



# **WILDFIRE OUTCOME REPORT**

**MIDNIGHT FIRE (P3PP4D)**

**2022-NM-CAF-000200**

**CARSON NATIONAL FOREST**

**EL RITO RANGER DISTRICT (030202)**

**JUNE 9, 2022**



Smoke Column from Midnight Fire as it progress down drainage in Potrero Canyon on June 10, 2022  
Photo Credit: Unknown, from InciWeb



# INTRODUCTION

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## 1. Fire Information / Background

The Midnight wildfire was discovered on June 9, 2022 at 1946 hours on the El Rito Ranger District of the Carson National Forest's West Zone. The fire was ignited by lightning from a dry thunderstorm that had passed over the area. The fire was located between Forest Roads (FR) 172,106 and 44.

A very dry pattern had set up at the end of winter and persisted through the spring and early summer of 2022, with very little precipitation and record setting winds recorded. Live fuel moistures were lower than normal, with dead fuel moistures ranging from 10 – 15% for the entirety of April through May, and dropping into the single digits for the first half of the month of June.

Resources arrived on scene of the Midnight Fire around midnight with an estimated fire size and initial size-up of 5 – 10 acres. Due to values at risk, seasonality, expected fire behavior, weather and ongoing incidents within the GACC, a full suppression strategy was employed. By 0600 the morning of June 10<sup>th</sup>, the fire had grown to 50 acres and continued growing to over 500 acres by 1900 on June 10<sup>th</sup>. ERC's on June 9<sup>th</sup> and June 10<sup>th</sup> were at about the 95<sup>th</sup> percentile.

Environmental conditions continued to worsen and by June 11<sup>th</sup>, the fire had grown to 3,500 acres. The evening of June 10<sup>th</sup> – June 11<sup>th</sup>, the fire burned into the Francisquito Fire footprint from 2019. The fire transitioned from a torching/crowning fire to a surface fire with group tree torching and isolated pockets of crowning as it moved through the Francisquito Fire footprint. Spot fires across FR 44 were contained that evening and forward progression was stopped. On June 13<sup>th</sup>, Red Flag conditions arrived as crews were holding the fire within road systems on the western flank. The fire spotted/slopped over FR 123; however, these spot fires and the slop over were in the Alamosa Rx burn from 2018 and crews were able to contain the spot fires/slop over and stop forward progression again. ERC's on June 11<sup>th</sup> through June 16<sup>th</sup> were above the 97<sup>th</sup> percentile with Red flag warnings in effect on June 12<sup>th</sup>, 13<sup>th</sup> and 14<sup>th</sup> for strong winds, low humidity and an unstable airmass. Monsoons, arriving 2 – 4 weeks earlier than normal, marked the end of the fire season for the area with record setting rains for nearly 2 ½ months.

A planning area of 94,301 acres was developed for the Midnight Fire. Several critical values at risk were within the planning area, including the inholdings of Potrero Canyon, Ortega Ranch and Valle de los Caballos. The communities of Vallecitos, Cañon Plaza, La Madera, El Rito, Placitas and Ancones were also in the planning area. Several important water resources were also present in the planning area and included several MDWCA's and watersheds that are important sources of water for acequia's and agriculture. The planning area included several NEPA projects, previous prescribed burn units (Alamosa Unit 1, 2 and 3) and previous wildfires (Francisquito, Poso) that provided opportunities during the suppression effort (Figure 1). Several future planned treatments (La Jara Rx, Sótano Rx, Valle de los Caballos Rx) were also within the planning area.

