PNM

Wildfire Mitigation Plan 2025

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ABBREVIATIONS AND ACRONYMS

APP	Avian Protection Plan
BLM	Bureau of Land Management
CMR	Crisis Management and Resilience Team
CSP	Completely Self Protected
CWA	County Warning Area
DGIS	Drafting and Geographic Information System Department
DOC	Distribution Operations Center
DSC	Distribution Standards Committee
EEI	Edison Electric Institute
EOC	Emergency Operations Center
EPRI	Electric Power Research Institute
Fire Hx	Fire History
FR	Flame-resistant
FWW	Fire Weather Watch
FWZ	Fire Weather Zone
GIS	Geographic Information System
HFRA	High Fire Risk Area
ICS	Incident Command System
IFD	Internal Fault Device
IVM	Integrated Vegetation Management
kV	kilovolt
LiDAR	Light Detection and Ranging Remote Sensing Method
NERC	North American Electric Reliability Corporation
NESC	National Electric Safety Code
NMPRC	New Mexico Public Regulation Commission
NSD	New Service Delivery
NWS	National Weather Service
OMS	Outage Management System
PNM	Public Service Company of New Mexico
PNMR	PNM Resources
PPE	Personal protective equipment
PSA	Predictive Service Area
PSPS	Public Safety Power Shutoff
PWOPS	Power Operations Department
RAWS	Remote Automated Weather Station
REA	Rural Electric Association
RFW	Red Flag Warnings
ROW	Right-of-Way
R&D	Research and Development
SA	Situational Awareness
SCADA	Supervisory Control and Data Acquisition
T&D	Transmission and Distribution
TNMP	Texas-New Mexico Power Co.
USFS	United States Forest Service
VM	Vegetation Management
WECC	Western Electricity Coordinating Council

WHP	Wildfire Hazard Potential
WMP	Wildfire Mitigation Plan

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Executive Summary

The Public Service Company of New Mexico (PNM) strongly believes in the safety of our customers, their communities, and our employees. Additionally, we are dedicated to delivering reliable, affordable energy to our customers. This updated 2025 Wildfire Mitigation Plan (WMP) provides information on existing wildfire initiatives and introduces new mitigations and strategies for 2025. The WMP also includes a summary, and high-level lessons learned from the 2024 fire season.

For 2025, PNM intends to enhance its risk-reduction efforts in the following areas:

- Enhancement of its situational awareness (SA) capabilities
- Prioritization of vegetation management work
- Strategic hardening of our electric system
- Collaborating with stakeholders to gather input on how we can best communicate and alert customers and communities about wildfire and wildfire risk. To that end, this WMP document is available for download at PNM.com/wildfire-safety
- Continued refinement of our Public Safety Power Shutoff (PSPS) framework and plan
- Continued integration of our PSPS Plan with High Fire Risk Area (HFRA) partners
- Implemented re-closer setting changes during periods of elevated concern

Summary of 2024 advancements to PNM wildfire risk reduction efforts:

- Changed the organizational structure within Vegetation Management (VM) and the Wildfire Group to include the positions of Associate Director, Wildfire Risk and Vegetation Management, and Wildfire Program Manager, to lead wildfire strategies and implementation.
- Conducted PSPS engagement with federal and state agencies, first responders, government, tribal government and industry entities, the public, and electric utility peers.
- Collected remotely sensed data throughout its HFRAs, including the collection of high-resolution imagery and Light Detection and Ranging (LiDAR), which is now being used to implement multiple WMP recommendations.
- Increased SA of escalating fire weather conditions and augmented existing plans to reduce ignition likelihood from system operations and field work.
- Added a fire classification framework to govern response, internal reporting, and external communications during wildfire events.
- Continued to capture and analyze outage data to facilitate effective risk reduction strategy development.
- Filed a PSPS Plan with New Mexico Public Regulatory Commission (NMPRC) as part of operational mitigation practice. A PSPS is a proactive measure taken by a utility during extreme weather conditions to prioritize the safety of the public and PNM workers. If a PSPS is executed, PNM will de-energize electrical facilities in extreme wildfire risk areas to reduce the potential of those facilities becoming a wildfire ignition source. The PSPS Plan is available at PNM.com/wildfire-safety.
- Acquired Engineering approval for various types of equipment and implementation of wildfire design standards.
- Established a pole assessment, treatment, and remediation program.

- Started Gila Transmission and Distribution (T&D) right-of-way (ROW) project.
- Conducted remote sensing using satellite imagery and AI.
- Executed PSPS Tabletop exercises.

Major Fire Impacts in 2024

The fire season of 2024 brought significant wildfire activity in the months of May through July. In June of 2024, the South Fork and Salt Fires in Ruidoso devastated the community and resulted in a Presidential Major Disaster Declaration, as requested by Governor Michelle Lujan-Grisham. The Governor had previously issued a state of emergency for Lincoln County and the Mescalero Apache Reservation. The severity of these fires cannot be overstated; repercussions included:

- Two fatalities[1]
- An estimated 8,000 people evacuated[2]
- 1,400 businesses and homes damaged or destroyed[2]
- Over 1,100 personnel deployed to manage the fires[3]
- More than 25,000 acres consumed[4]

These tragic events underscore the necessity of a hypervigilant approach to wildfire risk mitigation efforts that emphasize continuous process improvement and optimization for all levels of local, state, federal, and Tribal governments, as well as communities, community members, and businesses.

At the outset of the fires, PNM dispatched staff and requested mutual assistance to immediately assess the damage and scope of work and begin restoration efforts where safe and prudent to do so. PNM quickly re-energized the Ruidoso community within weeks, amidst the fires and flooding.

Some key areas that PNM continues to focus on include:

- Robust community engagement with multiple levels of emergency-disaster response
- Ongoing data collection and validation of critical facility and infrastructure information
- Ongoing conversations with communities regarding their vulnerable community members
- Proactive notifications and communications
- Community involvement in annual training exercises

PNM will continue to collaborate and partner with communities and stakeholders throughout New Mexico to support efforts for community safety and wildfire risk mitigation at the local, state, federal, and Tribal levels.

[1] See New York Times article
[2] See Village of Ruidoso PSA 6.18.24
[3] See Village of Ruidoso PSA 6.22.24
[4] See Incident Information System page

1. Introduction

In recent years, the western United States has seen an increase in damaging wildfire activity. A contributing factor to this increase is climate change. Both climatologists and fire scientists anticipate longer fire seasons and more extreme fire behavior in future years; this new normal will require new coping strategies. Other important risk factors include human encroachment, historical land management practices, and the health of wildlands and forests.

To address these changing climatic conditions and the associated elevated risks of wildfires, PNM prepared this Wildfire Mitigation Plan (referred to as "the Plan" or "WMP"). The Plan covers wildfire risk drivers, as well as programs and strategies to mitigate them.

PNM has prepared this WMP as part of an overarching organizational philosophy that an effective wildfire strategy includes a culture that considers safety along with reliability. The key topics include the creation of High Fire Risk Areas (HFRAs, which are defined as areas where utility infrastructure, such as power lines and substations, are vulnerable to wildfire and where ignitions from the infrastructure may cause damaging wildfires), grid design and system hardening, asset management and inspection, Daily Situational Awareness (SA) and fire danger forecasting, operational response, vegetation management (VM), and modern risk-spend efficiency modeling. Broad collaboration is important to the success of PNM's wildfire efforts. As such, PNM continues to build partnerships with agency, public, and customer stakeholders through public meetings, social media, and various online information campaigns.

Though regulators in several western states require WMPs, the New Mexico Public Regulation Commission (NMPRC) does not require a WMP to be filed. However, PNM filed its first WMP with the NMPRC in 2021. Since then, PNM has enacted annual revisions of the WMP to reflect and align with PNM's maturing/expanding wildfire mitigation efforts. PNM is aligned with other thought leaders, such as the Edison Electric Institute (EEI) and Electric Power Research Institute (EPRI), which have both increased their activity regarding wildfire ignition prevention for the electric utility industry. Wildfire concerns are further highlighted by a Western Energy Coordinating Council (WECC) letter dated May 2019 addressing reliability preparedness, outlines higher risk across the Western Interconnection, and provides maintenance, planning, operations, and training recommendations in preparation for fire season.

This WMP provides details on PNM's current wildfire prevention and mitigation efforts. It is not intended to be aspirational, nor does it intend to address yet-to-be initiated projects or activities. Any forward-looking statements are not a guarantee of future performance or project initiation. Statements and details on PNM wildfire prevention activities are current as of its writing in April 2025.

1.1. Purpose and Objectives

The WMP summarizes the wildfire risk awareness and mitigation strategies that are part of PNM's fire-safe culture.

The WMP is a living document, changing as plan milestones are met, wildfire risks change, and risk mitigation capabilities evolve and mature. The WMP serves as a framework to help reduce the risk of PNM transmission and distribution (T&D) infrastructure and operations from being the cause of wildland fire ignitions. The Plan also addresses strategies, technologies, and operating guidelines to enhance grid resiliency and public safety (See **Section 3**).

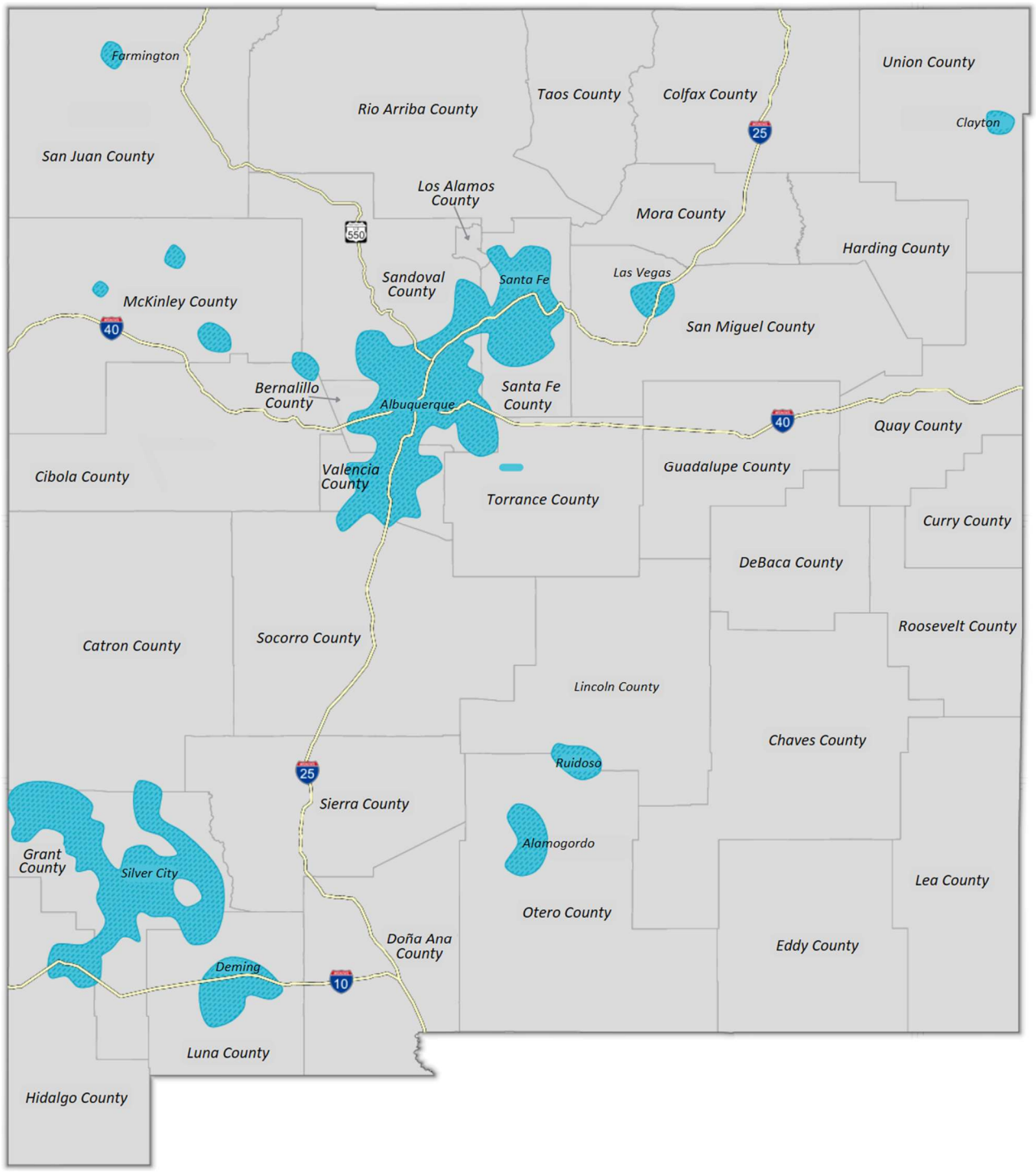
1.2. Overview of PNM

PNM, in operation since 1917, is a subsidiary of TXNM Energy, which is an investor-owned holding company headquartered in Albuquerque, New Mexico, engaged in the generation, transmission, and distribution of electricity. PNM is regulated by the Federal Energy Regulatory Commission (FERC) and the Public Regulation Commission (PRC) in New Mexico. PNM serves 550,000 electric customers via 12,535 overhead miles of powerlines.

1.2.1 New Mexico Flora and Geography

New Mexico has mostly hot, semiarid, or semiarid-continental climate regimes. New Mexico contains semiarid shrub- and grass-covered plains, forested mountains, glaciated peaks, woodland- and shrubland-covered hills, lava fields and volcanic plateaus, river floodplains, and arid deserts. Many grass species grow in sparsely distributed bunches. Grama grass is typical. Groundcover generally is sparse with broad areas of exposed soil. In eastern New Mexico, the grasslands grade into savanna woodlands or semi-deserts composed of shrubs and trees adapted to survive in areas with little water. Cacti are present in some places. These areas support limited grazing but are generally not moist enough for crop cultivation without irrigation. Riparian areas support cottonwood and willow. Mountains support a complex of conifers, ranging from pinyon-juniper on the lower slopes, ponderosa pine on mid-slopes, and mixed conifers (e.g., white fir, Douglas fir, Engelman spruce, and subalpine fir) at high elevations.

Figure 1. PNM Service Areas



2. Risk Analysis and Identification of Hazardous Fire Areas

2.1. Service Territory Risk Assessment

PNM continues to assess its wildfire risks and mitigation efforts and to seek additional opportunities to apply best industry practices and strategies to further reduce wildfire risks. The results of these efforts inform the practices, procedures, and recommendations that comprise this WMP. PNM's risk assessment methodology is consistent with conventional definitions of risk which include an event's probability and its potential for negative consequences.

A landscape-level assessment of wildfire potential is essential to understanding wildfire risk. Using historic fire perimeter data from New Mexico state[5] resources, Geographic Information Systems (GIS) and Artificial Intelligence (AI), PNM completed an assessment of wildfire risk across its service area to identify locations of highest risk. These areas are called High Fire Risk Areas (HFRAs) (see Figure 2). HFRAs represent areas of risk driven largely by hazardous fuel conditions; consequently, they represent areas where ignitions caused by PNM facilities present elevated potential for asset-related wildfire damage, as well as areas where PNM facilities are at highest threat from fires of outside origin (i.e., non-powerline ignitions).

2.1.1 Tier Definitions

HFRAs consist of both Tier 1 and Tier 2 areas. Tier 1 areas include urban and other landscapes where ignitions are less likely to spread given fuel discontinuity, human development, and faster fire department response times. Tier 2 areas comprise the bulk of the lands within the HFRA boundaries, and are defined as areas where utility infrastructure (such as power lines and substations) is vulnerable to wildfire, and where ignitions from the infrastructure may cause damaging wildfires. AI was used in the delineation of Tier 1 and Tier 2 distinctions (described below).

2.1.2 Use of Artificial Intelligence

In the Spring of 2024 PNM acquired data from a geospatial fire risk assessment tool to further inform its landscape hazard assessment. The tool uses AI and machine learning to combine publicly available, validated datasets that provide risk scoring to fire behavior profiles (see Table 1). PNM leverages the geospatial fire risk assessment tool to make the distinctions between Tier 1 and Tier 2 areas, and to validate HFRAs.

Detailed maps of each HFRA are provided in **Appendix A**.

[5] Browse rgis.unm.edu data New Mexico Wildland Fire Perimeters 1911-2014

Table 1. Geospatial Fire Risk Assessment Tool Attributes and Descriptions

Attribute	Description
County	County where the profile polygon exists.
BLK	Census block identification.
WUI Class	Designation of housing density and its proximity to wildland fuels.
BLK_ID	Combination of the three above.
Conditional Risk	A ranking of very low to very high that describes an areas' potential to host a wildfire.
Conditional Risk Score	Ranges from 1-16
Locational Risk Score	Ranges from 2-34
Combined Risk	Six class ranking from very low to very high that combines conditional and probability scores.
Burn Probability	Ranges from very low to very high and describes the probability of a wildfire's occurrence at a given location.
Risk Score	Range from 2-10. Combination of conditional risk and probability risk.
Risk Units	Ranges from 1-48.

