WILDFIRE MITIGATION PLAN

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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.
Dec. 29, 2022	WMP Version 5.0, including 2022 season in review, changes for 2023 season, and addition of Appendix C—Oregon Wildfire Requirements and Recommendations.
Dec. 29, 2023	Annual updates associated with developing the 2024 WMP, including updates to the Executive Summary, changes for the 2024 season, modifications to and progress on mitigation efforts, pilot projects, partnership updates and grant funding, WMP forecasted costs, communication efforts, PSPS program, and the addition of Appendix C—Wildfire risk zone map book.

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Executive Summary

Idaho Power is dedicated to the safety of our customers and communities, and to delivering reliable, affordable energy. In pursuit of that mission, Idaho Power implements and continuously evolves the company's Wildfire Mitigation Plan (WMP).

Throughout 2023, Idaho Power worked to reduce the risk of wildfire ignition through the implementation of core mitigation approaches such as hardening of our electrical system, expansion of our situational awareness capabilities, further enhancement of our vegetation management program, and re-evaluation of our risk modeling practices. 2024 will mark the fourth year of Idaho Power's WMP and brings in key lessons learned that will support the overall programmatic maturity of our WMP in the years to come.

The WMP provides supporting information on wildfire requirements and actions specific to our Idaho and Oregon regulators, but the document remains—first and foremost—an evolving guide that provides holistic and prudent strategies based on numerous variables intended to reduce wildfire risk.

This Executive Summary provides a comprehensive review of the 2023 wildfire season, an overview of the WMP, and a snapshot of the progress made toward our systemwide wildfire mitigation objectives. Additionally, the Executive Summary highlights lessons learned from the 2023 wildfire season and previews changes that will be incorporated into Idaho Power's 2024 wildfire mitigation efforts and beyond.

KEY achievements in 2023 INCLUDED:

1. Engagement with government and industry entities and electric utility peers to ensure understanding and a baseline level of commonality of wildfire mitigation plans and best practices.
2. Ongoing evaluation of and overall improvement in the company's approach to identification and quantification of wildland fire risk, including robust consideration of the two key elements of determining wildfire risk: wildfire probability and consequence.
3. Continued implementation of targeted operations and maintenance practices, system hardening programs, enhanced vegetation management, and refinement of field personnel practices to mitigate wildfire risk.
4. Collection and incorporation of information regarding current and forecasted weather and field conditions into operational practices to increase situational awareness.
5. Analysis of public safety power shutoff (PSPS) protocols.
6. Evaluation of the performance and effectiveness of strategies, including pilot projects, identified in the WMP through metrics and monitoring.

WMP Approach and Progress

The fundamental goals of Idaho Power's WMP are to reduce wildfire risk associated with the company's transmission and distribution (T&D) facilities and associated field operations, and improve the resiliency of Idaho Power's T&D system in a wildfire event, independent of the ignition source. These efforts are taken to prioritize the safety of the customers and communities we serve and to support the overall resiliency of Idaho Power's T&D system.

Each year, Idaho Power develops high-level goals and approaches for WMP implementation. By almost all measures, Idaho Power met or exceeded the established goals for 2023. In June 2023, Idaho Power added a permanent, full-time Wildfire Mitigation Program Manager to staff, bringing additional capacity for programmatic tracking and focus on the continuous improvement of the WMP. Idaho Power is in the process of hiring additional positions for 2024 that will focus on WMP efforts.

2023 Weather and Fire Season Overview

The early part of 2023 was characterized by well-below-normal temperatures from January through April across the majority of Idaho Power's service area. Precipitation was mixed during that same period, with January, February, and April averaging 66% of normal. March, however, was 166% of normal, bringing the first four months of the year to approximately 90% of normal precipitation. The combined effect of lower-than-normal temperatures and precipitation resulted in a delayed start to the drying of vegetation (fuels) and, as a result, a delay to active wildfire season.

May through July experienced mild above-normal temperatures, while May and June saw well-above-normal precipitation. This set of circumstances helped promote fine fuels growth in the southern sections of Idaho Power's service area. Combined higher-than-normal temperatures and precipitation at less than 20 % of normal in July led to drying of fuels and a resulting rise in wildfire risk throughout the month. August and September continued to see above-normal temperatures but were combined with more than 250% of normal precipitation, lowering fire concerns in many areas across the service area and, ultimately, contributing to a much less impactful fire season than the 2022 wildfire season. Overall acres burned in Idaho Power's service area in 2023 was well below the 20-year average for wildfires.[1]

During this past wildfire season, Idaho Power atmospheric scientists performed frequent forecasts to determine a daily Fire Potential Index (FPI) value across the company's service area, as detailed in section 5.2 of the WMP. The FPI produces scaled values that are associated with colors—with red FPIs indicating highest fire potential and green FPIs indicating lowest fire potential. The FPI is used to inform Idaho Power's on-the-ground and operational strategies. Seasonal weather conditions led to an increase in FPI levels throughout the summer of 2023 with a focused period of increased risk in July and the start of August. The 2023 wildfire season recorded a total of 11 days in which a red FPI occurred in a wildfire risk zone compared to a total of 30 days in 2022.

While the 2023 summer months saw some higher-than-normal temperatures, above normal relative humidity and precipitation ultimately decreased wildfire potential compared to 2022.

[1] National Oceanic and Atmospheric Administration: September 2023 Wildfires Report | National Centers for Environmental Information (NCEI) (noaa.gov)

2023 Wildfires

Throughout the summer months, Idaho Power monitors for active wildfires and tracks events as they progress. Wildfire tracking informs operational planning and provides insight into areas or infrastructure that could be threatened throughout the fire season. During active wildfire events, Idaho Power coordinates closely with fire incident command to ensure safety of fire responders, protection of utility infrastructure, and timely power restoration for customers in the event of an outage.

By the end of the 2023 fire season, a total of 124 wildfire incidents were recorded by the National Interagency Fire Center within the company's service area, the largest of which was the Hayden Fire located in Lemhi County, Idaho. This wildfire was active from July 19 through September 21 and, at one point, required Idaho Power to de-energize a portion of distribution line to support firefighter safety while they established firebreaks.

The Rural Assist2 Fire in Gooding County, Idaho, that began on July 11, was the most impactful from an outage standpoint—with approximately 600 customers affected after a distribution line tripped due to thick smoke in the area. Fortunately, the fire was contained in just under one hour and Idaho Power was able to restore power to these customers within 90 minutes of the outage.

Mitigating Wildfire Risk

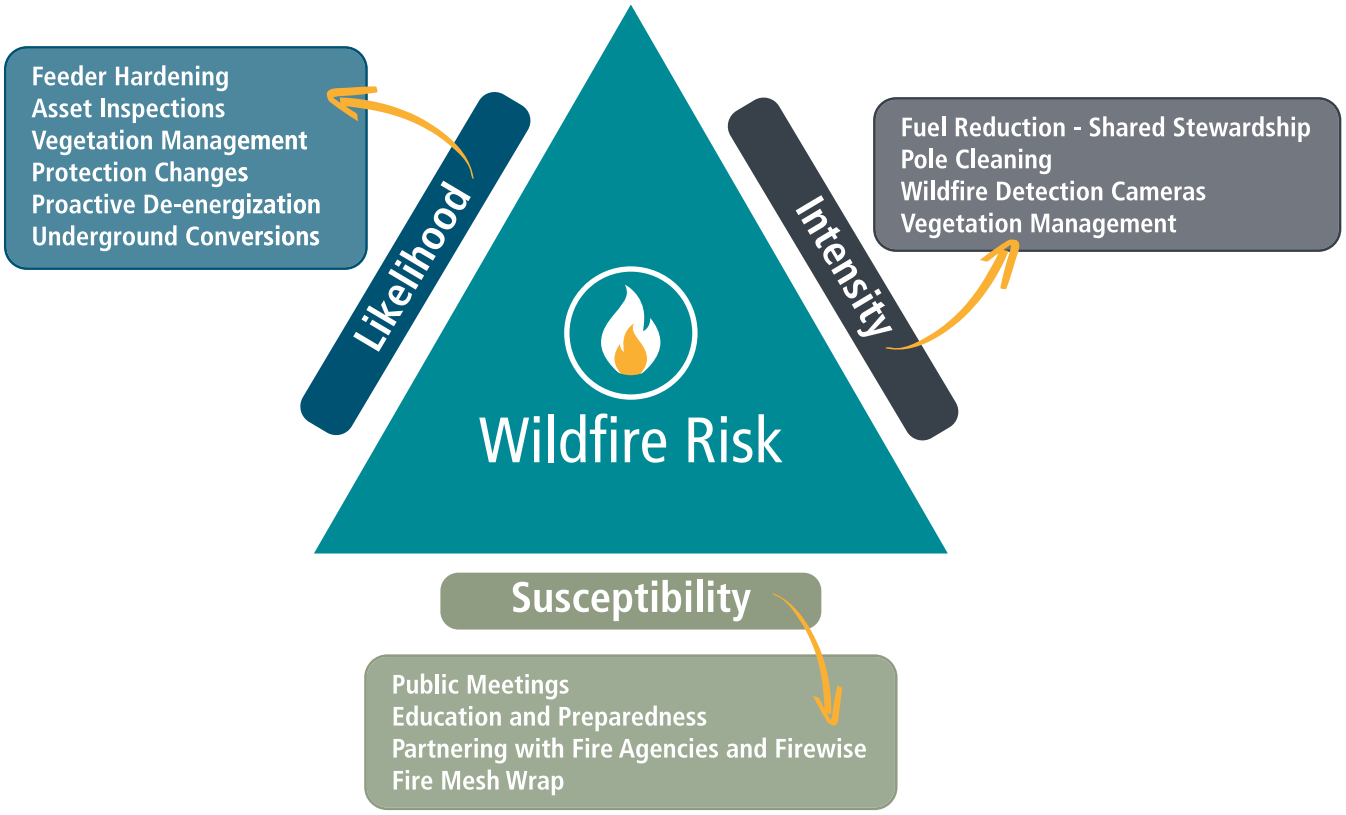
Idaho Power deploys a variety of wildfire risk mitigation activities through its WMP. As displayed in Figure 1, the company's strategy to reduce wildfire risk is multi-pronged and involves activities and actions to: 1) reduce the likelihood of wildfire, 2) reduce the intensity of wildfire, and 3) reduce the susceptibility to wildfire. Reducing the likelihood of wildfire primarily involves the deployment of wildfire mitigation initiatives. These are identified and adopted based on a variety of factors including industry best practices for reducing wildland fire risk, evaluation of inherent risk across the service area, and consideration of alternatives that could be pursued.

To reduce the susceptibility to wildfires, Idaho Power focuses on education and communication, specifically engagement with government agencies, industry entities, expert forums, Public Safety Partners, and electric utility peers to build our understanding of wildfire risk and commonality of wildfire mitigation plans.

Finally, to reduce the potential intensity of wildfire, Idaho Power works to reduce the amount of available fuel that can burn. These efforts include fuel reduction partnerships, pole clearing, and the pilot implementation of wildfire detection cameras.

Work on all three fronts—likelihood, intensity, and susceptibility—is on a rolling and/or rotating cycle and, as a result, some of the Idaho Power's activities are in progress at the time of writing this 2024 WMP.

Figure 1
Approach to Wildfire Mitigation



Risk Modeling

Idaho Power worked with a contractor in 2023 to update its wildfire risk model using new data on climatology, vegetation, population growth, and outages. The company also conducted a qualitative evaluation of factors not accounted for in the quantitative risk modeling, including Public Safety Partner feedback, ingress/egress route evaluation, emergency response times and capabilities, topographical considerations, and defensible space.

Simultaneously, Idaho Power began evaluating new approaches to wildfire risk modeling, including real-time wildfire forecasting platforms that offer analytical capabilities to inform grid design and operational decision making. Idaho Power's evaluation of risk modeling and approach will continue throughout 2024.

2023 Wildfire Mitigation Goals and Accomplishments

Tables 1 and 2 provide a snapshot of WMP activity throughout 2023 as well as wildfire mitigation goals for 2024.

Table 1: Grid hardening and situational awareness

Plan Area	Wildfire Mitigation Plan Activities	2023 Planned	2023 Completed Idaho	2023 Completed Oregon	% Complete	2024 Planned Idaho	2024 Planned Oregon
System Hardening*	**Distribution System Hardening**						
	System Hardening Line Miles	69	70.9	—	103%	75	Design
	Overhead Line Miles Converted to Underground	0.61	0.61	—	100%	—	—
Feeder Segmentation	**Segmentation Devices**						
	Installation or Relocation of Automatic Reclosing Devices	8	8	— —	100%	18	7
Fire Mesh Installation	**Transmission Fire Mesh Installation**						
	Number of Poles Protected	870	649	205	98%	632	68
Situational Awareness	**Situational Awareness**						
	Weather Station Installation	5	5	—	100%	4	1
	Wildfire Detection Cameras**	—	—	—	—	6	Evaluate

*Excludes hardening work outside of wildfire risk zones ** Indicates Pilot Project

2024
ADDITIONAL
75 line miles

Grid Hardening

Idaho Power's grid hardening program includes maintenance actions and system upgrades that provide for additional wildfire-resistant protections. The 2023 grid hardening program was expanded by nearly 40% from 2022 to 2023 and resulted in the hardening of 69 new line miles in Tier 3 Zones across the company's service area. Idaho Power intends to continue its grid hardening work throughout 2024, with a goal of completing hardening efforts for an additional 75-line miles in 2024.

Feeder Segmentation

Segmentation allows Idaho Power to isolate sections (or segments) of its T&D system to more precisely control operations in higher wildfire risk areas from lower wildfire risk areas. Segmentation is most efficiently accomplished through the installation of devices that can be controlled remotely, as opposed to manual adjustments performed in the field. In 2023, Idaho Power completed the installation of eight automatic reclosing devices (reclosers) in Tier 3 Zones as part of an effort to isolate circuit segments. Moving into 2024, Idaho Power has a goal installing approximately 25 automatic reclosers throughout its service area, as well as improving the company's remote communication capabilities to distant segmentation devices.

Strategic Undergrounding

Idaho Power performs risk assessments to determine optimal underground conversion locations. Criteria for assessing underground projects include evaluation of wildfire risk modeling scores, fire history, ignition probability, PSPS and sensitive protection setting impacts, and impacts to critical facilities.

In 2023, Idaho Power converted approximately 0.61 miles of overhead distribution line in eastern Idaho to underground in areas of highest wildfire risk. The company will continue to evolve and refine its approach to strategic undergrounding, including continued expansion of the company's evaluation of spending on risk-reduction activities.

2023
CONVERTED
0.61 MILES
TO UNDERGROUND

Table 2: Inspection and vegetation management

Initiative	Wildfire Mitigation Plan Asset Inspection and Vegetation Management Initiatives	2023 Goal	2023 Completed Idaho	2023 Completed Oregon	% Complete	2024 Goal Idaho	2024 Goal Oregon
Asset Inspections	**Transmission Inspections**						
	Wildfire Pre-Season Patrol—Tier3 Zones (Structures)	923	923	0	100%	1,114	341
	Ignition Prevention Inspections (OR Division 24) (structures)	210	n/a	210	100%	n/a	341
	Infrared Thermography Patrol (Structures)	923	923	0	100%	1,114	341
	Distribution Inspections						
	Wildfire Pre-Season Patrol—Tier3 Zones (Poles)	20,192	20,193	0	100%	19,382	1,780
	Ignition Prevention Inspections (OR Division 24) (Poles)	567	n/a	567	100%	n/a	1,780
	Infrared Thermography Patrol —Tier3 Zones (Poles)	4,000	6,773	0	169%	4,000	1,000
Vegetation Management	**Pruning Cycle**						
	Transition to a 3-Year Pruning Cycle (Circuits)	336	243	0	79%	269	22
	Enhanced Vegetation Management						
	Annual Patrol— Tier2 & Tier3 Zones (Circuits)	65	59	6	100%	138	11
	Annual Mitigation— Tier2 & Tier3 Zones (Circuits)	65	59	6	100%	138	11
	Mid-Cycle Patrols— Tier2 & Tier3 Zones (Circuits)	1	1	0	100%	18	8
	Mid-Cycle Pruning— Tier2 & Tier3 Zones (Circuits)	1	1	0	100%	18	8
	Hazard Trees Identified & Pruned	100% of All Identified	2	0	100%	100% of All Identified	100% of All Identified
	Hazard Trees Identified & Removed	100% of All Identified	83	0	100%	100% of All Identified	100% of All Identified
	Audits of Pruning Activities—Tier2 &Tier3 Zones (Worksites)	100% of All Identified	1,358	71	100%	100% of All Identified	100% of All Identified

Transmission and Distribution Asset Inspections

To reduce wildfire risk and continue to safely operate the grid, Idaho Power implements and continuously evaluates a robust set of asset inspection initiatives, including condition-based aerial visual inspections, ground visual inspections, detailed visual inspections (generally using high-resolution photography), thermography inspections, and wood pole inspection and treatment. Fundamental to these efforts is ongoing evaluation and research into industry best practices and strategic piloting of emerging technologies and approaches that may aid in the identification of potential issues not visible by traditional ground inspections or where terrain or other constraints may limit the ability to perform a detailed ground inspection. Despite this being an area for evolution and refinement, in 2023, Idaho Power met or exceeded its established WMP asset inspection goals.

Vegetation Management

Idaho Power's Vegetation Management program (VMP) addresses public safety and electric reliability by safeguarding T&D lines from trees and other vegetation that may cause an outage or damage facilities. Vegetation management remains an important mitigation strategy for Idaho Power and each year the Company sets targets to drive production.

Throughout 2023, Idaho Power continued to work toward a three-year pruning cycle even as contract labor availability, contractor production, equipment availability, and rising costs of these limited resources remained a challenge. Moisture received during the longer than average growing season created additional challenges and led to slower progress than anticipated. Idaho Power prioritizes Tier 2 and Tier 3 Zones and completed all planned enhanced vegetation management activities in these areas including annual patrols and mid-cycle pruning.

Additional vegetation monitoring tools and innovative approaches were piloted in 2023, such as the use of a LiDAR-based approach for vegetation encroachment detection. The company continues to evaluate these types of tools and others for potential future implementation.

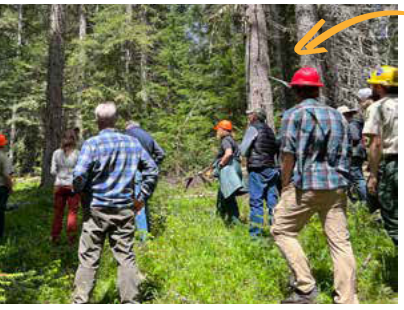
WMP Technology and Innovation

Idaho Power's approach for identifying and implementing new wildfire mitigation technology is based on the continual evaluation of industry learnings, practices, and new technological advancements. Idaho Power approaches pilot projects with the goal of learning about implementation complexities, efficacy for risk reduction, and cost analysis of new technologies prior to full integration into the WMP. Engagement in industry forums and workgroups, such as the International Wildfire Risk Mitigation Consortium, continue to provide a valuable venue for informal peer-to-peer sharing of emerging technology and lessons learned. In 2023, Idaho Power initiated or continued its evaluation process of several pilot projects.

Thermal Inspections: Idaho Power uses specialized thermal imaging (infrared) equipment that can identify compromised electrical connections and overloaded equipment that may not be apparent through other inspection processes. In the recent wildfire season, this work detected several anomalies, including four issues located in Tier 3 zones that were subsequently repaired. In 2024, Idaho Power will be evaluating the feasibility and benefit of expanding the use of thermal inspections across other wildfire risk zones.

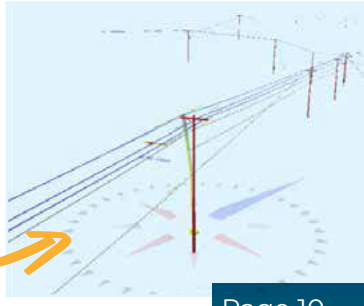
Wildfire Detection Cameras: In 2023, Idaho Power began the process of installing six wildfire detection cameras in Idaho. This pilot project will run through 2024 and serve to inform organizational understanding of the complexities of installations, permitting, agency and Public Safety Partner coordination, and the systems used for notifications. The camera feeds can be used by firefighting agencies and Idaho Power to aid in the early detection of wildfire, track real-time weather and fuel conditions, and allow for first responders to better allocate the appropriate number of assets in the event of a fire.

Covered Conductor: In 2023, Idaho Power launched a covered conductor (or covered wire) pilot project intended to explore the benefits, tooling requirements for field personnel, and design parameters of the technology. Throughout 2024, the company will continue to analyze the feasibility of integrating covered conductor into broader operational practice. The feasibility study includes evaluation of potential co-benefits, such as improved reliability outside of wildfire season and reduced outage restoration costs.



Cross-Boundary Fuels Reduction Collaboration: Throughout 2023, Idaho Power worked closely with the United States Forest Service, Bureau of Land Management, Idaho Department of Lands, National Forest Foundation, and other federal, state, and local governments and fire agencies on development and ongoing implementation of priority projects that include hazardous fuel reduction efforts adjacent to utility rights of way and high wildfire risk communities. The partnership is focused on more than 2.3 million acres across southern Idaho and includes multijurisdictional land in Idaho, including in Ada, Boise, Adams, Valley, and Idaho counties.

Pole Loading: This technology evaluates pole loading using a modeling software that creates 3-D representations of actual Idaho Power structures and surroundings. The model results support a better understanding of potential loading constraints on equipment that could lead to a failure. Idaho Power initiated this project in 2023 and plans to conduct the assessment in its Tier 3 zones located in Idaho and, depending on efficacy, will evaluate expansion of the program to other areas across the service territory, including Oregon. The pilot project is anticipated to run through 2025.

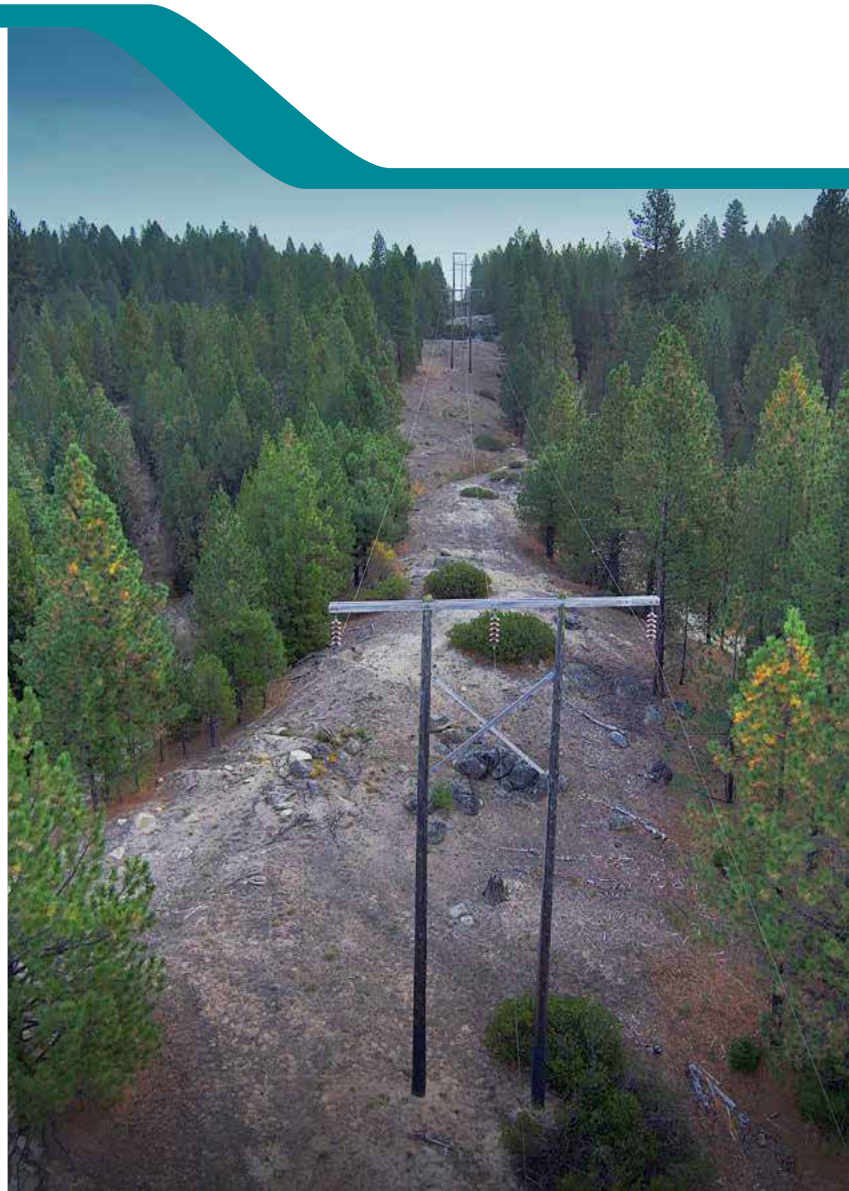


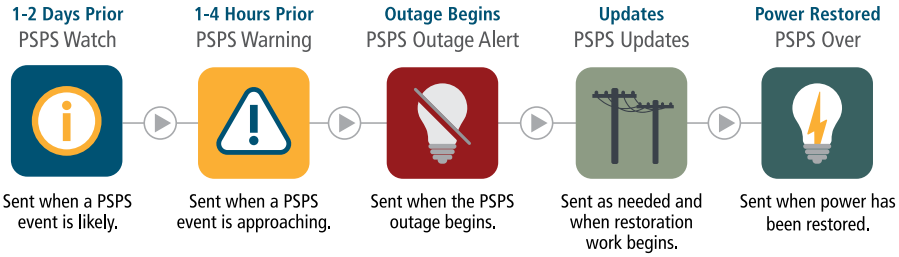
Situational Awareness

Throughout the 2023 wildfire season, Idaho Power's Atmospheric Sciences department utilized modeling and forecasting capabilities, combined with existing field weather stations and publicly available weather and fuel data, to develop and internally circulate daily Fire Potential Index (FPI) forecasts. This information is important for informing Idaho Power's approach to field personal practices and operational settings during the wildfire season. FPI forecasts are also used in conjunction with Idaho Power's weather forecasting efforts to detect extreme weather events that may support a public safety power shutoff (PSPS). Idaho Power intends to install five additional field weather stations in Tier 3 Zones in 2024.

Seasonal Wildfire-Safe Operational Settings

Enhanced Protection Settings (EPS)—sometimes called sensitivity settings—are used to reduce the probability of ignition during fault events on Idaho Power's T&D system. In 2023, Idaho Power began additional analysis and testing of advanced wildfire-safe protection schemes for its overhead power lines and plans to utilize additional EPS in targeted areas of the system in 2024. Idaho Power is working with peer utilities that have adjacent service areas to coordinate EPS terminology, usage, and customer communications.





Public Safety Power Shutoff Program

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 risk of wildfire. The company did not proactively de-energize any customers as part of its PSPS program in 2023, however the PSPS assessment team was brought together on four different occasions during the wildfire season to monitor potential weather events. The decision regarding PSPS is based on a number of dynamic factors, and each weather event is unique. While PSPS remains a last resort tool for Idaho Power, results from a customer survey sent out by Idaho Power in October indicated that 71% of respondents would support the use of PSPS in extreme weather conditions to reduce wildfire risk. Yet, conversations with Public Safety Partners and communities throughout the year continued to highlight the complexity of PSPS, such as impacts on vulnerable populations; the ability for Public Safety Partners to send and receive notifications across power-reliant platforms; and fire suppression efforts that may be reliant on electricity to power wells and water pumps. Idaho Power remains focused on limiting the impact and frequency of future PSPS events and is continually evaluating the value and efficacy of initiatives under the WMP that could decrease the need for PSPS in the future, such as enhanced protection settings during wildfire season and strategic undergrounding.

Customer Communications

Safety is one of Idaho Power's core values, and it guides our strategy for wildfire-related communication to our customers and the communities in which we serve. Idaho Power communicates with customers and the public before and throughout wildfire season to inform them of steps the company is taking to reduce wildfire risk and ways they can help prevent wildfires and prepare for outages. Core approaches to communication include social media, radio, customer newsletters, postcards, and voice and text messaging. Additionally, the company conducted over 30 in-person and virtual meetings to engage with customers, counties, fire, and other public agencies to discuss and seek feedback on the WMP and PSPS efforts. Communication methods and metrics are detailed in Chapter 10 of the WMP.

30 IN-PERSON MEETINGS AND VIRTUAL

KEY TAKE AWAYS and LESSONS LEARNED from 2023

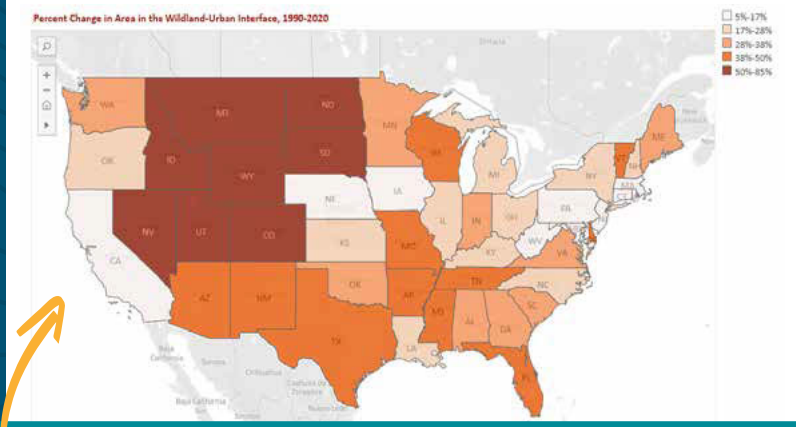
Situational Awareness

While the 2023 wildfire season was relatively mild compared to past years, the PSPS assessment team was pulled together four times to monitor potential extreme weather events, with none resulting in proactive de-energization. These exercises—even without a PSPS ultimately being called—provided valuable insight into areas for future improvement and specifically highlighted the potential benefits of having expanded real-time operational risk modeling capabilities that work in concert with Idaho Power's existing forecasting process. As discussed in Sections 4.5.2 and 5 of the WMP, Idaho Power continues to explore new options for technologies to improve situational awareness and weather forecasting across the company's service area. In late 2023, Idaho Power began assessing additional tools and products that could support Idaho Power's forecasting capabilities on a line-segment level, providing more precise insight into areas that may be at risk from extreme weather and heightened fire potential.

Vegetation Management

Idaho Power continued to make progress towards it's long-term goal of achieving a three-year pruning cycle. 265 circuits across the service area were pruned in 2023, including all enhanced vegetation management activities in wildfire risk zones. Idaho Power uses contractors to perform vegetation management and audit work. The company witnessed labor shortages, more inexperienced contract workers than in the past, and increased turnover that led to lower vegetation management production levels than anticipated. More climbing work was also required than originally expected in 2023. Climbing to remove vegetation requires contractors with more skill and takes more time to complete.

While vegetation management expenditures were increased in 2023, the Company plans to continue to increase expenditures annually over the next three years to help achieve desired production levels and secure contractor resources. Idaho Power piloted LiDAR-based vegetation encroachment technology to gain efficiency and cost savings. Unfortunately, this technology has not yet produced the level of accuracy necessary to meet standards and as such, the Company will be periodically reassessing as improvements in machine learning and Artificial Intelligence are made. In 2023, Idaho Power completed a thorough assessment of its contracted work and process for managing that work and will evaluate potential changes to its strategy in 2024. Idaho Power remains dedicated to evaluating technological advancements and approaches that may increase efficiencies moving forward.



Community Feedback

The company conducted more than 30 WMP and PSPS plan presentations throughout its service area. In these meetings, Idaho Power advised customers and partners of our plans, discussed updated risk modeling efforts, and solicited feedback to help inform future versions of the WMP. Four public meetings were held in Oregon at the end of fire season (two in-person, two virtual). While Idaho Power received good feedback from the customers who attended the Oregon meetings, the overall turnout was small. Feedback and themes from these meetings and others throughout the year will be incorporated into the 2024 WMP communications and engagement strategy and include:

- Holding public meetings in Oregon before fire season instead of after it.
- Partnering with agencies and other programs, such as Firewise, will continue to be a valuable tool for bringing about additional awareness of wildfire risk and mitigation efforts.
- Understanding of PSPS varied across the company's service area. The future strategy will require a more extensive, holistic, and broad effort to educate and raise awareness about the circumstances that might warrant a PSPS.

Expansion of the Wildland Urban Interface

As the population in Idaho Power's service area has grown, so has the expansion of new construction in the wildland urban interface (WUI). Over the past several decades, Ada County, which includes Boise, has experienced explosive housing growth and rapid WUI area expansion. From 1990 to 2020, WUI housing expanded by 107%. [2] This expansion creates new challenges for wildfire mitigation as new wildfire risk areas and new wildfire risks emerge. In 2023, as part of Idaho Power's risk model update and review process, the company instituted additional strategies to assess risk factors such as defensible space, ingress/egress routes, and wildfire response times and capability.

[2] USDA Forest Service Northern Research Station-Understanding the Wildland Urban Interface (1990–2020) (arcgis.com).

Wildfire Team Capacity

Idaho Power has historically relied on existing staff to come together for the planning and implementation of the WMP. Recognizing the increase in the annual and year-round level of wildfire work, Idaho Power added a Wildfire Mitigation Program Manager to staff in June 2023 and has plans to add additional positions in 2024. The manager is the first fully dedicated employee in the company's wildfire program. As Idaho Power's approach to wildfire mitigation work continues to evolve, so too will the need to bring on additional dedicated staff to support situational awareness, technology advancements, communications and outreach, project management, and regulatory engagement.

Regulatory Context

As part of Idaho Power's commitment to deliver safe, reliable, and affordable energy, the company developed the WMP to evaluate and reduce wildfire risk associated with its facilities.

The company's WMP is a living document that will continue to 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. As a two-state utility, Idaho Power's regulators in Idaho and Oregon provide meaningful input and recommendations into ways to improve the WMP on an annual basis. A recent history of wildfire-related regulatory activities is provided below 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 and insurance costs. The IPUC authorized the deferral of these newly identified costs in Order No. 35717.

Oregon

In August 2020, the 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. On September 8, 2022, the OPUC issued Order No. 22-335 in AR 638 finalizing requirements specific to requirements for utility WMPs. These wildfire requirements are memorialized in Oregon Administrative Rules, Division 300.

Idaho Power's Appendix D to the WMP provides Oregon-specific information related to wildfire requirements and recommendations.

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 wildfires within its service area at the same level experienced in other western states, such as California and more recently certain areas in Oregon and Hawaii, millions of acres of rangeland and southern Idaho forests have burned in the last 30 years.[3] In that same time period, the wildfire season in Idaho has expanded by 70 days.[4] 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, headquartered in Boise, Idaho, is an investor-owned utility engaged in the generation, transmission, and distribution of electricity. Idaho Power is regulated by the Federal Energy Regulatory Commission (FERC) and the state regulatory commissions of Idaho and Oregon. Idaho Power serves more than 620,000 customers with a culture of safety first, integrity always, and respect for all.

Idaho Power's 24,000 square mile service area includes approximately 4,745 square miles in Oregon and 19,255 in Idaho (Figure 2). The company serves approximately 20,000 customers in Oregon and 600,000 in Idaho.

[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] Ibid.

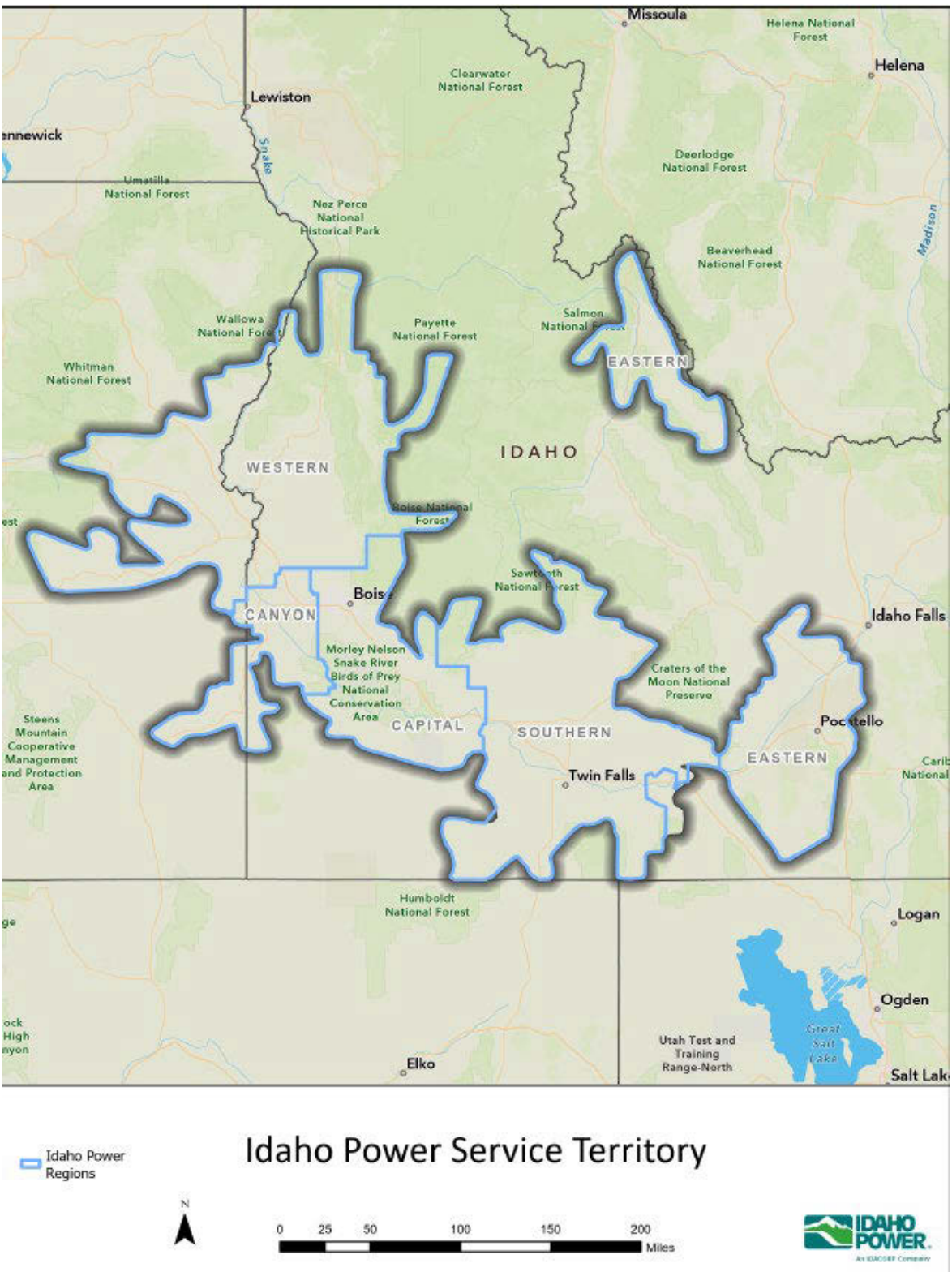


Figure 2
Idaho Power service area

1.3. Asset Overview

Idaho Power delivers electricity to its customers via more than 310 substations, 4,700 miles of overhead transmission lines, and 19,300 miles of overhead distribution lines. Table 3 summarizes the overhead powerline asset information by state. Approximately 2,871 pole miles (12%) are in Oregon and 21,042 (87%) are in Idaho. Additional detailed information on Idaho Power's Assets is included in Section 8.

Table 3
Overhead transmission voltage level and approximate line mileage by state*

Asset	TOTAL	IDAHO		OREGON		MONTANA		NEVADA		WYOMING	
	Pole Miles	Pole Miles	%	Pole Miles	%	Pole Miles	%	Pole Miles	%	Pole Miles	%
46 kV Transmission Lines	382	382	100%		0%						
69 kV Transmission Lines	1136	743	65%	344	30%	50	4%				
115 kV Transmission Lines	3			3	100%						
138 kV Transmission Lines	1456	1249	86%	141	10%			66	5%		
161 kV Transmission Lines	84	84	100%		0%						
230 kV Transmission Lines	1151	930	81%	219	19%						
345 kV Transmission Lines	474	365	77%		0%					110	23%
500 kV Transmission Lines	103	53	51%	50	49%						
Total OH Transmission Lines	4789	3806	79%	757	16%	50	1%	66	1%	110	2%
Total OH Distribution Lines	19397	17289	89%	2108	11%						
Total OH Pole Miles	**24186**	**21095**	**87%**	**2865**	**12%**	**50**	**0.21%**	**66**	**0.27%**	**110**	**0.45%**

*Current as of as of December 31, 2022. Line mileage reported includes co-owned assets.

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.[5]

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.

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

- Employ 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.

[5] 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.

1.5. Wildfire Mitigation Plan Maturity

For each update to its WMP, Idaho Power reviews its own practices and outcomes and also benchmarks against the practices of other utilities' WMPs.

In some parts of the utility industry, WMP "maturity" is an evolving topic of discussion. The purpose of so-called "maturity models" is to understand the evolution of a utility's WMP based on an established standard of progress—most often specific to an individual state regulator's objectives. These "models" are in various states of evolution.

In 2023, Staff of the Oregon Public Utilities Commission (OPUC) recommended "*Idaho Power and joint Oregon IOUs evaluate the California PUC WSD maturity model and develop an Oregon IOU rubric as part of their 2024 WMPs."* There are a number of ways to perform such maturity reviews, but the version noted by OPUC Staff involves a survey process that requires an individual utility to gather information related to a maturity category. Findings can be used internally for evaluation purposes and/or be provided to regulatory staff. Information is subsequently used by state regulators—or other reviewing bodies—to help assess a utility's current activities, capabilities, and strategy for reducing wildfire risk. In such a context, the "maturity" of a WMP does not result in any sort of judgement about a utility's practices but, rather, simply places the utility on a point along a path established by regulators—in this case, the California Public Utilities Commission (CPUC).

To comply with the OPUC's requirement to review maturity models, Idaho Power evaluated two wildfire risk maturity models: the CPUC Wildfire Safety Division (WSD) maturity model and the International Wildfire Risk Mitigation Consortium (IWRMC) Wildfire Risk Mitigation Maturity Model. The CPUC model was first deployed in 2020 and in 2022 significantly expanded and now exceeds 1000 survey questions that veer into additional areas of focus, such as carbon reduction. The IWRMC Wildfire Risk Mitigation Maturity Model was developed collaboratively among IWRMC program member utilities as an enhancement to the CPUC maturity model and focuses on 50 key capabilities organized into 10 broad categories. The IWRMC model has been, and continues to be, tested among the Consortium's membership to validate findings, and identify opportunities for collective and individual utility improvement.

The development of a maturity model rubric and the associated incorporation of a WMP maturity model into Idaho Power's WMP processes is a multi-year undertaking that would require a significant diversion of funding and resources that may otherwise be focused on wildfire mitigation and operational efforts across Idaho Power's service area. As such, Idaho Power will continue to prioritize mitigation activities that are directly related to reducing risk exposure to its customers consistent with the approach for meeting the objectives of the Wildfire Mitigation Plan. Additionally, Idaho Power will continue to engage with IWRMC and peer utilities on the testing, validation, and discussion around the IWRMC model and will assess the overall timeliness and prudency of maturity model adoption in the future.

2. Government, Industry, and Peer Utility Engagement

2.1. Objective

Idaho Power recognizes the importance of engaging with various levels of government—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, in 2023 Idaho Power partnered with Federal, State, and local government agencies in southern Idaho to identify areas of collective concern for wildfire risk and discuss strategic risk mitigation actions. This partnership resulted in the completion of approximately 705 acres of fuels reduction treatment on U.S. Forest Service land adjacent to Idaho Power's wildfire risk zones in Boise County.

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 files its WMP annually with IPUC. In Oregon, the company is required to submit an updated WMP by the end of each calendar year. Idaho Power continues to participate in the OPUC's Oregon Wildfire and Electric Collaborative (OWEC) and ongoing rulemaking efforts.

2.3. Industry and Peer Utility Engagement

The first iterations of Idaho Power's WMP relied on learnings and processes developed by several California utilities, with Idaho-specific modifications that account for the unique qualities of Idaho Power's service area and risk profile. Idaho Power continues to engage with California utilities including San Diego Gas and Electric, Southern California Edison, Pacific Gas

and Electric, Sacramento Municipal Utility District, and PacifiCorp to continue to advance Idaho Power's WMP and stay abreast of California's evolving practices.

Idaho Power additionally and increasingly relies on engagement with peer utilities throughout the Pacific Northwest, which is critical for understanding and ensuring commonality of wildfire mitigation plans, while accounting for the variation in each utility's unique service area. These utilities include Avista Utilities, Portland General Electric (PG&E), Rocky Mountain Power, Pacific Power, Chelan County Public Utility District, Puget Sound Energy, NV Energy, Bonneville Power Administration (BPA), and Northwestern Energy.

In 2023, Idaho Power joined the International Wildfire Risk Mitigation Consortium (IWRMC). The IWRMC is an industry-sponsored collaborative designed to facilitate the sharing of wildfire risk mitigation insights and innovations from across the globe. The program is led by a Utility Executive Steering Group, whose members work specifically on wildfire/bushfire issues in Australia and the Western United States. Idaho Power's engagements with IWRMC are focused on operations and protocols, asset management, vegetation management, and risk management with additional participation from Idaho Power's VP of Planning, Engineering, and Construction in IWRMC's Executive Strategy Forums. In September of 2023, Idaho Power along with Oregon Investor-Owned Utilities (IOU), arranged for an IWRMC-led presentation and discussion with Oregon PUC staff on the IWRMC Wildfire Maturity and Readiness Model.

Idaho Power is also a member of the Edison Electric Institute (EEI) and the Western Electric Institute (WEI). Throughout 2023, the company participated in multiple workshops and conferences with EEI and WEI that provided insights into emerging technologies and advancements for WMPs. 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 (DOE) and other government agencies to collectively minimize wildfire threats and potential impacts.

These forums and workgroups continue to prove valuable for sharing wildfire mitigation best practices and discussing new and existing technology related to wildfire mitigation. For example, Idaho Power's participation in the Oregon Wildfire Detection Camera Interoperability Committee led to key insights related to early wildfire detection technologies, including the complexities with wildfire detection camera network build outs[6] and associated partnership development. Many of the lessons learned through the Oregon group have been carried into ongoing workgroup processes for Idaho and resulted in Idaho Power issuing a Request for Proposal (RFP) in 2023 for a wildfire detection camera pilot project. These engagements have additionally informed evaluation criteria that Idaho Power and partners in Idaho will use in 2024 to assess camera functionality, interoperability, and overall benefit for early detection and situational awareness.

[6] Ankita Mohapatra, *Early Wildfire Detection Technologies in Practice—A Review*. Sustainability 2022, 14(19). https://doi.org/10.3390/su141912270.

2023 Industry, Fire Expert, and Peer Utility Engagement

Idaho Power continues to engage with industry groups, wildfire experts, and peer utilities to gain knowledge of new mitigation activities, industry best practices, and employing technology to reduce wildfire risk. The following summarizes 2023 activities.

Academia—Idaho Power is working to expand collaboration with academic institutions, which can provide research-based and peer-reviewed insights into the risks of wildfire and associated impacts on customers. Highlights of the company's 2023 engagements include:

- Took part in a qualitative study hosted by San Jose State aimed at understating the impacts to communities from PSPS events and overall perceptions of wildfire mitigation.

Ada County Fire Adapted Communities (ADAFAC) Workgroup—Idaho Power is an active partner of ADAFAC which supports wildfire education and community preparedness.

AMCL Risk Assessment Workshop—Attended a two-day workshop on risk management approaches, including frameworks, processes, and tools, aligned to ISO 31000 that enables effective risk-based decision-making.

British Standards Institute (BSI)—Attended a two-day course taught by BSI to gain knowledge of the International Organization for Standardization (ISO) 31000 risk management framework and how it can be applied to the company's WMP.

Edison Electrical Institute (EEI)—Idaho Power is a member company of EEI and in 2023 attended two EEI's hosted events specific to wildfire:

- Wildfire Technology Summit—Attended presentations specifically on wildfire risk assessments, drone use in wildfire (inspections, PSPS events), weather data programs, wildfire risk software, and wildfire program benchmarking.
- UAS Working Group Conference—Attended presentation on drone use for wildfire mitigation, drone infrared inspections, wildfire drone patrols, use of BVLOS fixed wing aircraft for storm damage assessment, stringing rope to pull wire with drones, and use of drone-in-a-box solutions for distribution inspections.

Electric Power Research Institute (EPRI)—Continued engagement with EPRI, including participation and contributing towards the development of a Wildfire Advisory Group and attendance at EPRI's Climate READi workshop in September of 2023 which focused on wildfire and extreme heat. Presentations and discussions included wildfire insight from National Oceanic and Atmospheric Administration (NOAA), PNNL, DOE, UC Merced, Oregon PUC, BPA, PG&E, and Seattle City Light.

