

OREGON

2022 Wildfire Protection Plan

January 19, 2022

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Risk Model



Situational
Awareness



System
Hardening



Communication

WILDFIRE SAFETY



Pacific Power
Rocky Mountain Power

Agenda

- ✓ Plan Development and Journey
- ✓ Wildfire Protection Plan Foundation & Elements
 - ✓ Baseline Risk Assessment
 - ✓ Strategic Programs & System Hardening
 - ✓ Dynamic Risk through Situational Awareness
 - ✓ Public Safety Power Shut-Off Protocols
 - ✓ Community Outreach & Education

WILDFIRE SAFETY PACIFIC POWER

Staying safe during wildfire season

As wildfires become more frequent and intense throughout the West, our focus is on keeping you and your community safe. Protecting you from this increasing threat, while providing you with safe, reliable power, is our highest priority.

Here's what we're doing, and what you can do to stay prepared.

What we're doing

Reducing wildfire risks

We're taking additional steps to reduce wildfire risks by increasing wildfire monitoring and training vegetation removal power lines. We're improving the reliability of our systems and taking steps to reduce and working with local emergency services to ensure proper clearing. Good maintenance should be used to reduce vulnerability. Public Safety Power Shutoff.

Other steps we're taking include:

- Installing fire-resistant vegetation around our lines
- Installing fire-resistant materials for our lines
- Improving equipment reliability and fire protection
- Training and equipping our field crews for wildfire

Preparing for emergencies

While it is impossible to eliminate all wildfire risks, we're working closely with local and state agencies to help and ensure wildfire preparedness plans. For areas at a higher risk of fast-spreading fires, we've introduced a new fire protection measure – a Public Safety Power Shutoff. This is a new process designed to help us reduce the risk of high risk areas, by proactively shutting off power that we determine would be a danger to your safety. This measure will only be taken in a limited period of your safety.

Keeping you informed

Communication is an essential part of any emergency plan. Please be sure your Pacific Power contact number information is up to date, so we can keep you informed about:

- Increased fire alerts
- Potential power outages
- Updates on power restoration

PUBLIC SAFETY POWER SHUTOFF PACIFIC POWER

Understanding public safety power shutoffs

We're taking proactive steps to reduce the risk of wildfires and power shutoffs. To prevent wildfires from spreading in high fire risk areas, we may turn off power along specific circuits. This is called a Public Safety Power Shutoff.

Why would a Public Safety Power Shutoff happen?

No amount of preparation can eliminate all wildfire risks. While we work hard to clear plants away from our power lines, debris, tree limbs and other material can be blown up onto lines during times of high winds. When strong winds are combined with high temperatures, low humidity and other conditions, the risk of sparks that might ignite a wildfire.

In those cases, turning power off in affected areas may be necessary to ensure the safety of your community. We trust the decision to proactively shut off in high fire risk areas very seriously and we expect that Public Safety Power Shutoffs will be a very rare occurrence.

What risk factors do we monitor?

Public Safety Power Shutoffs will be initiated only in specific, pre-planned areas when on-the-ground conditions create an extreme wildfire risk.

We monitor a range of factors before triggering a Public Safety Power Shutoff including:

- DRY VEGETATION** we remove combustible fuels
- HIGH WINDS**
- LOW HUMIDITY**
- REAL-TIME OBSERVATION** by on-the-ground field experts

Plan Development and Journey

- PacifiCorp's 2022 Oregon Wildfire Protection Plan (WPP) builds upon multiple years of experience, program development, and formal rulemaking and process across various states



- The plan reflects a comprehensive approach to mitigating the risk of utility related wildfires by combining input from multiple business units, subject matter experts, and industry best practices
- Plan includes long term, multi-year investment