In addition to the HFRAs, **Figure 2** depicts the United States Forest Service (USFS) boundaries for National Forest Lands and National Weather Service (NWS) Fire Weather Zones (FWZ).

FWZs are areas with similar climate, weather, and terrain characteristics. There are 21 FWZs in New Mexico, 13 of which intersect PNM's HFRAs. The NWS issues Red Flag Warnings (RFW) per FWZ.

The overlap between the HFRAs and National Forest Lands is important because PNM has active Special Use Permits in those areas and special operating conditions apply. Further, although not depicted in **Figure 2**, PNM has permits from the Bureau of Land Management (BLM) and New Mexico State Land Office (SLO). These areas also have their own special operating conditions.

Figure 2. PNM HFRAs, USFS National Forest Land Boundaries, and Fire Weather Zones

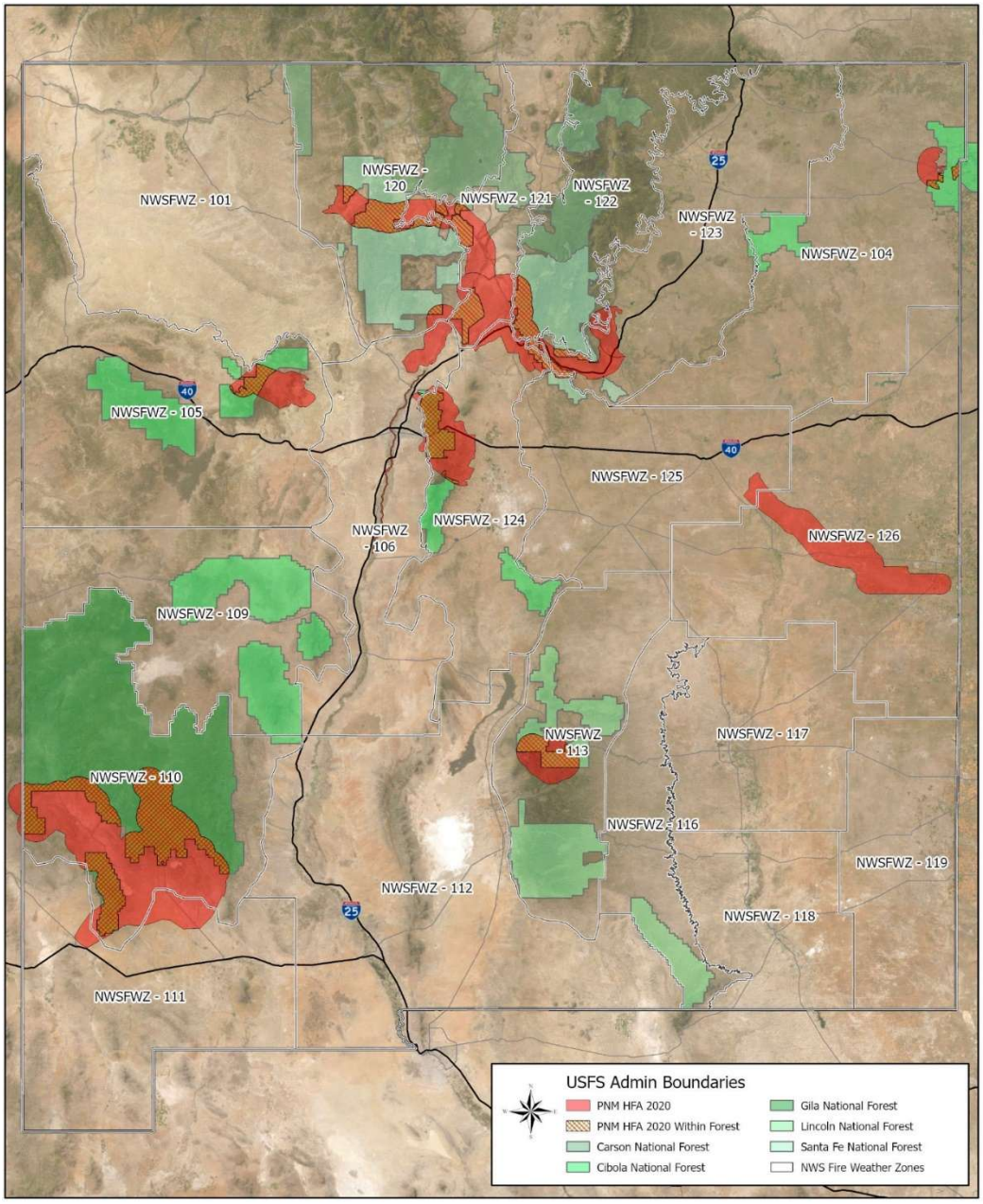


Table 2 (below) lists the 12 identified PNM HFRAs and some of their characteristics. PNM will periodically review and update HFRA boundaries, as necessary. Separate maps of each HFRA are provided in **Appendix A**.

Table 2. HFRA Names and Characteristics

HFRA Name	*Type of facility*	*Area (Sq. mi.)*	*FWZ*[6]	*Predictive service area*[1] *(PSA) (primary)*	*PNM Division*
Bosque[7]	T&D	29	NM 106	SW09 South/Central NM Lowlands	Sandoval Albuquerque Valencia
Clayton East	T&D	13	NM 104	SW13 Northeast NM/NW TX	Clayton
Clayton West	T&D	97	NM 104	SW13 Northeast NM/NW TX	Clayton
Fort Sumner 3	Transmission	819	NM 125 & 126	SW13 Northeast NM/NW TX	Transmission
Las Vegas	T&D	135	NM 122 & 123	SW10 Sangre de Christo Mtns	Las Vegas
Mt. Taylor	T&D	298	NM 105	SW07 Northwest NM Mtns	Ambrosia Lake Marquez
Ruidoso	T&D	312	NM 113	SW12 South/Central NM Mountains	Ruidoso
Sandia Mtns	T&D	492	NM 106 & 124	SW11 Central NM Mtns & Plains	East Mountain
Santa Fe	T&D	961	NM 105, 106 & 121	SW10 Sangre de Christo Mtns SW07 Northwest NM Mtns	Santa Fe
Santa Fe East	Transmission	251	NM 124 & 126	SW10 Sangre de Christo Mtns	Santa Fe
Santa Fe North	T&D	704	NM 120 & 121	SW07 Northwest NM Mtns	Santa Fe
Silver City	T&D	2867	NM 110	SW08 White Mtns & Gila Region	Silver City

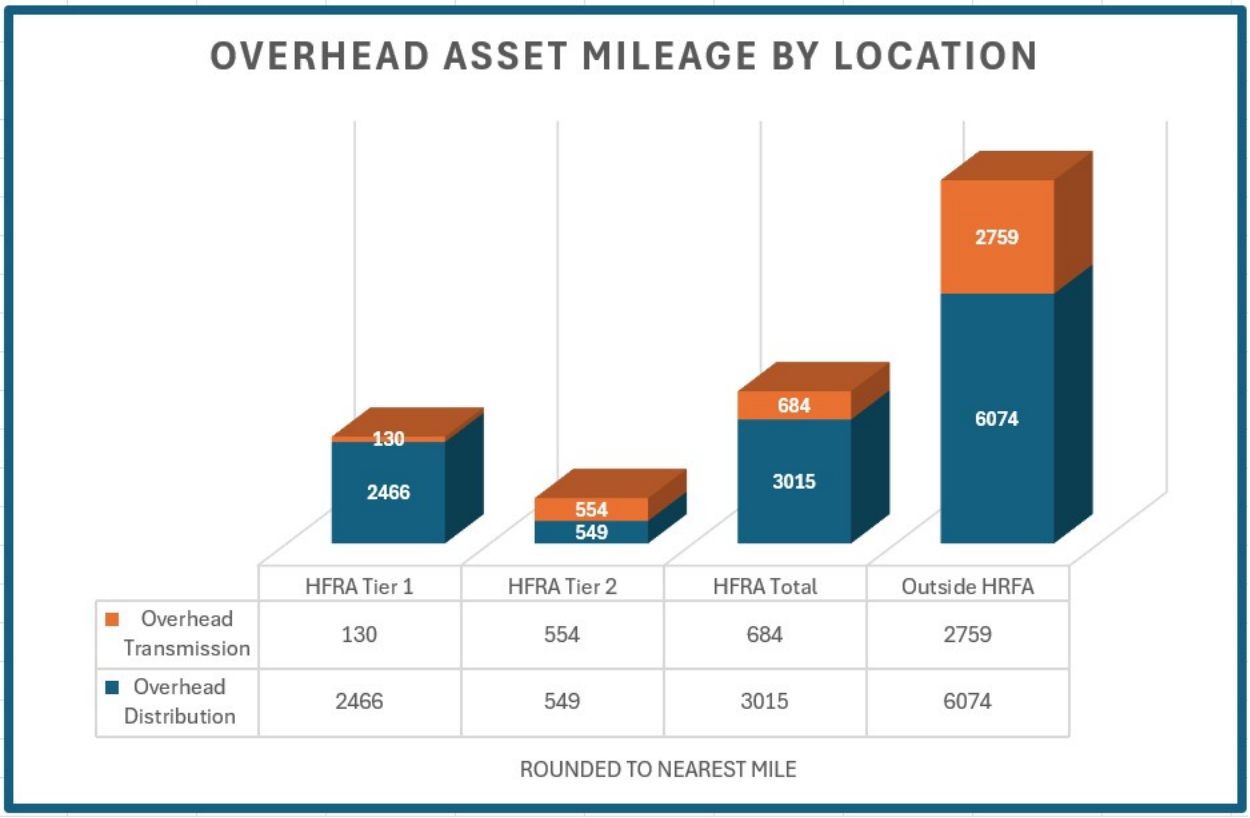
[1] PSAs are geographic areas for which national-level fire weather or fire danger services and products are produced by wildland fire agencies for the support of resource allocation and prioritization functions.

Figure 3 (next page) shows the miles and percentages of transmission and distribution lines that lie within and outside PNM's HFRAs.

[6] From the NWS: *This data set is used to delineate the Fire Weather Zones that are used by NWS in the fire weather forecast program*. These are areas of generally homogenous fire weather. Fire Weather Watches, Red Flag Fire Weather Warnings (RFW) and their attendant alerts are issued by NWS Fire Zone. Knowing which Fire Weather Zone is coincident with a particular HFRA is critical when making operational decisions.

[7] The Bosque was included as an HFRA due to the proximity of abundant fuel load and human development to PNM facilities. This riparian area is dense with cottonwood trees and adjacent to residential developments.

Figure 3. T&D Miles Inside/Outside HFRAs



2.2. Application of HFRAs for Ongoing Activities

PNM's HFRAs are used to inform short- and longer- term planning, prioritization, scheduling, and/or budgeting for functions, including:

- Fire hardening activities
- Enhanced inspection and maintenance activities
- Fieldwork restrictions during critical fire weather
- System operation decisions during critical fire weather
- Focusing SA of fire weather
- Educating and collaborating with external partners and stakeholders including abutting electric utilities, and local, state, tribal, and federal firefighting agencies
- Siting new facilities, such as substations and communication and relay facilities
- Guiding business decision-making processes; for example, prioritizing projects based on whether they are inside or outside an HFRA

2.3. Upkeep of PNM's HFRA Layer

PNM's Drafting and Geographic Information System Department (DGIS) manages the GIS HFRA layer. **Table 3** (below) provides a data dictionary for the shapefile; each HFRA is attributed with the tabulated information. **Table 1** provides a quick reference look at each HFRA polygon and how it relates to other spatial data of interest.

Table 3. HFRA GIS Shapefile Attributes and Descriptions

Attribute	Description
HFRA Name	Each HFRA has a unique name. In most cases the name corresponds to the general geographic area or a prominent landmark nearby.
Utility Discipline	Utility Discipline describes the general voltage class(es) found in the HFRA. The values available are Transmission, Distribution, or both Transmission and Distribution.
County (Warning Area)	County Warning Areas (CWA) boundaries are used to delineate the area of responsibility for each Weather Forecast Office. From the NWS: "*The group of counties for which an NWS Forecast Office is responsible for issuing warnings."*
NWS Fire Zone	From the NWS: *This data set is used to delineate the FWZ that are used by NWS in the fire weather forecast program*. These are areas of homogenous fire weather. Fire weather watch (FWW), RFW, and their attendant alerts are issued by NWS FWZ. Knowing which FWZ a particular HFRA coincides with is critical when making operational decisions.
PSA	PSA describes 7-day significant fire potential in pre-defined areas of homogenous fire risk. It is issued by the Southwest Coordination Center about 10:00 MT daily during "fire season." https://fsapps.nwcg.gov/psp/npsg/download.html
Acres	GIS calculated acres for each HFRA polygon.

2.4. Substation Assessment

Although equipment fires in substations are rare, they are typically high-consequence events. To evaluate which substations were at highest risk of an internal equipment fire spreading and causing damage outside their perimeters, an on-site assessment was performed in 2020 on 38 substations deemed to have the greatest potential to spread fire based on proximity to wildland fuels. Each of these substations was visited and assessed, and observed risks (such as those attributable to vegetation both inside and outside of the stations) were mitigated. Currently, vegetation proximate to substations is subject to annual inspection.

3. Overview of Preventive Programs and Strategies

This section of the WMP provides an overview of the various strategies, resources, and active/ongoing programs PNM leverages for wildfire mitigation.

3.1. Remotely Sensed Data Collection

3.1.1 LiDAR and Imagery

In 2021 and 2022, remotely sensed data (including LiDAR and high-resolution imagery) were collected via helicopter for 98 percent of all overhead T&D lines in the HFRAs, with the exception of several line segments where PNM was unable to obtain landowner approval. This data is foundational to several of PNM's wildfire risk mitigation efforts; it has been and continues to be cost-effectively applied to support multiple use cases. Examples of use cases that have leveraged and/or are continuing to leverage this data include:

- VM analyses and reports (See **Section 3.2.1**)
- Assessment of facility conditions, inventorying, and maintenance (See **Section 3.3**)
- Assessment of facilities susceptible to wildlife-caused outages (See **Section 3.4.1**)
- Engineering (See **Section 3.4.1**)
- Asset retrofitting, refurbishment, and rebuilding (See **Section 3.4.1**)

3.1.2 Satellite and Uncrewed Aerial Systems (UAS)

In 2024, PNM completed a pilot project utilizing a contractor to provide an Uncrewed Aerial System-(UAS) based virtual inspection to confirm the completion of remediation status of higher priority defects on poles identified during the 2021 and 2022 remotely sensed data collection initiative. This effort utilized a high-resolution camera mounted on a UAS to take photos from multiple angles, which were then reviewed by qualified line personnel. This top-down approach to asset inspection was successful in identifying what work had been successfully completed, what work remained to be done, and identified several new issues that had arisen since the initial virtual inspection work was performed. The results of this project were then used to guide continued mitigation efforts while minimizing unnecessary trips by PNM's internal and contracted line crews.

3.2. Vegetation Management (VM) in HFRAs

3.2.1 VM Program Overview

PNM's VM program promotes the safe and reliable operation of its T&D facilities system-wide and contributes to wildfire ignition risk reduction in PNM's HFRAs. The program is designed to comply with the requirements of Section 218 of the National Electrical Safety Code (NESC) and, where applicable, to the North American Electric Reliability Corporation's (NERC) Reliability Standard FAC-003-5[8]. The program is overseen by an Associate Director of Vegetation Management & Wildfire Risk. Day-to-day operations are supervised by a VM Manager and a team of foresters who oversee the work of contracted tree crews responsible for pruning and clearing vegetation near PNM's T&D facilities.

PNM strives to adhere to industry-standard utility VM practices and techniques as set forth in the American National Standard Institute's A-300 standard[9], including natural directional pruning to promote regrowth of trees away from powerlines. PNM has species-dependent clearance specifications that are common in the industry, including the target to prune trees for three years of clearance. Specific components and attributes of the VM program and HFRA focused activities are described more fully below.

Transmission

Facilities that fall under the scope of NERC Reliability Standard FAC-003-5 (i.e., lines rated greater than 200 kV) are patrolled annually, with no longer than 18 months in between patrols. Contracted VM crews perform work along these facilities to maintain clearances and control incompatible vegetation (i.e., vegetation that at maximum mature height will encroach within minimum clearance distances of the conductor). In 2018, PNM completed a five-year project to clear incompatible species along the entire legal width of the right-of-way (ROW) of all required facilities. This project encompassed nearly 1,100 miles of transmission line. The clearing of incompatible vegetation and the pruning of vegetation along the ROW edge is managed utilizing Integrated Vegetation Management (IVM) techniques. IVM is generally defined as the practice of promoting native, low-growing plant communities that are resistant to invasions of taller growing, incompatible tree species using appropriate, environmentally sound, and cost-effective control methods. These methods can include a combination of chemical, biological, cultural, mechanical, and/ or manual treatments.