Governors Wildfire Roundtable—Participated in the Idaho Governor's Wildfire Roundtable and provided details of utility practices to decrease wildfire risk, PSPS, and liabilities. The outcome of the roundtable will result in future work groups aimed at decreasing the risk and impacts of wildfire in Idaho.

Institute of Electrical and Electronic Engineers (IEEE)—Attended 2023 general meeting which included panel presentations on power quality, ignition reporting, and results following wildfire hardening practices.

International Association of Arson Investigators—IPC staff participated in a 40-hour fire investigation course and will be pursuing additional courses in wildland fire cause and investigation. Additionally, IPC hosts annual training for staff on first responder fire investigation principals.

2023 Industry, Fire Expert, and Peer Utility Engagement (continued)

International Wildfire Risk Mitigation Consortium (IWRMC)—In 2023, Idaho Power joined IWRMC, an industry sponsored collaborative that facilitates the sharing of risk mitigation insights and utility wildfire practices from across the globe. Idaho Power actively participates in monthly workgroup forums for operations and protocols, asset management, vegetation management, and risk management.

National Grid Alliance—Provided presentation on Idaho Power's Vegetation Management program with details of the company's satellite and aerial imagery pilot project for wildfire mitigation.

National Interagency Fire Center—Met with NIFC staff to learn more about the Quantitative Wildfire Risk Assessment (QWRA) and Interagency Fuel Treatment Decision Support System (IFTDSS). Idaho Power will continue to work with NIFC in 2024 to evaluate the future use of these tools in the utility setting.

NW Wildfire Group—Attended biennial meetings and shared details of Idaho Power's WMP and PSPS plan with attendees including how new technology and innovative materials are being incorporated.

Oregon Wildfire Detection Camera Interoperability Committee—Continue to participate with this committee which is evaluating the siting/logistics, technology, governance, and financial needs associated with the growing network of wildfire detection camera systems in Oregon.

Pacific Northwest Economic Region (PNWER) 32nd Annual Summit—Attended and presented during the general session on developing policy and strategies for wildfire prevention, response, and how government and private industry are responding to the ever-growing challenge of wildfires.

Peer to Peer Engagements—Idaho Power met numerous peer utilities in 2023 to learn about WMP programmatic advancements, collaborate on operational practices, and learn about individual pathways towards programmatic maturity. Highlights included:

- PG&E Advanced Technology Lab in San Ramon, California—Discussions included approach to vegetation management, enhanced system settings for wildfire, distribution hardening, PSPS event planning, wildfire risk analysis, wildfire risk software (Technosylva), pole loading, weather data, and ignition tracking.

- Oregon Joint IOU collaboration-Idaho Power staff spend approximately 400 hours throughout 2023 working directly with PacifiCorp and Portland General on collective WMP regulatory compliance and programmatic maturity.

Southern Idaho Priority Landscape Partnership—Active participant in a multi-jurisdictional and cross-ownership boundary fuels reduction partnership effort that spans 2.3 million acres in southern Idaho.

Southern Idaho Wildfire Detection Camera Strategy Group—Began hosting monthly meetings with State and Federal agency partners who are interested in growing a network of wildfire detection cameras throughout Idaho. Idaho Power is bringing lessons learned to this group from the Oregon Wildfire Detection Camera Interoperability Committee.

Technology—Idaho Power maintains and regularly updates our five-year WMP technology roadmap. This roadmap provides a framework for ongoing evaluation of existing and new technologies and informs the process for the incorporation of new innovations into our WMP pilot project cycle. As part of our technology roadmap process, Idaho Power annually meets with a variety of wildfire technology vendors.

2023 Industry, Fire Expert, and Peer Utility Engagement (continued)

Urban Land Institute Sustainability Conference—Attended and participated on a panel to discuss the role utilities are playing to reduce wildfire risk and the challenges around development in wildland urban interface areas.

U.S. Forest Service (USFS) Forest Leadership Teams—Met with R4 USFS leadership teams across our Idaho service area to provide an overview of the company's WMP, discuss risk modeling efforts, and initiate conversation on collective opportunities for wildfire risk mitigation work within and adjacent to Idaho Power's utility right of ways.

WEI Wildfire Planning and Mitigation Virtual Meeting—Attended a two-day conference to gain insight into mitigation activities and strategies other utilities are pursuing.

Western Energy Institute (WEI)—Participated and presented on WMP metrics at the annual WEI Wildfire Conference.

Wildfire Technology Webinar—Attended webinar focused on using artificial intelligence (AI) drones for grid inspections, aerial sensors, and cameras to gain situational awareness.

3. Quantifying Wildland Fire Risk

3.1. Objective

Idaho Power's approach to quantifying wildland fire risk includes qualitative and quantitative strategy 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 works with 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 commonly used across the industry with other utilities in California, Oregon, Idaho, Nevada, and Utah utilizing a similar approach to identify and quantify wildfire risk. The CPUC utilized the same consultant as Idaho Power did in the original development of the CPUC Fire Threat Map.

This wildfire risk-based methodology is consistent with conventional definitions of *risk*, which is 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:

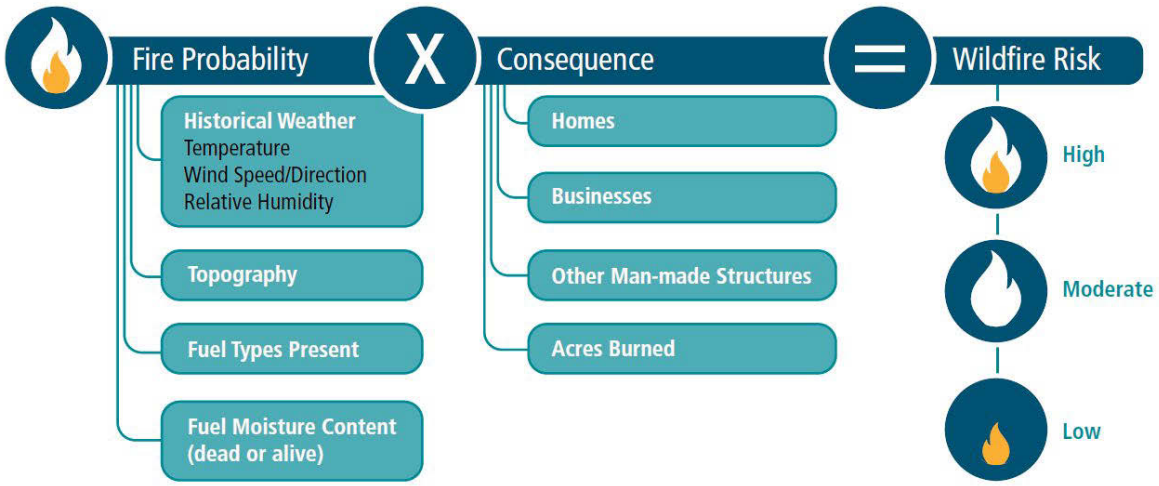


Figure 3
Wildfire risk-based methodology

Each component is defined 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, topography, fuel type, and fuel moisture content.

Consequence. Estimation of the fire's impact on structures (i.e., homes, businesses, other man-made structures) and acres burned.

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 twelve-year (2011–2022) 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 area. 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 area 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.[7]

4. The data developed above (WRF climatology, live fuel moisture, and LANDFIRE data) was used to drive a Monte Carlo[8] 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.

[7] Lautenberger, C.W., "Mapping areas at elevated risk of large-scale structure loss using Monte Carlo simulation and wildland fire modeling," *Fire Safety Journal* **91**: 768-775 (2017).

[8] Ibid.

Ignition locations were limited in the model to be within a 240-meter buffer surrounding Idaho Power's overhead T&D lines (i.e., 120 meters on either side). The model used equal ignition probability for all overhead distribution and transmission asset types.[9] Urbanized areas having underground circuitry were not included in the model due to a low probability of wildfire associated with underground electrical equipment. For each combination of ignition location and time of ignition, fire progression was then modeled for 12 hours. For each modeled fire, potential fire impacts to structures were quantified using structural location data. This was repeated across Idaho Power's service area 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.

[9] 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.

2023 Risk Modeling Input Updates

Idaho Power worked with a wildfire risk modeling consultant in 2023 to update wildfire risk models for Idaho Power's service area. Key input updates include the following:

Climatology—Updated 12-year (2011–2022) fire weather climatology was utilized for the 2023 risk model. This climatology set was developed using the Weather Research and Forecasting (WRF) model to recreate historical days of fire weather significance across IPC's service area. High-resolution hourly gridded fields of relative humidity, temperature, dead fuel moisture, and wind speed/direction were extracted from this analysis and provided as input to a Monte Carlo-based fire modeling analysis. Up-to-date and granular climatology inputs are used for Idaho Power's wildfire risk modeling process, as it allows Idaho Power greater insight into how climate variability is and will continue to influence wildfire risk within the service area[1]. Idaho Power is exploring the feasibility of bringing a greater resolution climatology package in-house that could be used to inform risk modeling and operational weather forecasting across the service area moving forward.

Predicting future fire regime change requires insight into how temperatures and precipitation may influence vegetation over time, recognizing that climate variability as a determinant of fire activity does not impact all landscape and vegetation types uniformly. Idaho Power's service area includes significant variation in ecotypes (ranging from high desert vegetation to alpine forests) and as such, it will be increasingly important to understand locations throughout the service area that are particularly prone to near and longer-term fire regime change. While fire regime remains one of the strongest factors to overall acres burned, the effects of Wildland Urban Interface (WUI) expansion combined with fire regime change has an influence greater than the sum of their individual effects, suggesting that climate variability may have an outsized impact in fire prone areas that are experiencing population expansion.[2]

Idaho Power Infrastructure and Outage Information—Infrastructure expansions were added into the modeling. Two years of outage information from across the service area was also used to better discern areas that have a higher probability of high wind or other seasonal impacts.

Structural Data—Datasets were updated to include 2020 census block level and Microsoft Building footprints. This enabled a better understanding of both existing population as well as insight into new building development near wildfire risk zones and within Wildland Urban Interface.

Vegetation Classification—Fuels inputs were obtained from the most recent LANDFIRE product (2.3.0). This version includes disturbances, such as fires, through 2022 and reclassified certain vegetative conditions allowing for more granularity.

[1]Keeley, J., and Syphard, A., 2016, Climate change and future fire regimes—Examples from California: Geosciences, v. 6, no. 3, 14 p., doi.org/10.3390/geosciences6030037.

[2]Liu, Z., Wimberly, M.C., Lamsal, A., Sohl, T.L., and Hawbaker, T.J., (2015), Climate change and wildfire risk in an expanding wildland–urban interface—a case study from the Colorado Front Range corridor: Landscape Ecology, v. 30, no. 10, p. 1943–1957, doi.org/10.1007/s10980-015-0222-4.

3.2.2. Establishing Wildfire Risk Zones

Based on the previously described modeling, draft risk tiers are generated algorithmically[10] by an automated process. Tiers are established which, if exceeded, would classify an area as Tier 2 (elevated risk) or Tier 3 (higher risk). This was accomplished by manually setting threshold values at naturally occurring breaks and is a similar approach to that taken by the California Public Utilities Commission in developing a state wildfire risk map. Consequently, the resulting risk tiers reflect risk relative to Idaho Power's service area only and not absolute risk. Idaho Power color-codes the tiers—Yellow Risk Zones (YRZ) for Tier 2 and Red Risk Zones (RRZ) for Tier 3.

Iterative review of wildfire risk across the service area remains integral to the maturity of Idaho Power's risk modeling methodology and is consistent with the ISO 31000 risk management process that informs Idaho Powers WMP. Annual risk area adjustments are used to account for unique factors that may increase or decrease risk due to changes that have occurred overtime, such as increased development in a wildland urban interface or recent large-scale fires that alter vegetation composition. In addition to the quantitative assessment provided by the wildfire risk model, Idaho Power simultaneously utilizes a qualitative assessment process to account for factors that are not incorporated into the wildfire risk modeling, detailed below in Figure 4.

[10] Ibid.

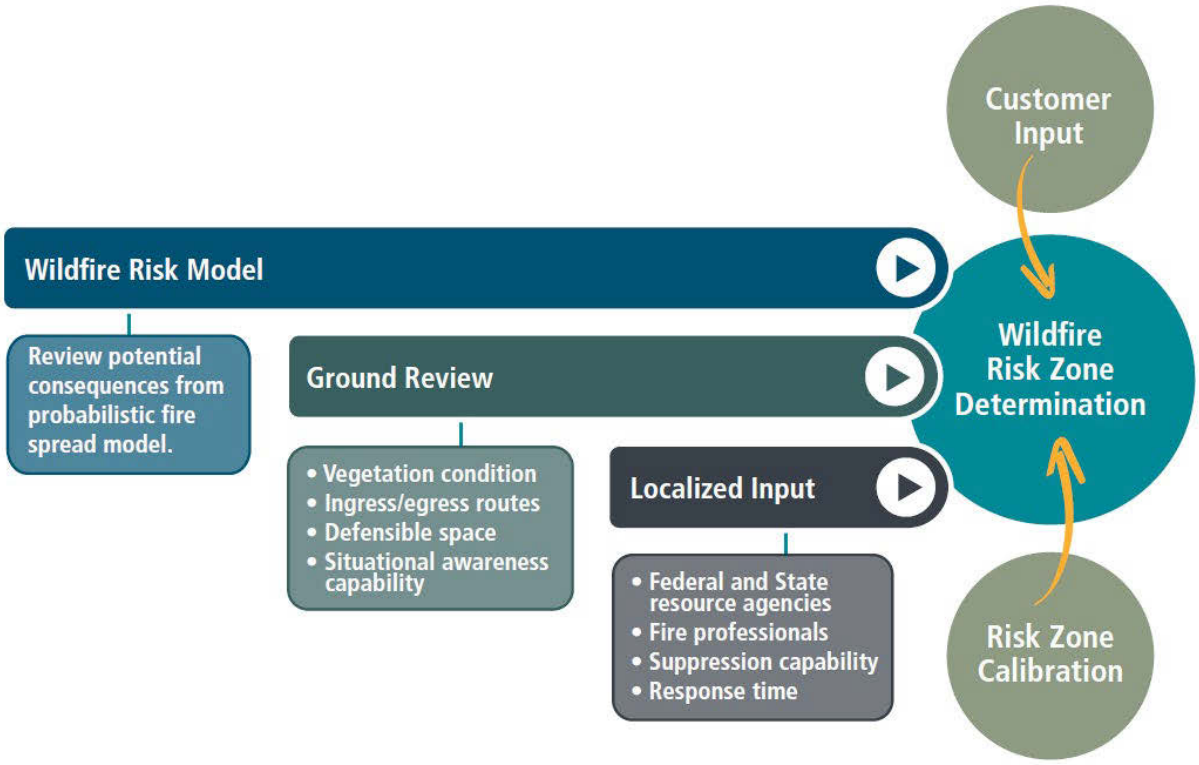


Figure 4
Risk zone evaluation and determination process

Incorporating Local Feedback into Risk Zone Establishment

Throughout the year, Idaho Power routinely attends Local Emergency Planning Committees (LEPC). Among other topics, this forum provides a platform to receive valuable feedback from county-level Public Safety Partners on the WMP, including risk areas, mitigation approaches, outage preparedness, and emergency planning. In 2023, Idaho Power also met one-on-one with local fire departments and rural fire protection districts in Oregon and Idaho, and State and Federal resource managers, including Idaho Department of Lands, Oregon Department of Forestry, BLM District-level leadership in Oregon and Idaho, and USFS Forest-level leadership in Idaho to review Idaho Power's risk modeling process and gain feedback on localized areas relative to wildfire risk. The feedback gained from these one-on-one meetings was particularly informative for understanding suppression capabilities, ingress/egress routes, and localized factors that may influence fire regime. For example, qualitative feedback received from meetings relative to two distant areas of Idaho Power's service area—Unity, Oregon, and Salmon, Idaho—resulted in changes to risk zones that better reflect the risk profiles in those areas. In addition, Idaho Power is engaging with localized wildfire mitigation planning processes, such as Community Wildfire Protection Plans, to better correlate risk identification and mitigation approaches.

Idaho Power's process for incorporating customer feedback into the WMP utilizes a variety of approaches, including public workshops. Section 10 details Idaho Power's approach to customer outreach and feedback relative to the WMP, including risk zone establishment.

Wildfire Risk Zone Calibration with Peer Utilities

Idaho Power routinely engages with peer utilities and forums to benchmark and continually improve the company's WMP, including with the approach to risk modeling. In 2023, Idaho participated in conversations with PacifiCorp, the Oregon Trail Electric Co-Op, and Avista to better understand each utility's approach to risk assessment and risk zone designation. Since joining the International Wildfire Risk Management Consortium in 2023, Idaho Power has also participated in a subgroup within the forum that is focused on risk-based topics, including risk assessments, mapping, and modeling. While the fundamental processes for conducting wildfire risk modeling are not inherently different across the utility industry, individual processes for evaluating impacts to highly valued resources and assets (HVRA) may differ. Idaho Power defines consequence as a fire's impact on structures and acres burned, thus the relative importance of these two factors is primary to the company's determination of risk zones. HVRAs may be defined or weighted differently depending on the goals associated with wildfire modeling and as such risk profiles can vary.[11] Idaho Power will continue to work with peer utilities to inform collective understanding and decision making around wildfire risk modeling with the goal of continually improving Idaho Power's approach.

3.3. Wildfire Risk Zones

As detailed above, Idaho Power's wildfire risk zones reflect risk relative to Idaho Power's service area only and not absolute risk. To aid in customer and public understanding, Idaho Power color-codes the tiers—Yellow Risk Zones (YRZ) for Tier 2 and Red Risk Zones (RRZ) for Tier 3. The full risk zone map can be viewed in detail on Idaho Power's website and individual addresses can be entered on the map to determine proximity to identified risk zones. The service-wide risk zone map provides a foundation for Idaho Power's wildfire mitigation and risk reduction strategies and is used in part to support the determination and prioritization of investments, inspection activities, and increased situational awareness. For 2024, Idaho Power made twelve zone changes across the service area (Table 4).

[11] Scott, Joe H., etal. (2013). *A wildfire risk assessment framework for land and resource management.* United States Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Table 4
2024 risk zone changes

State	New YRZ	New RRZ	Elevated YRZ to RRZ
Idaho	2	-	6
Oregon	3	1	-
Total	**5**	**1**	**6**

Table 5 provides a breakdown of pole miles in risk zones on a system-wide basis and by state.

Table 5

Idaho Power's overhead transmission and distribution lines by risk zone in Idaho and Oregon*

Asset	ALL IPC LINES	LINES IN WILDFIRE RISK ZONES		WILDFIRE RISK ZONES BY STATE											
				T2-IDAHO		T3-IDAHO		T2-OREGON		T3-OREGON		T2-NEVADA		T3-NEVADA	
	Total Pole Miles	Total Pole Miles	% All Lines	Total Pole Miles	% All Lines	Total Pole Miles	% All Lines	Total Pole Miles	% All Lines	Total Pole Miles	% All Lines	Total Pole Miles	% All Lines	Total Pole Miles	% All Lines
Transmission Lines	4,651	517	11%	362	7.8%	120	2.6%	23.6	0.5%	0	0.0%	11	0.2%	0	0%
Distribution Lines	19,407	1649	8%	857	4.4%	710	3.7%	41.3	0.2%	40	0.2%	0	0.0%	0	0%
Total Pole Miles	24,057	2166	9%	1219	5.1%	830	3.5%	64.9	0.3%	40	0.2%	11	0.0%	0	0%

*Current as of November 15, 2023. Line mileage reported includes 100% Idaho Power owned assets and does not include assets in co-ownership.

3.3.1. Maps

The following two-tier wildfire risk map in Figure 5, is illustrative of Tier 2 (Yellow Risk Zones) and Tier 3 (Red Risk Zones) throughout Idaho Power's service area. Additionally, figures 6 through 16 reflect Tier 3 Zones by region and service area. An illustrative map book of all zones is included in Appendix C. A full and up-to-date risk zone map can be viewed in detail on Idaho Power's website.

