021 wildfire cost deferral filing to explain the need for mitigation activities. The Company has since introduced this information to the WMP to ensure the document is a complete record of the Company's thinking and decision-making on wildfire mitigation, including the latest cost estimates of mitigation activities.

19. Operational Mitigation Practices: Following the 2021 wildfire season, Idaho Power evaluated a Company-specific approach to PSPS to determine the appropriateness of such pro-active de-energization events as a tool in Idaho Power's service area and transmission corridors. After consulting with other utilities, reviewing other utility wildfire and PSPS plans, and considering the costs and risks associated with PSPS, the Company developed a PSPS protocol to use as a last-resort option in times of extreme wildfire danger.

20. In Section 7.4 of the 2022 WMP, Idaho Power defines PSPS and distinguishes it from other de-energization events. The Company's full PSPS plan is included as Appendix B to the 2022 WMP. The PSPS plan, like the WMP, is intended as an operational document for use by Idaho Power personnel. It includes discussion of PSPS implementation considerations, as well as a detailed set of responsibilities within Idaho Power departments before, during, and after PSPS events. As discussed earlier, Idaho Power has also added PSPS information and educational materials on its website.

III. FORECAST OF NEW INCREMENTAL O&M FOR WILDFIRE MITIGATION

21. In development of the 2021 WMP, Idaho Power determined it should take specific actions and measures to proactively mitigate wildfire risk. The Company then estimated incremental expenses related to the identified wildfire mitigation measures.

22. After the 2021 wildfire season, the Company identified several areas where new or expanded mitigation measures are warranted. These additional costs (i.e., costs above what was previously forecasted and presented to the Commission in Case No. IPC-E-21-02) are presented below in categories consistent with the Company's 2021 wildfire mitigation filing: (A) Quantifying Wildland Fire Risk, (B) Situational Awareness, (C) Mitigation—Field Personnel Practices, (D) Mitigation—Transmission and Distribution Programs, (E) Enhanced Vegetation Management, (F) Communication, and, finally, a new category: (G) Information Technology.

23. For each category, Idaho Power details the need for additional incremental spending to bolster wildfire mitigation work. The Company will continue to pay for baseline levels of O&M (based on 2019 levels and escalated annually for inflation at the Commission-authorized level of 1.81%) out of its existing budgets, as authorized by the Commission in Order No. 35077.

24. Between 2022 and 2025, Idaho Power estimates it will incur an additional $16.2 million in incremental O&M expenses associated with new or expanded wildfire mitigation efforts. These estimates are measured on a system-wide basis, but the Company is seeking to defer only the Idaho jurisdictional share of new incremental expenses. Attachment 2 to this Application provides the table of estimated costs submitted with the Company's wildfire filing in January 2021. Attachment 3 is a table of

newly identified incremental amounts detailed in this filing that are in addition to the costs already authorized for deferral by the Commission.

Category A. Quantifying Wildland Fire Risk:

25. As explained in Idaho Power's 2021 wildfire cost deferral filing, the Company will update the WMP Risk Map biennially.[13] At this time, the Company does not foresee additional expense in this category to perform the work as described through 2025.

Category B. Situational Awareness:

26. In its 2021 WMP filing, the Company proposed spending a total of $385,000 on Situational Awareness from 2021-2025, primarily on personnel to develop and manage the Company's new Fire Potential Index ("FPI"), as well as on cameras in high-fire risk locations to enhance awareness of local conditions.[14]

27. As background, the FPI tool supports operational decision-making to reduce wildfire threats and risks. The tool takes data on weather, prevalence of fuel (i.e., trees, shrubs, grasses), and topography, and then converts that data into an easily understood forecast of the short-term fire threat for different geographic regions in Idaho Power's service area.

28. The FPI produces a score of 1 to 16, with scores of 1 to 11 falling in the Green category of lower fire potential, scores of 12 to 14 falling in the Yellow category of elevated fire potential, and scores of 15 to 16 falling in the Red category of highest fire potential. During wildfire season, the FPI is calculated and issued each weekday for a seven-day forecast period to help Idaho Power personnel take necessary steps in

[13] Case No. IPC-E-21-02, Application at 5.
[14] *Id*. at 20.

advanced planning and preparation.

29. Situational awareness plays a vital role in the Company's ability to adequately prepare for and operate during times of heightened wildfire risk. Following the 2021 fire season, the Company identified several ways to enhance situational awareness. Specifically, the Company assessed the need for additional weather-forecasting support and tools, both to enhance the FPI and to develop a broader portfolio of situational-awareness capabilities.

30. The Company has identified five (5) areas for expanded situational-awareness efforts. First, the Company will use a new weather forecasting system that leverages an ensemble of weather forecasts to improve accuracy and reduce forecast-to-forecast variability. The ensemble approach also provides a measure of certainty to better inform up-to-the-minute decision-making for the FPI and PSPS events. False PSPS events can be costly in terms of time and customer impact. As such, several utilities with WMPs utilize ensemble weather forecasting systems as a part of their PSPS plans, including Portland General Electric, NV Energy, Bonneville Power Administration, PacifiCorp, Pacific Gas and Electric, among others.

31. Second, Idaho Power will add one temporary full-time position in 2023 to support the development and implementation of the ensemble weather forecasting system. In 2024 and beyond, the Company will utilize contract purchase services to aid in further refinement of the ensemble weather forecast system and weather and climate data analysis.

32. Third, the Company will invest in additional weather stations to inform forecasts and aid in real-time situational awareness. As such, additional weather stations

will require on-going maintenance and telemetry to ensure the reliability and quality of weather data used.

33. Fourth, Idaho Power will hire a contractor to perform pole loading assessments of wood distribution poles in wildfire risk zones. The assessments will identify structural deficiencies based on pole class and the amount of equipment and Joint Use attachments installed. While the Company has an existing program to inspect and treat wood poles for decay, pole loading assessments involve using software to model the physical forces acting on a pole from conductor, equipment, and wind speed and direction to determine its structural integrity. Poles identified as not meeting the safety requirements of the National Electrical Safety Code will be remediated.

34. Finally, the Company will expand the use of cameras to enhance situational awareness in high-risk, remote locations. Table 1 below reflects additional incremental estimated O&M costs associated with these new activities.

Table 1. Situational Awareness - Forecast of Additional Incremental O&M Expenses, 2022-2025 ($000s)

	2022	2023	2024	2025	2022 - 2025
B. Situational Awareness					
Weather Forecasting - System development and support	$ -	$ 47	$ 74	$ 74	$ 195
Weather Forecasting Personnel - Fire Potential Index (FPI) and Public Safety Power Shutoff (PSPS)	$ 71	$ 121	$ 40	$ 40	$ 272
Weather Forecasting - Weather Station Maintenance	$ 6	$ 19	$ 24	$ 30	$ 79
Pole Loading Modeling & Assessment (Contract service)	$ 25	$ 75	$ 75	$ 75	$ 250
Cameras	$ 50	$ 165	$ 170	$ 170	$ 555
Situational Awareness Subtotal	**$ 152**	**$ 427**	**$ 383**	**$ 389**	**$ 1,351**

35. The amounts listed above—totaling $1.35 million through 2025—are incremental to the Company and reflect additional expenditure beyond the situational awareness costs previously presented to the Commission.

Category C. Mitigation—Field Personnel Practices:

36. A relatively small but critical expense for Idaho Power is the equipment necessary to mitigate wildfire risk by field personnel. In its 2021 wildfire cost deferral filing, the Company identified a need for more widespread supply of fire-specific mitigation tools (e.g., on-truck water pumping equipment, fire extinguishers, shovels, and Pulaskis[15]), which can be used in the field to reduce the likelihood of an ignition event or quickly extinguish a sparked fire. Following the 2021 fire season, the Company assessed that the planned level of field tools and equipment is sufficient to meet the needs of field personnel but determined that they could also benefit from mobile weather kits. Such remote-capable kits, which include a handheld wind meter, compass, and radio with satellite communication, will allow field observers to gather data on weather conditions in remote areas where phone and internet connectivity is limited. The Company plans to deploy approximately 20 mobile weather kits to field observers.

37. Additionally, the Company plans to join the International Wildfire Risk Mitigation Consortium ("IWRMC"),[16] an energy industry-led collaborative of utilities and energy developers from around the globe. The group's mission is to share lessons learned, best practices, and innovation in the area of wildfire mitigation. Many of Idaho Power's utility peers are part of the consortium. The Company is not aware of any other effort or group that provides a similar level of access or insight into global thinking and advancements in wildfire mitigation as the IWRMC. The new incremental expense of $150,000 would cover the annual membership fee to participate in the consortium for the

[15] A Pulaski is a hand tool specifically used for fighting fires that combines an axe and an adze atop a single handle. The tool is the invention of Edward Crockett Pulaski, a ranger with the U.S. Forest Service who was based in Wallace, Idaho, in the early 1900s.
[16] More information about the IWRMC can be found at: https://www.umsgroup.com/what-we-do/learning-consortia/iwrmc/

next four (4) years.

38. Table 2 below shows the Company's anticipated additional incremental spending on mobile weather kits and participation in the IWRMC, totaling $180,000 through 2025.

Table 2. Mitigation – Field Personnel Practices: Forecast of Additional Incremental O&M Expenses, 2022-2025 ($000s)

	2022	2023	2024	2025	2022 - 2025
C. Mitigation - Field Personnel Practices					
Tools/Equipment	$ -	$ -	$ -	$ -	$ -
Mobile Weather Kits for Field Observers	$ 20	$ 10	$ -	$ -	$ 30
International Wildfire Risk Mitigation Consortium	$ 30	$ 40	$ 40	$ 40	$ 150
Mitigation - Field Personnel Practices Subtotal	**$ 50**	**$ 50**	**$ 40**	**$ 40**	**$ 180**

Category D. Mitigation—Transmission and Distribution Programs:

39. Idaho Power's 2021 wildfire cost deferral application identified incremental O&M expenses associated with the Company's T&D programs, including expanded T&D line inspections and a new technician to assist in T&D program activities to perform wildfire mitigation efforts. A sizeable new effort by the Company has been application of fire-resistant mesh wraps to wood poles in the Company's identified Red and Yellow Risk Zones. These wraps, which have a 10-year life in the absence of fires, provide protection for a single wildfire event and then must be replaced with a new wrap. The roll-out of this effort is depicted in Figure 1.

Figure 1. Idaho Power Field Personnel Apply a Fire-Resistant Mesh Wrap to a Transmission Pole (2022)

40. After the 2021 fire season, the Company reviewed its T&D programs and identified the need for additional expenditure in two areas: personnel and testing of a new T&D mitigation measure via a pilot project.

41. Since Idaho Power's initial wildfire cost deferral filing, wildfire work within the Company has expanded significantly—not just in terms of mitigation efforts but across Idaho Power's business. Wildfire issues ripple through virtually all parts of the Company—operations, planning, field work, customer service, regulatory, and legal, among others. Wildfire is also a topic of growing interest and concern among the public, safety partners, and critical facilities. Considering the scope of wildfire issues, the Company plans to create a program manager role dedicated to wildfire work. A role such as this exists within nearly all electric utilities in the Western U.S., and Idaho Power considers this a logical

and prudent expansion of personnel for an issue that is expected to only increase in importance over time.

42. Additionally, the Company has been evaluating new methods of reducing wildfire risk associated with its T&D equipment. An internal evaluation identified covered wire—otherwise known as covered conductor—as a meaningful pilot project. Covered wire is far from universal in the industry but is becoming more common in high-fire risk areas in the Western U.S.; it is also employed in parts of the Eastern U.S. to protect wires in extreme cold and high wind events. Testing of this potential application will help inform the direction of Idaho Power's T&D-related wildfire mitigation work into the future.

43. Over the next two years, the Company plans to test the use of covered wire and explore whether it produces benefits, which can include reduced ignition probability. The pilot project will involve developing construction standards, equipment specifications, and a methodology for converting existing bare conductor in wildfire risk zones. The pilot will start with installations in the Company's training yard to ensure that field personnel are properly trained to install and maintain covered wire. From there, installations and testing will progress to the distribution system and the pilot will conclude in 2024. If successful, covered wire will become a risk mitigation measure used in certain wildfire risk zones and additional incremental costs may result.

44. Table 3 below shows the additional incremental O&M expenditure associated with new personnel and the covered wire pilot, totaling $804,000 through 2025.

Table 3. Mitigation – Field Personnel Practices: Forecast of Additional Incremental O&M Expenses, 2022-2025 ($000s)

	2022	2023	2024	2025	2022 - 2025
D. Mitigation - Transmission & Distribution Programs					
O&M Component of Capital Work	$ -	$ -	$ -	$ -	$ -
Annual O&M T&D Patrol Maintenance Repairs	$ -	$ -	$ -	$ -	$ -
Environmental Management Practices	$ -	$ -	$ -	$ -	$ -
Transmission Thermography Inspection Mitigation - Red Risk Zones	$ -	$ -	$ -	$ -	$ -
Distribution Thermography Inspection Mitigation - Red Risk Zones	$ -	$ -	$ -	$ -	$ -
Thermography Technician Personnel	$ -	$ -	$ -	$ -	$ -
Transmission Wood Pole Fire Resistant Wraps - Red Risk Zone	$ -	$ -	$ -	$ -	$ -
Transmission Wood Pole Fire Resistant Wraps - Yellow Risk Zone	$ -	$ -	$ -	$ -	$ -
Wildfire Mitigation Program Manager	$ 90	$ 191	$ 196	$ 202	$ 679
Covered Wire Evaluation - Pilot Program in PSPS Zones	$ 25	$ 50	$ 50	$ -	$ 125
Mitigation - Transmission & Distribution Programs Subtotal	**$ 115**	**$ 241**	**$ 246**	**$ 202**	**$ 804**

Category E. Enhanced Vegetation Management:

45. In its 2021 wildfire cost deferral filing, the Company detailed an enhanced vegetation management plan to work toward a three-year vegetation management cycle across its entire service area, with one-third of the service area managed each year.[17] At that time, the Company estimated spending a total of $42.7 million in incremental vegetation management expenses through 2025.[18]

46. Idaho Power continues to recognize that achieving a consistent three-year cycle across the Company's service area (on an on-going basis) involves a sizeable increase in incremental expense. But the Company maintains that this shift in vegetation management practices is a wise and prudent course of action. It is also the approach that has been adopted by many of Idaho Power's peer utilities.[19]

[17] Case No. IPC-E-21-02, Application at 24-25. Idaho Power will continue to clear transmission right-of-way corridors located in mountainous areas on a six-year cycle.
[18] Case No. IPC-E-21-02, Order No. 35077 at 7-9.
[19] In Utah, PacifiCorp (Rocky Mountain Power) seeks to achieve a three-year vegetation management cycle, but the Company aims for a two-year cycle in its service area in California and a four-year cycle in Wyoming. Additionally, CenterPoint Energy (Texas), Texas-New Mexico Power, and Bowling Green Municipal Utilities (Kentucky) each aim to achieve a three-year vegetation management cycle.

47. Nevertheless, the Company continues to experience challenges in vegetation management. Most notably, the availability of qualified labor has diminished while demand for vegetation management services has grown across the Western U.S. Importantly, the vegetation management companies hired by Idaho Power and other utilities are not simple arborists or landscapers. Vegetation management companies qualified to work near electrical lines and equipment require special certifications and training. The limited number of companies offering such qualified services are in high demand in many Western states, and especially in California where labor rates are higher for the work itself and the labor that provides it. Idaho Power has felt the effect of out-of-state competition in the form of double-digit cost increases and qualified labor shortages. As summed up in Idaho Power's 2021 wildfire mitigation cost deferral: a dollar spent on vegetation management continues to purchase fewer line miles cleared.[20]

48. In Table 4 below, the Company identifies additional vegetation management costs that are attributable to higher estimated contract costs. Increased turnover of skilled equipment operators and the need for more advanced level of pruning requiring climbing has led to the need for more contract crews than previously estimated. Based on updated forecasts, the Company estimates an additional $11.7 million on vegetation management to move Idaho Power to a three-year clearing cycle.

49. Meanwhile, the Company has carried out enhanced vegetation management practices in Red and Yellow Risk Zones. Hotspot patrols and mid-cycle pruning activities are 100% complete for the year and audits will continue through the remainder of the year. Incurred costs for enhanced vegetation management are on track

[20] Case No. IPC-E-21-02, Application at 22.

to meet projections and the Company does not anticipate additional spending beyond the 2021 wildfire cost deferral filing on enhanced vegetation management in its Red and Yellow Risk Zones. These enhanced practices include the following: annual patrols to identify immediate pruning needs to avoid trees making contact with power lines; mid-cycle pruning in the second year of the trimming cycle for trees that regrow more rapidly than expected; increased removal and replacement incentives to customers that own trees that consistently regrow more rapidly than the three-year cycle (so-called "cycle buster" trees); clearing and sterilizing the soil around select distribution poles; and performing post-trimming audits on all pruned trees in Red and Yellow Risk Zones.

50. The Company has also identified two new measures it can take to bolster vegetation management work. One such measure is a fuel reduction program, in which Idaho Power will work in partnership with the Idaho Department of Lands, the National Forest Foundation, the U.S. Forest Service, and the U.S. Bureau of Land Management to remove hazard trees and other vegetation from utility rights-of-way. The partnership is designed to enhance forest resilience to wildfire, decrease hazardous fuel accumulations, increase powerline resiliency while minimizing the risk of ignitions, and improve forest conditions in the vicinity of Idaho Power infrastructure. This program is similar to what other western utilities have taken part in and is modeled after projects performed in Washington, California, Colorado, and Arizona. Participation in the effort is estimated to cost $300,000 through 2025.

51. Additionally, the Company plans to deploy satellite and aerial patrols of vegetation in the Company's wildfire risk zones. The technology used in these satellite and aerial patrols will help identify encroachment and clearance issues in areas that are

growing faster than expected and hazard trees that have the potential of falling into powerlines. Data collected through this technology may reshape the Company's vegetation management strategy and shift from a systemwide cycle to a more targeted approach that identifies and focuses on high-growth vegetation areas. The Company will conduct limited vegetation-focused satellite and aerial patrols in 2022 and 2023 before expanding to a larger area in 2024 and 2025, pending outcomes from the pilot program years. The Company estimates spending $900,000 on this technology through 2025.

Table 4. Vegetation Management: Forecast of Additional Incremental O&M Expenses, 2022-2025 ($000s)

	2022	2023	2024	2025	2022 - 2025
E. Vegetation Management					
Transition to/Maintain 3-year Vegetation Management Cycle	$ 1,700	$ 2,400	$ 3,800	$ 3,800	$ 11,700
Enhanced Practices for Distribution Red & Yellow Risk Zones (Pre-Fire Season Patrols/Mitigation, Pole Clearing, Removals, Work QA)	$ -	$ -	$ -	$ -	$ -
Line Clearing Personnel	$ -	$ -	$ -	$ -	$ -
Fuel Reduction Program	$ 75	$ 75	$ 75	$ 75	$ 300
Vegetation Mgmt Satellite and Aerial patrols	$ 150	$ 150	$ 300	$ 300	$ 900
Vegetation Management Subtotal	**$ 1,925**	**$ 2,625**	**$ 4,175**	**$ 4,175**	**$ 12,900**

52. In total, the Company forecasts spending an additional $12.9 million on vegetation management through 2025, on top of the $42.7 million[21] in incremental vegetation management expenses previously presented to the Commission.

53. Consistent with the Company's existing and authorized approach, Idaho Power would continue to absorb the costs of a base level of vegetation management—approximately $10.7 million in 2019 and escalated annually for inflation at the Commission-authorized level of 1.81%.[22]

54. Further, because the goal of a consistent three-year vegetation management cycle comes with significant incremental expense relative to other WMP

[21] *Id.* at 24.
[22] Annual inflation is based on the Consumer Price Index ("CPI") for 2019 of 1.81 percent.

components, Idaho Power reaffirms its intention[23] to update the Commission no later than 2025 on vegetation management efforts and whether movement to a three-year cycle is producing expected benefits relative to costs.

Category F. Communications:

55. For the 2021 and 2022 fire seasons, the Company has conducted a number of education campaigns around wildfire—including promoting the Company's wildfire mitigation activities and work within communities, providing awareness and education on preparing for wildfire season, and publicizing ways customers can reduce the potential to ignite fires.

56. However, with the addition of PSPS as a potential tool the Company may use, Idaho Power has identified a need for new customer communication, education, and awareness. Idaho Power's customers and communities are largely unfamiliar with the concept of PSPS events and why the Company may need to take such actions. Dedicated communications on this topic are necessary to ensure that all customers—whether they reside in PSPS potential zones or not—are aware and educated about PSPS, how the Company will make such decisions, and how customers will be alerted and impacted in such events. As shown below in Table 5, the Company estimates spending an additional $71,000 annually on PSPS-focused communication in the form of advertisements, bill inserts, postcards, and other awareness-raising and education campaigns.

[23] Case No. IPC-E-21-02, Application at 24-25.

Table 5. Communications: Forecast of Additional Incremental O&M Expenses, 2022-2025 ($000s)

	2022	2023	2024	2025	2022 - 2025
F. Communications					
Wildfire/Wildfire Mitigation Communications - Advertisements/Meetings/Other	$ -	$ -	$ -	$ -	$ -
PSPS Customer Education/Communication - Advertisements, Bill Inserts/Other	$ 71	$ 71	$ 71	$ 71	$ 284
Communications Subtotal	**$ 71**	**$ 71**	**$ 71**	**$ 71**	**$ 284**

Category G. Information Technology:

57. Information technology expenses were not identified in Idaho Power's 2021 wildfire cost deferral filing, as standard customer outreach avenues (e.g., social media, paid media, direct customer communications) were sufficient for communicating wildfire information. However, the Company subsequently identified a gap when evaluating the ability to reach customers quickly for wildfire or PSPS events. The Company's existing text alert system has both a character count limit and batch limit that prevent detailed communications to a large number of customers and/or sending a series of communications over a short period of time.