The remainder of the transmission system (i.e., lines rated less than 200 kV) is patrolled on an as-needed basis with a focus on areas known to have rapid vegetation growth due to the species present, site conditions, and proximity to water. VM work on these lines occurs as needed as determined by patrol information, tree-related outages, work requests and/or field observations.

[8] See NERC's standard here
[9] See the ANSI A300 page here

Distribution

System-wide VM work is scheduled at the beginning of each year based upon the previous year's vegetation-related outage data, customer requests, and observed field conditions. This work focuses primarily on the three-phase portions of circuits. Other portions of the circuits, such as single-phase laterals, are addressed on an as-needed basis or during construction/rebuild activity.

However, all portions of the circuits within HFRAs (three-phase, single-phase, open-wire secondary) receive VM work. Dedicated patrols are performed on circuits identified for construction/rebuild activity in order to document items in need of repair and to identify VM work to be completed prior to commencing any construction/rebuild work.

VM Metrics for T&D

The VM Department currently tracks contractor performance metrics, including the miles of VM preventive maintenance and reactive maintenance work completed for both T&D assets. Costs per mile are tracked and available for analysis. PNM captures data on its annual plan completion and annual inspections for transmission vegetation management, which is used to demonstrate compliance with NERC standard FAC-003-5. Other workload and work management information is collected and analyzed in a GIS-enabled software system.

Enhanced Inspections/Clearing

Enhanced vegetation inspections and clearing may occur within PNM's HFRAs in accordance with results derived from remotely sensed data collection efforts. For example, an AI analysis of satellite imagery collected in 2024 was used to classify vegetation distance from PNM facilities and to identify hazard trees.

Requirements for Contracted Tree Crews

PNM requires its VM contractors to have a well-developed wildfire prevention program that includes items like annual training for all employees and stocking all trucks (to be staged at each job site) with the appropriate firefighting tools, so they are ready to use at a moment's notice to suppress unwanted ignitions. PNM foresters make regular field visits to monitor work by tree crews and to verify compliance with PNM's contractor wildfire mitigation requirements; pre-job safety briefings are routinely reviewed during site visits. PNM's RFW communication protocol includes VM contractors.

3.2.2 VM Plan Advancement for Wildfire Risk Mitigation

As part of PNM's ongoing efforts to enhance its VM activities in support of the goals of the WMP, PNM has:

- Utilized data from multiple remotely sensed data projects (i.e., LiDAR, high-resolution imagery, and satellite imagery with AI-powered analysis) for nearly all of PNM's T&D lines within the HFRAs and analyzed the data to assess the potential need for VM work.
- Developed a formal Utility Tree Risk Assessment (UTRA) policy that proactively assesses trees risk and tree failure potential.
- Created SA capabilities for various activities that include matrices of increasing work restrictions tied to escalating fire weather conditions.
- Annually performed vegetation inspections in HFRAs for VM needs to mitigate wildfire ignition potential.
- Tracked VM metrics to drive and inform work needed.
- Increased data sharing across business units to improve efficiencies and reduce risks through better collaboration.

3.3. Inspection, Inventorying, and Maintenance of Overhead Lines

PNM has implemented a multifaceted approach to the inspection and maintenance of overhead T&D facilities in the HFRAs, including the following key activities:

- Virtual Inspections: Qualified contracted line personnel performed virtual visual inspections of PNM's overhead T&D structures within the HFRAs, for which high-resolution imagery captured during the remotely sensed data-collection effort described in **Section 3.1** was available. Detected deterioration and defects were reported by the virtual inspectors and each item was assigned an appropriate priority level.
    - Asset Inventory: Concurrent with the above-mentioned virtual inspections, PNM also virtually inventoried the assets. This inventory data is proving to be a valuable resource for PNM's wildfire ignition mitigation efforts (e.g., responding to equipment failures, mitigation of wildlife-caused issues, retrofitting and/or replacing expulsive equipment, and more). This information is providing PNM with the ability to efficiently perform wildfire ignition risk mitigation activities that require identification of equipment, pole and span configurations, etc. for work prioritization and execution.
- Wood Pole Test and Treat Program: PNM is utilizing a contractor to perform boots-on-the-ground inspections of all wood pole structures in its HFRAs. These inspections include visual inspections of the above-ground portions of the structures, partial excavation and inspection of the exterior of the poles near ground level, boring of the poles to assess their internal conditions, assessment of remaining strength based on inspection measurements, and application of remedial preservative treatments to extend pole life.
- Aerial Patrols of NERC Transmission Lines: All transmission lines within the HFRAs that are under NERC jurisdiction are aerially patrolled annually to identify conditions warranting mitigation.

- Asset Inspections During VM Patrols: VM inspectors record asset damage and report it to the local business unit when damage is identified.
- Corrective Maintenance: PNM performs corrective maintenance based on the findings of inspections of overhead line facilities in its HFRAs within two broad categories of response times:
    - Priority 1) Inspection findings that represent imminent safety, wildfire ignition, or reliability threats are dispatched to the relevant service centers for immediate mitigation, and these items are typically addressed within 24 hours.
    - Priority 2) Depending on their severity, all other findings are addressed during scheduled maintenance or may be monitored during subsequent inspections.
- Inspection/Maintenance Data Collection and Management System: PNM has developed an enhanced system for T&D inspection and maintenance data collection and management. This GIS-based platform enables the collection, viewing, and reporting of both virtual and boots-on-the-ground inspection data and also incorporates attributes that will aid PNM's wildfire risk mitigation efforts. The data from the system also integrates with dashboards used for monitoring the status of various initiatives.

In addition to the above-mentioned inspection programs, PNM is assessing its ongoing needs for diverse types of cyclic inspections of overhead T&D lines in the HFRAs and analyzing budgetary requirements.

3.4. Overhead Power Delivery Infrastructure Advancements

PNM designs, constructs, and retrofits its facilities to meet customer and utility needs in a safe and reliable manner, as well as in alignment with the requirements of the NESC provisions for Grade B construction and other applicable standards. For existing and new facilities within its HFRAs**,** PNM has implemented and/or is in the process of implementing several enhancements that will aid its efforts to mitigate wildfire ignition risks associated with its overhead lines. In addition, PNM actively monitors research and development (R&D) activities, innovative technologies, and relevant literature. PNM also participates in industry working groups and associations to keep abreast of best practices. Summaries of these efforts are provided below.

3.4.1 Line Design, Construction, Retrofitting, and Operating Enhancements for HFRAs

Summaries of line design, construction, retrofitting, and operating enhancements PNM has completed, is implementing, and/or is investigating are provided below.

Communications Infrastructure and Electrical Devices

- Communications Infrastructure: PNM is upgrading, expanding, and hardening communications infrastructure in its HFRAs. This infrastructure will give PNM the ability to replace manually operated equipment with supervisory control and data acquisition- (SCADA) connected and remotely operable equipment, utilize more advanced and sensitive devices, and integrate sensors for monitoring line and/or environmental conditions thereby improving SA, etc.

- Capacitor Banks: New capacitor bank installations and replacements are being equipped with SCADA communications to enable the sending of real-time data back to PNM's Distribution Operations Center (DOC). A feature included in the bank is neutral current sensing, which can detect imbalances that can be caused by a blown fuse, a bad capacitor can, or a stuck switch. These problems are a fire hazard if left untreated; a neutral sensor can indicate a problem where the capacitor bank needs to be inspected. Without this sensing capability, these types of issues generally remain undetected until the capacitor is inspected for another reason. Wiring for the neutral and ground of the capacitor bank and how it connects to the system neutral and pole ground was also adjusted to help prevent high voltage in case of specific wire failures.

- Reclosers, Relays, and Fault Locating Sensors: PNM is in the process of integrating a variety of advanced SCADA-connected reclosers, relays, and fault sensor technologies for implementation in HFRAs both for new construction and as replacements for existing equipment that is not remotely operable/adjustable (e.g., older reclosers). These technologies hold promise for providing greater operational flexibility and SA.

- Switches: PNM's current standards for new switches include interrupters that are appropriate for use in its HFRAs. PNM is evaluating replacing older switches with air gaps in the HFRAs. PNM is also increasing its use of SCADA-connected switches, which will assist with troubleshooting, provide more flexibility for sectionalizing, etc.

- Fuses and Lightning Arresters: PNM has approved the use of non-expulsive fuses and wildfire-safe lightning arresters in its HFRAs that help reduce expulsed, molten metal that may cause an ignition. While widespread installation has been slowed by supply chain issues beyond PNM's control, wildfire-safe lightning arresters and non-expulsive fuses are being installed in some locations. As inventory becomes available, fuse and arrester installation will continue, and replacement activities will be ongoing for several years. In addition, a pilot project has been initiated to evaluate the use of devices that are akin to mini-reclosers that can be installed in cutouts as a replacement for conventional fuses.

- Enhanced Protection Schemes and Protection Coordination: PNM has enhanced the coordination of system protection devices and established guidelines for settings to be applied in HFRAs during extreme fire danger.

- Transformers with Internal Fault Detectors: PNM has developed an approved specification for transformers with Internal Fault Detectors (IFD) and has installed them in some locations. IFDs help to quickly identify problems with transformers and thereby lessen the chances of closing in on a faulted transformer and potentially causing an arc, fire, or other issue. Further implementation has been slow due to supply chain issues beyond PNM's control. New transformer designs include IFDs, and existing transformer designs are expected to be updated to include IFDs, DOE efficiencies, and UL94 listed V0 bird guarding before the implementation date of DOE's new efficiency standards (which is currently set at 2029).

- Fault Protection for Transformers: PNM is implementing the use of completely self-protected transformers (CSPs) for single-phase applications in certain portions of its HFRAs. CSPs eliminate the use of cutout fuses which, in turn, reduces the likelihood of sparks being generated during operations. When conventional transformers are installed, they are paired with non-expulsive fuses, as inventory allows, as stated above.
- Covering for Wire Jumpers: As uncovered equipment jumpers are replaced; covered wire is used. New equipment jumpers are installed using covered wire, per PNM's construction standards. Covered wire significantly reduces the likelihood of arcing caused by animals, vegetation, and other contact.

Wildlife Protection

Industry data shows that wildlife contacts with energized power delivery facilities are potential sources of ignitions. PNM's Avian Protection Plan (APP) addresses all ten of the Avian Power Line Interaction Committee and U.S. Fish and Wildlife Service (APLIC and USFWS 2005[10]) recommended APP components. PNM regularly updates its APP and actively implements its provisions. The APP includes elements that reduce existing and future electrocution and ignition risks through mitigation and wildlife-friendly construction practices. These strategies revolve around the principle of providing adequate spacing and/or insulation for energized and grounded components.

PNM has avian-friendly construction design standards to mitigate the risk of future wildlife electrocution. These standards provide wildlife-friendly clearances that protect wildlife that might encounter energized conductors on a pole. Power equipment on avian friendly poles is installed with wildlife protection. PNM's preventive wildlife protection program applies to new construction in habitat areas.

In addition, PNM actively mitigates wildlife electrocution risk on existing infrastructure by installing protective insulation on high-risk poles. Products used to mitigate ("retrofit") in-service facilities include conductor covers, insulated jumper wires, arrester caps, cutout covers, bushing covers, etc. Mitigation products protect not only birds, but also climbing mammals and reptiles (e.g., squirrels, raccoons, snakes) that are susceptible to electrocution. PNM prefers to retrofit susceptible equipment when other work is being performed on a line or structure, as this practice increases the scale of mitigation that can be funded by available budgets.

When wildlife electrocution risk is mitigated, wildlife-caused ignition risk is concurrently reduced. Although much of PNM's retrofitting is opportunistic (i.e., completed along with other maintenance activities), PNM actively mitigates areas where wildlife electrocutions have negatively impacted reliability.

[10] See the APLIC's and USFWS's recommendations here

Poles, Conductors, Crossarms, Construction and Hardware

- Poles: PNM has approved distribution design guidelines that specify taller, higher-class poles with larger diameters for three-phase configurations, and taller poles for single-phase framing within the HFRAs to lower the risk of wire contacts with vegetation. Poles with larger diameters are intended to increase resiliency and offset potential loss of strength due to charring caused by passing wildfires. PNM continues to evaluate alternatives to wood poles (e.g., steel, fiberglass, etc.) for special use cases in the HFRAs. In addition, PNM is developing criteria based on considerations of asset criticality and landscape risk factors for identifying existing poles in its HFRAs that are candidates for application of fire-retardant treatments.

- Covered Primary Wire/Tree Wire: There are advantages and disadvantages to using covered wire/tree wire. PNM has created a covered wire subcommittee and is exploring the possibility of using these wire types in forested areas or tight ROWs to mitigate the risk of faults and associated ignition risks.

- Crossarms: PNM standards have shifted to using fiberglass crossarms for all new installations and replacements. This shift will help to eliminate the risks of leakage current igniting crossarm fires. Further, fiberglass crossarms are not subject to decay which can contribute to deterioration of the upper surfaces of wood crossarms that cannot be detected from ground-based inspections. PNM has also updated their wildfire design guidelines to specify the use of 10’ crossarms and raptor-safe framing as allowed by existing ROW width.

- Primary Connectors: PNM’s current standards for connectors are appropriate for HFRAs. However, some substandard connectors (e.g., hotline clamps) that can cause arcing/sparking if they loosen or degrade are still in service. When legacy substandard connectors are identified through inspections, they are replaced.

- Underground Construction: PNM has established an engineering subcommittee dedicated to exploring the benefits of underground construction for distribution facilities in the HFRAs. While the up-front costs of undergrounding electrical facilities are generally higher than for comparable overhead facilities, they typically have lower maintenance costs and reduce the risk of ignition. Going forward, New Service Delivery (NSD) projects in the HFRAs will be undergrounded, except for areas where underground construction is unfeasible due to terrain, environmental concerns, or is prohibitively difficult/expensive (e.g., requires the use of rock saws, jackhammers, explosives, etc.). Overhead construction in these areas will require supervisor approval prior to the release of construction designs. Outside of NSD projects, PNM will evaluate proposed projects within the HFRAs for the feasibility of underground construction and will analyze feeder rebuilds for targeted undergrounding where it is not prohibitively expensive.

- Guy Strain Insulators: PNM has increased the length of newly installed guy strain insulators from 36” to 78” to ensure that any primary guy wire is insulated to the point where it does not become energized by contact with a primary conductor. Existing facilities with legacy construction are mitigated opportunistically as other maintenance occurs.

- Open Wire Secondary: As part of PNM's Wildfire Mitigation Guidelines, where possible, open wire secondary is to be changed out and replaced with multiplex cable.
- Equipment Location: Where possible, major equipment (such as capacitors, reclosers, and voltage regulators) should be located either on a pole with no vegetation at its base or in another location where ignition and subsequent spread is unlikely.

Additional Fire Prevention Measures

PNM is upgrading lines in its HFRAs that were built to Rural Electric Association (REA) standards to be consistent with PNM's current standards.

3.4.2 Industry R&D, Best Practices, and Continuous Improvement

As part of its commitment to continuous improvement, PNM monitors industry research and related literature, as well as information on state-of-the-art fire-safe materials and equipment, best practices for construction and design processes, and engineering and tech solutions. For example, PNM attends in-person seminars and webinars hosted by WECC, EEI, and EPRI. These industry-specific organizations are composed of technical working groups and impart some of the latest information, testing programs, and lessons learned to their participants. PNM also references the Cal Fire Powerline Fire Prevention Field Guide for guidance on best practices.[11]

3.5. Public Safety Power Shutoff (PSPS)

As part of PNM's operational practices, a PSPS Plan has been developed that will proactively de-energize electrical facilities in identified areas of extreme wildfire risk to reduce the potential of those electrical facilities becoming a wildfire ignition source. The PSPS Plan identifies the relevant considerations, process flow, and implementation protocol to be applied before, during, and after a PSPS event.

PNM has subscribed to an outside contractor to provide SA and specific threshold criteria via a 6-day forecast.

The PSPS Plan will be reviewed annually and updated as needed prior to the start of the next wildfire season. It is filed separately with NMPRC; more details can be found in the filed document.