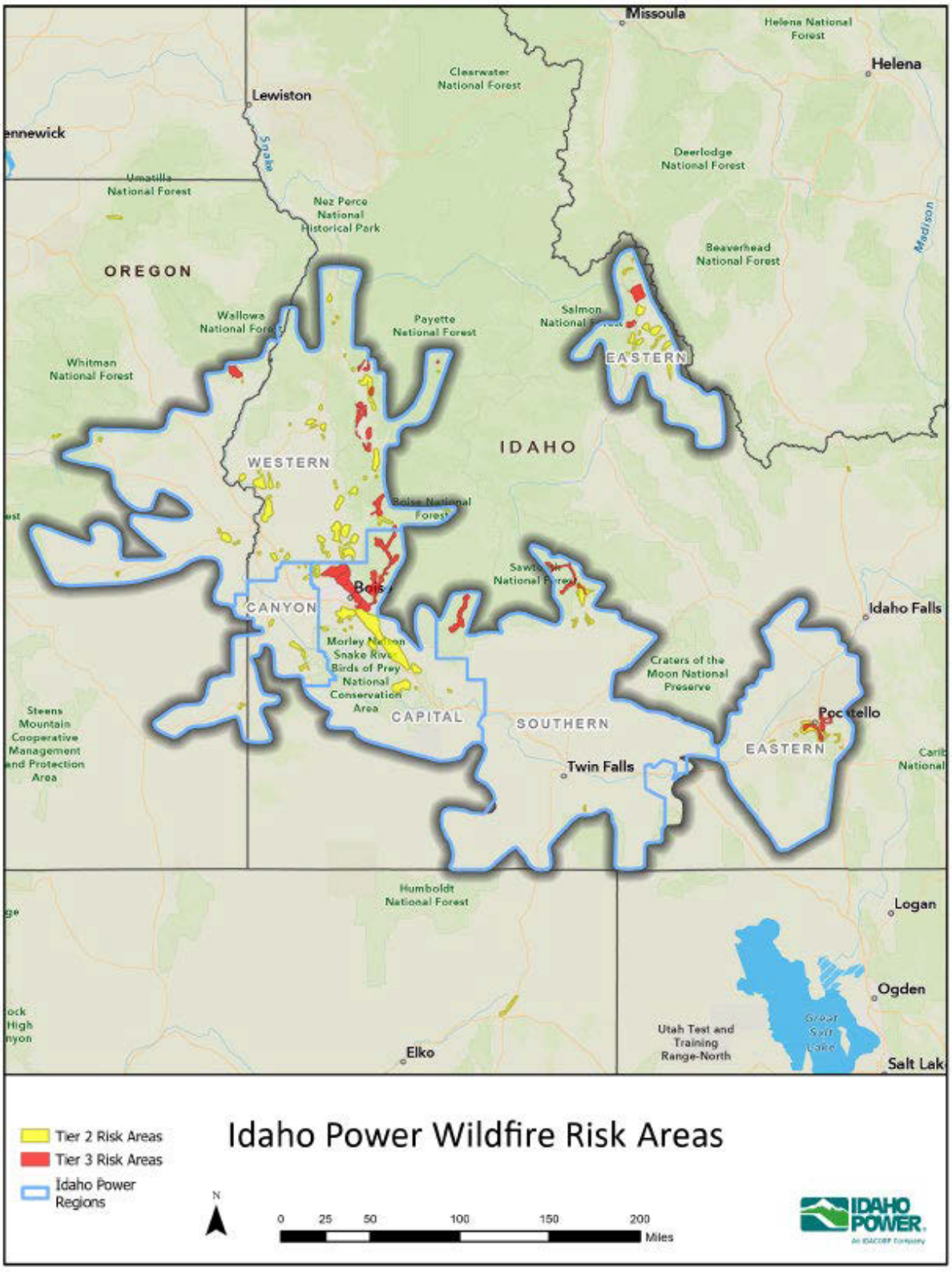


Figure 5
Idaho Power wildfire risk zones

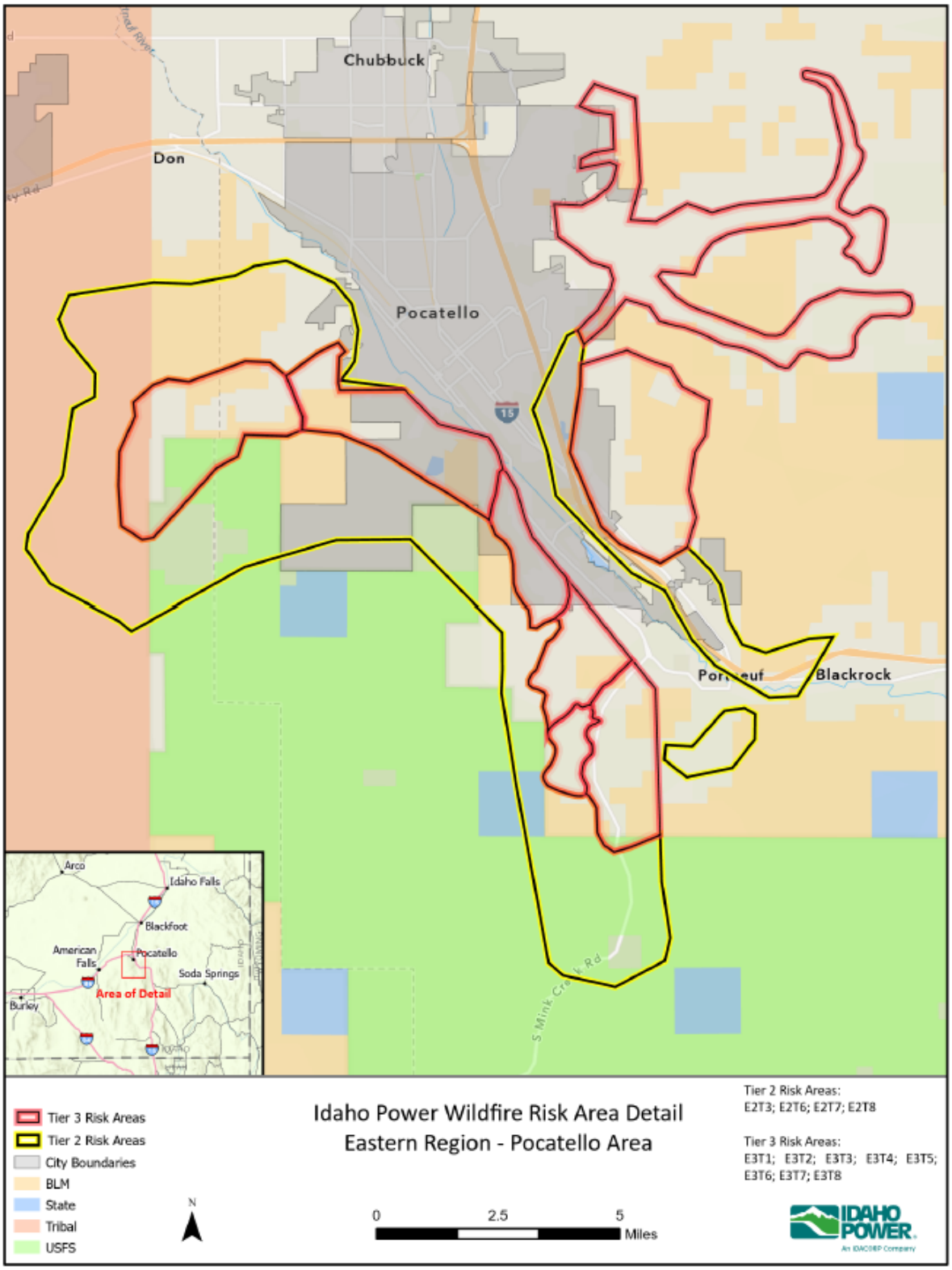


Figure 6
Eastern Idaho–Pocatello area

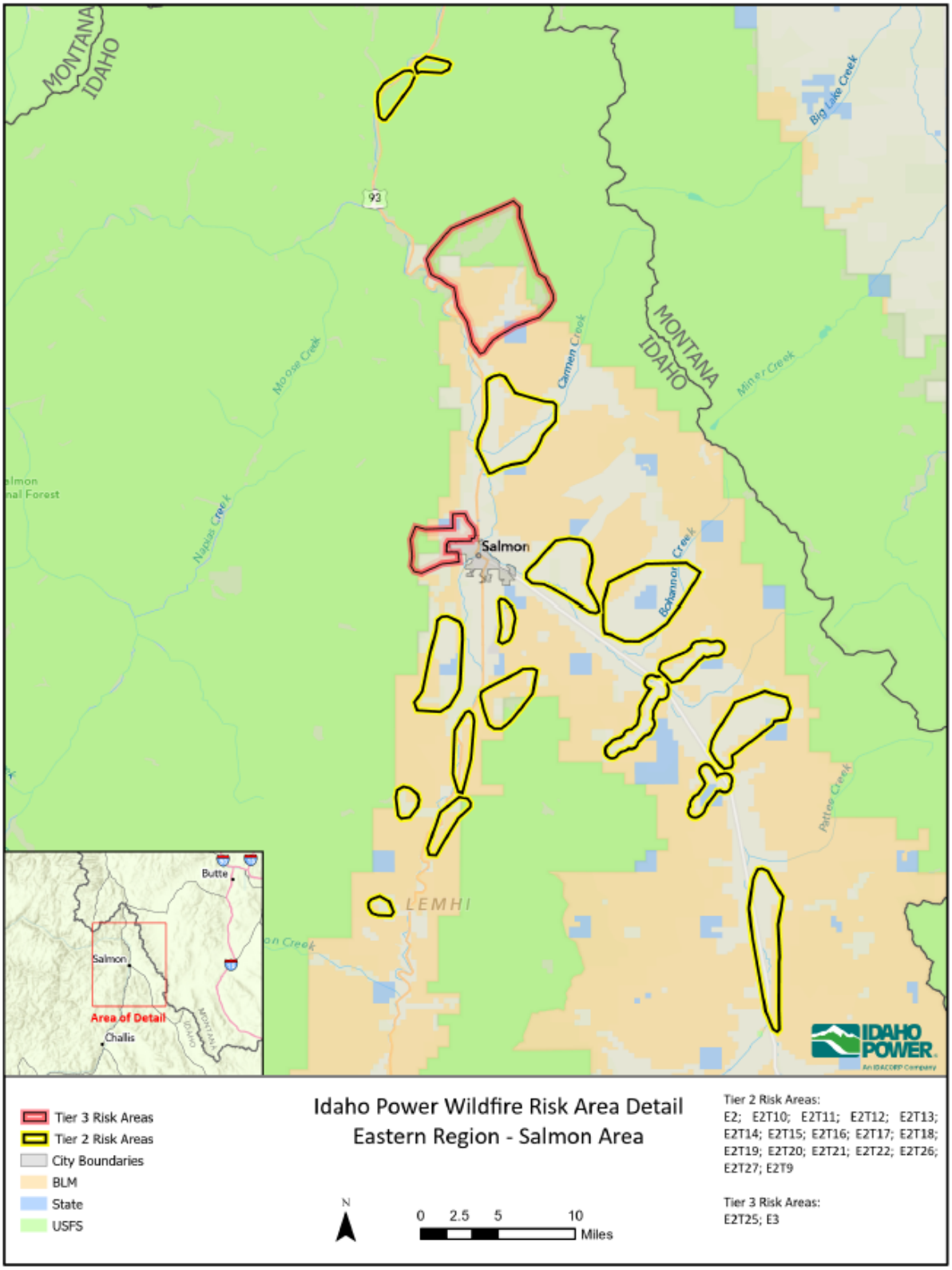


Figure 7
Eastern Region–Salmon area

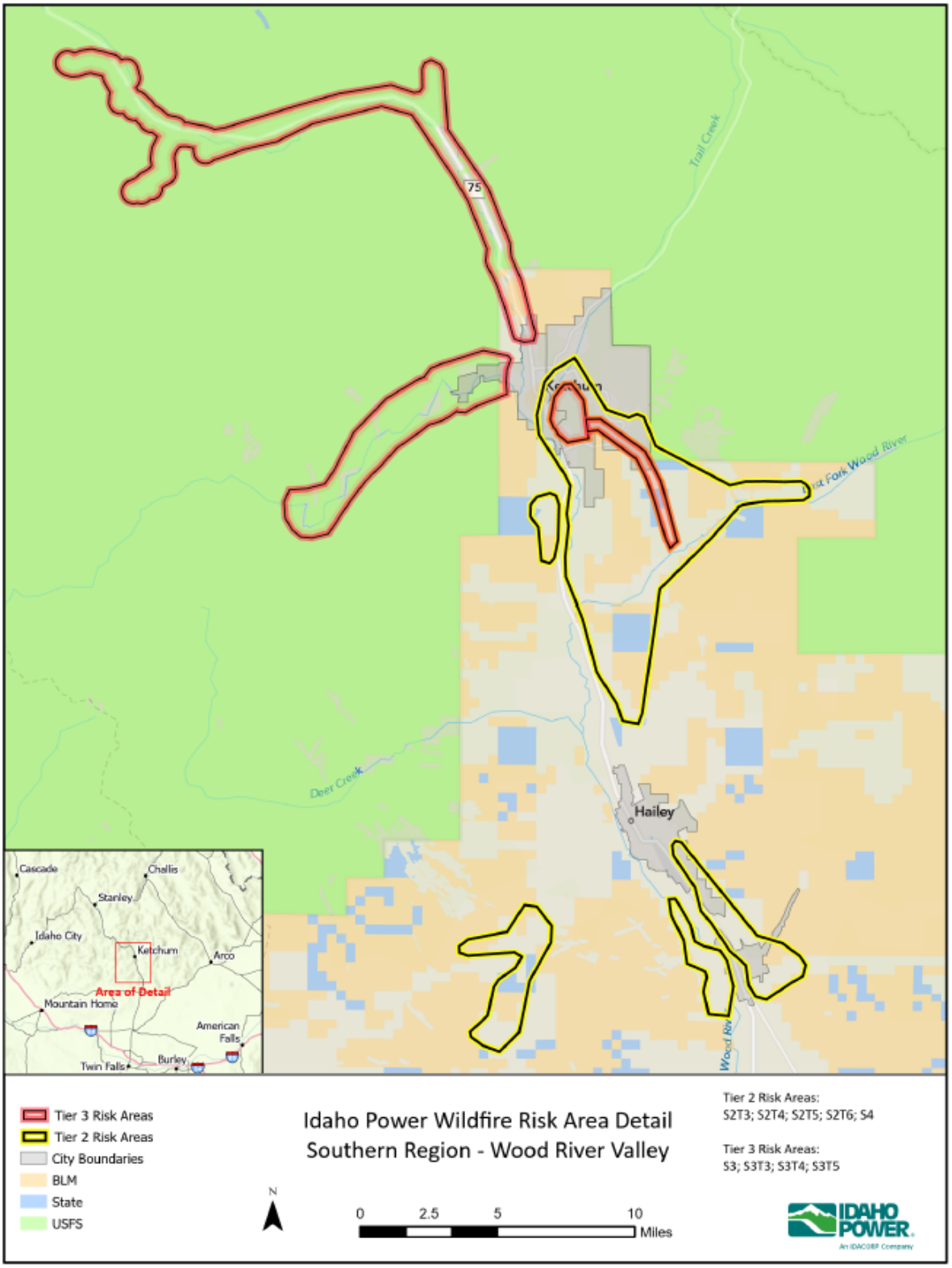


Figure 8
Southern Region–Wood River Valley

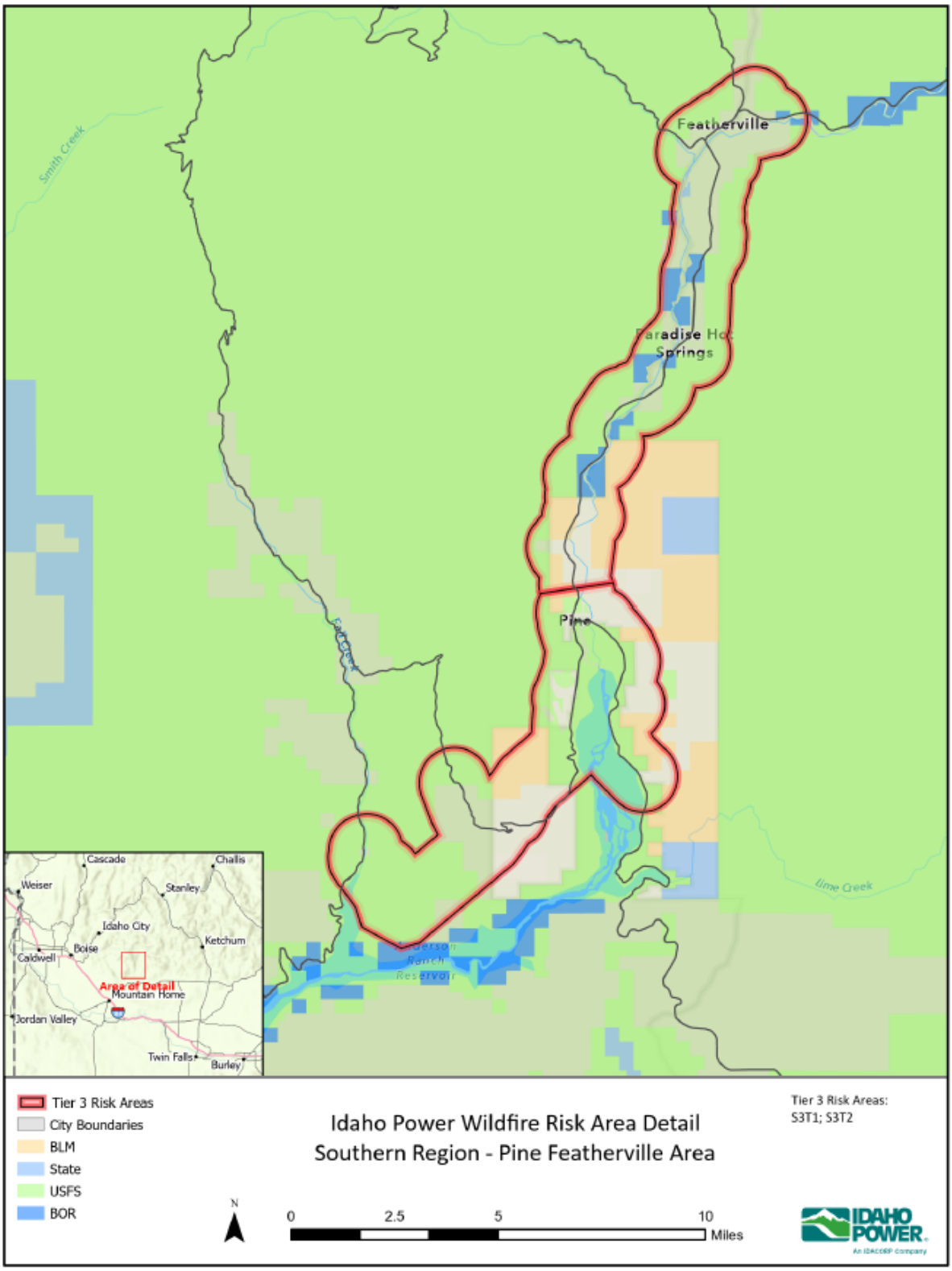


Figure 9
Southern Region–Pine-Featherville

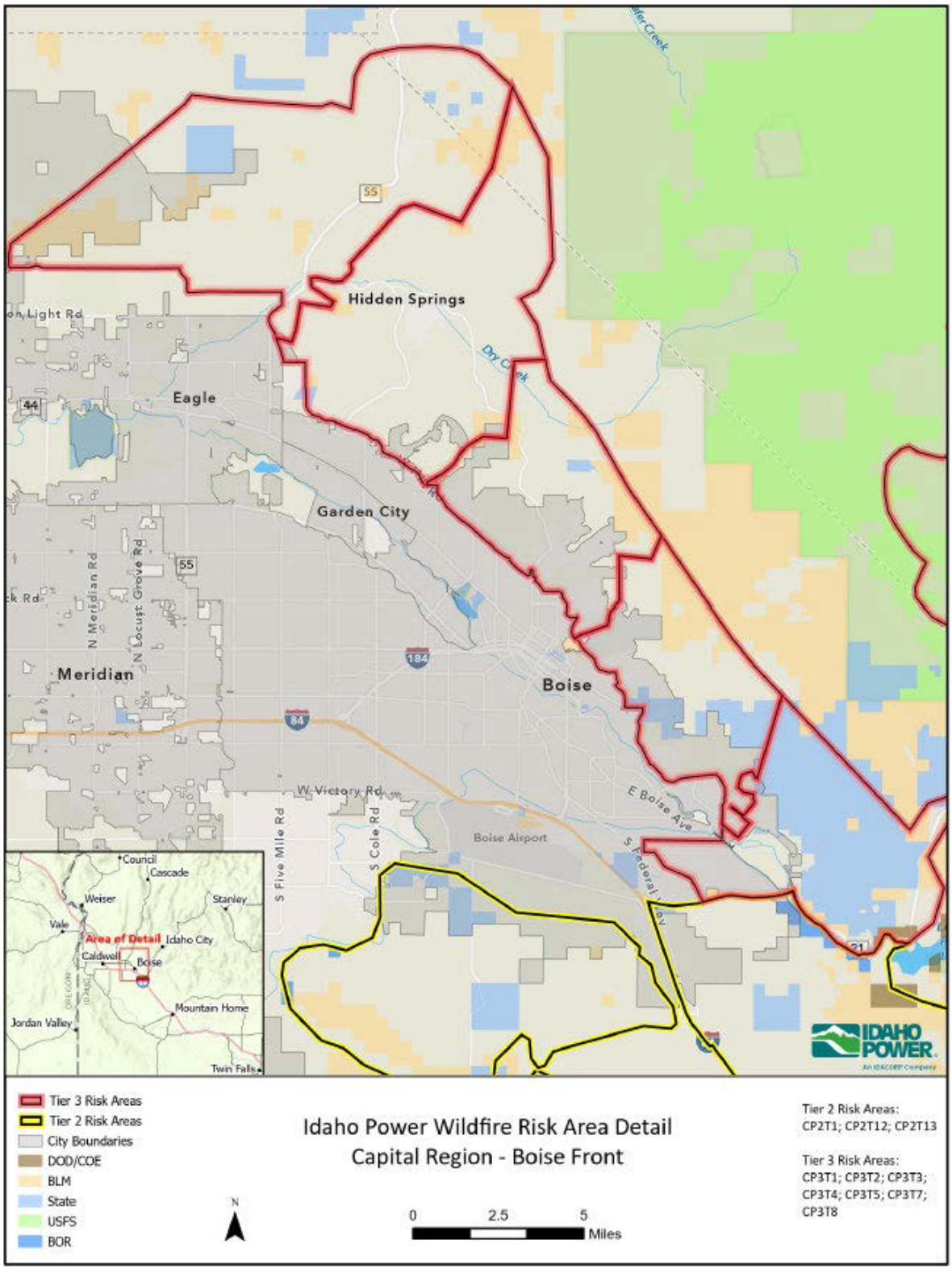


Figure 10
Capital Region–Boise Front

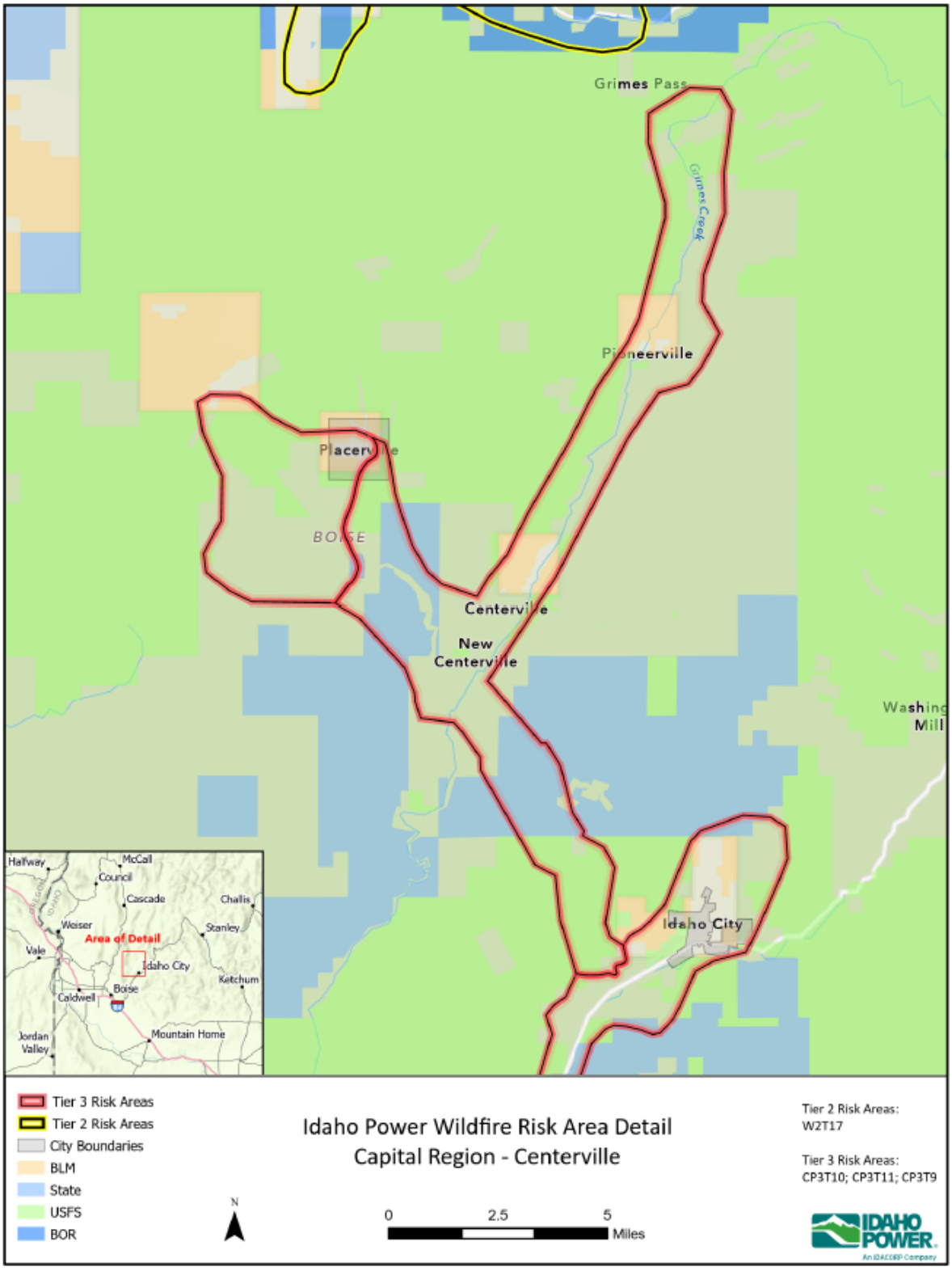


Figure 11
Centerville

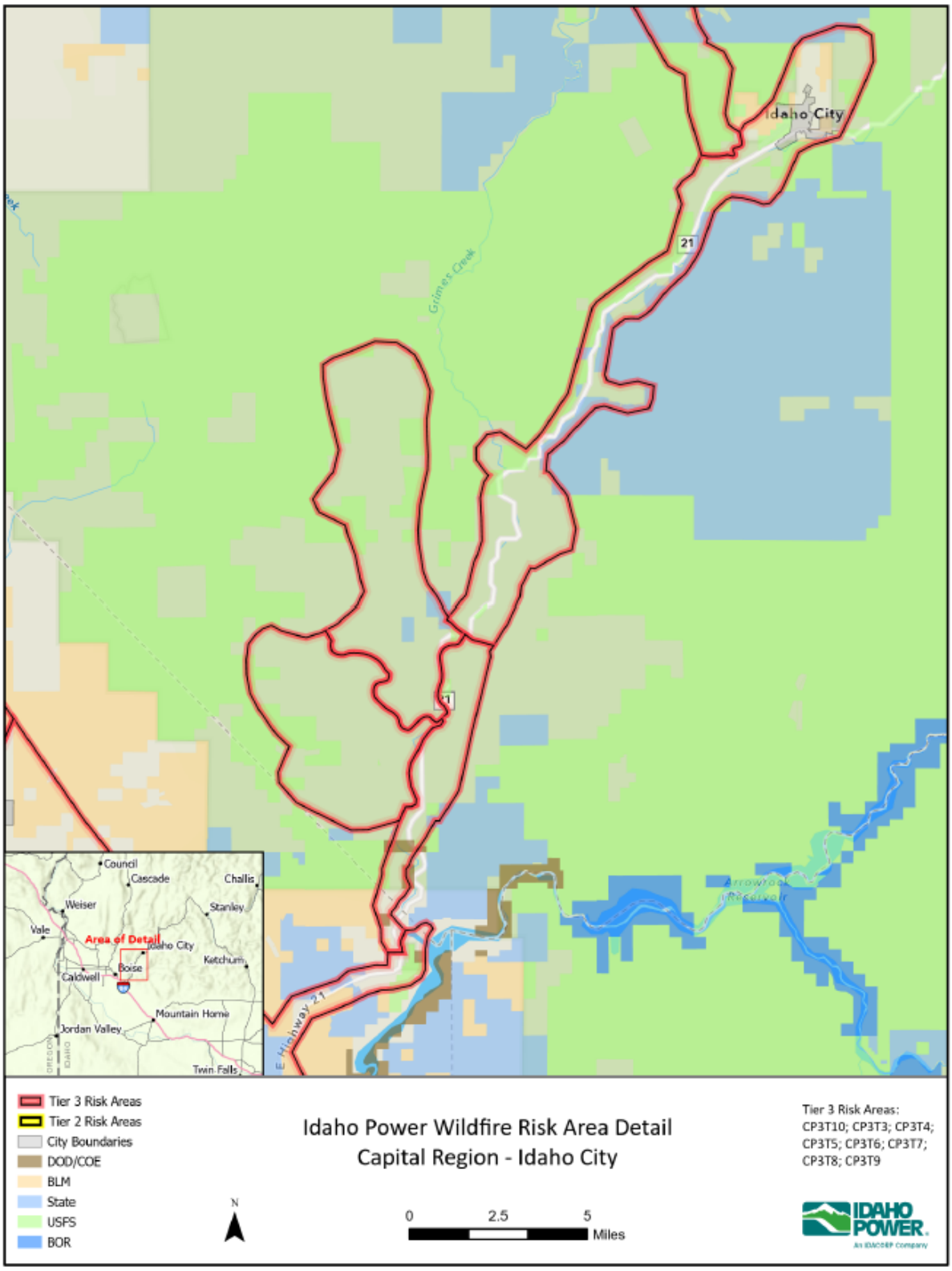


Figure 12
Idaho City area

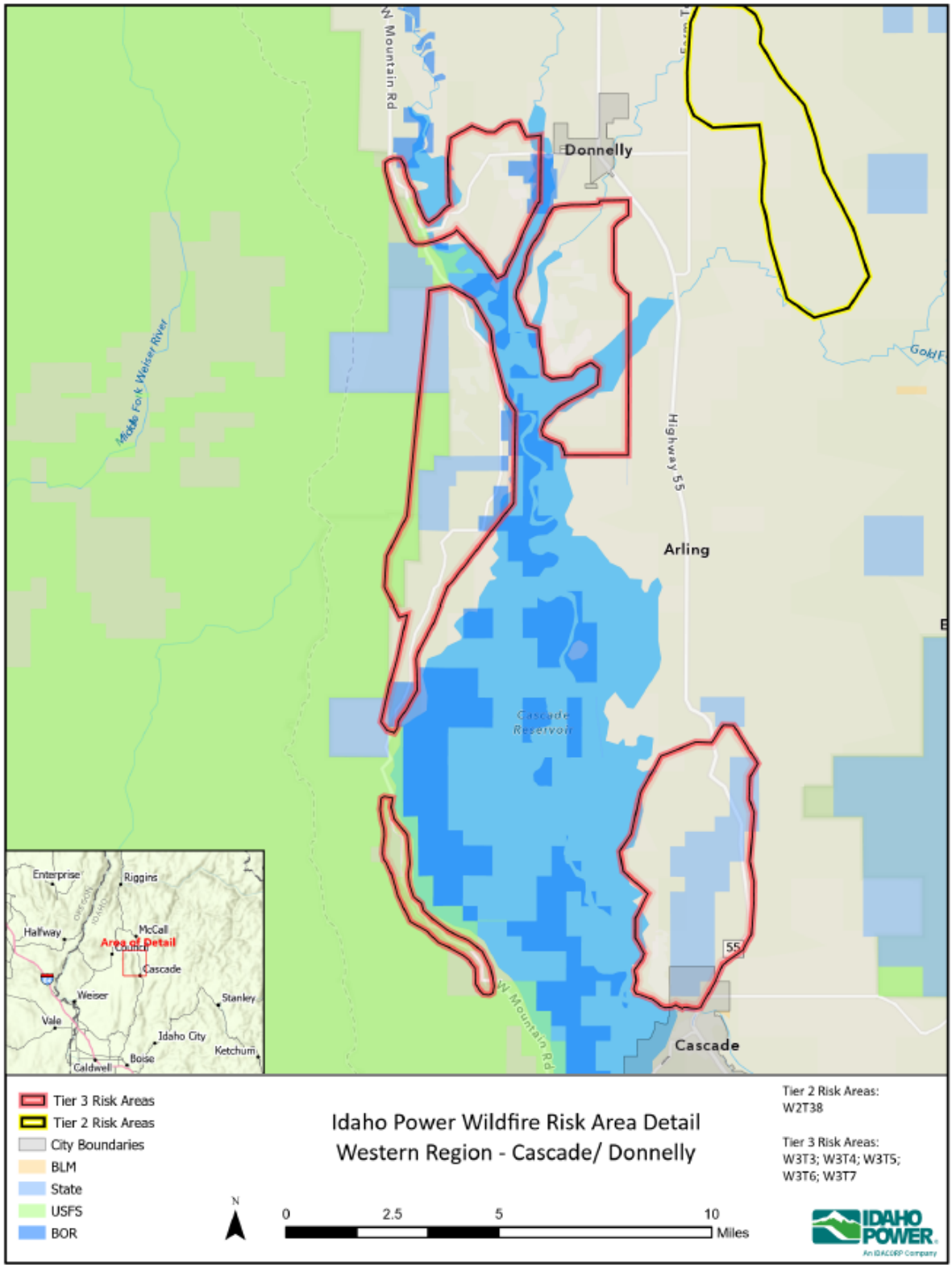


Figure 13
Cascade/Donnelly area

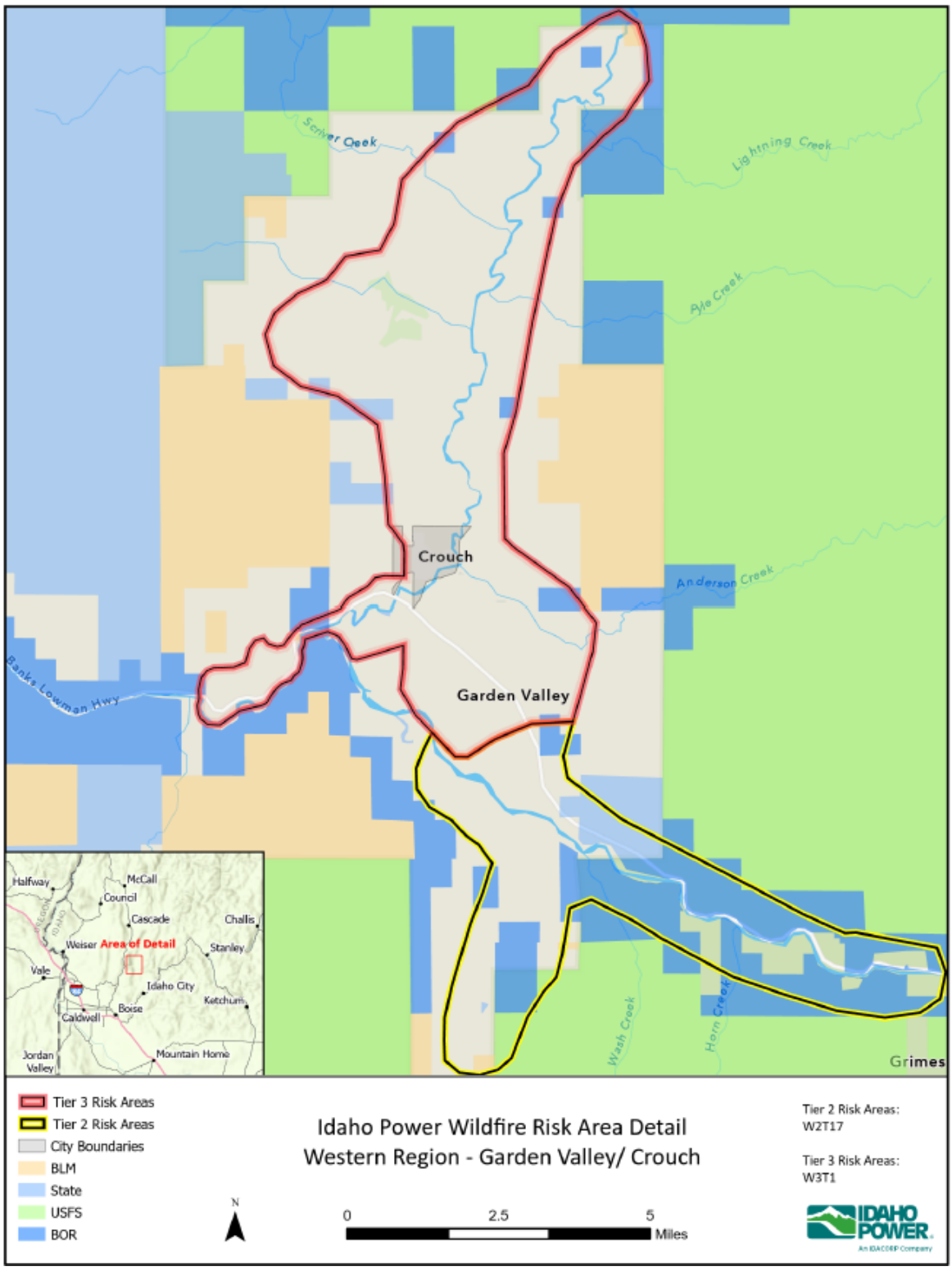


Figure 14
Garden Valley/Crouch area

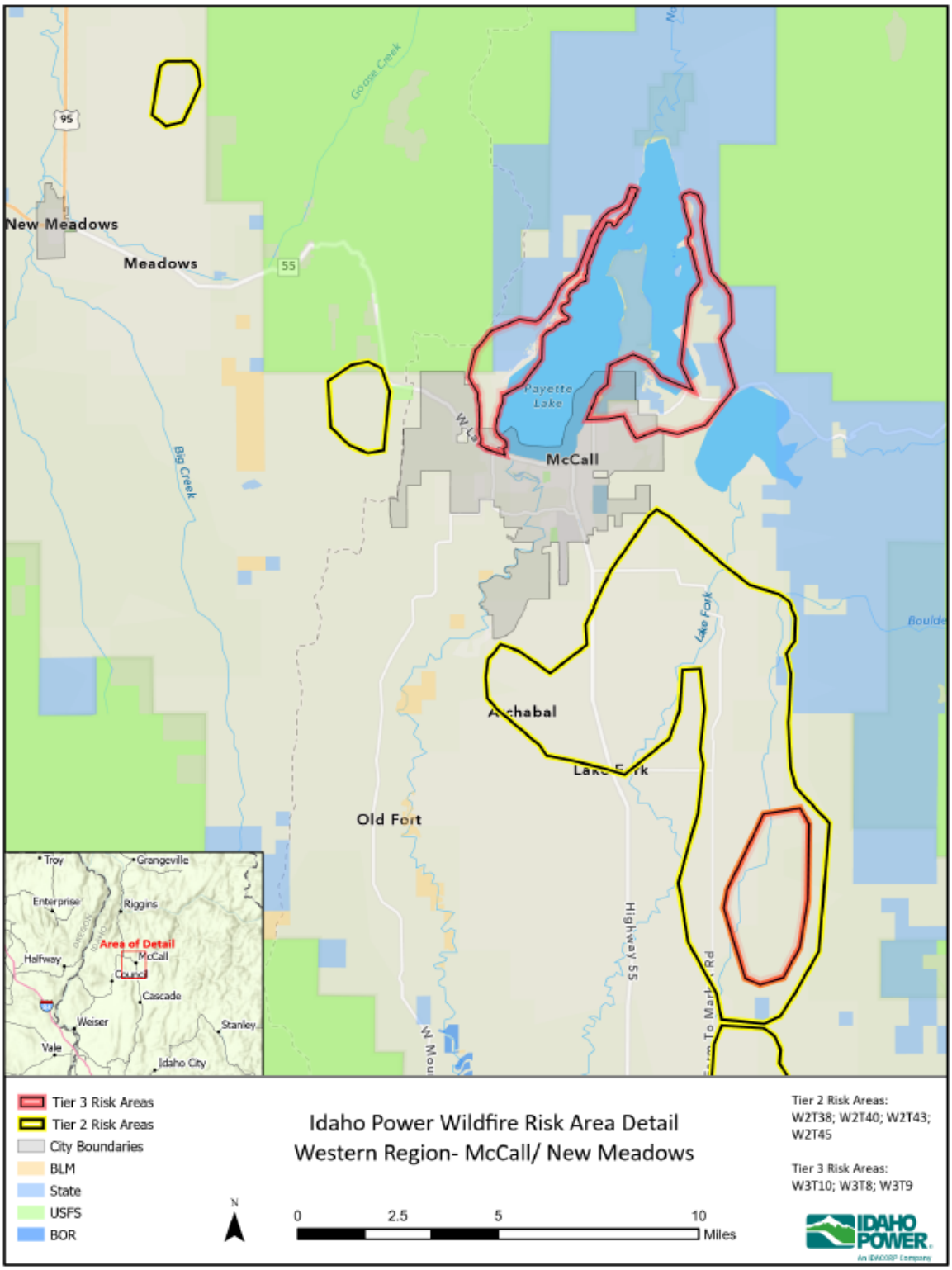


Figure 15
McCall/New Meadows area

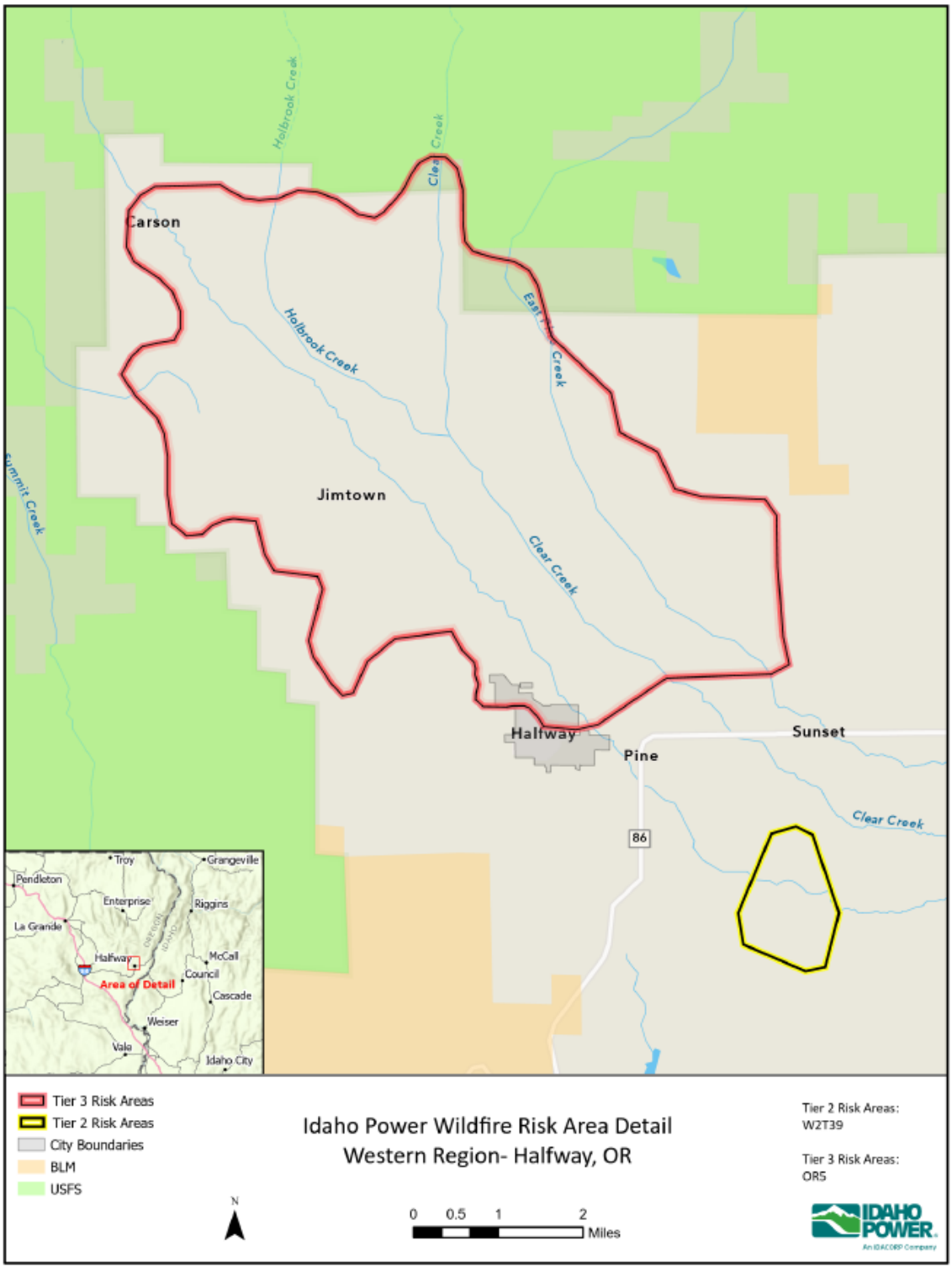


Figure 16
Halfway Oregon

3.3.2. 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 17). Two locations are identified along the route as having elevated wildfire risk (Tier 2 Zones), and there are no areas of higher risk (Tier 3 Zones). Although the B2H transmission line has not been constructed as of the publication of this 2024 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 through 9 of this WMP.

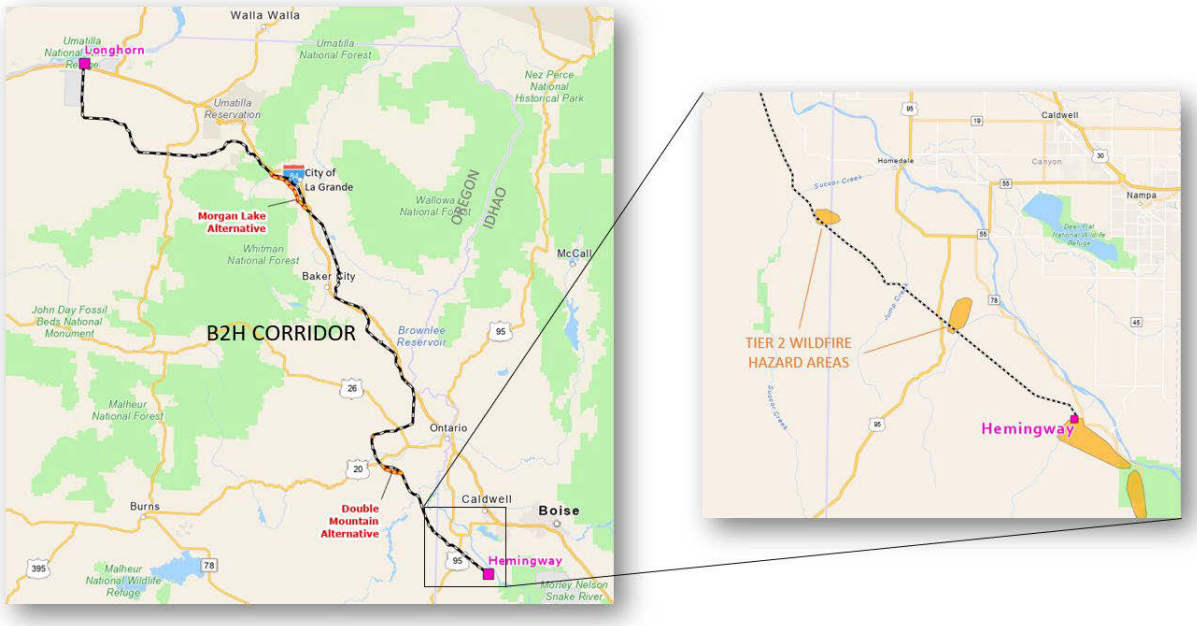


Figure 17
Proposed B2H route

4. Costs and Benefits of Wildfire Mitigation

4.1. Objective

This section details Idaho Power's assessment of general 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 4.4 identifies selected mitigation activities and the estimated costs of those activities on a system level. In Section 4.5, 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.

For example 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.[12] This increase[13] 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 6.

Table 6
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 and reasonably conclude that the incremental costs of wildfire mitigation efforts are prudent. Considering the available historical information and data regarding wildfire risks and losses, Idaho Power worked with PacifiCorp and Portland General Electric as a joint utility working group to begin developing a strategy for the future creation of a common framework evaluating risk spend efficiency.

Risk spend efficiency (RSE) is a tool that can be used to better understand how a proposed mitigation approach may incrementally reduce wildfire risk. At a basic level, RSE is calculated as a ratio between overall cost and risk reduction achieved. RSE includes analyzing risk mitigation alternatives, the expected risk reduction, and considers the lifecycle costs and other constraints of the mitigation. RSE metrics can be compared to one another, ultimately allowing for the ability to assess one mitigation approach against another to evaluate the effectiveness of an investment relative to reducing wildfire risk while minimizing ratepayer impact.

With RSE being a ratio, it is important to note that mitigations with high costs and associated risk reduction may have the same RSE as mitigation with low cost and small associated risk reduction. Overall risk levels may warrant greater spend to achieve the objectives of an independent utility's WMP. Idaho Power will continue to expand RSE efforts with a specific focus on trying to accurately quantify risk reduction and to determine how RSE may be used as one of many inputs in the overall decision-making processes for mitigation approaches and

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

[13] 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.

alternatives. A detailed roadmap for the creation of a collaboratively developed, uniform RSE framework process will be developed in 2024.

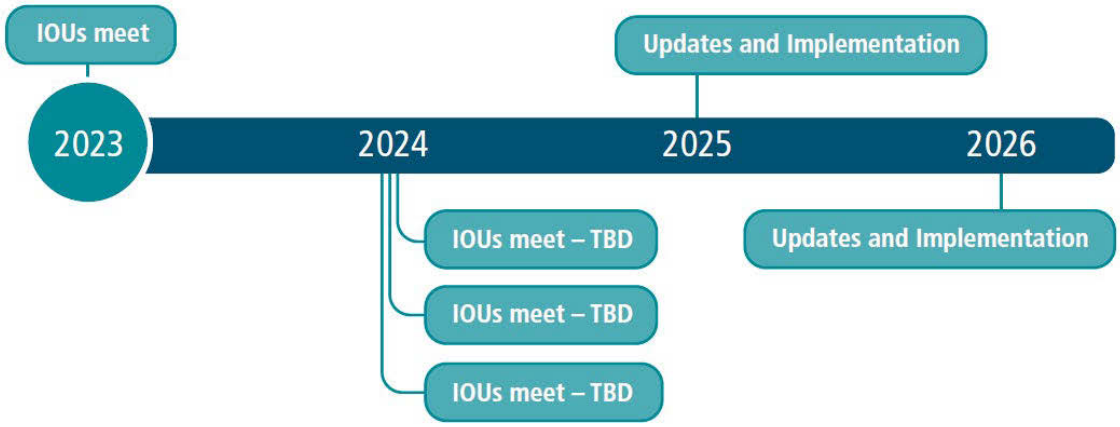


Figure 18
Joint Oregon IOU–risk spend efficiency process timeline

4.3. Risk Analysis and Drivers

Idaho Power's risk management framework is modeled after the internationally recognized risk management standard, ISO 31000. ISO 31000 provides a comprehensive framework for effective risk management with six distinct steps summarized in the graphic below.

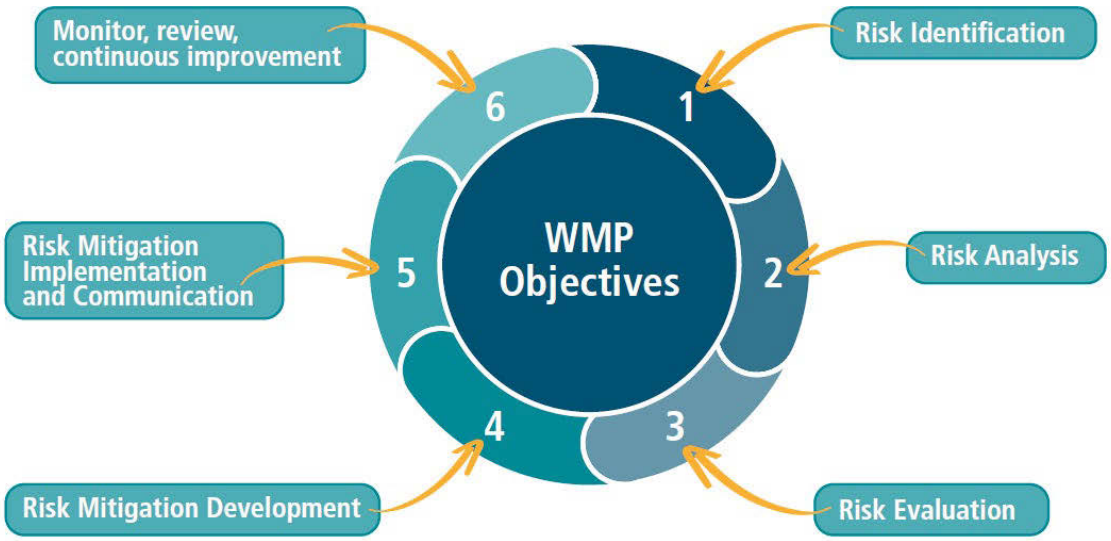


Figure 19
Idaho Power WMP risk management framework

Idaho Power faces evolving wildfire risk and continues to advance its risk management processes to better understand sources of risk and to identify the best solutions to further reduce risk in the future. Managing risk is an evolving process and while not all risk can be eliminated, Idaho Power's goal is to proactively prepare and enhance its infrastructure and operational practices to deliver safe and reliable energy today and in the future. The company continues to work to systematically identify, analyze, evaluate, mitigate, and monitor risks associated with wildfire.

In 2023 Idaho Power partnered with a consulting firm to reassess ignition risks from overhead transmission and distribution facilities and gain a deeper understanding of how wildfire risk can be quantified. A project team was formed and began an assessment process by conducting three workshops throughout the year with subject matter experts from various departments within the company. The team used the ISO 31000 standard as a guide for identifying and evaluating equipment specific risks in the context of wildfire ignition. Risk drivers and scenarios were analyzed to determine the likelihood and impact of wildfire. This process included a review of how uncertainties can be quantified to help prioritize risk and assess mitigation efficiency and effectiveness. This work led to the creation of a risk bow-tie diagram, shown in Figure 20, used as a visual representation of risk.

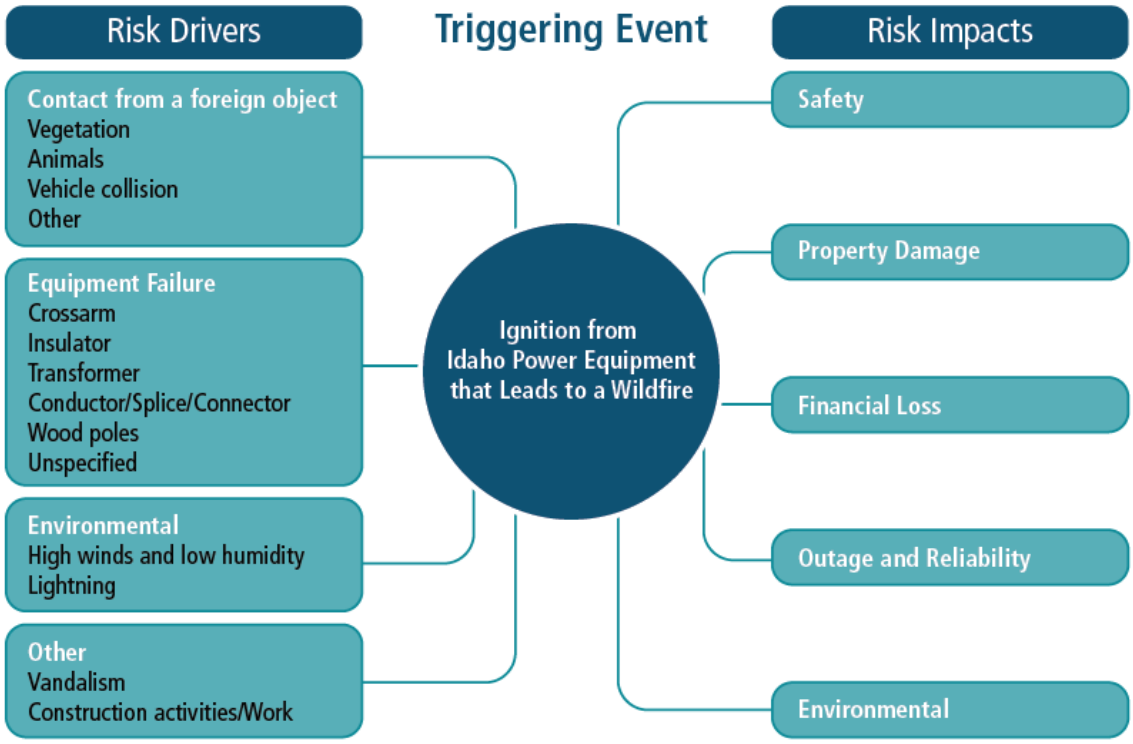


Figure 20
Risk bow-tie

The bow tie analysis considers the risk exposure throughout Idaho Power's 24,000 square mile service area and locations having overhead transmission and distribution facilities. The bow tie is constructed using three components described below.

- The Triggering Event: The event that Idaho Power aims to avoid that could impact the company's ability to meet its objectives of providing safe, reliable, and affordable energy.

- Risk Drivers: Factors that may potentially lead to an ignition are listed on the left-hand side of the bow tie. Actual conditions play an important role of whether a wildfire occurs as a result of an ignition, and it is important to note that the risk drivers shown are only an indication that a risk event may occur.

    - Contact from a foreign object—contact with foreign objects, including vegetation, animals, balloons, and other wind-blown objects.

    - Equipment failure—the unexpected failure of line equipment due to discrete (internal) or destructive (external) conditional changes.

  - Environmental—extreme weather conditions that include high wind, low humidity, and drought, contribute to increase the risk of wildfire, and can lead to tree failure, vegetation contact, and failure of electrical equipment.

  - Other—overhead powerlines may be at risk of vehicle collisions, vandalism, or physical attack. Construction activities, including activities performed by sub-contractors, near overhead powerlines may be a risk driver if proper safety precautions are not taken to eliminate inadvertent equipment contact.

- Risk Impacts: While most fires are extinguished quickly, the right-hand side of the bow tie describes the range of possible outcomes associated with the risk event. Impacts vary largely on where the event occurs, and actual conditions and the impacts shown are worst case scenarios and rare for Idaho Power's service area.

Idaho Power has identified and implemented mitigations for each of the top risk drivers shown in the risk bow tie with details provided throughout the WMP. Each type of mitigation is designed to reduce one of more of the risk driver frequencies or modify the potential impacts or outcomes. Primary mitigation programs and activities include overhead circuit hardening, underground conversions, expanded vegetation management and asset inspections, and Public Safety Power Shutoff. The company plans to perform an annual review of risk drivers and evaluate alternative mitigation strategies as part of our commitment to continuously improve upon each version of the WMP.

Probabilistic Risk Modeling

Idaho Power's approach to performing wildfire risk assessments includes the identification of hazards and estimating their relative likelihood of occurrence and potential consequences through feedback from subject matter experts and utilizing data when available. In 2023, the company began exploring new methods to measure risk beyond traditional ranking methods to account for uncertainties in estimations. This work involved the initial development of preliminary probabilistic operational risk models. The models may help Idaho Power quantify the frequency of risk drivers and range of possible outcomes under varying levels of uncertainty. Idaho Power is preliminarily planning to use Monte Carlo simulations to model multiple likelihood and consequence scenarios to produce a distribution of outcomes. This is expected to provide the company a path forward for enhancing a data driven, risk-informed decision-making framework.

Refining and incorporating risk models into risk assessment methodologies is expected to take several years to complete due to complex nature of assessing failure rates, likelihood of ignition, and range of consequences before and after mitigation is applied. However, the company recognizes the importance of improving quantification methods and the benefits it will have towards developing a risk spend efficiency methodology.

4.4. Wildfire Mitigation Cost Summary

From 2024 through 2028, Idaho Power estimates investing $209 million in operations and maintenance (O&M) expenses to further wildfire mitigation measures. Table 7 summarizes the company's planned expenditures associated with executing its WMP through 2028. Estimated amounts reflect the company's best estimates and plans as of the 2023 WMP. These estimates will likely change in the future as the company reviews and refines its WMP and associated mitigation activities. For the 2024 WMP, each wildfire mitigation category—and associated estimated expenditures in Oregon and Idaho—is discussed in Section 4.5.

Table 7
Estimated system-wide O&M expenses for wildfire mitigation, $000s (2023–2028)*

	2023 Planned	2023 Estimated Year End Actuals	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	5-Year Forecast Total	5-Year Forecast Total–Idaho	5-Year Forecast Total–Oregon
A. Quantifying Wildland Fire Risk										
Risk Map Updates and Dynamic Risk Modeling	$67	$61	$10	$868	$873	$879	$884	$3,515	$3,339	$176
B. Situational Awareness										
Weather Forecasting - System development and support	$47	$47	$74	$254	$74	$74	$74	$550	$523	$28
Weather Forecasting Personnel–Fire Potential Index (FPI) and Public Safety Power Shutoff (PSPS)	$178	$100	$103	$264	$271	$280	$288	$1,206	$1,145	$60
Weather Forecasting–Weather Station Maintenance	$19	$19	$23	$31	$38	$45	$52	$189	$162	$27
Pole Loading Modeling & Assessment (Contract service)	$75	$72	$75	$75	$150	$150	$ -	$450	$375	$75
Cameras	$165	$37	$200	$240	$280	$280	$320	$1,320	$1,264	$56
C. Mitigation - Field Personnel Practices										
Tools/Equipment	$5	$ -	$5	$5	$ 5	$5	$5	$25	$24	$1
Mobile Weather Kits for Field Observers	$10	$10	$2	$10	$ -	$ -	$5	$17	$16	$1
International Wildfire Risk Mitigation Consortium	$35	$35	$35	$35	$35	$35	$35	$175	$166	$9
D. Mitigation - Transmission & Distribution Programs										
O&M Component of Capital Work	$61	$100	$111	$122	$135	$149	$165	$681	$606	$75
Annual O&M T&D Patrol Maintenance Repairs	$50	$190	$50	$50	$50	$50	$50	$250	$238	$13
Annual Recloser Segmentation Maintenance and Communication Fees	$ -	$ -	$ 5	$23	$32	$37	$42	$139	$ 80	$59
Environmental Management Practices	$25	$25	$25	$25	$25	$25	$25	$125	$ -	$125
Transmission Thermography Inspection Mitigation	$20	$122	$200	$20	$20	$20	$20	$280	$109	$171
Distribution Thermography Inspection Mitigation	$30	$ -	$30	$30	$30	$30	$30	$150	$143	$8

	2023 Planned	2023 Estimated Year End Actuals	2024 Forecast	2025 Forecast	2026 Forecast	2027 Forecast	2028 Forecast	5-Year Forecast Total	5-Year Forecast Total–Idaho	5-Year Forecast Total–Oregon
Thermography Technician Personnel	$200	$210	$216	$223	$229	$236	$243	$1,148	$1,091	$57
Transmission Wood Pole Fire Resistant Wraps	$163	$259	$250	$250	$250	$250	$250	$1,250	$1,188	$63
Wildfire Mitigation Program Labor	$191	$161	$516	$531	$547	$564	$581	$2,740	$2,603	$137
Covered Wire Evaluation–Pilot Program in PSPS Zones	$50	$117	$50	$ -	$ -	$ -	$ -	$50	$48	$3
E. Vegetation Management										
Transition to/Maintain 3-year Vegetation Management Cycle	$22,728	$25,709	$33,884	$37,311	$44,686	$32,980	$34,632	$183,493	$174,319	$9,175
Enhanced Practices for Distribution Tier 3 & Tier 2 Zones (Pre-Fire Season Patrols/Mitigation, Pole Clearing, Removals, Work QA)	$1,284	$1,284	$1,348	$1,416	$1,486	$1,561	$1,639	$7,450	$7,077	$372
Line Clearing Personnel	$159	$159	$168	$173	$178	$184	$189	$892	$847	$45
Fuel Reduction Program	$75	$150	$ -	$75	$75	$75		$225	$225	$ -
Vegetation Mgmt. Satellite and Aerial Imagery	$150	$119	$150	$300	$300	$300	$300	$1,350	$1,283	$68
F. Communications										
Wildfire/Wildfire Mitigation Education/Communication–Advertisements, Bill Inserts, Meetings, Other & PSPS Customer Education/Communication–Advertisements, Bill Inserts, Other	$171	$100	$171	$171	$171	$171	$171	$855	$812	$43
G. Information Technology										
Communication/Alert Tool development (System set up, outage maps, critical facilities identification)	$ -	$-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Communication/Alert Tool for PSPS Customer Alerts/Extended Use	$129	$129	$161	$161	$161	$161	$161	$805	$765	$40
Total	**$26,087**	**$29,075**	**$37,862**	**$42,663**	**$50,104**	**$38,540**	**$40,161**	**$209,330**	**$198,446**	**$10,884**

*As of December 29, 2023.

4.5. Mitigation Activities

Idaho Power utilizes 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. While these initiatives are first and foremost intended to mitigate the risk and impacts associated with wildfire, additional co-benefits such as increased safety, reliability, and resiliency of the system are also achieved (see Table 8). As such, Idaho Power considers co-benefits a part of the evaluation process. Below is a narrative of each mitigation activity, its purpose, estimated near-term cost, and additional potential co-benefits of the activity to Idaho Power and its customers, and possible 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.

Table 8
Safety, reliability, and resilience co-benefits of wildfire mitigation initiatives

Mitigation Initiative	Safety *Defined as the potential to pose a danger, risk, or injury to life or property*	Reliability *Defined as the ability of the power system to withstand instability, uncontrolled events, cascading failures, or unanticipated loss of system components*	Resiliency *Defined as the ability for the grid system to adapt to, withstand, and quickly recover from disruptive events or changes within the surrounding environment*
Enhanced Vegetation Management	x	x	
Asset Inspections and Corrections	x	x	
Grid Hardening	x	x	x
Undergrounding	x	x	x
Quantifying Wildfire Risk	x		
Situational Awareness–Weather Forecasting, FPI, Weather Stations	x	x	x
R&D	x	x	
Advanced Technologies–Wildfire Detection Cameras	x		
Advanced Technologies–Pole Loading	x	x	
Covered Conductor Pilot	x	x	x
Community Programs	x		
Customer Notification Enhancements	x		

4.5.1. 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 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 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.

5-Year Cost Estimate for Quantifying Wildland Fire Risk (2024–2028)

Idaho Power intends to continue work with an external consultant to re-evaluate its risk analysis between 2024 and 2028. During this time, the company also plans to evaluate new developments in risk modeling tools that would potentially give Idaho Power a data driven platform for assessing real-time wildfire spread and potential impact to infrastructures. The new platform would potentially elevate the company's risk-informed decision-making approach by providing the ability to track, forecast and evaluate events in real-time and in relation to each circuit within the service area. Idaho Power estimates system-wide expenditure for these services to be approximately is $3.5 million between 2024 and 2028.

4.5.2. 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 warranted 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 a tool to assess the fire potential on a consistent basis and across the service area. Given the distinct benefits that result from the FPI and enhanced forecasting capabilities, Idaho Power did not consider alternatives to the development of these critical tools.

In conjunction with the FPI, Idaho Power is evaluating complementary technology that would inform real-time wildfire forecasting and Idaho Power's wildfire simulation capabilities. These tools may provide additional support for cost-benefit analysis of mitigation and potentially better inform operational decision-making during wildfire season.

5-Year Cost Estimate for Situational Awareness—Weather Forecasting Activities and Personnel (2024–2028)

The estimated expenditure for weather forecasting activities (weather forecasting tools, system development, weather station maintenance, and personnel) is $1,945,000 between 2024 and 2028.

4.5.3. 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 AI-enabled wildfire detection cameras, satellite, and aerial imagery to detect vegetation hazards, pole loading modeling (to assess the structural integrity of poles), as well as covered conductors. Regarding cameras, the company initiated a pilot project in 2023 to test the placement of cameras in strategic, Tier 3 locations to enhance situational awareness. With input from state and federal fire responders, Idaho Power developed rigorous evaluation criteria, which includes learning related to artificial intelligence capabilities in wildfire ignition detection. Multiple camera vendors are being considered to determine potential cost-effective solution(s). Idaho Power is additionally working with federal, state, and local agencies to explore the possibility of partnering on the installation and ongoing use of cameras which may lead to possibilities for cost sharing and larger wildfire detection camera networks in the future.

5-Year Cost Estimate for Situational Awareness—Pole Loading Modeling and Assessment (2024–2028)

The estimated system-wide expenditure to conduct pole loading modeling and assessment, which includes LIDAR assessment, is $450,000 for 2024 through 2028. Idaho Power plans to

conduct the assessment in Tier 3 Zones located in Idaho and depending on efficacy, will evaluate expansion of the program to other areas across the service area, including Oregon.

5-Year Cost Estimate for Situational Awareness—Cameras (2024–2028)

The estimated expenditure for the pilot evaluation installation of cameras in or adjacent to Tier 3 Zones is $200,000 in 2024. Idaho Power estimates that the use of cameras will continue beyond the pilot period and estimates a total system wide expenditure of $1.3 million from 2024 through 2028. Idaho Power plans to prioritize initial camera installment and evaluation in Tier 3 Zones in Idaho. However, Idaho Power will be assessing the need, feasibility, and potential partnership opportunities associated camera installation in Oregon.

4.5.4. 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 where there is a heightened risk of wildfire; 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,[14] 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 an important component of 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. In 2023, Idaho Power joined the International Wildfire Risk Mitigation Consortium (IWRMC), a group whose mission is to share lessons learned, best practices, and innovation in wildfire mitigation. Idaho Power actively participates in monthly workgroup forums for operations and

[14] 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.

protocols, asset management, vegetation management, and risk management. These workgroup forums both inform operational preparedness for wildfire season as well as provide insight into global thinking and advancements in wildfire mitigation.

5-year Cost Estimate for Field Personnel Equipment (2024–2028)

The estimated system-wide expenditure for field personnel equipment (tools, mobile weather kits, and participation in the IWRMC) is $217,000 between 2024 and 2028.

4.5.5. 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.

4.5.5.1. Annual T&D Patrol, Maintenance, and Repairs

Visual inspections are an important 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 Tier 3 Zones. Idaho Power strives to complete these inspections prior to the start of the wildfire season; however, spring weather and snow levels may create access issues and delay the completion until June 15 in some areas.

Distribution lines that are located within Tier 3 Zones are inspected on an annual basis to identify defects or conditions that may result in an outage or potential ignition. The patrols will be completed by personnel that have been trained in distribution line inspection procedures and have experience in distribution line construction. Targeted defects may include cracked/broken crossarms, avian nesting hazards, damaged equipment and hardware, floating conductors, NESC violations, and other obvious defects that pose an immediate threat to the continued operation of the line. Similar to visual inspections for transmission lines, Idaho Power will strive to complete distribution inspections prior to the start of each wildfire season; however, access issues may delay the completion until June 15 in some areas.

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 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.

Idaho Power plans to expand the use of overcurrent protection devices called reclosers to isolate areas of higher wildfire risk from areas with lower risk. This work improves the reliability of for customers outside of wildfire risk zones and involves installation of new devices or relocation of existing. This work also typically involves upgrading communication capabilities so PSPS and sensitivity setting changes can be made remotely in real-time.

5-Year Cost Estimate for Annual T&D Patrol, Maintenance, Repairs, and Segmentation (2024–2028)

The estimated system-wide incremental expenditure for annual T&D patrols, maintenance, repairs, and recloser segmentation is $1.2 million from 2024 to 2028.

4.5.5.2. Thermography Inspections

While Idaho Power periodically conducts infrared thermography inspections as part of reliability and maintenance programs, the company is expanding these inspections in Tier 3 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 repairs of issues found are prioritized based on their severity. 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 Tier 3 Zones. A combination of Idaho Power personnel and contracted resources are used to perform thermography inspections.

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.

5-Year Cost Estimate for Thermography Inspections (2024–2028)

The estimated expenditure for thermography inspections is $1,578,000 from 2024 to 2028. Idaho Power will prioritize the use of this mitigation practice in Tier 3 Zones.

4.5.5.3. Wood Pole Fire-Resistant Wraps

To help improve the resiliency of Idaho Power's transmission system and the company's wood transmission poles, Idaho Power wraps them with a fire-resistant mesh. The mesh wrap helps protect the integrity of the pole if it is exposed to fire. The use of the fire-resistant mesh is often more cost efficient than replacing all wood poles with structures made of non-combustible material, such as steel.

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.

5-Year Cost Estimate for Wood Pole Fire-Resistant Wraps (2024–2028)

The estimated system-wide expenditure for applying fire-resistant mesh wraps to transmission poles in elevated wildfire risk areas is $1.3 million between 2024 and 2028.

4.5.5.4. 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 took steps to evaluate covered conductor in in 2023 and plans to conduct a pilot of covered conductor 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 the potential for improved reliability outside of wildfire season and the potential for reduced outage restoration costs.

5-Year Cost Estimate for the Covered Conductor Pilot (2024–2028)

The estimated cost of continuing the pilot in 2024 is $50,000. While this pilot will take place in Idaho, the lessons from it will extend across the company's service area.

4.5.6. Enhanced Vegetation Management

Idaho Power's enhanced vegetation management practices are discussed in detail in Section 8.7 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 an important part of Idaho Power's WMP.

To prioritize risk reduction from vegetation contact, Idaho Power established a target to meet a three-year pruning cycle with enhanced vegetation management practices in Tier 3 and Tier 2 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 targeted three-year cycle and performing the additional activities detailed above will involve a sizeable increase in incremental O&M expenditure. One 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 long-term co-benefits, including reduced vegetation-caused outages in Tier 3 and Tier 2 risk zones. The 2023 wildfire season saw an increased number of storm events, high winds, and more lightning throughout the service area than in previous years. While storm activity was higher, outages associated with vegetation fell by 27% compared to previous years—indicating that the company's vegetation management practices are reducing risk. Idaho Power plans to continue to monitor performance and outage metrics to confirm the success of the enhanced program.

4.5.6.1. Fuels Reduction Shared Stewardship Project

In 2023, Idaho Power began participating in a regional fuel reduction program, in which Idaho Power works 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 in and near utility rights-of-way and Tier 3 areas. 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. Other western utilities participate in similar programs and this program is modeled after projects performed in Washington, California, Colorado, and Arizona. Participation in the effort is estimated to cost $225,000 from 2024 through 2028. Idaho Power's monetary investment in fuels reduction is leveraged significantly with state and federal funding.

In 2022 and 2023, the company conducted pilot projects that tested the capabilities of satellite and high-altitude Geiger mode LiDAR patrols of vegetation in the company's wildfire risk zones. These pilot projects concluded that these technologies do not accurately identify encroachment and clearance issues at the level needed to make risk informed decisions, so they will not be deployed on large scale for conducting vegetation patrols until the technologies mature.

5-Year Cost Estimate for Vegetation Management (2024–2028)

The estimated system-wide expenditure for vegetation management is at least $193 million from 2024 to 2028. However, given recent escalations in vegetation management costs across the United States, this figure could increase if Idaho Power continues to strive to meet certain targets.

4.5.7. 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. 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 provide real-time alerts to customers about wildfire events and outages, including potential PSPS events.

Cost Estimate for Communication and Customer Notification Enhancements (2024–2028)

The estimated system-wide expenditure for communication expenses is $855,000 and $805,000 for customer notification system enhancements, totaling $900,000 from 2024 to 2028.

4.5.8. 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. Capital investment programs and 5-year forecasts are summarized in Table 9. Section 8.4.7.3 additionally summarizes transmission line rebuild projects that are planned over the next five years. These projects will improve reliability for customers and increase resiliency of the transmission system from wildfire.

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

Table 9
WMP forecasted capital investments

Wildfire Mitigation Forecasted Capital Investments, $000s*											
Mitigation Program	**Description of the Program**	**Risk Reduction Benefit**	**2023 Planned In Service**	**2024 Planned In Service**	**2025 Planned In Service**	**2026 Planned In Service**	**2027 Planned In Service**	**2028 Planned In Service**	**5-Year Planned In Service Total**	**5-Year Total Idaho**	**5-Year Total Oregon**
Overhead Primary Hardening Program	Systematic replacement and upgrades of hardware and equipment	Reduced potential of equipment failure, utilizing material and equipment with less energy release and potential of ignition, increased resiliency	$7,379	$6,150	$7,225	$7,395	$8,100	$8,556	$37,426	$34,966	$2,460
Strategic Undergrounding	Select conversion of overhead to underground conversion in Tier 3 Zones	Reduce exposure and potential of ignition by locating power lines underground	$580	$-	$-	$4,000	$5,000	$6,250	$15,250	$15,250	$-
Recloser Segmentation and Communication Upgrades	Installation, relocation, and expanded communication for Automatic Reclosing overcurrent protection devices	Isolate circuit segments and improve reliability for enhanced Fire Potential Index settings and PSPS	$194	$1,453	$1,599	$1,731	$866	$866	$6,515	$5,383	$1,132
Atmospheric Science Weather Stations	Installation of weather stations to gain situational awareness	Provides ability to model and forecast fire potential and severe weather conditions for FPI and PSPS	$51	$116	$113	$116	$120	$94	$559	$ 467	$92

*These are estimates only. The costs may increase or decreased due to such factors as inflation or scope changes.