Wildfire Protection Plan Foundation & Elements

Situationally aware of environmental risks

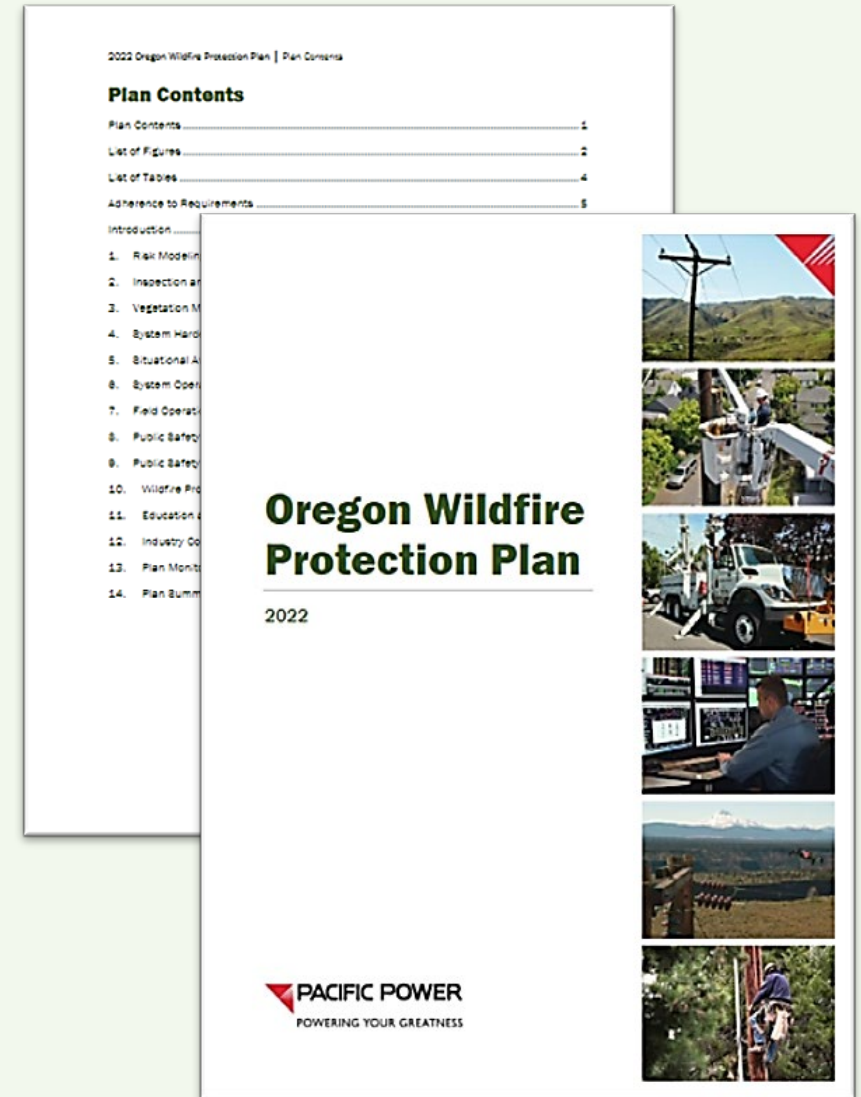
- Baseline risk modeling to inform strategic programs and investments
- Dynamic seasonal risk modeling to inform operational protocols
 - ✓ Fire weather condition monitoring
 - ✓ Meteorology department & forecasting

Resilient system to limit potential for ignition

- Enhanced inspection programs and accelerated correction of certain conditions
- Enhanced vegetation management practices
- Deployment of covered conductor / line rebuilds

Rapid response to fault events

- Deploy more sensitive protective coordination equipment
- Replace fuse locations with non-expulsion equipment
- Implement operational strategies during fire risk periods
- Installation of new fault indicators