The key objectives of the PSPS Plan include:

- **Safety**: Ensure the safety of the public and our employees, contractors, and Mutual Assistance employees.
- **Restoration Time**: Minimize the duration of an outage, with safety as the primary focus.
- **Mitigate Consequences**: Provide our customers with support to mitigate the impact of an outage.
- **Information**: Provide accurate, timely, meaningful information to our customers, our employees, and other stakeholders.
- **Resources**: Effectively manage our human, equipment, material, and information resources to minimize restoration time and maximize productivity and performance.

[11] https://www.osfm.fire.ca.gov/media/11015/2020-power-line-fire-prevention-field-guide_20200818.pdf

4. Escalating Fire Weather and Operational Strategies

4.1. Daily Situational Awareness

PNM receives a Daily SA forecast report prepared by an external contractor and the report is then emailed to a distribution list of targeted PNM personnel. The "Daily SA" as it is called, assigns an Operating Condition of Normal, Elevated, or Extreme to each PNM HFRA each day using publicly available data.

PNM has refined how the raw data is interpolated to meet its risk avoidance objectives. Also contained in the Daily SA is information associating PNM HFRAs to RAWS and NWS FWZs.

Figure 4. Sample Daily SA Report

HFRA	*Operating Condition*	*RAWS Station*	*NWS FWZ*	**Link to WMP Operating Condition section; scroll to appropriate HFRA for appropriate work restrictions**
Santa Fe North	Normal	Coyote-290202	NM102	
Bosque	Normal	Sandia Lakes-290706	NM106	
Santa Fe	Normal	Santa Fe Watershed-290901	NM102	
Clayton East/West	Extreme	Mills Canyon 291101	NM104	
Santa Fe East	Elevated	Pecos-291202	NM103	
Las Vegas	Elevated	Pecos-291202	NM103	
Mt. Taylor	Normal	Grants-291302	NM105	
Sandia Mts	Normal	Sandia Lab-291408	NM107	
Ft. Sumner	Normal	Melrose Range291901	NM108	
Silver City	Normal	Gila Center-292011	NM110	
Ruidoso	Normal	Smokey Bear-292203	NM113	

4.2. Operating Conditions

4.2.1 Mitigation for Operating Conditions in Fire-Prone Areas

Operating conditions inform mitigation efforts for at-risk activities, such as cutting, grinding, welding, and other similar activities. As burning conditions become more critical, mitigations are increased (see **Table 4** on next page). **Table 5** (next page) describes the operating conditions in **Table 4**. These operating conditions include both single-person/single-vehicle and multiple-people/multiple-vehicle project work.

PNM at-risk activities within an HFRA or area covered with flammable vegetation will comply with **Table 4** for both the operating conditions and mitigations required by each. These conditions are derived from NFDRS-predicted adjectives (see **Table 5**) and assigned to each HFRA based on the RAWS stations selected to represent each HFRA.

Table 4. Mitigation for Operating Condition-Level Table

ESCALATING WEATHER WORK MITIGATION TABLE			
NORMAL Mitigation	**ELEVATED Mitigation**	**EXTREME Mitigation**	**RED FLAG or Special Circumstances Declaration**
Documented Safety Tailboard. Tools per WMP: ➢ Passenger Vehicles, Pick-up trucks and ATVs • 1 round point shovel - overall length of at least 46” • 1 serviceable fire extinguisher, minimum U.L. rated “2 BC” ➢ Large Trucks (with one or more passengers) • 2 round point shovels - overall length of at least 46” or 1 round point shovel and one Pulaski • One 5-gallon backpack pump and/or a “2 BC” rated fire extinguisher Documented person to call 911 and provide location and access route for emergency crews. Take adequate precautions such as wetting the area to prevent ignitions when working in or adjacent to dry fuels. Use caution when driving across, parking on or when cutting, grinding, or welding on or near dried grass/vegetation. Strict adherence to PNM Smoking Policy.	All NORMAL Mitigations, plus: Work will stop and a new Safety Tailboard will be completed any time the fire risk increases, i.e., work location or work activity changes, RFW is issued, significant increase in wind at the work site, etc. When crew consists of multiple people, documented working Fire Watch person(s) as appropriate and a designated person to call 911 to provide location and access route for emergency crews.	All ELEVATED Mitigations, plus: At a minimum, one fire suppression hand-tool per crew member at job site. At a minimum, two PNM approved fire extinguishers and/or two filled five-gallon back-pumps at the job site or readily accessible on work that is mobile (i.e., access road maintenance or water source such as water buffalo as required by the land manager) Check all work sites for hot spots or smoldering embers for 30 minutes (or duration as required by land manager) after at-risk activities have ceased.	Mitigations will be determined case by case. Essential work that requires documentation of Supervisors' approval and mitigation determination. Typically, this work would be postponed to days with less critical risk of fire.

Table 5. Legend of Operating Conditions

Operating Condition	Description
Normal	Normal precautions & mitigations should be adequate to prevent most ignitions from mild heat sources. Common fire suppression tools such as back-pumps/fire extinguishers and shovels should be adequate to suppress witnessed ignitions unless wind and topography combine to drive rapid fire growth. Consider crew safety during any fire suppression activities.
Elevated	Enhanced mitigations like assigning a Fire Watch, wetting the work area with water or retardant, covering the work area with a welding blanket, and a water trailer with pump onsite are advised to prevent ignitions. Fires that start under Elevated Conditions may be difficult to contain even when immediately discovered. Extra caution should be taken to ensure safety of crews attempting extinguishment.
Extreme	Fires start easily from all causes, spread rapidly, and pose significant difficulty of control. Long-range spotting may occur. Fires will be dangerous to attack and will likely escape control except when discovered immediately upon ignition- extreme caution is indicated. Note: Red Flag Warnings supersede all other operating conditions.
Special Circumstances	When fire danger and activities combine to create extraordinary risk, enhanced mitigations may be required. This operating condition requires mitigations tailored specifically to the work at hand.
Disclaimer	*This Daily SA tool provides a relative indication of fire danger for a given area and date. It is prepared with all due diligence but cannot guarantee that strict adherence to company practices or sound fire prevention measures will prevent ignition and consequential wildfire damage. User assumes all risk for its use.*

4.3. Fire Season and Red Flag Warnings at PNM

4.3.1 Fire Season at PNM

In general, fire season begins in the spring when the landscape becomes receptive to ignitions. As fire season draws on through the summer, burning conditions become more critical. The wildland fire agencies (USFS, BLM, etc.) use fire season dates to determine staffing and operational levels. For PNM's operating purposes, the typical fire season spans from April 1 through September 30, though the dates may be adjusted depending on weather conditions on either end.

4.3.2 RFW Warning Protocol

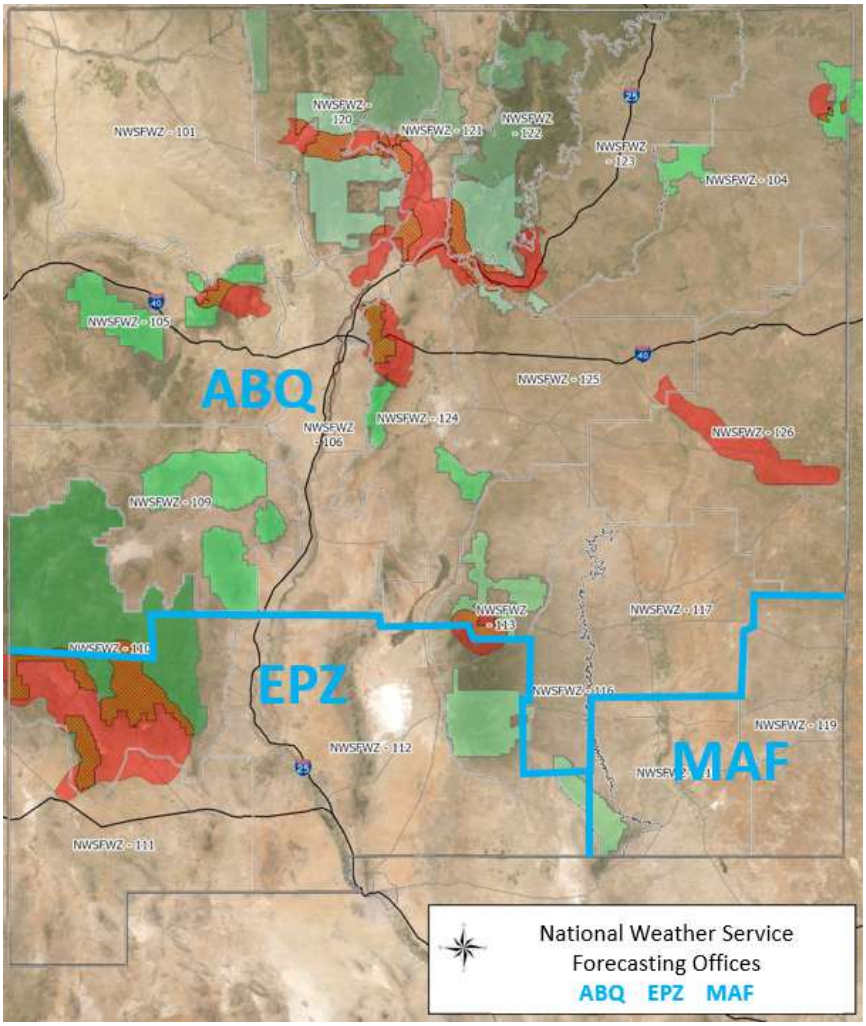
RFW is issued by the NWS when wildland fuel and weather combine to produce critical burning conditions. RFWs are issued for FWZs for a given time. RFWs provide PNM critical SA useful for making operational decisions. Typically, only essential field work will continue during an RFW. Some system settings are adjusted during an RFW; these procedures are documented by PNM's Transmission and Distribution Departments.

Criteria for RFW issuance is left to the discretion of each NWS Forecasting Office. However, in general, when the following conditions are expected, an RFW is issued:

- Wind speeds above 25 mph
- Relative humidity below 15 percent
- 10-hour fuel moistures at or below 8 percent

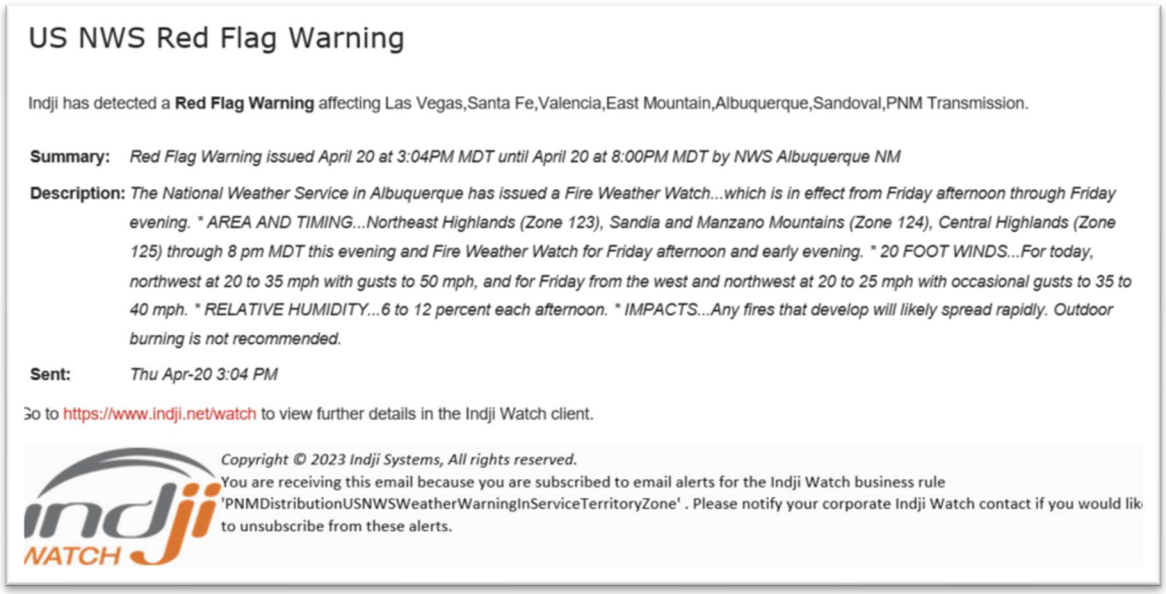
PNM serves areas covered by two NWS Forecasting Offices (see **Figure 5**): one in Albuquerque and one in El Paso, Texas. The southeastern corner of New Mexico is covered by Midland; however, there is no PNM service area in the Midland Forecasting Office area of influence.

Figure 5. NWS Forecasting Offices



As mentioned above, RFWs affect both system settings and field operations. To ensure that all affected PNM personnel are aware that an RFW has been issued, an email alert process has been created that "pushes" RFW alerts from Indji Watch to customized distribution lists. In this way, receipt by affected personnel is ensured. An example of the alert is shown in **Figure 6** below.

Figure 6. Sample Red Flag Warning



US NWS Red Flag Warning

Indji has detected a **Red Flag Warning** affecting Las Vegas,Santa Fe,Valencia,East Mountain,Albuquerque,Sandoval,PNM Transmission.

Summary: *Red Flag Warning issued April 20 at 3:04PM MDT until April 20 at 8:00PM MDT by NWS Albuquerque NM*

Description: *The National Weather Service in Albuquerque has issued a Fire Weather Watch...which is in effect from Friday afternoon through Friday evening. * AREA AND TIMING...Northeast Highlands (Zone 123), Sandia and Manzano Mountains (Zone 124), Central Highlands (Zone 125) through 8 pm MDT this evening and Fire Weather Watch for Friday afternoon and early evening. * 20 FOOT WINDS...For today, northwest at 20 to 35 mph with gusts to 50 mph, and for Friday from the west and northwest at 20 to 25 mph with occasional gusts to 35 to 40 mph. * RELATIVE HUMIDITY...6 to 12 percent each afternoon. * IMPACTS...Any fires that develop will likely spread rapidly. Outdoor burning is not recommended.*

Sent: *Thu Apr-20 3:04 PM*

Go to https://www.indji.net/watch to view further details in the Indji Watch client.

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You are receiving this email because you are subscribed to email alerts for the Indji Watch business rule 'PNMDistributionUSNWSWeatherWarningInServiceTerritoryZone' . Please notify your corporate Indji Watch contact if you would lik to unsubscribe from these alerts.

RFW-Induced Field Operation Changes

Table 4 includes mitigations that are required when an RFW has been issued for work being done in an HFRA.

4.3.3 Indji Watch

PNM subscribes to Indji Watch, a natural hazard alerting company. Indji Watch divides PNM T&D assets into its own "project." As described below, Indji Watch provides PNM with SA and alerts when weather and wildfires may impact PNM assets or operations. It also includes additional information as described here:

- **Wildfire alerting:** Anytime Indji Watch discovers a new fire within five miles of PNM assets, an alert is sent to PNM. The new fire location is displayed in the Indji Watch Threat Level and is available for viewing by all credentialed PNM personnel.
- **RFW:** Indji Watch pushes RFW alerts as both emails and text messages to PNM personnel according to their preferences in the Indji Watch Administrative Window. These alerts are the basis for PNM's RFW alerting system described above in Section 4.3.2 RFW Protocol.
- **Lightning detection:** Indji Watch displays recent lightning strikes in its Threat Level.
- **Wind alerts:** When wind speeds are expected to exceed PNM-defined thresholds, alerts are texted or emailed to PNM personnel according to their administrative preferences.
- **Real-time radar:** PNM can track the path and intensity of storms across its landscape.
- **Earthquakes:** Information is displayed in the Threat Level. Specific information on each event is available via pop-up displays.
- **Extreme Weather Alerts from the NWS:** The Indji Watch Threat Level constantly displays NWS alerts and warnings such as for High Wind, Extreme Heat, FWW, Ice Accumulations, etc. These same alerts are pushed to users via text or email according to their administrative preferences.

4.4. Annual Fire Prevention and Fire Safety Training

PNM has developed a training program geared toward fire prevention and safety, its Wildfire Mitigation Program, and the HFRAs. Included in the training are how the HFRAs were developed, what they are used for, how they inform ignition mitigations, and basic training on fire weather conditions, including RFWs. Field personnel receive training that covers basic fire behavior and safety when responding to a wildfire.

4.4.1 Annual Training

PNM has a robust Fire Prevention and Safety Training course that covers the following:

- Use of the Daily SA report
- RFW protocols
- Ignition prevention
- Tailboard Safety Plans and their use
- Fire physics and behavior
- Fire tool requirements
- Personnel safety when working in a fire area
- Basic Incident Command Principles

4.4.2 Required Personal Protective Equipment

Standard PNM personal protective equipment (PPE) shall be worn in accordance with PNM Safety Guidelines.

