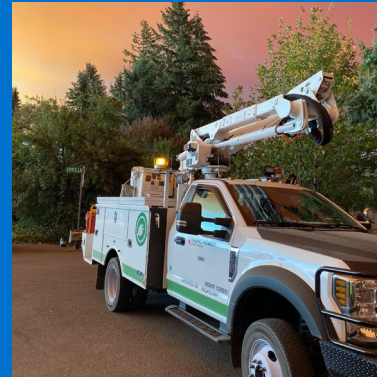


# Rocky Mountain Power

## Wildfire Preparedness





Our priority

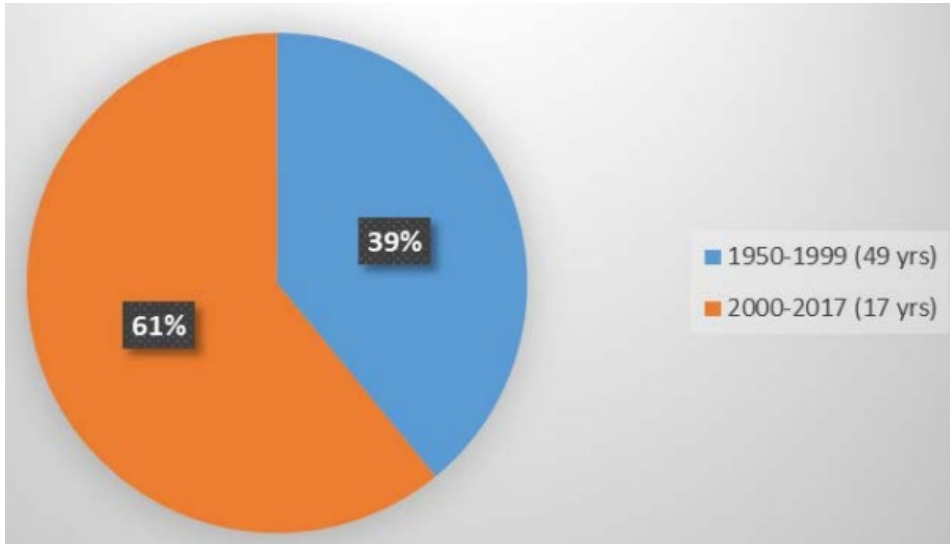
## Keeping you safe is job #1.

With wildfires becoming more frequent and intense throughout our region, protecting your community while providing safe, reliable power, is our highest priority.

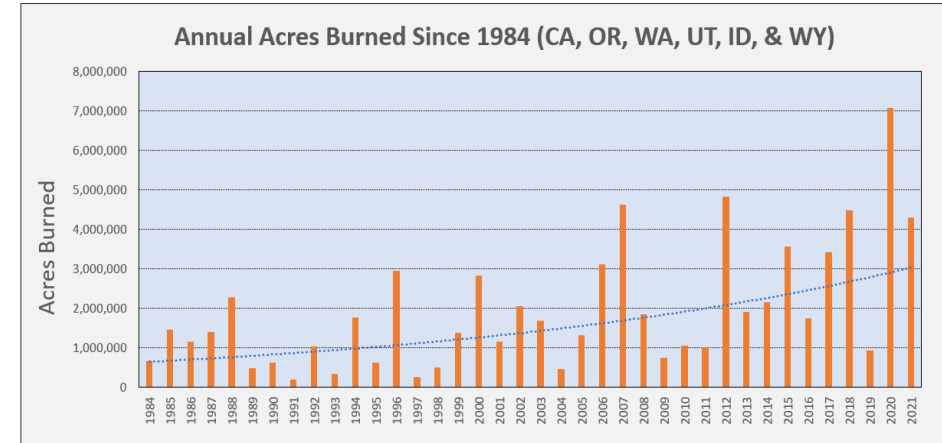
# Wildfire Trends

The size and frequency of wildfires has increased significantly in recent decades across the Western U.S.

- 61% of fires since 1950 have occurred between 2000-2017 (NASA.com, 2018<sup>1</sup>)



- Mega Fires (more than 100,000 acres) increased fourfold in recent years (Science.org, 2022<sup>2</sup>)



<sup>1</sup> <https://climate.nasa.gov/ask-nasa-climate/2830/six-trends-to-know-about-fire-season-in-the-western-us/>

<sup>2</sup> <https://www.science.org/doi/10.1126/sciadv.abc0020>

<sup>3</sup> <https://www.epa.gov/climate-indicators/climate-change-indicators-wildfires>