Baseline Risk Mapping for Strategic Investment

General Stats

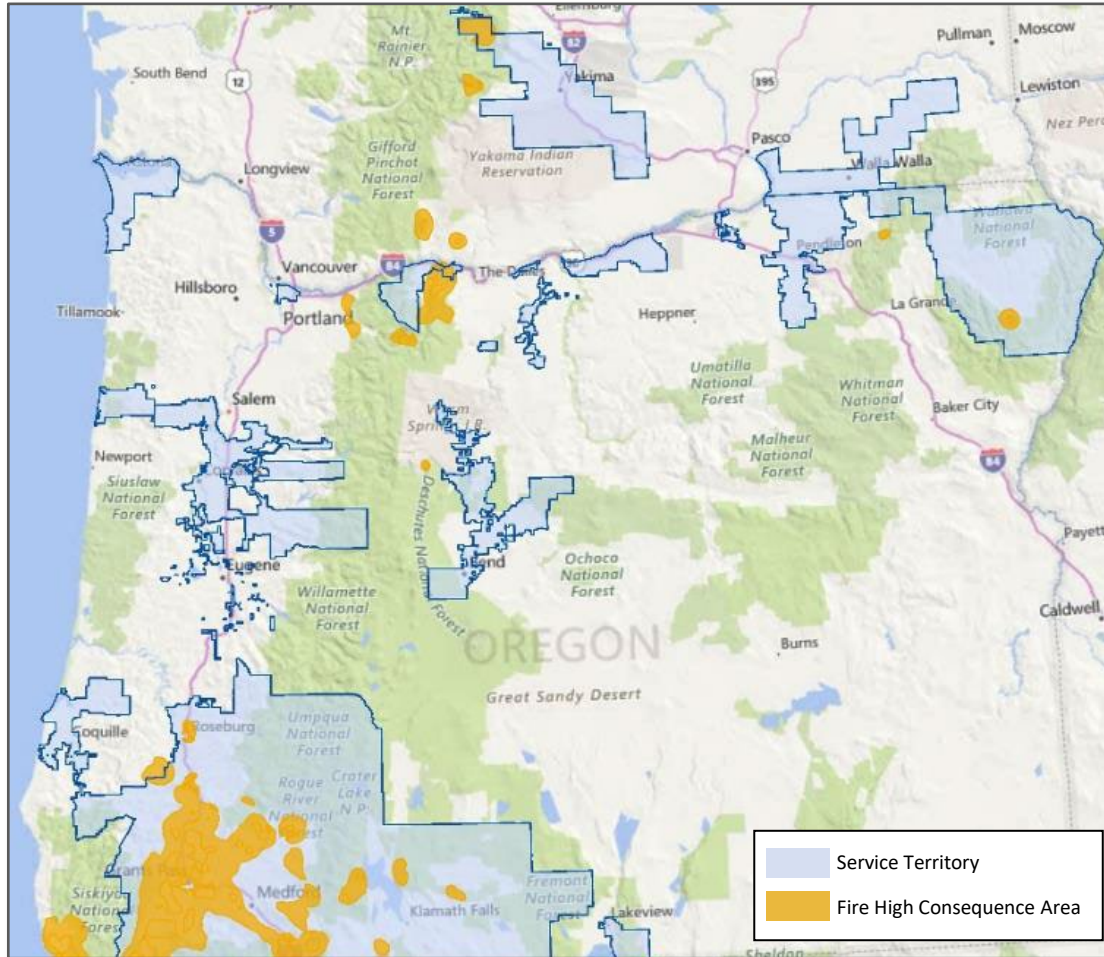
PacifiCorp provides electricity to approximately **630,000 Oregon customers** via **290 substations**, **20,000 miles** of distribution lines, and about **3,000 miles** of transmission lines across nearly **21,000 square miles**

System Wide Initiatives

- ✓ Weather Stations
- ✓ Situational Awareness
- ✓ Operational Protocols
- ✓ Community Education and Outreach



Oregon Service Territory



FHCA

Heightened Risk of Wildfire

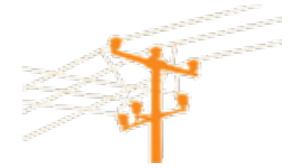
Approximately **2,700 miles** or 16% of all overhead lines are located within the FHCA

2,300 miles of overhead distribution in the FHCA;