58. The Company has learned from its peers in other states that one of the most vital aspects of PSPS is the ability to maintain contact with customers. Customers need alerts in advance of, during, and following such events, and they rely on accurate and timely information to help them navigate these events.

59. To close this gap in the Company's customer notification abilities, Idaho Power researched available tools designed for rapid alerts and notifications. The Company also conferred with peer utilities to learn about the systems they use for PSPS. This research resulted in selection of the EONS communication tool, which is an automated system that allows for the rapid, frequent communications Idaho Power will need to deploy in PSPS events. As shown below in Table 6, Idaho Power anticipates an

estimated cost of $528,000 to use this tool through 2025 and estimates an initial implementation cost of $163,000. A large component of implementing the EONS tool is identifying critical customers and facilities that will automatically be contacted leading up to and during PSPS events.[24] Additionally, the Company developed coordinating information that customers can access online—specifically, an outage map that is searchable by address and will show the latest status on PSPS events and locations.

Table 6. Information Technology: Forecast of Incremental O&M Expenses, 2022-2025 ($000s)

	2022	2023	2024	2025	2022 - 2025
G. Information Technology					
Communication/Alert Tool development (System set up, outage maps, critical facilities identification)	$ 163	$ -	$ -	$ -	$ 163
Communication/Alert Tool for PSPS Customer Alerts/Extended Use	$ 141	$ 129	$ 129	$ 129	$ 528
Information Technology Subtotal	**$ 304**	**$ 129**	**$ 129**	**$ 129**	**$ 691**

IV. OTHER INDIRECT WILDFIRE-RELATED COSTS

60. As Idaho Power identified in its 2021 wildfire cost deferral filing, the Company incurs other expenses indirectly related to wildfire—namely, insurance costs. The Company previously explained to the Commission that insurance premiums continue to rise as a result of heightened wildfire risk and wildfire events in the Western U.S.[25]

61. Idaho Power noted that it expected a sizeable increase in insurance costs for 2021 due to a combination of a new "wildfire load" charge, an expected 11 percent liability premium increase, and an expected increase of almost 20 percent for property insurance premiums.[26] While the Company continues to seek the greatest insurance

[24] Previously, alerting customers via text, email, and/or voice calls required the manual use of three separate tools, each with their own customer lists. Additionally, the previously used voice callout system was limited in capacity and did not allow the Company to reach customers with only landlines in a reasonable amount of time.
[25] Case No. IPC-E-21-02, Application at 25.
[26] *Id*. at 26.

value possible for its customers, it remains a price-taker in the insurance market and must absorb price increases as insurers raise premiums due to losses.

62. As explained in the Company's 2021 wildfire cost deferral filing, insurance markets are volatile, making them difficult to forecast.[27] Last year offers evidence of this difficulty – the Company originally estimated 2021 total insurance costs of $11.1 million.[28] Actual 2021 insurance costs came in $1.1 million higher, totaling $12.1 million, as shown below in Table 7. The Company estimates that insurance for 2022 will cost $14.5 million based on actuals to date and updated renewal policy pricing. It is estimated that the 2023 renewal pricing will increase, resulting in a calendar year cost for 2023 of $15.6 million. Assuming increases consistent with the compound average growth rate between 2016 and 2021, the 2024 and 2025 calendar year cost is estimated to be $17.1 million and $18.8 million, respectively.

Table 7. Idaho Power Actual Annual Insurance Costs ($000s)

Total Actual Company Insurance Costs ($000s)	
2010	$7,555
2011	$7,271
2012	$8,078
2013	$7,597
2014	$7,754
2015	$7,676
2016	$7,611
2017	$7,361
2018	$7,209
2019	$7,566
2020	$8,819
2021	$12,127

[27] *Id.* at 27.
[28] *Id.* at 26.

63. To manage these premium increases and to ensure that Idaho Power can maintain an adequate level of insurance, the Company's 2021 wildfire cost deferral filing requested the authority to defer the Idaho jurisdictional share of actual incremental insurance costs over 2019 levels. The Company also noted that, because Idaho Power cannot reasonably or accurately forecast the cost of policy premiums beyond 2021, the Company would present actual deferred incremental insurance premiums for the Commission's review in a future ratemaking proceeding.[29]

64. As authorized by the Commission, Idaho Power will continue to defer its actual insurance costs above the 2019 base level.[30] This update does not constitute a request to change customer rates, as the Company will present all actual wildfire costs, including insurance, in a future ratemaking proceeding. Rather, the Company offers this update to inform the Commission on the state of the insurance market and to demonstrate that insurance continues to be an area impacted by wildfire.

V. DEPRECIATION OF CAPITAL INVESTMENT

65. In its prior wildfire cost deferral order, the Commission authorized Idaho Power to defer capital depreciation associated with wildfire mitigation investments.[31] At that time, the Company was focused on capital associated with system hardening. More recently, the Company has identified the need for new capital investment associated with the hardware and software to perform weather forecasting with the ensemble weather

[29] *Id.* at 27.
[30] In its 2021 wildfire cost deferral application, the Company proposed measuring actual incremental insurance costs above the flat 2019 base level (that is, not escalated for inflation) because the insurance market is not driven by general inflationary factors. The Commission authorized the Company's proposed deferral of insurance in Order No. 35077.
[31] Case No. IPC-E-21-02, Application at 28-29.

tool, introduced above in Section III. Idaho Power estimates that it will invest $1.1 million on hardware and software to enhance its forecasting capabilities.

66. Consistent with the Company's initial request of the Commission, Idaho Power requests the authority to defer for later recovery of the depreciation expense of newly identified incremental capital investments related to wildfire mitigation. The Company is not requesting the authority to defer the return associated with its capital investment at this time.

67. Consistent with the Commission's prior order, the Company will record the investments in appropriate plant accounts as assets are placed in service, with depreciation commencing the following month. The Company will seek recovery of the return on these wildfire-related capital investments, net of accumulated depreciation, in a future ratemaking proceeding.

VI. PROPOSED ACCOUNTING TREATMENT

68. Idaho Power seeks additional authorization from the Commission to defer, for future amortization, the Idaho jurisdictional share of actual incremental O&M expenses associated with newly identified costs that are vital to the Company's wildfire mitigation efforts. The estimated O&M presented in this Application reflects new and expanded activities and costs that are not duplicative of the costs presented in the Company's wildfire cost deferral filing in January 2021. Idaho Power will continue to measure all actual wildfire-related costs from 2019 base levels, as authorized by the Commission in Order No. 35077.

69. The Company will track actual expenses beginning January 1, 2022, and proposes to record such incremental O&M and depreciation expense amounts that would

be subject to the deferral in accordance with the Code of Federal Regulations to the Federal Energy Regulatory Commission ("FERC") Account 182.3 (Other Regulatory Assets). The detailed costs and recovery method of the costs associated with the Company's wildfire mitigation efforts would be addressed in a future regulatory proceeding.

VII. MODIFIED PROCEDURE

70. Idaho Power believes that it would be appropriate to process this case by means of modified procedure (i.e., by written submission rather than by hearing) in accordance with the provisions of RP 201, *et seq*. However, if the Commission prefers another procedure for processing this case, Idaho Power will present its case in support of the relief requested in this Application.

VIII. COMMUNICATIONS

71. Communications and service of pleadings, with reference to this Application should be sent to the following:

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IX. REQUEST FOR RELIEF

72. In ongoing consideration of the growing threat of wildfires in the West, Idaho Power continues to examine its own practices, the practices of others, and industry lessons learned to develop and implement effective wildfire mitigation measures. Taking action to reduce the risk of wildfires is critical for Idaho Power's customers, the

communities in which the Company operates, and investors who provide capital to the Company.

73. To that end, Idaho Power has reviewed its wildfire mitigation efforts and identified several new and expanded actions to further reduce wildfire risk, which have been incorporated into the current WMP presented in this case. These actions—including bolstered weather forecasting capabilities, new tools for field personnel, additional personnel to help manage wildfire issues across the Company, and new communication tools to alert and educate Idaho Power customers, among others—will directly benefit Idaho Power's customers and the communities in which the Company operates. The additional incremental O&M costs identified in this Application are vital to ensuring that Idaho Power can implement necessary wildfire mitigation measures across its service area. To continue to serve its customers safely and reliably through the current fire season and beyond, the Company requests authorization to defer for later ratemaking treatment the Idaho jurisdictional share of its prudently incurred incremental O&M costs associated with the actions and measures identified in this Application and beginning January 1, 2022.

74. To aid in accounting and implementation of mitigation activities for the 2023 wildfire season, Idaho Power respectfully requests the Commission consider a case schedule that would allow for an Order to be issued by March 31, 2023, authorizing the Company to record all the additional O&M expenses identified in this filing as a regulatory asset until the Company can request amortization of the deferred costs in a future Commission proceeding, at which time the Commission will have the opportunity to review actual costs prior to the Company receiving recovery of prudently incurred costs

through retail rates. These proposed additional incremental costs are not currently included in Idaho Power's rates or otherwise recovered through other existing regulatory mechanisms.

DATED at Boise, Idaho, this 20th day of October 2022.

Lisa D. Nordstrom

LISA D. NORDSTROM
Attorney for Idaho Power Company

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-22-27

IDAHO POWER COMPANY

ATTACHMENT 1

Idaho Power's 2022 Wildfire Mitigation Plan

WILDFIRE Mitigation Plan 2022

(V4.0)
Updated October 19, 2022

IDAHO POWER®

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Review/Revision History

This document has been approved and revised according to the revision history recorded below.

Review Date	Revisions
Jan. 22, 2021	WMP Version 1 was filed with the Idaho Public Utilities Commission and posted to the Idaho Power website.
Dec. 29, 2021	Modifications including expanded cost-benefit discussion, plan progress and updates, and inclusion of Idaho Power's Public Safety Power Shutoff plan.
March 18, 2022	Added Appendix C.
June 28, 2022	Added information to comply with the Public Utility Commission of Oregon's conditions of approval of Idaho Power's 2022 Wildfire Mitigation Plan.
Oct. 19, 2022	Updated cost table within the WMP and filed with the Idaho Public Utilities Commission.

REGULATORY CONTEXT

As part of Idaho Power Company's (Idaho Power or company) commitment to deliver safe, reliable, and affordable energy, the company developed a comprehensive Wildfire Mitigation Plan (WMP) to reduce wildfire risk associated with its facilities. The WMP has three core objectives:

1. Reducing wildfire risk for the safety of Idaho Power's customers and the communities in which it operates.
2. Ensuring the continued and reliable delivery of electricity to more than 600,000 retail customers in Southern Idaho and Eastern Oregon.
3. Furthering the company's good stewardship of the beautiful and natural lands within Idaho Power's service area and beyond.

Idaho Power released its inaugural WMP in January 2021. The company's WMP is a living document that will evolve over time. Idaho Power will seek to review, modify, and expand the WMP in the coming years to reflect shifts in industry best practices and to ensure the company is following procedures and requirements established by its regulators. Given that Idaho Power operates in both Oregon and Idaho, below is a description of recent wildfire-related regulatory activities by state.

Idaho

On January 22, 2021, Idaho Power proactively filed its first WMP with the Idaho Public Utilities Commission (IPUC). The company's application provided a narrative of Idaho Power's effort to develop the WMP, including discussion of risk analysis across its service area and evaluation of specific wildfire mitigation activities (e.g., enhanced vegetation management and system hardening) the company would undertake in the coming fire season. Idaho Power asked the IPUC for authority to defer the Idaho jurisdictional share of incremental operations and maintenance expenses and capital depreciation expenses related to implementing the measures in the WMP, as well as incremental insurance costs.

On June 17, 2021, the IPUC issued Order No. 35077, granting the company's application and allowing cost deferral of all incremental wildfire mitigation and insurance expenses identified in Idaho Power's application.

On October 20, 2022, the company filed an updated WMP and a new application for deferral of newly identified wildfire mitigation-related costs.

Oregon

In August 2020, the Public Utilities Commission of Oregon (OPUC) opened an informal rulemaking related to mitigating wildfire risks to utilities, utility customers, and the public. The scope of this docket (AR 638) shifted following the 2020 wildfire season, splitting into two

tracks—a temporary wildfire rulemaking to govern the 2021 wildfire season and a secondary track to establish replacement permanent rules for the 2022 fire season.

On July 19, 2021, Oregon Governor Kate Brown signed into law Senate Bill 762 (SB 762), a wildfire bill that, among other actions, established minimum requirements for utility wildfire protection (or mitigation) plans. The bill required that utilities file inaugural plans no later than December 31, 2021.

In response to the passage of SB 762, the OPUC halted the permanent wildfire rulemaking in AR 638 and opened docket AR 648 to develop interim permanent rules adhering to the requirements and timing of the new law. The permanent rulemaking docket remains open to establish rules related to wildfire mitigation plan requirements for the 2023 wildfire season, as well as Public Safety Power Shutoff rules.

Below is a mapping of wildfire mitigation plan rules established in AR 648, per OPUC Order 21-440, to corresponding sections within Idaho Power's WMP.

Oregon Requirement	Corresponding Location in WMP
(1) Wildfire Protection Plans and Updates must, at a minimum, contain the following requirements as set forth in Section 3(2)(a)-(h), chapter 592, Oregon Laws 2021 and as supplemented below: *(a) Identified areas that are subject to a heightened risk of wildfire, including determinations for such conclusions, and are:*	See Section 3: Quantifying Wildland Fire Risk See Idaho Power website for details of wildfire risk zones outside of service territory
(A) Within the service territory of the Public Utility, and *(B) Outside the service territory of the Public Utility but within the Public Utility's right-of-way for generation and transmission assets.*	See Section 3.2.2: Wildfire Risk Areas See Figure 3: B2H Proposed Route Risk Zones
(b) Identified means of mitigating wildfire risk that reflects a reasonable balancing of mitigation costs with the resulting reduction of wildfire risk.	See Section 4: Costs and Benefits of Wildfire Mitigation
(c) Identified preventative actions and programs that the Public Utility will carry out to minimize the risk of utility facilities causing wildfire.	See Section 5: Situational Awareness; Section 6: Mitigation—Field Personnel Practices; Section 7: Mitigation—Operations; Section 8: Mitigation—T&D Programs; and Section 8.3: T&D Vegetation Management
(d) Discussion of outreach efforts to regional, state, and local entities, including municipalities regarding a protocol for the de-energization of power lines and adjusting power system operations to mitigate wildfires, promote the safety of the public and first responders and preserve health and communication infrastructure.	See Section 10.2 Idaho Power External Communications and Section 10.2.1: Community Engagement See Appendix B: Idaho Power's Public Safety Power Shutoff Plan, Section 10.2.1: Coordination with Government Entities and Section 10.2.2: Community Preparedness
(e) Identified protocol for the de-energization of power lines and adjusting of power system operations to mitigate wildfires, promote the safety of the public and first responders and preserve health and communication infrastructure.	See Section 7.4: Public Safety Power Shutoff and Appendix B: Idaho Power's Public Safety Power Shutoff Plan

Oregon Requirement	Corresponding Location in WMP
(f) Identification of the community outreach and public awareness efforts that the Public Utility will use before, during and after a wildfire season.	See Section 10: Communicating the Plan
(g) Description of procedures, standards, and time frames that the Public Utility will use to inspect utility infrastructure in areas the Public Utility identified as heightened risk of wildfire.	For Transmission, see Section 8.2.1: Transmission Asset Management Programs (with information on aerial, ground, detailed visual, pole, and other protection programs) For Distribution, see Section 8.2.2: Distribution Asset Management Programs (with information on visual, pole, and line equipment inspection programs)
(h) Description of the procedures, standards, and time frames that the Public Utility will use to carry out vegetation management in in areas the Public Utility identified as heightened risk of wildfire.	See Section 8.3.2: Transmission Vegetation Management and Section 8.3.3: Distribution Vegetation Management
(i) Identification of the development, implementation, and administrative costs for the plan, which includes discussion of risk-based cost and benefit analysis, including consideration of technologies that offer co-benefits to the utility's system.	See Section 4: Costs and Benefits of Wildfire Mitigation, specifically Section 4.3: Wildfire Mitigation Cost Summary and Section 4.4: Mitigation Activities
(j) Description of participation in national and international forums, including workshops identified in Section 2, chapter 592, Oregon Laws 2021, as well as research and analysis the Public Utility has undertaken to maintain expertise in leading edge technologies and operational practices, as well as how such technologies and operational practices have been used develop implement cost effective wildfire mitigation solutions.	See Section 2: Government, Industry, and Peer Utility Engagement

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 areas, historical land management practices, and changes in wildland and forest health, among other factors.

While Idaho Power has not experienced catastrophic wildfires within its service area at the same level experienced in other western states, such as California and more recently certain areas in 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 in Idaho has expanded by 70 days.[2] Idaho's wildfire season is defined by Idaho Code § 38-115 as extending from May 10 through October 20 each year, or as otherwise extended by the Director of the Idaho Bureau of Land Management (BLM). Oregon's wildfire season is designated by the State Forester each year pursuant to Oregon Revised Statute § 477.505 and typically begins in June. Idaho Power's operational practices account for the differences between Idaho and Oregon's wildfire seasons and requirements.

1.2. Idaho Power Profile and Service Area

Idaho Power is an investor-owned utility headquartered in Boise, Idaho, 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 approximately 600,000 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] Ibid.

Figure 1
Idaho Power service area

Of Idaho Power's 24,000 square mile service territory, approximately 4,745 square miles are located in Oregon and 19,255 in Idaho. Approximately 20,000 customers are served in Oregon and 580,000 in Idaho.

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 summarizes the overhead powerline asset information by state.

Of Idaho Power's 24,000-square mile service territory, approximately 4,745 square miles are located in Oregon and 19,255 in Idaho. With regard to overhead powerlines, approximately 2,871 pole miles (12%) are located in Oregon and 21,042 (87%) are in Idaho.

Table 1
Overhead transmission voltage level and approximate line mileage by state (Dec. 31, 2021)

ASSET	TOTAL	IDAHO		OREGON		MONTANA		NEVADA		WYOMING	
	Pole Miles	Pole Miles	%	Pole Miles	%	Pole Miles	%	Pole Miles	%	Pole Miles	%
46 kV Transmission Lines	383	383	100								
69 kV Transmission Lines	1,136	743	65	344	30	50	4				
115 kV Transmission Lines	3			3	100						
138 kV Transmission Lines	1,448	1,242	86	141	10			65	4		
161 kV Transmission Lines	84	84	100								
230 kV Transmission Lines	1,148	927	81	219	19						
345 kV Transmission Lines	473	364	77							110	23
500 kV Transmission Lines	103	53	51	50	49						
Total OH Transmission Lines	4,778	3,796	80	757	16	50	1	65	1	110	2
Total OH Distribution	19,297	17,183	89	2,114	11						
Total OH Pole Miles	**24,075**	**20,979**	**87**	**2,871**	**12**	**50**	**0.21**	**65**	**0.27**	**110**	**0.46**

1.4. Objectives of this Wildfire Mitigation Plan

The primary objectives of this WMP are to identify and implement strategies to 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 in a wildfire event, independent of the ignition source.

3. Comply with all wildfire mitigation requirements established by its regulators.[3]

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 of elevated wildfire risk within Idaho Power's service area. These identified areas are then incorporated in Idaho Power's geographic information system (GIS) mapping.

- Create specific and targeted operations and maintenance practices, system hardening programs, vegetation management, and field personnel practices to mitigate wildfire risk.

[3] The OPUC established docket AR 648, the interim permanent wildfire rulemaking, after the Oregon legislature passed Senate Bill 762. The bill created a requirement for public utilities in Oregon to submit "wildfire protection plans" to the OPUC by December 31, 2021.

- Incorporate information regarding current and forecasted weather and field conditions into operational practices to increase situational awareness.

- Determine public safety power shutoff (PSPS) protocols 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 wildfire season each year.

2. GOVERNMENT, INDUSTRY, AND PEER UTILITY ENGAGEMENT

2.1. Objective

Idaho Power recognizes the importance of engaging with federal, Idaho and Oregon State governments, and local governments as an integral part of mitigating wildfire risk. Idaho Power also recognizes the importance of engagement and outreach with respect to potential future PSPS events to minimize customer impact.

Idaho Power's wildfire mitigation plan and outage preparedness strategy includes specific activities to engage with key stakeholders to share information, gain feedback, and incorporate lessons learned. Peer utility engagement is crucial to ensure the company's efforts are informed by the best practices of its peers in Idaho and Oregon.

2.2. Government Engagement

Much of Idaho Power's service area extends over land managed by the BLM and U.S. Forest Service. Idaho Power engages with both agencies to share information and identify areas and activities that are mutually beneficial. For example, Idaho Power allowed for an extended firebreak along Highway 93 in Jerome County, Idaho, on its property to help with BLM wildfire mitigation initiatives.

Idaho Power is also a member of the Idaho Fire Board, which was initiated by the U.S. Forest Service. Membership is voluntary and currently includes the Forest Service, BLM, Federal Emergency Management Agency (FEMA), Idaho State Lands Department, Idaho Department of Insurance, Idaho Military Division, City of Lewiston, Idaho Power, and The Nature Conservancy in Idaho.

Idaho Power is actively engaged with both the IPUC and the OPUC with respect to wildfire mitigation activities. Idaho Power filed its WMP with the IPUC in 2021 and submitted the plan to the OPUC as part of the temporary wildfire rulemaking in AR 638. Idaho Power continues to participate in the OPUC's Oregon Wildfire and Electric Collaborative (OWEC) and in the ongoing permanent wildfire rulemaking (docket AR 638).

2.3. Industry and Peer Utility Engagement

Although Idaho Power relied on plans developed by several California utilities in drafting its own WMP, modifications were made to account for Idaho Power's considerably different risk profile. Additionally, Idaho Power participated in multiple workshops with San Diego Gas and Electric, Southern California Edison, Pacific Gas and Electric, Sacramento Municipal Utility District, and PacifiCorp. The company continues to engage with these utilities to learn about California's evolving practices.