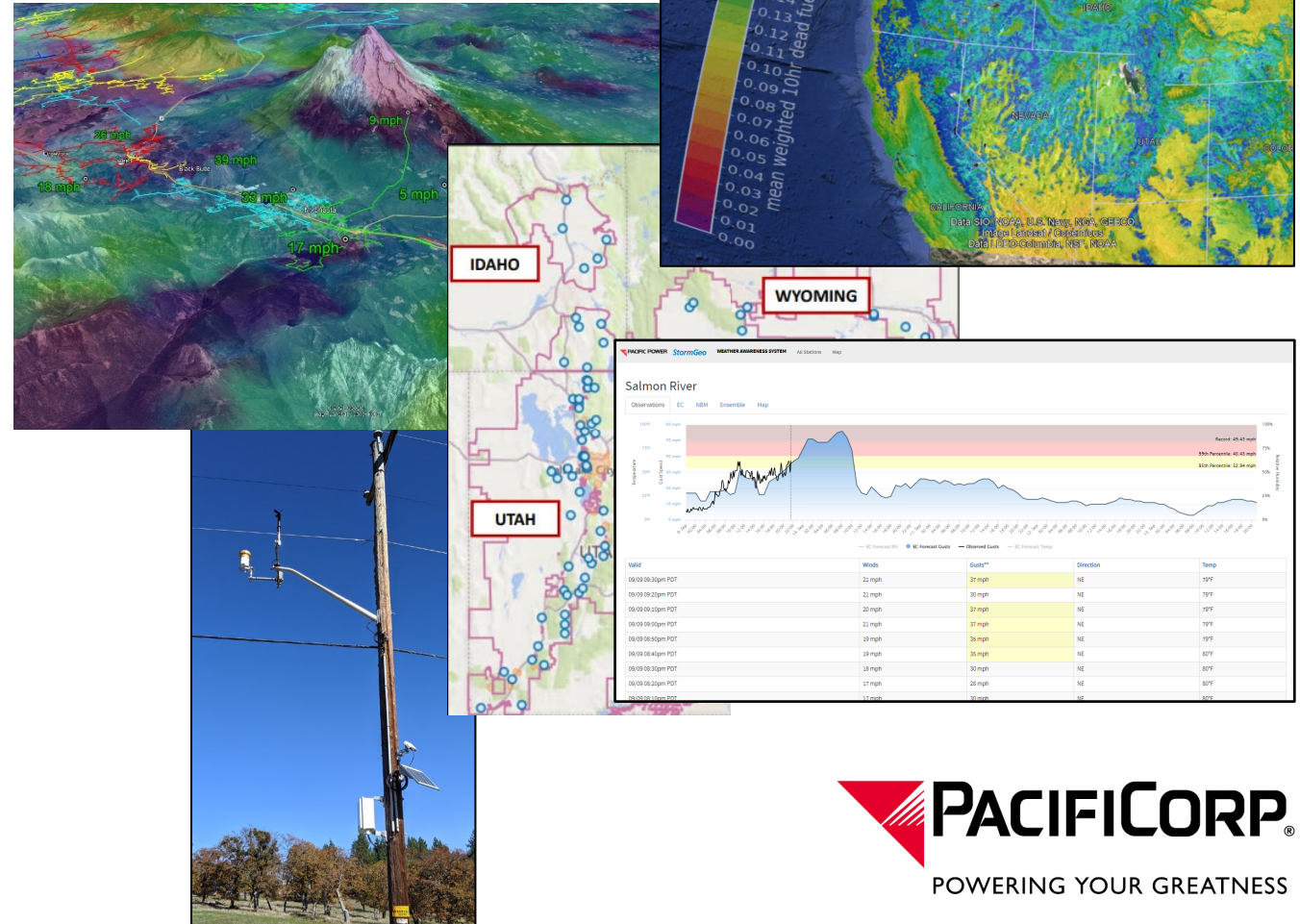
# Advanced Weather Forecasting And Situational Awareness

## Advanced Weather Forecasting

- Five full-time meteorologists provide 24/7/365 support
- Hi-res weather forecast models are combined with historical datasets to predict weather conditions and potential weather-related impacts at the circuit level
- In-house Weather Research & Forecast (WRF) model
  - 2km, 96-hour weather and fuels forecasts
  - Generates one terabyte of forecast data daily

## Real-Time Situational Awareness

- 410+ weather stations installed across service territory
- 10-minute observations to support real-time operations
- Real-time displays of weather station and forecast data at [RockyMountainPowerWeather.com](https://RockyMountainPowerWeather.com)