If PNM enters a designated fire area being managed by the BLM or the USFS, additional PPE requirements may be required; these typically include:

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

4.4.3 Required Tools and Equipment

The following tool and equipment requirements apply year-round when working in HFRAs. This includes work performed by one person in one vehicle, up to major projects with multiple people and various vehicles:

- Passenger Vehicles, pick-up trucks, and ATVs
  - 1 round point shovel - overall length of at least 46”
  - 1 serviceable fire extinguisher, minimum *****U.L. rated “2 BC”
    NOTE: Fire extinguisher training may be required before use.*
- Large Trucks (with one or more passengers)
  - 2 round point shovels - overall length of at least 46”
    - *Or* 1 round point shovel and one Pulaski
  - One 5-gallon backpack pump and/or a “2 BC” rated extinguisher

The following paragraphs describe working restrictions (mitigations) when operating in HFRAs and other areas with dry vegetation.

When driving or parking off road, hot exhaust components may cause ignition. Drivers will take precautions such as choosing alternate routes or having a fire watch as appropriate.

When the Operating Condition is Extreme or during Red Flag Warnings, off-road driving across flammable vegetation where vehicle-vegetation contact is expected, is not allowed except when the work is considered essential for safety. In this case, mitigations such as a fire watch or on-site water for fire suppression are required.

When working on federal lands (USFS, BLM, etc.) additional mitigations above and beyond those in **Table 4** may be required by the agency. These might include:

- Water buffaloes
- Larger (20 lb.) fire extinguishers
- Other mitigation measures as stipulated by the agency
- Fire Plan

5. Emergency Preparedness

5.1. Communication and Collaboration

5.1.1 Pre-Incident

To further bolster the capabilities of PNM, continual relationship building occurs between PNM and its external stakeholders, including municipal and wildland firefighters, emergency managers, first responders, tribal leaders, tribal emergency managers, and governmental agencies at all levels (including New Mexico Department of Homeland Security and Emergency Management [NMDHSEM] and Energy, Minerals and Natural Resources Department [EMNRD]).

5.1.2 During an Incident

PNM ensures that the following groups are available to external partners:

- Account Management
- Corporate Communications
    - Responsible for all internal communications and external interactions with public and/or media outlets regarding emergency- or disaster-related information. Ensures all information released is current and acts as the single voice for the Company.
    - Will fill the Public Information Officer role within the established external incident command structure (ICS) structure, as needed.
    - Provides input and summaries in support of Emergency Operations Center (EOC) activities and decision-making processes.
- Corporate Security (Physical)
    - Including PNM's contract security companies
- Crisis Management and Resilience
- Customer Operations & Experience
- Distribution Operations Center (DOC)
- Government Affairs
- Line personnel that are assigned to the incident
- Regulatory
- Tribal Affairs
- Wildfire Group

PNM also conducts outreach activities to familiarize PNM's partners with its operations and capabilities during incidents, such as:

- Evacuation drills
- Table-top exercises
- Familiarization tours for those most likely to respond to a PNM facility during an incident
- Various land manager (e.g. USFS, BLM, etc.) and community-driven business meetings and/or activities
    - i.e., local Chamber of Commerce and community events
- Functional exercise activities
    - PNM's Line Department gives demonstrations of electrical arcing and other safety demonstrations
    - Annual Balloon Rescue Training for First Responders to familiarize them with techniques when encountering balloons entangled with PNM infrastructure
- Full-Scale Exercises
    - External partners are invited to participate in the multi-national bi-annual Grid Exercise[12] hosted by the NERC

5.2. Encroachment

PNM has implemented the following process to guide its decision to de-energize PNM transmission, distribution, and substation assets that may be impacted by spreading wildfires exceeding 10 acres. The goal of this process is to reduce the likelihood of damaged PNM assets contributing additional ignitions during an active fire.

The following points provide de-energization guidance when active wildfire(s) threaten to impact PNM assets.

Fire Watch / Monitoring

- PNM continuously monitors for new fires within a 5-mile buffer of its assets using a service that specializes in hazard alerts.
- PNM receives updated fire information as it becomes available through a variety of public websites and apps.

First Responder De-Energization Requests

A request by **First Responders** will result in PNM personnel responding to the scene, where they will identify the facilities, discuss options, and take appropriate actions including de-energization if necessary.

[12] See more information on the NERC site here

De-Energization Decision Process

- When a reported fire is confirmed burning within 2 miles of PNM assets and the area is under a **Red Flag Warning* (RFW),** PNM personnel will be dispatched to assess and monitor the fire and determine if de-energization is necessary.

***NOTE:** RFWs are issued by the NWS. PNM is notified of RFWs through its hazard alerting service.

- Absent an **RFW**, when a reported fire is confirmed to be burning within 1 mile of PNM assets, PNM personnel will be dispatched to assess and monitor the fire and determine if de-energization is necessary.
- Field crews will consult with Operations on field conditions and risk to PNM assets.
- Operations will evaluate alternate switching to continue electric service. Where alternate switching will allow continued electric service, steps will be executed without delay following standard PNM practice.

De-Energization Considerations

- Are wildland fuels continuous between the fire and the assets at risk?
- Are wind direction and speed likely to push fire toward PNM assets?
- Have any fire hardening mitigations such as steel construction, fire wraps on wood poles, fiberglass cross-arms, enhanced vegetation treatments, etc., been implemented on the PNM assets at risk?
- Have fire personnel indicated the assets in question may be at risk?
- Does it look like the fire is going to grow significantly in the direction of PNM assets?
- Is it possible that an arc flash from smoke and conductor interaction could occur?

Re-Energization

Once the fire area is deemed safe, PNM crews will assess for potential issues/damage and make any necessary repairs for re-energization.

6. Support During Wildfire Incidents

6.1. Corporate Communications

PNM recognizes that public service announcements (PSAs), safety tips, and reminders are important public services it provides to its customers.

Before the wildfire season starts, Corporate Communications works to prepare fire prevention and safety messaging for customers. During a wildfire incident, Corporate Communications' primary role is to ensure that media outlets, customers, and PNM employees receive real-time updates and the information they need to stay safe.

Corporate Communications provides wildfire incident support through a variety of activities, including (but not limited to):

- Preparing and providing messaging for company departments to share with external stakeholders who may be requesting updates
- Working with the media and local agencies to coordinate news conferences with official company updates
- Sending a news release with wildfire safety information to media outlets across the state
- Posting safety and prevention tips on social media platforms such as X, Facebook, and Instagram during fire season
- Directing and facilitating communications with other utility partners, such as adjoining electric utility, water, and telecommunication services

In addition to the above, Corporate Communications can also use direct mail pieces, bill inserts, paid social media advertising, paid newspaper advertising, and PNM's newsletter to deliver important information to customers during wildfire season and throughout the year.

PNM also has a safety section on its website, PNM.com/wildfire-safety, that covers various topics related to wildfire safety and offers essential tips on electrical safety, storm safety, children's safety, hot air balloon safety, and more.

6.2. Customer Support

During wildfires, power may be out for an extended period. PNM's customers will benefit from available communication and information access, particularly those customers who require power for medical devices.

PNM may initiate communications to customers who have signed up for text service and are potentially affected by fire-caused power outages. Other messaging is sent via the PNM website, television, radio, social media, text messages, live phone calls, and pre-recorded phone calls as appropriate and as PNM resources are available.

PNM customers that have energy-dependent medical equipment may also sign up for PNM's LifeWatch program[13]. This service supports information relay to customers that sign up for this service.

[13] More information on PNM's LifeWatch page here

LifeWatch enrollment doesn't guarantee always-on electricity, nor does it prioritize power restoration, nor prevent power interruption due to nonpayment. The service supports efficient communication to LifeWatch customers.

Increased communication and access to information can help ease the financial burden experienced by its customers at an especially traumatic time.

6.3. Low-Income Customer Support

PNM has numerous programs in place to help low-income customers during and after wildfires. The Public Affairs and Community Outreach Team supports organizations such as the American Red Cross or Salvation Army to provide low-income customer support and may do so during and after wildfire events, resources permitting. PNM's post-fire assistance may include:

- Electric bill assistance from the PNM Good Neighbor Fund[14]
- Providing payment plans for electric bills
- Suspending disconnects for non-payment for fire-affected homes/accounts
- Assisting with deposit waivers or offering other deposit billing solutions
- Partnering with various community organizations, to secure more assistance for families

6.4. Outreach and Education: Customers-Communities, Local, State, Federal Government, Regulatory, and Tribal Government

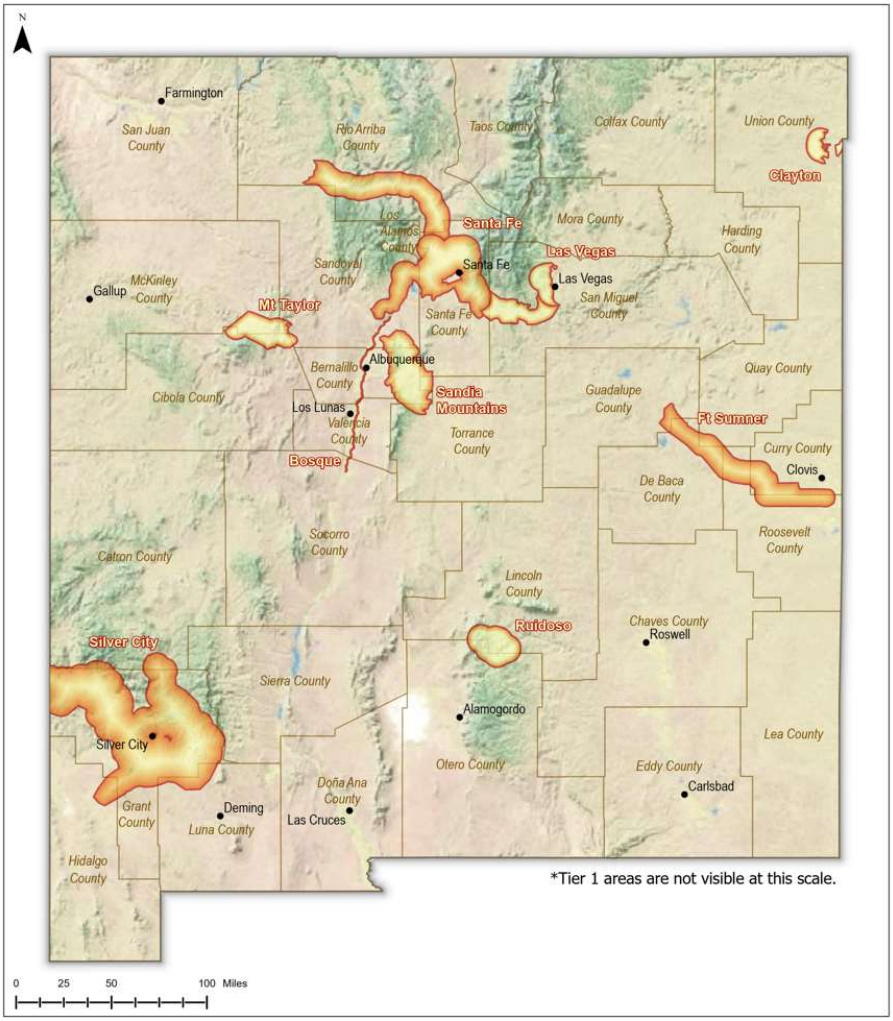
Community outreach is conducted year-round throughout New Mexico with representatives from local, state, federal appointed and elected officials, communities, NMPRC, co-operatives, other utilities, power market, emergency management, and first responders. Tribal leadership and other non-governmental entities receive regular outreach. PNM Business groups that engage in ongoing community outreach are:

- Account Management (AM)
- Community Engagement (CE)
- Crisis Management and Resilience (CMR)
- Environmental Services Department (ESD)
- Government Affairs (GA)
- Power Operations
- Regulatory
- System Operations
- Tribal Affairs (TA)
- Wholesale Power Marketing

[14] See more information at PNM's Good Neighbor Fund page here

APPENDIX A

PNM HAZARDOUS FIRE AREAS – DETAILED MAPS



NM High Fire Risk Areas (HFRA) Overview

Transmission Stats

685.48 Miles (19.9% of system)
of Transmission Line within all HFRAs

130.61 miles (3.79% of system)
Within Tier 1 HFRAs

554.87 miles (16.11% of system)
Within Tier 2 HFRAs

Distribution Stats

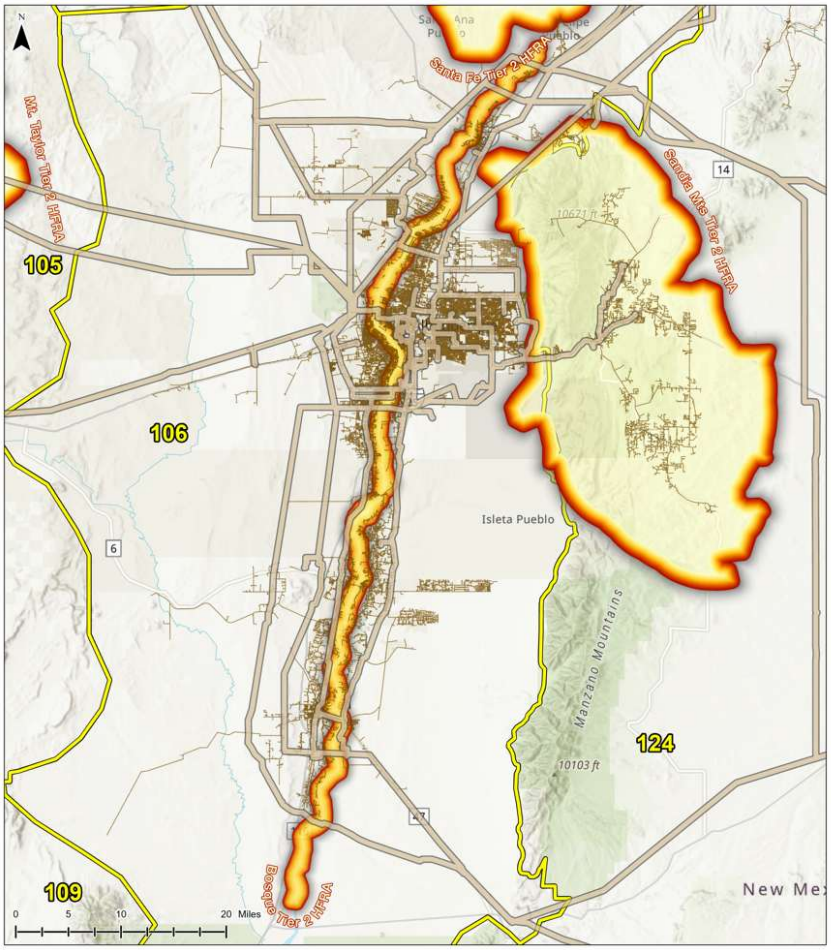
3015.42 Miles (33.17% of OH system*)
of OH Distribution Feeder within all HFRAs

549.25 miles (6.05% of OH system*)
Within Tier 1 HFRAs

2,466.17 miles (27.12% of OH system*)
Within Tier 2 HFRAs

*Overhead System for distribution considers all Primary and Secondary Overhead feeders

Date Exported: 11/19/2024
Map Scale: 1:4,200,000
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

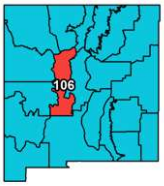


NM High Fire Risk Areas (HFRA)
Bosque Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
4.77 Miles	**5.69 Miles**
0.14% of OH Transmission System	0.06% of OH Distribution System



Fire Weather Zone(s)
106 Middle Rio Grande Valley

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
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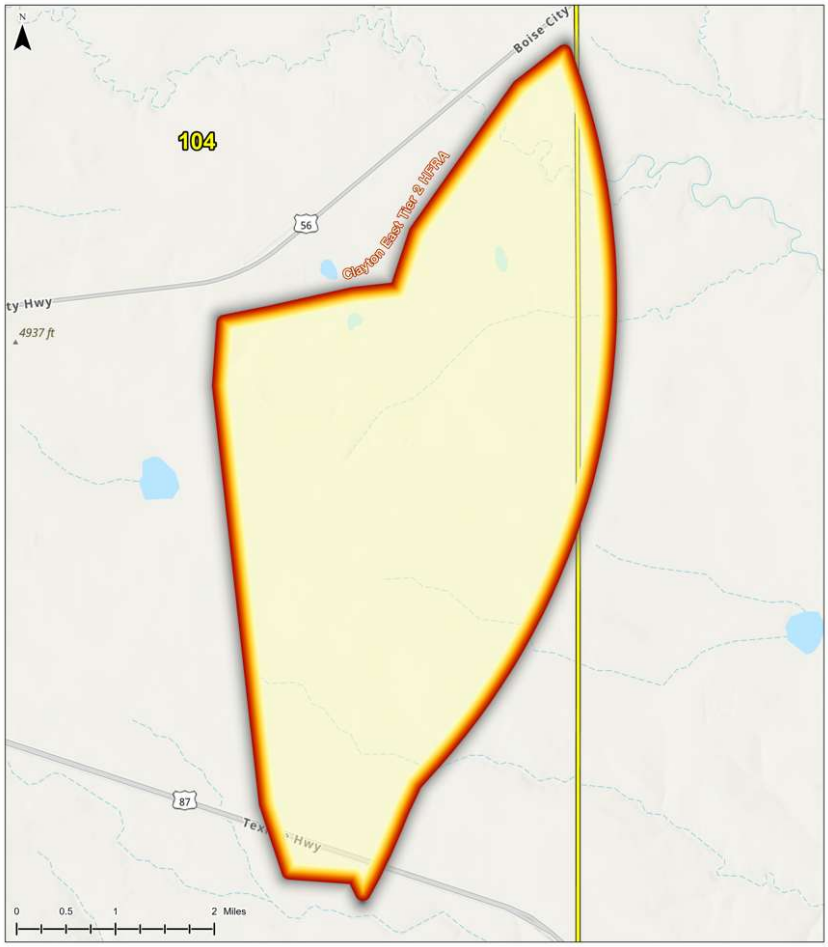
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

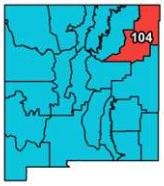


NM High Fire Risk Areas (HFRA)
Clayton East Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
0.00 Miles	**0.00 Miles**
0.00% of OH Transmission System	0.00% of OH Distribution System



Fire Weather Zone(s)
104 Northeast Plains

There are no PNM assets in this HFRA but it is included in the map series due to its being an area of elevated wildfire concern and is within the 5-mile wildfire monitoring buffer used for alerting.