4.5.8.1. Circuit Hardening

Idaho Power estimates spending approximately $8 million annually from 2024 through 2028 on circuit hardening and infrastructure upgrades across its system.

Idaho Power's WMP includes an overhead distribution hardening program for Tier 3 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 Tier 3 Zones, but it may be expanded to Tier 2 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 2028.

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 Tier 3 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 upfront 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 upfront 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 follow the prioritization process outlined in the WMP to 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. Furthermore, poles having wood stubs/structural reinforcements are changed out pursuant to current practices.

Fuse Replacements—Expulsion fuses located in Tier 3 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 evaluated 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.

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 failure during arrester operation. All distribution arresters located on primary distribution lines in Tier 3 Zones will be replaced. In 2019, Idaho Power piloted new arrester technology to evaluate performance characteristics, installation requirements, and potential benefits in reducing ignition risk. In the pilot, Idaho Power compared different manufacturers with similar technology and conducted performance analysis to determine the most cost-effective solution.

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 reduction of tracking of electrical current. Tracking occurs when the flow of current over an insulator generates 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 of 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 Tier 3 Zones. Idaho Power is prioritizing replacement of wood crossarms with fiberglass on cross arms identified as having defects or damage and those still utilizing wood pins. Installation of fiberglass crossarms will continue over time, which allows the company to spread the cost out 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 Tier 3 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 Tier 3 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 find the most cost-effective and reliable 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—To protect wildlife, Idaho Power employs several different protection measures 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 Tier 3 and Tier 2 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. Solution are determined on a case-by-case basis depending on the specific location, the type and extent of avian presence, and other relevant factors.

4.5.8.2. Overhead to Underground Conversions

Idaho Power estimates spending approximately $15 million from 2024 through 2028 on converting overhead distribution circuits to underground construction.

Another aspect of Idaho Power's system hardening program is the select conversion of overhead to underground distribution lines in Tier 3 Zones. Areas selected for underground conversion are based on the results of risk quantification and modeling work, feedback from local fire officials, fire history, PSPS likelihood based on historic weather conditions, and consideration of infrastructure access and public egress. In 2023, the company converted 0.61 miles of overhead distribution lines to underground lines, bringing the total line miles converted to underground construction to nearly 2.5-miles.

In 2024 and beyond, the company will continue to build a strategic undergrounding program by weighing the cost-benefit of undergrounding versus other circuit hardening measures. This work includes evaluating the Johnny Creek area in Pocatello, Idaho, for potential underground conversion in 2025 or 2026. 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.

4.5.8.3. Recloser Segmentation

Idaho Power estimates spending approximately $6.5 million from 2024 through 2028 on the installation, relocation, and communication upgrade of reclosers.

Segmentation is a strategy involving the placement of overcurrent protection devices, called reclosers, to isolate or segment areas of higher wildfire risk from areas with lower risk. The goal of segmentation is to improve the reliability for customers outside of wildfire risk zones. Reclosers provide a point of de-energization for PSPS and are also used to adjust protection settings on days having higher fire potential to limit the risk of ignition. Idaho Power plans to install new and relocate existing reclosers throughout the service area as well as improve the company's remote communication capabilities over the next five years.

4.5.8.4. 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 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 availability of steel poles, 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 Tier 3 and Tier 2 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 area. 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 area. This wildfire potential information is then available to operations personnel to factor into 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 area. 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 area. 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 area ("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 lower 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	Higher
FPI Range	1 to 11	12 to 14	15 to 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 Review and Evaluation

The FPI process is reviewed annually after completion of the fire season and, with consultation of interested parties (e.g., Load Serving Operator, Line Crews, and others). Evaluation of the FPI process is used to assess and validate Idaho Power's wildfire preparedness approach.

5.4. Forecast Ensemble

Idaho Power has reviewed available forecasting tools and modeling systems used to support fire related forecasting operations. Utilities active in the atmospheric science community with well-established WMPs were surveyed. All use a multi-model ensemble of atmospheric models. An ensemble approach provides a higher level of accuracy and precision of forecasts (both spatial and temporal) while also allowing the development of probabilities for the occurrence of when, where, and of what magnitude of events may occur by being able to better account for the variability between model realizations and other complexities. Based on the lessons learned from the review, Idaho Power plans to incorporate a multi-model ensemble into future FPI forecasting and PSPS decision making. The development of an ensemble is in its early stages and in 2023 the company began installation of necessary computing hardware to develop the system. Full implementation of an ensemble in Idaho Power's fire weather forecasting is expected to start in 2025 or 2026.

6. Mitigation—Field Personnel Practices

6.1. Overview

A component of Idaho Power's wildfire mitigation strategy is to prevent the 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 working in locations and under conditions where there is a heightened risk of wildfire. 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, including weather conditions, regarding locations where there is a heightened risk of wildfire
- 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.[15]
- 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. Operational Protection Strategy

Operational protection strategies were developed to reduce the probability of ignition during fault events on Idaho Power's transmission and distribution system. Analysis was performed by Reliability Engineers to assess the available fault energy under different protection schemes and configurations and the effect each would have on customers in terms of increased and extended outages. Idaho Power analyzed the following configurations for automatic reclosing devices:

- Reclose off
- Limited energy reclose
- Limited energy lockout
- The analysis assessed Time Current Curves and fault energy of different circuits to gauge the overall reduction in energy between different protection configurations and coordination challenges. Figure 21 below summarizes the different protection configurations evaluated along with estimated benefits in terms of reduced fault energy and impacts to customers.

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

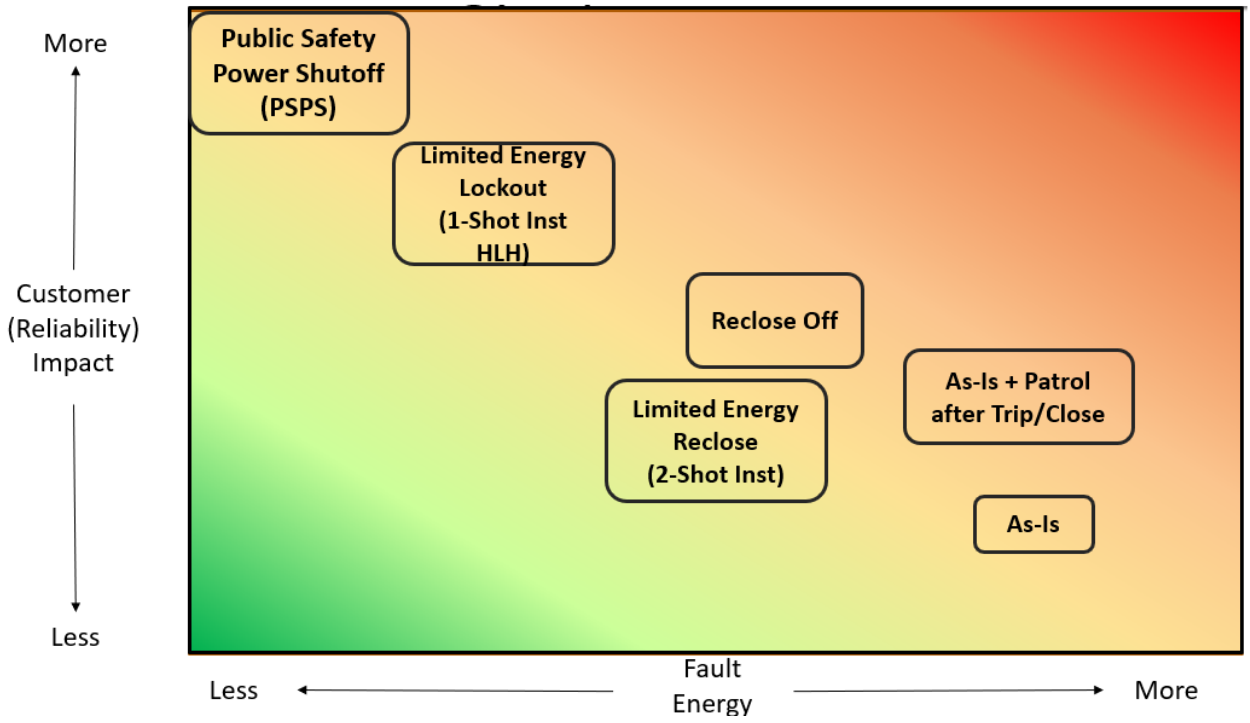


Figure 21
Comparison of reclosing strategies with respect to customer reliability and wildfire risk

As part of the evaluation process of the operational protection schemes for wildfire protection, the company benchmarked with other utilities and found a variety of approaches to wildfire protection schemes and advanced settings. The review highlighted an evolution of protection schemes over utilities' years of experience in wildfire mitigation. For example, in 2023, the company traveled to San Francisco to meet with PG&E to learn more about their Enhanced Powerline Safety Settings (EPSS). The lessons learned led to evaluating and evolving our own protection system approach to wildfire mitigation in the coming years.

Idaho Power's current operational protection strategy involves implementing reclose off in fire risk zones during red FPI conditions. The company plans to continue to use reclose off as the first level of operational protection in fire risk zones in 2024 and will continue analyzing and begin piloting more advanced protection schemes.

7.3. Transmission Line Operational Strategy

7.3.1. Fire Season Temporary Operating Procedure for Transmission Lines 115 kV & Above

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.

7.3.2. Tier 3 Zone Transmission Operational Strategy 69 kV & Below

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 Tier 3 Zones. These lines will be operated in normal settings mode but with no "testing"[16] 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.

7.4. Distribution Line Operational Strategy

7.4.1. Tier 3 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 Tier 3 Zones. These lines will be operated in a non-reclosing[17] 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 a decision is made by the Regional Operations manager. Idaho Power is analyzing and testing advanced protection schemes and plans to pilot more sensitive protection scheme targeted areas of the system in 2024.

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

[17] 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.

7.5. Public Safety Power Shutoff

7.5.1. 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 extreme 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 can result in customer impact and requires extensive planning and strategy leading up to, during and after a PSPS event.

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.

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.

7.5.2. 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 wildfire risk relative to Idaho Power's service area. While a PSPS event is more probable in an elevated wildfire risk zone, Idaho Power retains the ability to utilize PSPS anywhere throughout the service area. The decision regarding PSPS is based on a number of dynamic factors, and each weather event is unique.

8. Mitigation Initiatives

8.1. Overview

Idaho Power's wildfire mitigation strategy relies in part on its various asset management programs, including asset inspections and the Vegetation Management program (VMP), to maintain safe and reliable operation of its T&D facilities in reducing wildfire risk.

8.2. T&D Asset Management and Inspections

To prevent wildfire and safely operate the grid, Idaho Power implements and continuously evaluates a robust set of asset management and inspection initiatives. Fundamental to these efforts is the continual research into industry best practice and strategic piloting of emerging technologies and approaches to complement and improve Idaho Power's core asset management strategy. Idaho Power's approach for supporting wildfire prevention and mitigation through asset management and inspection initiatives is summarized in Table 10 and subsequently detailed throughout this section. Table 11 provides detail on Idaho Power's assets relative to wildfire risk zones.

Table 10
Asset management and inspection initiatives

Wildfire Mitigation Asset Management Inspection Initiatives	
Transmission	**Distribution**
Aerial Visual Inspection Program	Ground Detail Inspection Program (enhanced)
Ground Visual Inspection Program	Wood Pole Inspection and Treatment
Detailed Visual Inspection Program	Wood Pole Fire Protection Program
Wood Pole Inspection and Treatment Program	Line Equipment Inspection Program
Cathodic Protection and Inspection Program	Thermal Imaging Inspections
Thermal Imaging Inspections	Overhead Primary Hardening Program
Wood Pole Wildfire Protection Program	
Steel Pole Program	

Table 11
Service area asset overview[18]

Type of Equipment	Total Idaho	Tier 3 Idaho	Tier 2 Idaho	Total Oregon	Tier 3 Oregon	Tier 2 Oregon
Substations	288	8	17	43	-	1
Power Generation Facilities	20	1	-	3	-	-
Overhead Transformers	120050	11907	9039	10161	308	359
Reclosers	1044	64	46	146	4	2
Voltage Regulators	826	41	36	117	3	4
Capacitor Banks	44	22	28	83	1	-
Wood Poles (transmission)	34145	886	3490	7728	-	335
Steel Poles (transmission)	7628	75	919	467	-	-
Transmission Towers	2525	153	238	560	-	6
Overhead Conventional Line Fuses	29438	661	480	1708	28	35

8.3. Inspection and Correction Timeframes

Idaho Power implements a T&D inspection and correction strategy and schedule that enables the identification and repair of equipment conditions that could pose a risk for wildfire. Asset management inspections allow personnel to look for potential defects, which, if found, are documented, categorized, and scheduled for repair based on priority designation. Corrective action plans for Priority 1 and 2 defects are determined by engineering personnel and subsequently scheduled and repaired consistent with OAR 860-024-0018. Defects are categorized 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 warrant reporting and correction within 24 months of identification and the correction of these defects are scheduled during crews' normal work schedules. Priority 2 defects that are not assigned a corrective plan within 24 months will be reviewed by the T&D vegetation and maintenance engineering leader.

- **Priority 3**: Defined by Idaho Power as potential issues that may need correction overtime and should be monitored, but do not pose a threat to the system. A Priority 3 designation may also be used by Idaho Power personnel for tracking of certain line

[18] - See Table 5 for overhead conductor line miles.

construction practices. Correction of Priority 3 issues may be deferred until the next major work activity on the circuit up to a maximum of ten years after discovery.

Risk quantification and modeling indicates that Tier 3 Zones have a higher potential of risk from wildfires and as such, Idaho Power performs additional inspections in these areas—including annual ground-based inspection and targeted infrared inspections. As part of the ISO 31000 risk management process, Idaho Power will continue to enhance its distribution and transmission inspection programs by expanding future evaluation processes of inspection and correction activities and schedules. Quality assurance inspections are performed annually across the service area to enhance the safety of the public and to verify the quality of new construction is consistent with the National Electrical Safety Code. Work orders are randomly selected for inspection and deficiencies are recorded and corrected based on the priority level. The results of the inspections are shared with regional field workers to help foster learning and ensure construction meets current standards. In addition to randomly selected inspections, duplication annual inspections provide quality assurance by having utility arborists and thermography technicians check overhead assets as part of other ongoing inspections in wildfire risk zones.

Idaho Power is additionally evaluating the use of emerging technologies that support the identification of potential issues not visible by traditional ground inspections or where terrain or other constraints may limit the ability to perform a detailed ground inspection. The following table summarizes Idaho Power's inspection initiatives and frequency with respect to wildfire risk zones.

Table 12
Summary of asset inspections and schedules by state and zone

	Inspection Interval					
Asset Inspection Type	**Idaho Non- Risk Zone**	**Oregon Non- Risk Zone**	**Idaho Tier 2**	**Oregon Tier 2**	**Idaho Tier 3**	**Oregon Tier 3**
Transmission Defect Inspections						
Visual*	Annually	Annually	Annually	Annually	Annually	Annually
Detailed	10 Years	10 Years	10 Years	10 Years	10 Years	10 Years
Groundline (Wood Pole Test and Treat)	10 Years	10 Years	10 Years	10 Years	10 Years	10 Years
Infrared Patrol	None	None	None	None	Annually	Annually
Distribution OH Defect Inspections						
Visual/Detailed*	3 Years	2 Years	3 Years	2 Years	3 Years	2 Years
Groundline (Wood Pole Test and Treat)	10 Years	10 Years	10 Years	10 Years	10 Years	10 Years
Wildfire Mitigation/Potential Ignition Source Patrol*	None	None	None	Annually	Annually	Annually
Infrared Inspections	None	None	None	Annually	Annually	Annually

*Includes Ignition Prevention Inspection consistent with Oregon Administrative Rules in Chapter 860, Division 24.

8.4. Transmission Asset Management and Inspection Initiatives

Idaho Power's transmission asset management inspections programs include condition-based aerial visual inspections, ground visual inspections, detailed visual (generally using high-resolution photography) inspections, transmission wood pole inspection and treatment, and cathodic protection.

8.4.1. Aerial Visual Inspection Program

Annually, Idaho Power uses helicopters to assist Idaho Power qualified personnel in the aerial visual inspection of transmission lines identified as WECC Path Lines. This method of line inspection is part of Idaho Power's Wildfire Mitigation Patrols and is additionally used on an annual basis pre-wildfire season for non-WECC transmission lines located in Tier 3 Zones. Unmanned aerial vehicles with high-definition cameras are also being used in certain situations to inspect facilities on these lines.

8.4.2. 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 support the identification of potential line defects that are documented and scheduled for repair based on defect classification.

8.4.3. 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 consistent with defect classification. 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.

8.4.4. Thermal Imaging (Infra-red) Inspections

Idaho Power annually inspects transmission lines and equipment within Tier 3 Zones using thermal imaging (infra-red) cameras. Compromised electrical connections and overloaded equipment may be identified using thermal imagery and as such, support the identification of

potential issues that may not be apparent on visual inspection. Identified risks will be prioritized and mitigated consistent with defect classification.

8.4.5. Wood Pole Inspection and Treatment Program

All wood poles are visually inspected, sounded, and bored for defects and decay on a 10-year cycle. 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 either reinforceable with steel or 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.

8.4.6. 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.

8.4.7. Transmission Asset Protection

8.4.7.1. Wood Pole Wildfire Protection Program

To help improve the resiliency of Idaho Power's transmission system and the company's wood transmission poles, Idaho Power wraps them with a fire-resistant mesh. The mesh wrap helps protect the integrity of the pole if it is exposed to fire. Idaho Power is in the process of installing mesh wrapping on transmission wood poles located in the Tier 3 and Tier 2 zones and may utilize mesh in additional areas that have higher fire return intervals outside of wildfire risk zones.

8.4.7.2. Transmission Steel Poles

Idaho Power utilizes steel poles or structures for new transmission line construction projects built to 138 kV standards and above 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.

8.4.7.3. Transmission Line Rebuild Projects

Idaho Power takes proactive steps to repair or replace transmission line components on an ongoing basis as part asset management and aging infrastructure assessments. Annually, inspection activities inform maintenance needs with short and long-term plans developed to manage line assets. In some cases, lines are selected to be rebuilt in the future to increase capacity, reliability, or improve safety. Wildfire risk and the location of transmission lines are considered as part of the prioritization of transmission line rebuild projects. Table 13 summarizes transmission line rebuild projects that are planned over the next five years. These projects will improve reliability for customers and increase resiliency of the transmission system from wildfire. Construction schedules and material lead times may change and adjust the in-service dates shown.

Table 13
Transmission line rebuild projects

Transmission Line Rebuild Projects, Estimated Planned Investment ($000s) and Timeline								
Transmission Line	**Description**	**2024 Planned**	**2025 Planned**	**2026 Planned**	**2027 Planned**	**2028 Planned**	**5-Year Planned Idaho**	**5-Year Planned Oregon**
Line 412 - Rebuild of existing Boise Bench to Emmett 138KV transmission line, Idaho	Rebuild the Boise Bench to Emmett 138kV Line, using steel structures instead of wood as identified in WMP.	$13,086	$9,380	$-	$-	$-	$22,466	$ -
Line 423 -Rebuild of existing Huntington-Quartz 138kV transmission line, Oregon	Replace 286 structures from Huntington to Quartz substation in Oregon with tubular steel 138kV H-frame structures.	$14,649	$-	$-	$-	$-	$-	$14,649
Line 433 - Rebuild existing Wood River to Ketchum 138-kV transmission line, Idaho	Rebuild the existing 138-kV transmission line from Wood River to Ketchum substation, Idaho, using steel structures instead of wood as identified in WMP.	$127	$355	$293	$7,999	$-	$8,775	$-
Rebuild Boise to Emmett Junction, the Cairo to Fruitland tap to 138 kV specifications, Idaho	Rebuild existing 69 kV line structures to 138 kV capabilities, using steel structures instead of wood as identified in WMP.	$-	$-	$36	$98	$14,691	$14,825	$-
Line 328 - Rebuild Existing Emmett to Warm Lake 69 kV Line to 138 kV specifications, Idaho	Rebuild existing 69 kV line structures to 138 kV capabilities, using steel structures instead of wood as identified in WMP.	$81	$108	$84	$25,398	$25,758	$51,428	$-
Line 423 - Rebuild the Ontario to Huntington 138 kV transmission line, Oregon	Rebuild the Ontario substation to Huntington substation, Oregon, with tubular steel 138 KV H-frame structures.	$31	$104	$0	$9,634	$10,421	$-	$20,190
Line 701 - Rebuild from Quartz substation to La Grande 230 kV	Replace wood structures with tubular steel 230 kV H-frame structures.	$-	$65	$177	$43	$0	$-	$285

Transmission Line Rebuild Projects, Estimated Planned Investment ($000s) and Timeline

Transmission Line	Description	2024 Planned	2025 Planned	2026 Planned	2027 Planned	2028 Planned	5-Year Planned Idaho	5-Year Planned Oregon
Line 906 Boise Bench to Midpoint substation 230kV, Idaho	Replace poles, cross arms, and insulators identified during the Pole Inspection and Ground line Treatment Program and the annual routine Line Patrols.	$5,501	$1,572	$-	$-	$-	$7,073	$-
Line 906 - Boise Bench to Midpoint substation, 230 kV #2, Idaho	Rebuild line from Boise Bench Substation to Midpoint Substation, Idaho. Wood structures will be replaced with Tubular steel 230 kV H-frame structures.	$-	$-	$16	$37	$0	$54	$-
Line 908 - Rebuild the Pallette to Imnaha 230 kV transmission line, Oregon, currently in preliminary scoping	Rebuild the Pallette to Imnaha 230kV line, Oregon, with tubular steel H-frame structures.	$464	$4,828	$5,001	$-	$-	$-	$10,294
Line 902 - Rebuild from Rattle Snake Station to DRAM segment on the Boise Bench to DRAM to Midpoint #1 230kV line, Idaho	Phase one of four phases of the transmission line rebuild. The Line is to be constructed using steel H-Frame structures.	$13,160	$-	$-	$-	$-	$13,160	$-
T902 Rebuild the Boise Bench to DRAM substation segment on the Boise Bench to DRAM to Midpoint #1 230kV line (Phase 2), Idaho	Phase two of four phases of the transmission line rebuild. The Line is to be constructed using steel H-Frame structures.	$168	$2,295	$-	$-	$-	$2,463	$-
Line 902 - Rebuild the Mountain Air Wind Park to Rattle Snake Station segment on the Boise Bench to DRAM to Midpoint #1 230kV line (Phase 3), Idaho	Phase three of four phases of the transmission line rebuild. The Line is to be constructed using steel H-Frame structures.	$-	$1,600	$7,341	$-	$-	$8,941	$-
Line 902 - Rebuild the Midpoint to Mountain Air Wind Park Station segment on the Boise Bench to DRAM to Midpoint #1 230kV line (Phase 4), Idaho	Phase four of four phases of the transmission line rebuild. The Line is to be constructed using steel H-Frame structures.	$-	$-	$3,700	$13,482	$13,482	$30,665	$-

Transmission Line Rebuild Projects, Estimated Planned Investment ($000s) and Timeline

Transmission Line	Description	2024 Planned	2025 Planned	2026 Planned	2027 Planned	2028 Planned	5-Year Planned Idaho	5-Year Planned Oregon
Line 410 - Rebuild Lucky Peak Junction to Mountain Home Junction segment of Lucky Peak to King Line 138kV Line rebuild, Idaho	Rebuild with steel poles instead of wood.	$236	$28,470	$1	$-	$23	$28,731	$-
Line 410 - Rebuild the Black Mesa Substation to Cassia Wind Park segment of Lucky Peak to King 138 kV line rebuild, Idaho	Rebuild with steel poles instead of wood.	$11	$-	$-	$8,478	$-	$8,489	$-
Line 410 - Rebuild DRAM to Lucky Peak of the 138kV Line rebuild, Idaho	Rebuild with steel poles instead of wood.	$6	$-	$-	$-	$4,230	$4,236	$-
Line 410 - Rebuild Mountain Home Junction to Black Mesa segment of Lucky Peak to King 138kV Line rebuild, Idaho	Rebuild with steel poles instead of wood.	$50	$-	$-	$-	$23	$74	$-
Line 925 - Rebuild Lucky Peak Junction to the Lucky Peak segment of the Lucky Peak to King 138kV Line rebuild, Idaho	Rebuild with steel poles instead of wood.	$12	$-	$4,795	$1	$2-	$5,808	$-

8.5. Distribution Asset Management and Inspection Initiatives

Idaho Power has several distribution asset management programs that are mature, have been implemented for decades, and will continue to be utilized in elevated risk zones in Oregon and Tier 3 Zones in Idaho. These programs include condition-based, detailed, and ground visual inspection; distribution wood pole inspection and treatment; and line equipment inspection.

Annual inspections performed in Oregon Tier 2 and Tier 3 zones comply with the requirements of Oregon Administrative Rules in Chapter 860, Division 24 frequency of inspections and identification of defects and potential ignition sources. Line patrol personnel meet on a quarterly basis to review and maintain alignment on the types of defects they look for as well as the proper priority categorization placed on defect identification. These exercises help to create and maintain consistency in inspection and reporting practices among inspectors and across the regions in Idaho Power's service area.

Idaho Power implements an enhanced overhead distribution "hardening" program in Tier 3 Zones. Examples of specific work include replacement of small conductors and associated hardware and replacement of wooden pins and associated wooden crossarms.

8.5.1. Ground Visual Inspection

Annually, qualified line patrol personnel (trained in distribution line inspection procedures and experienced in distribution line construction) complete visual wildfire mitigation inspections of the distribution lines located in Tier 3 Zones to identify Priority 1 defects. The ground patrols are completed using four-wheel-drive vehicles, all-terrain vehicles, utility terrain vehicles, or on foot. They involve inspection at each individual pole and incorporate the use of visual observation, binoculars, and/or unmanned aerial vehicle (UAV). These inspections identify potential line defects which are then documented, prioritized, and scheduled for repair. Detailed distribution inspections are completed on a predetermined schedule and may be performed in conjunction with annual visual inspections.

8.5.2. Line Equipment Inspection Program

Line equipment in wildfire risk zones, including capacitor banks, automatic reclosing devices, and regulators, are inspected annually prior to wildfire season by line operations technicians. The inspection includes a visual inspection and, when electronic controls are present, data is retrieved and analyzed for proper operation.

8.5.3. Thermal Imaging (Infra-red) Inspections

Idaho Power annually inspects targeted distribution lines and equipment within Tier 3 Zones using thermal imaging (infra-red) cameras. Compromised electrical connections and overloaded equipment may be identified using thermal imagery and as such, support the identification of potential issues that may not be apparent on visual inspection. Identified risks will be prioritized and mitigated consistent with defect classification.

8.5.4. Wood Pole Inspection and Treatment Program

All wood poles are visually inspected, sounded, and bored for defects and decay. The procedure for the Distribution Wood Pole Inspection and Treatment Program is consistent with and elaborated on earlier in this Section under the Transmission Wood Pole Inspection and Treatment Program.

8.5.5. Overhead Primary Hardening Program

Overhead distribution infrastructure located in Tier 3 Zones is analyzed, inspected, and may be hardened depending upon proximity to fuels conducive to wildfires. The Overhead Primary Hardening program is intended to upgrade or repair certain overhead distribution infrastructure to reduce potential risk of ignition. The following outlines the core strategies Idaho Power utilizes as part of the Overhead Primary Hardening Program. However, Idaho Power's team is continually researching and evaluating industry practices and emerging technologies relative to primary hardening Notable hardening criteria is expanded upon below.

Idaho Power Overhead Distribution Primary Hardening Program Strategies

- Replace "small conductor" with new 4 ACSR 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
- Install bird/animal guarding
- Replace hot line clamps
  - Replace aluminum stirrups
  - Install avian cover
  - Relocate arresters
- 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 third-party pole attachment clearances (report to Joint Use department)
- Install wood pole mesh wrap (in targeted locations)

Conductor "Small" Replacement

Idaho Power is implementing replacement of small conductors in Tier 3 Zones. 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.

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.

Porcelain Switch Replacement

Porcelain switches located in Tier 3 Zones 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.

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 Tier 3 Zones as a part of its distribution overhead primary wildfire hardening program.

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 Tier 3 Zones.

8.6. Ignition Tracking and Analysis

The WMP is founded on the goal of minimizing the probability that various components of the company’s transmission and distribution system acts as an ignition source. The company has evaluated and implemented mitigation strategies to reduce the likelihood of ignition and tracks outage events to gauge performance.

The company maintains an Outage Management System (OMS) database which is used for reliability and measurement reporting purposes. Outage events are analyzed to determine whether certain equipment is prone to experiencing outages or has the potential to act as an ignition source. This analysis considers the leading drivers of ignition identified as part of the risk assessment and risk bowtie in Section 3.2. It includes assessing the location and date of outages to determine whether an event occurred during wildfire season or within a wildfire risk zone. The vast majority of outage events do not result in an ignition and depend upon several factors, such as the circumstances beyond Idaho Power’s control that led to the event and environmental conditions (e.g., fuel type, moisture content, weather conditions, and time of year). A combination of the information provided in the company’s OMS database, along with notes and feedback from troublemen and dispatch operators, help determine whether an ignition event occurred for a particular outage.

The image below details a Power BI dashboard tool that that links to the company’s OMS database. This dashboard provides details of outage events that involve the operation of primary line fuses, transformer fuses, and automatic reclosing devices. It was created to assist

in analyzing outage events specific to wildfire risk zones for distribution circuits and provides a means to track performance over time. When an outage is reported, the fields are populated, and the dashboard provides an assortment of filters and functionality to aid analysis.

When outages are associated with equipment failure, additional analysis of the equipment can be conducted to determine if the equipment issues are associated with reported ignitions. As an example, a review performed in early 2023 identified specific areas where vegetation caused several outages during the 2022 wildfire season in a particular wildfire risk zone beyond the same overcurrent protection device. The company's Wildfire Mitigation utility arborist incorporated the dashboard into work procedures to identify problematic areas and proactively investigate and correct issues.

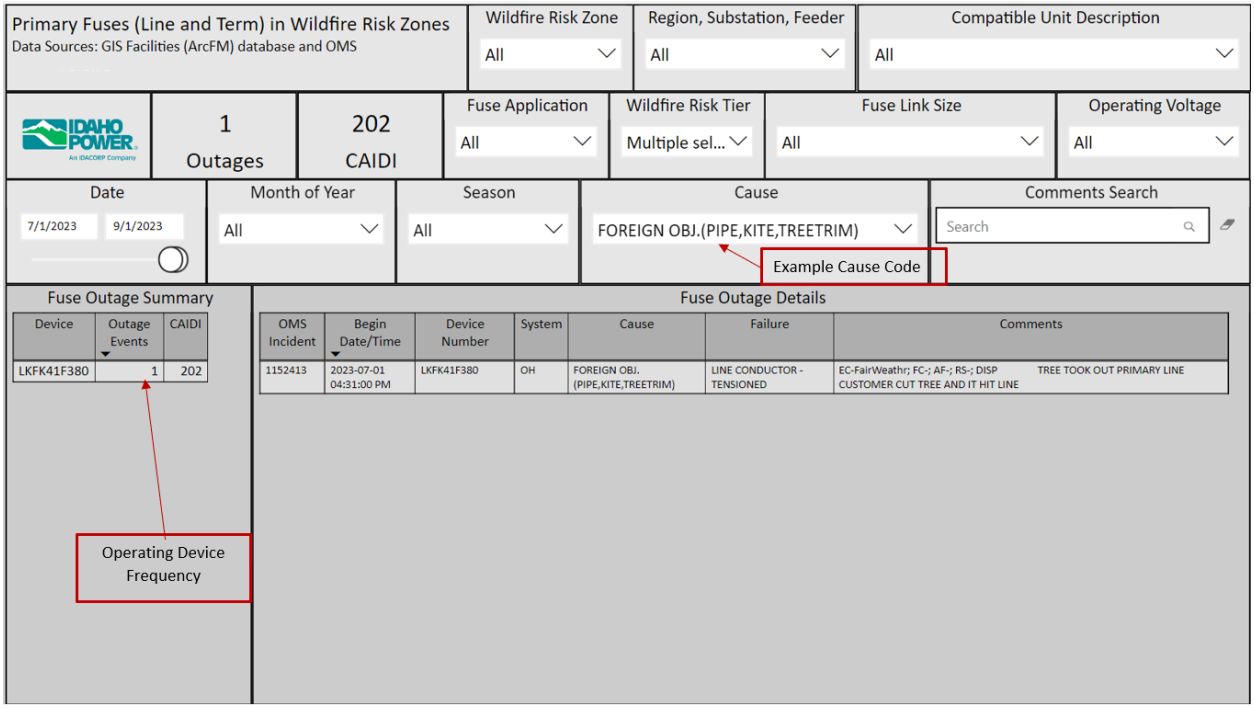


Figure 22
Example of Idaho Power outage dashboard

Ignition Tracking Database

In 2023, the company benchmarked with several western utilities to gain insight into their ignition tracking methodologies and to determine opportunities for improvement. Based on the lessons learned through the engagement, the company will develop a roadmap in 2024 to enhance its ignition tracking process and tools used for gathering detailed ignition information.

8.6.1. Root Cause Analysis

Idaho Power may conduct investigations and root cause analysis (RCA) for repetitive equipment or material failure, significant incidents, and near misses. RCA is a systematic process of investigating adverse events and includes gathering evidence and details of the failure to determine the cause and prevent future occurrences. The company's RCA process typically involves the following steps:

1. Equipment or material failure (i.e., repetitive failures or those associated with a significant incident or outage) is reported by field personnel

2. Failed items are placed in designated storage areas for analysis

3. A Materials Analyst researches the failure frequency and provides details to the company's Methods and Materials department

4. The Methods and Materials department performs an evaluation of the item(s) to determine reason for failure and the mode of the failure

5. The Methods and Materials department provides recommendations for changes

6. If required, communication is provided for field personnel to notify of the issue and to provide details of replacement equipment/material

7. On a case-by-case basis, vendors and manufacturers are made aware of the failure(s) and asked to provide deeper levels of analysis and develop corrective action plans

As an example of how the RCA process is applied, in 2023, a 12.47 kV shunt capacitor bank experienced a failure where an individual capacitor failed unexpectedly. While the failure did not occur within a wildfire risk zone or lead to a wildfire, the failure mode indicated a potential manufacturing defect. RCA was performed to determine if the capacitor was defective and whether any action should be made to other capacitors of similar vintage within the service area or within wildfire risk zones. The company's Methods and Materials department investigated the incident and engaged the manufacturer for further analysis. The results of the analysis and corrective action plan are still pending, and the company plans to use the feedback to determine if modifications or replacement of existing capacitors are needed to prevent future failures.

8.7. 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 following table.

Table 14
Vegetation Management program summary

Vegetation Management
Transmission
Pre-Fire Season Inspection and Mitigation
Line Clearing Cycle Goal: 3-year cycle for valley areas & 6-year cycle for mountain areas
Tree Removals–Hazard Trees
Targeted Pole Clearing
100% Quality Assurance/Quality Control Auditing in Tier 3 and Tier 2 zones
Distribution
Pre-Fire Season Inspection and Mitigation
Line Clearing Cycle Goal: 3-year cycle in all areas with mid-cycle pruning occurring in second year in Tier 3 and Tier 2 zones*
Tree Removals–Cycle Busters/Hazard Trees
Targeted Pole Clearing
100% Quality Assurance/Quality Control Auditing in Tier 3 and Tier 2 zones

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

Reliability data has shown that vegetation contact is one of the most likely sources of faults and possible ignition on the system. As a result, Idaho Power employs enhanced vegetation management practices in both Tier 2 and Tier 3 zones. These practices include mid-cycle patrols and pruning in the second year of the cycle to address "cycle buster" trees and annual "hotspot" patrols to address any new hazard trees or unexpected vegetative growth that poses an imminent threat of contact with energized facilities. In addition, Idaho Power strives to complete audits for all pruning work performed in Tier 2 and Tier 3 zones, regardless of reason for the pruning. The audits confirm that pruning cuts meet the specification and proper clearance was obtained. Table 15 summarizes vegetation management activities with respect to wildfire risk zones.

In non-wildfire risk zones, distribution feeders and valley-located transmission lines will be patrolled and pruned on a three-year cycle. A six-year cycle will continue to be employed for transmission lines in mountain locations. Specific to each tree pruned, directional pruning methods will be employed where cuts will meet ANSI A300 standard and adequate clearance will be obtained that should accommodate regrowth without violating the prescribed minimum clearance throughout the cycle.

Table 15
Summary of vegetation management activities and schedules

Vegetation Management	Inspection Interval					
Inspections and Activity Schedule	**Idaho Non-Risk Zone**	**Oregon Non-Risk Zone**	**Idaho Tier 2 Zone**	**Oregon Tier 2 Zone**	**Idaho Tier 3 Zone**	**Oregon Tier 3 Zone**
Transmission						
Hazard Tree Patrol on NERC/WECC Lines	Annually	Annually	Annually	Annually	Annually	Annually
Cycle Patrol/Pruning—Valley Locations	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Cycle Patrol/Pruning—Mountain Locations	6 Years	6 Years	6 Years	6 Years	6 Years	6 Years
Wildfire Mitigation Patrol/Pruning	None	None	None	None	Annually	Annually
Cycle Buster Patrol/Pruning (Documented Cycle Buster Trees)	18 Months	18 Months	18 Months	18 Months	18 Months	18 Months
Distribution						
Wildfire Mitigation Patrol/Pruning	None	None	Annually	Annually	Annually	Annually
Cycle Patrol/Pruning	3 Years	3 Years	3 Years	3 Years	3 Years	3 Years
Mid-Cycle Patrol/Pruning	None	None	2 Years after Cycle Prune	2 Years after Cycle Prune	2 Years after Cycle Prune	2 Years after Cycle Prune
Cycle Buster Patrol/Pruning	None	18 Months	Covered by Mid-Cycle	Covered by Mid-Cycle	Covered by Mid-Cycle	Covered by Mid-Cycle
Quality Assurance (Transmission and Distribution)						
Post-Pruning Audit Inspections	Sampling	Sampling	100%	100%	100%	100%

8.7.1. Vegetation Management Definitions

Applicable Transmission Lines—Each overhead transmission line operated within WMP Tier 3 Zones 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.

8.7.2. Transmission Vegetation Inspection and Management

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

8.7.2.1. 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 also evaluate the hazardous vegetation on the level of threat posed by categorizing the vegetation as a *higher priority*, *medium hazard*, or *lower hazard*. Any hazardous vegetation found is reported to the utility arborist and documented. Any hazardous vegetation categorized as a *higher 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.

8.7.2.2. Transmission Line Clearing Cycles

Transmission lines will be cleared on long-term cycles based on three years for urban and rural valley areas and six 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. When appropriate, tree-growth regulators and spot herbicide treatments are applied in compliance with federal or state requirements. These treatments are effective for reducing re-growth of sprouting deciduous shrubs and trees and extending maintenance cycles.

Terra Spectrum VMSuite vegetation management software is utilized to plan tree pruning and removal work, to assign this work to crews, and to document the dates work is planned, assigned, completed, and audited.

8.7.2.3. Transmission Line Clearing Quality Control and Assurance

In non-wildfire risk zones, audits are performed on a random sample of pruning worksites. These audits are performed through a combination of the contracted arborists that planned the work and Idaho Power's utility arborists. Due to the elevated risk of wildfire in Tier 2 and Tier 3 zones, audits will be performed on 100% of pruning work performed in Tier 2 and Tier 3 zones regardless of the reason for the patrols and pruning. The audits will be performed by a combination of contracted arborists and Idaho Power's utility arborists to check whether pruning cuts meet specification and proper clearance was achieved. This quality control and assurance program has proved valuable. For example, audits performed on two of Idaho Power's distribution circuits in 2022 discovered numerous trees that were either improperly pruned or not pruned at all. As a result, Idaho Power requested the pruning contractor re-prune these circuits to achieve satisfactory results.

8.7.3. Distribution Vegetation Management

Idaho Power is actively working to clear distribution lines throughout Idaho Power's service area on a three-year cycle.[19] Additionally, in Tier 2 and Tier 3 zones, Idaho Power completes annual vegetation line inspections and mid-cycle clearing of the lines in the second year, is increasing the number of trees removed, and is completing 100% quality control reviews of contractor line clearing work by certified arborists.

8.7.3.1. Distribution Line Clearing Cycles

Idaho Power is actively working to clear distribution lines on a three-year cycle. In Tier 2 and Tier 3 zones, 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 upon an "as needed basis" in the situations that fast growing, unexpected growth occurs and is reported by any employee or customer.

8.7.3.2. 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 Tier 2 and Tier 3 zones. In addition, distribution patrol personnel also inspect the lines in the Tier 3 Zones annually. During these inspections, patrol personnel identify infrastructure defects and hazardous vegetation, within or adjacent to the ROWs, that could fall 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 *higher priority*, *medium hazard*, or *lower hazard*. Any hazardous vegetation found is reported to the utility arborist and

[19] 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.

documented. Any hazardous vegetation categorized as a *higher 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.

Terra Spectrum VMSuite vegetation management software is utilized to plan tree pruning and removal work, to assign this work to crews, and to document the dates work is planned, assigned, completed, and audited.

8.8.3.3. 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.

When appropriate, tree-growth regulators and spot herbicide treatments are applied in compliance with federal or state requirements. These treatments are effective 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.

8.8.3.4. Distribution Line Clearing Quality Control and Assurance

Similar to Idaho Power's vegetation audit process for Transmission, in non-wildfire risk zones, audits are performed on a random sample of pruning worksites. These audits are performed through a combination of the contracted arborists that planned the work and Idaho Power's

utility arborists. Due to the elevated risk of wildfire in Tier 2 and Tier 3 zones, audits will be performed on pruning work performed in Tier 2 and Tier 3 zones regardless of the reason for the patrols and pruning. This quality control and assurance program has proved valuable. For example, audits performed on two of Idaho Power's distribution circuits in 2022 discovered trees that were either improperly pruned or not pruned at all. As a result, Idaho Power requested the pruning contractor re-prune these circuits to achieve satisfactory results.

8.7.4. 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 are 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 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. BLM staff estimate issuing herbicide permits in mid-2024.

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 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 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

In 2022, Idaho Power developed and began following an *Outage Communication Playbook* (Playbook) to guide PSPS and load shed protocols. The Playbook was reviewed and updated in 2023 and ensures consistent and reliable communication to internal and external stakeholders. External communication includes targeted customers, Public Safety Partners, and operators of critical facilities. The Playbook guides activities and identifies key roles and responsibilities of internal Idaho Power employees. Supplemental information and resources are also included to assist with effective and consistent communication prior to, during, and after an event.

10. Communicating About Wildfire

10.1. Objective

Idaho Power communicates information about this WMP, including PSPS, and wildfire issues in general, to employees, customers, government officials, the public and other stakeholders. Topics of these communications vary due to timing and audience. For example, all customers can benefit from outage preparedness tips and information about how we are hardening the grid. We discuss PSPS information in greater detail with Public Safety Partners, operators of critical facilities, and customers who live in zones where PSPS events are more likely.
The following core messages are the foundation for all wildfire-related communications:

- How customers can prepare for wildfire-related outages, including where to find outage and PSPS information how to update contact information
- Ways customers can reduce wildfire risk
- Idaho Power's work to protect the grid from wildfire and reduce wildfire risk

10.2. Community Outreach

10.2.1. Community Engagement

Idaho Power presents and distributes information on its WMP to a wide variety of stakeholders including the BLM, U.S. Forest Service, and state, county, and city officials.

Idaho Power engages with various Public Safety Partners, including local governments, emergency managers, and Idaho 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. For example, the company worked with the Boise City Fire Department to develop updates to the Boise City Fire Code related to Wildland-Urban interface areas. Throughout 2023, the company worked with several counties within the service area as they went through updated processes to their Community Wildfire Protection Plans (CWPPs).

Idaho Power meets with all Public Safety Partners at least once a year and more frequently as needed. In counties with active local emergency planning committees, Idaho Power is an engaged member. The company uses a variety of methods to communicate with Public Safety Partners, including personal contact via phone, email, and text. Idaho Power documents each Public Safety Partner's communication preferences in an internal outreach database for use during events.

Idaho Power conducted over 30 WMP and PSPS plan presentations in 2023. At each one, stakeholders were asked to provide feedback to inform future versions of the WMP. Notable presentations and/or meetings included:

- Local emergency management planning committee meetings and 1:1 meetings with emergency managers across the service area
- Public meetings in communities with PSPS zones and in all Oregon counties
- Meeting with State of Idaho Emergency director
- Baker County Oregon Emergency Preparedness Fair
- Garden Valley Idaho Wildfire Preparedness Event
- Southern Idaho Landscape Wildfire Working Group
- Ada County Firewise
- Boise, Vale, Unity, Union County and McCall fire departments or fire protection districts
- Idaho Department of Lands and Oregon Department of Forestry, including Idaho and Oregon Fire Marshalls
- U.S. Forest Service Leadership teams with the Sawtooth, Boise, Payette, and Salmon-Challis National Forest
- BLM Idaho Falls and Vale District offices
- The Empower program was identified as a tool to help notify customers on durable medical equipment if a PSPS event is predicted. Idaho Power continues to work with the Idaho Department of Health and Welfare, the Independent Living Network, and the Idaho Office of Emergency Management to expand this program to all Idaho counties.

2023 Public Safety Partner Feedback Summary

High-level feedback received as part of Idaho Power's 2023 outreach effort to partners is summarized below:

- The most beneficial time to engage Public Safety Partner (PSP) and communities about the WMP is before or during wildfire season. Post fire season briefings were less effective.
- Partnering with agencies and engaging in programs such as Firewise is highly desired. These engagements are a valuable tool for bringing about additional awareness of Idaho Power's mitigation efforts and open opportunities for collaboration between Idaho Power, agencies, and public safety partners.
- Understanding of PSPS varied across Idaho Power's service area. Future communications and outreach efforts will require a more extensive, holistic, and broad-reaching approach to education and awareness about the circumstances that would warrant a PSPS event.

10.2.2. Community Resource Centers

Each county in Idaho Power's service area has unique needs during outage events and requires a customized, flexible approach. During annual meetings with county emergency managers, Idaho Power developed county-specific strategies in preparation for potential large-scale, extended outages. These strategies include working with emergency managers to identify Community Resource Center (CRC) locations to be used, as needed, in a PSPS event.
The company first formulated strategies for Oregon counties in 2022 and updated these strategies in 2023. Idaho Power is in the process of exploring and establishing county strategies for Idaho. If a PSPS event is forecasted, Idaho Power will strive to work directly with local Public Safety Partners to identify and meet the needs of the local community. Services provided in collaboration with emergency managers could include:

- Stand-up of CRC
- CRC location(s) and logistics included in community outreach/outage notifications
- CRC resources
    - Food, water, and other basic needs
    - Charging stations
    - Auxiliary service coordination such as medical services, housing assistance, family reunification, etc.

10.3. Customer Communications

Safety is one of Idaho Power's core values, and it guides our strategy for wildfire-related communication to our customers. Communication methods and timing vary based on the audience we are trying to reach and the goal of the communication.

Communication generally falls into two categories: 1) broad outreach to all customers, and 2) additional outreach to customers in zones where PSPS events are more likely. The company uses a variety of outreach methods to reach a broad customer base with messages about wildfire safety, summer outage preparedness, and grid hardening efforts.

Outreach to customers in PSPS zones in 2023 was more targeted and frequent, including urging these customers to update or confirm accurate contact information and know what to do to prepare for outages.

10.3.1. Key Communication Methods

Idaho Power communicates with customers and the public before and throughout wildfire season to inform them of steps the company is taking to reduce wildfire risk and ways they can help prevent wildfires and prepare for outages. Various communication mediums used to accomplish this include:

- *Connections* (This monthly newsletter is an effective way to give customers more in-depth information about the work Idaho Power does, but it is not an effective way to communicate urgent information.) (Figure 23).

- Videos on topics like vegetation management and PSPS (Figure 24).

- Emails, texts, and phone calls telling customers how to prepare for wildfires, encouraging them to update their contact information, and providing information about grid hardening efforts (Figure 25).

    - The company notified all customers in PSPS zones by text message, phone call and postcard (Figure 26) with additional information about PSPS and how to prepare. When text messages or phone calls failed, the company sent follow-up letters or postcards urging customers to update their contact information. In some cases, employees visited customers' service addresses.

- News media (news releases, appearances on broadcast TV and radio shows, interviews, etc.).