# Wildfire Mitigation

Grid Hardening	Resource Allocation & System Settings	Customer Notifications	External Coordination	PSPS Decision Making & Activation	End Goal
<ul style="list-style-type: none"> <li>✓ Installation of Covered Conductor</li> <li>✓ Installation of System Protection Equipment</li> <li>✓ Installation of Non-Expulsion Fuses</li> <li>✓ Undergrounding certain line segments</li> </ul>	<ul style="list-style-type: none"> <li>✓ Deploy resources for assessment and immediate response</li> <li>✓ Utilize more sensitive Elevated Fire Risk (EFR) protection settings</li> <li>✓ Sandy City currently has two circuits employing EFR settings: Quarry 12, Quarry 15</li> </ul>	<ul style="list-style-type: none"> <li>✓ Incorporation of Customer Survey Results</li> <li>✓ Customer Notifications</li> <li>✓ Medical Baseline &amp; AFN Customer Outreach</li> <li>✓ Website Readiness</li> </ul>	<ul style="list-style-type: none"> <li>✓ Coordination with Critical Facilities</li> <li>✓ Planning with Emergency Response Partners</li> <li>✓ Coordination with Tribal Communities</li> <li>✓ Tabletop Exercises</li> </ul>	<ul style="list-style-type: none"> <li>✓ Situational Awareness Capability</li> <li>✓ Using refined data to evaluate PSPS potential during Extreme Risk Days</li> <li>✓ Community Resource Center Capability</li> </ul>	<ul style="list-style-type: none"> <li>✓ Reduce the potential impacts from wildfire</li> </ul>



# Wildfire Response

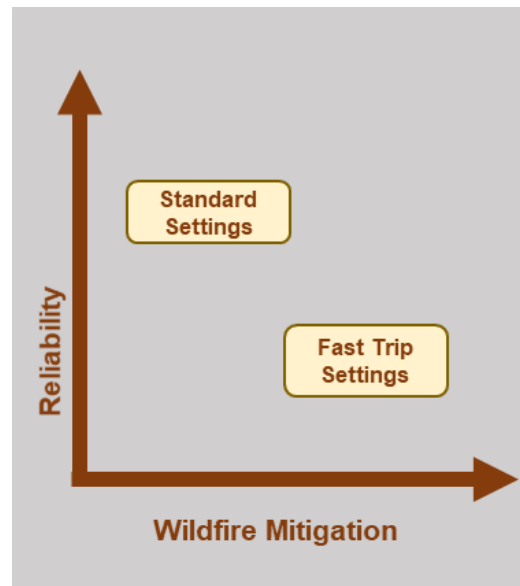
## Augmented Work Practices

- Acquire and maintain key equipment
- Implement risk-based work practices and resource adjustments



## Elevated Fire Risk (EFR) Protection and Control Settings

- Risk-based deployment of alternate settings
  - *Faster tripping*
  - *Increased open times*
  - *Reduced reclosing*



## Direct Fire Response

- Pole Wrapping
- Retardant application
- Additional vegetation management



# Sandy City Customers-Potential Affects

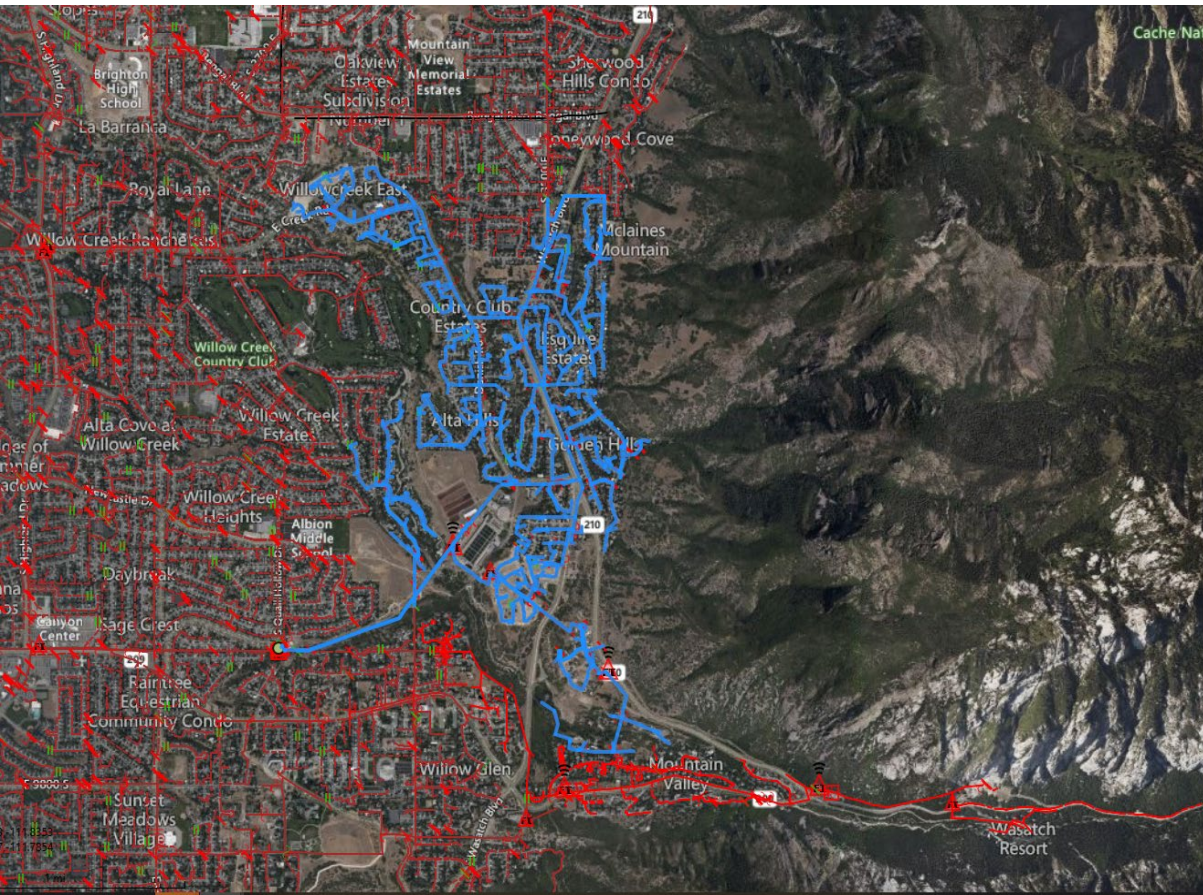
## EFR Circuit Settings (Elevated Fire Risk)