400 miles of overhead transmission in the FHCA

Programmatic Shifts

- ✓ Increased Frequency of Asset Inspections
- ✓ Accelerated Condition Correction
- ✓ Enhanced Vegetation Management



PSPS Zones

Extreme Risk of Wildfire

Approximately **1,300 miles** or 9% of all overhead distribution lines are located within **13 individual PSPS Zones**

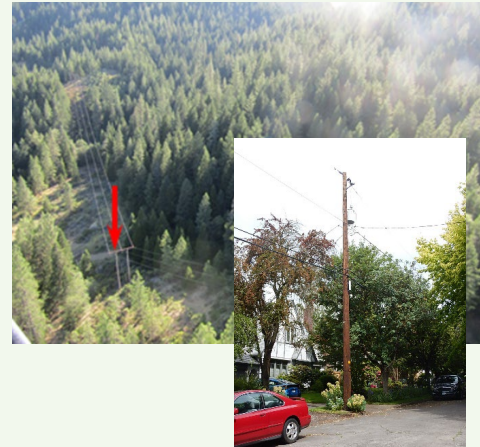
Prioritized System Hardening

- ✓ Covered Conductor
- ✓ Advanced Protection and Control
- ✓ Expulsion Fuse Replacements

Strategic Programs & Long-Term Investment

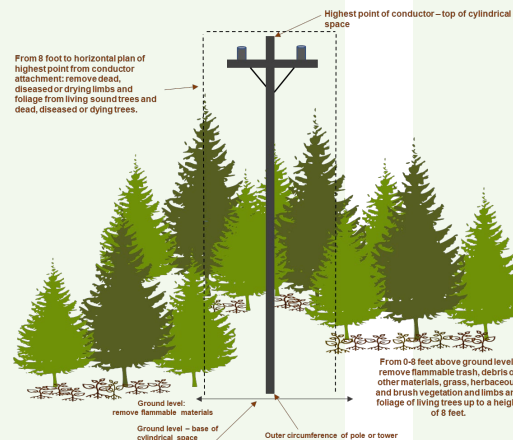
Asset Inspections

- ✓ Increased frequency of inspections in the FHCA
- ✓ Accelerated correction of Fire Threat Conditions
- ✓ Annual Infrared Inspection of Transmission Lines