In the Pacific Northwest, many utilities work collaboratively to understand and ensure commonality of their various wildfire mitigation plans, while accounting for the variation in each

utility's unique service area. These utilities include Idaho Power, Avista Utilities, Portland General Electric, Rocky Mountain Power, Pacific Power, Chelan County Public Utility District, Puget Sound Energy, NV Energy, Bonneville Power Administration (BPA), and Northwestern Energy.

Idaho Power is also 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 member utilities to evaluate the strength and effectiveness of Idaho Power's WMP in comparison to other members' plans. Additionally, Idaho Power's CEO and President 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.

These workshops continue to prove valuable for sharing wildfire mitigation best practices and discussing new and existing technology related to wildfire mitigation. For example, EEI and WEI workshops, as well as independent investigations, led Idaho Power to expand its use of Unmanned Aircraft Systems ([UAS] also known as drones) during line patrols, replace expulsion fuses with energy limiting fuses, and add mesh wraps to wood poles in wildfire risk zones. Idaho Power has also enlisted a team of employees to focus on wildfire mitigation technologies by identifying opportunities to incorporate new and innovative technologies into Idaho Power's wildfire mitigation efforts.

3. QUANTIFYING WILDLAND FIRE RISK

3.1. Objective

Idaho Power's approach to quantifying wildland fire risk is to identify geographic areas of elevated wildfire risk if a wildfire ignites near a power line. Mitigation actions and programs are prioritized in those areas identified as elevated wildfire risk 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 methodology 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) in developing its CPUC Fire Threat Map. In addition, other utilities in Oregon, Idaho, Nevada, and Utah have utilized similar modeling to identify and quantify wildfire risk.

This 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:

Wildfire Risk = Fire Probability x 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.

Wildfire Risk. Fire Probability multiplied by the Consequence. The highest Wildfire Risk areas are 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 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.[4]

4. The data developed above (WRF climatology, live fuel moisture, and LANDFIRE data) was used to drive a Monte Carlo[5] 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) 500 kilovolt (kV) 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.

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

[5] Ibid.

3.2.2. Wildfire Risk Areas

Based on the previously described modeling, draft risk tiers were generated algorithmically[6] by establishing threshold values which, if exceeded, would classify an area as Tier 2 or Tier 3. To aid in customer and public understanding, Idaho Power also color-coded the tiers to reflect relative risk—Yellow Risk Zones (YRZ) for Tier 2 and Red Risk Zones (RRZ) for Tier 3. This was accomplished by manually setting threshold values at 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 aspects 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

Below, Table 2 provides a breakdown of pole miles in risk zones on a system-wide basis and by state. Across Idaho Power's service area, 8% of pole miles exist in elevated risk zones (either RRZs or YRZs). In Idaho, 5% of pole miles exist in YRZs and 3% exist in RRZs. In Oregon, less than 1% of pole miles exist in YRZs. The company has no RRZs in Oregon.

Table 2
Idaho Power's Transmission and Distribution Lines by Risk Zone in Idaho and Oregon

ASSET	TOTAL	TOTAL IN WILD-FIRE RISK ZONES		YELLOW RISK ZONES - IDAHO		RED RISK ZONES - IDAHO		YELLOW RISK ZONES - OREGON		RED RISK ZONES - OREGON	
	Pole Miles	Pole Miles	%	Pole Miles	%	Pole Miles	%	Pole Miles	%	Pole Miles	%
Transmission Lines	4,841	511	11	371	8	110	2	21	0.43	0	0
Distribution Lines	19,297	1,414	7	808	4	577	3	29	0.15	0	0
Total Pole Miles	24,138	1,925	8	1,179	5	687	3	50	0.21	0	0

[6] Ibid.

The final two-tier risk map reflecting relative increased risk in YRZs and RRZ is shown in Figure 2. The map is the foundation of Idaho Power's wildfire mitigation and risk reduction strategies. It is used to determine and prioritize targeted investments, inspection activities, and increase situational awareness for field personnel.

The risk zone map can be viewed in detail on Idaho Power's website. Individual addresses can be entered on the map to determine proximity to identified risk zones.

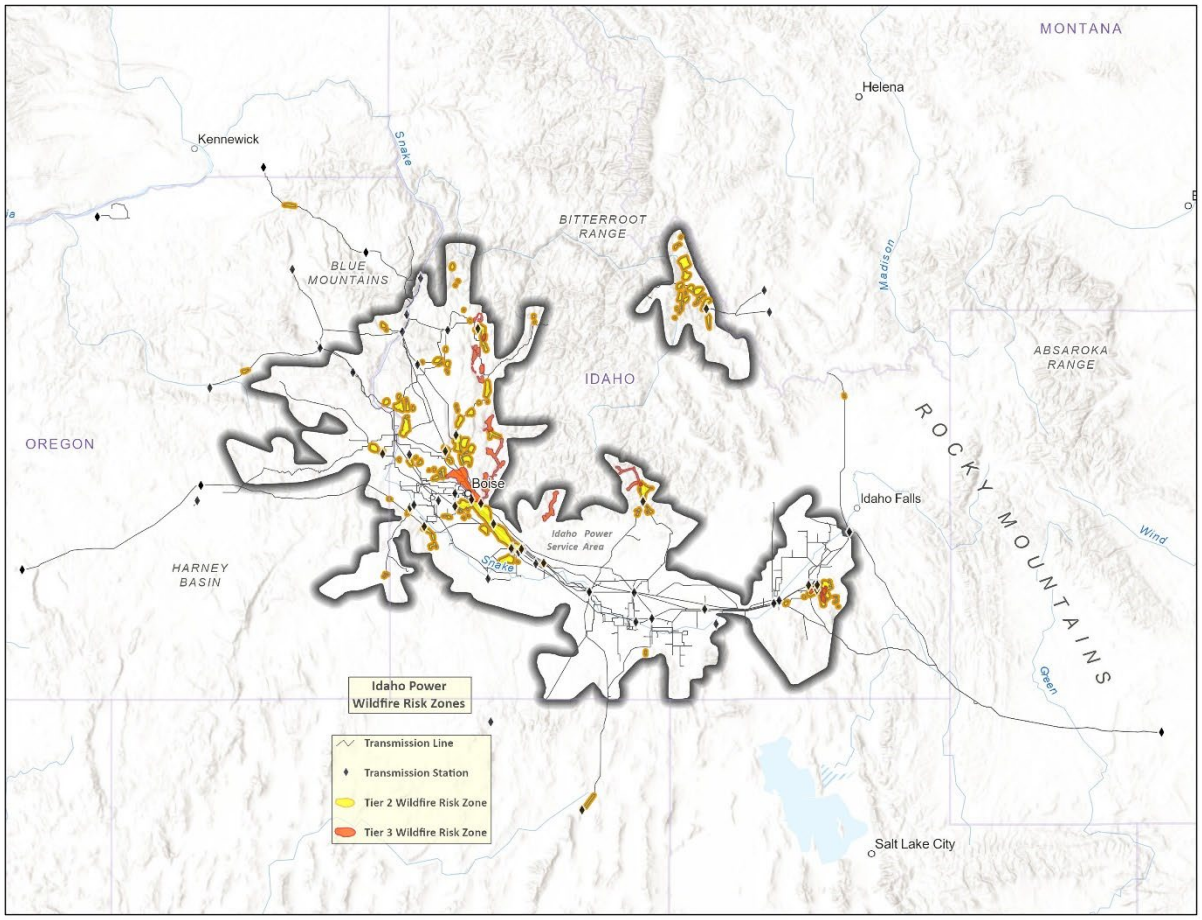


Figure 2
Wildfire Mitigation Plan—Risk Map

Additionally, Figures 3 through 6 delineate risk zones in Idaho and Oregon.

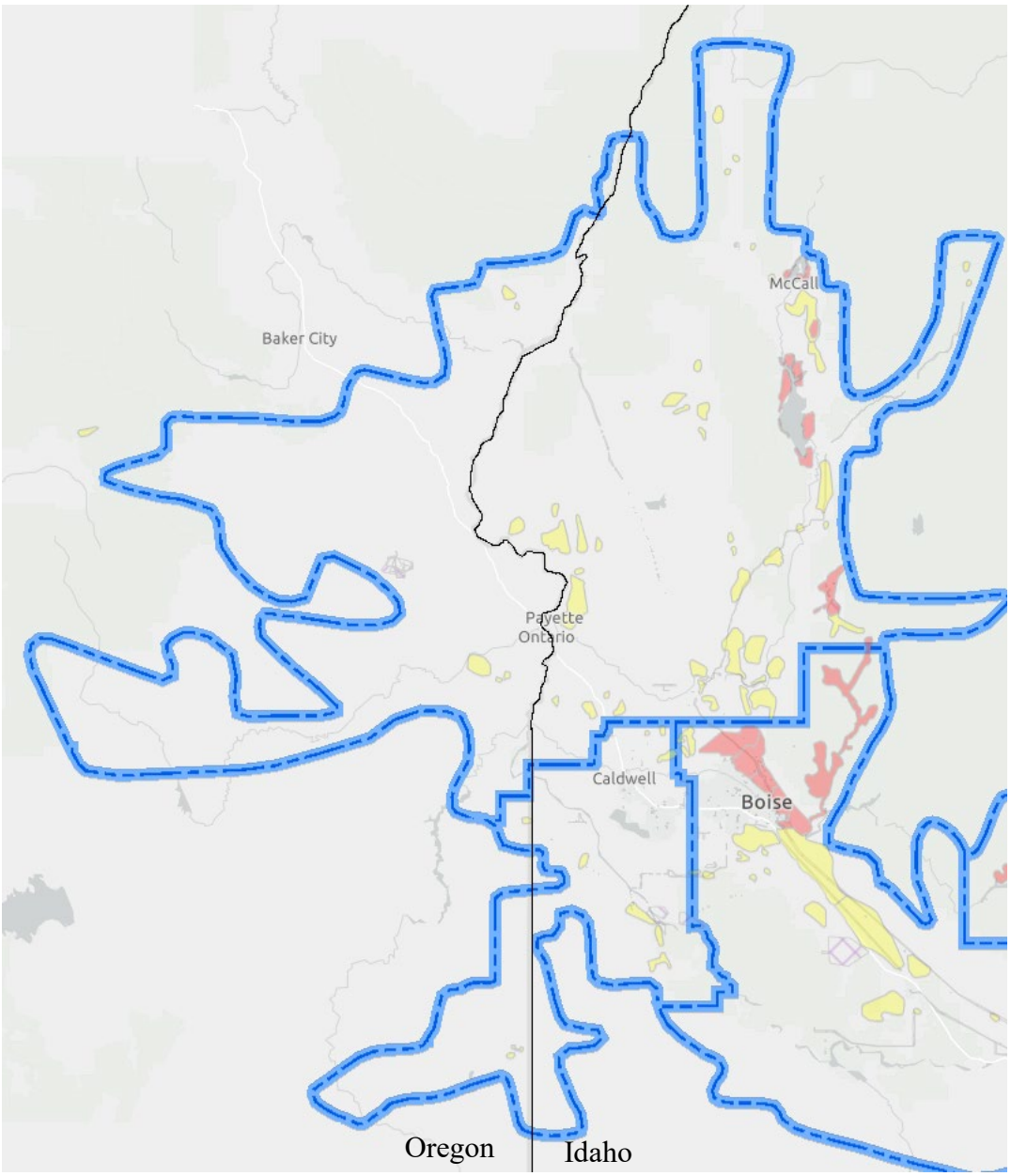
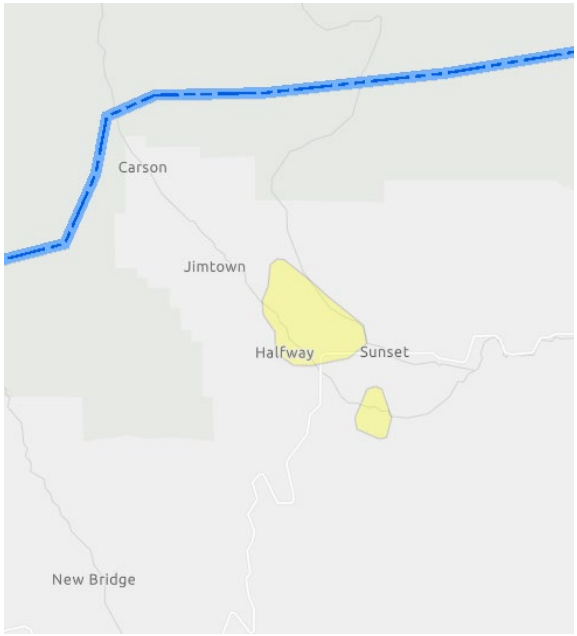
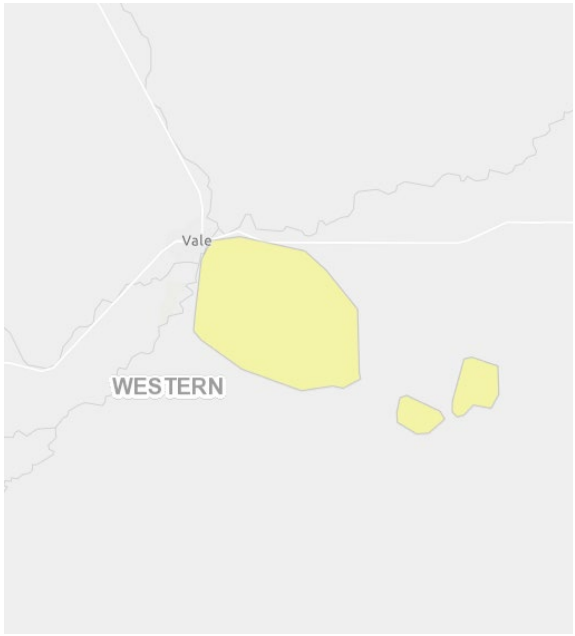


Figure 3
Wildfire Risk Map—western Idaho and eastern Oregon

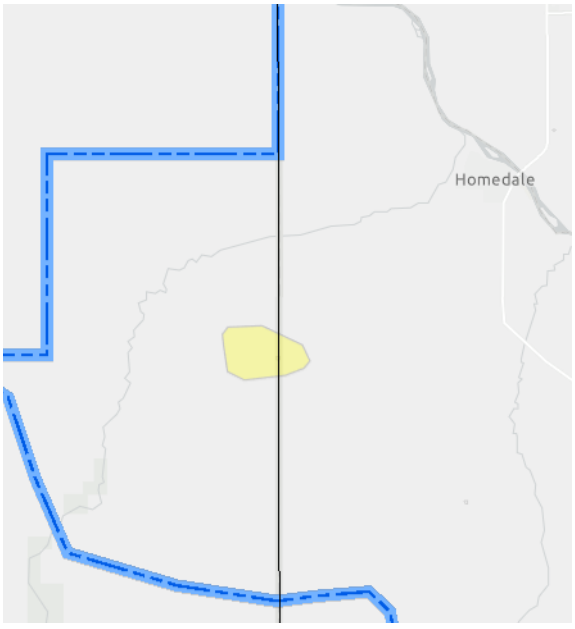
Halfway



Vale



Idaho-Oregon Boarder



Jordan Valley

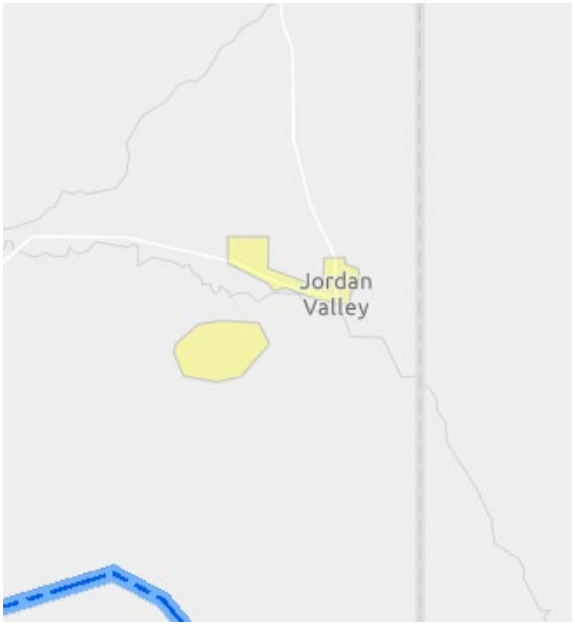


Figure 4
Oregon-specific zones

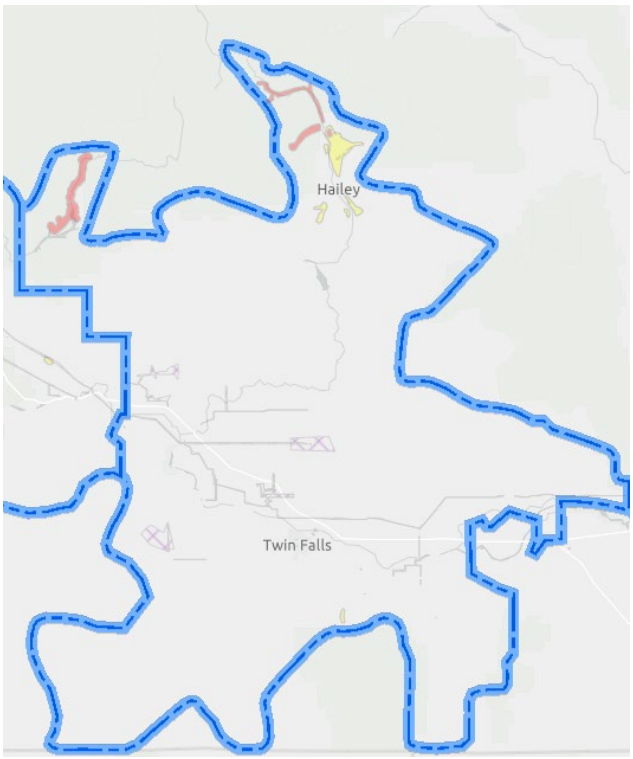
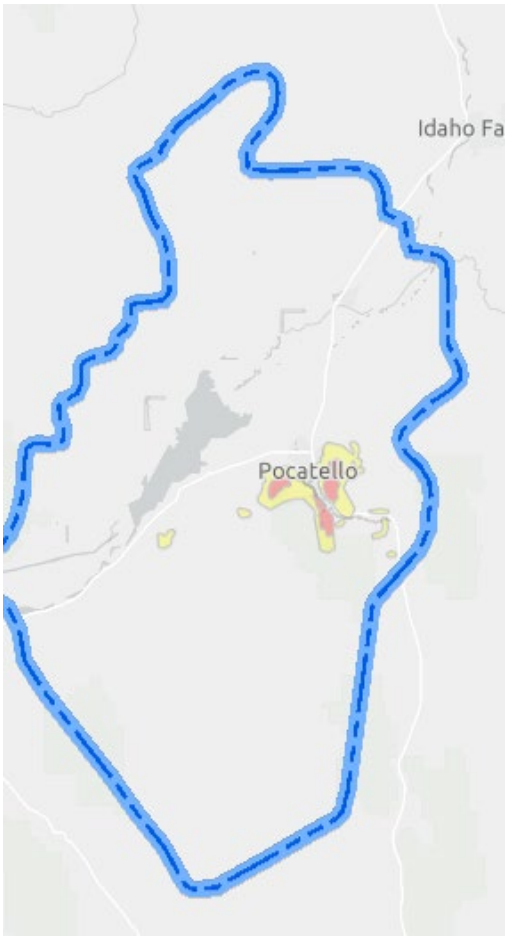


Figure 5
Wildfire Risk Map—southern Idaho

Pocatello



Salmon

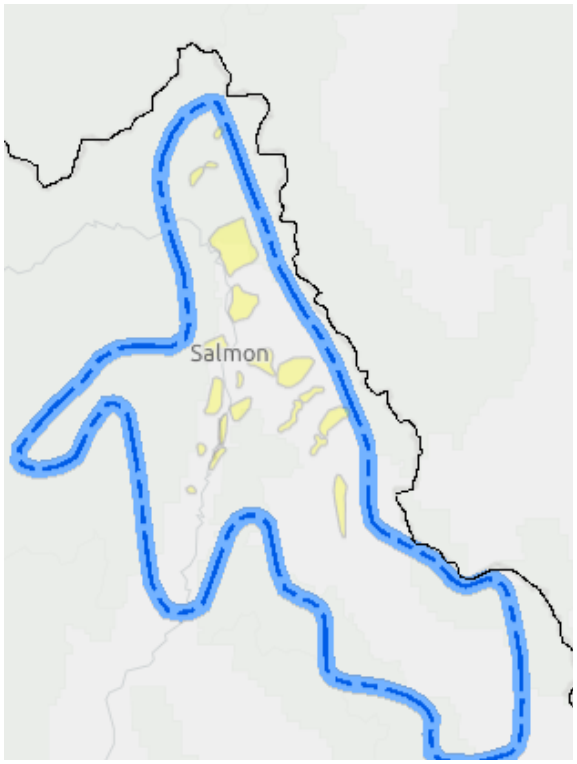


Figure 6
Wildfire Risk Map—eastern Idaho

3.2.2.1. Boardman to Hemingway Proposed Transmission Line

Idaho Power specifically considered the proposed route of the B2H 500 kV transmission line as part of the WMP. The proposed B2H 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 (YRZs), and there were no areas of higher risk (RRZs). Although the B2H transmission line has not been constructed as of the publication of this 2022 WMP, Idaho Power intends this WMP (as it will be reviewed annually) will apply to B2H. Additionally, Idaho Power will continue to update its fire risk mapping periodically and address the locations with elevated risk consistent with the mitigation strategy for transmission lines as described in sections 5–9 of this WMP.