- During elevated wildfire risk, Rock Mountain Power is taking additional safety precautions. One of these precautions includes using more sensitive settings on the protective devices which operate to deenergize power lines when there is an abnormality detected on a line. These sensitive settings are referred to as Elevated Fire Risk Settings (EFR).
- A power outage is more likely to occur when more sensitive protective settings are in place. For the 2023 wildfire season, based on conditions in the region, we are using more sensitive protective settings on the lines serving our customers in areas designated as high risk. As a result, if an outage occurs during the 2023 wildfire season, customers in these areas may experience a longer-than-typical outage as our field personnel work to confirm that power lines can be safely turned back on. These measures are intended to promote public safety.
- For the Sandy area, customers served out of Quarry 12, Quarry 15, and Dimple Dell 11 may have experienced longer duration outages during the months of June through October. Between these two circuits, there are about 1,921 customers currently on more sensitive settings. This is dynamic and can change month to month, year to year.

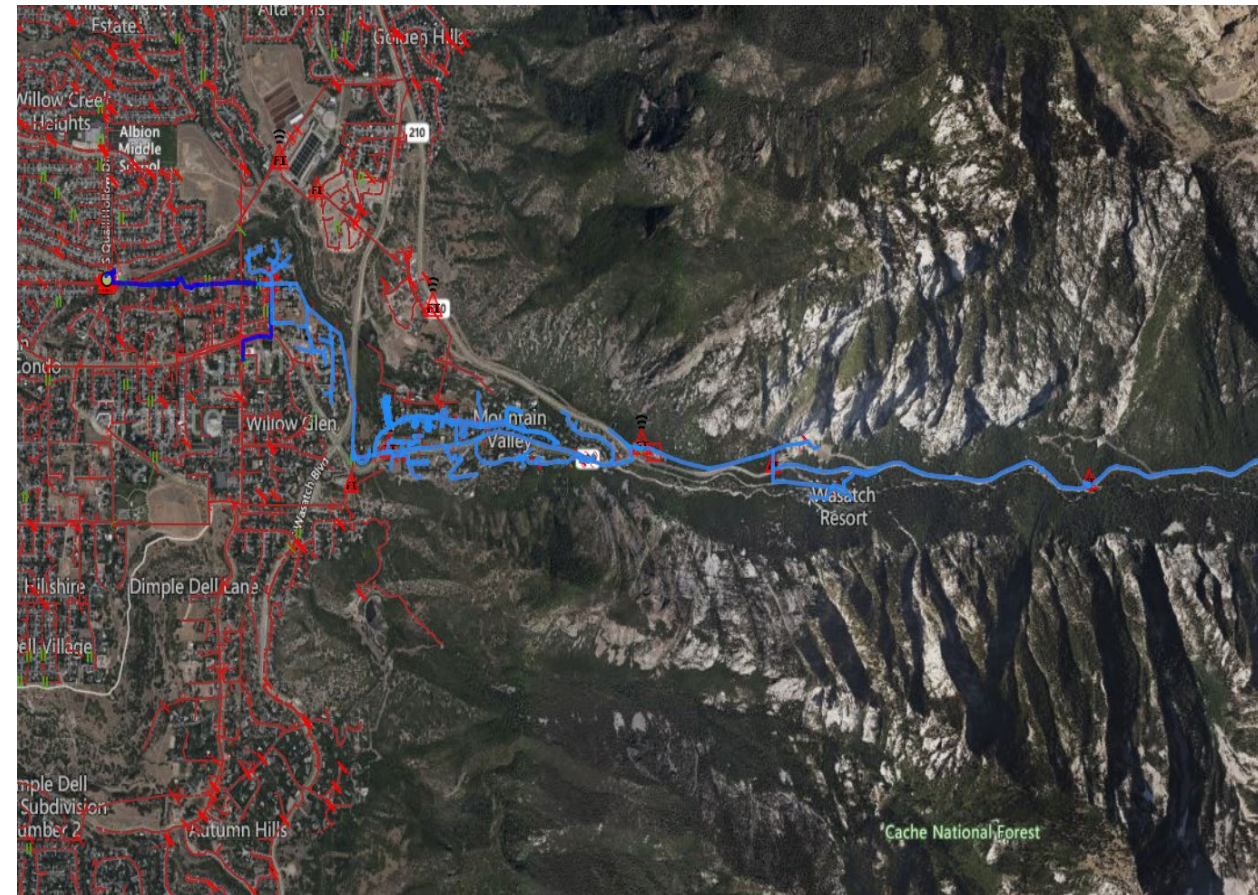


# Sandy City Circuits Currently in EFR Settings 9/23

## Quarry 12 Power Distribution Circuit



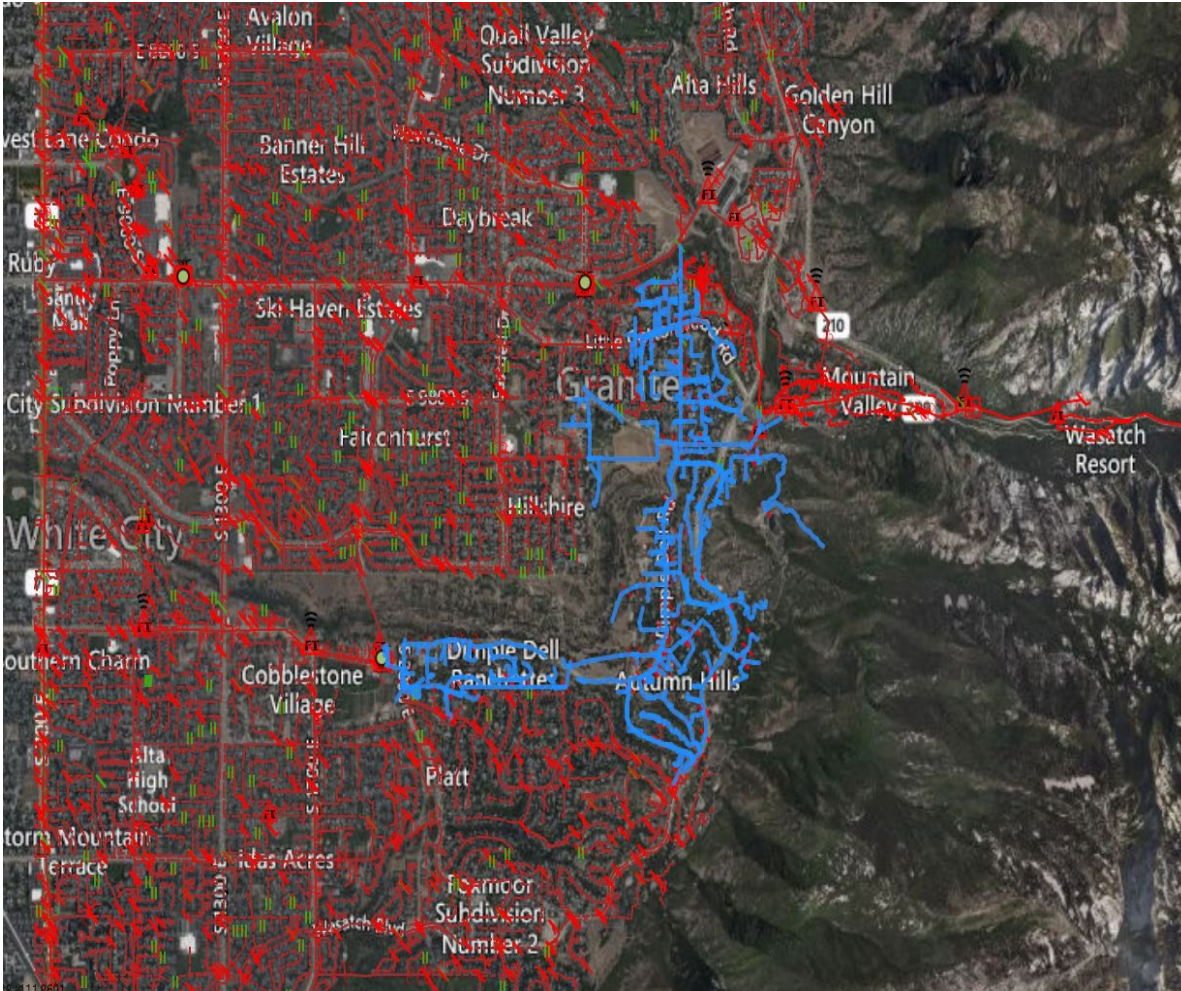
## Quarry 15 Power Distribution Circuit





# Sandy City Circuits Currently in EFR Settings 9/23

## Dimple Dell 11 Power Distribution Circuit



# Sandy City Customers-Potential Affects

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## EFR Circuit Settings (Elevated Fire Risk)