- Social media (posts on Facebook, Instagram, and Twitter are an efficient way to reach large numbers of customers and the public in a timely manner). Social media continues to be a critical tool for engaging with customers and communicating wildfire safety

(Figure 27). The company's social media campaign for wildfire season focused on three main themes:

  - Wildfire prevention: What Idaho Power is doing and what customers can do to reduce wildfire risk
  - Outage preparation: How customers, especially those who live or have businesses in wildfire risk zones, should prepare for wildfire-related outages
  - Grid maintenance: How Idaho Power protects the grid, keeping energy safe, reliable and affordable, even during wildfire season

- Postcards and flyers (Figure 28)
- Paid advertising (radio, digital, and print advertisements)
- Idaho Power's website (wildfire safety information, such as videos, safety tips, and the latest version of the WMP) can be found at idahopower.com/outages-safety/wildfire-safety/. As shown in Figure 29 on this webpage, the company introduces wildfire and its relationship to delivering power, information on PSPS, and the following links:
  - What is a PSPS?: Explanation of PSPS events, including a map customers can use to determine if their homes or businesses are inside a PSPS zone
  - Be Prepared for Wildfire Season: Preparation tips like building an outage kit and making a plan for feeding livestock, etc.
  - Protecting the Grid: Idaho Power measures to enhance grid resiliency and reduce wildfire risk; an interactive map showing Tier 3 and Tier 2 zones and a link to the WMP
  - How You Can Reduce Wildfire Risk: Tips for preventing wildfires when camping, using fireworks, hauling trailers, etc.
  - PSPS Event Information: Real-time information on active PSPS events, estimated shutoff time, outage duration, and customers impacted
- Public engagement with the company holding at least one public meeting per year in both Oregon and Idaho, offering a virtual meeting with additional access and functionality options. Feedback opportunities are also provided during and after the meetings (Figure 30).

MAY • 2023

Connections

IDAHO POWER.

How Idaho Power Protects the Grid — and You Can Too

Idaho Power customers experienced less damage in recent wildfire seasons than many of our neighbors, but our company still remains vigilant in our mission to reduce the risk of wildfire and protect the grid. As the snow recedes and another fire season approaches, we're renewing our efforts and rolling out new measures.

"Wildfires are almost twice as common in our service area as they were 40 years ago," said Jon Axtman, Transmission and Distribution Engineering and Reliability Senior Manager. "The work we're doing is an important part of Idaho Power's long-term plan to make our grid safer, reduce wildfire risk and continue our long tradition of reliable, affordable energy."

Last summer, our crews worked hard to keep the grid safe across Idaho Power's service area, which covers most of southern Idaho and eastern Oregon. They installed equipment like Spark Prevention Units and special fuses that keep hot particles from hitting the ground in case of a fault in the line.

As the Moose Fire raged near Salmon, Idaho, our crews protected wooden poles in the area by wrapping them in a fire-resistant mesh. Those were just a few of the more than 1,000 poles Idaho Power wrapped in 2022.

Our wildfire team monitored the weather, focusing on the highest-risk areas. We'll build on this work in 2023. We're also testing new technologies, like satellites to detect trees growing too close to our lines; artificial intelligence to tell us when wildfires have started and quickly notify first responders; and computer modeling of wood poles to ensure they stand up to high winds.

We'll continue monitoring for rare conditions that could require a Public Safety Power Shutoff, (PSPS). A PSPS is when a company like Idaho Power proactively turns off power to a small area where wildfire risk is high due to extreme weather conditions. The outage is a last resort measure to protect customers, communities, employees and equipment from wildfire. We did not call a PSPS last year.

Customers play a big role in preventing wildfires, too. Idaho's mountains, rivers and lakes are among the best parts of living in Idaho. It's on all of us to protect these special places from wildfire.

Whether you're camping in the woods or enjoying a day at the lake, a few simple precautions go a long way to protect you, your family and the places you love from fire:

- Monitor and obey fire restrictions
- Use designated fire rings at campgrounds
- Fully extinguish campfires
- Prevent trailer chains from dragging on the road
- Never park or start a vehicle on dry grass
- Never throw cigarettes out of a vehicle

For more information, visit **idahopower.com/wildfire.**

Lee esta edición de Connections en español a idahopower.com/connections.

Comments about Connections are welcome at idahopower.com or Corporate Communications, P.O. Box 70, Boise, ID 83707.

31188-1-0725

Plan Now for Your Unique Outage Needs — Just in Case!

Idaho Power is proud to keep the lights on 99.9% of the time, but power outages do happen. While most outages are brief, some can last for hours or even days in the case of severe weather, wildfires or vehicle collisions.

While there are some basic preparations that can help everyone, it's especially important for you to think through your individual needs.

- If you or your family members have special medical needs, such as refrigerated medicine or electrically powered medical equipment, make a plan for what you will do in an extended outage. This could mean finding a place you can go during an outage or buying a backup generator.
- If you depend on well pumps for water, have extra water and ice blocks on hand for livestock water, if needed.
- Know how to manually open and close any electric garage doors or security gates in case you need to leave your home.
- Sign up for outage alerts and ensure your contact information is up-to-date.

Everyone can benefit from building an outage kit and keeping it stocked year-round. Here are some suggested items:

- Bottled water (five gallons per person)
- Matches
- Blankets
- Non-perishable food (canned food, crackers, etc.)
- Non-electric can opener
- Baby food or formula and diapers
- Pet food
- First-aid kit
- Prescription medications
- Battery- or solar-powered chargers for your devices (phones, tablets, etc.)
- Battery-powered radio, clock and fans
- Flashlights
- Extra batteries
- A block of ice in the freezer

To learn more about how to ensure you and your family are ready in case of a power outage, visit **idahopower.com/outagetips.**

From the Energy-efficient Kitchen

May 2023 Dinner

Lime Ginger Grilled Chicken

4 boneless, skinless chicken breasts
1/3 cup fresh lime juice
1 Tbsp grated lime peel
2 tsp olive oil
1½ tsp minced garlic
1½ tsp grated ginger
½ tsp salt
½ tsp ground black pepper

In a gallon-sized zip-top bag, combine minced garlic, ginger, lime peel, lime juice, olive oil, salt and pepper. Mix thoroughly. Place chicken in bag, cover with marinade mix and refrigerate for 1–2 hours.

Preheat grill to medium. Remove chicken from bag, place on grill and cook for 20–25 minutes or until cooked through. Makes four servings.

Recipe selected from Idaho Power's Centennial Celebration Cookbook.

Please recycle this newsletter.

Your power is OUT.

View Outage Map

Can We Reach You During an Outage?

If your power goes out, we're dedicated to getting you up-to-date information. Help us make sure we can reach you!

Update Your Contact Information

If you already have a My Account profile, go to Idahopower.com/contactupdate and update or confirm your phone number and email address.

Don't have My Account yet? Grab your Idaho Power account number and head to Idahopower.com/myaccount to set up an online profile. We'll walk you through a few easy steps to get started.

You can also update your information in the space provided on the bottom of your bill or call us at 1-800-488-6151.

Sign Up for Outage Alerts

While you're in My Account, sign up for outage alerts to be notified any time an outage impacts your home or business. You can also sign up for alerts when your bill is past due or reaches a set monthly amount.

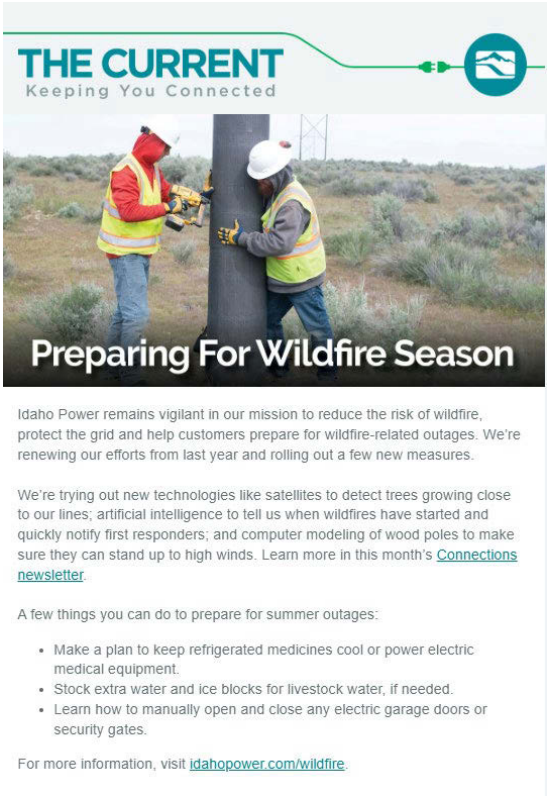
Download Our App

The Idaho Power mobile app is a free, convenient tool you can use to track power outages impacting your home or business, receive push notifications and view real-time information on the outage map (along with so much more!). Learn more at Idahopower.com/app or download it today from your app store.

Idahopower.com

Figure 23
May 2023 edition of *Connections*

Figure 24
Idaho Power developed an educational video on how we protect wooden poles from wildfire



THE CURRENT
Keeping You Connected

Preparing For Wildfire Season

Idaho Power remains vigilant in our mission to reduce the risk of wildfire, protect the grid and help customers prepare for wildfire-related outages. We're renewing our efforts from last year and rolling out a few new measures.

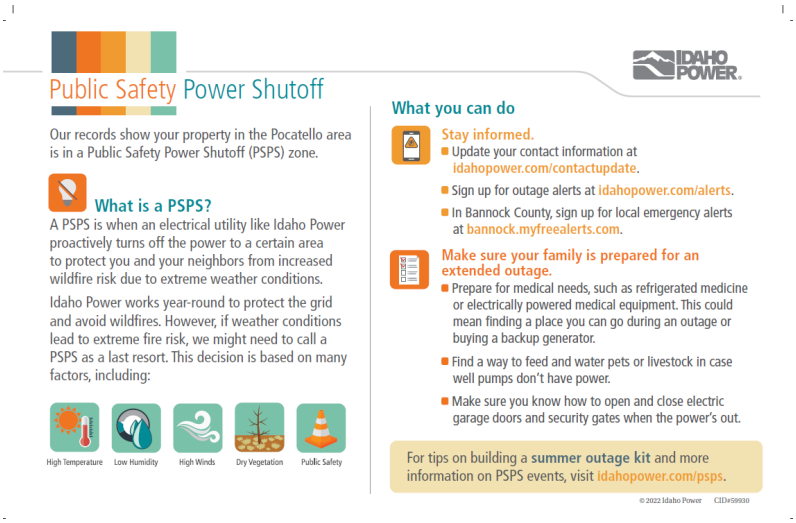
We're trying out new technologies like satellites to detect trees growing close to our lines; artificial intelligence to tell us when wildfires have started and quickly notify first responders; and computer modeling of wood poles to make sure they can stand up to high winds. Learn more in this month's Connections newsletter.

A few things you can do to prepare for summer outages:

- Make a plan to keep refrigerated medicines cool or power electric medical equipment.
- Stock extra water and ice blocks for livestock water, if needed.
- Learn how to manually open and close any electric garage doors or security gates.

For more information, visit idahopower.com/wildfire.

Figure 25
Customer email from May 2023



Public Safety Power Shutoff

IDAHO POWER

Our records show your property in the Pocatello area is in a Public Safety Power Shutoff (PSPS) zone.

What is a PSPS?
A PSPS is when an electrical utility like Idaho Power proactively turns off the power to a certain area to protect you and your neighbors from increased wildfire risk due to extreme weather conditions.

Idaho Power works year-round to protect the grid and avoid wildfires. However, if weather conditions lead to extreme fire risk, we might need to call a PSPS as a last resort. This decision is based on many factors, including:

High Temperature · Low Humidity · High Winds · Dry Vegetation · Public Safety

What you can do

Stay informed.
- Update your contact information at idahopower.com/contactupdate.
- Sign up for outage alerts at idahopower.com/alerts.
- In Bannock County, sign up for local emergency alerts at bannock.myfreealerts.com.

Make sure your family is prepared for an extended outage.
- Prepare for medical needs, such as refrigerated medicine or electrically powered medical equipment. This could mean finding a place you can go during an outage or buying a backup generator.
- Find a way to feed and water pets or livestock in case well pumps don't have power.
- Make sure you know how to open and close electric garage doors and security gates when the power's out.

For tips on building a **summer outage kit** and more information on PSPS events, visit idahopower.com/psps.

Figure 26
Postcard to customer living in a PSPS zone

Figure 27
Example social media posts

Figure 28
Postcard to customer living in an area where grid inspections were taking place

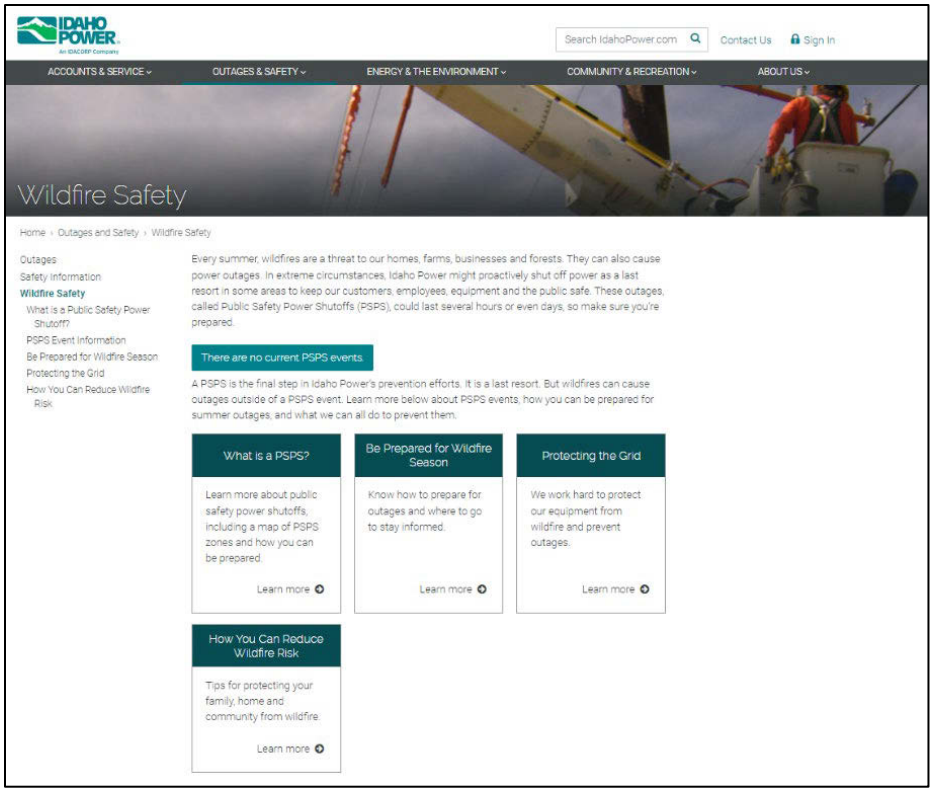


Figure 29
Idaho Power's wildfire safety landing webpage

Figure 30
Wildfire mitigation meeting PowerPoint cover slide

10.3.2. Timing of Outreach

The timing of the outreach generally occurs before and during wildfire season. In 2023, preseason wildfire outreach had to wait until flooding receded in certain area of our service area. Holding social media posts, ads, and other communications until wildfire is more prominently on people's minds helps increase the likelihood people will hear and retain the messages. The tone of early communications was meant to encourage customers to think about wildfire season, how they could prepare for it, their role in preventing wildfires, and steps Idaho Power is taking to keep the grid safe and reduce wildfire risk. When the potential for wildfire increased, communications shifted in tone. Messaging put more emphasis on asking customers to update their contact information, prepare for the risk of wildfire, and help prevent wildfires while engaging in recreational activities.

10.3.3. Communication Metrics

Idaho Power uses metrics and monitoring of certain communication activities to evaluate the effectiveness of our outreach efforts and make adjustments as needed.

Table 16 summarizes key metrics from Idaho Power's 2023 communication campaign.

Table 16
Key communication metrics

Metric	Definition	Success Criteria	Reason for Metric	Results/Discussion	Considerations for Future
Digital Display Ads—Outage Preparation and Wildfire Prevention (May 26–Aug. 15)					
Click Through Rate	Number of people who clicked/total number who were served the ad, expressed as a percentage.	Industry average	Identifies how well customers are engaging with messaging	These ads on regional website resulted in a total of 10,615 clicks in Idaho and Oregon to our wildfire landing webpage and a click through rate of 0.16%, surpassing the click-through rate benchmark of 0.05%. Idaho Power was well ahead of the industry average for click through rate.	Expand target audience demographics to reach more people outside the Boise area.
Impressions	The number of times an ad has been served.	Growth in impressions	Helps gauge total reach	These ads on regional website resulted in almost 6.6 million impressions.	
Radio—Wildfire Prevention (May 26–Aug. 15)					
Number of Spots	Total number of spots ran, including add-on PSAs	Count increasing/leveraging additional free spots as PSAs	Identifies number of customers exposed to messaging	Idaho Power's wildfire-safety radio ad campaign ran in the Idaho Falls, Twin Falls, and Boise markets. The Boise market includes eastern Oregon, reaching as far west as Baker City. The campaign included a total of 3,763 paid and public safety announcement (PSA) match spots, 748 of which were in Spanish and played on Spanish language stations.	Consider focusing additional spots during June and July. A wet, cool August meant we didn't have the right timing for this message in late summer.
Streaming Audio—Wildfire Prevention (May 26–Aug. 15)					
Impressions	The number of times an ad has been served.	Growth in impressions	Helps gauge total reach	English and Spanish ads ran on services such as Pandora, Amazon Podcast Marketplace, and iHeartMedia. The campaign resulted in 358,561 impressions, reaching nearly 140,000 households.	Consider focusing efforts on weekdays when click through rates were highest.
Listen Through Rate	The percentage of ad plays that were listened to in their entirety	Industry average	Identifies how well customers are engaging with messaging	English and Spanish ads ran on services such as Pandora, Amazon Podcast Marketplace, and iHeartMedia. Listen-through rate of 97.5% was above the industry average by 3.5%.	
Customer Email—Wildfire Season Preparedness (May 2023)					
Number Sent	Total number of emails sent	Customer feedback/count increasing as we have more email addresses	Identifies number of customers receiving the message on widely preferred channel	Delivered to 312,119 customers.	Other outage preparedness messaging was included in additional emails, but consider another targeted push on wildfire prevention later in the summer given the success of this approach.
Open Rate	Percentage of recipients who open the email	Industry average	Identifies how well customers are engaging with messaging	Open rate of over 55%—well above industry average.	

Idaho Power will continue looking at what metrics can help provide actionable feedback to guide modifications to future communications.

10.3.4. Customer Feedback

In October 2023, Idaho Power sent out a customer survey to its Empowered Community seeking feedback on general attitudes about utilities and wildfire, including perceptions of risk and support for mitigation measures. In addition to providing a baseline to measure against as wildfire communication continues, it will help inform outreach efforts in 2024. The following are some high-level takeaways from the survey:

- 71% would support the use of PSPS in extreme weather conditions to reduce the risk of wildfire.
- Knowing Idaho Power has a PSPS program somewhat positively or positively impacts the perception of 60% of survey respondents.
- 74% said they would be interested in learning more about measures Idaho Power takes to protect the grid and prevent wildfire.

2023 WMP Communication Summary

Idaho Power used traditional and social media in 2023 to inform customers about the company's WMP, efforts to protect the grid from wildfire, how customers could reduce wildfire risk, how to prepare for wildfire-related outages, and PSPS. Outlets included:

- Newspapers—Print ads and news coverage
- Radio—Paid ads in English and Spanish and news coverage
- TV news coverage
- Printed flyers
- Social media
- Idaho Power website
- Digital display ads
- Postcards—Used to inform customers of the PSPS program and invitations for public meetings
- Spotify—Paid ads
- News Releases—Includes news releases with other Oregon utilities
- Customer email
- Customer newsletters
- Text Messages—Customers in PSPS zones
- Phone Calls—Customers in PSPS zones

The Idaho Power website continued to provide information related to wildfire safety in 2023:

- Searchable map of PSPS zones by customer address
- Summer outage preparation
- How Idaho Power protects the grid, including mitigation efforts
- How customers can help prevent wildfires
- An active PSPS event page that provides details of active PSPS areas and outage duration information

Additionally:

- Postcards were sent to all customers in PSPS zones to inform them of program details
- Wildfire themed customer newsletter (*Connections*) was sent to all customers in May
- Wildfire themed customer email sent to all customers with email addresses on file (approx. 350,000) in May
- Implemented a "pop-up" in the customer My Account web page encouraging customers to update contact information
- Post fire-season postcards were mailed to all Oregon customers in November for invitation to public meetings
- Implemented a customer survey to learn more about customer perception, support and knowledge of fire-mitigation efforts, including PSPS.

10.4. 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 originally established in 2020 by an external consultant. As noted in Section 3, Idaho Power reconducted risk modeling in 2023 and included updated information on population, vegetation, and climatic conditions. Idaho Power intends to review our risk modeling approach on an annual basis and perform modeling updates biennially.

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 Tier 2 and Tier 4 zones during a red FPI. Specific requirements are found in Idaho Power's *Regional WMP Operational Plans* and *Field Wildfire Risk Procedures* documents which are 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. The metrics are based on progress made towards completing mitigation activities, such as quantities of inspected units. 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 17
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.
Thermography (Infra-Red) Inspections	Complete inspections of targeted lines and equipment using thermal imaging (infra-red) cameras.
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 guy	
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 no later than June 15 of each year 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 Tier 3 and Tier 2 zones	Complete annually QA/QC audits
Distribution	**Description**
Pre-Fire Season Inspection and Mitigation	Perform annual pre-fire season inspections no later than June 15 of each year in Tier 3 and Tier 2 Zones and mitigate noted "hot spots"
Line Clearing Cycle: Strive to maintain 3-year cycle	Complete annual cycle pruning work plan
Mid-Cycle Pruning in Tier 3 and Tier 2 zones	Complete annual mid-cycle pruning work plan in Tier 3 and Tier 2 zones
Tree Removals–Cycle Busters/Hazard Trees	Complete annual cycle pruning work plan
Targeted Pole Clearing	Complete annually targeted structures
100% QA/QC Audits in Tier 3 and Tier 2 zones	Complete annually QA/QC audits

11.9. Long-term Metrics

Idaho Power measures the performance of the WMP and its effectiveness over time by tracking outage counts in wildfire risk zones during wildfire season and the progress made towards completing mitigation programs and activities. Vegetation management and grid hardening work is expected to reduce outages and improve reliability in wildfire risk zones. The company's approach in gauging the effectiveness of the WMP includes tracking reliability data and specific outage counts based on causes or failures that are considered potential drivers of ignition.

The following outage causes were established as baseline potential drivers of ignition and are tracked annually for each wildfire risk zone:

- Tree/Vegetation Contact
- Equipment Failure
- Loose Hardware
- Corrosion

- Animal Contact

The use of outage data to gauge overall WMP performance is expected to be a long-term metric and take several years to develop trendlines and averages to draw definitive conclusions and a causal relationship to wildfire mitigation activities. Table 18 below summarizes outage counts in wildfire risk zones during the 2023 wildfire season (May 10 through October 20) and provides the percent changes compared to a baseline that includes the average annual wildfire season outage counts for the 2019 through 2021 wildfire seasons.

Table 18
Outage metrics

Wildfire Risk Zone Outage Metrics–Leading Drivers of Ignition by Cause Code		
Cause Code	**2023 Outage Count**	**% Change Compared to Baseline**
Tree/Vegetation	39	-27%
Equipment Failure	46	30%
Small Animal or Bird	40	-4%
Corrosion	11	22%
Foreign Object Contact	2	0%
Loose Hardware	3	80%

The following summarizes the assessment made regarding outage metrics and WMP performance:

- The total number of outage counts during the 2023 wildfire season was 2% less than the baseline.

- The 2023 wildfire season saw an increased number of storm events, high winds, and more lightning caused outages throughout the service area than in previous years. This attributed to an increase of outages associated with equipment failure, both mechanical and electrical caused. In 2024, the company will explore the use of weather climatology to quantify the annual change in severe weather conditions that attribute to outages.

- The number of lightning caused outages was nearly double the baseline. In 2024, the company plans to conduct analysis of the lightning caused outages in wildfire risk zones to determine the need for more surge arresters in higher lightning prone areas.

- While outage counts increased due to storm activity, outages caused by vegetation contact fell by 27%, indicating that the enhanced vegetation management practices are reducing vegetation risk even under higher-than-normal storm activity.

- Four overhead service transformers failed in 2023 which is consistent with baseline levels. The failure rate of transformers is less than 0.04% in wildfire risk zones. While the failure rate is considered low, the company will take proactive steps in 2024 to determine a method to proactively assess transformer loading based on metered data.

In 2023, Idaho Power began analyzing and evaluating the effectiveness of overhead circuit "hardening" practices by calculating reliability performance indices and outage rates per 100 line-miles for hardened feeders before and after the hardening work was complete. The reliability performance indices assessed include the System Average Interruption Frequency Index (SAIFI), System Average Interruption Duration Index (SAIDI), and the outage rate for circuits that have had WMP hardening.

Hardened circuits or "feeders" were compared to baseline feeders which are defined as all other distribution feeders that do not have completed WMP Hardening projects. This analysis is most informative with several years of actual before and after data to calculate valid comparisons and identify system hardening benefits. There is little history to work with since initial WMP hardening projects were completed in late 2021, but initial analysis indicates improvement by hardening as shown in the table below. Idaho Power will re-evaluate and calculate specific results over the coming years as more "post-hardening" time has passed.

Table 19
Overhead circuit hardening reliability improvements

Overhead Circuit Hardening Reliability Improvements	
SAIFI % improvement with WMP hardening	15%
SAIDI % improvement with WMP hardening	27%
Outage rate % improvement with WMP hardening	13%

Appendix A
The Wildland Fire Preparedness and Prevention Plan.

Wildland Fire Preparedness and Prevention Plan

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Table of Contents

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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) associated with employee work activities in locations and under conditions where is a heightened risk of wildfire. It is expected that all applicable Idaho Power 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 there is a heightened risk of wildfire.

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. 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.

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 through GIS applications. All lands in the vicinity of Idaho Power 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.

C. Fire Potential Index

Idaho Power's Atmospheric Sciences department has developed an FPI rating system that forecasts wildfire potential across IPC's service area. 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:

Planned or Scheduled Work Activities:

1. Fire Potential Indices:

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

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

        ii. Once the FPI level for the work zone is identified, proceed with work but consider utilizing Prevention—Practices of Field Personnel (see Section 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. Evaluate need for utilizing Prevention—Practices of Field Personnel (see section 4 of this Plan)

            2. **Yellow FPI in All Zones:** Proceed with the work. Evaluate need for utilizing Prevention—Practices of Field Personnel (see section 4 of this plan)

            3. Red FPI

                a) **In Normal Zone:** Proceed with the work. Consider and evaluate need for utilizing Prevention—Practices of Field Personnel (see Section 6 of this plan)

                b) **In Tier 2 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 Tier 3 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)	**Higher**	15 to 16 (Red)	Proceed with Work Utilize Prevention/Practices of Field Personnel (Evaluate Conditions and Utilize as Needed)	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 (Evaluate Conditions and Utilize as Needed)	Proceed with Work Utilize Prevention/Practices of Field Personnel (Evaluate Conditions and Utilize as Needed)	Proceed with Work Utilize Prevention/Practices of Field Personnel (Evaluate Conditions and Utilize as Needed)
	Normal	1 to 11 (Green)	Proceed with Work Utilize Prevention/Practices of Field Personnel (Evaluate Conditions and Utilize as Needed)	Proceed with Work Utilize Prevention/Practices of Field Personnel (Evaluate Conditions and Utilize as Needed)	Proceed with Work Utilize Prevention/Practices of Field Personnel (Evaluate Conditions and Utilize as Needed)
			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.

<u>Emergency Response and Outage Restoration Work Activities</u>:

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:

- Bureau of Land Management (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

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 bmidc.org/index.shtml
  - Nevada—Fire Information at nevadafireinfo.org/restrictions-and-closures
  - Montana—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 wacker
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 wildfire risk 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 WRZ.
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 WRZ is Yellow. c) Ensure no work takes place when FPI is "Red" and the WRZ 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.
Atmospheric Sciences 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 associated with work on transmission and distribution lines 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).
- A supply of water, sufficient for initial attack, with an effective spraying mechanism (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.

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 2023

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1. Introduction

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 developed and implemented a Wildfire Mitigation Plan (WMP) in 2021. The fundamental goals of Idaho Power's WMP are to reduce wildfire risk associated with the company's transmission and distribution (T&D) facilities and associated field operations as well as to improve the resiliency of Idaho Power's T&D system in a wildfire event, independent of the ignition source. The WMP is reviewed and updated annually.

As part of its operational mitigation practices, Idaho Power developed a Public Safety Power Shutoff Plan (PSPS Plan or Plan) to proactively de-energize electrical facilities if necessary to reduce wildfire risk. This Plan identifies the relevant considerations, process flow, and implementation protocol before, during, and after a PSPS event. The Plan is active during wildfire season and reviewed and updated as needed on an annual basis.

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

SME—Subject Matter Expert

T&D—Transmission & Distribution

TDER—Transmission & Distribution Engineering and Reliability

UKMET—United Kingdom Meteorological Office

VMP—Vegetation Management Program

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 other agencies as applicable.

(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 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 frequency and intensity of wildland fires (wildfires). A variety of factors contribute 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 a Public Safety Power Shutoff Plan (PSPS Plan or Plan) to proactively de-energize electric transmission and/or distribution facilities during extreme weather events to reduce the risk of wildfire. 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 can create challenges with forecasting when a PSPS event should be implemented. Real-time evaluations and decision-making are therefore important in making PSPS determinations and, depending on the associated wildfire conditions, those determinations may result in proactive de-energization in areas not originally anticipated to be included in a PSPS event.

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 as necessary on an annual basis. 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 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, and 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 elevated wildfire risk within its service area using a process explained in the company's Wildfire Mitigation Plan. Idaho Power's risk tiers reflect risk relative to Idaho Power's service area only and not absolute risk. Idaho Power color-codes the tiers—Yellow Risk Zones (YRZ) for Tier 2 and Red Risk Zones (RRZ) for Tier 3.

In its WMP, Idaho Power identifies operational practices specific to these zones for purposes of reducing wildfire risk associated with the company's transmission and distribution (T&D) facilities and associated field operations and improving the resiliency of Idaho Power's T&D system in a wildfire event, independent of the ignition source. 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 exist that indicate a potential wildfire risk associated with Idaho Power's T&D facilities under those known conditions. 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 sections 8.1 through 8.15. The subsections below list the varying data sources Idaho Power may consider before initiating a PSPS.

8.1. Fire Potential Index

In addition to the risk tier designations in its WMP, Idaho Power developed a Fire Potential Index (FPI) to forecast wildfire potential across Idaho Power's service area as described in Section 5.2 of the WMP. This tool is designed to support operational decision-making during fire season. The FPI 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 area. The FPI is issued for a seven-day period to provide foresight into potential upcoming changes in the FPI which may trigger operational mitigation

efforts, including stopping planned work and changing distribution protection operations in certain locations.

The FPI reflects key variables, such as the state of native vegetation across the service area ("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 16, each of which expresses the degree of fire threat expected for each 6-hour time period 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 lower 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.

FPI information is provided internally 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 when the FPI score is red, including stopping planned work and changing distribution protection operations in certain locations. A Red FPI score is 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 and observing real-time weather conditions and associated risks requires predicting conditions that could make a PSPS event necessary. Resources available for observing current weather conditions include direct, real-time data from Idaho Power's network of weather stations as well as Remote Automatic Weather Stations, Windy: Wind Map and Weather Forecast, and the National Weather Service National Oceanic and Atmospheric Administration's (NOAA) Weather and Hazards Viewer.

Additionally, Idaho Power's PSPS program includes employees acting as field observers to report on site conditions, detailed in section 8.14. Field observers are equipped with mobile weather kits that include wind meters, compasses, and communication devices to report real-time conditions.

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. GBCC 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 during fire season 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. Fire Agency Input

Idaho Power works with Boise NWS Fire Forecasters through daily briefings and National Interagency Fire Center (NIFC) Predictive Service Forecasters on an as-needed basis, generally regarding data clarification, to streamline the transfer of data, information, and communications about wildland fires that may impact 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.

8.13. Alternative Protective Measures

Considering the significant potential impact of a PSPS to customers, prior to implementing a PSPS Idaho Power thoroughly evaluates other potential alternative protective measures for operating its T&D system during fire season.

8.14. Real-time Field Observations

Idaho Power may deploy trained field observers to certain potential PSPS locations prior to de-energization to evaluate and report on weather and circuit conditions on-site.

Field observers are equipped with mobile weather kits that include wind meters, compasses, and communication devices to report real-time conditions. Information is communicated to the PSPS Assessment Team for consideration during a PSPS event.

8.15. Other

As further described in the WMP, Idaho Power continues to evaluate expansion of its weather forecasting tools, and enhance the company's capability to detect and respond to fires with wildfire detection camera systems.

9. Responsibilities

Implementation of the PSPS Plan 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. Roles and responsibilities are reviewed annually and updated as necessary.

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 during a PSPS event
- Assist with PSPS evaluation and decision-making
- Safely restore service to PSPS areas when notified by the acting incident commander
- 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 or circumstances require
- Communicate internally to Idaho Power's Transmission & Distribution Engineering and Reliability (TDER) department when conditions or circumstances indicate a PSPS may be necessary
- Support PSPS activities such as planning, training, and exercises prior to and during fire season
- Assist in PSPS information-gathering, evaluation, and decision-making during a PSPS event
- Participate in AARs and ensure modifications to PSPS protocol are implemented as necessary

9.3. Transmission and Distribution Engineering and Reliability

- Oversee wildfire mitigation program and support cross-departmental collaboration
- Develop and implement safe and reliable power shutoff protocols and procedures
- Act as incident command (IC) for PSPS events
- Activate PSPS Assessment Team as needed
- Ensure PSPS activities such as operations planning, training, and exercises occur annually
- Coordinate with Atmospheric Science to continue evaluating enhancements to situational awareness capabilities
- Support Dispatch and Customer Operations in developing de-energization and re-energization plans for PSPS events
- Support rapid repairs of damaged infrastructure as needed
- Support Load Serving Operations in planning improvements to PSPS operational capabilities
- Following de-energization, and when it is safe to do so, coordinate with the Vegetation Management Program (VMP) to begin removal of vegetation debris necessary for re-energization
- 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

9.4. Customer Operations Support and Regional Operations

- Ensure field personnel are appropriately trained to perform all relevant responsibilities under this PSPS Plan
- Develop and lead training modules for PSPS implementation *(Customer Operations only)*
- Communicate with Oregon and Idaho ESF-12
- Assist with incident command *(Customer Operations only)*
- 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 following a PSPS event
- Participate, with assistance from Corporate Communications, in Idaho Power's general external education campaign
- Ensure a coordinated and cohesive external and internal communication and notification plan is in place and reviewed annually
- During PSPS phases, collect and maintain Regional Dispatch Operations logs and other incident information for reporting purposes.
- 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
- Coordinate with emergency managers to deploy community resource centers as necessary

Lead AARs and ensure modifications to PSPS protocol are implemented as necessary

9.5. Substation Operations

- Monitor substations and perform actions to support PSPS operations as required

- Coordinate activities with Dispatch and Customer Operations
- Participate in AARs and ensure modifications to PSPS protocol are implemented, as necessary

9.6. Corporate Communications

Corporate Communications develops and executes PSPS communications to Idaho Power customers and employees and supports 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.

9.7. Safety

- Ensure safety professionals are appropriately trained to perform all relevant responsibilities as needed under the PSPS Plan.
- Provide training on the PSPS Plan requirements for field personnel.

- Participate in AARs and modify communication practices as necessary.

9.8. Customer Service

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

10. PSPS Operations

10.1. Preparedness

PSPS preparedness is a continuous effort involving Idaho Power, public safety partners, state and local governments, communities, and customers. The Transmission and Distribution Engineering and Reliability department coordinates and facilitates activities of 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.

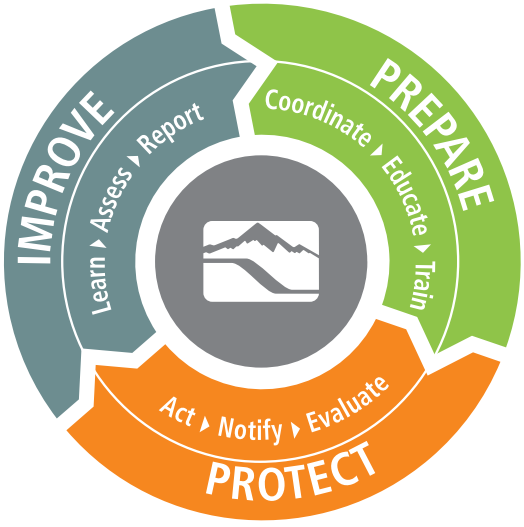

Figure 1
PSPS preparedness cycle

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. Idaho Power uses metrics and monitoring of certain communication activities to evaluate the effectiveness of outreach efforts and adjusts as needed based on feedback from customers and public safety partners.

10.1.1. Community Preparedness

Idaho Power communicates with customers and public safety partners before and throughout wildfire season through a variety of platforms to inform them of steps the company is taking to reduce wildfire risk and ways they can help prevent wildfires and prepare for outages. Communication themes include the following:

- What is a PSPS?: Explanation of PSPS events, including a map customers can use to determine if their homes or businesses are located in either a red or yellow risk zone.
- Be Prepared for Wildfire Season and PSPS events: Preparation tips like building an outage kit and planning for feeding livestock, etc.
- Protecting the Grid: Measure's that Idaho Power is taking to enhance grid resiliency and reduce wildfire risk.
- How You Can Reduce Wildfire Risk: Tips for preventing wildfires when camping, using fireworks, hauling trailers, etc.
- PSPS Event Information: Real-time information on active PSPS events, estimated shutoff time, outage duration, and customers impacted.

10.1.2. Training and Exercises

Idaho Power coordinates and participates in tabletop exercises with public safety partners to enhance knowledge of each other's emergency operations and ensure smooth interactions during PSPS events.

10.2. 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 forecasting and reducing wildfire risk.

10.2.1. 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, the NWS, and a regional wildfire outlook.

During wildfire season, the Atmospheric Science team will determine a daily FPI as described in Section 5.2 of the WMP describing shorter-term weather and fire conditions specific to wildfire risk zones across Idaho Power's service territory.

10.2.2. 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.

10.3. 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. Figure 2 provides Idaho Power's optimal communication timeline for PSPS events, including notifications to public safety partners, circumstances permitting.

10.3.1. Notifications and Emergency Alerts

Consistent with Oregon Division 300 Administrative Rules and Emergency Support Function-12, Idaho Power coordinates 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.

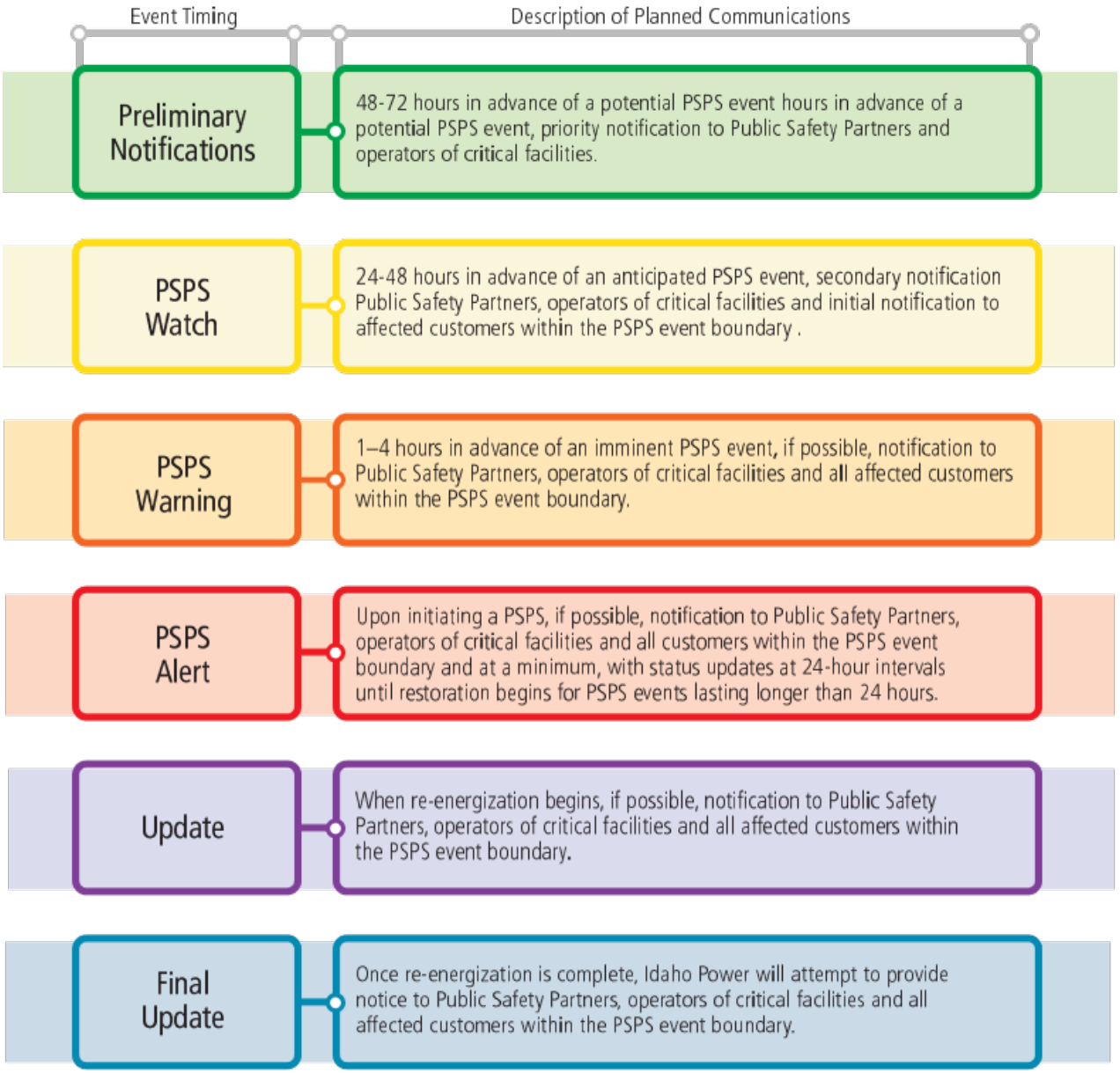

Figure 2
Optimal PSPS event communication timeline

10.4. PSPS Phases

10.4.1. Phase 1 & PSPS Assessment Team Activation

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 of other storm-related outages or other PSPS events.

Idaho Power will transition from normal wildfire season operations to Phase 1 of a PSPS event at the direction of the TDER senior manager or designee. During Phase 1, Idaho Power will activate the PSPS Assessment Team, which includes representation from a minimum of the departments identified in Section 9. The TDER senior manager or designee will establish an incident commander for the event to lead the PSPS Assessment Team during the phases of the PSPS event. The PSPS Assessment Team will hold in person meetings and/or conference calls (collectively referred to as meetings) as needed to discuss current and forecasted weather conditions and other information regarding a potential PSPS event. The IC will facilitate PSPS Assessment Team meetings and the PSPS Assessment Team will be responsible for recommending maintaining Phase 1, escalating to Phase 2, or de-escalating to normal operations. The PSPS Assessment Team will also recommend issuance of preliminary notifications of a potential PSPS event to customers, public safety partners, critical facilities operators, and ESF-12 leads consistent with Oregon Division 300 Administrative Rules and Emergency Support Function-12.

During Phase 1, the PSPS Assessment Team will review the PSPS Plan and supporting documents. An operational risk assessment will be performed to develop a recommendation for PSPS escalation. Ultimate determination will be made whether to escalate to Phase 2 is made by the IC. Within one hour of Phase 2 notification, the full PSPS Assessment Team will be placed on stand-by and team member availability will be determined. In addition, the VP of Planning, Engineering, and Construction (PEC), the Customer Operations VP, and Chief Operations Officer or their designees will be placed on stand-by for decision making purposes.

10.4.1.1. Phase 1 Notifications

Depending on the timing and specific circumstances of the PSPS event, 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 determined by the PSPS Assessment Team in coordination with Corporate Communications.

10.4.2. Phase 2

Phase 2 actions are determined by additional situational awareness activities and timing of forecasted weather events. Upon transitioning to Phase 2, Idaho Power will provide external notifications as detailed in Figure 2, as determined by the PSPS Assessment Team in coordination with Corporate Communications.

10.4.2.1. Regional Event Operations and Coordination

In collaboration with the PSPS Assessment Team, Idaho Power regional leadership will establish a regional event coordinator. The event coordinator's main role is to coordinate activities across the region associated with the PSPS event and restoration of electric service, as needed, following a PSPS event.

Regional Operations personnel have 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.

10.4.2.2. 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 or their designees who will then evaluate the PSPS Assessment Team's recommendation for final determination; provided, however, that all three positions may not be available during an event. In which case, any one of the three positions (i.e., the VP of PEC, VP of Customer Operations, or COO) have the authority to make a final determination of whether to proceed to Phase 3 implementation of a PSPS event based on the PSPS Assessment Team recommendation.

10.4.2.3. Request to Delay a PSPS Event

There may be requests to delay proactive de-energization from the public safety partners or ESF-12. This may occur for several reasons, with the most anticipated being an impact to a customer or fire response agency's ability to pump water for fire suppression during the outage. Delay requests should be routed through dispatch and sent to the PSPS Assessment Team for evaluation. The PSPS Assessment Team will provide the VP of PEC, VP of Customer Operations, and the COO (or designee) a recommendation on whether to approve the proactive de-energization delay. The decision will be made by the VP of PEC, VP of Customer Operations, and/or the COO (or designee). 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.

10.4.2.4. Field Observations and Response Teams

TDER and 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.

10.4.2.5. Customer and Community Notifications

Depending upon the timing and specific circumstances of the PSPS event, 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.

10.4.3. Phase 3

Upon determination to proactively de-energize, the Load Serving Operations (LSO) representative of the PSPS Assessment 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. Regional teams will follow internal processes and procedures to safely and effectively implement a PSPS event.

10.4.3.1. Customer and Community Notification

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.

10.4.4. Phase 4

10.4.4.1. 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 prior to re-energization. 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.

10.4.4.2. 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.

10.4.4.3. Incident Management Support

The PSPS Assessment Team will continue to monitor fire and weather conditions throughout the event. Logistics and mutual assistance requirements will be determined and acted upon per existing internal plans and processes. If re-energization will be delayed longer than anticipated due to the magnitude of the event, the Emergency Management Team (EMT) will be utilized for additional support.

10.4.4.4. 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. The outage map on Idaho Power's website will be updated during the event. Idaho Power will also leverage existing public agency outreach and notification systems as done at other points in the PSPS process.

10.4.4.5. Re-energization

Once re-energization activities are completed and service is restored, crews and support staff will demobilize and return to normal wildfire season operations as described in the Wildfire Mitigation Plan.

10.4.5. Post-incident Review

During PSPS phases, the Customer Operations lead will collect and maintain Regional Dispatch Operations logs and other incident information required for reporting purposes.

Following conclusion of a PSPS event, the Customer Operations lead or their designee will conduct informal, high-level debriefs to identify potential modifications to PSPS protocol based on lessons learned during the event. The assigned representative will consolidate the feedback and file as part of the incident documentation.

Also following the PSPS event, IC will conduct an AAR with the PSPS Assessment Team to identify potential modifications to PSPS protocol based on lessons learned during the event. The IC will consolidate the feedback and provide to the Customer Operations lead.

After wildfire season, the Customer Operations lead 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 of expenses through regulatory processes. Expenses will 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 Idaho Power's general counsel or designee to improve the PSPS processes and procedures.

14. Training

Idaho Power will 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 on an annual basis prior to wildfire season 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

Appendix C
Wildfire risk zone map book.

