

Incident Summary Page for the 100 Fires Project

Incident Name: Hermits Peak/Calf Canyon Fire	Incident Date & Time: Hermits Peak 04/06/2022 @ 16:50 Calf Canyon 04/21/2022 @ 01:30
Incident Location: 15 miles northwest Las Vegas, New Mexico	Incident Size: 341,471 acres
Types of resources involved: US Forest Service district personnel	# of Fatalities/injuries: Not applicable
Reason this fire was selected for the 100 Fires list: ➤ Fire made a notable impact within the wildland fire service	
Conditions leading up to the event:	
<p>As part of a large multi-unit prescribed burn project, personnel from the Santa Fe National Forest conducted the Gallinas-Las Dispensas Prescribed Burn on April 6. The Gallinas-Las Dispensas Prescribed Burn was implemented and carried out years after the plan was developed. This interval allowed the fine and heavy fuels to accumulate to a point where the burn plan no longer represented the actual fuels in the unit. Long-term drought and heavy fuel loading outside the prescribed burn unit were not fully considered, and the test fire location was not representative of the unit or surrounding area. Higher winds and lower relative humidity than expected along with some miscommunication on the burn contributed to the fire escaping control lines. It was declared a wildfire and renamed the Hermits Peak Fire.</p> <p>Earlier in the year, during January, the Santa Fe National Forest also conducted a 266 acre prescribed pile burn; the Gallinas Canyon Wildland Urban Interface Pile Burn Project. The piles were a result of a thinning project made up of vegetation and tree debris from within the project area. Several years of treatment had opened the canopy allowing more sunlight to shine through causing fuels to dry out more rapidly than expected.</p>	
Brief description of the event:	
<p>Hermits Peak On April 6 at 11:34 firefighters ignited a test fire on the proposed 150 acre Gallinas-Las Dispensas Prescribed Burn. At 12:34 the test was considered successful and the main firing commenced. A small spot fire occurred at 13:35, which was controlled and at 14:26 another ¼ acre spot fire was picked-up. During these actions radio communication with some of the personnel was discovered to be a problem. It was later found that one of the Division Holding Bosses was using a separate “crew net” and was not monitoring the planned frequency.</p> <p>Ignition stopped a couple of times as spot fires were suppressed, and by about 16:00 when the relative humidity dropped to 10 percent there were at least a dozen spots. At 16:06 the Burn Boss put in a request for the burn plan’s contingency resources. Soon after groups of trees began torching and all resources were pulled off the fire due to the increasing fire intensity. At 16:25 Dispatch reported back to the Burn Boss that the contingency resources were physically located at a training exercise approximately 70 miles from the prescribed fire.</p> <p>At 16:38, approximately four hours after primary ignition began, the Agency Administrator was advised through Dispatch that the Burn Boss and Fire Management Officer recommend it be declared a wildfire. The fire was heading north towards Hermits Peak and west towards the Pecos Wilderness. At 16:50 the Gallinas-Las Dispensas Prescribed Burn was declared the Hermits Peak Fire.</p>	
<p>Calf Canyon The Gallinas Canyon Wildland Urban Interface Pile Burn Project held heat, even under snow, from ignition in January until heat was detected using aircraft with thermal heat sensors on April 8. On April 9, crews were requested to secure the perimeter of a 1½ acre hotspot, crews continued to work and monitor the spot for several days to secure the perimeter. Meanwhile, flights were continued and by April 18 no heat was noted. However, on April 20 intense heat was identified in two separate locations at the pile burning site and by April 21 the heat sources had grown to 220 acres.</p> <p>On April 22 the Calf Canyon Fire was burning intensely, growing rapidly, and merged with the Hermits Peak Fire. This is when the combined wildfires made an 11 mile run to the northwest. Wind speeds were recorded near Las Vegas, New Mexico at 40-50 mph with gusts up to 67 mph with a relative humidity of 6%. Combined, the fires would make impressive and extremely intense uphill and downhill crown runs, even at night, for the following months. The merging of these two fires resulted in the largest wildfire in New Mexico history.</p>	

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Fire behavior factors that were present during the event:

Fuels were drier than perceived from on-site weather observations.
Nearby RAWS readings indicated potential for severe burning conditions.
From April to June, Red Flag Warnings were issued in the area for extremely low RH and very high winds.
Heat held over for more than two months after the implemented prescribed pile burn in the winter for the Calf Canyon Fire.