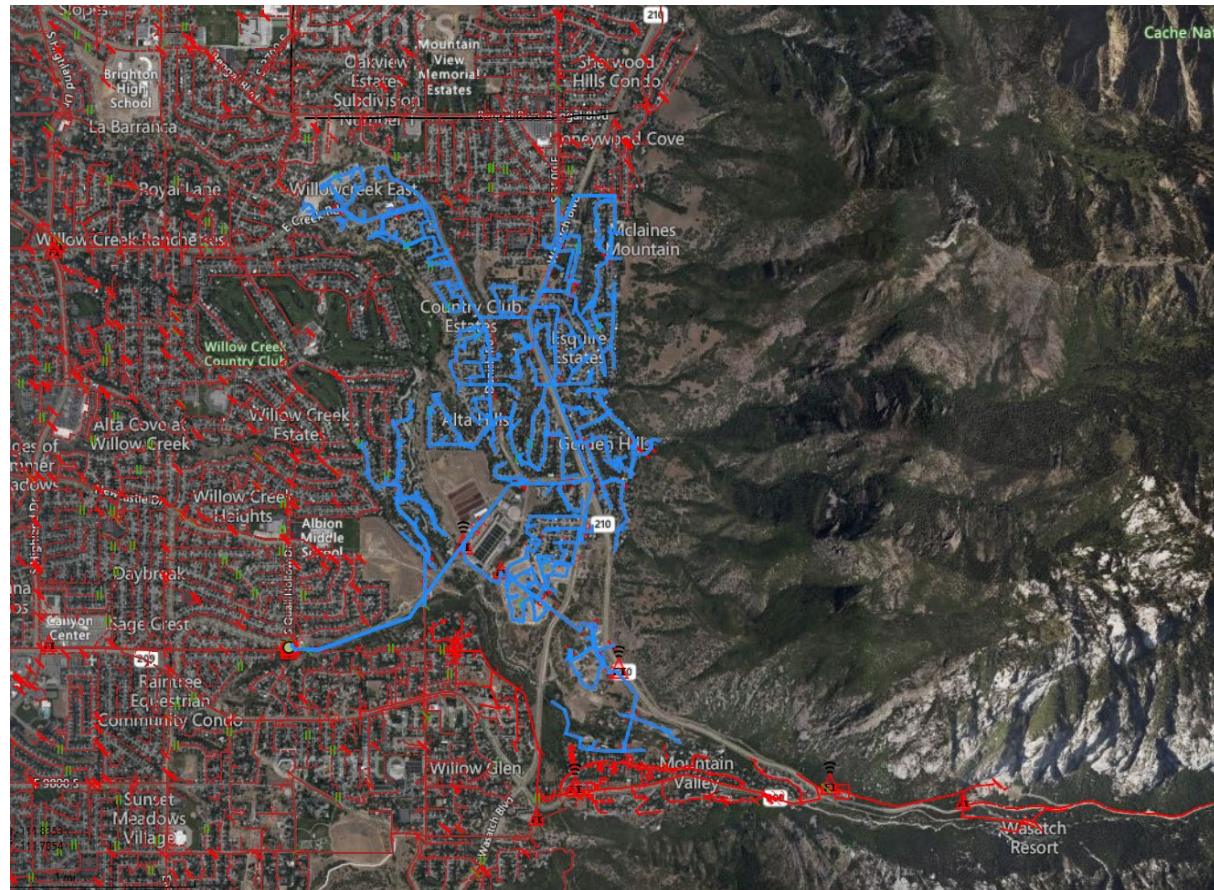
- During the 2023 wildfire season, there were several incidents within Fire High Consequence (FHCA) Areas of the Quarry circuits including a vehicle accident impact to a power pole, dig-in by third parties, and a recent fault (Aug. 25<sup>th</sup>) on a Quarry circuit of unknown cause.
- Comparison of current year outage data to historical data indicates that the number of outages did not deviate excessively compared to historical averages. However, many of the outage events may have resulted in longer-than-historical outage durations due to recently-implemented EFR settings requiring enhanced line patrols and caution prior to re-energizing or “closing” the circuit breaker back in to ensure safe operation of the circuit.
- Rocky Mountain Power is currently investing heavily to enhance circuits in Fire High Consequence Areas within the community in order to maintain long-term reliability while balancing the need to mitigate risk of wildfire.