Wildfire Risk Zone Map Book

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List of Figures

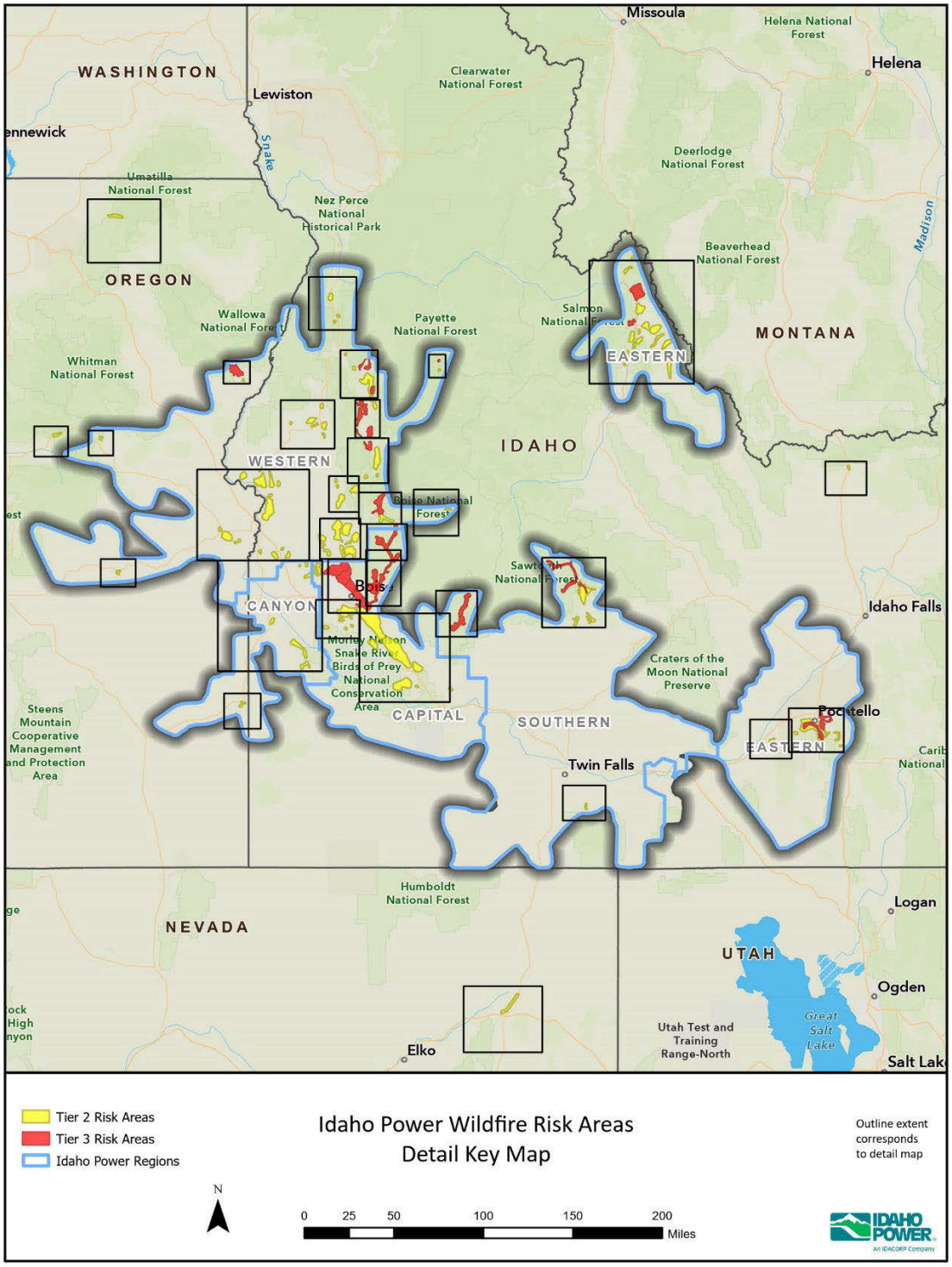


Figure 1
Idaho Power wildfire risk areas—detail key map

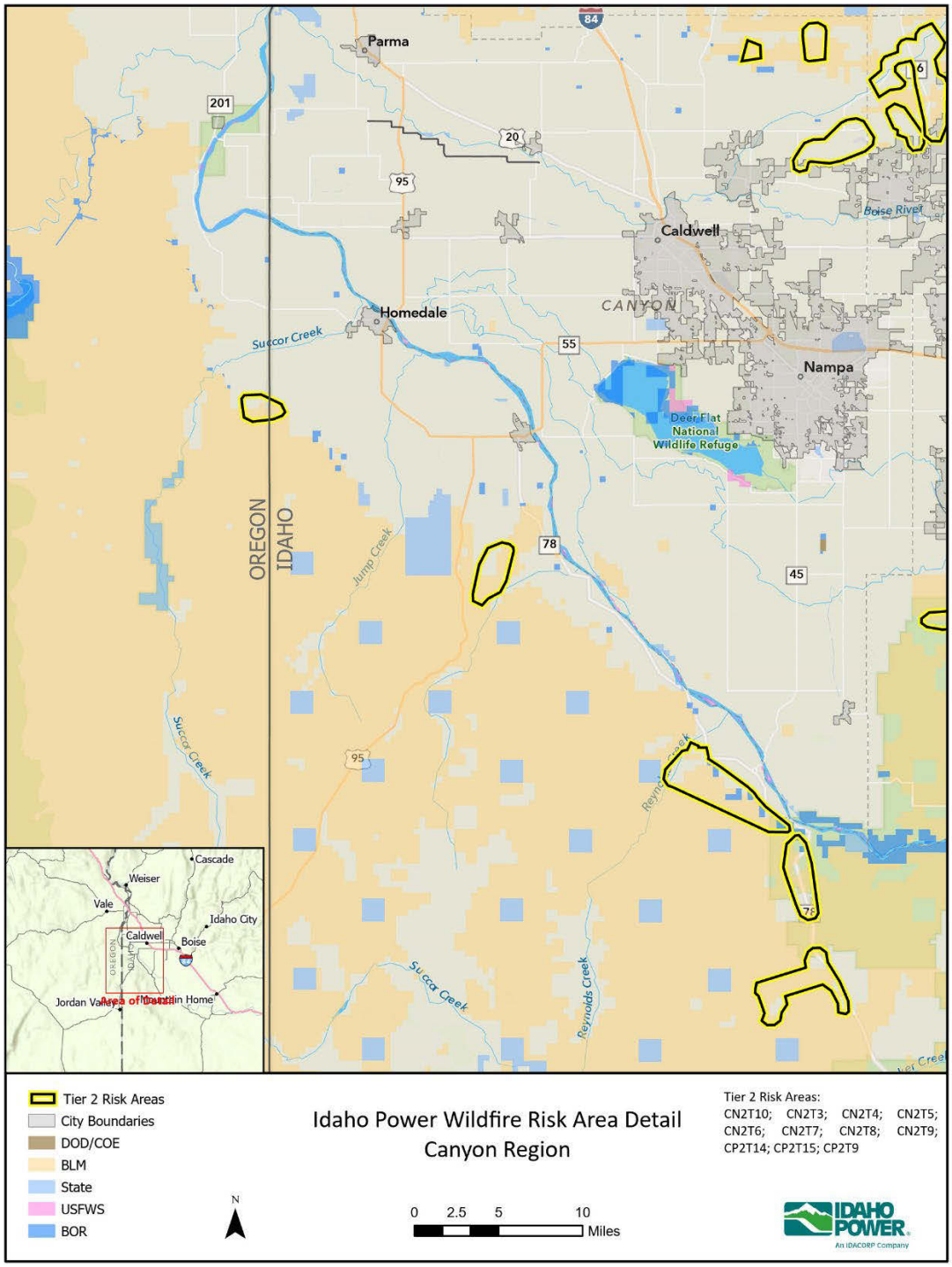


Figure 2
Canyon Region—Tier 2 zones

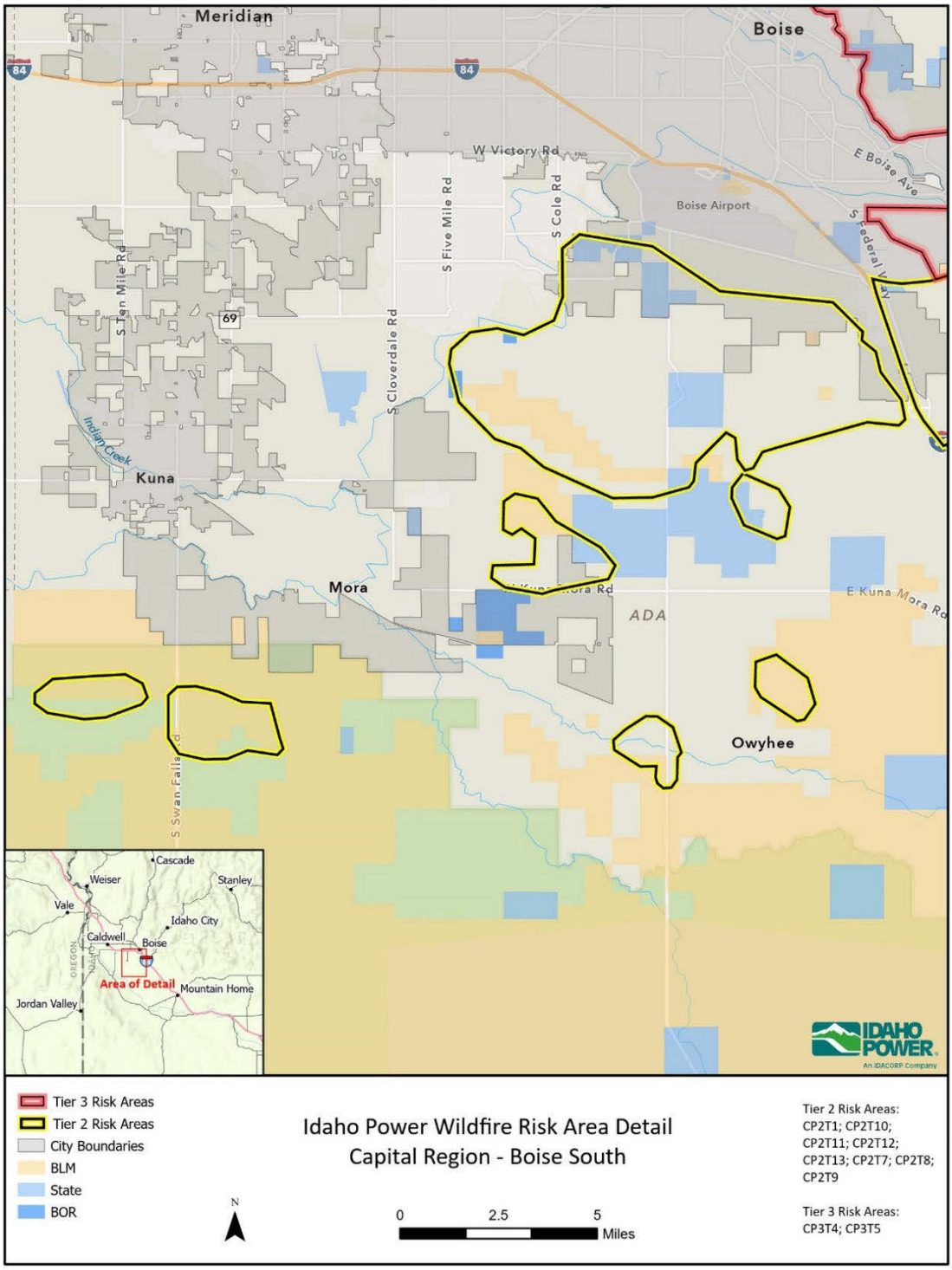


Figure 3
Capital Region–Boise south

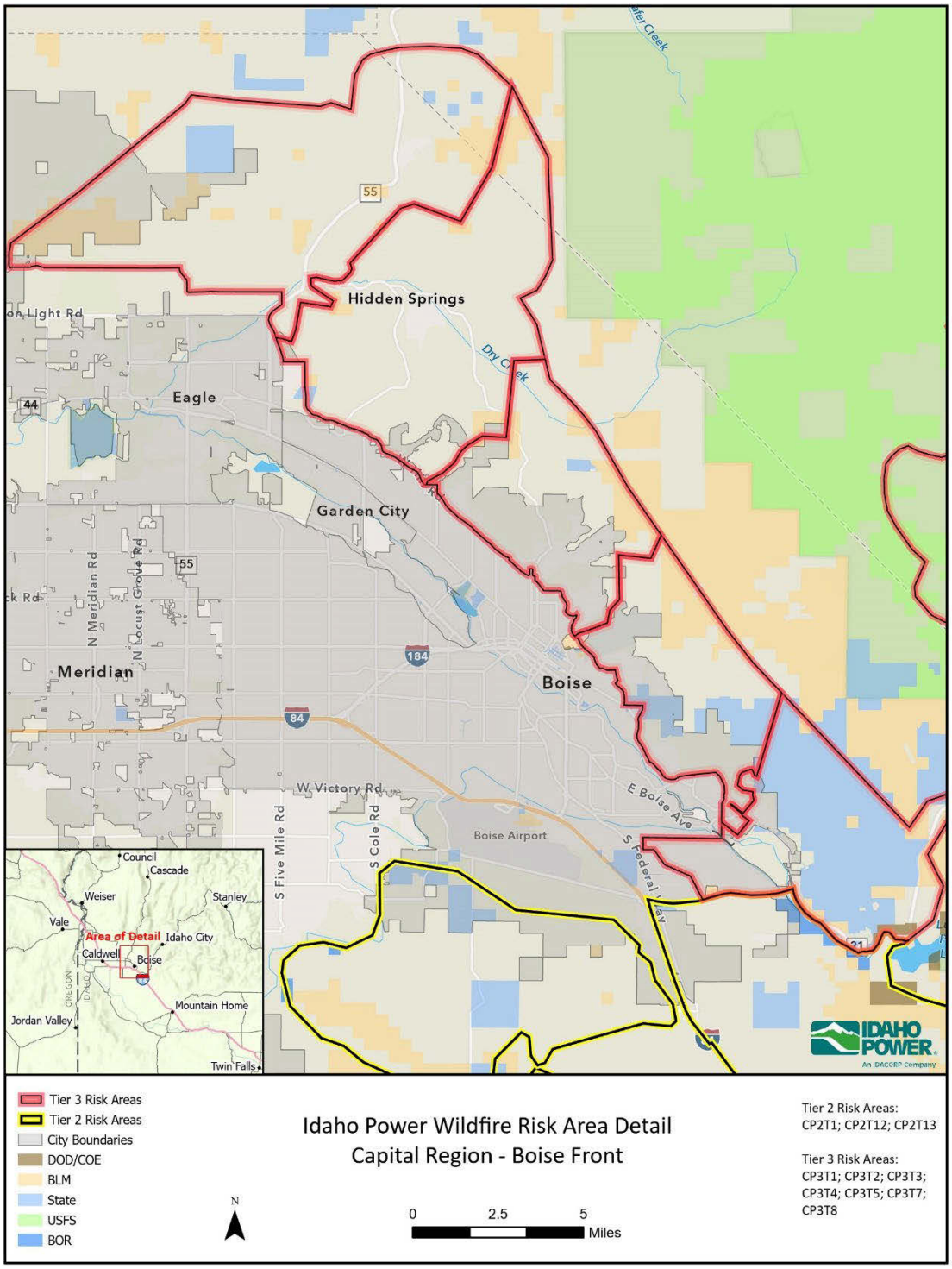


Figure 4
Capital Region–Boise Front

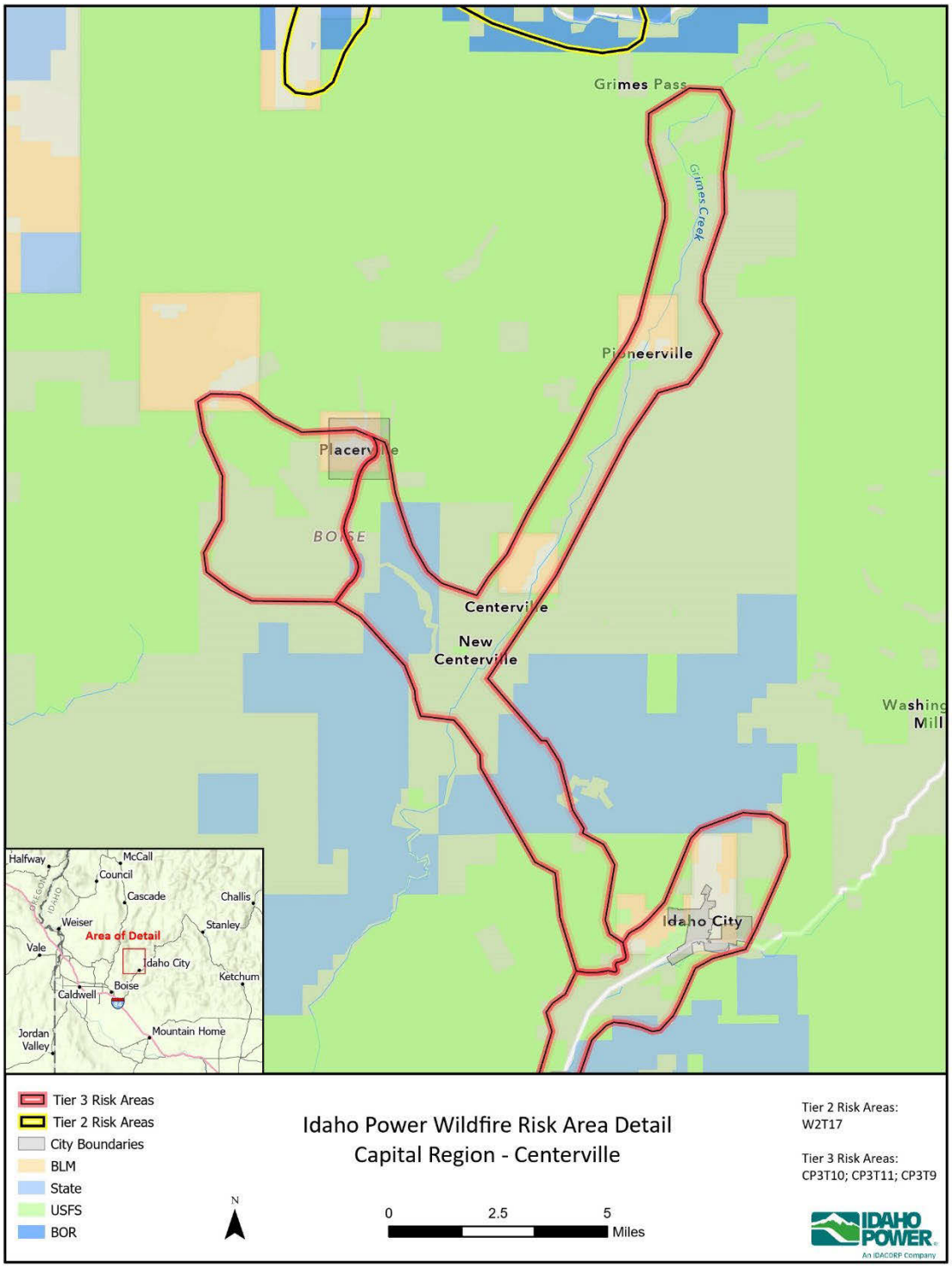


Figure 5
Capital Region–Centerville

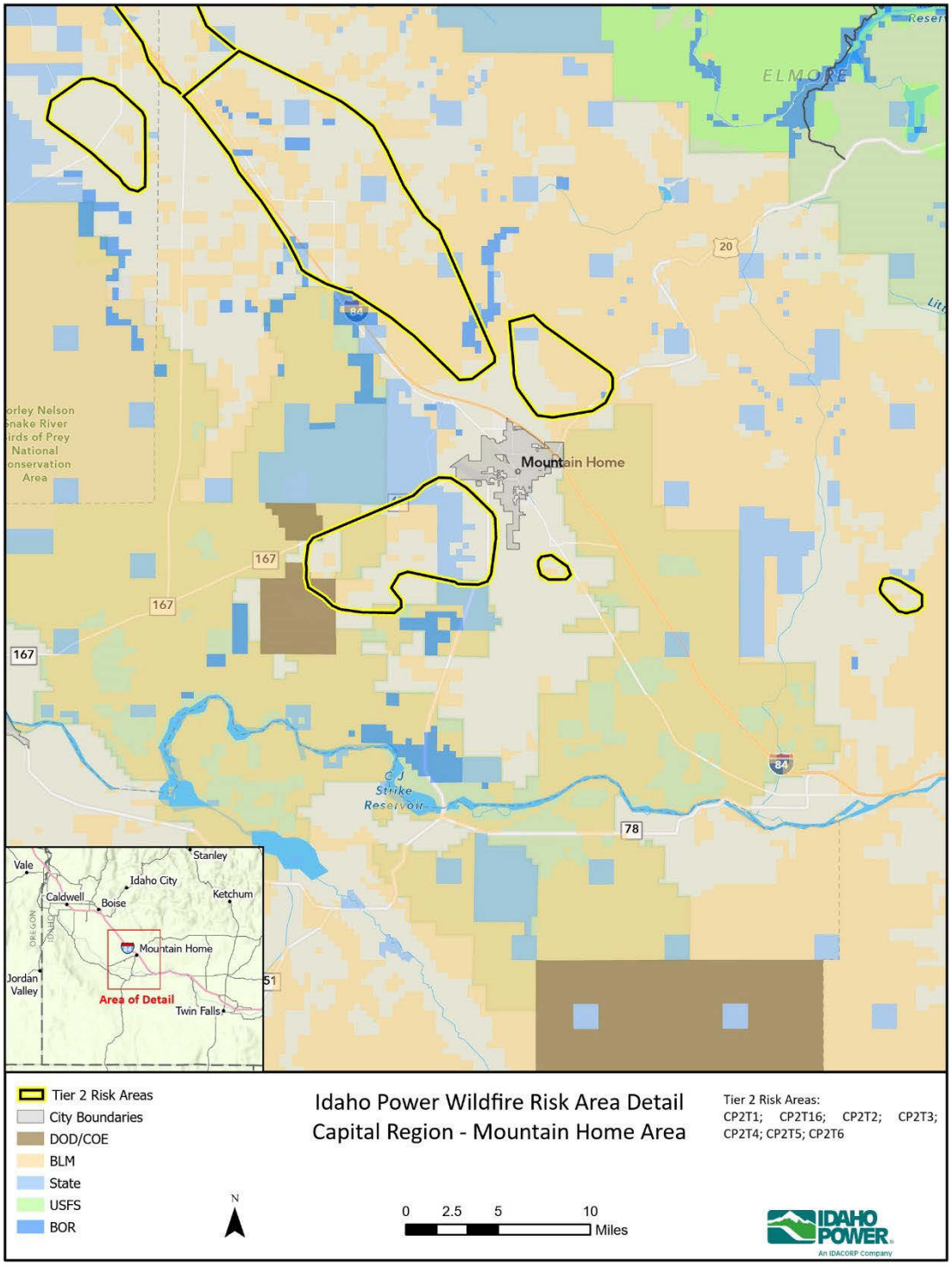


Figure 6
Capital Region–Mountain Home area

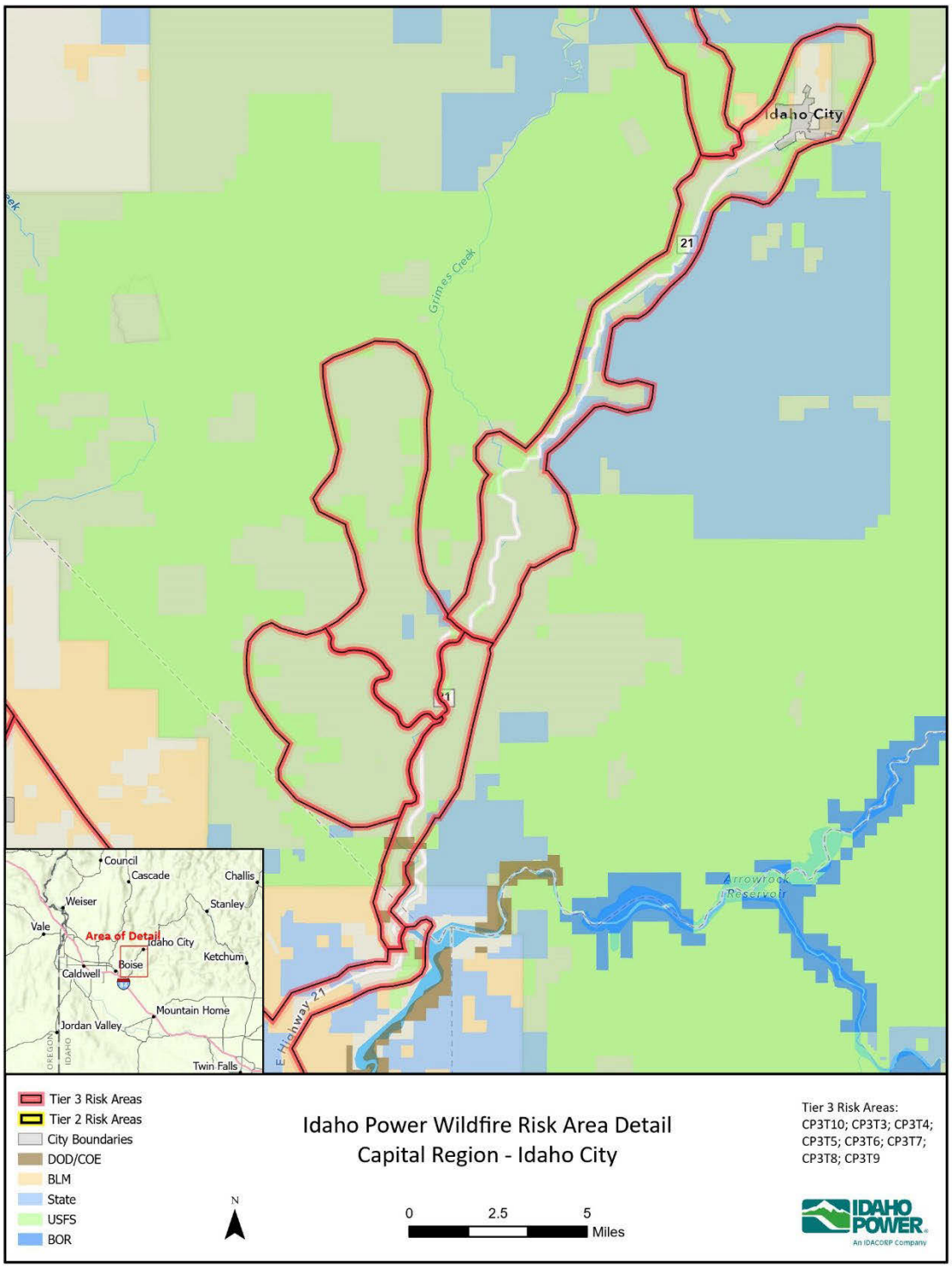


Figure 7
Capital Region–Idaho City

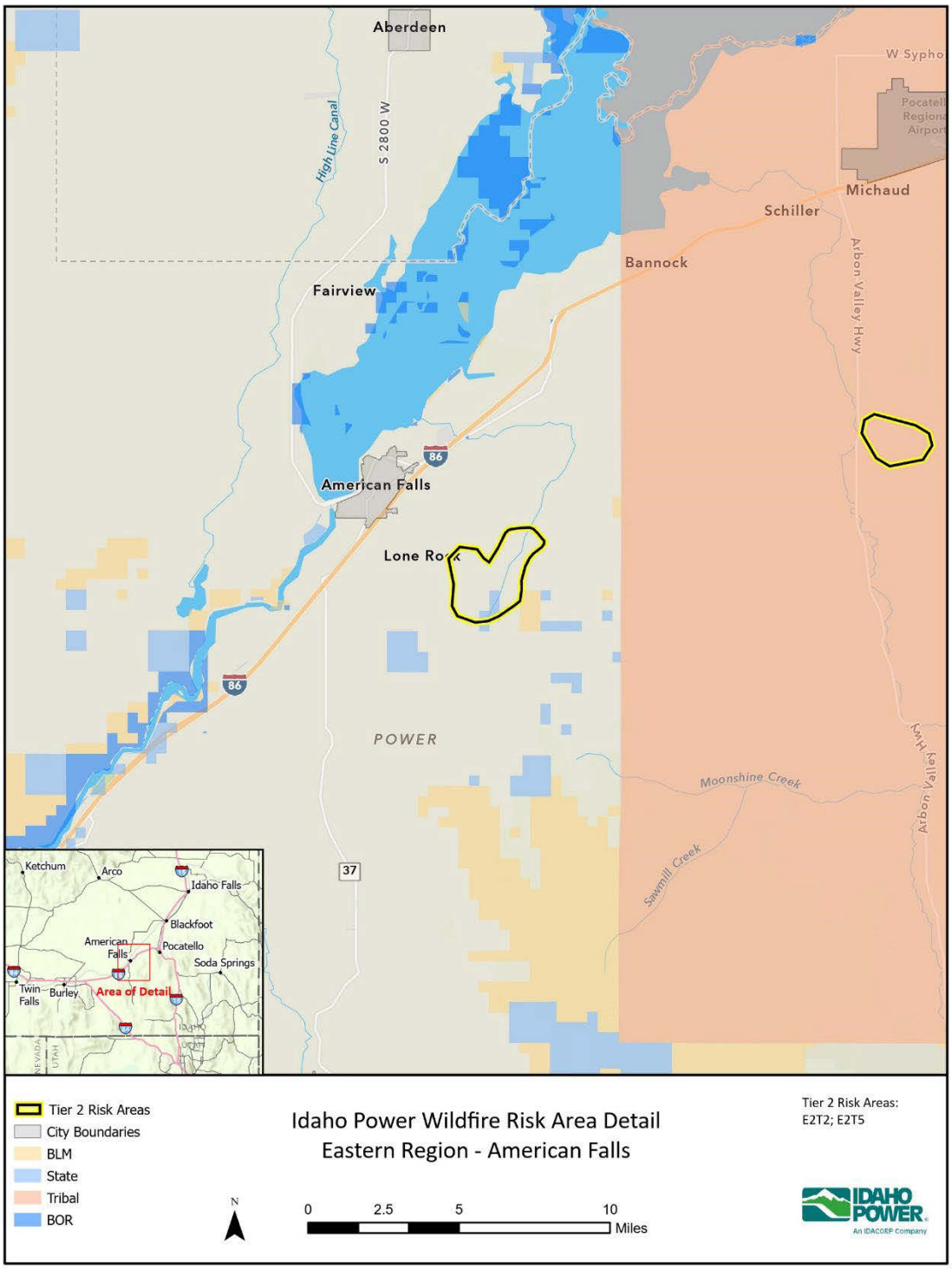


Figure 8
Eastern Region—American Falls

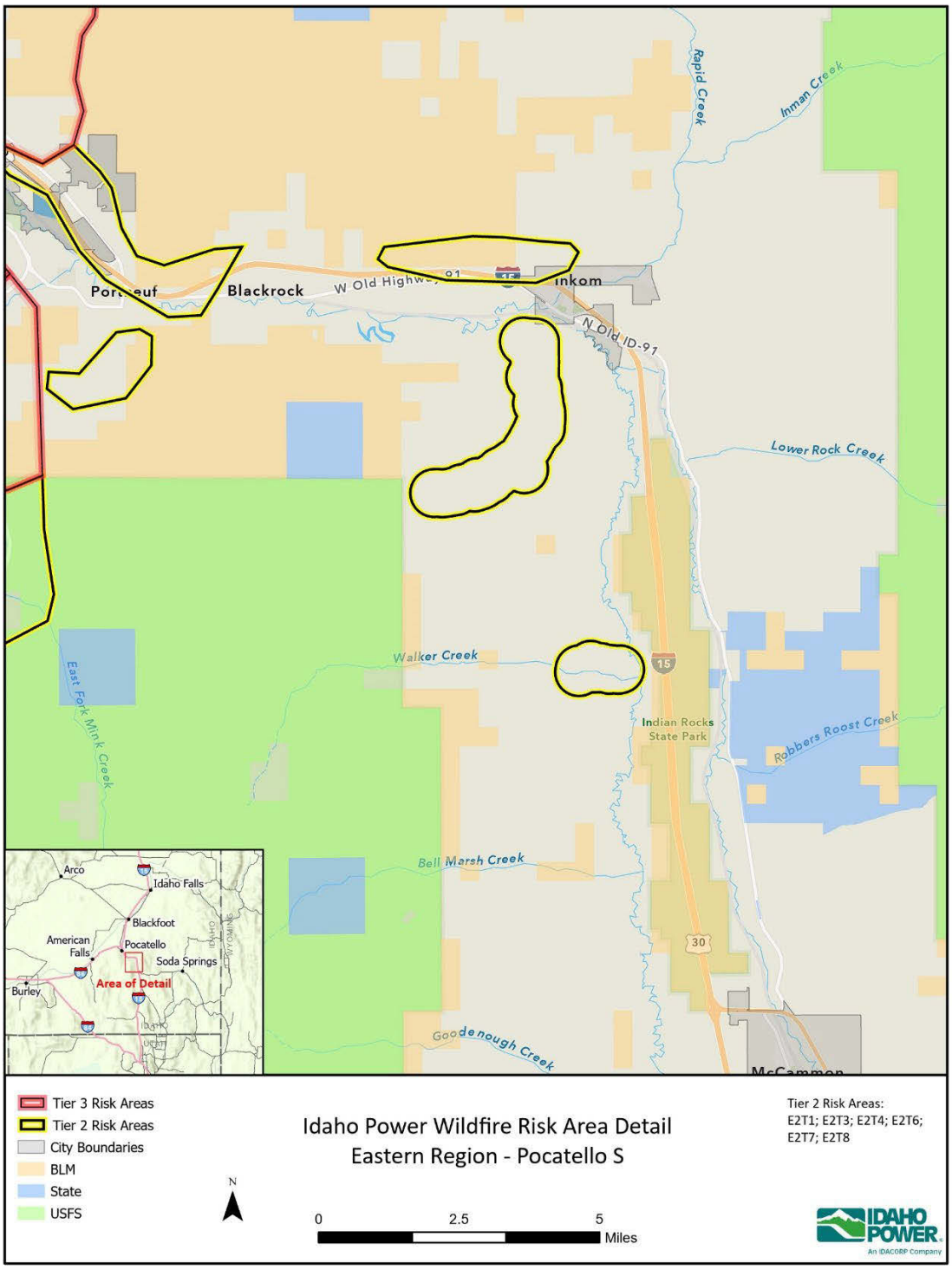


Figure 9
Eastern Region–Pocatello south

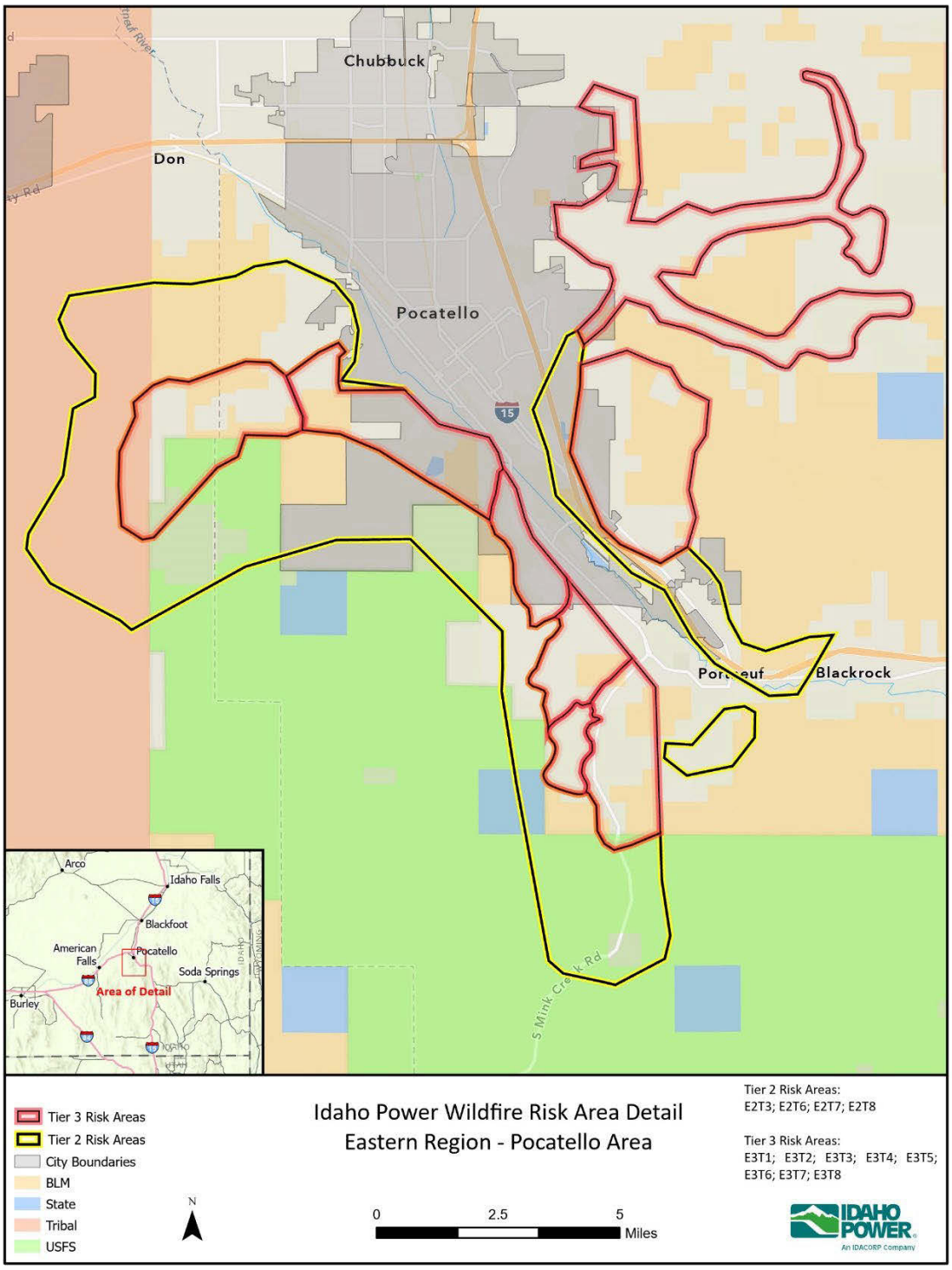


Figure 10
Eastern Region–Pocatello area

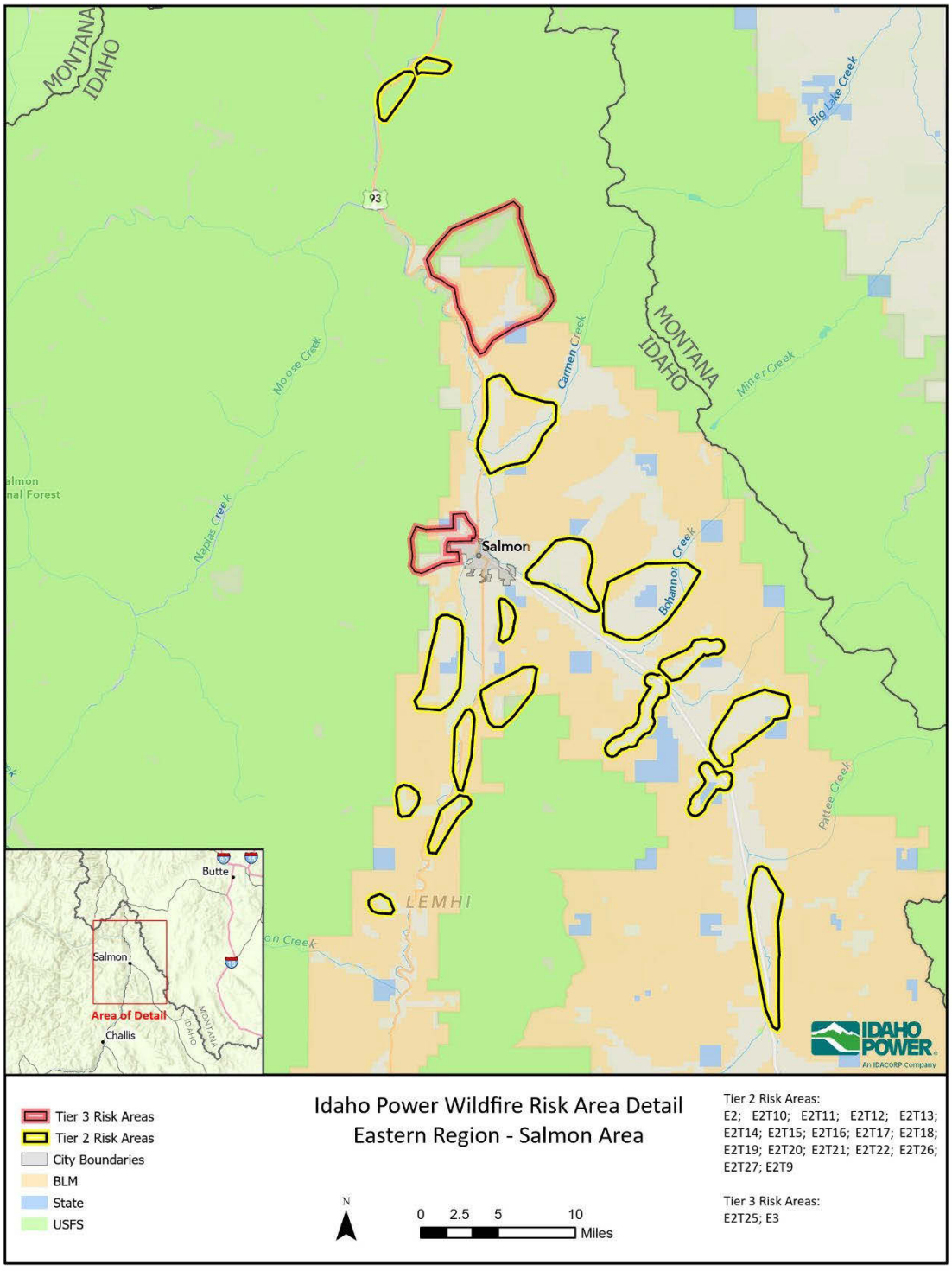
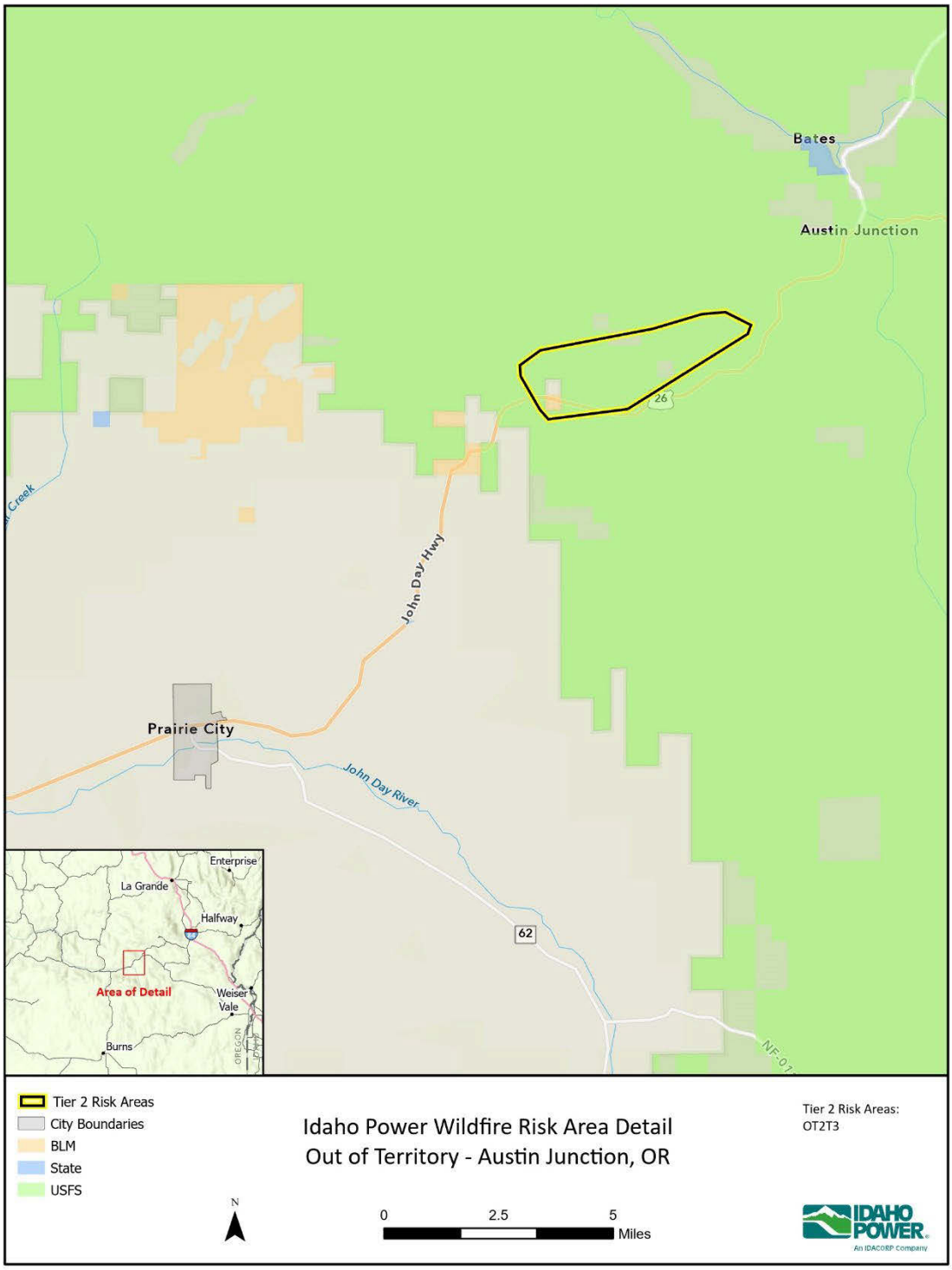


Figure 11
Eastern Region–Salmon area



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Out of territory—Austin Junction, Oregon