On June 12, 2021 a WFDSS decision was published for the Midnight Fire. Several transitions occurred during the Midnight fire from a Type 4 organization during initial response, escalating to a Type 3 organization. A Type 1 IMT that was assigned on an adjacent incident on forest was assigned to manage the Midnight fire for several operational periods. Ultimately, the Midnight Fire burned a total of 4,896 acres, including 292 acres of private land and 5 structures (2 residences, 3 outbuildings) in the Potrero Canyon inholding. Approximately 60% of the area burned by the Midnight Fire had not experienced a recorded significant fire event in well over 50 years, indicating that the area has missed 2 – 3 fire return intervals at a minimum. It is highly likely that this area has not seen a significant fire event since the late 1800's. Although private land was burned and structures were lost, some portions of the Midnight fire burned at low to moderate intensity/severity. The portions that did have low to moderate intensity/severity due to this natural ignition have now had the natural ecological process of fire restored, and now fire managers can more safely continue maintaining this area with



prescribed fire or naturally ignited wildfire into the future closer to the historic fire return interval. The Midnight Fire was contained on July 1<sup>st</sup> after the arrival of record setting monsoons, was controlled on August 15<sup>th</sup> and called out on August 16<sup>th</sup>.



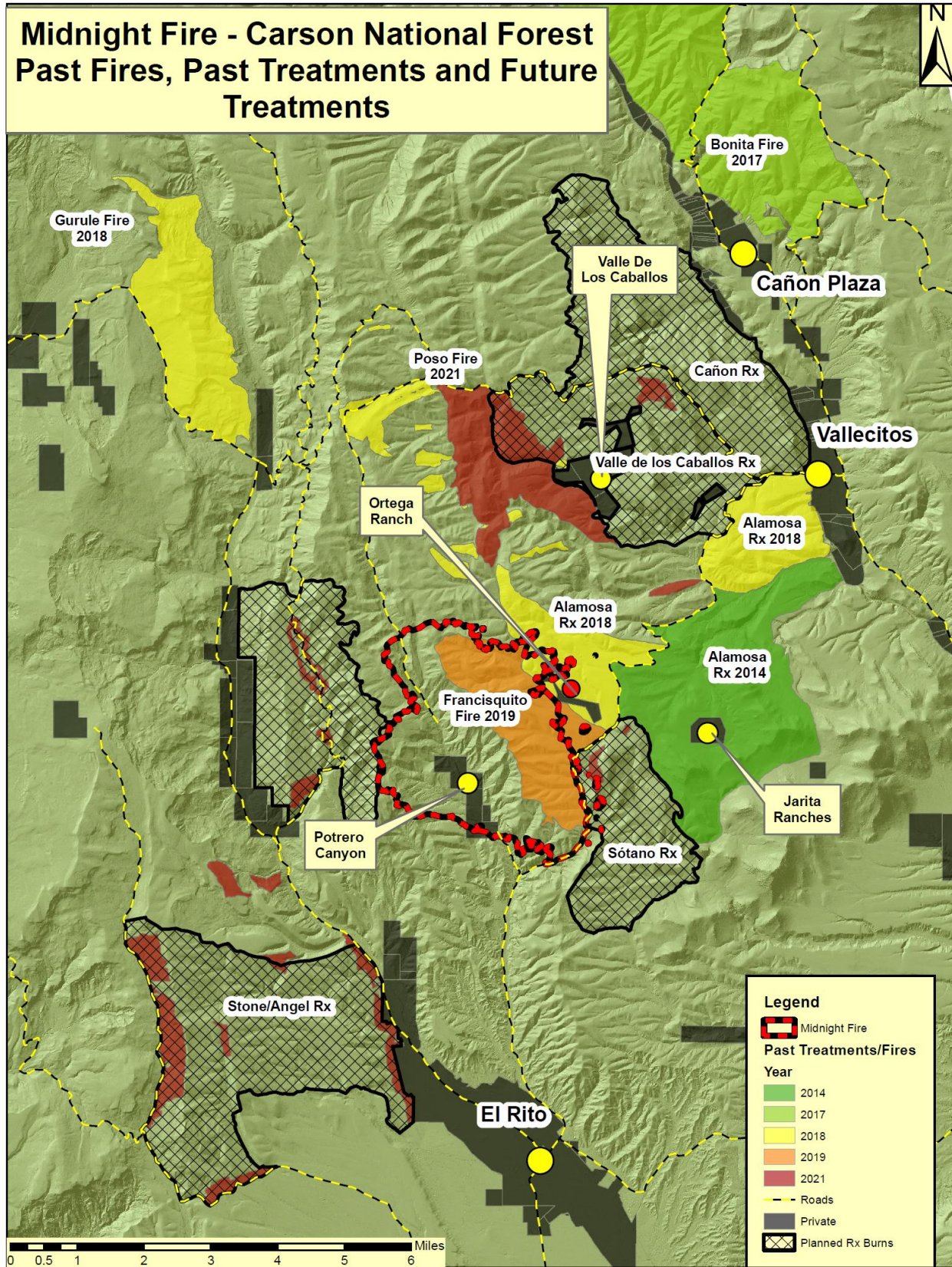
**Photo 1** Extreme fire behavior with upslope/down canyon progression down the Potrero Canyon drainage. The fire was also progressing to the North/Northeast towards the communities of Vallecitos and Cañon Plaza. The fire was about to enter into the Francisquito fire from 2019 in this photo. (Photo Credit – Unknown, from Inciweb)