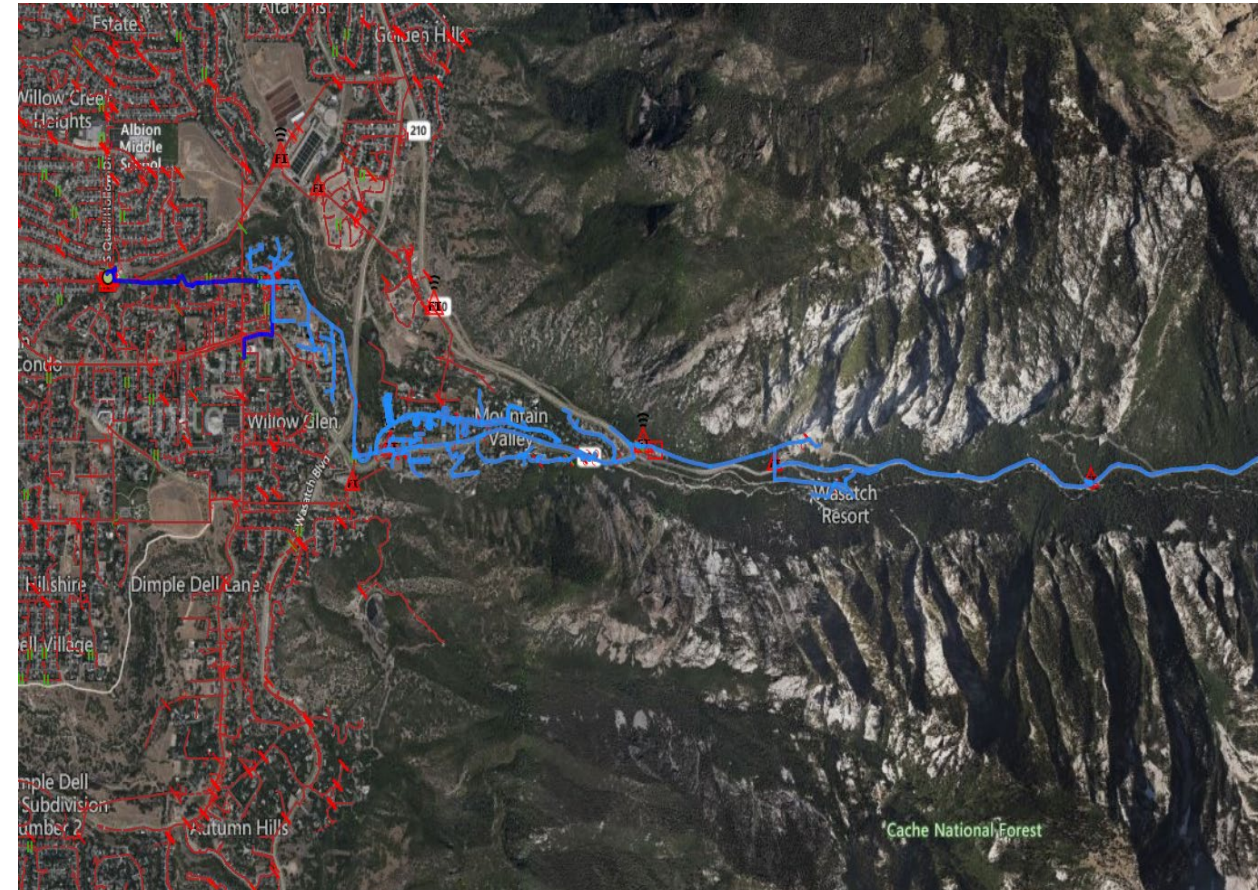
# Investments in Sandy City Power Infrastructure