Operational lessons available for learning from this incident:

Approved prescribed burn plans, where implementation has been delayed for several years, may require a review of fuel loading and the fire behavior calculations.
Required holding forces should be based on fuel conditions outside of the burn unit as well as within the unit; spatial modeling tools may be useful.
Pressure from management to complete a burn in a rush or without adequate resources is a watch-out situation.
Confirm the availability of contingency resources prior to ignition of any prescribed burn.
Test fire location and fuels should be representative of the prescribed burn unit.
Ensure that onsite weather observations are accurate.
Ensure that all resources are monitoring the assigned incident tactical channel.

Notable impact or historical significance for the wildland fire service from this incident:

The escape of this prescribed fire resulted in the erosion of public trust in the agency, which was addressed by the Chief of the Forest Service with the implementation of the prescribed fire pause and review of 2022. Several new planning and implementation requirements for prescribed fire emerged from this review.

Links to more information on this incident:

<https://lessons.wildfire.gov/incident/gallinas-canyon-pile-prescribed-burn-declared-wildfire-review-2022>
<https://wildfiretoday.com/2022/06/22/report-released-for-the-prescribed-fire-that-led-to-the-hermits-peak-fire/>
<https://wildfiretoday.com/2022/05/27/investigators-determine-calf-canyon-fire-caused-by-holdover-from-prescribed-fire/>
<https://storymaps.arcgis.com/stories/eccb2152c72546dda8be2ae31b9b50cb>

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April 2024

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Figure 1: Gallinas-Las Dispensas Prescribed Burn on 04/06/2022 @ 1618

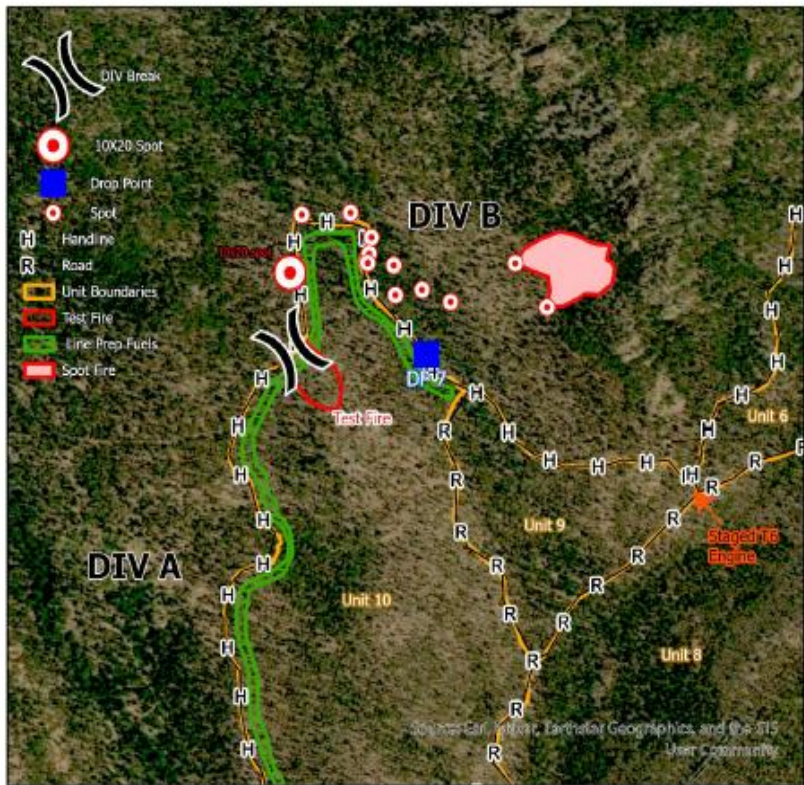


Figure 2: Gallinas-Las Dispensas Prescribed Burn map with spot fires on 04/06/2022

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Fire activity on 04/11/2022



Fire activity on 06/14/2022