**Photo 2** Reduced fire behavior as seen from the air as the Midnight Fire progressed into the Francisquito fire and Alamosa Rx (Photo Credit – Jerry Serabia, Region 1)



Figure 1. Midnight Fire Map with Adjacent Completed and Planned Treatments





## 2. Objectives

The 1986 Carson NF Land and Resource Management Plan (LRMP) was amended on February 24, 2012 broadening the applications for managing wildfires on the Carson NF by changing wording in the LRMP to reflect updated National Fire Policy. The amendment to the Carson NF LRMP states “Fire, as a critical natural process, is integrated into activities on a landscape scale and across agency boundaries. Wildland fire will be used to protect, maintain, and enhance resources and, as closely as possible, be allowed to function in its natural ecological role. Fire response will be appropriate for each planned and unplanned fire ignition by considering the fire environment and management area prescriptions. Every consideration will be given to use fire to help meet management area objectives, while providing for public safety and property protection.”

The Agua/Caballos Proposed Projects EIS and Record of Decision (ROD) included 2,065 acres of scattered prescribed burning treatments within the project boundary, of which 8 acres were within the Midnight Fire perimeter. Additionally, the El Rito Canyon Landscape Restoration Project (ERCLRP) EA and Decision Notice/Finding of No Significant Impact (DN/FONSI) included landscape prescribed fire burn blocks and mechanical treatments, of which 1,874 acres were within the Midnight Fire perimeter. The Jarita Mesa/Alamosa Grazing Allotment EA and DN/FONSI included 25,000 acres of prescribed burning treatments within the project boundary, of which 125 acres were within the Midnight Fire perimeter. The remaining 2,644 acres that burned on NFS lands was not covered under a project specific NEPA decision.

Below is a summary of some of the primary objectives for the Midnight fire from the WFDSS decision:

- firefighter/public safety
- Protection of life, property, water quality and ecosystem function
- Limiting ground disturbing activities and fire impacts to sensitive cultural sites
- Minimizing fire intensities in threatened and endanger species habitat and sensitive species habitat
- Limiting fire impacts to range values, recreation sites, and USFS infrastructure

The primary objectives were focused on protection objectives due to the full suppression strategy. However, as a result of the naturally ignited wildfire, secondary objectives that were not identified in the WFDSS decision were met as described in the Carson NF LRMP from 1986, the Agua/Caballos ROD, the ERCLRP DN/FONSI and the Jarita Mesa/Alamosa DN/FONSI.