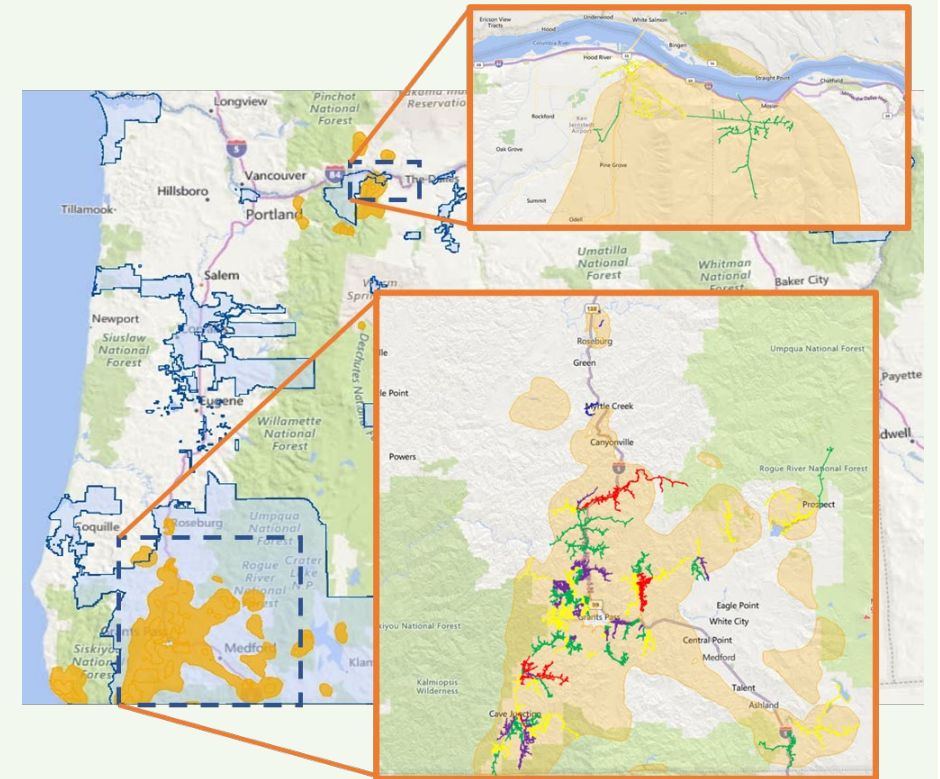
Vegetation Management

- ✓ Transitioning to a 3-yr cycle
- ✓ Annual inspection in the FHCA
- ✓ Annual pole clearing of equipment poles



System Hardening

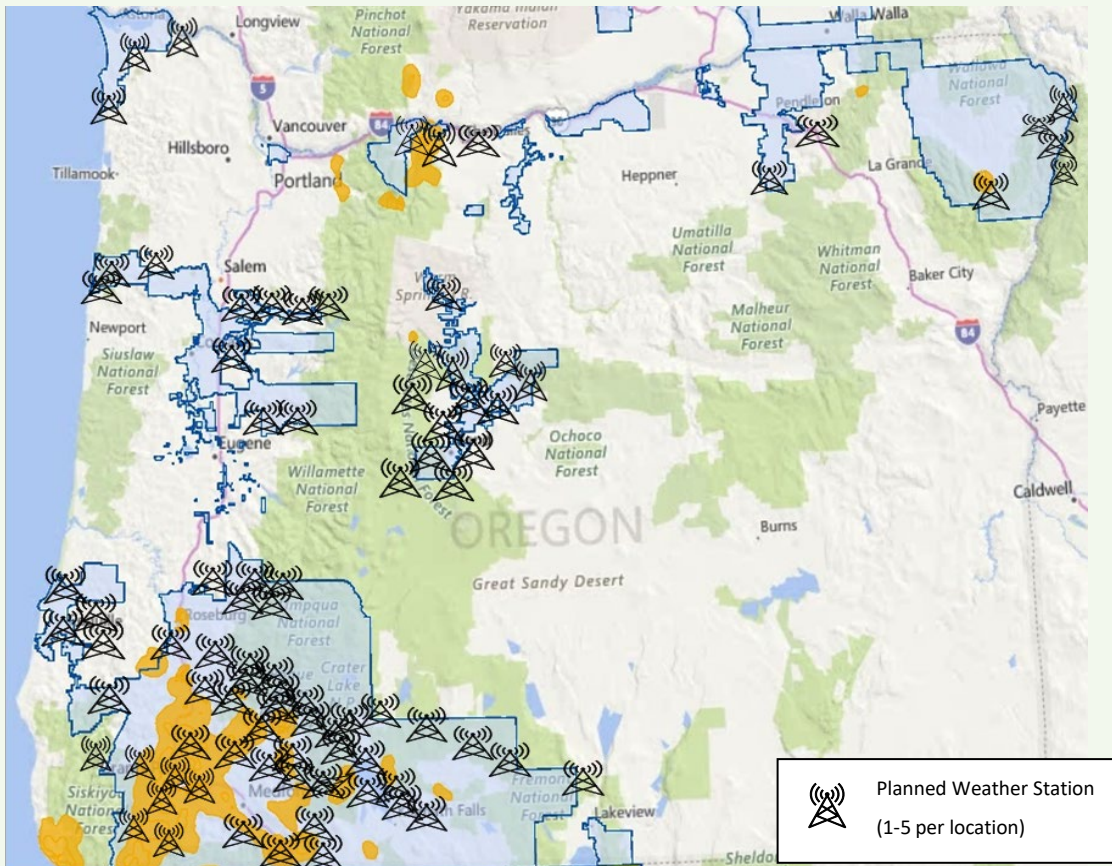
- ✓ Multi-year investment
- ✓ Line Rebuild Program
- ✓ Advanced Protection and Control
- ✓ Expulsion Fuse Replacement