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

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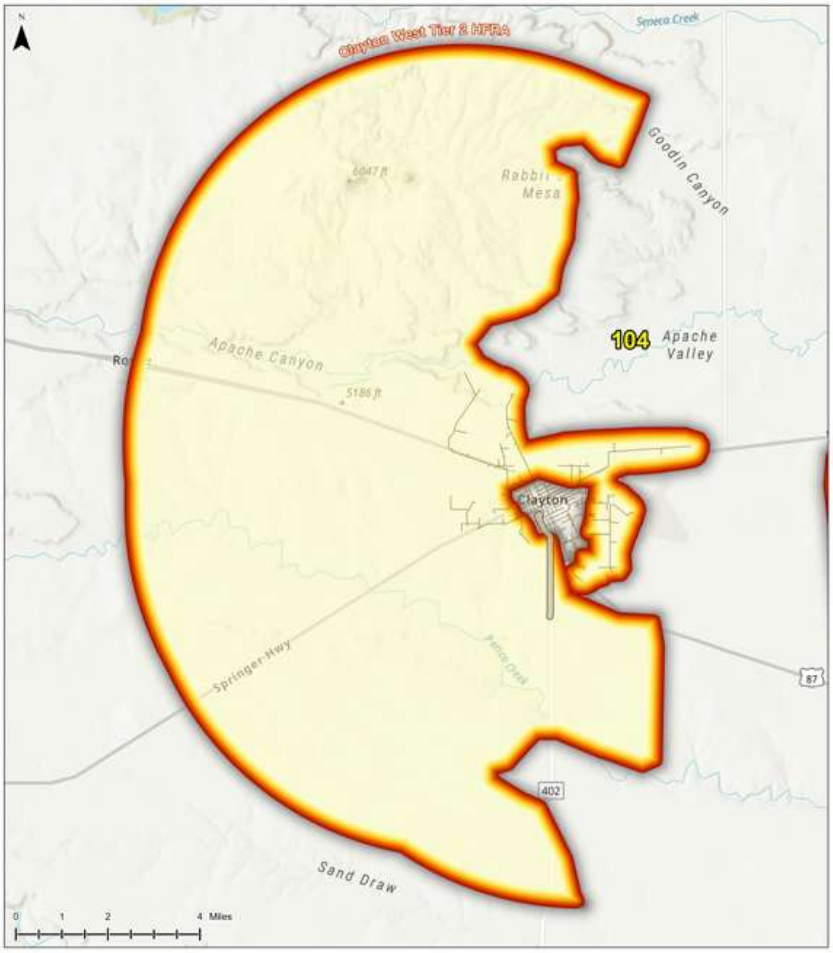
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

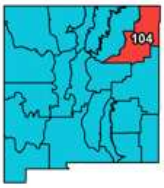


NM High Fire Risk Areas (HFRA)
Clayton West Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
1.38 Miles	**19.73 Miles**
0.04% of OH Transmission System	0.22% of OH Distribution System



Fire Weather Zone(s)
104 Northeast Plains

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

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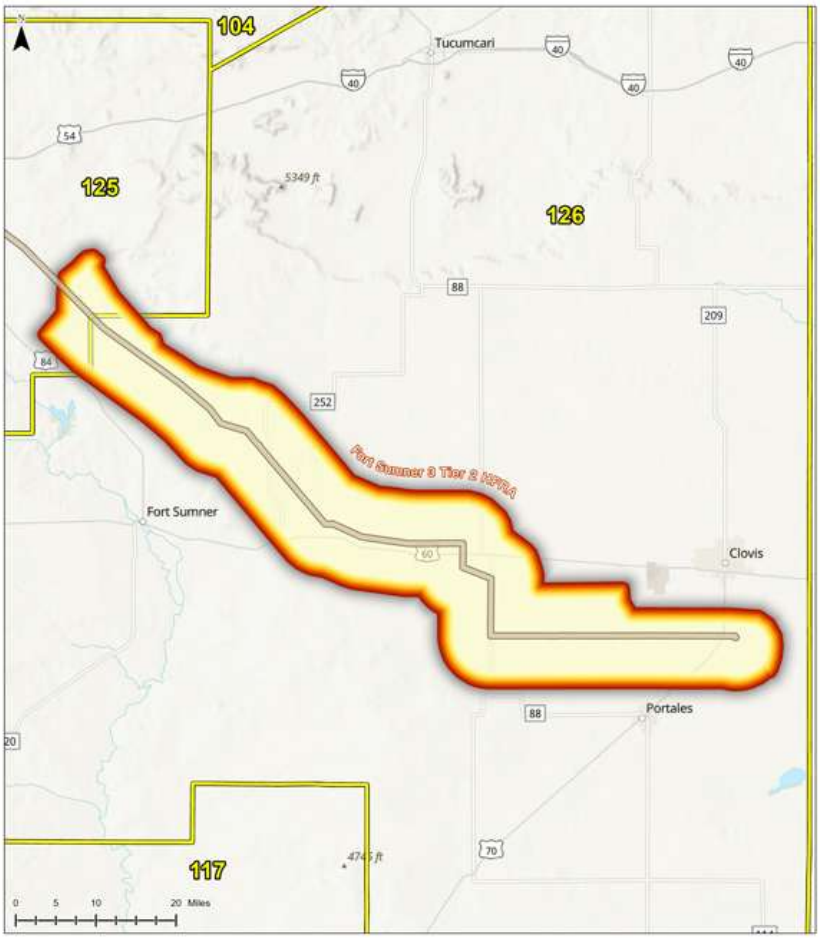
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

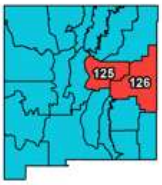


NM High Fire Risk Areas (HFRA)
Fort Sumner 3 Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
88.33 Miles	**0.00 Miles**
2.56% of OH Transmission System	0.00% of OH Distribution System



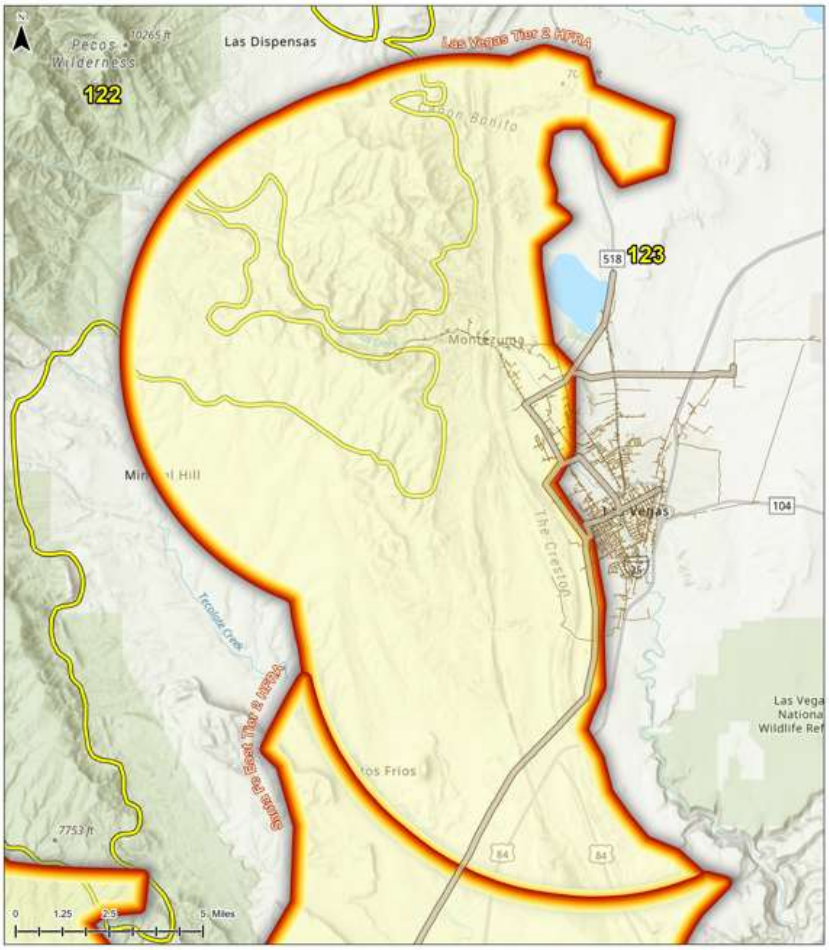
Fire Weather Zone(s)

125 Central Highlands

126 East Central Plains

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
Map Scale: 1:916,000
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

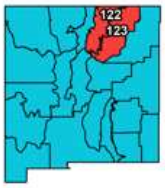


NM High Fire Risk Areas (HFRA)
Las Vegas Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
15.20 Miles	**32.82 Miles**
0.44% of OH Transmission System	0.36% of OH Distribution System



Fire Weather Zone(s)

122 Sangre de Cristo Mountains

123 Northeast Highlands

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
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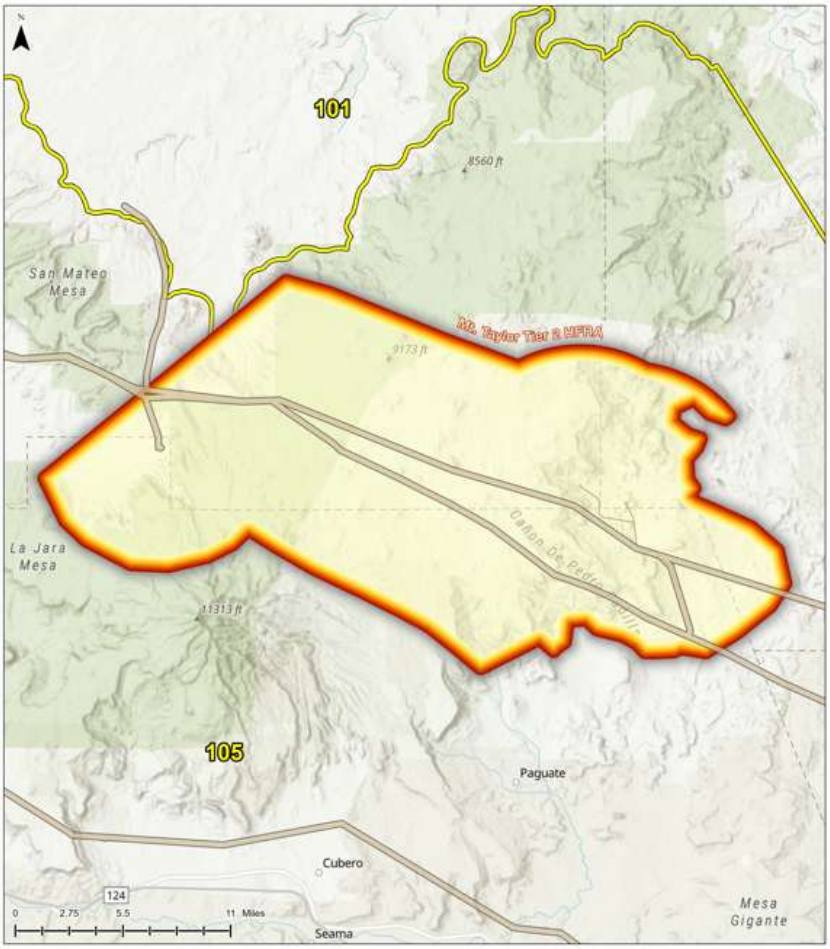
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

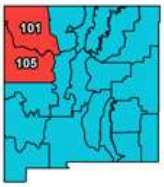


NM High Fire Risk Areas (HFRA)
Mt. Taylor Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
62.96 Miles	**8.16 Miles**
1.83% of OH Transmission System	0.09% of OH Distribution System



Fire Weather Zone(s)

101 Northwest Plateau

105 West Central Mountains

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
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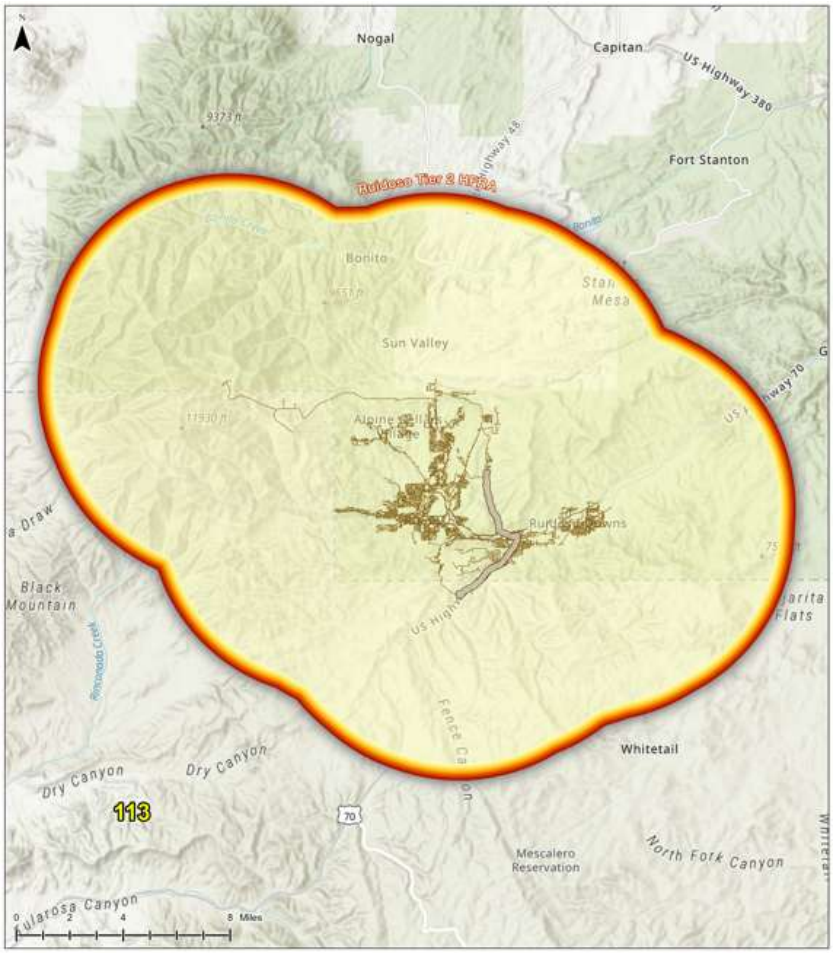


NM High Fire Risk Areas (HFRA)
Ruidoso Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