## FIRE EFFECTS

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### 3. Overview

Fire managers and operational personnel observed fire behavior that was moderate to high intensity and moderate to high severity on both sides of the Potrero Canyon drainage in steeper areas. The west facing portion of the drainage is steep and has not had a significant fire event in over a century. The east facing portion of the drainage was treated in the past via timber harvest treatments, but has not had a significant fire event in some time. Due to the fuel and environmental conditions at the time of the fire, conditions were in alignment for large fire growth in a north/northeasterly direction towards the communities of Vallecitos and Cañon Plaza and upslope/down canyon towards private land inholdings. However, once the fire progressed into the Francisquito wildfire and Alamosa Rx burn units, fire behavior transitioned from moderate to high intensity/severity with crown runs to low to moderate intensity/severity. The portion of the wildfire that had not had previous treatments burned mostly with moderate to high intensity/severity and the portion of the wildfire that had previous treatments burned with low to moderate intensity/severity. A Burned Area Reflectance Classification (BARC) map ground-verified by the Burn Area Emergency Response (BAER) team for the Midnight Fire (Figure 2) showed that 3.3% of the foot print was unburned, 48.4% of the foot print had low severity fire, 41.6% of the footprint had





of low to mixed severity. This will help create uneven-aged structure across the landscape over time, moving the area closer to desired conditions. The RAVG product confirmed assessments by fire managers and operational personnel.

In order to determine acreage that met objectives and moved closer to the desired condition as a result of the Midnight fire, both the BARC and RAVG products were utilized in combination with field reconnaissance to identify specific polygons that met objectives. Figure 4 shows which areas were determined to meet objectives.