## Undergrounding and Enhancing Majority of Quarry 12 and Quarry 15 Power Distribution Circuits With Modern Equipment

**Quarry 12 Power Distribution Circuit**



**Quarry 15 Power Distribution Circuit**

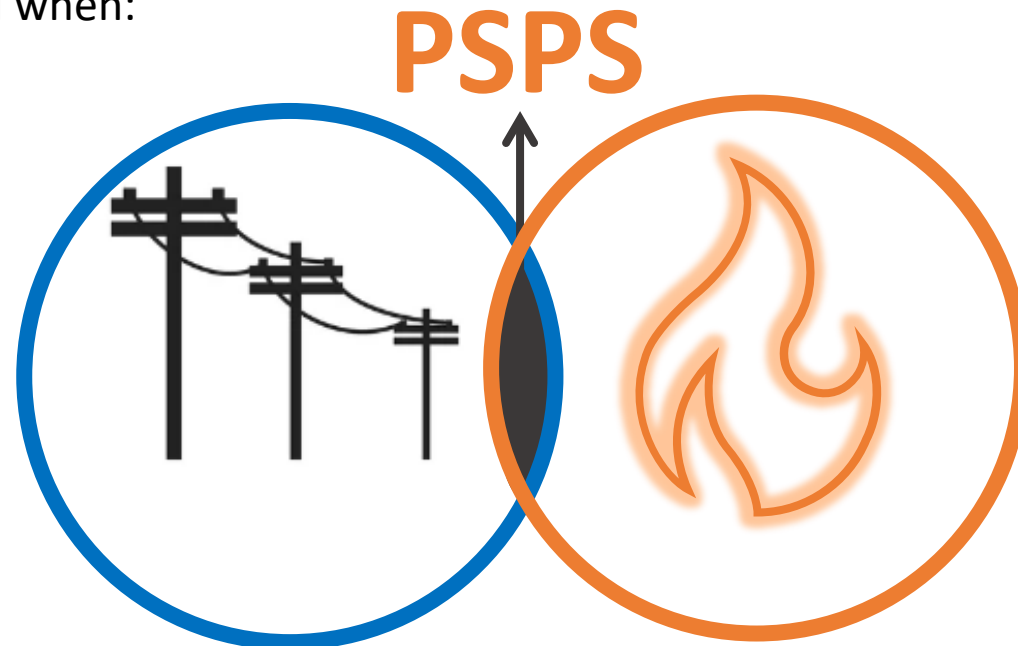




# Sandy City-Potential Effects

Customers served by EFR Circuits could potentially be affected by Public Safety Power Shutoff (PSPS) is a last resort mitigation practice that reduces or removes the potential of power infrastructure causing a fire during extreme environmental and weather conditions and is considered when:

**Outage risk** is the likelihood that wind will cause outages (vegetation contact, flying debris, damage, etc.).



**Wildfire risk** is the likelihood that an ignition will grow to become a large or rapidly growing wildfire due to dry vegetation and weather conditions.

**\*PSPS events have proven to be rare since the program was implemented by Rocky Mountain Power in 2019. Such an event has not occurred to date in Sandy City. However, it *could* happen in the future. This mitigation practice involves PROACTIVE de-energization of power circuits and would include providing as much notice as possible to potentially affected customers. It is likely that any PSPS-affected customer-count could be reduced significantly below those 1,921 customers (subject to change) currently served by EFR circuits.**

# Messaging Provided to Affected Sandy City Customers

## Wildfire safety precautions in place for your area

Due to elevated wildfire risk in your area, we are taking additional safety precautions. Among other measures, we may use protective devices on our lines with more sensitive settings that will de-energize power equipment when there is a short circuit detected.

A power outage is more likely to occur when these settings are utilized. For the 2023 wildfire season, based on elevated conditions in the region, we are using more sensitive protective settings in your area. As a result, if an outage occurs during the 2023 wildfire season, you may experience a longer-than-typical outage as our field personnel work to confirm that power can be safely turned back on. These measures are intended to promote public safety, and we appreciate your patience.

Our system is built to withstand extreme weather events and other unforeseen issues; however, outages can happen. It is important to:

- Plan ahead and [be prepared year-round](#).
- Create a plan with your medical provider for appropriate back-up power if you have medical devices that rely on electricity in your house.
- [Review your contact information](#), so we can reach you if necessary.
- If an outage does occur, find restoration information on the [Pacific Power outage map](#).

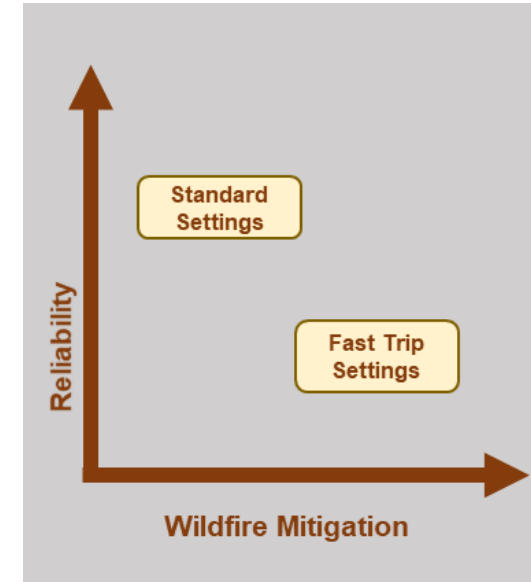
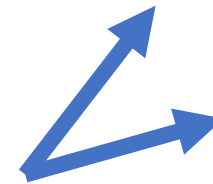
We appreciate your patience and understanding. Providing safe, reliable service is our highest priority at Pacific Power. If you have questions, please call us anytime at **1-888-221-7070** or visit [PacificPower.net/Ready](#) for emergency preparedness and wildfire safety information.

# Community Messaging Keys:

- EFR Circuit Settings have higher probability of impacting customers than PSPS. Rocky Mountain Power is currently investing and will continue to invest in upgrades and new equipment to reduce high-risk circuit areas with aim to reduce number of affected customers.
- Public Safety Power Shutoff (PSPS) events or proactive de-energization of power are less likely to occur and typically only under very extreme weather conditions

## Elevated Fire Risk (EFR) Protection and Control Settings

- Risk-based deployment of alternate settings
  - *Faster tripping*
  - *Increased open times*
  - *Reduced reclosing*





# Wildfire Mitigation Video

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# Final Note

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*“Investments in wildfire mitigation live on beyond just the reduction of wildfire risk, they are investments that help the system be more resilient in the long term through the winter storms and summer wind events and will provide value to customers for years to come”*

– **Allen Berreth, Vice President of Transmission and Distribution Operations**



## Questions?