Dynamic Risk Assessment through Situational Awareness

Weather Station Network

- 120 stations operational in Oregon by EOY 2022
- Continued expansion for added granularity

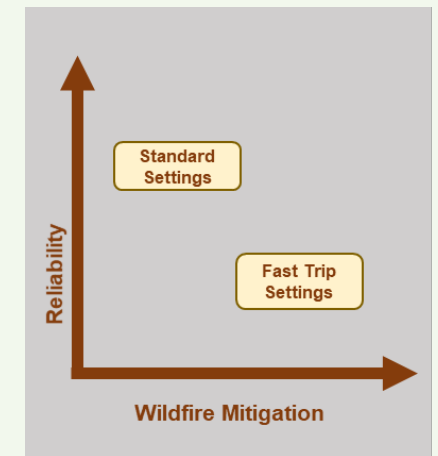


Augmented Work Practices

- Acquire and maintain key equipment (water trucks and personal suppression equipment)
- Implement risk-based work practices and resource adjustments

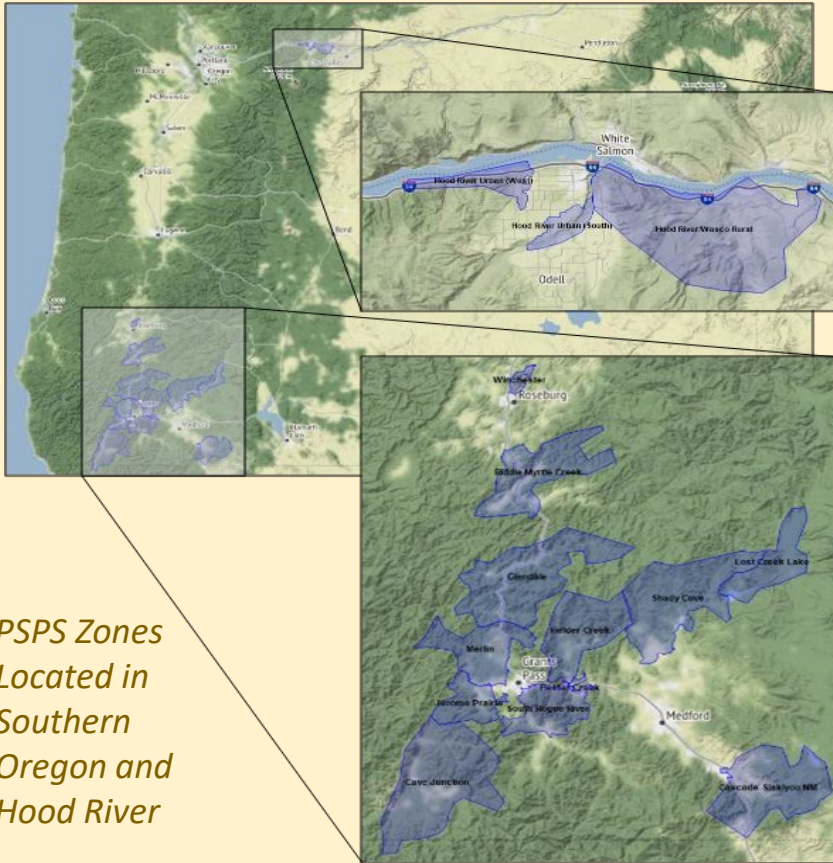
Alternate Protection and Control Settings

- Risk based deployment of alternate settings
 - *Faster tripping*
 - *Increased open times*
 - *Reduced reclosing*
- Deployment of CFCIs (fault indicators) to reduce impact to customers



PSPS Implementation Protocols

PSPS Zones reflect the highest risk locations where a PSPS is most likely to occur