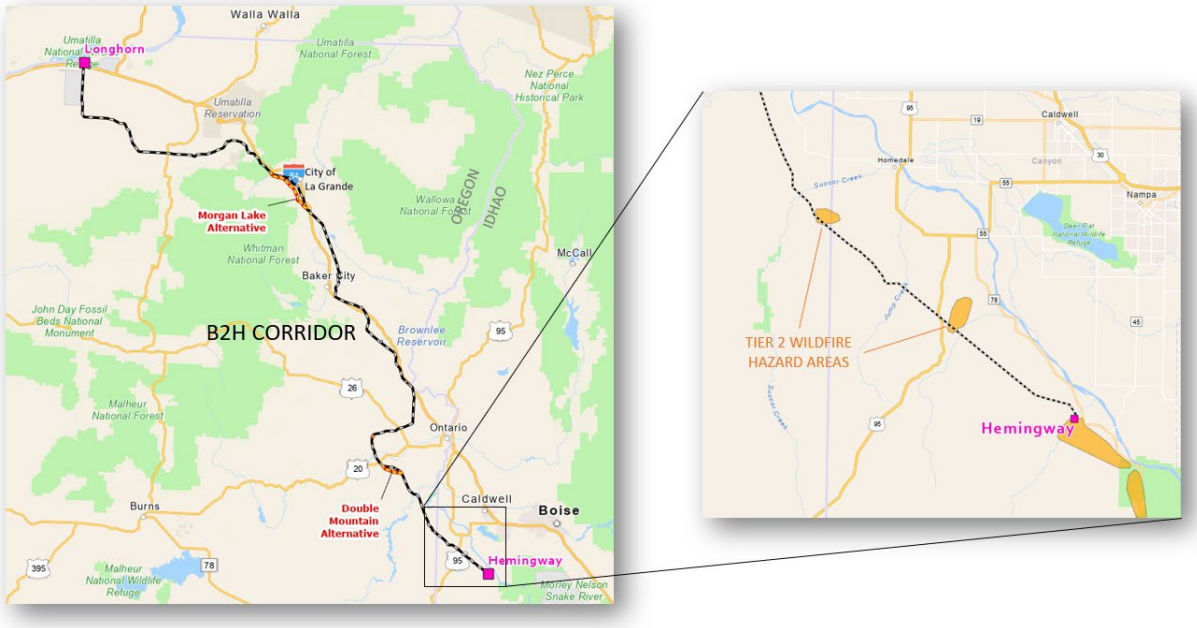


Figure 7
B2H proposed route risk zones

4. COSTS AND BENEFITS OF WILDFIRE MITIGATION

4.1. Objective

This section details Idaho Power's assessment of high-level risk with respect to undertaking wildfire mitigation activities. This assessment provides a framework for understanding the potential consequences of wildfire damage and the possibility of diminishing those consequences through targeted mitigation activities.

To that end, Section 4.3 identifies selected mitigation activities and the estimated costs of those activities on a system level. In Section 4.4, each mitigation activity is discussed in detail, with an assessment of why it was selected, what alternatives (if any) may be available, and any additional benefits (referred to as "co-benefits") the company believes may result from pursuing it.

4.2. Risk-Based Cost and Benefit Analysis of Wildfire Mitigation

In assessing the probability and consequence of wildfire risk, and to identify benefits of various wildfire mitigation efforts, Idaho Power engaged with its external consultant and considered several sources of empirical data on the costs of major wildfires—both in terms of fires that burn into Idaho Power's facilities or that originate from electric infrastructure. These costs can include replacement costs of the company's property; the cost of fire suppression and environmental damage; third-party claims for property damage; employee and public injuries and fatalities; and other economic losses.

Through its research, Idaho Power found that obtaining a precise calculation of the potential costs of future wildfires is not realistic. The damage that any fire may cause depends on factors such as wind and weather, vegetation, fire risk levels, location, and population and structure density.

Idaho Power's assessment of the potential costs of wildfires—used in developing the WMP and the scope of proposed updates to practices—involved a review of prior major fires in other states, as well as calculations by other western utilities. While this assessment did not yield a precise quantification of potential benefits specific to Idaho Power, it provides a helpful illustration of the potential costs of not taking actions aimed at reducing wildfire risk.

Idaho Power reviewed and considered calculations analyzing the potential reduction in probability of igniting wildfires based on risk-mitigating activities. For instance, in a June 2020 filing before the IPUC, Avista Corporation (Avista) stated that its "analysis indicates a 10-year inherent potential risk exposure of at least $8 billion dollars," though noted the figure should not

be interpreted as a precise financial estimate.[7] Avista further noted that the actions it proposes in its own wildfire resiliency plan result in an average percentage of risk mitigation of 89% for the overall plan.[8]

In California, costs and damages associated with wildfires in recent years have exceeded $10 billion per year, with those associated with the 2020 fires alone potentially set to exceed $20 billion.[9] This increase[10] is consistent with the fact that, with few exceptions, the prevalence, intensity, and impact of wildfires continues to escalate year after year as evidenced by information compiled by the California Department of Forestry and Fire Protection (CAL FIRE) and detailed in Table 3.

Table 3
CAL FIRE Wildfire Data by Year

Year	Estimated Acres Burned	No. of Wildfires	No. of Confirmed Fatalities	No. of Structures Damaged or Destroyed
2020	4,197,628	9,279	31	10,488
2019	259,823	7,860	3	732
2018	1,975,086	7,948	100	24,226
2017	1,548,429	9,270	47	10,280
2016	669,534	6,954	6	1,274

The data compiled by peer utilities, historic fire costs, and known damage from prior fires are instructive. Considering peer metrics and analyses on probability and magnitude, as well as Idaho Power's own empirical review of wildfire events such as those in California and Oregon—and the resulting loss of lives—it is reasonable to conclude that the potential human and capital costs and damage from wildfire events vastly exceed any incremental costs of wildfire mitigation efforts identified in this WMP.

[7] *In the Matter of Avista Corporation's Application for an Order Authorizing Accounting and Ratemaking Treatment of Costs Associated with the Company's Wildfire Resiliency Plan,* Case No. AVU-E-20-05, Application at 17.

[8] Ibid.

[9] Jill Cowan, *How Much Will the Wildfires Cost?*, The New York Times, Sept. 16, 2020, at https://www.nytimes.com/2020/09/16/us/california-fires-cost.html.

[10] Idaho Power believes that its system is in notably better condition than some utilities in California. Nevertheless, these figures illustrate the destruction that can occur from vegetation contact if vegetation is not actively managed.

2023 Wildfire Mitigation Analysis Framework

Idaho Power plans to continue advancing its analytical approach to balancing cost and risk mitigation in its 2023 WMP. The company will evolve its risk analysis framework by building on the risk modeling detailed in its 2022 WMP and expanding its evaluation of risk reduction associated with present and future mitigation activities. The company's risk framework will seek to accomplish the following:

- Weigh the costs and potential benefits of alternative strategies to determine the most cost-effective wildfire mitigation solutions;
- Evaluate the effectiveness of current mitigation activities to determine whether those activities should be continued, refined, or replaced (e.g., analysis to determine circumstances in which underground line and facility conversions may be the optimal mitigation strategy compared to hardening overhead power lines); and
- Explore a range of risk management methodologies and expand the use of outage and fault analytics to further identify and refine areas for ignition reduction.

The company's cost and risk balancing framework will evolve over time and ultimately guide how it will identify, analyze, monitor, and address wildfire-related risk.

4.3 Wildfire Mitigation Cost Summary

From 2022–2025, Idaho Power estimates investing $46.8 million in incremental operations and maintenance (O&M) expenses to further wildfire mitigation measures. The following table summarizes the company's planned expenditures associated with executing its WMP through 2025. Estimated amounts reflect the company's best estimates and plans as of the 2022 WMP. These estimates will likely change in the future as the company reviews and refines its WMP and associated mitigation activities. For the 2022 WMP, each wildfire mitigation category—and associated estimated expenditures in Oregon and Idaho—is discussed in Section 4.4.

Table 4
Estimated system-wide incremental O&M expenses for wildfire mitigation, $000s (2022–2025) [11]

	2022	2023	2024	2025	2022 - 2025
A. Quantifying Wildland Fire Risk					
Risk Map Updates	$ -	$ 67	$ -	$ 69	$ 136
B. Situational Awareness					
Weather Forecasting - System development and support	$ -	$ 47	$ 74	$ 74	$ 195
Weather Forecasting Personnel - Fire Potential Index (FPI) and Public Safety Power Shutoff (PSPS)	$ 71	$ 178	$ 99	$ 102	$ 450
Weather Forecasting - Weather Station Maintenance	$ 6	$ 19	$ 24	$ 30	$ 79
Pole Loading Modeling & Assessment (Contract service)	$ 25	$ 75	$ 75	$ 75	$ 250
Cameras	$ 50	$ 165	$ 220	$ 220	$ 655
C. Mitigation - Field Personnel Practices					
Tools/Equipment	$ 5	$ 5	$ 5	$ 5	$ 20
Mobile Weather Kits for Field Observers	$ 20	$ 10	$ -	$ -	$ 30
International Wildfire Risk Mitigation Consortium	$ 30	$ 40	$ 40	$ 40	$ 150
D. Mitigation - Transmission & Distribution Programs					
O&M Component of Capital Work	$ 54	$ 61	$ 60	$ 54	$ 229
Annual O&M T&D Patrol Maintenance Repairs	$ 50	$ 50	$ 50	$ 50	$ 200
Environmental Management Practices	$ 25	$ 25	$ 25	$ 25	$ 100
Transmission Thermography Inspection Mitigation - Red Risk Zones	$ 20	$ 20	$ 20	$ 20	$ 80
Distribution Thermography Inspection Mitigation - Red Risk Zones	$ 30	$ 30	$ 30	$ 30	$ 120
Thermography Technician Personnel	$ 155	$ 160	$ 165	$ 170	$ 650
Transmission Wood Pole Fire Resistant Wraps - Red Risk Zone	$ 88	$ 88	$ -	$ -	$ 176
Transmission Wood Pole Fire Resistant Wraps - Yellow Risk Zone	$ 163	$ 163	$ 163	$ 163	$ 652
Wildfire Mitigation Program Manager	$ 90	$ 191	$ 196	$ 202	$ 679
Covered Wire Evaluation - Pilot Program in PSPS Zones	$ 25	$ 50	$ 50	$ -	$ 125
E. Vegetation Management					
Transition to/Maintain 3-year Vegetation Management Cycle	$ 9,787	$ 11,196	$ 13,347	$ 12,172	$ 46,502
Enhanced Practices for Distribution Red & Yellow Risk Zones (Pre-Fire Season Patrols/Mitigation, Pole Clearing, Removals, Work QA)	$ 1,223	$ 1,284	$ 1,349	$ 1,416	$ 5,272
Line Clearing Personnel	$ 155	$ 159	$ 164	$ 169	$ 647
Fuel Reduction Program	$ 75	$ 75	$ 75	$ 75	$ 300
Vegetation Mgmt Satellite and Aerial patrols	$ 150	$ 150	$ 300	$ 300	$ 900
F. Communications					
Wildfire/Wildfire Mitigation Education/Communication - Advertisements, Bill Inserts, Meetings, Other	$ 100	$ 100	$ 100	$ 100	$ 400
PSPS Customer Education/Communication - Advertisements, Bill Inserts, Other	$ 71	$ 71	$ 71	$ 71	$ 284
G. Information Technology					
Communication/Alert Tool development (System set up, outage maps, critical facilities identification)	$ 163	$ -	$ -	$ -	$ 163
Communication/Alert Tool for PSPS Customer Alerts/Extended Use	$ 141	$ 129	$ 129	$ 129	$ 528
Forecast Incremental O&M Expenditures Total	**$ 12,772**	**$ 14,608**	**$ 16,831**	**$ 15,761**	**$ 59,972**

[11] As of October 20, 2022.

4.4 Mitigation Activities

Idaho Power selected individual wildfire risk mitigation activities based on a variety of factors, including assessment of industry best practices in wildfire mitigation; discussions with peer utilities; consultation with government entities and agencies; and with consideration of alternatives that could be pursued.

Below is a narrative of each mitigation activity, its purpose, estimated near-term cost in Idaho and Oregon, potential co-benefits of the activity to Idaho Power and its customers, and potential alternatives.

With respect to Idaho and Oregon cost estimates, the estimated costs identified below are grounded in cost assignment between the company's Idaho and Oregon service areas and further informed by anticipated work in the two service areas.

4.4.1 Quantifying Wildland Fire Risk

Idaho Power's assessment of wildland fire risk is discussed in Section 3 of this WMP.

The first step in developing Idaho Power's WMP was to conduct a comprehensive assessment of the company's service area and transmission corridors. The company worked with Reax Engineering, a consulting firm that specializes in wildfire risk modeling and fire science, to conduct Idaho Power's wildfire risk analysis. The company determined that hiring an external consultant was beneficial for two reasons: (1) an external consultant was more cost effective than hiring additional resources within Idaho Power to perform the modeling, and (2) an outside consultant helped ensure Idaho Power's risk analysis approach was similar to its peer utilities.

An additional co-benefit of hiring an external consultant is aligning risk analysis with other utilities' practices to create a basis for comparison of risk and also a standard terminology and methodology in discussing risk. Idaho Power deemed Reax Engineering a qualified consultant to perform wildfire risk analysis based on the work it performed for the CPUC in developing the CPUC Fire Threat Map. Other utilities in Oregon, Idaho, Nevada, and Utah have utilized similar modeling approaches to identify and quantify wildfire risk.

Cost Estimate for Quantifying Wildland Fire Risk (2022–2025)

Idaho Power intends to re-evaluate its risk analysis using an external consultant on two more occasions between 2022 and 2025. Idaho Power estimates system-wide expenditure for these services to be approximately is $136,000.

4.4.2 Situational Awareness—Weather Forecasting Activities and Personnel

Idaho Power discusses specific situational awareness practices in Section 5 of this WMP.

In developing the WMP, Idaho Power created a new Fire Potential Index (FPI) tool to support operational decision-making to reduce wildfire threats and risks. The tool takes data on weather, prevalence of fuel (i.e., trees, shrubs, grasses), and topography, and converts that data into an easily understood forecast of the short-term fire threat for different geographic regions in Idaho Power's service area. Additionally, Idaho Power plans to continue to enhance meteorological and weather forecasting capabilities to further improve FPI forecasting and help determine when a Public Safety Power Shutoff may be necessary in Idaho Power's service area.

The benefits of developing the FPI and enhancing the company's meteorological forecasting capabilities is greater situational awareness of Idaho Power's system during critical peak summer months. To continue to generate useful information and system benefits, Idaho Power's situational awareness activities will be evaluated and updated annually as necessary to support the company's wildfire preparedness.

The company considers the FPI and related efforts an essential part of reducing the risk of ignition from work activities. This provides Idaho Power field personnel would not have a tool to assess the fire potential on a consistent basis. Given the distinct benefits that result from the FPI and enhanced foresting capabilities, Idaho Power did not consider alternatives to the development of these critical tools.

Cost Estimate for Situational Awareness—Weather Forecasting Activities and Personnel (2022–2025)

The estimated expenditure for weather forecasting activities (weather forecasting tools, system development, and personnel) is $745 million between 2022 and 2025.

4.4.3 Situational Awareness—Advanced Technologies

Beginning in 2022, Idaho Power created a Technology Strategy Initiative team aimed at determining how new technologies and innovative practices can be incorporated into the company's wildfire mitigation practices to further decrease wildfire risk. Technology-based practices being considered include—amongst others—strategic use of cameras, satellite, and aerial imagery to detect vegetation hazards, pole loading modeling (to assess the structural integrity of poles), as well as covered conductors. With regard to cameras, the company is evaluating a pilot to test placement of cameras in strategic, high-risk locations to enhance situational awareness. Additionally, the company is learning more about artificial intelligence and how it can be leveraged to detect wildfire ignitions. Multiple camera and analytics companies are being considered to determine potential cost-effective solution(s). The company is also working with local agencies to explore the possibility of partnering on the installation and ongoing use of cameras which may lead to reduced cost.

Cost Estimate for Situational Awareness—Pole Loading Modeling and Assessment (2022–2025)

The estimated system-wide expenditure to conduct pole loading modeling and assessment, which includes LIDAR assessment, is $250,000 for 2022 through 2025. Idaho Power plans to conduct the assessment in its highest risk zones, which are located exclusively in Idaho as set forth in Table 2.

Cost Estimate for Situational Awareness—Cameras (2022–2025)

The estimated system-wide expenditure for the pilot evaluation installation of cameras in high-risk areas is $655,000 for 2022 through 2025. Idaho Power plans to prioritize the use of cameras in its highest risk zones, which are located exclusively in Idaho as detailed in Table 2.

4.4.4 Field Personnel Practices

Idaho Power discusses its field personnel practices in Section 6 of this WMP.

Idaho Power's wildfire mitigation strategy includes procedural measures to reduce potential ignition and spread of wildfires. Idaho Power developed a *Wildland Fire Preparedness and Prevention Plan* (included as Appendix A to this WMP) to provide guidance to Idaho Power employees and contractors. The plan includes information regarding fire season tools and equipment available on the job site; daily situational awareness relative to areas with heightened fire conditions; expected actions and mechanisms for reducing on-the-job wildfire risk as well as reporting requirements in the event of an ignition; and training and compliance requirements.

All Idaho Power crews, and certain field personnel and contractors performing work on or near Idaho Power's facilities are required to operate in accordance with the provisions of the *Wildland Fire Preparedness and Prevention Plan* and expected to conduct themselves in a fire-safe manner. They should be prepared for wildfire by carrying specific tools, including but not limited to, shovels, Pulaskis,[12] and water for initial suppression. Additionally, Idaho Power's PSPS program (included as Appendix B to this WMP) includes employees acting as Field Observers to report on site conditions as part of the de-energization process. Field Observers are equipped with mobile weather kits that include wind meters, compasses, and satellite communication devices to report real-time conditions.

The preparedness of Idaho Power crews and contractors is critical to comprehensive wildfire risk reduction practices. The incremental investment in field personnel equipment is focused on additional tools carried by employees working in elevated risk zones. Additionally, Idaho Power will join the International Wildfire Risk Mitigation Consortium (IWRMC), a group whose mission is to share lessons learned, best practices, and innovation in the area of wildfire mitigation. Many of Idaho Power's utility peers are part of the consortium. The company is not aware of any other effort or group that provides a similar level of access or insight into global thinking and advancements in wildfire mitigation as the IWRMC.

Cost Estimate for Field Personnel Equipment (2022–2025)

The estimated system-wide expenditure for field personnel equipment (tools, mobile weather kits, and participation in the IWRMC) is $200,000 between 2022 and 2025.

[12] A Pulaski is a hand tool specifically used for fighting fires that combines an axe and an adze atop a single handle. The tool is the invention of Edward Crockett Pulaski, a ranger with the U.S. Forest Service who was based in Wallace, ldaho, in the early 1900s.

4.4.5 Transmission and Distribution (T&D) Programs for Wildfire Mitigation

Idaho Power's T&D-related wildfire mitigation activities primarily involve expanded asset management programs and system hardening efforts, discussed in detail in Section 8.2 of this WMP. The narratives below provide insight into Idaho Power's consideration and selection of certain mitigation and hardening practices.

4.4.5.1 Annual T&D Patrol, Maintenance, and Repairs

Visual inspections are a critical component of T&D line-related wildfire mitigation efforts. On an annual basis, Idaho Power uses helicopters for visual aerial inspection of transmission lines that are Western Electricity Coordinating Council (WECC) path lines. Under the WMP, Idaho Power will continue to use this method of line inspection for all transmission lines located in Red Risk Zones. Idaho Power strives to complete these inspections prior to the start of the wildfire season.

Distribution lines that are located within RRZs are inspected on an annual basis through detailed visual inspections. Helicopters are not practical for carrying out all distribution patrols due to greater population, structural, and vegetation density, so unmanned aerial vehicles (UAV) with high-definition cameras are used to aid in these inspections in certain situations. These inspections allow personnel to look for potential line defects that may not be obvious from the ground. "Priority 1" defects, or conditions that may result in an outage or potential ignition, are immediately reported and repaired as soon as possible.

The company will continue to explore the expanded use of UAVs, as the detailed images and data collected through high-resolution aerial inspections can provide several co-benefits, including more granular data on vegetation growth and line and facility conditions.

Cost Estimate for Annual T&D Patrol, Maintenance, and Repairs (2022–2025)

The estimated system-wide incremental expenditure for annual T&D patrols, maintenance, and repairs is $200,000 from 2022 to 2025.

4.4.5.2 Thermography Inspections

While Idaho Power periodically conducts infrared thermography inspections as part of reliability and maintenance programs, the company is expanding these inspections in Red Risk Zones on an annual basis. These inspections are conducted using hand-held and drone-mounted cameras with thermal-sensing technology and can help identify defects associated with the overheating of equipment, connections, splices, or conductors.

As part of the thermography inspections, temperature gradients are analyzed to detect potential problems and issues found are prioritized based on their severity and repaired. Idaho Power recently created a new Thermography Technician position to carry out the inspections and coordinate repair activities, and additional resources may be added to perform this function across more of Idaho Power's service area if a single technician proves insufficient. To prioritize

the use and information gained from this technology, it will initially be employed only in RRZs. 2022 is the test year to determine how many inspections can be performed, and the overall cost-benefit of the technology to help evaluate the possibility of expanding use and adding more resources.

Thermography inspections are uniquely valuable in that they are able to uncover problems undetectable to the naked eye. From the company's perspective, there is not a viable alternative to this practice. The technology enables more proactive identification of potential issues than would otherwise be possible.

Cost Estimate for Thermography Inspections (2022–2025)

The estimated system-wide expenditure for thermography inspections is $850,000 from 2022 to 2025. Idaho Power currently plans to prioritize the use of this mitigation practice in its highest risk zones.

4.4.5.3 Wood Pole Fire-Resistant Wraps

To help improve the resiliency of the company's wood transmission poles, Idaho Power now wraps them with a fire-resistant mesh in Red and Yellow Risk Zones. The mesh wrap helps protect the integrity of the pole if it is exposed to fire and improves the resiliency of Idaho Power's transmission system. An alternative to installing fire-proof mesh wrap is to replace wood poles with structures made of non-combustible material, such as steel. With 3,863 existing wood transmission poles in Idaho Power's Red and Yellow Risk Zones, the cost of replacing all wood poles is much higher than the cost of covering with a fire-resistant mesh.