**Figure 3. RAVG Map for Midnight Fire**

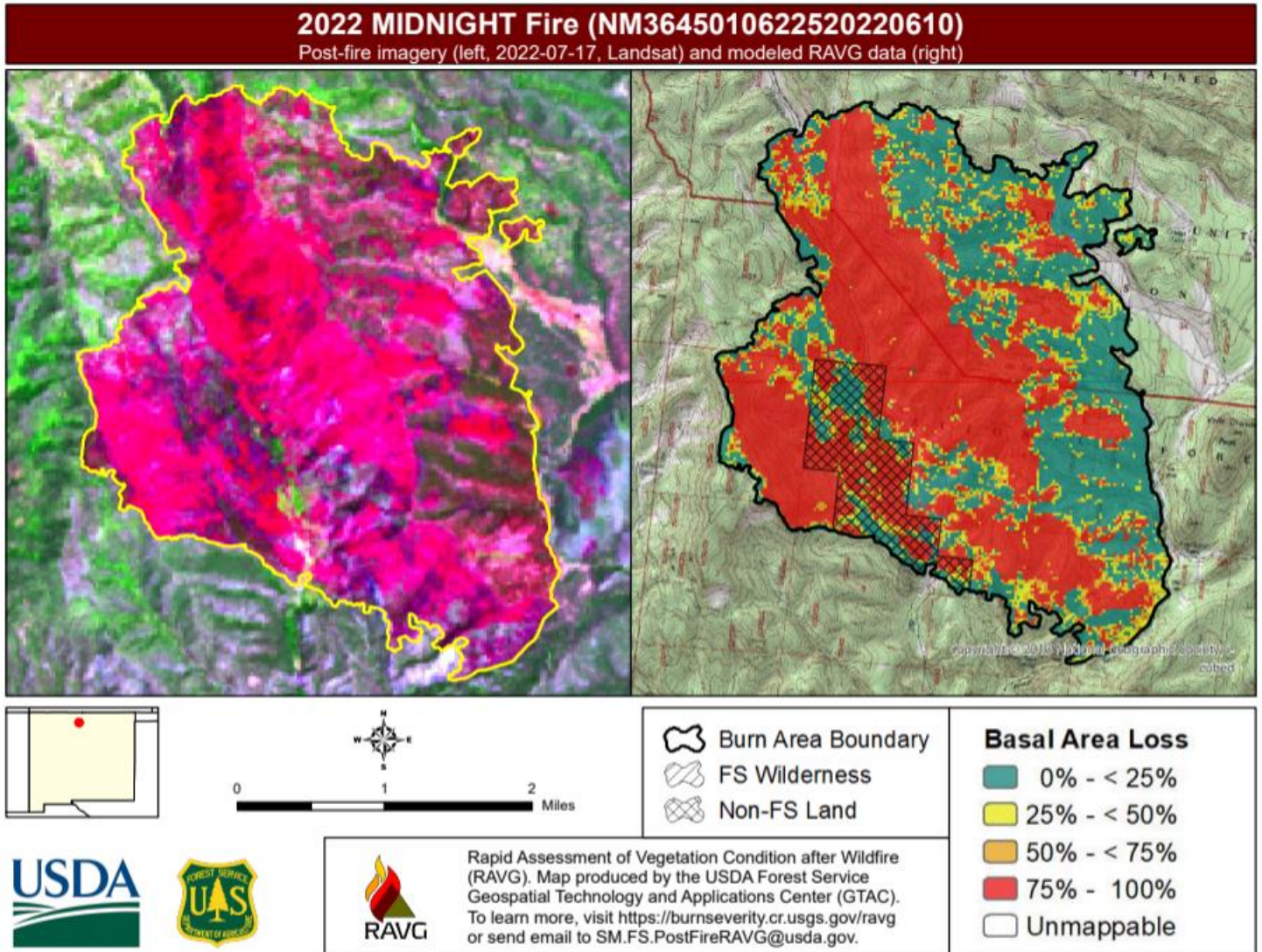
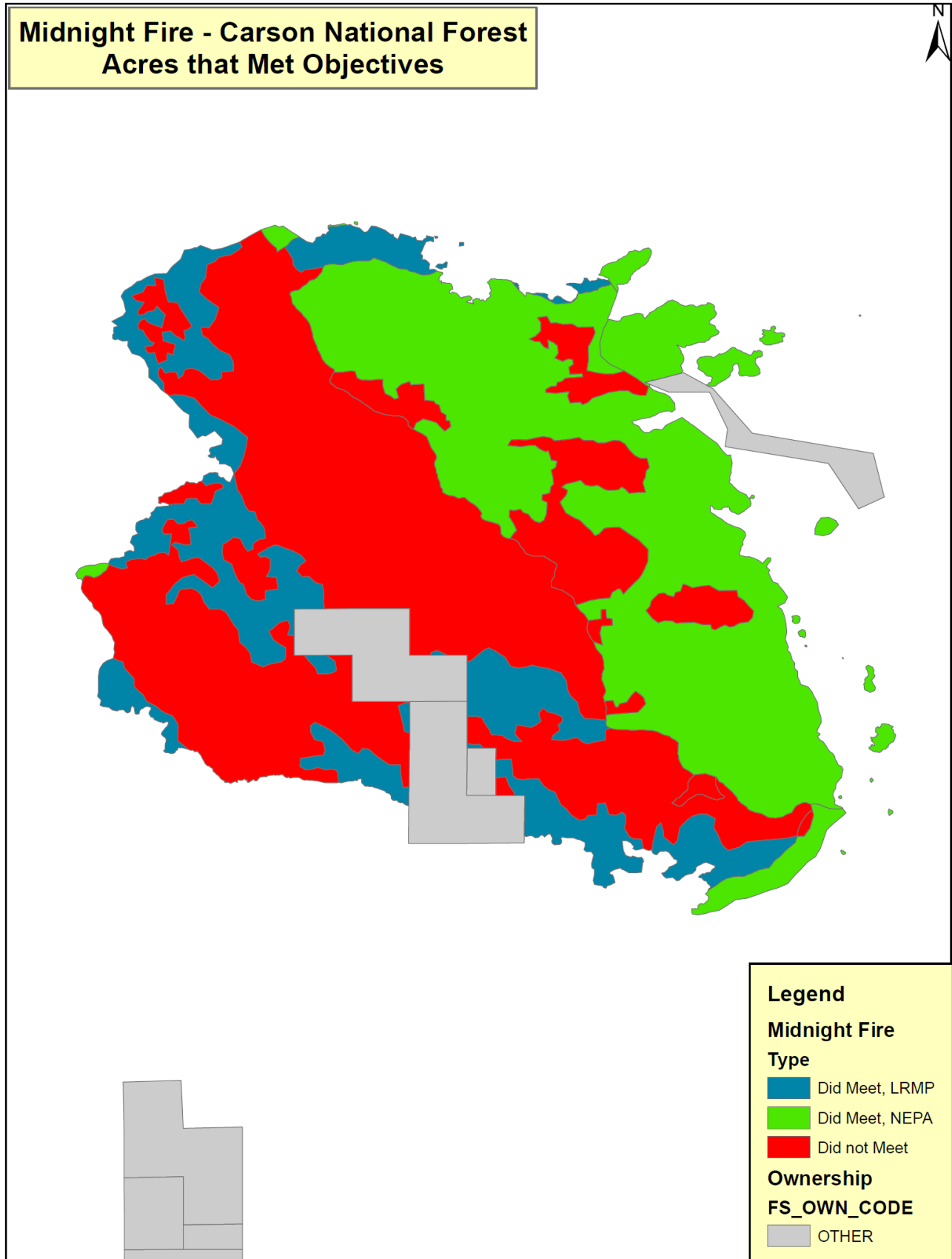