PSPS Zones Located in Southern Oregon and Hood River

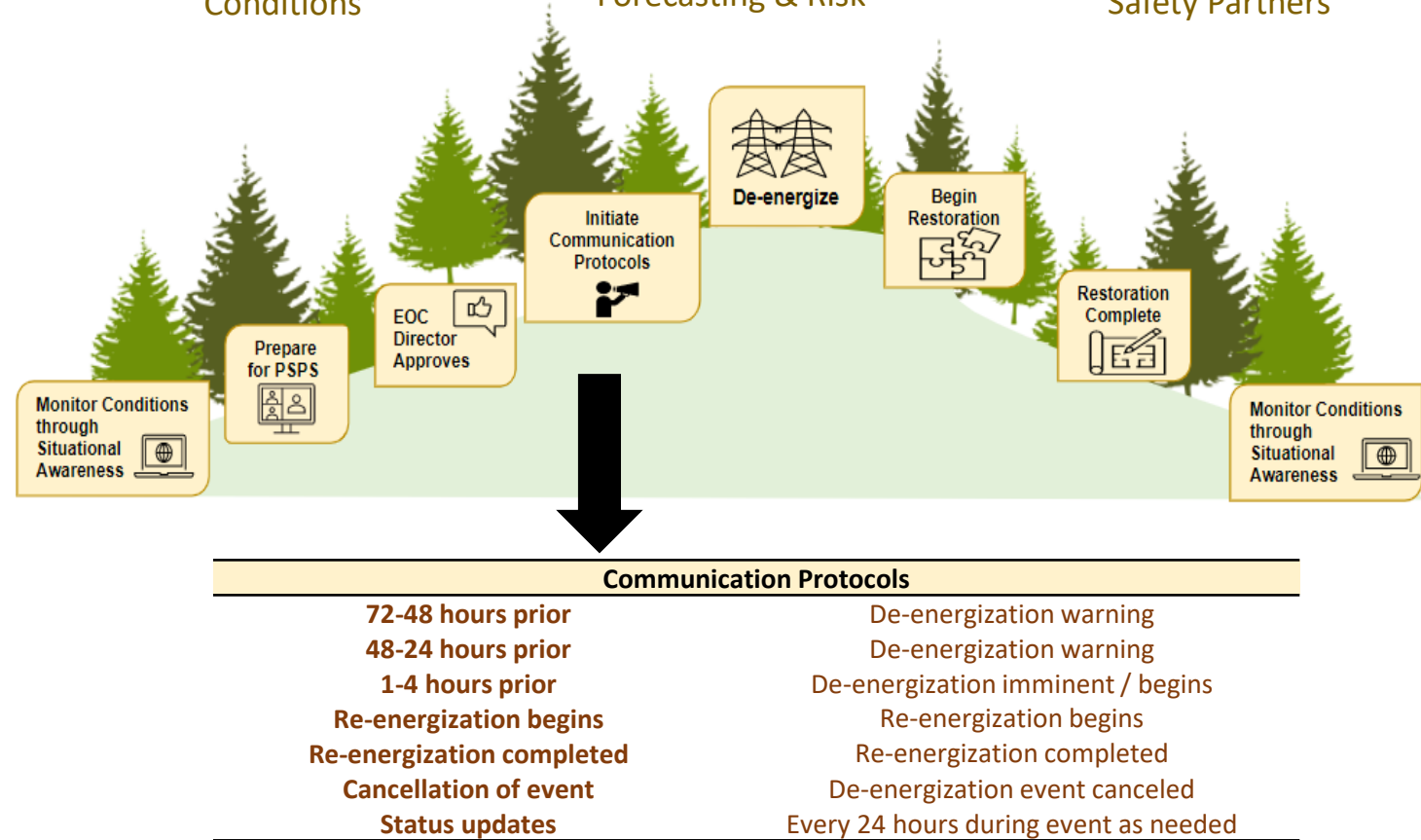
Map of Public Safety Power Shut Off Zones

- Conditions are continuously monitored to assess risk
- Decision incorporates multiple factors:

✓ Real Time Monitoring of Local Conditions

✓ Weather Forecasting & Risk

✓ Dynamic input from Public Safety Partners



Community Outreach and Education

- Tabletop exercises with Public Safety Partners
- Public Wildfire Plan engagement and feedback forum
- Wildfire safety and preparedness campaign
- Brochures, flyers and other collateral
- Customer service training
- Webpage
- Webinars

Public safety power shutoff forecasting

This table shows the Public Safety Power Shutoff status.