Prior to developing the WMP, Idaho Power evaluated different products to determine the most cost-effective approach for protecting existing wood poles from fire. Several products were considered and trialed, including short-term spray-on and paint-on fire retardants, long-term retardants, and steel wraps. In 2020, the company evaluated a protective mesh wrap and compared the cost and performance to the alternatives. The evaluation found that the mesh wrap was approximately 53% less costly than the alternatives and offered the same level of risk reduction. The decision to use a mesh wrap product was not based solely on cost; other criteria were considered, including availability of the product, ease of installation, expected protective life span, and performance when exposed to fire. By all these measures, fire-resistant mesh was the best solution.

Cost Estimate for Wood Pole Fire-Resistant Wraps (2022–2025)

The estimated system-wide expenditure for applying fire-resistant mesh wraps to transmission poles in Red and Yellow Risk Zones is $828,000 between 2022 and 2025.

4.4.5.4 Covered Conductor Pilot

Idaho Power's Technology Strategy Initiative identified covered conductor as a potential mitigation measure to pilot. Benchmarking and feedback from other utilities highlighted the potential benefit of covered conductor as a mitigation measure. The company will conduct a pilot of covered conductor in 2022 through 2024 to explore the benefits, tooling requirements for field

personnel, and design parameters. While covered conductor may reduce the risk of wildfire, the company will analyze potential co-benefits, including improved reliability outside of wildfire season and reduced outage restoration costs.

Cost Estimate for the Covered Conductor Pilot (2022–2024)

The estimated cost of the pilot is $125,000 from 2022–2024.

4.4.6 Enhanced Vegetation Management

Idaho Power's enhanced vegetation management practices are discussed in detail in Section 8.3 of this WMP.

In the initial stage of developing its WMP, Idaho Power conducted an analysis to determine the most likely sources of ignition across the company's service area. Reliability data revealed vegetation contact as one of the most common causes of outages on Idaho Power's system. With the goal of eliminating potential ignition sources and to reduce risk, enhanced vegetation management was recognized as a critical aspect of Idaho Power's WMP.

To prioritize risk reduction from vegetation contact, Idaho Power determined it would move to a three-year pruning cycle and apply enhanced vegetation management practices in Red and Yellow Risk Zones. These enhanced practices include pre-fire season vegetation patrols, more targeted pole clearing and vegetation removal, and additional quality assurance for vegetation management practices.

The company considered other vegetation management alternatives, including shorter trimming cycles, longer trimming cycles, and strategies that evaluate each tree individually and only trim it once it has nearly grown back to the power line (known as "just-in-time trimming"). Each alternative presented challenges or resulted in negative impacts that undermined any potential benefits.

While shorter trimming cycles result in less vegetation being removed during each trimming cycle, this practice costs more due to the need for more resources and more frequent trimming of trees near the power lines. In contrast, longer cycles result in less frequent trimming of each tree but larger amounts of vegetation that must be removed to maintain larger clearance envelopes around the power lines to accommodate additional years of vegetative growth. Further, longer trimming cycles create logistical challenges that are exacerbated by tree biology. Some trees simply grow faster than a given trimming cycle and the longer the trimming cycle, the more pervasive this issue becomes. Longer cycles that call for heavy pruning also lead to hormonal imbalances between a tree's canopy and its root system. To correct this imbalance, the tree aggressively re-grows new sprouts to quickly replace its lost canopy. In this regard, heavier pruning results in a faster rate of tree regrowth than normal, making it even more difficult to consistently maintain longer trimming cycles. Finally, "just-in-time trimming" is primarily a reactive strategy that ultimately leads to challenges associated with securing qualified tree-trimming crews, as this ad hoc approach involves hiring crews on an as-needed basis rather than on a consistent schedule. After evaluating these alternative approaches, Idaho Power concluded that the goal of maintaining a consistent three-year trimming cycle is the most

cost-effective and sustainable strategy to keep vegetation away from the power lines in a proactive manner.

Moving forward with a three-year cycle and performing the additional activities detailed above will involve a sizeable increase in incremental O&M expenditure: approximately $8 million annually. An alternative to enhancing Idaho Power's vegetation management program is to convert overhead distribution circuits to underground. While undergrounding is used in certain circumstances, undergrounding has generally not been determined to be a cost-effective expense relative to enhanced vegetation management. That said, the company continues to evaluate and implement underground solutions, as appropriate, as part of its WMP hardening efforts detailed below.

Although vegetation management is a sizeable increased wildfire mitigation expense, performing this work is expected to have notable co-benefits, including reduced vegetation-caused outages in Red and Yellow Risk Zones. Idaho Power plans to monitor performance and outage metrics to confirm the success of the enhanced program.

Decreasing vegetation outages was considered one of the most important, cost-effective measures Idaho Power could take to reduce the likelihood of an ignition event and protect utility infrastructure. Shifting vegetation management practices was deemed a prudent course of action based on the number of potential outages or ignition sources that may be eliminated. It is also the approach that has been adopted by many of Idaho Power's peer utilities.

Additionally, the company will participate in a regional fuel reduction program, in which Idaho Power will work in partnership with the Idaho Department of Lands, the National Forest Foundation, the U.S. Forest Service, and the U.S. Bureau of Land Management to remove hazard trees and other vegetation from utility rights-of-way. The partnership is designed to enhance forest resilience to wildfire, decrease hazardous fuel accumulations, increase powerline resiliency while minimizing the risk of ignitions, and improve forest conditions in the vicinity of Idaho Power infrastructure. This program is similar to what other western utilities have taken part in and is modeled after projects performed in Washington, California, Colorado, and Arizona. Participation in the effort is estimated to cost $300,000 through 2025.

The company also plans to deploy satellite and aerial patrols of vegetation in the company's wildfire risk zones. The technology used in these satellite and aerial patrols will help identify encroachment and clearance issues in areas that are growing faster than expected and hazard trees that have the potential of falling into powerlines. Data collected through this technology may reshape the company's vegetation management strategy and shift from a systemwide cycle to a more targeted approach that identifies and focuses on high-growth vegetation areas. The company will conduct limited vegetation-focused satellite and aerial patrols in 2022 and 2023 before expanding to a larger area in 2024 and 2025, pending outcomes from the pilot program years. The company estimates spending $900,000 on this technology through 2025.

Cost Estimate for Enhanced Vegetation Management (2022–2025)

The estimated system-wide expenditure for enhanced vegetation management is $53.6. million from 2022 to 2025.

4.4.7 Communications and Information Technology Customer Notification Enhancements

Idaho Power's efforts to communicate with customers and the public about wildfire and mitigation are discussed in detail in Section 10 of this WMP.

Idaho Power considers communication a vital part of its wildfire mitigation efforts. Customer and public awareness and education are a vital part of ensuring that the communities that Idaho Power serves are protected and safe from the threat of wildfire. New communication expenses related to customer and community educational outreach include advertisements, printed media, social media, and public meetings. The purpose of these communications is to keep customers aware of mitigation and fire-related activities before, during, and after fire season. Additionally, the company is building out communication systems to be able to alert customers more quickly and easily about wildfire events and outages, including potential PSPS events.

Cost Estimate for Communication and Customer Notification Enhancements (2022–2025)

The estimated system-wide expenditure for communication expenses is $400,000 and $691,000 for customer notification system enhancements, totaling $1.1 million from 2022 to 2025.

4.4.8 Incremental Capital Investments

Idaho Power's wildfire mitigation efforts include capital investments in system hardening practices including approaches deployed after internal testing and analysis, many of which also provide co-benefits to the company.

Idaho Power's capital investments for wildfire mitigation are discussed in detail in Section 8.2 (T&D Asset Management Programs) of this WMP.

4.4.8.1 Circuit Hardening and Infrastructure Upgrades

Idaho Power estimates spending $5.1 million annually through 2025 on circuit hardening and infrastructure upgrades across its system.

Idaho Power's WMP includes an overhead distribution hardening program for Red Risk Zones. The program includes systematic replacement of hardware, equipment, and materials to improve safety and reliability and reduce ignition risk. The first five years of the program are focused on circuits in Red Risk Zones, but it may be expanded to Yellow Risk Zones in the future. The company will review hardening outcome metrics annually to determine the benefit of the program and to determine whether to expand the program after 2025.

Prior to developing its WMP, Idaho Power successfully implemented many of the same hardening measures detailed below as part of the company's reliability program. Outage data and analytics showed that customer outages were reduced by approximately 38% in areas where hardening projects were carried out. With the success of reducing outages, some of these same activities to increase reliability were chosen to be part of the WMP to help reduce ignition

potential in Red Risk Zones. Enhanced system hardening efforts include installation of fire safe fuses, Spark Prevention Units, and fiberglass crossarms.

All the hardening activities and equipment identified in this program were evaluated by patrolmen, troublemen, reliability engineers, and the company's Methods and Materials department to determine cost-effective solutions that balance overall costs with expected risk reduction.

As an alternative to conducting circuit hardening upgrades, the company considered converting overhead distribution circuits to underground. While underground conversions are used in certain circumstances, the cost is estimated to be 2–10 times higher than the cost of carrying out hardening work. In general, overhead hardening efforts provide the benefit of being able to impact a greater number of circuit miles and customers in a shorter time horizon with less investment than undergrounding. Idaho Power will continue to evaluate underground opportunities as part of overall system hardening efforts.

The following summarizes the incremental capital investments the company is making to harden its system and further reduce wildfire risk:

- **Wood Pole Replacement—**The company will replace wood poles if field evaluations determine that significant deterioration or damage has occurred since the last inspection or treatment. Poles are inspected above the groundline to determine strength and climbability. Poles identified as "rejects" will be replaced on an expedited basis. Furthermore, poles having wood stubs/structural reinforcements are changed out pursuant to current practices.

- **Fuse Replacements—**Expulsion fuses located in Red Risk Zones will be changed out with energy-limiting and power fuses. Fuse applications include overhead transformers, line taps, risers, and capacitor banks. In 2018, Idaho Power began exploring different fusing technology to replace expulsion fuses with non-expulsion fuses. Three different fuse types were considered and subsequently piloted. The pilot was used to determine the performance of each fuse type, installation requirements, and coordination characteristics. Financial analysis included the cost of each fuse along with associated cutout and hardware and helped determine the most cost-effective option. This information was used to evaluate non-expulsion fuses. *Replacement of all expulsion fuses in Red Risk Zones is expected to take approximately three years at a cost of approximately $1.9 million. Because this work will be conducted in Red Risk Zones, the company does not anticipate replacing fuses in Oregon at this time.*

- **Spark Prevention Units—**Porcelain arresters used for overvoltage protection will be changed out with arresters utilizing Spark Prevention Units (SPU). The SPU acts to eliminate the potential of catastrophic failure during arrester operation. This work includes all distribution arresters located on primary distribution lines in Red Risk Zones. In 2019, Idaho Power piloted new arrester technology to determine performance characteristics, installation requirements, and potential benefits in reducing ignition risk. As part of the pilot, Idaho Power compared different manufacturers with similar technology and conducted performance analysis to determine the most cost-effective

solution. *Replacement of the arresters is expected to take approximately three years to complete and will cost approximately $1.7 million. Because this work will be conducted in Red Risk Zones, the company does not anticipate replacing arrestors in Oregon at this time.*

- **Fiberglass Crossarms—**Idaho Power began piloting fiberglass crossarms in 2018 to determine potential cross-functional benefits associated with fiberglass. The pilot focused on cost, ease of installation, strength, supply availability, and reduced potential for tracking of electrical current. Tracking is known as the flow of current over an insulator, which can generate heat. The company compared different crossarm types and manufacturers and determined that fiberglass was most cost effective when considering up-front capital and installation costs. The pilot program, along with benchmarking of peer utilities, helped determine that fiberglass crossarms provided a number benefits relative to improved safety and reliability. Therefore, Idaho Power's hardening program includes the installation of both tangent and dead-end fiberglass crossarms in Red Risk Zones. However, Idaho Power does not intend to replace all wood crossarms with fiberglass immediately. As part of the fielding phase, company distribution designers will assess wood crossarms and initially change those showing signs of defects or damage. Identified crossarms utilizing wood pins will also be replaced with fiberglass. This approach will spread the cost out over time and help reduce the upfront cost of the program.

- **Small Conductor—**In the early stages of developing the WMP, Idaho Power considered the possible risk associated with small conductor and the potential for breakage. As a result of this exercise, the company's WMP hardening program includes the replacement of overhead distribution conductor that meets certain criteria which includes approximately 60 miles in Red Risk Zones. Conductor losses were analyzed and showed that replacing the conductor will result in an approximately 50% reduction of line losses, resulting in co-benefits for the company and customers in terms of greater reliability and line loss improvements.

- **Porcelain Switches—**Idaho Power's Outage Management System and feedback from field personnel revealed potential benefits of switches made of material other than porcelain. Therefore, porcelain switches installed in Red Risk Zones will be changed out with cutouts featuring Ethylene Propylene Diene Monomer Rubber (EPDM). Idaho Power's Methods and Materials Department trialed different cutout switches made up of different material, including silicone and polymer, to determine the most cost-effective solution. The results of the trial highlighted the potential for avian issues with silicone (i.e., ravens tended to eat the silicone), and the cost of EPDM versus polymer was nearly equivalent. The financial analysis determined that EPDM would preserve the integrity of the insulator body, prevent outages, and provide an estimated savings of $10,798 per year over silicone.

- **Avian Protection—**Idaho Power employs several different protection measures to protect wildlife on existing structures including but not limited to covers, insulated conductor, diverters, perches, nesting platforms, and structural modifications.

The company has an extensive history working with manufacturers of animal guards/covers and regularly seeks new solutions for avian issues to prevent mortalities, increase reliability, and eliminate other risks. The company's Avian Protection Plan (APP) was developed in the mid-2000s and many of the practices identified in the APP are used for wildfire mitigation in Red and Yellow Risk Zones. For example, new wildlife guards were recently developed and installed in conjunction with the installation of new power fuses and SPUs. Idaho Power consulted with different manufacturers to develop new products that would accomplish the dual goals of avian protection and wildfire mitigation. The best solution is determined on a case-by-case basis depending on the specific location, the type and extent of avian presence, and other relevant factors.

4.4.8.2 Overhead to Underground Conversions

Another aspect of Idaho Power's system hardening program is the select conversion of overhead to underground distribution lines in Red Risk Zones. In 2022, the company will convert 1.5 miles of overhead distribution lines to underground lines. In 2023 and beyond, the company will work to build a strategic undergrounding program to weigh the cost-benefit of undergrounding versus other circuit hardening measures. While underground distribution lines offer benefits associated with being less exposed to the elements and external forces, conversion may not be possible, advisable, or economical in certain situations. The company will continue to evaluate the feasibility of underground conversions as well as the relative value and cost effectiveness as part of the WMP.

4.4.8.3 Transmission Steel Poles

In 2021 and as part of its WMP, Idaho Power revised its transmission construction standards to utilize steel poles and structures for new line construction built to 138 kV and above in elevated wildfire risk zones. This change is intended to minimize the potential for wildfire damage, improve transmission line resiliency, and increase reliability for customers. Wood poles continue to be accepted and used in the industry, and the company will still utilize wood poles in many transmission system applications in consideration of the specific engineering, right-of-way, permitting, and scheduling requirements for each project.

In addition, wood poles will continue to be the standard construction practice for transmission line voltages below 138 kV unless a different material is needed to meet specific engineering or planning requirements. As discussed above, Idaho Power will wrap wood poles located in Red and Yellow Risk Zones with fire-proof mesh.

5. SITUATIONAL AWARENESS

5.1. 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 atmospheric science 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.

5.2. Fire Potential Index

Idaho Power has developed an 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
≥50ºF	4	4	4	5	5	6
40ºF to 49ºF	3	3	4	4	5	5
30ºF to 39ºF	3	3	3	4	4	5
20ºF to 29ºF	3	3	3	3	3	4
10ºF to 19ºF	2	2	2	2	2	3
<10ºF	0	1	1	1	1	2

5.3. 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.

6. MITIGATION—FIELD PERSONNEL PRACTICES

6.1. 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 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 are expected to operate in accordance with the Plan and continue to conduct themselves in a fire-safe manner.

6.2. 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

7. MITIGATION—OPERATIONS

7.1. 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 season[13]
- An operational strategy for T&D lines during time periods of elevated wildfire risk during the fire season
- A PSPS strategy for Idaho Power's service area and transmission corridors

7.2. Transmission Line Operational Strategy

7.2.1. 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.

7.2.2. Red Risk Zone Transmission Operational Strategy

During wildfire season, Idaho Power determines a daily FPI as described in Section 5 of this WMP. The FPI informs the transmission line operational strategy for those lines owned, operated, and located in RRZs. These lines will be operated in normal settings mode but with no "testing"[14] of a line that may have "locked out" during the time of a red FPI. Essentially, in the event of a fault on the specified transmission line(s) during a 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 wait until the FPI level drops out of the red category prior to being reenergized.

[13] The duration of the fire season will be reviewed and defined annually.

[14] Transmission line "testing" refers to the human act of re-energizing a line without completing a physical field patrol or observation of a line.

7.3. Distribution Line Operational Strategy

7.3.1. Red Risk Zone Distribution Operational Strategy

During wildfire season, Idaho Power determines a daily FPI as described in Section 5 of this WMP. The FPI informs the distribution line operational strategy for those lines located in the wildfire RRZs. These lines will be operated in a non-reclosing[15] state during the time of red FPI. Essentially, in the event of a fault on the specified distribution line(s) during the red FPI, the line(s) will be automatically de-energized with no reclosing attempts until either the line(s) has been patrolled or the FPI level drops out of the red category.

7.4. Public Safety Power Shutoff

7.4.1. PSPS Definition

PSPS, as used in this WMP, is defined as the proactive de-energization of electric transmission and/or distribution facilities during extreme weather events to reduce the potential of those electrical facilities becoming a wildfire ignition source or contributing to the spread of wildfires. The concept is as follows: if significant weather events can be predicted far enough in advance, the resulting proactive line de-energization before the forecasted weather conditions materialize could mitigate the risk of a wildfire. A PSPS event has significant customer impact and requires 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 that require a planned outage (Idaho Power currently has a planned outage customer notification process in place for this).
- Reactive de-energization of electric transmission and/or distribution facilities, which may be either at Idaho Power's determination or at the request of fire managers (e.g., BLM, U.S. Forest Service, or other fire-fighting managers) in response to existing/encroaching wildfire threatening to burn into such facilities.
- Automated de-energization of electric transmission and/or distribution facilities due to smoke/fire from an existing fire causing a fault on the line.

[15] Distribution line "non-reclosing" refers to the deactivation of automatic re-energization of a distribution line or use of a non-reclosing device such as a fuse.

Idaho Power will continue its current de-energization practices in the above referenced, and comparable situations. Such outage situations are not defined as PSPS events in the context used here and, as a result, would not trigger PSPS protocols.

7.4.2. PSPS Plan

Idaho Power developed a PSPS Plan (see Appendix B) that operates in parallel with its wildfire mitigation strategy. Although the wind patterns in Idaho Power's service area are generally of a much lower sustained velocity and often less predictable (i.e., micro-bursts) than other utilities' service areas where PSPS has most frequently been utilized (i.e., California), the company's PSPS Plan generally follows industry best practices by considering other utilities' PSPS plans and incorporating input from Idaho Power's external consultant, discussed in 3.2 above, which developed the company's WMP risk maps.

8. MITIGATION—T&D PROGRAMS

8.1. Overview

Idaho Power's wildfire mitigation strategy relies in part on its various asset management programs and vegetation management program to maintain safe and reliable operation of its T&D facilities in reducing wildfire risk.

8.2. T&D Asset Management Programs

In addition to maintaining a number of existing and newly implemented robust asset management programs intended to reduce wildfire risk, 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 supporting wildfire prevention and mitigation are summarized in the table below.

Table 5
Summarized T&D asset management programs (associated with the WMP)

Transmission
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
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)

8.2.1. Transmission Asset Management Programs

Several of Idaho Power's transmission management programs have been in place for decades and 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.

8.2.1.1. 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 WECC Path Lines. This method of line inspection is now used for transmission lines located in the RRZs. In addition, unmanned aerial vehicles with high-definition cameras are now 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.

8.2.1.2. 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, and/or on foot. These inspections identify potential line defects that are noted and scheduled for repair following the same process as described in 8.2.1.1.

8.2.1.3. 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 8.2.1.1. 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 8.2.1.4).

8.2.1.4. 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.

8.2.1.5. 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.

8.2.1.6. 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.

8.2.1.7. 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" is utilized on transmission wood poles located in the RRZs and YRZs.

8.2.1.8. Transmission Steel Poles

Idaho Power will utilize steel poles or structures for new transmission line construction projects built to 138 kV standards and above in an attempt to minimize wildfire damage and improve transmission line resilience. Wood poles may be used on 138 kV structures for emergency and maintenance replacements based on the specific engineering, right-of-way, permitting, and scheduling requirements for each project. Wood construction is used for voltages below 138 kV unless a different material is needed to meet specific engineering or planning requirements.

8.2.2. 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 also has an enhanced overhead distribution "hardening" program to implement in the RRZs. Examples of specific work include replacement of small conductors and associated hardware and replacement of wooden pins and associated wooden crossarms.

8.2.2.1. 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.

8.2.2.2. Wood Pole Inspection and Treatment Program

All wood poles are visually inspected, sounded, and bored for defects and decay. The procedure is noted in 8.2.1.4.

8.2.2.3. 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.

8.2.2.4. 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 5 drives the program work.
Notable criteria are further explained in the following sections of this WMP.

8.2.2.4.1. Conductor "Small" Replacement

Idaho Power is implementing 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.

8.2.2.4.2. 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.

8.2.2.4.3. 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.

8.2.2.4.4. Fuse Options

Idaho Power investigated reasonable alternatives to replace 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. This pilot program was successful and Idaho Power implemented a subsequent program to replace expulsion fuses with non-expulsion fuses in RRZs as a part of its distribution overhead primary wildfire hardening program.

8.2.2.4.5. 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 8.2.2.1 of this WMP.

8.2.2.4.6. 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" is utilized on certain distribution wood poles located in the RRZs.

8.3. 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 6
VMP summary

Vegetation Management
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
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.