Figure 4. Acres that Met Objectives







## 4. Vegetation / Fuels

The fire regime condition class (FRCC) for 40% of the burned area prior to the fire can be classified as FRCC 2 due to the recent Francisquito wildfire and the Alamosa Rx burns. The remaining 60% of the burned area prior to the fire can be classified as FRCC 3 with no documented significant fire activity within the last 50 years and no observed evidence of significant fire activity in the area within the last 100 years or more. The burned area consisted of 69% ponderosa pine, 7% dry-mixed conifer, 15% wet-mixed conifer, and 9% piñon/juniper. In the portion of the fire footprint that was not within the Francisquito wildfire or Alamosa Rx, ponderosa pine stands were relatively even-aged and most of the dry-mixed conifer, wet-mixed conifer and piñon/juniper stands had high fuel loadings, mostly due to insect/disease induced mortality over the last 30 years. Within the Francisquito wildfire and Alamosa Rx footprint, fire entries had resulted in a mosaic structure as some portions burned with low to mixed severity and some portions were unburned prior to the Midnight fire.

The Midnight fire burned in a nearly 50/50 split between low to mixed severity/intensity and high severity/intensity effects to vegetation. Fuel load was significantly reduced as a result of the Midnight fire on half of the footprint and was reduced in areas that had recently had fire in them, maintaining a low fuel loading. Since no significant fire has been on 60% of this footprint for over 100 years, the re-introduction of natural fire back into this system is an important first step in restoring this system for resiliency and restoring natural ecological function. On the other 40% of the footprint, this fire represented a second entry that more closely resembles the historic fire return interval and intensity that would have naturally occurred, moving the area closer towards desired conditions. In areas where low to mixed severity/intensity occurred, openings and pockets caused by high severity/intensity will allow for recruitment of a new age class in mixed conifer and ponderosa pine. The fire also stimulated resprouting of shrubs. Aspen is also expected to resprout in mixed conifer and some ponderosa pine stands. Fire has allowed for the recycling of nutrients and increased amounts of sunlight reaching the forest floor, all of which will provide for higher quality and quantity wildlife and range forage.



**Photo 3** Post fire effects as observed where the Midnight fire came out of the Potrero Canyon drainage and entered into the Francisquito fire. Scorching on the left side of the photo indicates higher flame lengths and fire intensity as compared to the right side of the photo, where past fire reduced fuels and increased canopy base heights, thereby reducing flame lengths and fire intensity.



## FUELS TREATMENT EFFECTIVENESS (FTEM)

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### 5. Document & Complete Information in IFTDSS (If Applicable)

The interactions for the Midnight Fire are scheduled to be entered into FTEM/IFTDSS in October or November of 2022. The wildfires and prescribed fire entries within the Midnight Fire planning area gave fire managers and operations personnel a lot of options for containment. Ultimately, given the weather and fire environment during the Midnight fire, if the previous treatments and wildfires had not occurred, this fire would have been much larger and would have impacted additional values at risk, including inholdings and the communities of Cañon Plaza and Vallecitos. Even though the area was under severe/extreme drought conditions, the treatments and wildfires made a difference and substantially reduced fire behavior, fire spread and fire progression in 97<sup>th</sup> percentile conditions.