NAME	6 DAYS OUT
Azalea / Glendale / Wolf Creek / Sunny Valley	Normal
Cascade-Siskiyou NM	Normal
Dunsmuir	Normal
Happy Camp	Normal

WILDFIRE SAFETY **PACIFIC POWER**

Staying safe during wildfire season

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Here's what we're doing, and what you can do to stay prepared.

What we're doing

Reducing wildfire risks

We've adopted several steps to reduce wildfire risks by increasing vegetation maintenance and tree-trimming operations around power lines. We're also providing the residents of our region with the information and resources they need to stay safe during wildfire season.

Other steps we're taking include:

- Conducting tree-trimming operations to clear vegetation around our lines
- Installing LED cameras in the field for real-time assessment
- Following our 100-hour safety plan
- Improving equipment maintenance and repair
- Training our equipment field crew on wildfire suppression

Preparing for emergencies

While it's impossible to eliminate all wildfire risks, we're working closely with local state and local agencies to expand and enhance existing emergency response plans.

For areas at a higher risk of fast-spreading fires, we've introduced a new proactive measure—a Public Safety Power Shutoff. This is a new process designed to help keep people and communities safe by proactively shutting off power during extreme and dangerous weather conditions. This measure will only be taken as a last resort to help protect your safety.

Keeping you informed

Communication is an essential part of any emergency plan. Please be sure your Pacific Power account contact information is up to date, so we can keep you informed about:

- Emergency alerts
- Potential power outages
- Updates to power outages

Reducing wildfire risks

Safety is our top priority. Learn what we're doing to reduce wildfire risks and prepare for emergencies. [Learn more](#)

WILDFIRE SAFETY **PACIFIC POWER**

Staying Safe in Wildfire Season

Wildfire season is here, and safety is top of mind for you and us.

As wildfire season nears, we want to make sure you're prepared. We're here to help you stay safe—especially if you live in a high-risk area. We're also providing you with the information and resources you need to stay safe during wildfire season. We're working with you to help you stay safe during wildfire season. We're working with you to help you stay safe during wildfire season.

To find out more about wildfire safety, and what you can do to stay prepared, visit PacificPower.net/wildfiresafety.

WILDFIRE SAFETY **PACIFIC POWER**

PUBLIC SAFETY POWER SHUTOFF **PACIFIC POWER**

Understanding public safety power shutoffs

We're taking proactive steps to keep the communities we serve safe. To prevent a wildfire in high fire risk areas, we may turn off power along specific circuits. This is called a Public Safety Power Shutoff.

Why would a Public Safety Power Shutoff happen?

No amount of preparation can eliminate all wildfire risks. While we work hard to clear areas away from power lines, debris, tree limbs and other material can be blown up onto lines during times of high winds. Strong winds are combined with high temperatures, low humidity and other conditions, the risk of sparks might ignite a wildfire.

In those cases, turning power off in affected areas may be necessary to ensure the safety of your community. We make the decision to proactively shut off in high fire risk areas very strategically and we expect that the Safety Power Shutoff will be a very rare occurrence.

What risk factors do we monitor?

Public Safety Power Shutoffs will be initiated only in specific, pre-planned areas when on-the-ground conditions create an extreme wildfire risk.

We monitor a range of factors before triggering a Public Safety Power Shutoff including:

- DRY VEGETATION** We monitor wind-blown debris.
- HIGH WINDS**
- LOW HUMIDITY**
- REAL-TIME OBSERVATION** by on-the-ground field agents.

Thank you