8.3.1. 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—T&D clearing of lines defined on a periodic basis.

8.3.2. 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.

8.3.2.1. 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.

8.3.2.2. 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.

8.3.2.3. 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.

8.3.3. Distribution Vegetation Management

Idaho Power is actively working to clear distribution lines throughout Idaho Power's service territory on a three-year cycle.[16] Additionally, in the RRZs and YRZs, Idaho Power completes annual vegetation line inspections and mid-cycle clearing of the lines in the second year,

[16] Idaho Power will test a three-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.

is increasing the number of trees removed, and is completing 100% quality control reviews of contractor line clearing work by certified arborists.

8.3.3.1. Distribution Line Clearing Cycles

Idaho Power is actively working to clear distribution lines on a three-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.

8.3.3.2. Distribution Vegetation Inspections

In addition to regular cycle pruning activities, utility arborists are annually conducting 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, patrol personnel 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 then 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.

8.3.3.3. 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 has a target 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 three feet if the vegetation is not considered to be readily climbable because the lowest branch is greater than eight 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 six inches to the conductor. This new growth is identified during line patrols and removed.

- For conductors energized below 600 volts, vegetation is pruned to prevent the vegetation from causing unreasonable strain on electric conductors.

8.3.3.4. 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.

8.3.4. 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 in Idaho. These vegetation clearing practices have been deemed an effective method of minimizing wildfire damage to existing wood poles. Where acceptable and permissible, Idaho Power removes or clears vegetation in a 20-foot radius surrounding the wood poles and applies a 10-year weed-control ground sterilant (SpraKil SK-26 Granular). Idaho Power submitted an SF-299 application with the Oregon BLM Vale District Office to prepare an Environmental Assessment to use the same ground sterilant on transmission and distribution facilities in Oregon. The schedule provided to Idaho Power by the BLM for this work shows it to be completed by June 2022 and implemented in July 2022 pending no appeals.

9. WILDFIRE RESPONSE

9.1. Overview

Idaho Power responds to wildfires involving or impacting its facilities and/or resulting in a system outage; depending on the specific circumstances, Idaho Power may also respond to wildfires with the potential to result in an outage. Idaho Power's actions include without limitation:

- Taking appropriate steps, where safe to do so, to protect Idaho Power-owned facilities from fire damage;
- Restoring electrical service following an outages; and,
- Communicating with and informing customers.

These actions are taken on a 24-hour basis.

9.2. Response to Active Wildfires

Idaho Power field crews are trained to respond to active wildfires to monitor the situation regarding Idaho Power's facilities. Although they carry certain fire suppression equipment for use on very small fires in limited situations, Idaho Power's crews are not professionally trained firefighters and are instructed not to place themselves in a hazardous position when responding to wildfires. When responding to an active wildfire, Idaho Power personnel immediately report to, and take appropriate direction from, the Incident Commander (IC) or other fire response entity official with jurisdiction over the incident.

9.3. 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 restoration requirements (number of crews, crew sizes, and necessary materials).

9.4. Restoration of Electrical Service

Idaho Power personnel restore electrical service when it is safe to do so following a wildfire. 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 on 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, Idaho Power developed a *Transmission Emergency Response Plan*. This plan includes restoration processes related 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.

9.4.1. Mutual Assistance

Idaho Power is a member of the Western Region Mutual Assistance Agreement (WRMAA), of which the majority of western United States electric utilities are also members. Member utilities provide emergency repair and restoration assistance to other member utilities requesting assistance when dealing with damaged electric facilities following a significant wildfire or weather event. In the event of a catastrophic wildfire that causes widespread damage to Idaho Power's system, Idaho Power may request restoration assistance via the WRMAA as a last resort option after utilizing available internal personnel and contracted entities.

9.5. 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, including wildfires, that have wide-ranging impacts on Idaho Power's service areas. Internal and external communications precipitated by a wildfire will be performed in accordance with this emergency response plan, which is reviewed and updated annually.

10. COMMUNICATING THE PLAN

10.1. Objective

Idaho Power communicates about this WMP internally to employees and externally to the public. The company provides related fact sheets and maps depicting areas of elevated wildfire risk as well as online resources (some of which are continuing to be developed) aimed at:

- Demonstrating Idaho Power's focus on system integrity and reliability and potential impacts on the public
- Demonstrating Idaho Power is proactively, reasonably, and responsibly addressing wildfire risk, including meeting requirements of its state regulators
- Furthering Idaho Power's collaboration and information sharing with federal, state, and local government and agencies
- Keeping Idaho Power customers informed
- Informing and guiding Idaho Power employee and contractor

10.2. Idaho Power External Communications

10.2.1. Community Engagement

Idaho Power presents and distributes information regarding its WMP to a wide variety of stakeholders including without limitation the BLM, U.S. Forest Service, and county and city officials.

Idaho Power engages with various Public Safety Partners, including local governments, emergency response management and Idaho's and Oregon's ESF-12 and social service and welfare agencies (e.g., Oregon's Department of Human Services). These engagements focus on wildfire awareness, prevention and outage preparedness outreach and opportunities for collaboration. For example, the company worked collaboratively with the Boise City Fire Department in developing certain portions of the Boise City Fire Code–043019. Idaho Power may also include tabletop exercises with Public Safety Partners prior to wildfire season, designed to mimic fire emergency events, including PSPS events, to assist with wildfire preparedness.

10.2.2. Idaho Power Customers

Safety is Idaho Power's most important value. Attention to the detail of safe operations permeates our workplace culture 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 distributes information regarding its WMP to its customers via the following tools:

- Fact sheets
- Mass media articles/videos
- Community and/or individual presentations/discussions
- Social media
- Idaho Power online website
- Customer email/mailings
- Public education campaigns

10.2.2.1 Prior to Wildfire Season

Idaho Power communicates 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.

Each fire season Idaho Power conducts wildfire awareness, prevention, and outage preparedness outreach to customers. Outreach content may include the following: wildfire prevention tips, Idaho Power fire mitigation efforts, PSPS considerations, emergency and outage preparedness tips and checklists, where to find outage information and Idaho Power's WMP or PSPS Plans, and recommendations to sign up for alerts and update contact information.
Annually, Idaho Power will hold at least one public meeting in Oregon and Idaho, offering a virtual meeting with additional access and functionality options. Feedback opportunities are also provided during and after the meetings.

Idaho Power also monitors long-term weather forecasts and fuel conditions and communicates to customers and the public the company's wildfire outlook using a combination of some or all of the following communication mediums:

- Idaho Power's website
- *Connections* (a monthly newsletter Idaho Power includes in customer electric bills to keep customers informed about topics such as affordable, reliable and clean energy, the company's efforts to protect the environment including wildfire mitigation, energy efficiency programs and customer options for doing business with Idaho Power.)
- 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.)

10.2.2.2 During Wildfire Season

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

- Idaho Power's website (The company's website provides wildfire safety information, such as videos, safety tips, and the latest version of the WMP.)
- 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. Communication likely would contain up-to-date information from organizations like National Interagency Fire Center, USFS, and/or BLM.)
- News media
- Phone calls and text messages to customers

10.2.2.3 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

10.3. Idaho Power Internal Communications—Employees

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

- *News Scans* for all employees
- Emails
- 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

11. PERFORMANCE MONITORING AND METRICS

11.1. 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.

11.2. Internal Audit

Idaho Power's internal audit department, Audit Services, will periodically conduct an independent and objective evaluation of the WMP to assess compliance with policies and procedures and evaluate achievement of the Plan's objectives. Idaho Power's Compliance department will also periodically review Idaho Power's compliance with federal reliability standards regarding vegetation management practices.

11.3. Annual Review

Idaho Power will conduct an annual review of its WMP and incorporate necessary updates prior to wildfire season.

11.4. 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. Considering the national census was conducted in 2020, Idaho Power is working with its external consultant to update the Wildfire Risk Map, which the company will continue to update periodically based on similar factors and other changing circumstances.

11.5. Situational Awareness

Idaho Power will share its FPI regularly and broadly with Idaho Power personnel and contractors during wildfire season to ensure condition-specific operating requirements are met.

11.6. 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 RRZs and YRZs during a red FPI. Specific requirements are found in Idaho Power's *Field Personnel Practices* which is consulted by such crews working in these areas.

11.7. 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
- Use of PSPS as a tool of last resort to prevent Idaho Power T&D facilities from becoming a wildfire ignition source or contributing to the spread of wildfires

11.8. 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 7
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

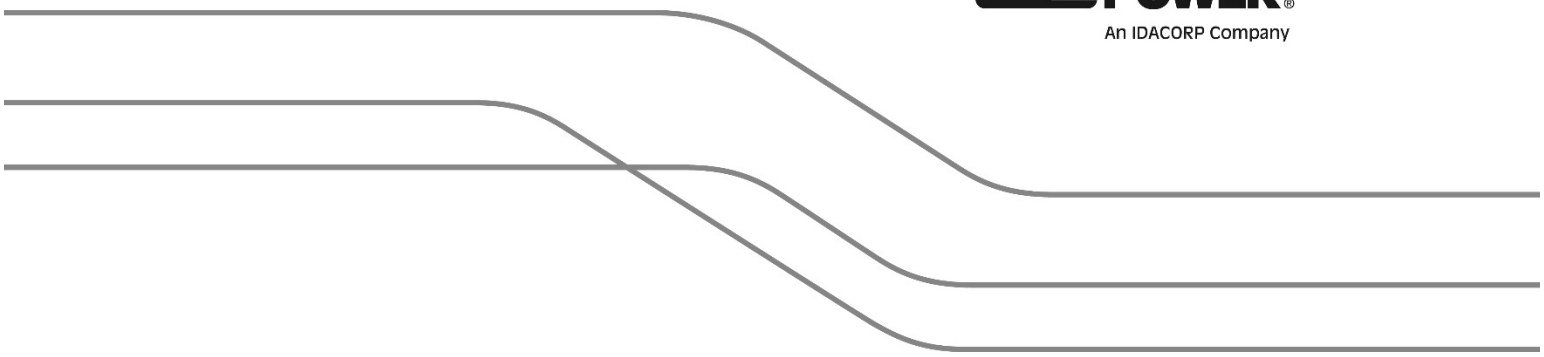
Replace "small conductor" with new 4acsr or larger conductor	
Replace or repair damaged conductor	
Re-tension loose conductors including "flying taps" and slack spans as required	
Replace wood-stubbed poles with new wood poles	
Replace white and yellow square tagged poles with new wood poles Replace 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	Description
Pre-Fire Season Inspection and Mitigation	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 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 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 Science department has developed an 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

During wildfire season, Idaho Power will determine a daily FPI as described in Section 5 of the WMP. This weather forecast and FPI dashboard is contained within IPC geographic information system (GIS) viewers available to all IPC employees.

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:

<u>Planned or Scheduled Work Activities</u>:

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 6 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 6 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 6 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 6 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)	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 3.2.2)
    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 Workday system. 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 Workday.

7. Roles and Responsibilities

Employee	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	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): 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)	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: a) Authorize any exceptions to working when FPI is “Red” and the WRZ is Red. b) Ensure specified audits are timely completed.
Meteorology Department	1. Provide daily weather forecast and update the FPI dashboard contained within the IPC Enviro Viewer.
Environmental Services Department	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	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)	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

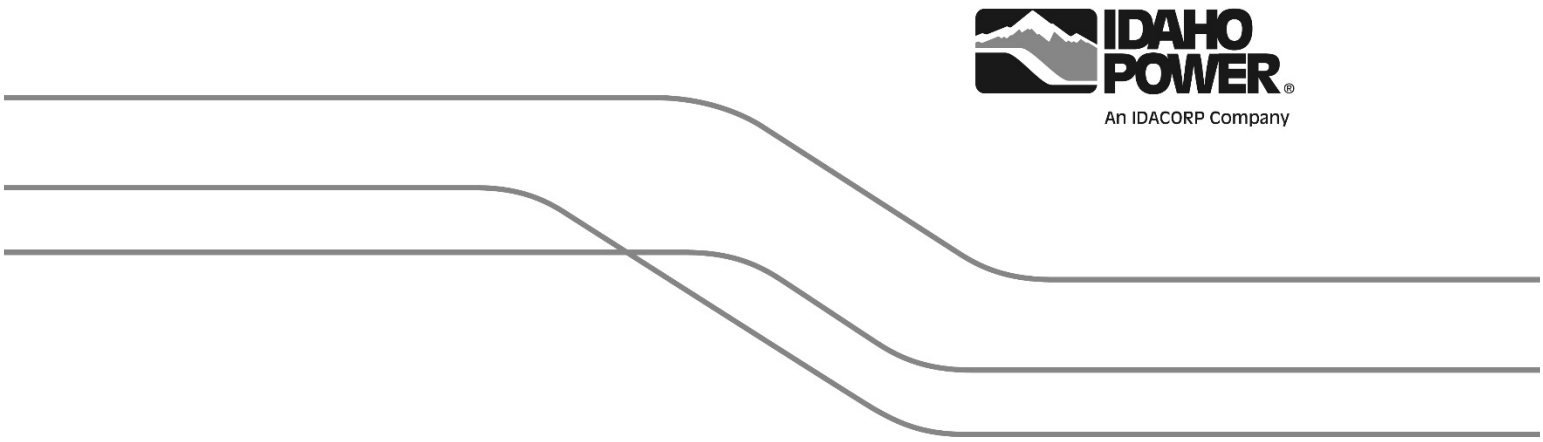
Individual Truck:

- 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

Appendix B
The Public Safety Power Shutoff (PSPS) Plan.



Idaho Power Company's Wildfire Public Safety Power Shutoff Plan

December 2021

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1. INTRODUCTION

Wildfires in the Pacific west have increased in their intensity in recent years. In an effort to keep Idaho Power's customers and the communities it serves safe and continue improving the resiliency of Idaho Power's transmission and distribution facilities, Idaho Power implemented a Wildfire Mitigation Plan in 2021, focused on situational awareness, field personnel safety practices and operational wildfire mitigation strategies to prevent the accidental ignition of wildfires. As part of its operational mitigation practices, Idaho Power has developed this Public Safety Power Shutoff Plan (PSPS Plan or Plan) to proactively de-energize electrical facilities in identified areas of extreme wildfire risk to reduce the potential of those electrical facilities becoming a wildfire ignition source or contributing to the spread of wildfires. This Plan identifies the relevant considerations, process flow and implementation protocol before, during and after a PSPS event. The Plan will be active during wildfire season and reviewed annually and updated as necessary prior to the start of the next wildfire season.

This Plan identifies PSPS implementation considerations and responsibilities for different Idaho Power departments before, during and after PSPS events. Table 2 describes the different phases Idaho Power will use during PSPS events and Figure 7 depicts the communication audiences and timeline Idaho Power will ideally follow during an event. Finally, this Plan describes activities Idaho Power will undertake to prepare and improve the Plan over time, including interactions with local emergency agencies, and briefly describes the financial administration of the Plan.

2. LIST OF ACRONYMS

AAR—After Action Review

BLM—Bureau of Land Management

COO—Chief Operations Officer

ECMWF—European Centre for Medium-Range Forecasts

EMT—Emergency Management Team

ERC—Energy Release Component

F100—100-Hour Fuel Moisture

FPI—Wildfire Mitigation Plan Fire Potential Index

FWW—Fire Weather Watch

GBCC—Great Basin Coordination Center

GIS—Geographic Information System

IPUC—Idaho Public Utility Commission

IRWIN—Integrated Reporting of Wildland-Fire Information

LSO—Load Serving Operations

NIFC—National Interagency Fire Center

NOAA—National Oceanic and Atmospheric Administration

NWS—National Weather Service

OPUC—Oregon Public Utility Commission

PEC—Planning, Engineering and Construction

PSPS—Public Safety Power Shutoff

RFW—National Weather Service issued Red Flag Warning

SGM—Smart Grid Meter

SME—Subject Matter Expert

T&D—Transmission & Distribution

TDER—Transmission & Distribution Engineering and Reliability

UKMET—United Kingdom Meteorological Office

WMP—Wildfire Mitigation Plan

WRF—Weather Research and Forecasting

3. DEFINITIONS

(1) Critical Facilities—Refers to the facilities identified by Idaho Power that, because of their function or importance, have the potential to threaten life safety or disrupt essential socioeconomic activities if their services are interrupted.

(2) ESF-12—Refers to Emergency Support Function-12 and is the Idaho Power Company liaison from the State Office of Emergency Management for energy utilities issues during an emergency for both Idaho and Oregon.[1]

(3) Exercise—Refers to planned activities and assessments that ensure continuity of operations, provide and direct resources and capabilities and gather lessons-learned to develop core capabilities needed to respond to incidents.

(4) Community—Refers to a group of people that share goals, values and institutions.[2]

(5) Local Emergency Manager—Refers to a jurisdiction's role that oversees the day-to-day emergency management programs and activities.[3]

(6) Public Safety Partners—As defined by Idaho Power refers to ESF-12, Local Emergency Management and Idaho's and Oregon's Department of Human Services (or equivalent).

(7) Public Safety Power Shutoff or PSPS—A proactive de-energization of a portion of an Electric Utility's electrical network, based on the forecasting of and measurement of extreme wildfire weather conditions.

[1] Federal Emergency Management Institute (FEMA) National Response Framework (NRF) Emergency Support Functions (ESF) National Response Framework | FEMA.gov.

[2] FEMA definition under "Communities" (pg. 26) National Response Framework (fema.gov).

[3] FEMA definition under "Local Government" (pg. 29) National Response Framework (fema.gov).

4. PUBLIC SAFETY POWER SHUTOFF OVERVIEW

In recent years, the western United States (U.S.) has experienced an increase in the 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 areas, historical land management practices and changes in wildland and forest health. Recent events in western states have increased awareness of electric utilities' role in wildfire prevention and mitigation.

In an effort to keep Idaho Power's customers and the communities it serves safe and continue improving the resiliency of Idaho Power's transmission and distribution (T&D) facilities, Idaho Power implemented a Wildfire Mitigation Plan (WMP) in 2021 focused on situational awareness, field personnel safety practices and operational wildfire mitigation strategies. As part of its operational mitigation practices, Idaho Power developed this Wildfire Public Safety Power Shutoff Plan (PSPS Plan or Plan) to proactively de-energize electrical facilities in identified areas of extreme wildfire risk to reduce the potential of those electrical facilities becoming a wildfire ignition source or contributing to the spread of wildfires. Based on the inherently disruptive nature of power outages, Public Safety Power Shutoff (PSPS) events must be carefully evaluated under this Plan to balance wildfire risk with potential PSPS impacts on Idaho Power customers and the communities it serves.

The unpredictable nature of wildfire and weather patterns create significant challenges with forecasting PSPS events. Real-time evaluations and decision-making are therefore critical in making PSPS determinations and, depending on the associated wildfire risk, those determinations may result in proactive de-energization in areas not originally anticipated.

5. SCOPE

This PSPS Plan identifies the relevant considerations, process flow and implementation protocol before, during and after a PSPS event. The Plan will be active during wildfire season and reviewed and updated annually as necessary prior to the start of the next wildfire season. Wildfire season (also known as "closed season") is defined by Idaho Code § 38-115 as extending from May 10 through October 20 each year, or as otherwise extended by the Director of the Idaho Bureau of Land Management (BLM). Oregon's wildfire season generally aligns with Idaho's wildfire season and is designated by the State Forester each year pursuant to Oregon Revised Statute 477.505.

6. KEY TENETS

- Advancing the safety of Idaho Power employees, customers and the general public
- Collaborating with key external stakeholders (agencies, counties, local governments, public safety partners, first responders)

- Minimizing both potential wildfire risk and power outage impacts on communities and customers
- Maintaining reliable electric service

7. WILDFIRE ZONES

Idaho Power's WMP identifies areas of heightened wildfire risk within its service territory reflected by the following risk zones:

- Tier 2 Yellow Risk Zones are deemed increased risk areas.
- Tier 3 Red Risk Zones are deemed higher risk areas.

In its WMP, Idaho Power identifies operational practices specific to these zones of heightened wildfire risk for purposes of (1) reducing potential wildfire risk associated with Idaho Power's T&D facilities and field operations, and (2) improving the resiliency of the Idaho Power's T&D system impacted by wildfire. This PSPS Plan sets forth Idaho Power's PSPS evaluation criteria and processes, including operational and communication protocol, for implementing a PSPS.

8. PSPS IMPLEMENTATION CONSIDERATIONS

Idaho Power will initiate a PSPS if the company determines a combination of critical conditions indicate the T&D system at certain locations is at an extreme risk of being an ignition source and wildfire conditions are severe enough for the rapid growth and spread of wildfire. Idaho Power will evaluate as a whole (not relying on one single factor but a combination of all factors), without limitation, the criteria set forth in 9.1–9.17 below.

8.1. Fire Potential Index

In addition to the Risk Zone designations in its WMP, Idaho Power developed a Fire Potential Index (FPI) to forecast wildfire potential across Idaho Power's service area. The FPI converts data on weather; prevalence of fuel (shrubs, trees, grasses); and topography into a numerical FPI score to forecast the short-term wildfire threat in geographical areas throughout Idaho Power's service area. FPI scores range 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). FPI scores are grouped into the following 3 index levels:

1) Green—lower fire potential: FPI score of 1 through 11
2) Yellow—elevated fire potential: FPI score of 12 through 14
3) Red—highest fire potential: FPI score of 15 and 16

The FPI supports operational decision-making to reduce potential wildfire risk. During wildfire season, Idaho Power will determine a daily FPI as described in Section 5.2 of the WMP. The FPI

forecast is broken into four 6-hour time periods throughout each seven-day forecast. FPI information is provided via email, certain Geographic Information System (GIS) viewers and an FPI dashboard accessible to both Idaho Power employees and contractors from Idaho Power's website. The WMP details operational mitigation efforts in Red Risk Zones when the FPI score in that Red Risk Zone is also Red, including stopping planned work and changing distribution protection operations. A Red FPI score will be a consideration in Idaho Power's determination of whether to initiate a PSPS.