## CONCLUSION

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### 6. Did the Fire Meet Objectives?

The 1986 Carson NF LRMP was amended on February 24, 2012 broadening the applications for managing wildfires on the Carson NF by changing wording in the LRMP to reflect updated National Fire Policy. The amendment to the Carson NF LRMP states “Fire, as a critical natural process, is integrated into activities on a landscape scale and across agency boundaries. Wildland fire will be used to protect, maintain, and enhance resources and, as closely as possible, be allowed to function in its natural ecological role. Fire response will be appropriate for each planned and unplanned fire ignition by considering the fire environment and management area prescriptions. Every consideration will be given to use fire to help meet management area objectives, while providing for public safety and property protection.” During post fire discussions, fire managers and line officers agree that a portion of the Midnight Fire met the intent of LRMP direction and met objectives as stated in the Agua/Caballos ROD, ERCLRP DN/FONSI and the Jarita Mesa/Alamosa Grazing Allotment DN/FONSI. The actual fire effects on the ground occurred under the 1986 LRMP, so this plan was utilized to evaluate whether portions of the fire met objectives. The Carson NF recently signed and began implementing the new LRMP on August 8, 2022.

Although the Midnight fire was managed under a full suppression strategy, portions of the fire did meet the purpose and need of the Carson NF LRMP, Agua/Caballos ROD, ERCLRP DN/FONSI and the Jarita Mesa/Alamosa Grazing Allotment DN/FONSI. As a result of the Midnight Fire, fuel load was reduced, fire was re-introduced into fire-adapted ecosystems (first entry on 60% and second entry on 40%), openings were created for the recruitment of a new age class, small diameter trees were reduced, slash that impeded wildlife movement was reduced, resprouting of shrubs has started, grasses/forbs are responding well to recycling of nutrients and aspen resprouting is anticipated in Spring of 2023. Most private land values at risk were protected from fire to the extent possible, and critical watersheds, riparian areas and waterways were also protected from negative impacts from the Midnight Fire to the extent possible. Some Mexican Spotted Owl and Northern Goshawk habitat was improved and not negatively impacted.

It is my determination that portions of the 4,896 acre Midnight Fire moved the fire area towards desired conditions as set forth in the ROD for the Agua/Caballos Proposed Projects, DN/FONSI for the ERCLRP, DN/FONSI for the Jarita Mesa/Alamosa Grazing Allotment and as set forth in the Carson NF LRMP. There were multiple benefits as a result of this natural ignition. The total acreage that met objectives is 2,411 acres, which is approximately 49% of the fire footprint. A total of 1,662 acres will be claimed in FACTS under activity code “1119 – Planned Treatment Burned in Wildfire” for acres burned within the ERCLRP, Agua/Caballos and Jarita Mesa/Alamosa projects that were analyzed for prescribed burning treatments. An additional 749 acres will be claimed in FACTS under Activity Code “1117 – Wildfire Natural



Ignition” due to the fact that the re-introduction of natural fire is an important first step in restoring the area for resiliency and restoring natural ecological function back into this system where NEPA clearance does not exist for prescribed burning. The remaining 2,485 acres (51%) either did not meet objectives or was on on-NFS lands.

If you have any questions, please contact Carson NF West Zone FMO Jamie Long [jamie.long@usda.gov](mailto:jamie.long@usda.gov) , Santa Fe/Carson NF Fuels Program Manager Dennis Carril [dennis.carril@usda.gov](mailto:dennis.carril@usda.gov) , Carson NF Fire Management Specialist Jonathan R. Romero [jonathan.romero@usda.gov](mailto:jonathan.romero@usda.gov) , or Carson NF West Zone Prescribed Fire/Fuels Technician George Allalunis [george.allalunis@usda.gov](mailto:george.allalunis@usda.gov) .

## 7. Signature and Date

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