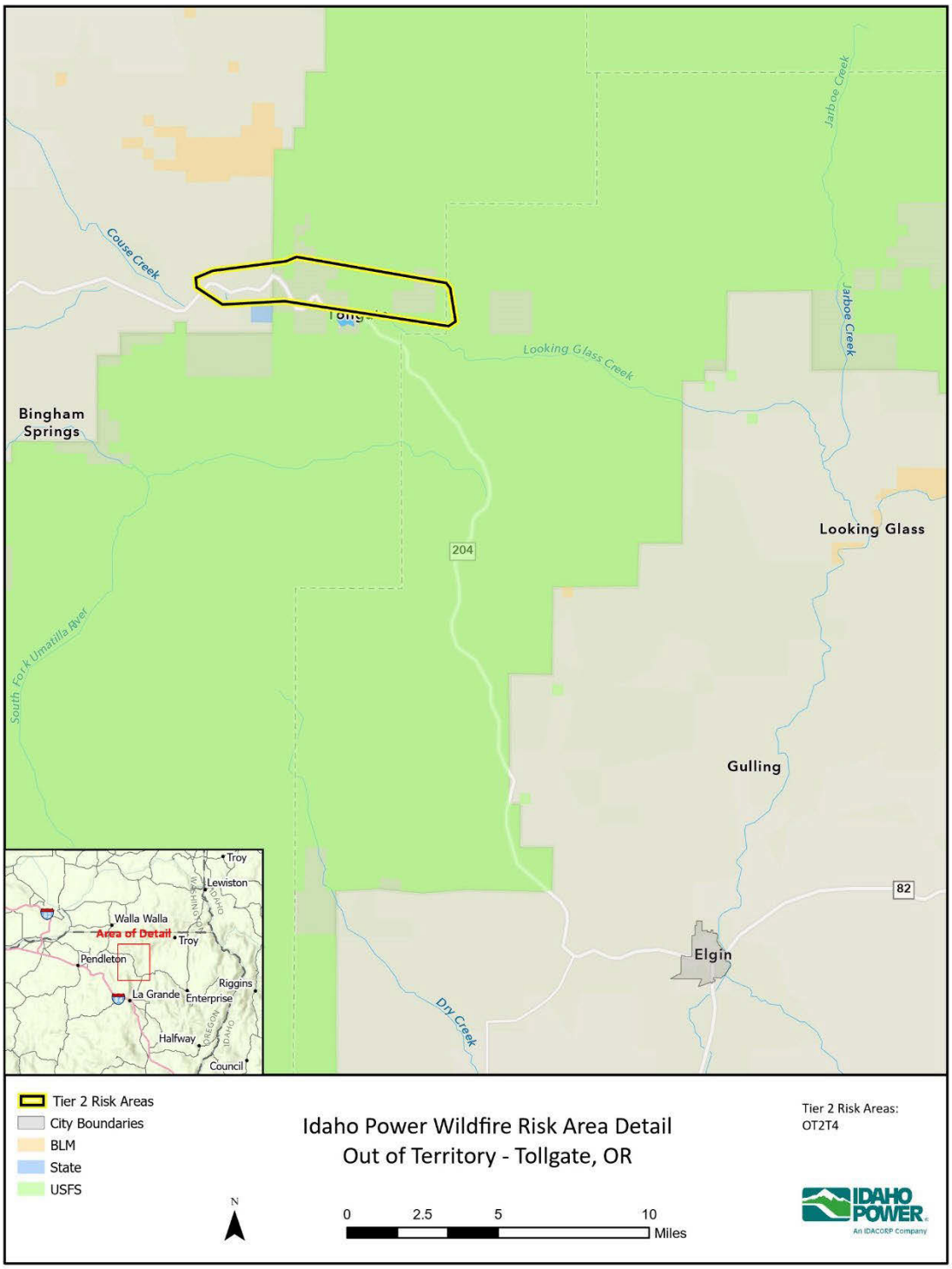


Figure 13
Out of territory—Tollgate, Oregon

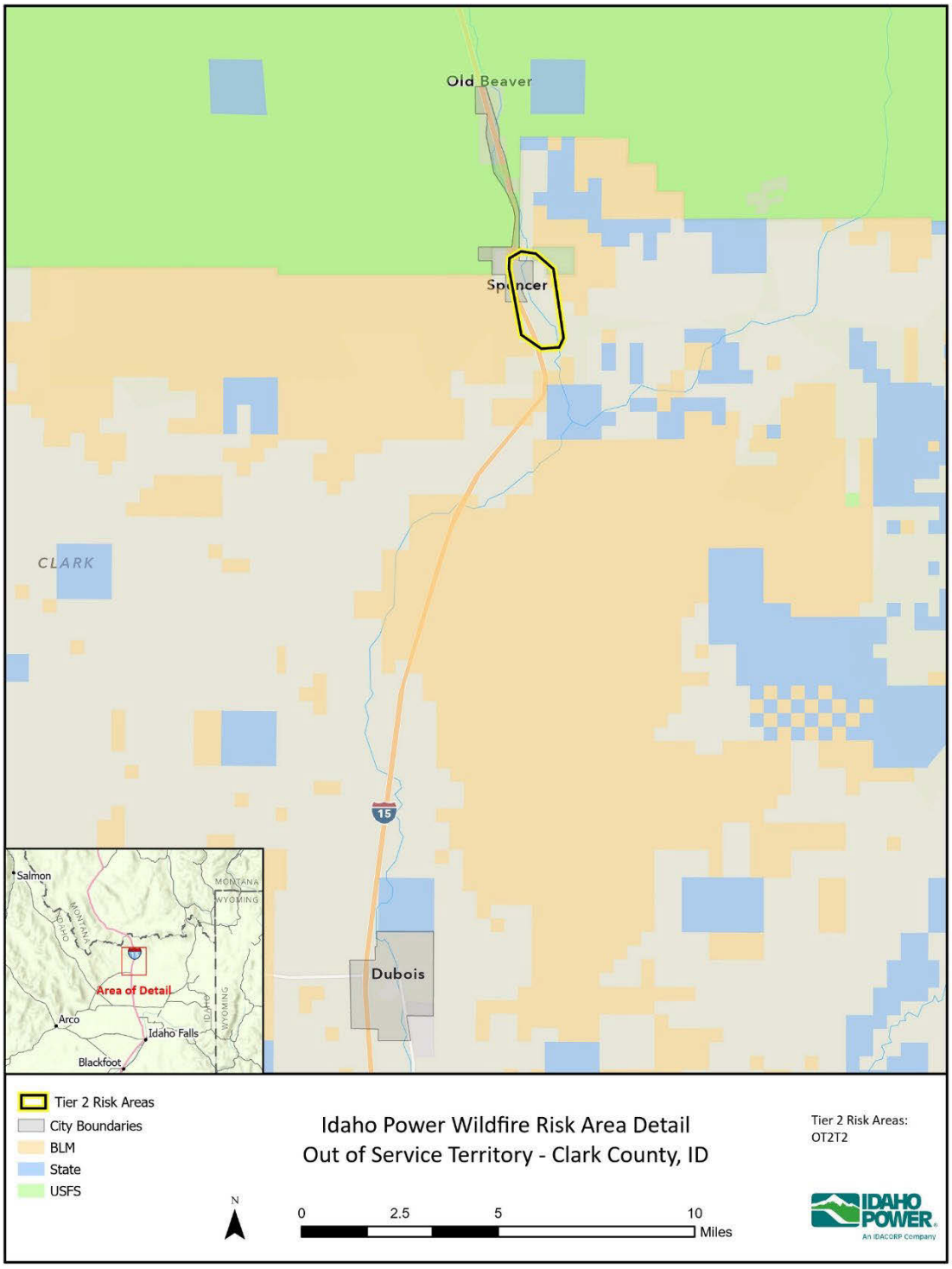


Figure 14
Out of territory—Clark County

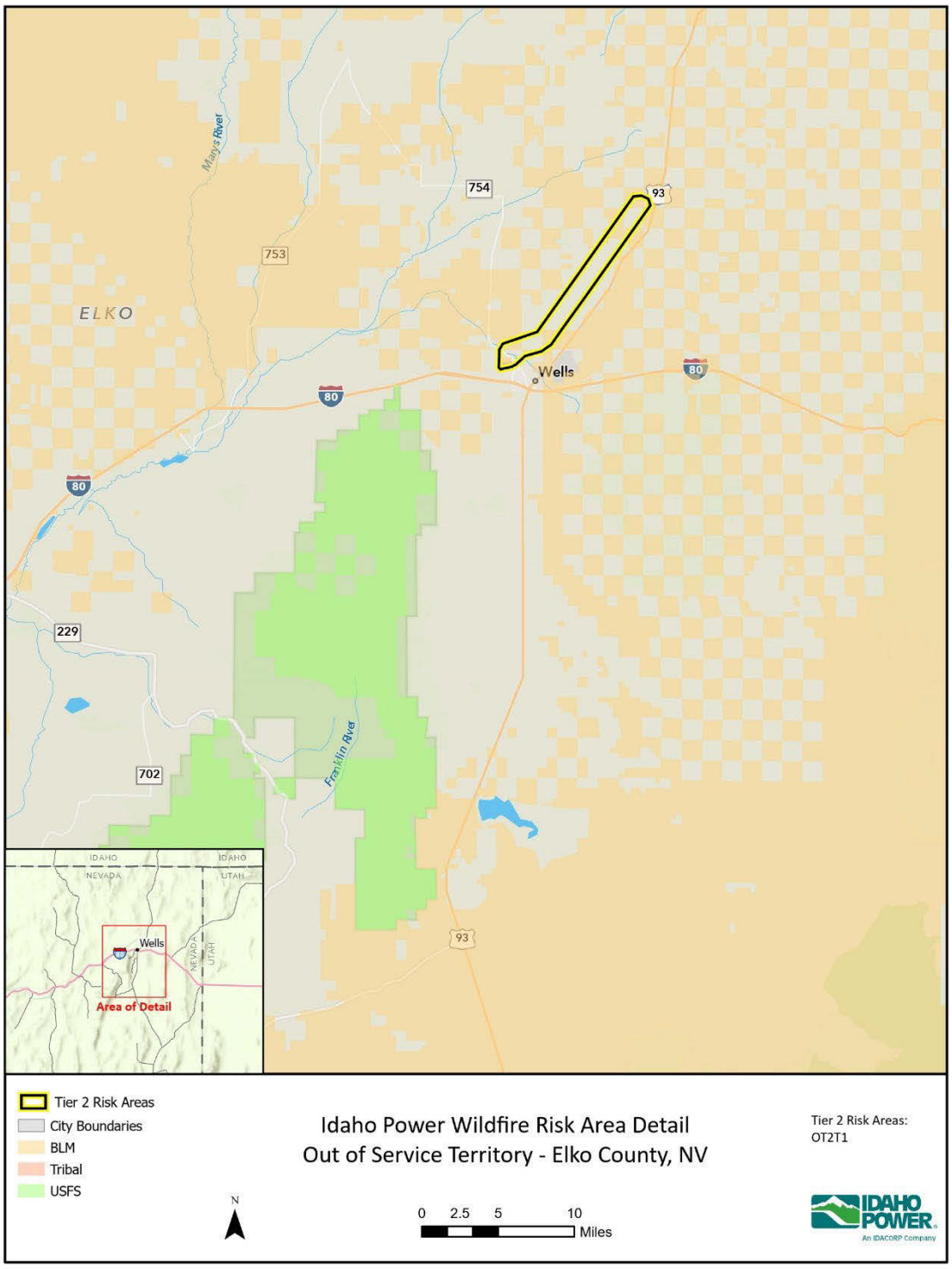


Figure 15
Out of territory—Elko County, Nevada

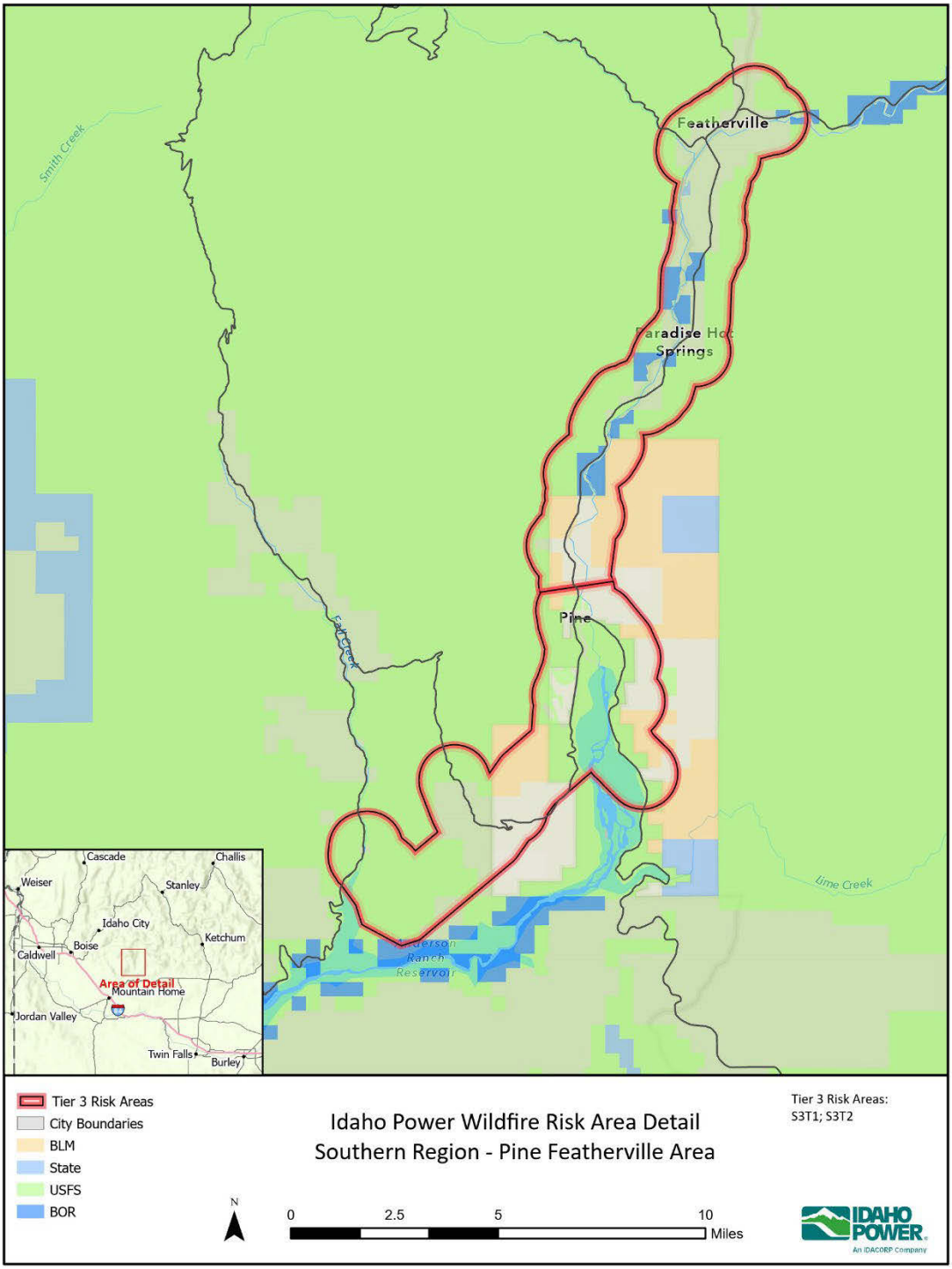
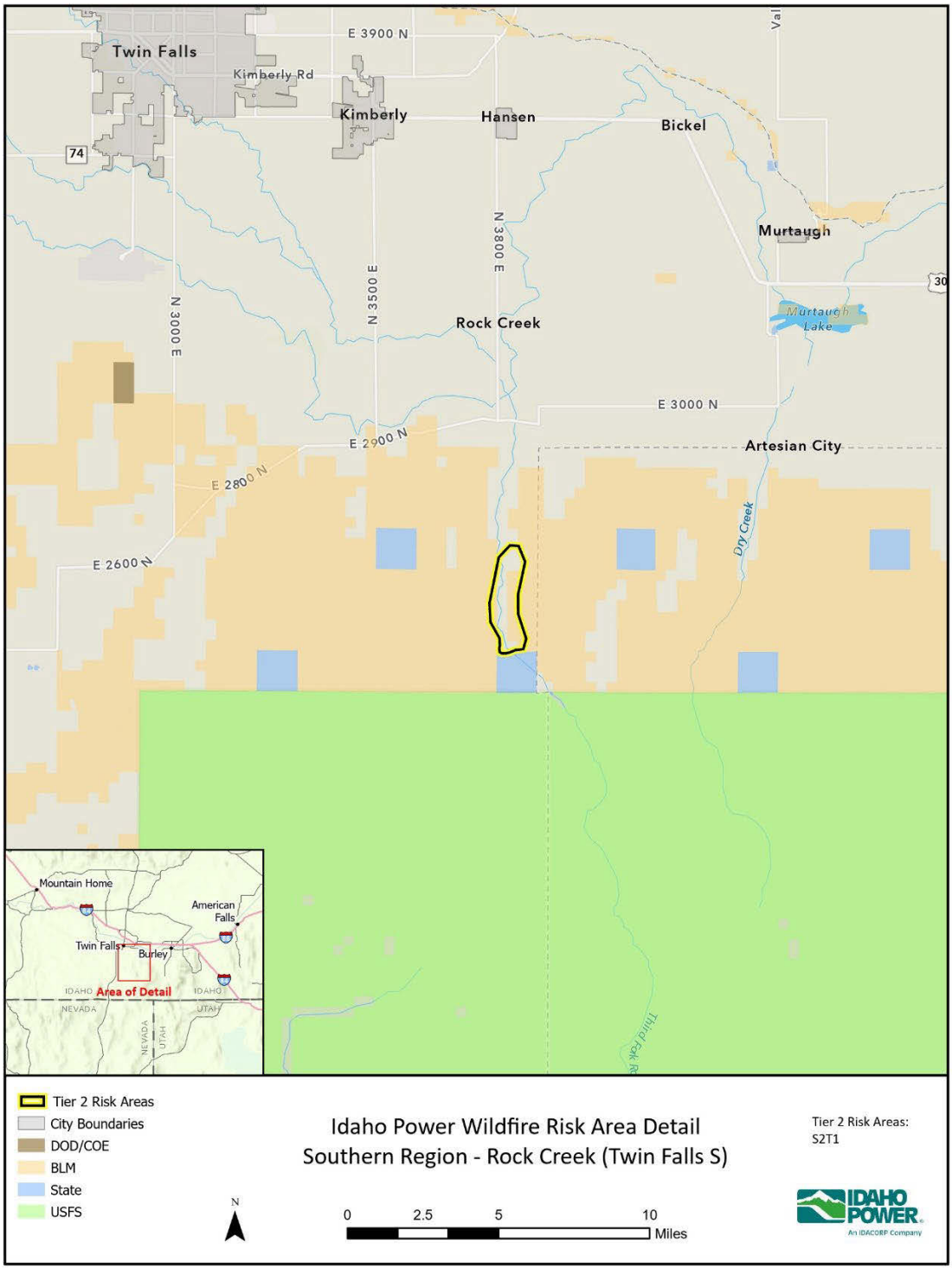


Figure 16
Southern Region—Pine Featherville area



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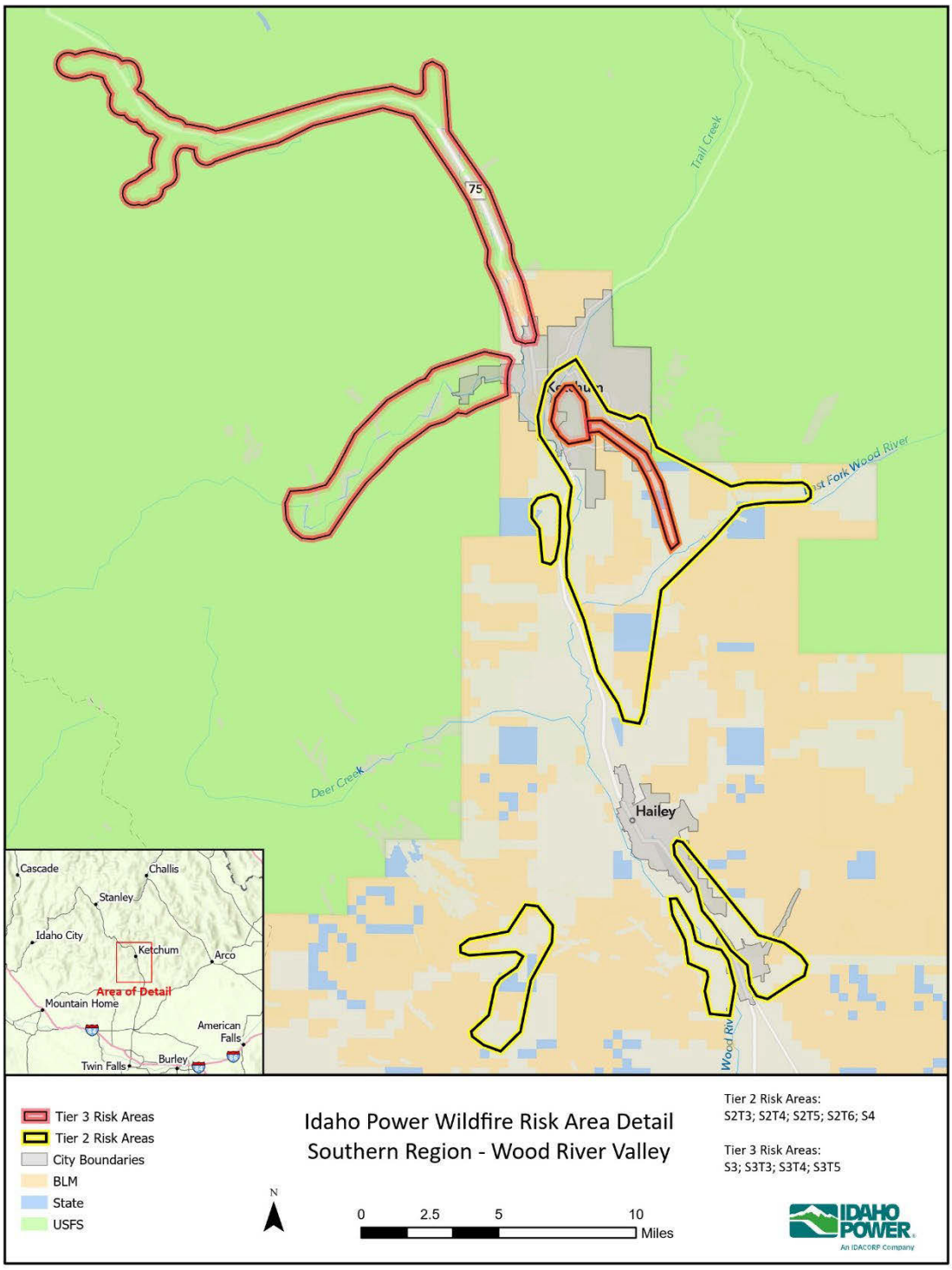
Southern Region—Rock Creek, Twin Falls south



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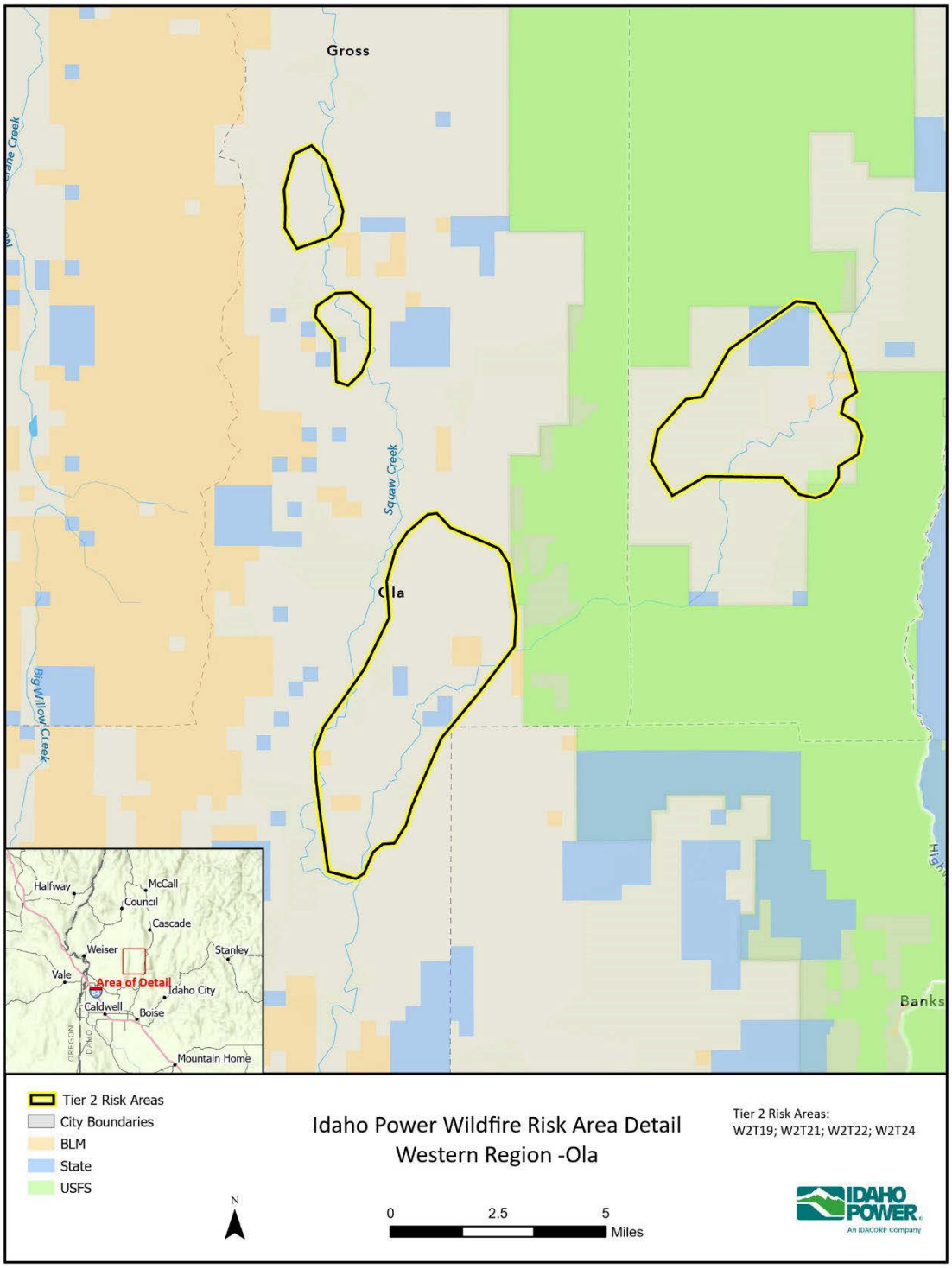

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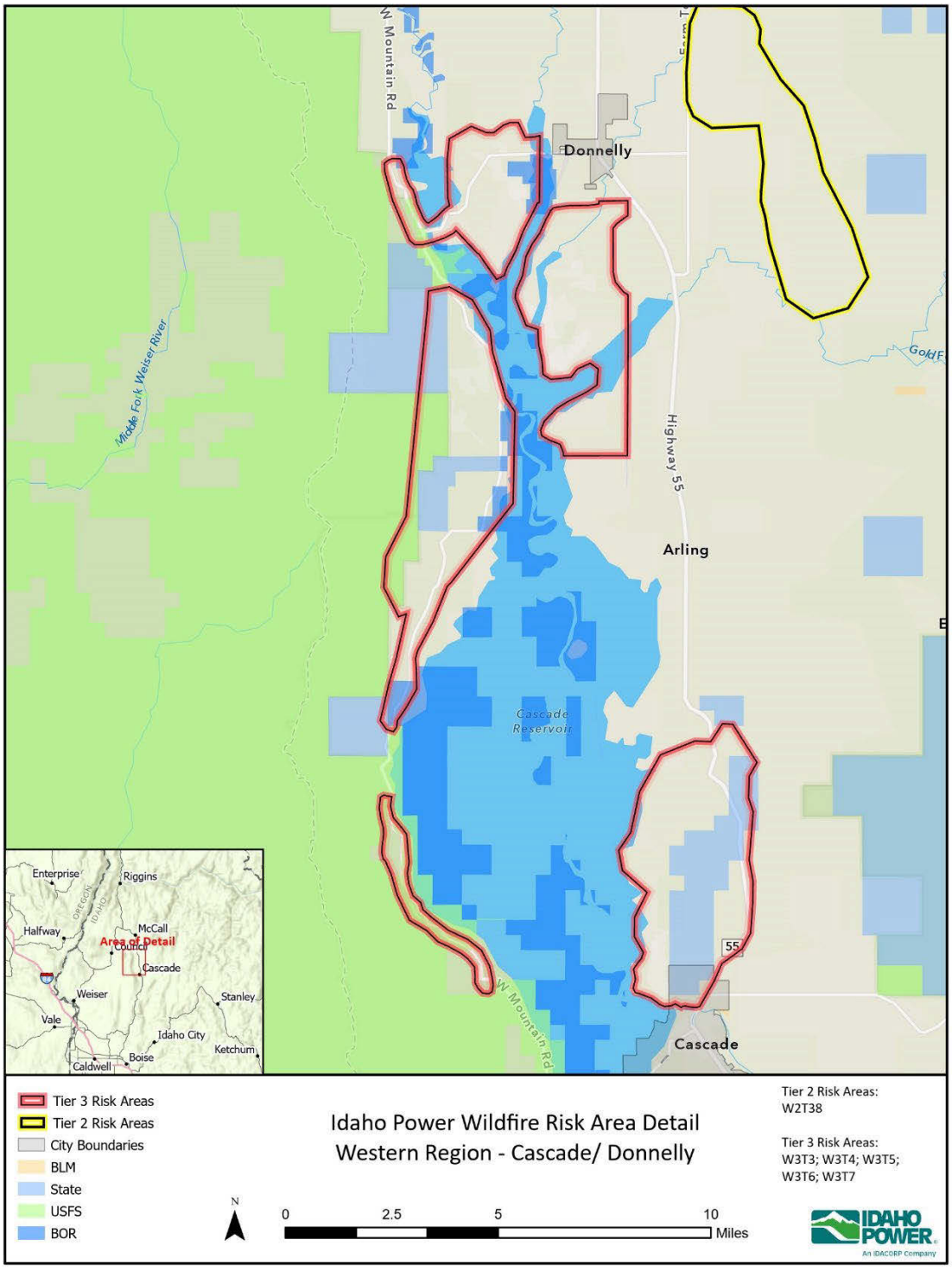
Western Region—Ola



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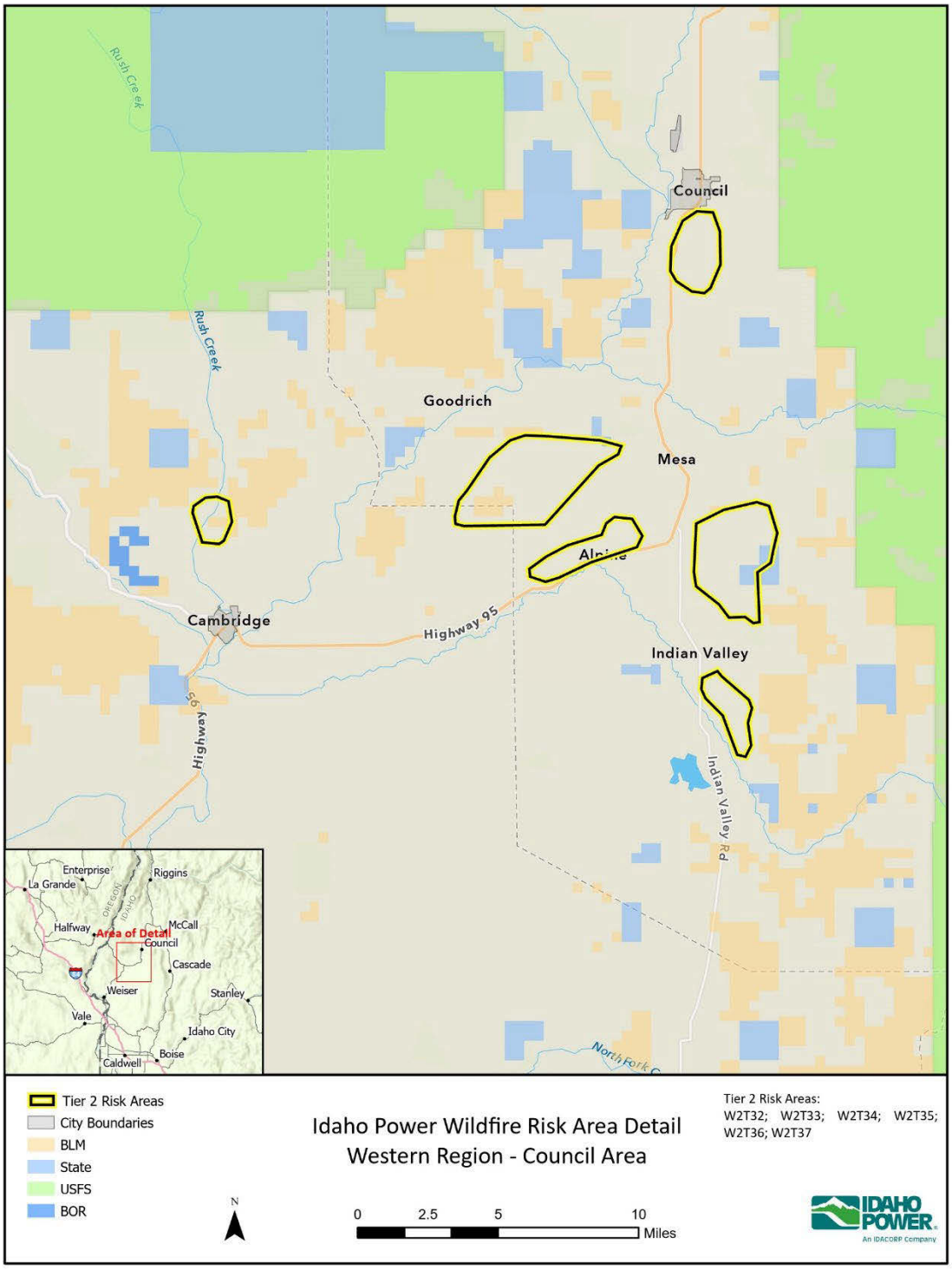

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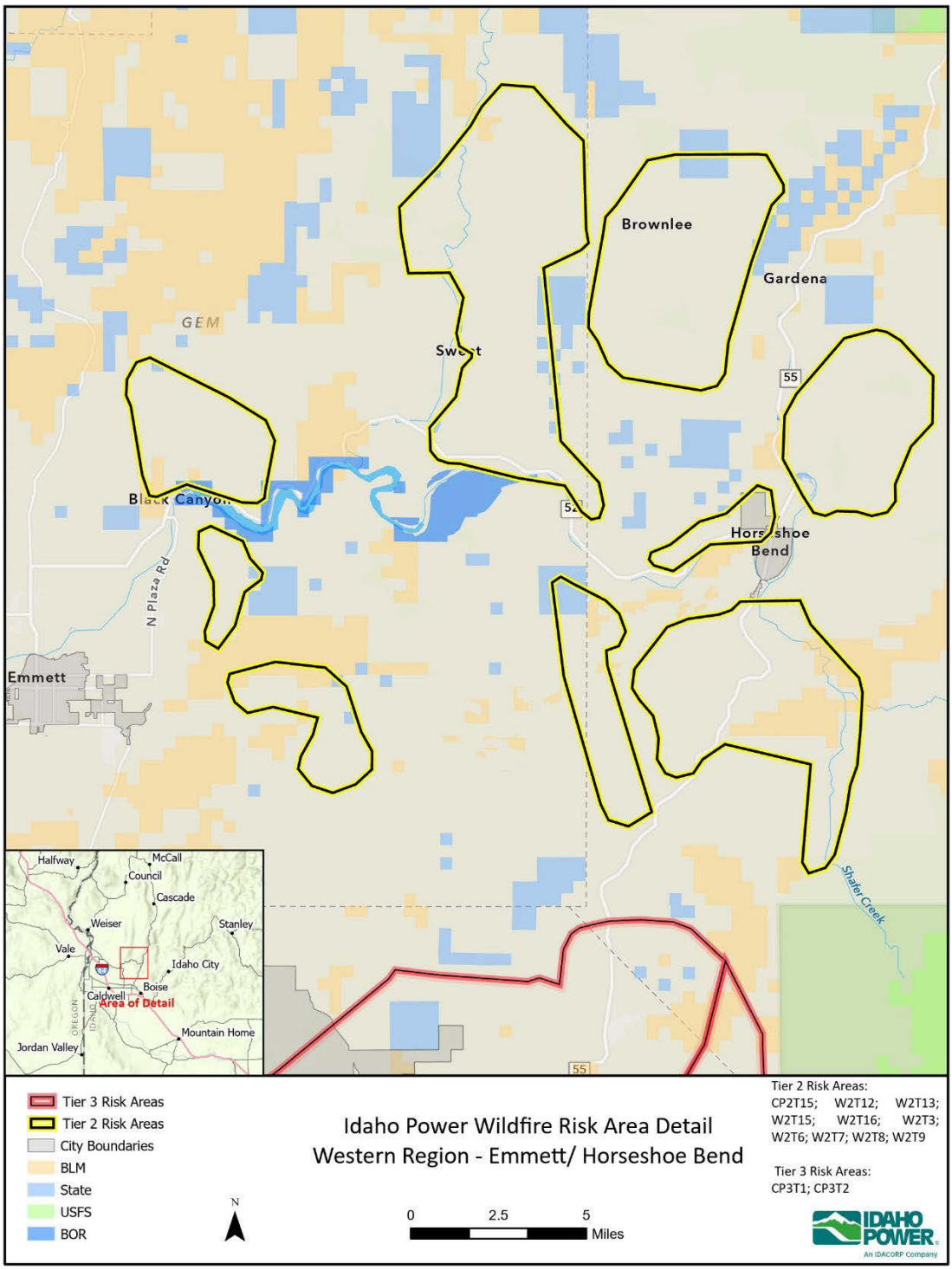
Western Region—Council area



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Western Region—Emmett/Horseshoe Bend

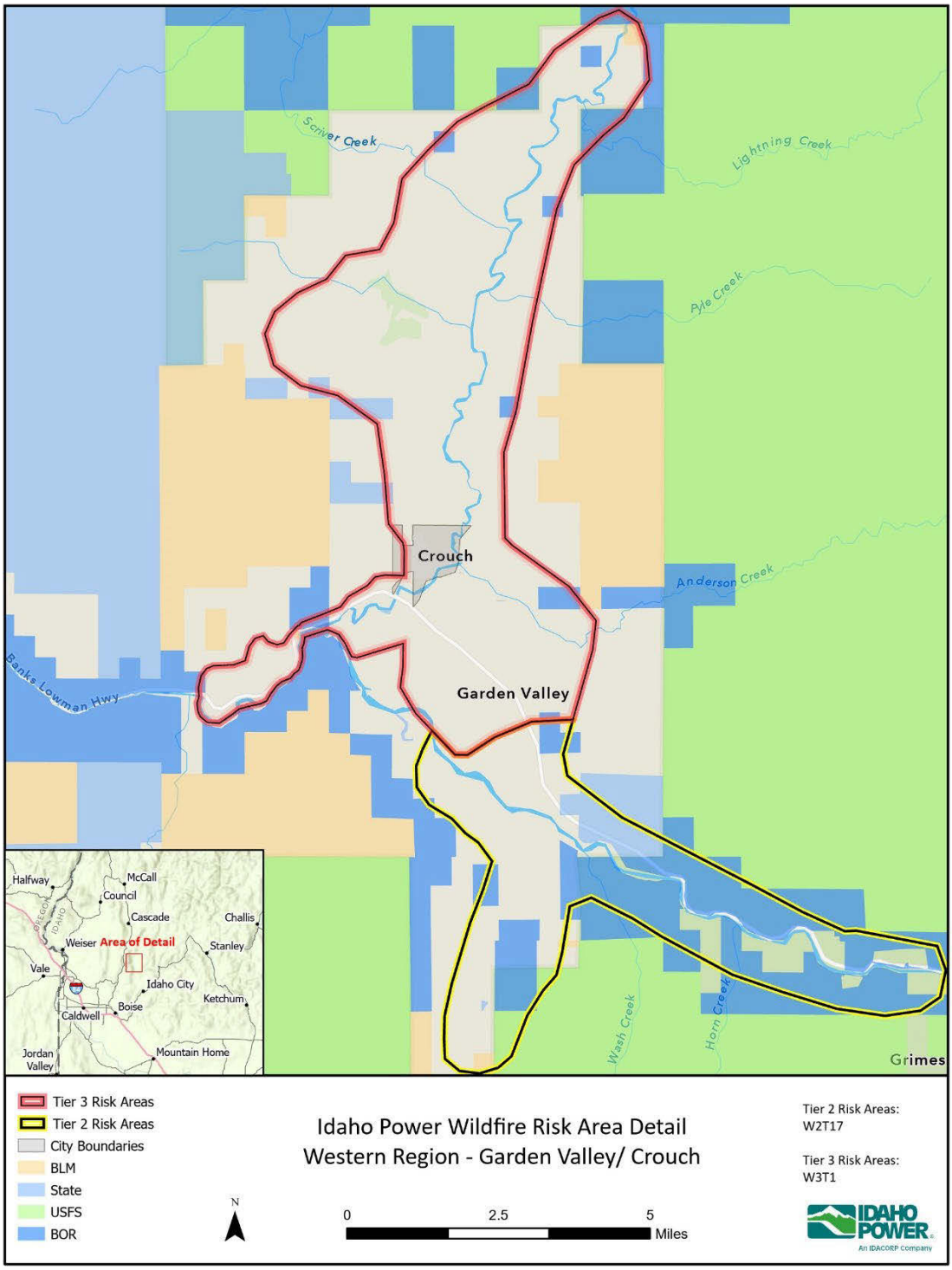
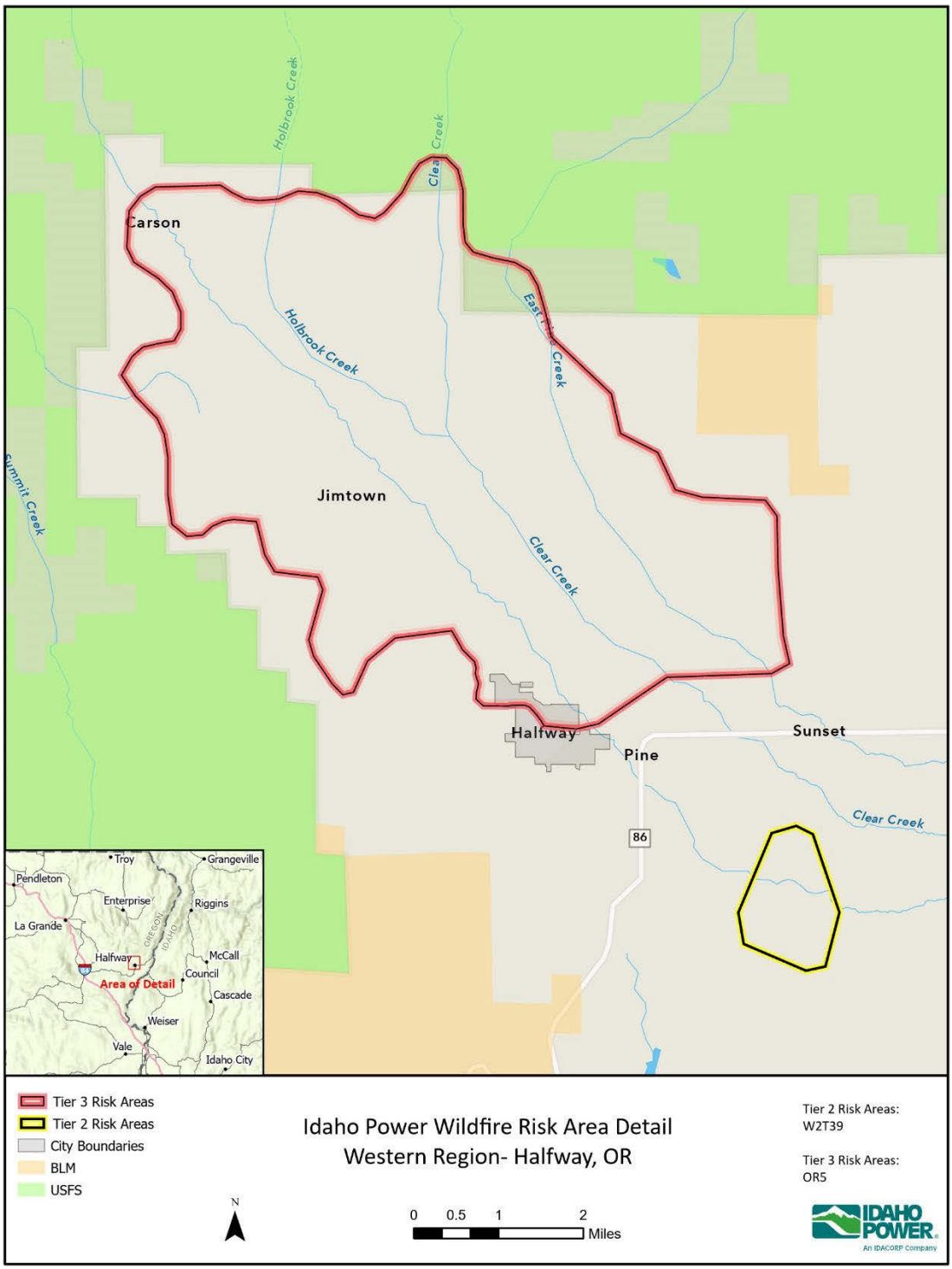


Figure 23
Western Region—Garden Valley/Crouch



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Western Region—Halfway, Oregon