8.2. National Weather Service Red Flag Warning

A Red Flag Warning (RFW) is a forecast warning issued by the National Weather Service (NWS) to inform the public, firefighters and land management agencies that conditions are ideal for wildland fire combustion and rapid spread. RFWs are often preceded by a Fire Weather Watch (FWW), which indicates weather conditions that could occur in the next 12–72 hours. The NWS has developed different zones across the nation for providing weather alerts (such as RFWs) to more discrete areas. These zones are shown on this NWS webpage: Fire Weather. RFWs for Idaho Power's service territory include Idaho Zones (IDZ) 401, 402, 403, 413, 420 and 422; and Oregon Zones (OR) 636, 637, 642, 634, 644, 645 and 646; and are monitored and are factored into Idaho Power's determination of whether to initiate a PSPS. Boise and Pocatello NWS offices will not issue RFWs if fuels are moist and fire risk is low. The following thresholds are used by most NWS offices:

- Daytime:
    - Relative humidity of 25% or less
    - Sustained winds greater than or equal to 10 miles per hour (mph) with gusts greater than or equal to 20 mph over a four-hour time period
- Nighttime:
    - Relative humidity of 35% or less
    - Sustained winds greater than or equal to 15 mph with gusts greater than or equal to 25 mph over a three-hour time period
- Lightning:
    - The NWS rarely issues RFWs for lightning in the western United States. For this to occur, the Lightning Activity Level—a measure of lightning potential specifically as it relates to wildfire risk—needs to be at 3 or higher.

8.3. NWS Fire Weather Forecasts

The NWS provides detailed forecasts for the different weather zones with an emphasis on fire weather indicators (wind speed, relative humidity, lightning potential). A discussion

summarizing the weather patterns and highlighting fire threats is included in their extended forecast.

8.4. Publicly Available Weather Models

Idaho Power's Atmospheric Science department uses the following weather models to predict weather timing, duration and intensity:

- Pivotal Weather Link (pivotalweather.com/model.php): Provides numerical weather data, including a NWS blend of models, European Centre for Medium-Range Weather Forecasts (ECMWF), United Kingdom Meteorological Office weather service information and GOES-16 satellite information.

- Graphical Weather Link (graphical.weather.gov/sectors/conusFireWeek.php): A NWS website providing weather, water and climate data, forecasts and warnings for the United States for the protection of life and property. The Fire Weather page provides a daily and weekly view of multiple weather and environmental conditions influencing wildfire activity.

8.5. Idaho Power Weather Model

Idaho Power maintains its own Weather Research and Forecasting (WRF) model using high-resolution data from Idaho Power's weather stations across its service area. This model, along with publicly available weather models, helps develop weather forecasts that include timing, duration and intensity of weather systems. An Idaho regional WRF low-resolution map view is available to the public at atmo.boisestate.edu/view/.

8.6. Storm Prediction Center Fire Weather Outlooks

The Storm Prediction Center's Fire Weather Outlook provides a current, one-day-ahead and three- to eight-day forecast for wildfires over the contiguous United States. This forecast takes into account pre-existing fuel conditions combined with predicted weather conditions that result in a significant risk of wildfire ignition or spread.

8.7. Current Weather Observations

Identifying real-time wildfire weather and associated risks requires predicting conditions that could trigger a PSPS based on observing current weather conditions. Resources available for observing current weather conditions include direct, real-time data from Idaho Power's network of weather stations, available real-time wind speed information from Idaho Power's network of Smart Grid Meters (SGM), as well as Windy: Wind Map and Weather Forecast and the National Weather Service National Oceanic and Atmospheric Administration's (NOAA) Weather and Hazards Viewer.

8.8. National Significant Wildland Fire Potential Forecast Outlook

The National Significant Wildland Fire Potential Forecast Outlook provides wildland fire expectations for the current month, the following month and a seasonal look at the two months beyond that. The main objective of this tool is to provide information to fire management decisionmakers for proactive wildland fire management, reducing firefighting costs and improving firefighting efficiency.

8.9. Great Basin Coordination Center Morning Briefing

The Great Basin Coordination Center (GBCC) is the focal point for coordinating the mobilization of resources for wildland fire and other incidents throughout the Great Basin Geographic Area, which encompasses Utah, Nevada, Idaho south of the Salmon River, the western Wyoming mountains and the Arizona Strip. The GBCC hosts a morning briefing (around 10 a.m. most mornings) that provides situational awareness for Idaho Power's service area.

8.10. GBCC Current and Predicted ERC and F100

The GBCC as described above also provides day-ahead Energy Release Component (ERC), 100-Hour Fuel Moisture (F100) and other fuels conditions information that helps Idaho Power understand wildfire potential in the service area.

8.11. Agency Input

Idaho Power works with Boise NWS Fire Forecasters through daily briefings and NIFC Predictive Service Forecasters on an as-needed basis, generally regarding data clarification, to streamline the transfer of data, information and communications about wildland fire critical to Idaho Power's service area.

Idaho Power works with other agencies, including the U.S. BLM and U.S. Forest Service, as wildland fires approach and impact Idaho Power T&D facilities.

8.12. De-Energization Windspeed Considerations

Idaho Power’s service area covers 24,000 square miles across southern Idaho and eastern Oregon. The environmental factors across this area vary drastically from high desert landscape to mountainous terrain. Weather and environmental conditions also vary greatly within this area. Regional vegetation becomes “conditioned” to withstand different environmental conditions, which also influences de-energization thresholds. Idaho Power developed windspeed considerations, which it will continue to refine with additional data and weather technology based on historic wind conditions compared to system outage information.

8.13. Engineering Assessment

Idaho Power follows robust transmission and distribution maintenance and inspection practices. When a potential PSPS event is identified, Idaho Power's T&D Maintenance and Engineering department will evaluate potential impacts to current or planned maintenance activities.

8.14. Alternative Protective Measures

Considering the significant potential impact of a PSPS to customers, Idaho Power will thoroughly evaluate other potential alternatives for reducing wildfire risk prior to implementing a PSPS.

8.15. Real-time Field Observations

Idaho Power uses SGMs for various purposes on its the distribution systems, including communication (where available) to provide near real-time information and to detect wind speed with anemometers. This information is displayed on a GIS viewer and used to inform Idaho Power's evaluation and decision-making during storm events.

Idaho Power may also deploy field personnel to evaluate if a PSPS event should be initiated.

8.16. Other

Idaho Power plans to evaluate expanding existing capabilities to enhance weather forecasting and add new capabilities to detect fires.

9. RESPONSIBILITIES

Developing and implementing PSPS protocol involves various groups throughout the company. Below is a non-exhaustive list of responsibilities by department, representatives of which will work together to promote organized, consistent and safe implementation of PSPS events.

9.1. Load Serving Operations

- Develop and implement safe and reliable power shutoff protocols and procedures
- Ensure System and Regional Dispatch employees are appropriately trained to perform relevant responsibilities under this PSPS Plan, and that such employees receive timely information regarding wildfire risk and weather conditions for purposes of performing those responsibilities in the event of a PSPS
- Assist with PSPS evaluation and decision-making

- Safely restore service to PSPS areas when notified by Customer Operations it is safe to re-energize
- Provide required notifications to public safety partners to enhance public safety
- Participate in After-Action Reviews (AAR) (further discussed in Section 13 below) and ensure modifications to PSPS protocol are implemented as necessary

9.2. Atmospheric Science

- Monitor daily, weekly and long-term weather forecasts
- Monitor fuels conditions and trends
- Monitor Fire Weather Watches, Red Flag Warnings and High Wind Watches and Warnings
- Communicate with external agencies for increased situational and conditional awareness. Increase communications as conditions require
- Communicate internally to Idaho Power's Transmission & Distribution Engineering and Reliability (TDER) senior manager when extreme conditions indicate a PSPS event is likely
- Support PSPS activities such as planning, training and exercises
- Assist in PSPS information-gathering, evaluation and decision-making
- Participate in AARs and ensure modifications to PSPS protocol are implemented as necessary

9.3. TDER Senior Manager

- Oversee wildfire mitigation program and support cross-departmental collaboration
- Monitor daily, weekly and long-term weather and wildfire forecasts
- Monitor Fire Weather Watches, Red Flag Warnings and High Wind Watches and Warnings
- Develop and lead training modules for PSPS implementation
- Activate the PSPS Assessment Team if a PSPS is likely
- Communicate with Oregon and Idaho ESF-12

- Ensure PSPS activities such as operations planning, training and exercises occur annually
- Ensure a coordinated and cohesive external and internal communication and notification plan is in place and reviewed annually
- Coordinate with Atmospheric Science to continue evaluating enhancements to situational awareness capabilities
- Participate in AARs and provide input on, and monitor as necessary, modifications to PSPS protocol

9.4. Customer Operations and T&D Construction

- Develop and implement safe and reliable power shutoff protocols and procedures
- Ensure field personnel are appropriately trained to perform all relevant responsibilities under this PSPS Plan
- Assist in PSPS information-gathering, evaluation and decision-making
- Ensure crews and equipment are available to support PSPS events
- Perform field observations, line patrols and other PSPS tasks as necessary
- Perform required repairs to safely re-energize the system after a PSPS event
- Request/obtain air patrol contractors for line inspections as required
- Participate, with assistance from Corporate Communications, in Idaho Power's general external education campaign
- Develop, with assistance from Corporate Communications, a cohesive notification framework with public safety partners while consistently evaluating ways to increase communication and outreach effectiveness
- Engage with public safety partners and critical facilities before, during and after a PSPS event
- Participate in AARs and ensure modifications to PSPS protocol are implemented as necessary

9.5. Supply Chain/Stores

- Ensure preparedness for wildfire season with materials readily available for restoration purposes

- Work with Customer Operations and T&D Construction in response to a PSPS event, which could include pre-event activities such as staging materials and supplies
- Participate in AARs and ensure modifications to PSPS protocol are implemented as necessary

9.6. Fleet/Equipment Resource Pool

- Ensure employees are appropriately trained to perform all relevant responsibilities under this PSPS Plan
- Ensure readiness of employees and resource pool equipment for a PSPS event
- Participate in AARs and ensure modifications to PSPS protocol are implemented as necessary

9.7. Supply Chain Contracting

- Ensure contract resources are appropriately trained to perform all relevant responsibilities under this PSPS Plan
- Work with Customer Operations to provide contracting resources as required
- Participate in AARs and ensure modifications to PSPS protocol are implemented as necessary

9.8. Substation Operations

- Monitor substations and perform actions to support PSPS operations
- Coordinate activities with Dispatch and Customer Operations
- Participate in AARs and ensure modifications to PSPS protocol are implemented as necessary

9.9. Corporate Communications

Corporate Communications will develop and execute PSPS communications to Idaho Power customers and employees and support other business units in their communication efforts with regulators, critical facility operators, public safety partners and other stakeholders.

Corporate Communications will:

- In coordination with Customer Operations and Regulatory Affairs, work with public safety partners, critical facilities, regulators and other stakeholders to develop a comprehensive, coordinated and cohesive customer notification framework.
- With input from public safety partners, develop and implement a wildfire education and awareness campaign focused on wildfire prevention and mitigation, PSPS awareness and outage preparedness for customers.
- In the event of a PSPS:
    - To the extent possible and in coordination with Customer Service and IT, notify customers before, during and after a PSPS event with the following information:
        - Expected timing and duration of the PSPS event
        - 24-hour contact information and website resources
    - Provide up-to-date information on a dedicated Idaho Power PSPS webpage prominently linked on the Idaho Power homepage.
    - Distribute information via media and social media channels.
- Participate in AARs and modify communication practices as necessary.

9.10. Distribution Engineering and Reliability

- Support Dispatch and Customer Operations in developing de-energization and re-energization plans for PSPS events
- Monitor and verify the protection system operated correctly after any device operations caused by events on the circuit as appropriate
- Evaluate and enact protective device setting changes as required.
- Support rapid repairs of damaged infrastructure as needed.
- Support Load Serving Operations in planning improvements to PSPS operational capabilities
- Participate in AARs and ensure modifications to PSPS protocol are implemented as necessary

9.11. Safety

- Ensure the safety professionals are appropriately trained to perform all relevant responsibilities under this PSPS Plan
- Provide PSPS training for field personnel
- Assist in AARs after a PSPS event (or potential event in which the PSPS Team is activated)

9.12. Vegetation Management

- Following de-energization, and when it is safe to do so, Customer Operations will report impacts to infrastructure and assets from vegetation, as appropriate. Vegetation Management will then work toward removing vegetation debris necessary for re-energization.
- Ensure contractors and field personnel are appropriately trained to perform all relevant responsibilities under this PSPS Plan.
- Use reasonable efforts to ensure contract resources are available and prepared for PSPS events.
- Participate in AARs and ensure modifications to PSPS protocol are implemented as necessary.

9.13. Geographic Information Systems

- Work with Customer Operations and Corporate Communications to develop PSPS boundary information for PSPS GIS maps required for the PSPS website
- Before wildfire season and during preliminary notifications of a potential PSPS event, provide relevant GIS data within the confines of applicable law to public safety partners

9.14. Customer Service

- Respond to customer calls and respond to questions with information provided by Corporate Communications
- Ensure customer service representatives are trained to manage customer interactions during a PSPS event

9.15. Communication Systems (Stations)

- Provide monitoring and on-call presence for the following:
  - Radio communications and infrastructure
  - Network infrastructure and connectivity
  - SCADA communications
- Ensure readiness to deploy mobile 2-way radio trailer during a PSPS event
- Participate in AARs and ensure modifications to PSPS protocol are implemented as necessary

9.16. Customer Operations Support

- May lead AARs to ensure modifications to PSPS protocol are implemented as necessary

9.17. Legal

- Provide legal guidance in evaluating a potential PSPS event
- May direct AARs after a PSPS event (or potential event in which the PSPS Team is activated)
- May be involved in reviewing communications to customers, public safety partners and critical facilities

9.18. Regulatory

- May provide regulatory guidance in evaluating a potential PSPS event
- May be involved in reviewing communications to customers, public safety partners and critical facilities
- Assist in/direct regulatory reporting/filing activities

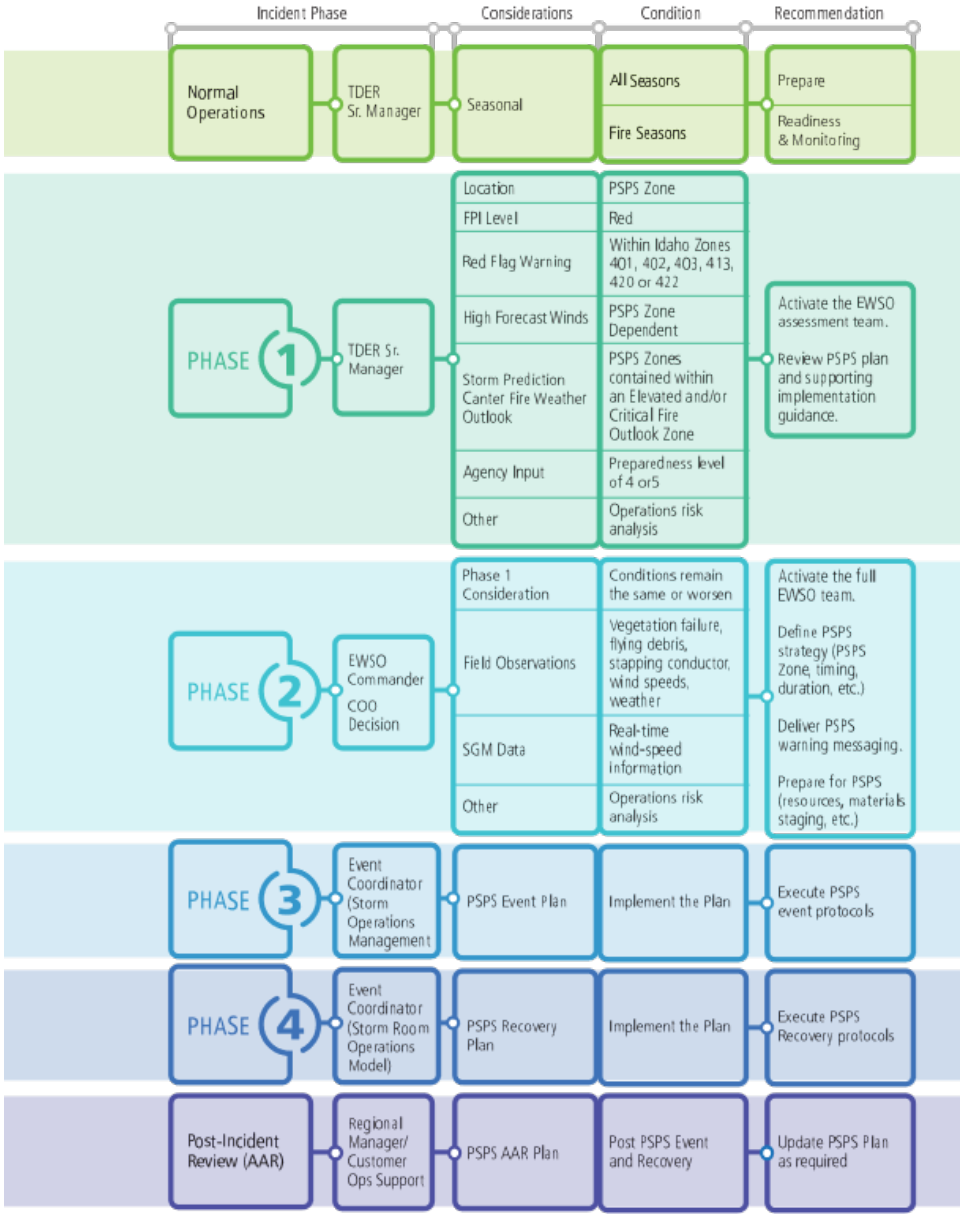
10. PSPS OPERATIONS

10.1. General

Section 11 details the phases, and protocol within each phase, of a PSPS event. Additional procedures are found in plans linked below and the attached Appendices as referenced herein.

Table 2 below summarizes the PSPS phases.

Table 1
Incident phase decision triggers



10.2. PSPS Preparedness

PSPS preparedness is a cyclical effort involving Idaho Power, public safety partners, state and local governments, communities and customers. Idaho Power's main objectives of preparedness are: 1) performing wildfire prevention and mitigation activities; and 2) engaging with external public safety partners, critical facilities and communities to develop relationships and provide education to safely and effectively implement this plan. The TDER senior manager coordinates and facilitates activities of multiple Idaho Power business units for wildfire prevention and mitigation activities while Customer Operations and Corporate Communications facilitates public outreach and coordination efforts with external stakeholders.

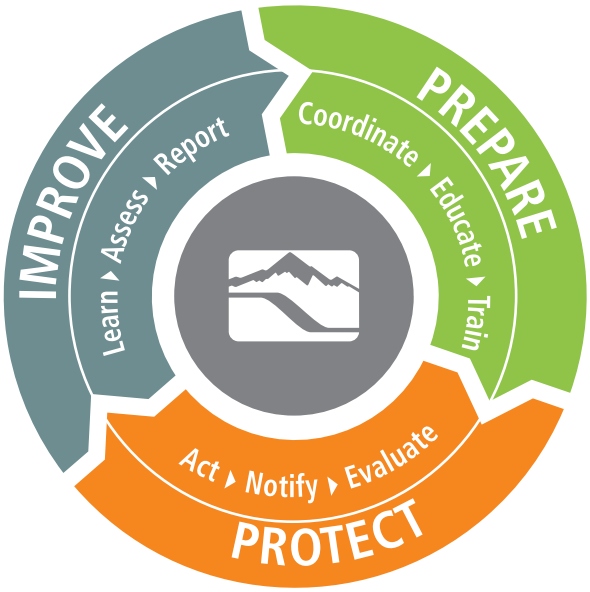


Figure 1
PSPS Preparedness Cycle

Idaho Power's goal is to take a community approach to wildfire preparedness by educating and encouraging individual preparedness and relying on existing protocols and procedures currently available through local governments and emergency response professionals.

10.2.1. Idaho Power Programs

Idaho Power's WMP facilitates PSPS preparedness through vegetation management protocol specific to wildfire season, distribution and transmission hardening efforts, situational awareness coinciding with wildfire operational protocol, training programs, communications strategies and coordinated planning with both internal and external stakeholders. This PSPS Plan and emergency response protocol correspond with Idaho Power's WMP preparedness measures in an effort to further reduce wildfire risk consistent with industry best practices and regulatory requirements.

10.2.2. Coordination with Government Entities

Coordination with local government and emergency response entities is critical to Idaho Power's reliance on existing protocols and procedures developed by these external stakeholders. Customer Operations engages in these coordination efforts through ongoing communications and additional activities as required by this Plan. Activities include, without limitation:

- Being a trusted energy advisor to mayors, city managers, county leaders, elected officials and other stakeholders
- Educating and encouraging individual preparedness
- Educating stakeholders about Idaho Power wildfire preparedness and mitigation efforts, PSPS planning and capabilities
- Enhancing relationships with external stakeholders for improving interoperability and wildfire coordination
- Enhancing relationships with community services partnerships

10.2.3. Community Preparedness

Engage with public sector agencies and communities where PSPS events are likely to leverage existing emergency response plans and resources to increase the effectiveness of PSPS communications.

10.2.4. Information Sharing

Coordinate with public safety partners in advance of a PSPS event to prepare information needed by these partners and establish communication protocols for critical decision-making before and during a PSPS event, including restoration activities.

10.2.5. Notifications and Emergency Alerts

Collaborate with agencies in advance of PSPS events to allow for use of existing notification methods to communicate effectively during PSPS events.

10.2.6. Training and Exercises

Coordinate and participate in tabletop exercises with public safety partners to enhance knowledge of each other's emergency operations for smooth interactions during PSPS events.

10.3. Proactive Communications

Although the size of Idaho Power's service area, geographic and environmental diversity, and unpredictable nature of Idaho and Oregon weather make it challenging, Idaho Power is committed to providing as much advance notice as reasonably possible in preparation for a PSPS event. Table 3 provides Idaho Power's optimal communication timeline for PSPS events, circumstances permitting.