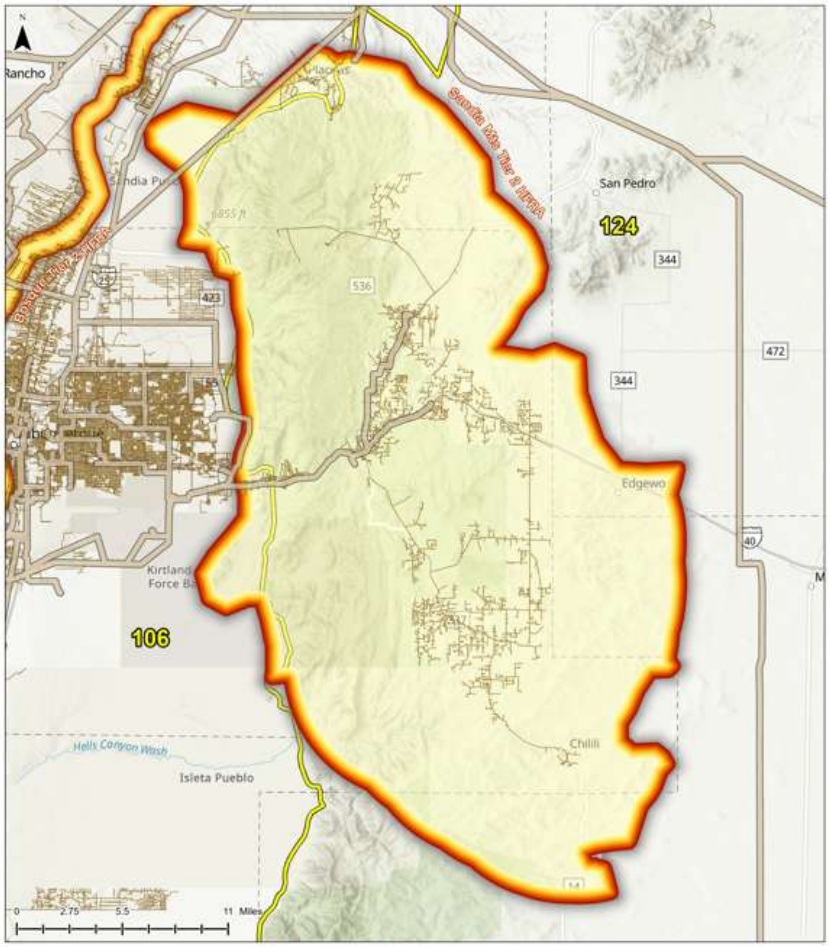
OH Transmission in HFRA	OH Distribution in HFRA
5.40 Miles	**384.15 Miles**
0.16% of OH Transmission System	4.23% of OH Distribution System

Fire Weather Zone(s)

113 Capitan And Sacramento Mountains

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
Map Scale: 1:279,000
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

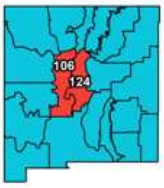


NM High Fire Risk Areas (HFRA)
Sandia Mts Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
27.42 Miles	**467.22 Miles**
0.80% of OH Transmission System	5.14% of OH Distribution System



Fire Weather Zone(s)

106 Middle Rio Grande Valley

124 Sandia and Manzano Mountains

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
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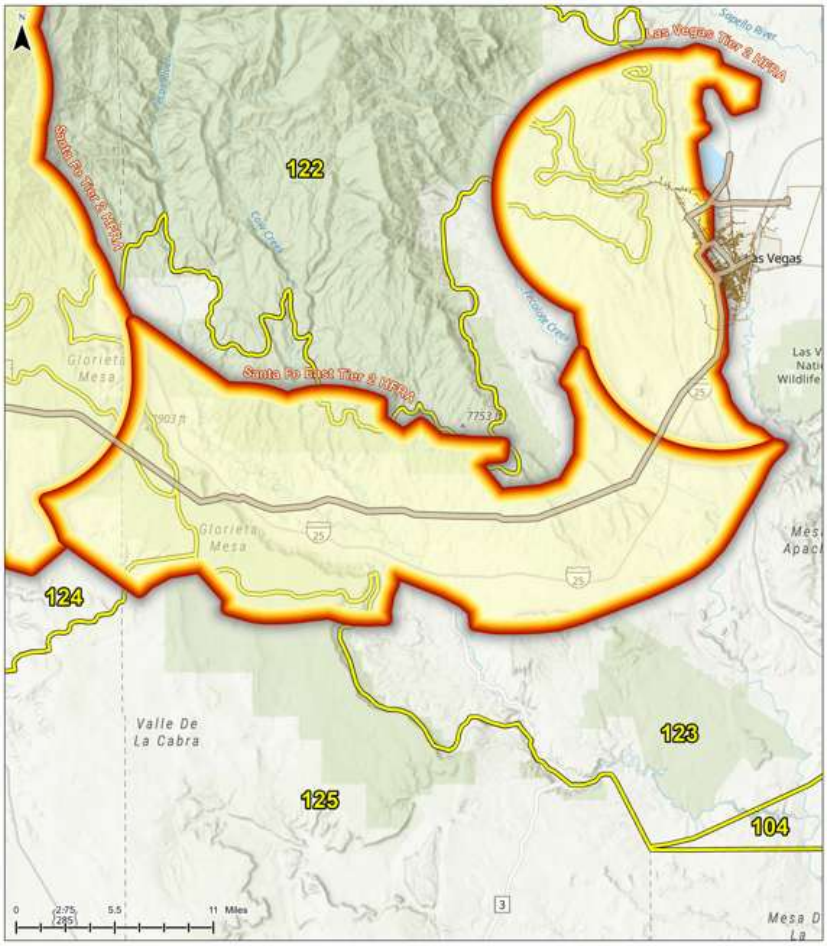
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

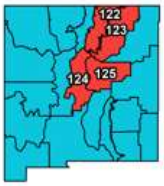


NM High Fire Risk Areas (HFRA)
Santa Fe East Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
27.18 Miles	**0.00 Miles**
0.79% of OH Transmission System	0.00% of OH Distribution System

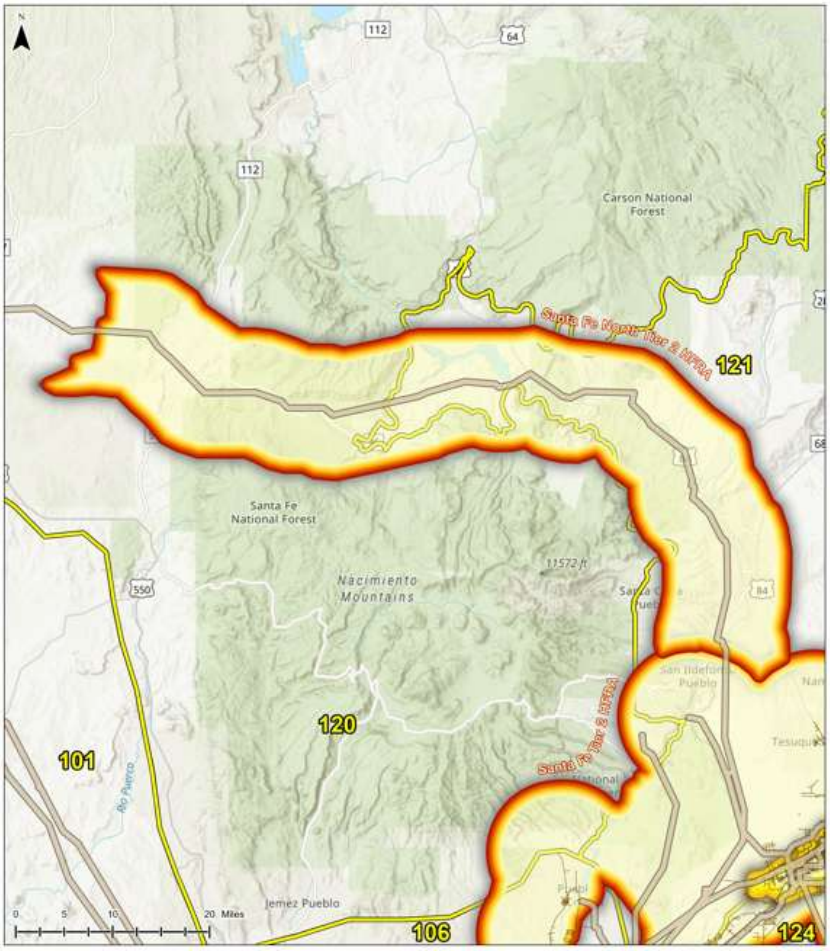


Fire Weather Zone(s)

- **122** Sangre de Cristo Mountains
- **123** Northeast Highlands
- **124** Sandia and Manzano Mountains
- **125** Central Highlands

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
Map Scale: 1:413,000
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

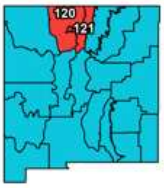


NM High Fire Risk Areas (HFRA)
Santa Fe North Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
74.21 Miles	**0.00 Miles**
2.15% of OH Transmission System	0.00% of OH Distribution System



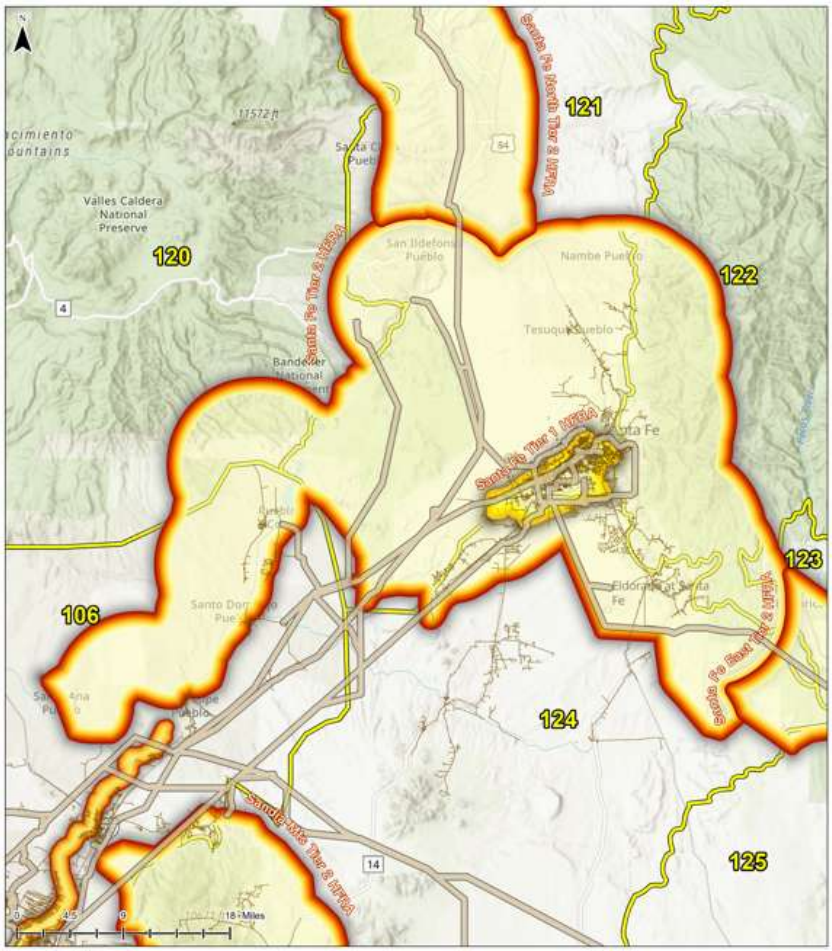
Fire Weather Zone(s)

120 North Central Mountains

121 Upper Rio Grande Valley and Lower Chama River Valley

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
Map Scale: 1:767,000
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

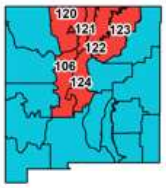


NM High Fire Risk Areas (HFRA)
Santa Fe Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
147.58 Miles	**378.49 Miles**
4.28% of OH Transmission System	4.17% of OH Distribution System



Fire Weather Zone(s)

- **106** Middle Rio Grande Valley
- **120** North Central Mountains
- **121** Upper Rio Grande Valley and Lower Chama River Valley
- **122** Sangre de Cristo Mountains
- **123** Northeast Highlands
- **124** Sandia and Manzano Mountains

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

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Map Scale: 1:628,000
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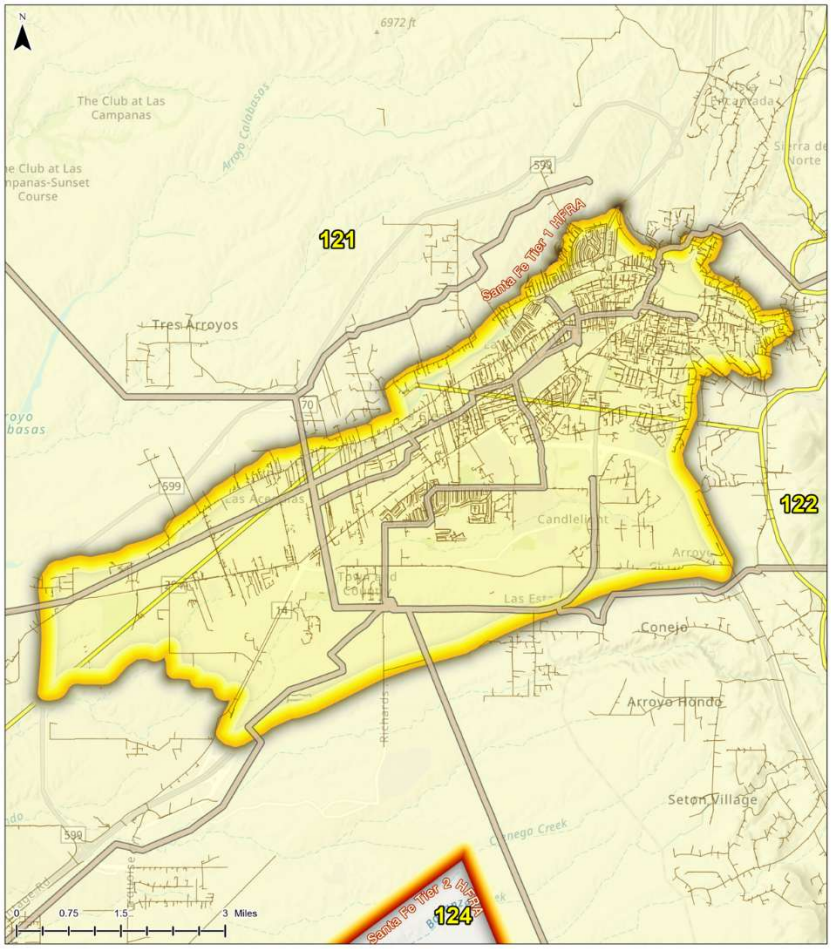
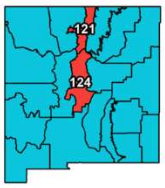


NM High Fire Risk Areas (HFRA)
Santa Fe Tier 1

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
36.51 Miles	**328.10 Miles**
1.06% of OH Transmission System	3.61% of OH Distribution System



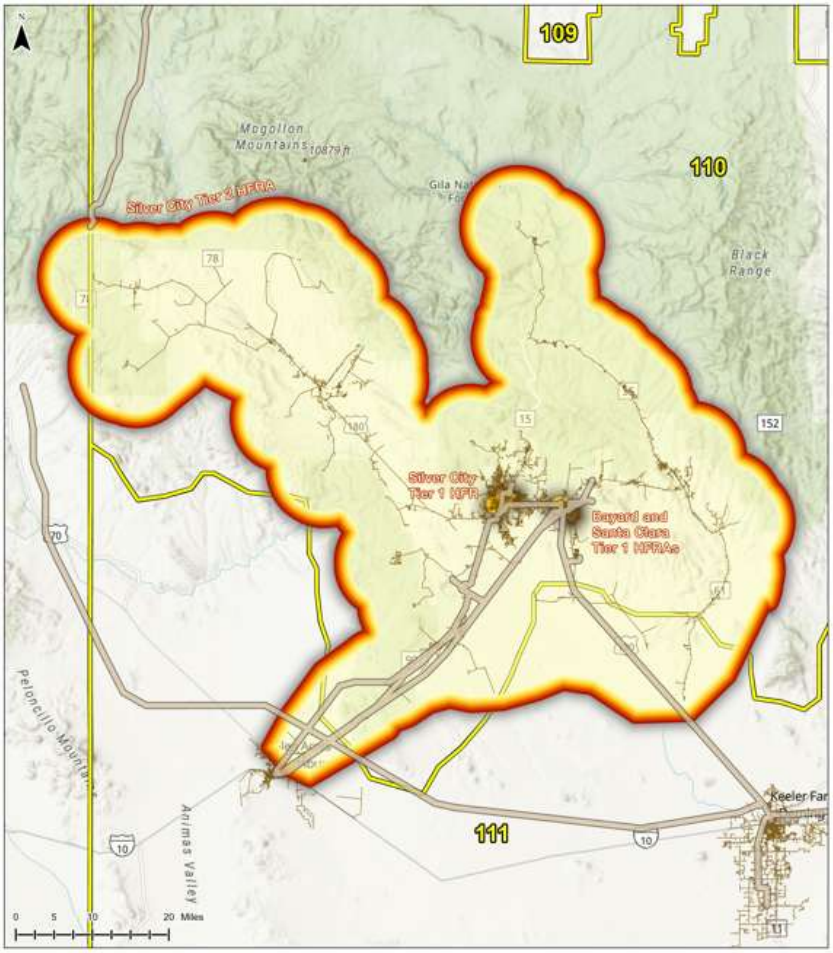
Fire Weather Zone(s)