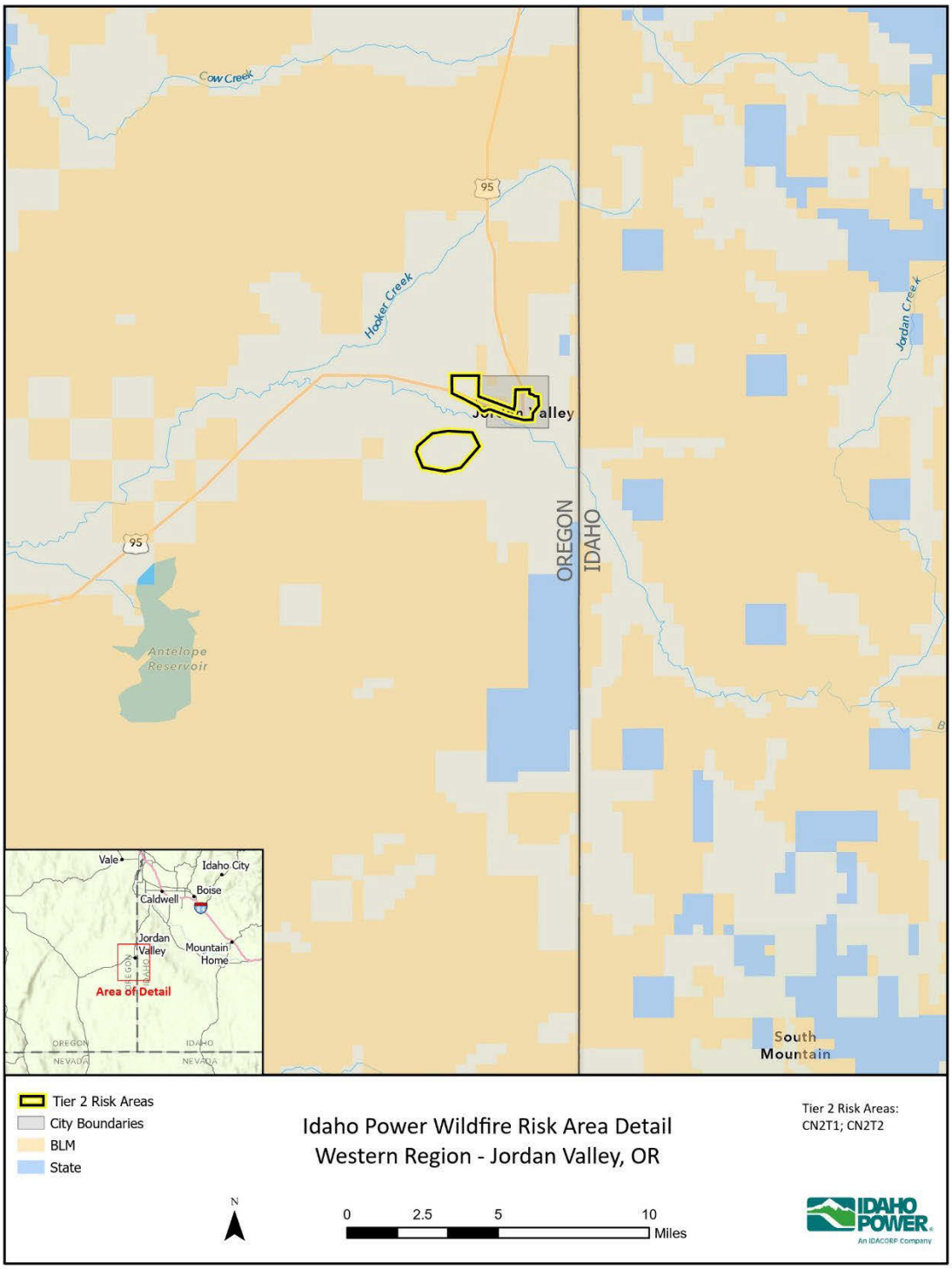

Figure 25
Western Region—Jordan Valley, Oregon

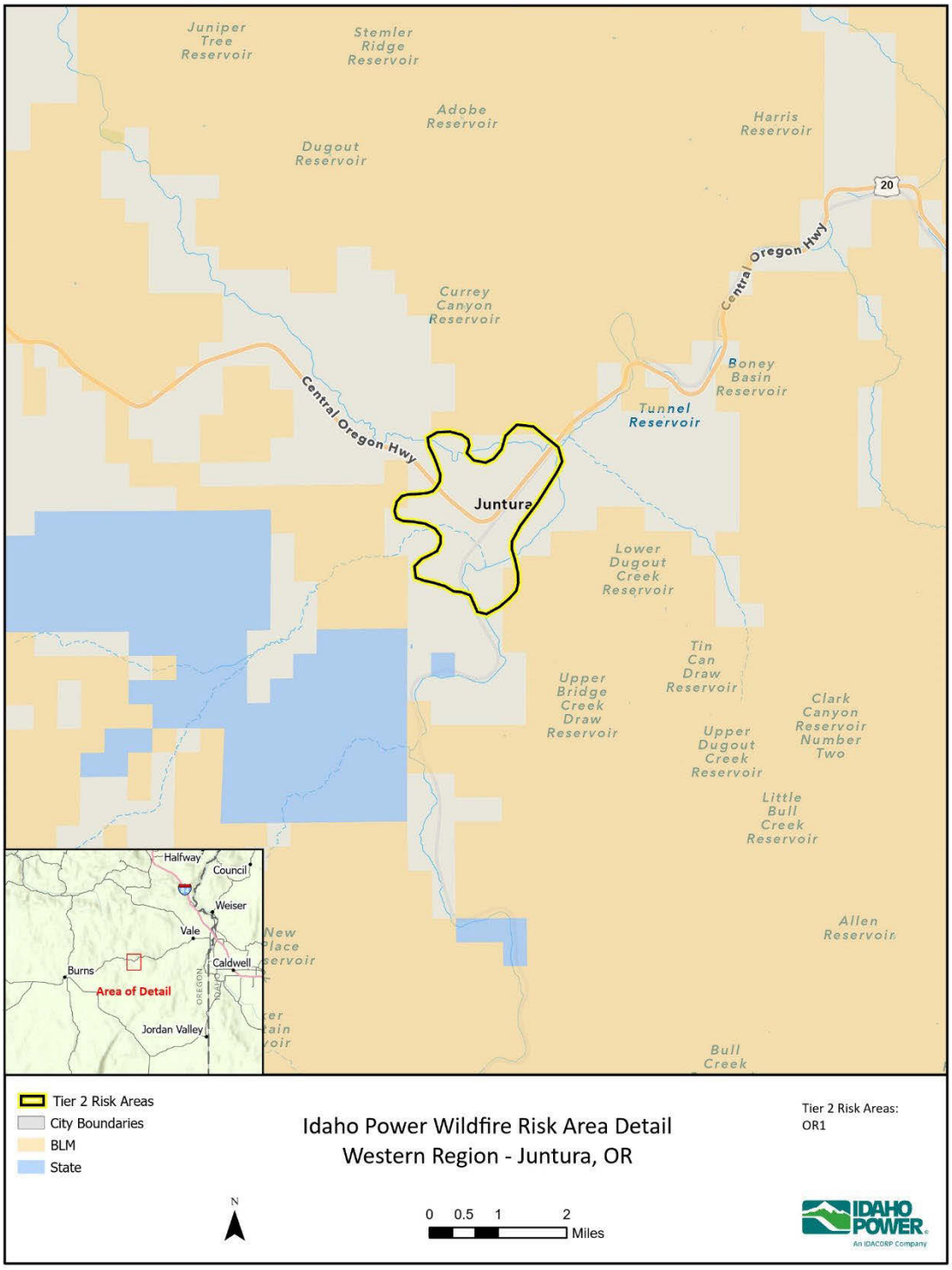

Figure 26
Western Region—Juntura, Oregon

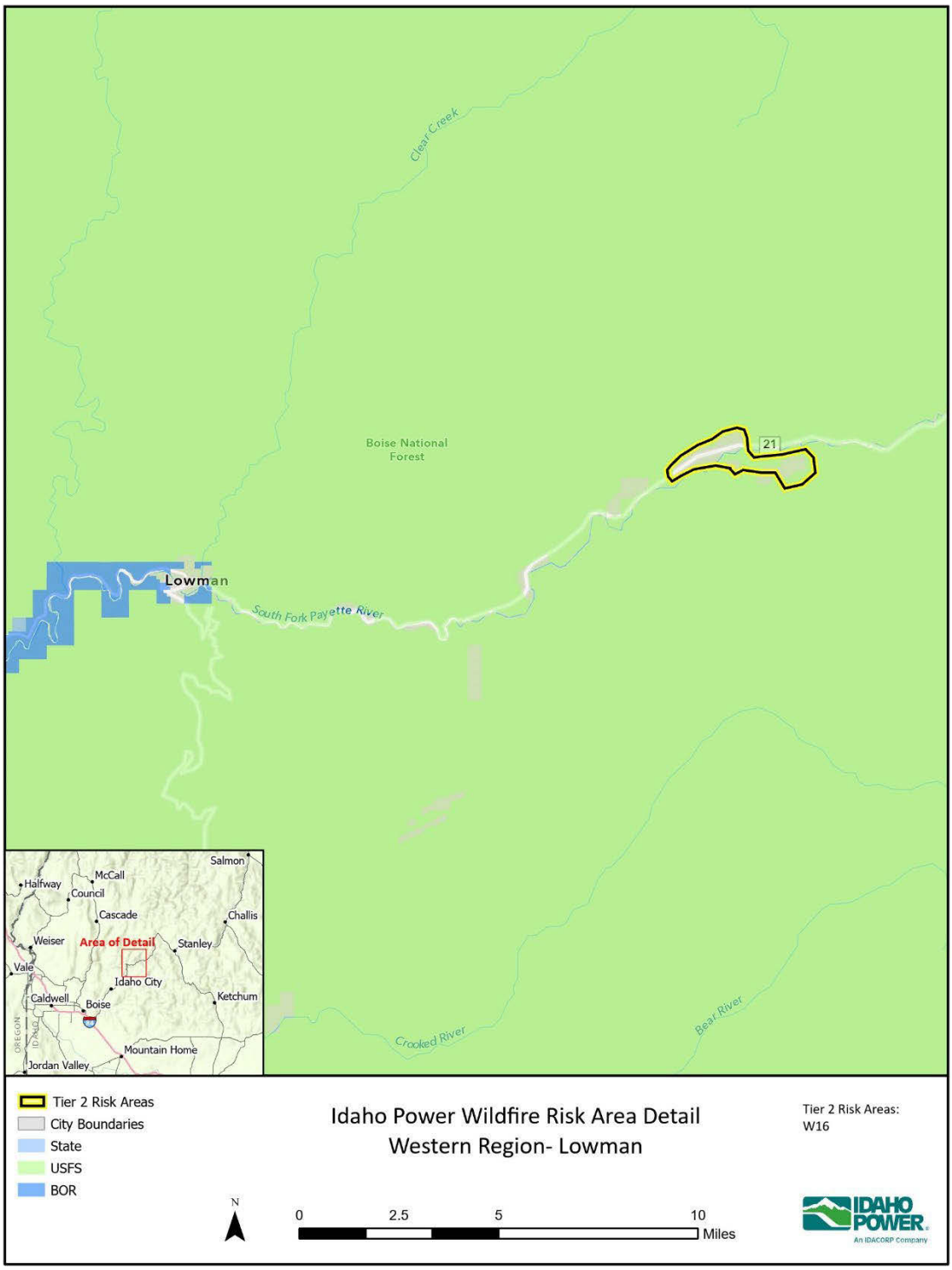

Figure 27
Western Region—Lowman

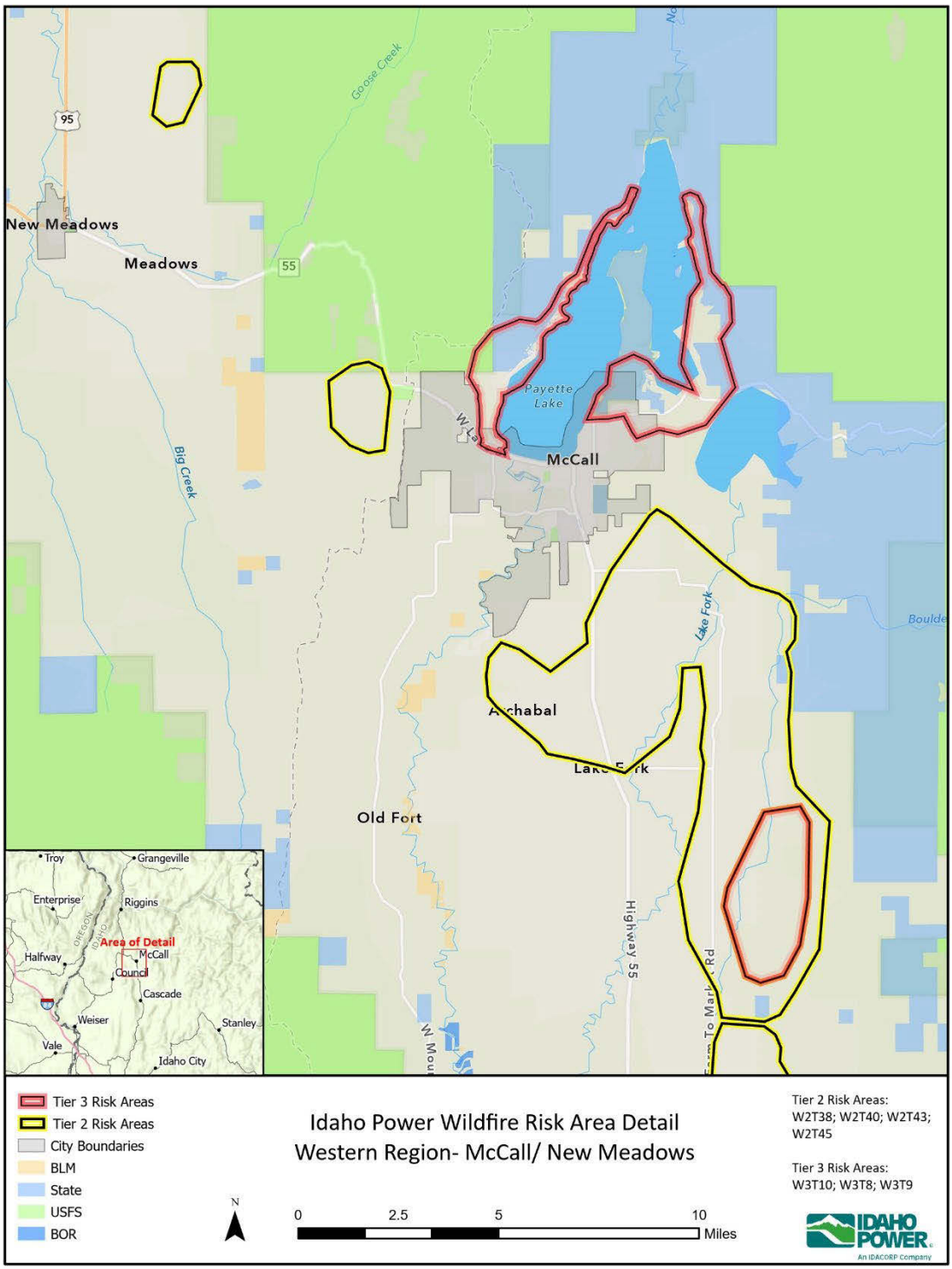

Figure 28
Western Region—McCall/New Medows

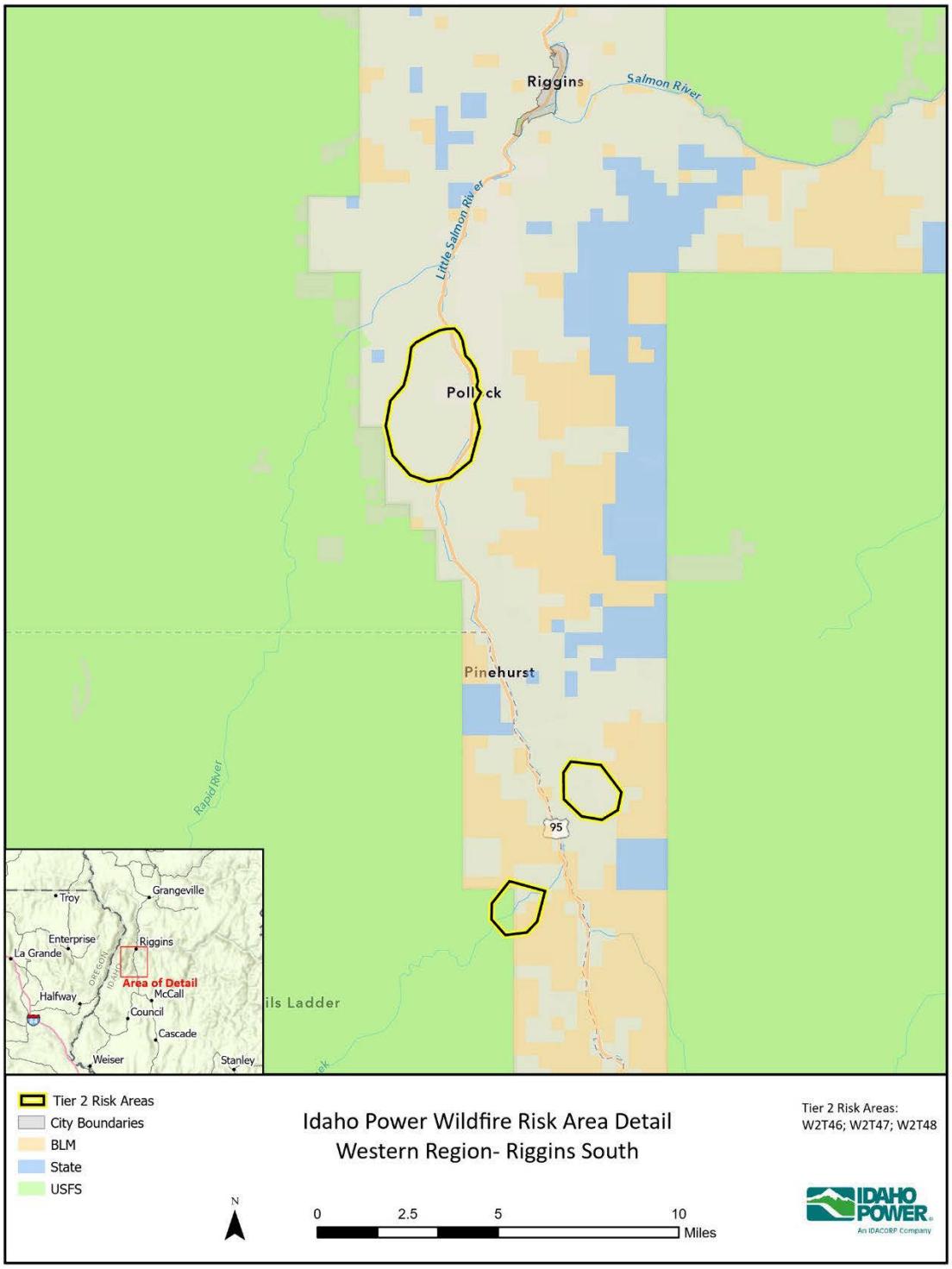

Figure 29
Western Region—Riggins south

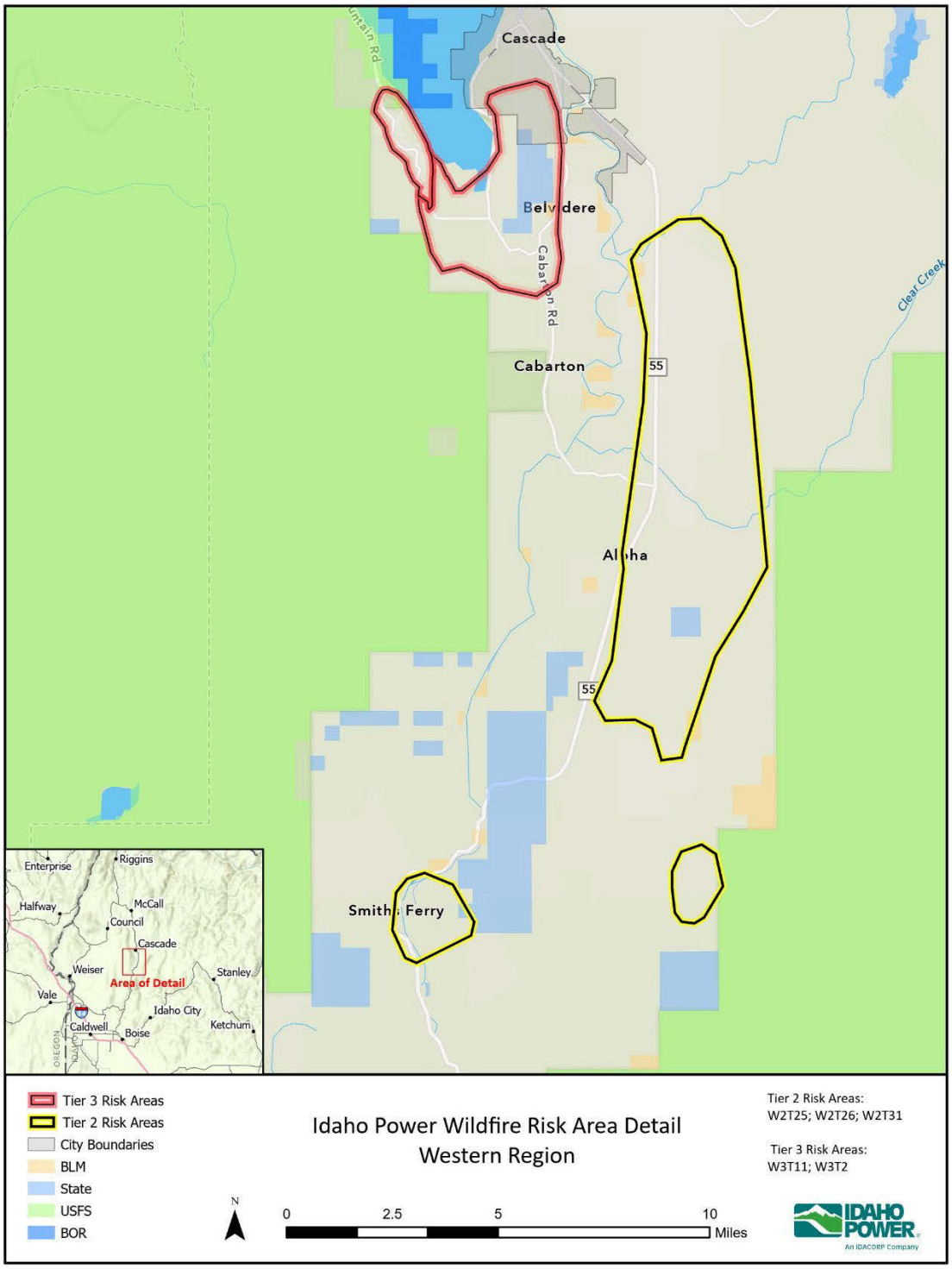

Figure 30
Western Region—Smiths Ferry

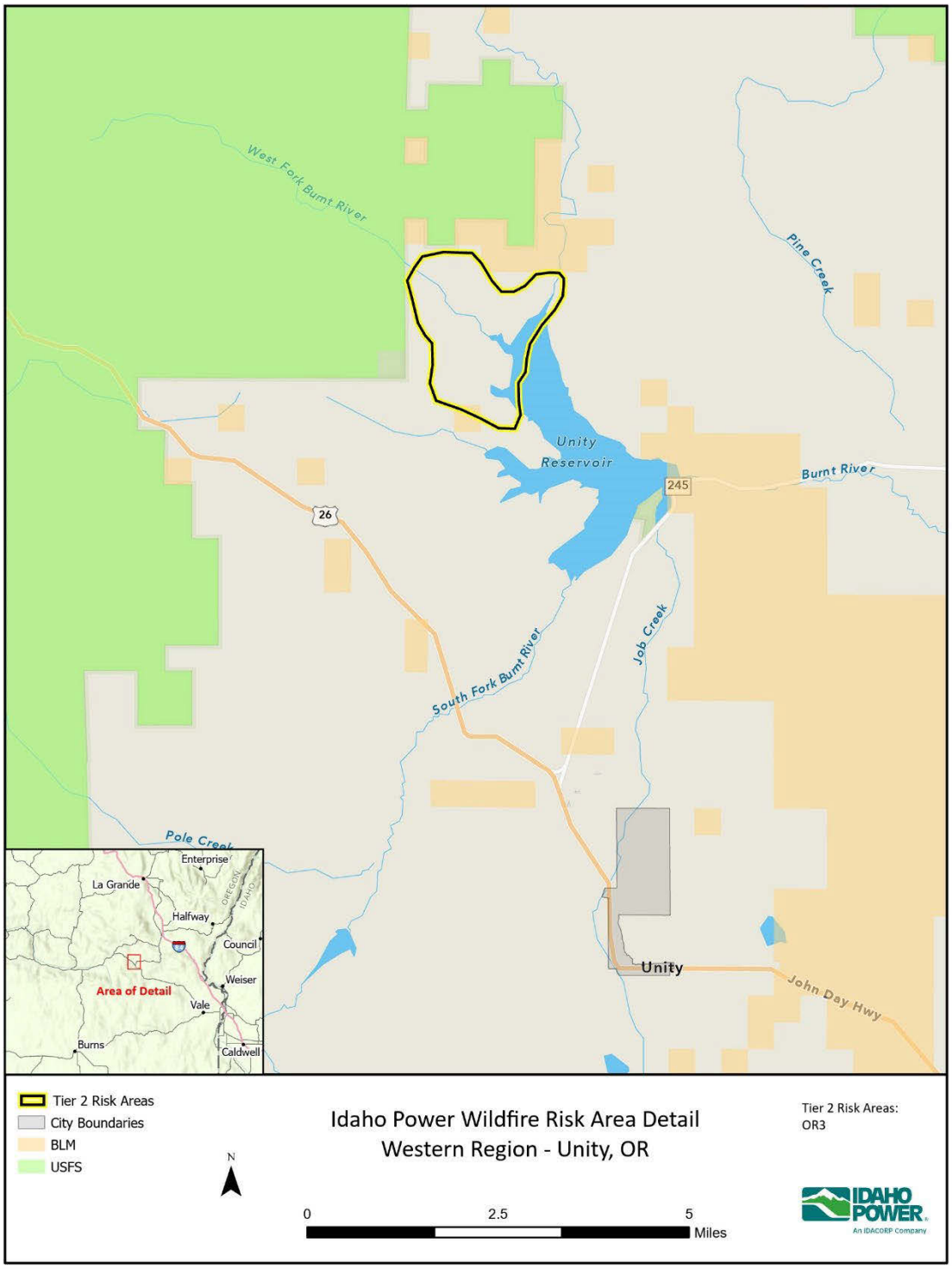

Figure 31
Western Region—Unity, Oregon

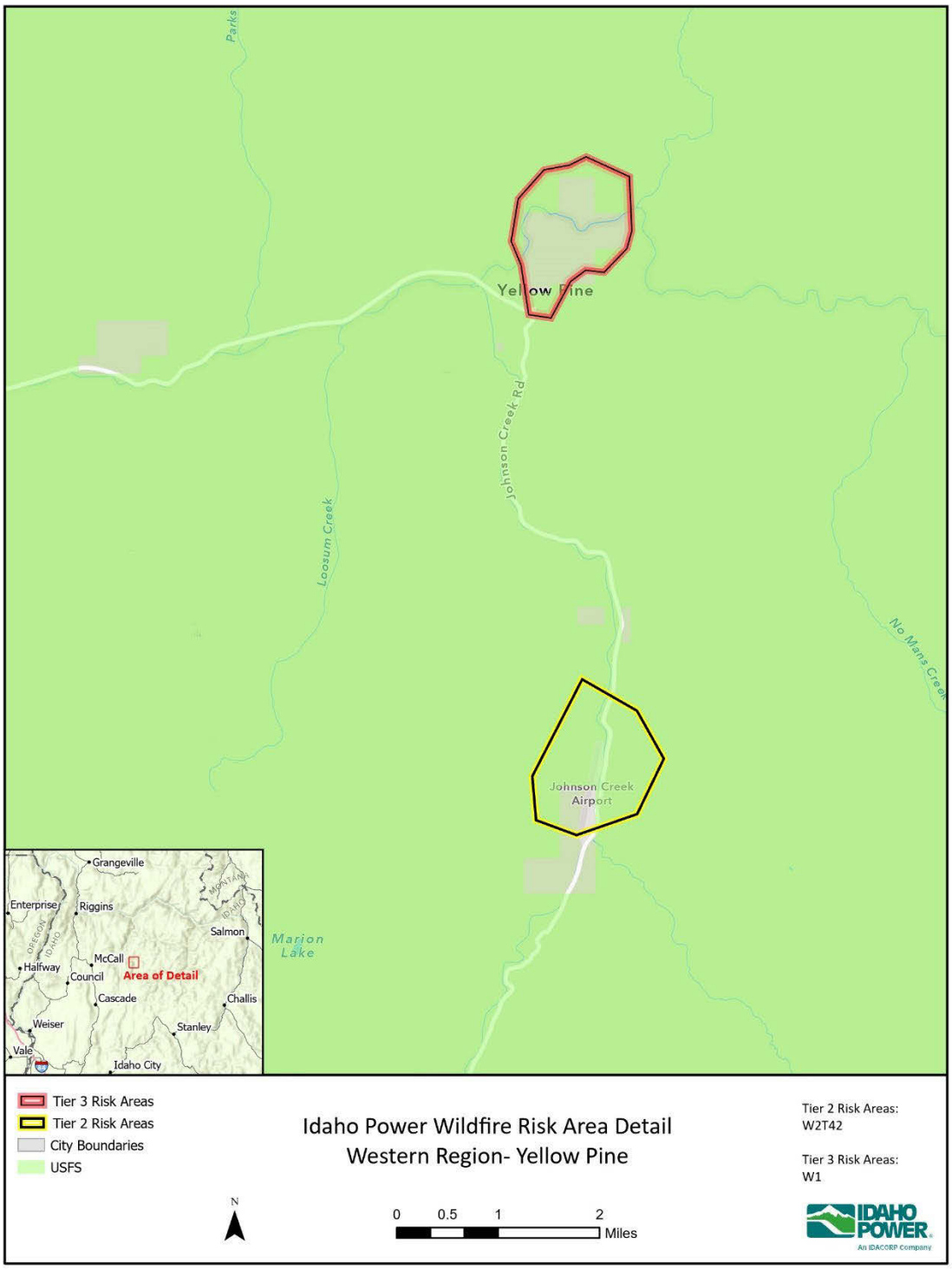

Figure 32
Western Region—Yellow Pine

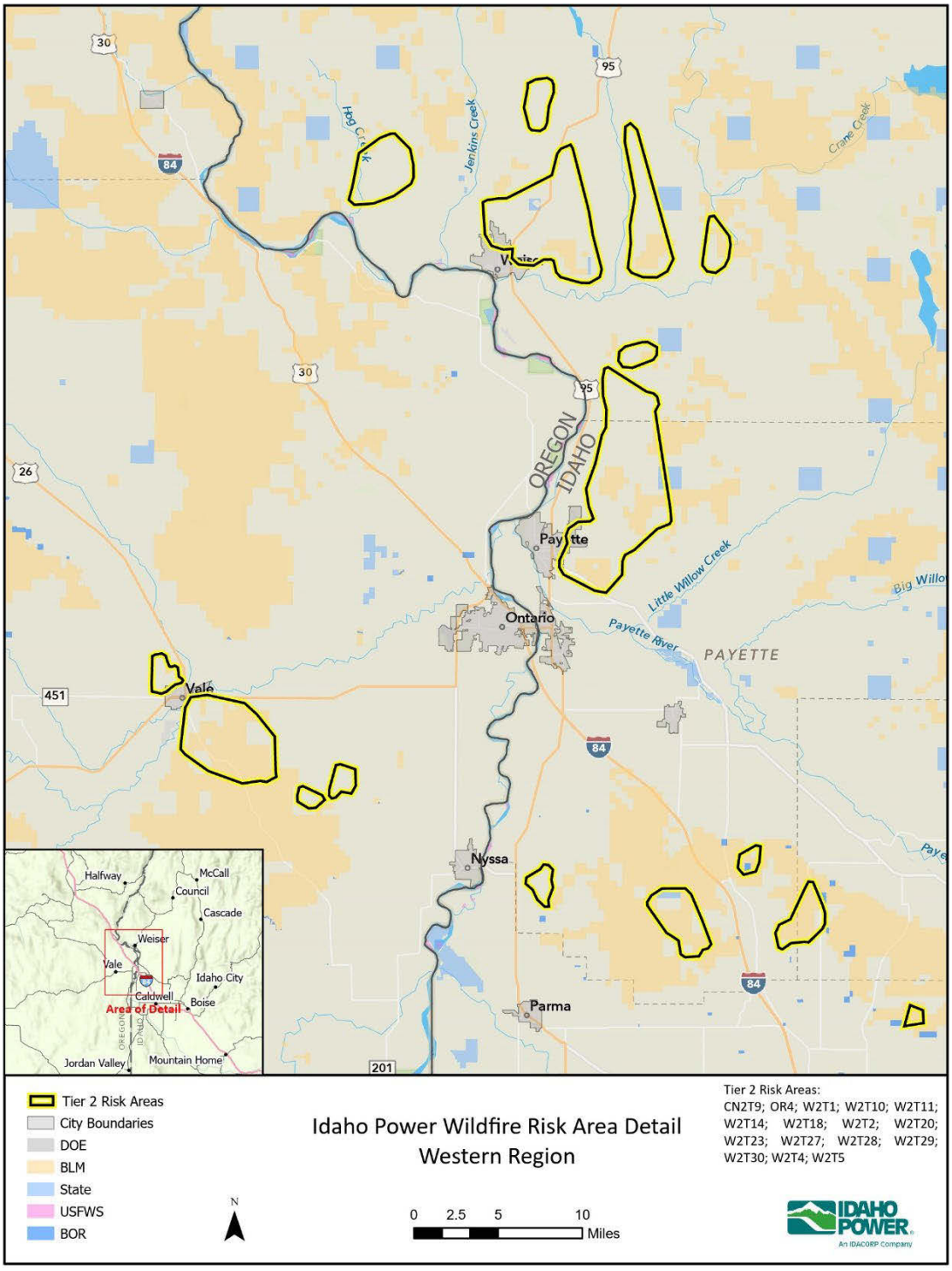

Figure 33
Western Region—Tier 2 zones

Appendix D

Oregon wildfire requirements and recommendations.

Oregon Requirements and Recommendations

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Oregon Requirements and Recommendations

This appendix provides additional information specific to wildfire-related requirements, as well as wildfire-related recommendations, in Oregon.

Oregon Administrative Rule (OAR) Requirements

Below is a mapping of Wildfire Mitigation Plan rules to sections within Idaho Power's WMP.

Wildfire Protection Plan Filing Requirements—OAR 860-300-0020

Oregon Requirement—OAR 860-300-0020	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 and Appendix C for details of wildfire risk zones outside of service area
(A) Within the service territory of the Public Utility, and	See Section 3.3: Wildfire Risk Zones
(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 3.3.2 and Figure 17: Boardman to Hemingway (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—Initiatives; and Section 8.7: 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 10.1: Objective and Section 10.2.1: Community Engagement See Appendix B: Idaho Power's Public Safety Power Shutoff Plan, 10.1: Community Engagement and Section 10.3: Proactive Communications
(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 7.5: Public Safety Power Shutoff and Appendix B: Idaho Power's Public Safety Power Shutoff Plan
(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 About Wildfire

Oregon Requirement—OAR 860-300-0020	Corresponding Location in WMP
(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 8.4: Transmission Asset Management and Inspection Initiatives (with information on aerial, ground, detailed visual, pole, and other protection programs) For Distribution, see Section 8.5: Distribution Asset Management and Inspection Initiatives (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 8.7.2: Transmission Vegetation Management and Section 8.7.3: 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 4.4: Wildfire Mitigation Cost Summary and Section 4.5: 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

Risk Analysis—OAR 860-300-0030

Oregon Requirement—OAR 860-300-0030	Corresponding Location in WMP
(1) The Public Utility must include in its Wildfire Mitigation Plan risk analysis that describes wildfire risk within the Public Utility's service territory and outside the service territory of the Public Utility but within the Public Utility's right of way for generation and transmission assets. The risk analysis must include, at a minimum: *(a) Defined categories of overall wildfire risk and an adequate discussion of how the Public Utility categorizes wildfire risk. Categories of risk must include, at a minimum:*	See Section 3: Quantifying Wildland Fire Risk See Section 3.3: Wildfire Risk Zones, Appendix C WMP mapbook, and risk zone map on Idaho Power's website for detailed map of wildfire risk zones
(A) Baseline wildfire risk, which include elements of wildfire risk that are expected to remain fixed for multiple years. Examples include topography, vegetation, utility equipment in place, and climate;	See Section 3.2 for discussion of fixed risk elements
(B) Seasonal wildfire risk, which include elements of wildfire risk that are expected to remain fixed for multiple months but may be dynamic throughout the year or from year to year; Examples include cumulative precipitation, seasonal weather conditions, current drought status, and fuel moisture content;	See Section 3.2.1 for discussion of variable risk elements that change throughout the year
(C) Risks to residential areas served by the Public Utility; and	See Section 3.2.1 paragraph 4 addresses the consideration of residential areas in risk analysis See Section 3.2.1 paragraph 4 addresses overhead power lines. Note: Idaho Power does

Oregon Requirement—OAR 860-300-0030	Corresponding Location in WMP
(D) Risks to substation or powerline owned by the Public Utility.	not model wildfire progression or spread within substations due to zero vegetation within the fenced area Also see Section 3.3.2 for discussion of risk modeling of proposed Boardman to Hemingway transmission line
(b) a narrative description of how the Public Utility determines areas of heightened risk of wildfire using the most updated data it has available from reputable sources.	See Section 3.2.1: Wildfire Risk Modeling Process and the 2023 Risk Modeling Input Updates, and Section 11.4 Wildfire Risk Map
(c) a narrative description of all data sources the Public Utility uses to model topographical and meteorological components of its wildfire risk as well as any wildfire risk related to the Public Utility's equipment.	See Section 3.2.1: Wildfire Risk Modeling Process and the 2023 Risk Modeling Input Updates, and Section 11.4 Wildfire Risk Map
(A) The Public Utility must make clear the frequency with which each source of data is updated; and *(B) The Public Utility must make clear how it plans to keep its data sources as up to date as is practicable.*	See Section 3.2.1: Wildfire Risk Modeling Process and the 2023 Risk Modeling Input Updates, and Section 11.4 Wildfire Risk Map
(d) The Public Utility's risk analysis must include a narrative description of how the Public Utility's wildfire risk models are used to make decisions concerning the following items:	
(A) Public Safety Power Shutoffs	A) See Section 7.5.2: PSPS Plan
(B) Vegetation Management;	B) See Section 8.7: T&D Vegetation Management
(C) System Hardening;	C) See Executive Summary on Infrastructure Hardening; Section 8.5: Distribution Asset Management and Inspection Initiatives; Section 11.9: Long-Term Metrics
(D) Investment decisions; and	D) Risk analysis informs Tier 2 and Tier 3 mitigation activities. See Section 4: Costs and Benefits of Wildfire Mitigation and Section 4.5 Mitigation Activities
(E) Operational decisions.	E) See Section 7.2: Operational Protection Strategy and Appendix A: Wildland Fire Preparedness and Prevention Plan
(e) For updated Wildfire Mitigation Plans, the Public Utility must include a narrative description of any changes to its baseline wildfire risk that were made relative to the previous plan submitted by the utility, including the Public Utility's response to changes in baseline wildfire risk, seasonal wildfire risk, and Near-term Wildfire Risk.	See Section 3.2.2 Establishing Wildfire Risk Zones and Section 3.3 Wildfire Risk Zones

Oregon Requirement—OAR 860-300-0030	Corresponding Location in WMP
(2) To the extent practicable, the Public Utility must confer with other state agencies when evaluating the risk analysis included in the Public Utility's Wildfire Mitigation Plan.	See Section 3.3.2., specifically incorporating local feedback into risk zone establishment and wildfire risk zone calibration with peer utilities

Wildfire Mitigation Plan Engagement Strategies—OAR 860-300-0040

Oregon Requirement—OAR 860-300-0040	Corresponding Location in WMP
(1) The Public Utility must include in its Wildfire Mitigation Plan a Wildfire Mitigation Plan Engagement Strategy. The Wildfire Mitigation Plan Engagement Strategy will describe the utility's efforts to engage and collaborate with Public Safety partners and Local Communities impacted by the Wildfire Mitigation Plan in the preparation of the Wildfire Mitigation Plan and identification of related investments and activities. The Engagement Strategy must include, at a minimum:	See Section 10: Communicating About Wildfire
(a) Accessible forums for engagement and collaboration with Public Safety Partners, Local Communities, and customers in advance of filing the Wildfire Mitigation Plan. The Public Utility should provide, at minimum:	See Section 10.2: Community Outreach and Section 10.2.1: Community Engagement
(A) One public information and input session hosted in each county or group of adjacent counties within reasonable geographic proximity and streamed virtually with access and functional needs considerations; and	See Section 10.2.1: Community Engagement, Section 10.3.1: Key Communication Methods, and Section 10.3.3 Communication Metrics
(B) One opportunity for engagement strategy participants to submit follow-up comments to the public information and input session.	
(b) A description of how the Public Utility designed the Wildfire Mitigation Plan Engagement Strategy to be inclusive and accessible, including consideration of multiple languages and outreach to access and functional needs populations as identified with local Public Safety Partners.	See Section 10.2.1: Community Engagement and Section 10.3.1: Key Communication Methods
(2) The Public Utility must include a plan for conducting community outreach and public awareness efforts in its Wildfire Mitigation Plan. It must be developed in coordination with Public Safety Partners and informed by local needs and best practices to educate and inform communities inclusively about wildfire risk and preparation activities.	See Section 10.2.1: Community Engagement and Section 10.3.1: Key Communication Methods
(a) The community outreach and public awareness efforts will include plans to disseminate informational materials and/or conduct trainings that cover:	For (A) – (D), see Section 10.2.1: Community Engagement; Section 10.3: Customer Communications; and Section 10.3.1: Key Communication Methods
(A) Description of PSPS including why one would need to be executed, considerations determining why one is required, and what to expect before, during, and after a PSPS;	
(B) A description of the Public Utility's wildfire mitigation strategy;	
(C) Information on emergency kits/plans/checklists;	
(D) Public Utility contact and website information.	

Oregon Requirement—OAR 860-300-0040	Corresponding Location in WMP
(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. *(b) In formulating community outreach and public awareness efforts, the Wildfire Mitigation Plan will also include descriptions of:* *(A) Media platforms and other communication tools that will be used to disseminate information to the public;* *(B) Frequency of outreach to inform the public;* *(C) Equity considerations in publication and accessibility, including, but not limited to:* *(i) Multiple languages prevalent to the area;* *(ii) Multiple media platforms to ensure access to all members of a Local Community.*	See Section 10.2.1: Community Engagement For (A)-(C): See Section 10.2.1: Community Engagement; Section 10.3: Customer Communications, and Section 10.3.1: Key Communication Methods
(3) The Public Utility must include in its Wildfire Mitigation Plan a description of metrics used to track and report on whether its community outreach and public awareness efforts are effectively and equitably reaching Local Communities across the Public Utility's service area.	See Section 10.3.3: Communication Metrics
(4) The Public Utility must include a Public Safety Partner Coordination Strategy in its Wildfire Mitigation Plan. The Coordination Strategy will describe how the Public Utility will coordinate with Public Safety Partners before, during, and after the fire season and should be additive to minimum requirements specified in relevant Public Safety Power Shut Off requirements described in OAR 860-300-0050. The Coordination Strategy should include, at a minimum: *(a) Meeting frequency and location determined in collaboration with Public Safety Partners;* *(b) Tabletop Exercise plan that includes topics and opportunities to participate;* *(c) After action reporting plan for lessons learned in alignment with Public Safety Partner after action reporting timeline and processes.*	See Section 10.2.1: Community Engagement

OPUC Order No. 23-222

This appendix also addresses recommendations received from the OPUC Staff in Docket No. UM 2209 and approved by the OPUC in Order No. 23-222. The italicized text below reflects OPUC Staff's specific recommendations for the company to include in its 2024 WMP.

OAR 860-300-0020 (1)(a)(A) and (B)

(1) Provide explicit details of assets within and outside the YRZ and RRZ using a common reporting structure (for multistate utilities).

See Table 11, Section 8.2 T&D Asset Management and Inspections and Table 5, Section 3.3 Wildfire Risk Zones

(2) Provide details for incorporation of climate change modeling in refining the YRZ and RRZs.

See Section 3.2.1 Wildfire Risk Modeling Process, specifically "2023 Risk Modeling Input Updates"

(3) Provide details on calibration of wildfire risk modeling methods to ensure that when and where overlaps occur, they are consistent, or explicably inconsistent, in their risk designation. Such designation and coordination across utilities may lend greater clarity for stakeholders and Staff to understand relative risks.

See Section 3.2.2 Establishing Wildfire Risk Zones, specifically "Wildfire Risk Zone Calibration with Peer Utilities"

(4) Detail recommendations from local partners and customers in establishing risk zones, including the inclusion of remote fire suppression resources in establish [sic] risk levels.

See Section 3.2.2 Establishing Wildfire Risk Zones, specifically Figure 4 and "Incorporating Local Feedback into Risk Zone Establishment"

(5) Provide historic root cause analysis supporting equipment ignition risk determinations.

See Section 8.6.1 Root Cause Analysis

OAR 860-300-0020 (1)(b)

(6) Provide effectiveness results using specific outage causes within YRZ, RRZ and non-fire risk areas compared to the mitigation measures undertaken within those specific areas and calculate mitigation effectiveness

See Section 11.9 Long-Term Metrics, specifically Table 18 Outage metrics and Table 19 Overhead circuit hardening reliability improvements.

(7) Demonstrate the Company's ignition reporting processes.

See Section 8.6 Ignition Tracking and Analysis

(8) Demonstrate the use of effectiveness metrics and ignition reporting investigation in modifying programmatic changes to specific assets or equipment types

See Section 11.9 Long-Term Metrics and Section 4 Costs and Benefits of Wildfire Mitigation

(9) Detail progress made towards a uniform risk-spend valuation methodology

See Section 4.2, Risk-Based Cost and Benefit Analysis of Wildfire Mitigation

OAR 860-300-0020 (1)(c)

(10) Provide planned and actual work completed and dollars planned and actually spent by program for the prior and future years, as well as associated estimations of risk reduction for the work completed, compared to their original estimations separated by system, Oregon, and Idaho.

See Section 4.4 Wildfire Mitigation Cost Summary, specifically Table 7 Estimated system wide incremental O&M expenses for wildfire mitigation, and Section 4.5 Mitigation Activities

(11) Provide a multiyear plan with project-level details for multi-year capital investments, with objective priorities identified and the estimated wildfire risk reduction for the project's selected mitigation method separated by system, Oregon, and Idaho.

See Section 4.5.8 Incremental Capital Investments, and Table 9 WMP forecasted capital investments

OAR 860-300-0020 (1)(d)

(12) Include in WMP a clear map of Oregon service territory that could be affected by PSPS or other modified system operations.

See Section 7.5.2 PSPS Plan and Section 3.3.1 Maps. See Section 7.2 for Operational Protection Strategy. While a PSPS event is more probable in an elevated wildfire risk zone, Idaho Power retains the ability to utilize PSPS anywhere throughout its service area. The decision regarding PSPS is based on a number of dynamic factors, and each circumstance is unique.

(13) Engage with Public Safety Partners, including ESF-12, in areas outside and within RRZ and YRZ to discuss wildfire risks and methods taken to mitigate risk including modified system operations and PSPS.

See Appendix B, The Public Safety Power Shutoff (PSPS) Plan and WMP Section 10.2.1 Community Engagement

(14) Include as an appendix to its WMP a registry of Public Safety Partner events, identifying hosting organization, with feedback provided and actions taken because of the feedback.

See Section 10.2.1 Community Engagement, specifically "2023 Public Safety Partner Feedback Summary"

OAR 860-300-0020 (1)(e)

(15) Provide findings of analyses on operational modifications based upon "fire season," FPI levels or other relevant elevated wildfire periods.

See Executive Summary, 2023 weather and fire season overview, for analysis of fire season FPI. See Section 7 for operational practices and actions taken during wildfire season and during times of elevated wildfire risk.

(16) Staff recommends that Idaho Power outline roles and responsibilities that are in place during modified system operations, including PSPS activations; Idaho Power should communicate this structure to Public Safety Partners, at a minimum during tabletops or exercises.

See Appendix B, The Public Safety Power Shutoff (PSPS) Plan

(17) Staff recommends that Idaho Power explore how and when placing and operating CRCs is reasonable given the remote areas in which Idaho Power serves in Oregon.

See Section 10.2.2 Community Resource Centers

(18) Joint IOUs establish language for Public Safety Partners and communities regarding modified operational practices, including "sensitive settings", PSPS and other utility operational modes to mitigate wildfire risk.

See Appendix B, The Public Safety Power Shutoff (PSPS) Plan, Section 2.3 Industry and Peer Utility Engagement

OAR 860-300-0020 (1)(f)

(19) Coordinate community outreach with partners, including ESF-12, and consider broadening the workshop to include relevant community safety topics, inviting Public Safety Partners regarding other topics appropriate to the community.

See Section 10.2 Community Outreach

(20) Detail methods for determining the effectiveness of customer outreach and describe any modifications made to outreach strategies as a result.

See Section 10.3.1 Key Communication Methods and Section 10.3.3 Communication Metrics, specifically Table 16 Key Communication Metrics

OAR 860-300-0020 (1)(g)

(21) Provide summary of planned versus actuals for assets in Oregon consistent with inspection intervals.

See Section 8.3 Inspection and Correction Timeframes, specifically Table 12 Summary of asset inspections and schedules by state and zone, and Executive Summary, Table 2 Inspection and Vegetation 2023 goals and accomplishments

(22) Validate that correction timeframes in Idaho Power's routine inspection and correction program relating to Priority 3 violations are corrected consistent with OAR 860-024-0018.

See Section 8.3 Inspection and Correction Timeframes. As a matter of record, Idaho Power complies with all Oregon requirements and statutes. With respect to Idaho Power's "Priority 3" issues, these are defined by the company as *potential* issues that should be monitored and that may require correction at a future point in time. Idaho Power's Priority 3 issues *do not* pose a threat to the system and *do not* correlate to a heightened risk of fire ignition. Priority 3 designations are not in violation of section 2 of OAR 860-024-0012 or OAR 860-024-0018.

(23) Provide greater detail outlining methods to identify elevated fire risk observations during ignition inspection or routine inspection activities.

See Sections 8.3 through 8.6 for detailed methodology.

(24) Demonstrate the use of its ignition tracking process to support its approach to ignition prevention inspections.

See Section 8.6 Ignition Tracking and Analysis

(25) Assess and validate its quality assurance and quality control program for ignition prevention and other inspection activities and outline a reasonable quality assurance level and associated costs for administering the program.

See Section 8.3 Inspection and Correction Timeframes

OAR 860-300-0020 (1)(h)

(26) Utilize the previously recommended RSE methodology to determine the risk reduction for enhanced vegetation management both inside YRZs as well as outside YRZ or RRZs.

See Section 4.2 Risk-Based Cost and Benefit Analysis of Wildfire Mitigation and Section 4.5.6 Enhanced Vegetation Management. Idaho Power will continue to evaluate RSE efforts with a specific focus on trying to accurately quantify risk reduction and to determine how RSE may be used as one of many inputs in overall decision-making processes for mitigation approaches and alternatives. A detailed roadmap for the creation of a collaboratively developed, uniform RSE framework process will be developed in 2024.

(27) Provide details for work planned and completed relating to vegetation management both within and outside YRZs in Oregon (as well as system-wide)

See Table 2 Inspection and Vegetation 2023 goals and accomplishments, and Table 7 Estimated system-wide O&M expenses for wildfire mitigation

(28) Conduct root cause analysis for vegetation-related risks be conducted to support the determination of optimal vegetation management actions.

Section 8.6.1 details the company's RCA process. Section 4.5.6 Enhanced Vegetation Management and Section 8.7 T&D Vegetation Management details the company's process for determining optimal vegetation management actions. Although vegetation management is a sizeable increased wildfire mitigation expense, performing this work is expected to have notable long-term co-benefits, including reduced vegetation-caused outages in Tier 3 and Tier 2 Risk zones. The 2023 wildfire season saw an increased number of storm events, high winds, and more lightning throughout the service area than in previous years. While storm activity was higher, outages associated with vegetation fell by 27% compared to previous years—indicating that the company's vegetation management practices are reducing risk.

(29) Demonstrate the use of Idaho Power's reporting process to evaluate the logic of its programmatic decisions for vegetation management in YRZs and non-YRZs in Oregon and system wide.

Section 8.6 Ignition Tracking and Analysis details the company's Outage Management System (OMS) database, which is used for reliability and measurement reporting purposes. Section 11.9 Long-term Metrics elaborates on the company's approach for gauging the effectiveness of the WMP, including tracking reliability data and specific outage counts based on causes.

As an example, a review performed in early 2023 identified specific areas where vegetation caused several outages during the 2022 wildfire season, in a particular wildfire risk zone beyond the same overcurrent protection device. The company's utility arborist incorporated the dashboard into work procedures to identify problematic areas and proactively investigate and correct issues.

(30) Provide plan and actual experience with QA/QC program performance within and outside YRZs in Oregon and system wide.

See Section 8.7 T&D Vegetation Management, specifically Table 15 Summary of vegetation management activities and schedules, Section 8.7.2.3 Transmission Line Clearing Quality Control and Assurance, and Section 8.8.3.3 Distribution Line Clearing Quality Control and Assurance.

OAR 860-300-0020 (1)(i)

(31) Include a summary of the quantitative analysis used in the choice and prioritization of specific solutions and investments, segmented by state and risk zone versus non-risk zone

Section 4.4 identifies selected mitigation activities and the estimated costs of those activities on a system level. In Section 4.5, 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.

(32) Explain how solutions providing co-benefits have been considered in its investment strategies.

See response to recommendation 31, above. In addition, See Table 8: Safety, reliability, and resilience co-benefits of wildfire mitigation initiatives

(33) Discuss the impact of participation in expert forums on identification of solutions were most likely to provide the benefits anticipated. This should include:

a. Cited research, reports, and studies used in any analysis, unless the source is confidential.
See reference list.

b. How the factors unique to the Company's facilities and service territory were used when considering the applicability of specific options to its systems.

(a) See reference list at the end of this Appendix.
(b) See Section 2.3 Industry and Peer Utility Engagement.

OAR 860-300-0020 (1)(j)

(34) In Recommendation 33, Staff recognized certain of the industry learnings were likely related to risk valuation, however directly responsive to the broader research and development and industry participation, Staff recommends Idaho Power provide specifics on program changes made in response to learnings from industry forums, as well as greater detail of who from the company participates and in what roles they function in various industry forums.

See Section 2.3 Industry and Peer Utility Engagement, specifically 2023 Idaho Power Wildfire Mitigation Engagements

(35) Staff recommends Idaho Power and joint utilities evaluate the CPUC WSD maturity model and develop an Oregon IOU rubric as part of their 2024 WMPs; Staff would welcome the opportunity to participate in such a collaborative work effort

See Section 1.5 Wildfire Mitigation Plan Maturity

(36) Explicit reporting on pilots identified but not carried out in Oregon

See Executive Summary, specifically WMP Technology and Innovation, Section 4.5.3 Situational Awareness-Advanced Technologies, 4.5.5.4 Covered Conductor Pilot, and 4.5.6.1 Fuels Reduction Shared Stewardship Project.

OAR 860-300-0020 (1)(j)

(37) Staff recommends Idaho Power demonstrate the use of its ignition management database to perform root cause analyses which led to any ignition inspection program changes.

See Section 8.6 Ignition Tracking and Analysis and Section 8.6.1 Root Cause Analysis. Section 11.9 Long-term Metrics summarizes the assessments made in 2023 regarding outage metrics.

The following were references used during the year to inform changes in the 2024 WMP.

Wildfire Mitigation

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