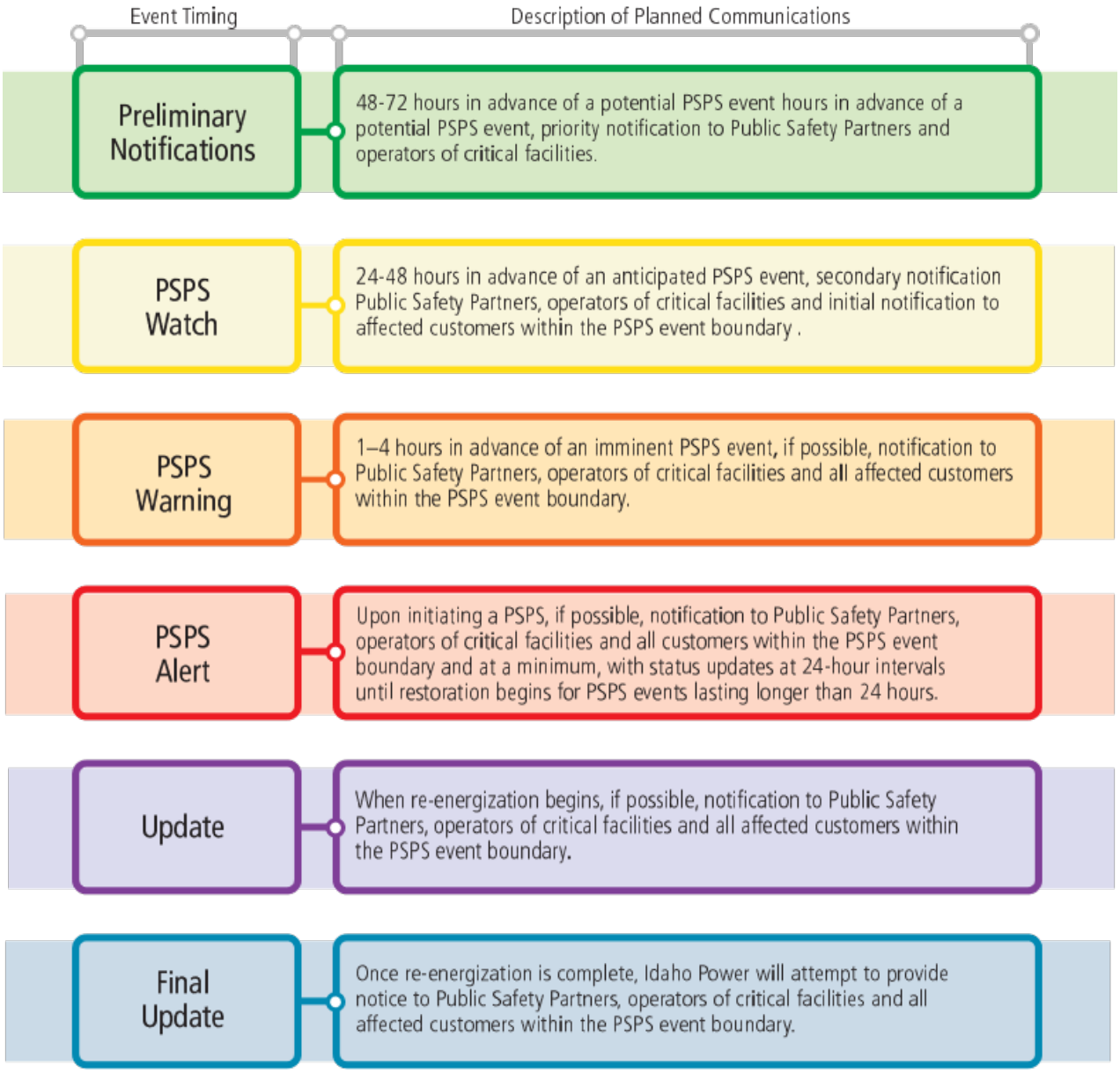


Figure 2
PSPS Event Communication Timeline

10.4. Wildfire Season Operations

As described here and in Idaho Power's WMP, normal operations during wildfire season differs from normal operations during the rest of the year based on heightened requirements specifically targeted at predicting and reducing wildfire risk.

10.4.1. Situational Awareness Activities

During wildfire season, Idaho Power closely monitors fire conditions and weather patterns. Idaho Power's Atmospheric Science team prepares a monthly "Seasonal Wildfire Outlook" report beginning in April and continuing through wildfire season containing information on regional drought conditions obtained from the National Drought Monitor, weather and climate outlook, seasonal precipitation and temperature outlooks from NOAA and the NWS, and a regional wildfire outlook.

During wildfire season, the Atmospheric Scientists will determine a daily FPI as described in Section 5.2 of the WMP describing shorter-term weather and fire conditions specific to WMP risk zones across Idaho Power's service territory and in identified risk zones where transmission facilities extend beyond service territory boundaries.

10.4.2. GIS Wildfire Information

Idaho Power's GIS team pulls regional wildfire information from a feature layer sourced by the GIS mapping software company ESRI, which pulls the data from the Integrated Reporting of Wildland-Fire Information (IRWIN) and the National Interagency Fire Center (NIFC). This information is added to multiple GIS viewers utilized by Idaho Power employees. These viewers also overlay current wildfire information to geospatially show physical relationships to transmission and distribution lines which provides valuable situational awareness in understanding wildfire activity near Idaho Power's T&D systems. This information is updated near real-time.

10.4.3. Key Grid Interdependent Utilities and Agencies

Idaho Power exchanges dispatch information with key grid interdependent utilities and energy providers to expedite communication and coordination during wildfire events. These contacts include Avista, Bonneville Power Administration, Northwestern Energy, NVEnergy, Oregon Trail Electric Cooperative, PacifiCorp, Raft River Electric, Seattle City Light and U.S. Bureau of Reclamation. Idaho Power also exchanges dispatch information with NIFC, BLM Fire Dispatch and various National Forest Service District Offices—including Idaho Power dispatch receiving BLM and US Forest Service incident command information during wildfire events—to improve communication and coordinate fire-related activities.

10.5. Phase 1

The decision to implement a PSPS event will be based on the best available data for weather and other fire-related conditions as detailed above in Section 8—PSPS Implementation Considerations. Multiple events may require simultaneous management such as other storm-related outages or other PSPS events.

10.5.1. PSPS Assessment Team Activation

Idaho Power will transition from normal wildfire season operations to Phase 1 of a PSPS event at the direction of the TDER senior manager. During Phase 1, Idaho Power will activate the PSPS Assessment Team, which includes the TDER senior manager, a regional senior manager of the area potentially impacted, Load Serving Operations (LSO) senior manager, a documentation subject matter expert (SME), and representatives from the Atmospheric Science team and Corporate Communications. The PSPS Assessment Team will hold conference calls as needed to discuss current and forecasted weather conditions and other critical information regarding a potential PSPS event. The TDER senior manager will facilitate PSPS Assessment Team meetings and conference calls and the PSPS Assessment Team will be responsible for determining whether to recommend maintain Phase 1, escalate to Phase 2, or de-escalate to normal operations. The PSPS Assessment Team will decide if Idaho Power will issue a preliminary notification of a potential PSPS event to public safety partners, critical facilities operators and ESF-12 as described in Table 3 above. During Phase 1, the PSPS Assessment Team will review the PSPS Plan and supporting documents. An operational risk assessment will be performed as well to determine current operational factors (existing outages, facilities under construction, personnel availability, etc.), risks and vulnerabilities. Ultimate determination will be made whether to escalate to Phase 2 by the TDER senior manager. Within one hour of Phase 2 notification, the full PSPS team will be placed on stand-by and team member availability will be determined. The full PSPS team is the PSPS Assessment Team plus the VP of Planning, Engineering and Construction, the Customer Operations VP and VP of Power Supply or their assigns.

10.5.2. Community Notifications

Depending on the situation and timing, public safety partners and critical facility operators may be notified during this phase. These notifications may include emails, text messages and/or phone calls as described in Idaho Power internal processes and procedures.

10.6. Phase 2

Phase 2 actions are determined by additional situational awareness activities, timing of forecasted weather events and risk tolerance. Upon transitioning to Phase 2, Idaho Power will provide external notifications as called out in Table 3 above with specific roles and responsibilities as described in internal process and procedure documents.

10.6.1. Activate Event Coordinator

Idaho Power will assign an Event Coordinator as outlined in Wildfire Mitigation and PSPS Plan. The event coordinator's main role is to coordinate activities across the region associated with PSPS implementation and restoration.

10.6.2. Conduct Operational Risk Analysis

The PSPS Assessment Team will present its operational risk analysis recommendation to the VP of PEC, VP of Customer Operations and the COO who will then evaluate the PSPS Assessment Team's recommendation, and the COO will make the final determination of whether to proceed to Phase 3 implementation of a PSPS event.

10.6.3. Request to Delay a PSPS Event

There may be requests to delay proactive de-energization from the public safety partners. This may occur for several reasons, with the most anticipated being loss of power for pumping water to fight wildfires. Delay requests should be routed through dispatch and sent to the PSPS Team for evaluation. The PSPS Team will provide the COO a recommendation on whether to approve the proactive de-energization delay and the COO will make the final decision. As soon as practicable after receiving the request, Idaho Power will notify the ESF-12 liaison of the delay request and basis of such request, as well as the final determination and the underlying justification.

10.6.4. PSPS Event Strategy

Regional operations personnel developed action plans and switching orders as part of their preparedness activities. These plans and switching orders will be reviewed and refined as necessary based on the current and forecasted conditions and will include situation-specific tactics and detailed instructions.

10.6.5. Field Observations and Response Teams

Regional Operations will coordinate field personnel to be mobilized and dispatched to strategic locations, including areas with limited weather and system condition visibility, to perform field observations for on-the-ground, real-time information critical to inform decisions on proactive de-energization. Field observations include—without limitation—conditional assessments of system impacts from wind and vegetation, flying debris and slapping conductors.

10.6.6. Customer and Community Notifications

Depending upon the timing and situation, Idaho Power may use various forms of communication (including media outreach) to provide information and updates to public safety partners, critical facility operators, and customers, particularly those impacted by the PSPS event. Information and updates will include the reason for the potential de-energization, where to find

real-time updates on outage status and other relevant safety and resources. Internal processes and procedures will be followed to ensure accurate, up-to-date communication is provided.

10.7. Phase 3

Upon the COO making a determination to proactively de-energize, the LSO representative of the PSPS Team will inform System and Regional Dispatch Operations and request coordination of the estimated time to begin the PSPS. The regional manager, or their assigned representative of the region in which the PSPS will take place, will coordinate with the event coordinator to pre-position field personnel where manual de-energization is required and to stand by for orders to de-energize. System and Regional Dispatch Operations will implement the PSPS according to their established processes. Stations and communications system operations personnel will be prepared to support PSPS activities as needed. Idaho Power will take the following community-centered actions as soon as safely possible. Regional teams will follow internal processes and procedures to safely and effectively implement a PSPS event.

10.7.1. Customer and Community Notification

Relying on internal processes and procedures, Idaho Power will use various forms of communication (including media outreach) to provide information and updates to customers and other stakeholders, particularly those impacted by the PSPS event. Information and updates will include the reason for the de-energization, where to find real-time updates on outage status and other relevant safety and resource information regarding the PSPS. Specific protocols may be included in individual work group plans.

10.8. Phase 4

10.8.1. System Inspections

When it is safe to do so, Idaho Power will begin line patrolling activities to inspect T&D circuits and other potentially impacted Idaho Power facilities. Patrol personnel will report system conditions back to System and Regional Dispatch Operations for coordination with field crews. Patrols will be performed as required to ensure conditions and equipment are safe to re-energize.

10.8.2. Repair and Recovery

Line crews will repair T&D facilities as coordinated with System and Regional Dispatch Operations, replacing damaged equipment and performing other actions to support safe re-energization of the T&D system.

10.8.3. Incident Management Support

Support throughout the PSPS event will continue as described in Idaho Power's Wildfire Mitigation and PSPS Operational Plan. The PSPS Team will continue to monitor fire and weather conditions. Logistics and mutual assistance requirements will be determined and acted upon per existing plans and processes. If timely re-energization is not possible based on the magnitude of the event, the EMT will be notified for additional support.

10.8.4. Communicate PSPS Event Conclusion

Idaho Power will use various forms of communication (including media outreach) to inform customers and other stakeholders, particularly those impacted by the PSPS event, when repairs are complete and it is safe to re-energize the system. This may occur in stages as different feeders or feeder sections are repaired and safe to re-energize. This will be viewable on the outage map on Idaho Power's website during the event. Idaho Power will also leverage existing public agency outreach and notification systems as done at other points in the PSPS process.

10.8.5. Re-energization

Once re-energization activities are completed and service is restored, crews and support staff will demobilize and return to normal fire season operations as described in internal process and procedure documents.

10.9. Post-incident Review

During the PSPS phases the documentation SME will collect and maintain in the Regional Dispatch Operations logs incident information required for reporting purposes.

Following conclusion of a PSPS event, the Regional Manager or their assigned representative will conduct informal, high-level debriefs to identify potential modifications to PSPS protocol based on lessons learned during the event. The regional manager or assigned representative will consolidate the feedback and provide to the documentation SME.

Also following the PSPS event, the TDER senior manager will conduct an AAR with the PSPS Team to identify potential modifications to PSPS protocol based on lessons learned during the event. The TDER senior manager will consolidate the feedback and provide to the documentation SME.

After wildfire season, the Customer Operations support leader may conduct an AAR focusing on operational processes, communications, customer support as well as emergency response and restoration. Idaho Power may also request feedback from external stakeholders on coordination efforts, communications and outreach effectiveness for integration into the AAR report.

11. FINANCIAL ADMINISTRATION

Idaho Power will track expenses related to PSPS events for OPUC and IPUC reporting and potential recovery. Expense should be tracked for the entire PSPS event (Phase 1 through conclusion of the Post-Incident Review and filing the PSPS event report with the OPUC) to include, without limitation, time reporting, equipment and supplies used to set up customer resource centers and provided to customers (e.g., water, ice, etc.)

12. REPORTING

Employees are required to manage information regarding PSPS events pursuant to Idaho Power's Information Retention Policy and underlying standards. Idaho Power will submit reports to the IPUC and OPUC as required.

13. AFTER-ACTION REPORT

An AAR is a structured review or de-brief process used to evaluate the effectiveness of the Plan and potential areas for improvement. This process may be performed after a PSPS event and may be confidential at the direction of Legal to improve the PSPS processes and procedures.

14. TRAINING

Idaho Power will strive to provide annual training, prior to or shortly after the beginning of wildfire season, to relevant employees on their respective roles in performing this PSPS Plan.

15. EXERCISES

Idaho Power will exercise this PSPS Plan at least annually using various scenarios and testing all or any portion(s) of the Plan which may include:

- Testing text and/or phone alerts with a test group of public safety partners
- Testing tactical operational plans such as reporting field observations or positioning employees at manually operated disconnects to test timing for de-energization and field inspections of T&D assets
- Discussing and/or practicing roles and responsibilities of both strategic and tactical operations, including decision-making handoffs and hypothetical scenarios
- Discussing and/or developing re-energization plans
- Testing capacity limits on incoming and outgoing communications systems

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-22-27

IDAHO POWER COMPANY

ATTACHMENT 2

Original Forecast of Incremental O&M Related to Wildfire Mitigation Efforts (2021-2025)

ATTACHMENT 2

Original Forecast of Incremental O&M Related to Wildfire Mitigation Efforts, 2021-2025 ($000s)

This table was included as Attachment C to Idaho Power's initial Wildfire Mitigation Plan cost deferral application in Case No. IPC-E-21-02.

	2021	2022	2023	2024	2025	2021 - 2025
A. Quantifying Wildland Fire Risk						
Risk Map Updates	$ 65	$ -	$ 67		$ 69	$ 201
B. Situational Awareness						$ -
Fire Potential Index (FPI) Personnel	$ 52	$ 55	$ 57	$ 59	$ 62	$ 285
Cameras	$ -	$ -	$ -	$ 50	$ 50	$ 100
C. Mitigation - Field Personnel Practices						
Tools/Equipment	$ 5	$ 5	$ 5	$ 5	$ 5	$ 25
D. Mitigation - Transmission & Distribution Programs						
O&M Component of Capital Work	$ 60	$ 54	$ 61	$ 60	$ 54	$ 289
Annual O&M T&D Patrol Maintenance Repairs	$ 50	$ 50	$ 50	$ 50	$ 50	$ 250
Environmental Management Practices	$ 25	$ 25	$ 25	$ 25	$ 25	$ 125
Transmission Thermography Inspection Mitigation - Red Risk Zones	$ 20	$ 20	$ 20	$ 20	$ 20	$ 100
Distribution Thermography Inspection Mitigation - Red Risk Zones	$ 30	$ 30	$ 30	$ 30	$ 30	$ 150
Thermography Technician Personnel	$ 150	$ 155	$ 160	$ 165	$ 170	$ 800
Transmission Wood Pole Fire Proof Wraps - Red Risk Zones	$ 82	$ 88	$ 88	$ -	$ -	$ 258
Transmission Wood Pole Fire Resistant Wraps - Yellow Risk Zones	$ 163	$ 163	$ 163	$ 163	$ 163	$ 815
E. Enhanced Vegetation Management						
Transition to/Maintain 3-yr Vegetation Management Cycle	$ 1,500	$ 8,087	$ 8,796	$ 9,547	$ 8,372	$ 36,302
Enhanced Practices for Distribution Red & Yellow Risk Zones (Pre-Fire Season Patrols/Mitigation, Clearing, Removals, Work QA)	$ 506	$ 1,223	$ 1,284	$ 1,349	$ 1,416	$ 5,778
Line Clearing Personnel	$ -	$ 155	$ 159	$ 164	$ 169	$ 647
F. Communication						$ -
Communication - Advertisements/Meetings/Other	$ 100	$ 100	$ 100	$ 100	$ 100	$ 500
Forecast Incremental Totals	**$ 2,808**	**$ 10,210**	**$ 11,065**	**$ 11,787**	**$ 10,755**	**$ 46,625**

BEFORE THE

IDAHO PUBLIC UTILITIES COMMISSION

CASE NO. IPC-E-22-27

IDAHO POWER COMPANY

ATTACHMENT 3

Forecast of New Incremental O&M Related to Wildfire Mitigation Efforts (2022-2025)

ATTACHMENT 3

Forecast of New Incremental O&M Related to Wildfire Mitigation Efforts, 2022-2025 ($000s)

	2022	2023	2024	2025	2022 - 2025
A. Quantifying Wildland Fire Risk					
Risk Map Updates	$ -	$ -	$ -	$ -	$ -
B. Situational Awareness					
Weather Forecasting - System development and support	$ -	$ 47	$ 74	$ 74	$ 195
Weather Forecasting Personnel - Fire Potential Index (FPI) and Public Safety Power Shutoff (PSPS)	$ 71	$ 121	$ 40	$ 40	$ 272
Weather Forecasting - Weather Station Maintenance	$ 6	$ 19	$ 24	$ 30	$ 79
Pole Loading Modeling & Assessment (Contract service)	$ 25	$ 75	$ 75	$ 75	$ 250
Cameras	$ 50	$ 165	$ 170	$ 170	$ 555
C. Mitigation - Field Personnel Practices					
Tools/Equipment	$ -	$ -	$ -	$ -	$ -
Mobile Weather Kits for Field Observers	$ 20	$ 10	$ -	$ -	$ 30
International Wildfire Risk Mitigation Consortium	$ 30	$ 40	$ 40	$ 40	$ 150
D. Mitigation - Transmission & Distribution Programs					
O&M Component of Capital Work	$ -	$ -	$ -	$ -	$ -
Annual O&M T&D Patrol Maintenance Repairs	$ -	$ -	$ -	$ -	$ -
Environmental Management Practices	$ -	$ -	$ -	$ -	$ -
Transmission Thermography Inspection Mitigation - Red Risk Zones	$ -	$ -	$ -	$ -	$ -
Distribution Thermography Inspection Mitigation - Red Risk Zones	$ -	$ -	$ -	$ -	$ -
Thermography Technician Personnel	$ -	$ -	$ -	$ -	$ -
Transmission Wood Pole Fire Resistant Wraps - Red Risk Zone	$ -	$ -	$ -	$ -	$ -
Transmission Wood Pole Fire Resistant Wraps - Yellow Risk Zone	$ -	$ -	$ -	$ -	$ -
Wildfire Mitigation Program Manager	$ 90	$ 191	$ 196	$ 202	$ 679
Covered Wire Evaluation - Pilot Program in PSPS Zones	$ 25	$ 50	$ 50	$ -	$ 125
E. Vegetation Management					
Transition to/Maintain 3-year Vegetation Management Cycle	$ 1,700	$ 2,400	$ 3,800	$ 3,800	$ 11,700
Enhanced Practices for Distribution Red & Yellow Risk Zones (Pre-Fire Season Patrols/Mitigation, Pole Clearing, Removals, Work QA)	$ -	$ -	$ -	$ -	$ -
Line Clearing Personnel	$ -	$ -	$ -	$ -	$ -
Fuel Reduction Program	$ 75	$ 75	$ 75	$ 75	$ 300
Vegetation Mgmt Satellite and Aerial patrols	$ 150	$ 150	$ 300	$ 300	$ 900
F. Communications					
Wildfire/Wildfire Mitigation Education/Communication - Advertisements, Bill Inserts, Meetings, Other	$ -	$ -	$ -	$ -	$ -
PSPS Customer Education/Communication - Advertisements, Bill Inserts, Other	$ 71	$ 71	$ 71	$ 71	$ 284
G. Information Technology					
Communication/Alert Tool development (System set up, outage maps, critical facilities identification)	$ 163	$ -	$ -	$ -	$ 163
Communication/Alert Tool for PSPS Customer Alerts/Extended Use	$ 141	$ 129	$ 129	$ 129	$ 528
Forecast New Incremental O&M Expenditures Total	**$ 2,617**	**$ 3,543**	**$ 5,044**	**$ 5,006**	**$ 16,210**