121 Upper Rio Grande Valley and Lower Chama River Valley

124 Sandia and Manzano Mountains

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
Map Scale: 1:107,000
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

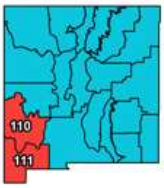


NM High Fire Risk Areas (HFRA)
Silver City Tier 2

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
190.13 Miles	**1,188.27 Miles**
5.52% of OH Transmission System	13.08% of OH Distribution System



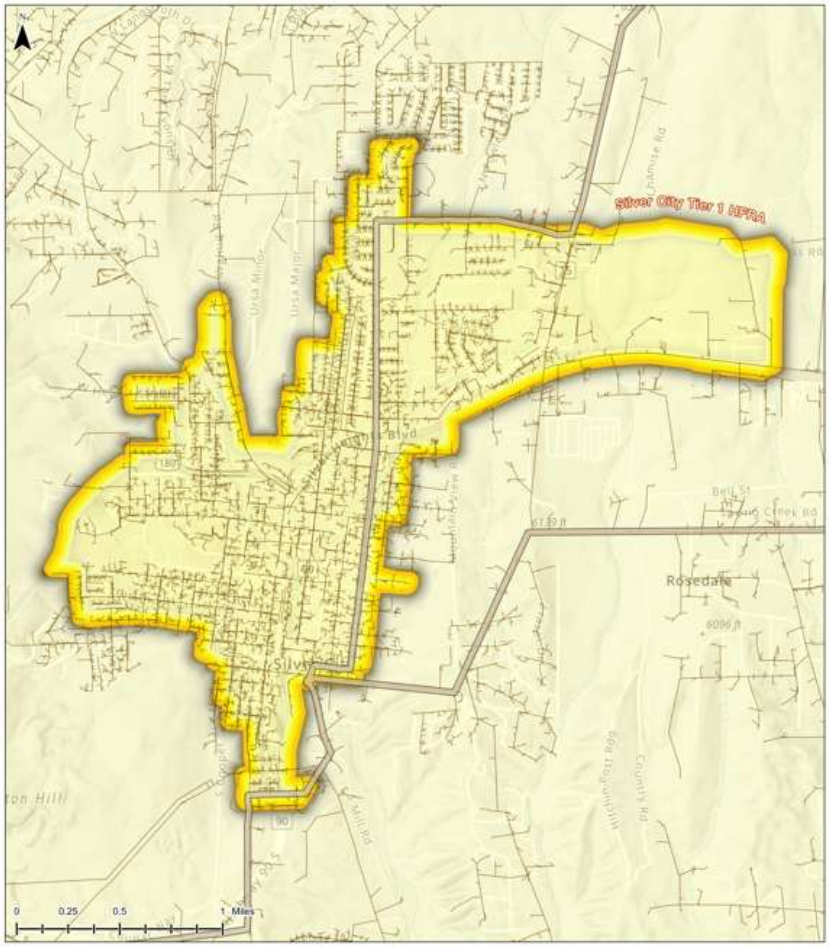
Fire Weather Zone(s)

110 Southwest Mountains

111 Southwest Deserts and Lowlands

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
Map Scale: 1:975,000
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap



NM High Fire Risk Areas (HFRA)
Silver City Tier 1

Legend

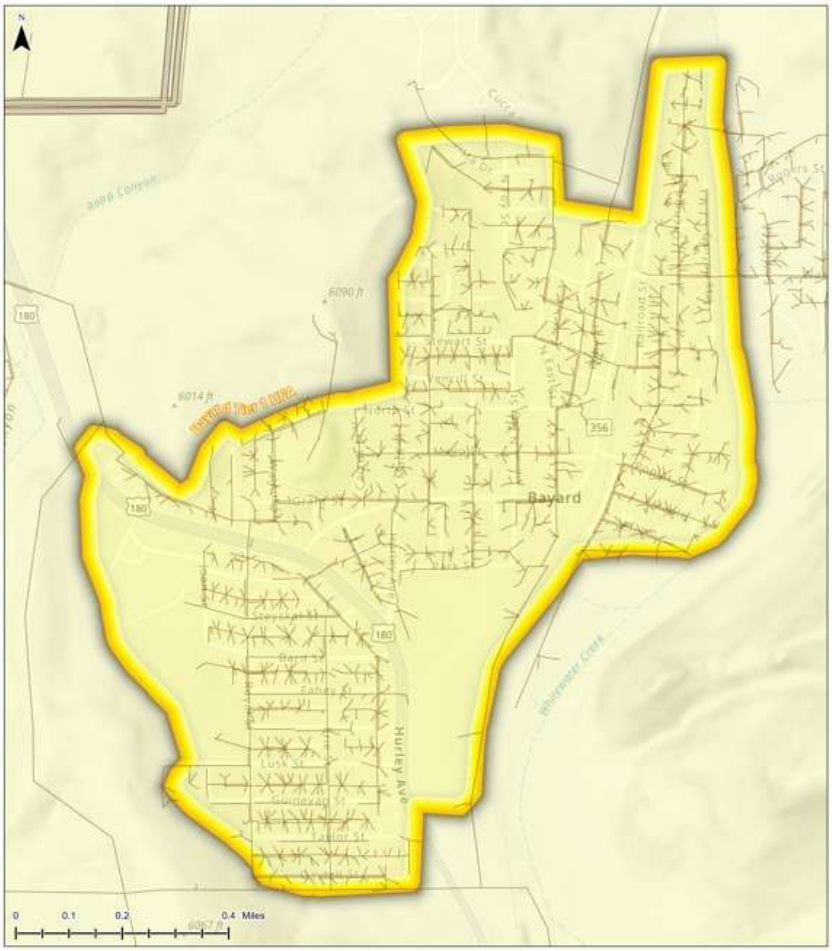
- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
2.69 Miles	**125.44 Miles**
0.08% of OH Transmission System	1.38% of OH Distribution System

Fire Weather Zone(s)
110 Southwest Mountains

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
Map Scale: 1:36,000
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

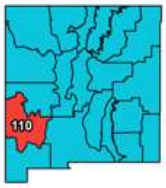


NM High Fire Risk Areas (HFRA)
Bayard Tier 1

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
0.00 Miles	**38.66 Miles**
0.00% of OH Transmission System	0.43% of OH Distribution System

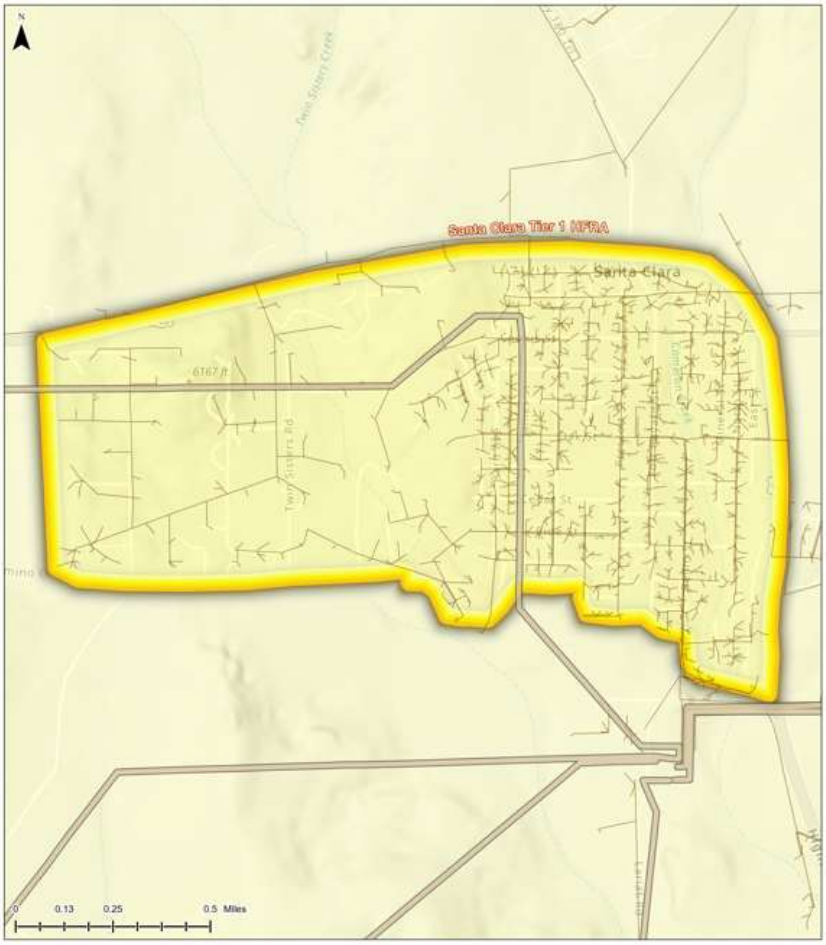


Fire Weather Zone(s)

110 Southwest Mountains

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
Map Scale: 1:14,000
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap



NM High Fire Risk Areas (HFRA)
Santa Clara Tier 1

Legend

- Overhead Transmission Line
- Overhead Distribution Feeders
- Tier 1 HFRAs
- Tier 2 HFRAs
- NM Fire Weather Zones

OH Transmission in HFRA	OH Distribution in HFRA
1.67 Miles	**37.15 Miles**
0.05% of OH Transmission System	0.41% of OH Distribution System

Fire Weather Zone(s)
110 Southwest Mountains

Note: The National Weather Service uses Fire Weather Zone boundaries when issuing Red Flag Warnings. This reference map shows all Fire Weather Zones intersected by the HFRA

Date Exported: 11/19/2024
Map Scale: 1:19,000
Credits: PNM, National Weather Service, US Forest Service, Esri Basemap

PNM WILDFIRE MITIGATION PLAN – TECHNICAL GLOSSARY

Term	Definition
Geospatial fire risk assessment tool	An AI-driven system used to assess wildfire risk by combining public datasets and fire behavior models.
Avian Protection Plan (APP)	A strategy for reducing wildlife-related electrical hazards, minimizing bird and animal contact with power lines.
Boots-on-the-Ground Inspection	A physical field inspection of power infrastructure to assess risks and maintenance needs.
Burn Probability	A statistical measure indicating the likelihood of wildfire occurrence in a given area.
Capacitor Bank	An electrical device used for power factor correction and voltage regulation in the grid.
Completely Self-Protected Transformer (CSP)	A type of transformer with built-in protection mechanisms that reduce ignition risks.
Conditional Risk Score	A numerical value representing the potential severity of a wildfire event.
County Warning Area (CWA)	A region designated by the National Weather Service for issuing warnings and forecasts.
Covered Primary Wire	A type of insulated electrical wire used to reduce the risk of arcing and ignitions in wildfire-prone areas.
Distribution Infrastructure	The network that delivers electricity from high-voltage transmission lines to consumers at usable voltages
Edison Electric Institute (EEI)	An association representing electric companies, focusing on reliability, safety, and environmental practices.
Electric Power Research Institute (EPRI)	A nonprofit organization conducting research on electricity generation, delivery, and use.
Fault Locating Sensors	Devices used to detect and pinpoint faults in power lines to enhance response time and wildfire prevention.
Fiberglass Crossarm	A non-combustible and dielectric/non-conducting support structure for power lines that helps reduce fire risks compared to wooden crossarms.
Fire Physics and Behavior	The study of how fire ignites, spreads, and behaves under different environmental conditions.
Fire Retardant Treatment	A chemical or physical treatment applied to infrastructure to reduce flammability and fire spread.
Fire Watch	A designated individual or team responsible for monitoring fire risks during high-risk activities.
Fire Weather Watch (FWW)	An alert issued when weather conditions may soon support the rapid spread of wildfires.

Fire Weather Zone (FWZ)	A defined area with similar climate, weather, and terrain characteristics used by the National Weather Service for issuing fire weather alerts.
Fuse	A protective device that protects circuits from overcurrent by melting/ failing by design when exposed to excessive current
Geographic Information System (GIS)	A system used for mapping and analyzing, among other things, wildfire risk areas, infrastructure locations, and vegetation conditions.
Guy Strain Insulator	A component used to insulate guy wires from electrical currents, reducing potential ignition risks.
High Fire Risk Area (HFRA)	A designated area where utility infrastructure, such as power lines and substations, is vulnerable to wildfires, and where ignitions from infrastructure may cause damaging wildfires.
Hot Work	Any activity that generates heat, sparks, or flames (such as welding, grinding, or cutting) that requires fire mitigation measures.
Incident Command System (ICS)	A standardized approach to emergency response management, facilitating coordination between agencies and organizations during wildfire incidents.
Indji Watch	A natural hazard alerting system used by PNM to monitor and receive real-time updates on wildfires, weather conditions, and other potential threats.
Integrated Vegetation Management (IVM)	A utility vegetation management practice that promotes native, low-growing plant communities to reduce wildfire risks near power lines.
Internal Fault Detector (IFD)	A device installed in transformers to quickly identify faults and prevent potential ignition sources.
Lightning Arrester	A device used to protect electrical equipment from damage caused by lightning strikes by safely diverting current.
LiDAR (Light Detection and Ranging)	A remote sensing method used to measure distances and generate high-resolution maps, employed in wildfire mitigation for vegetation and terrain analysis.
Locational Risk Score	A rating that assesses fire risk based on geography, fuel conditions, and other factors.
Multiplex Cable	A jacketed or covered electrical cable type used to replace open-wire secondary lines, reducing wildfire risks.
National Electric Safety Code (NESC)	A code that sets the safety standards for power generation, transmission, and distribution systems.
North American Electric Reliability Corporation (NERC)	An organization ensuring the reliability and security of the electrical grid.

Open Wire Secondary	Unjacketed or bare wire that carries lower voltage electricity (typically 120-480 volts) from a transformer to homes and businesses
Outage Management System (OMS)	A system used to detect, analyze, and respond to power outages, playing a role in wildfire prevention by identifying faults.
Pole Assessment Program	A systematic evaluation of power poles to determine their structural integrity.
Predictive Service Area (PSA)	A geographic area used for forecasting significant wildfire potential and supporting resource allocation decisions.
Public Safety Power Shutoff (PSPS)	A proactive measure taken by a utility during extreme weather conditions to de-energize electrical facilities in high wildfire risk areas to prevent ignitions.
Recloser	An automatic switch that detects faults and momentarily interrupts power before restoring service, adjusted in high fire risk areas to prevent ignitions.
Red Flag Warning (RFW)	A National Weather Service (NWS) alert issued when weather conditions support extreme wildfire behavior, including high winds, low humidity, and dry fuels.
Relay	An electrically operated switch that uses a low-power signal to control a high-power circuit for protection and/or automation
Remote Automated Weather Station (RAWS)	A network of weather monitoring stations providing real-time data to assess fire danger conditions.
Right-of-Way (ROW)	A designated strip of land for power lines, which requires vegetation management to prevent wildfire ignitions.
Rural Electric Association (REA)	A cooperative entity providing electricity to rural areas.
Single-Phase	A two-wire alternating current (AC) system typically using one power wire and one neutral wire. Sometimes used in conjunction with “lateral” to denote a line tapping off a main line.
Situational Awareness (SA)	A process of continuously monitoring environmental and operational conditions to assess wildfire risks and inform mitigation strategies.
Substation	A facility within an electrical generation, transmission and distribution system that transform voltages, either up or down, or provides other functions.
Supervisory Control and Data Acquisition (SCADA)	A control system used to monitor and manage electrical grid operations, enhancing wildfire risk mitigation through remote system operating changes.

Tailboard Safety Plan	A pre-work safety briefing outlining fire risk mitigation measures for utility crews.
Threat Level	NWS issues 'threat level' for weather conditions.
Three-Phase	Typically made up of three power wires and one neutral wire with each power wire carrying a separate AC signal. All three AC signals are 120 degrees out of phase with each other.
Transformer	A device that reduces or increases the voltage of alternating current.
Transmission Infrastructure	High-voltage power lines and substations that move bulk electricity from generation facilities to distribution substations.
Vegetation Management (VM)	A program designed to minimize wildfire risks by managing vegetation growth around power lines and electrical infrastructure.
Western Electricity Coordinating Council (WECC)	A regional entity responsible for promoting grid reliability and wildfire risk mitigation.
Wildfire Hazard Potential (WHP)	A model used to estimate the likelihood and potential severity of wildfires in specific areas.
Wildfire Mitigation Guidelines	A set of best practices and policies designed to reduce wildfire ignition risks from electrical infrastructure.
Wildfire-Safe Lightning Arresters	A device used to protect electrical equipment from damage caused by lightning strikes by safely diverting current that is designed to not emit sparks.
Wind Alerts	Automated notifications based on forecasted wind speeds that could impact wildfire spread.