

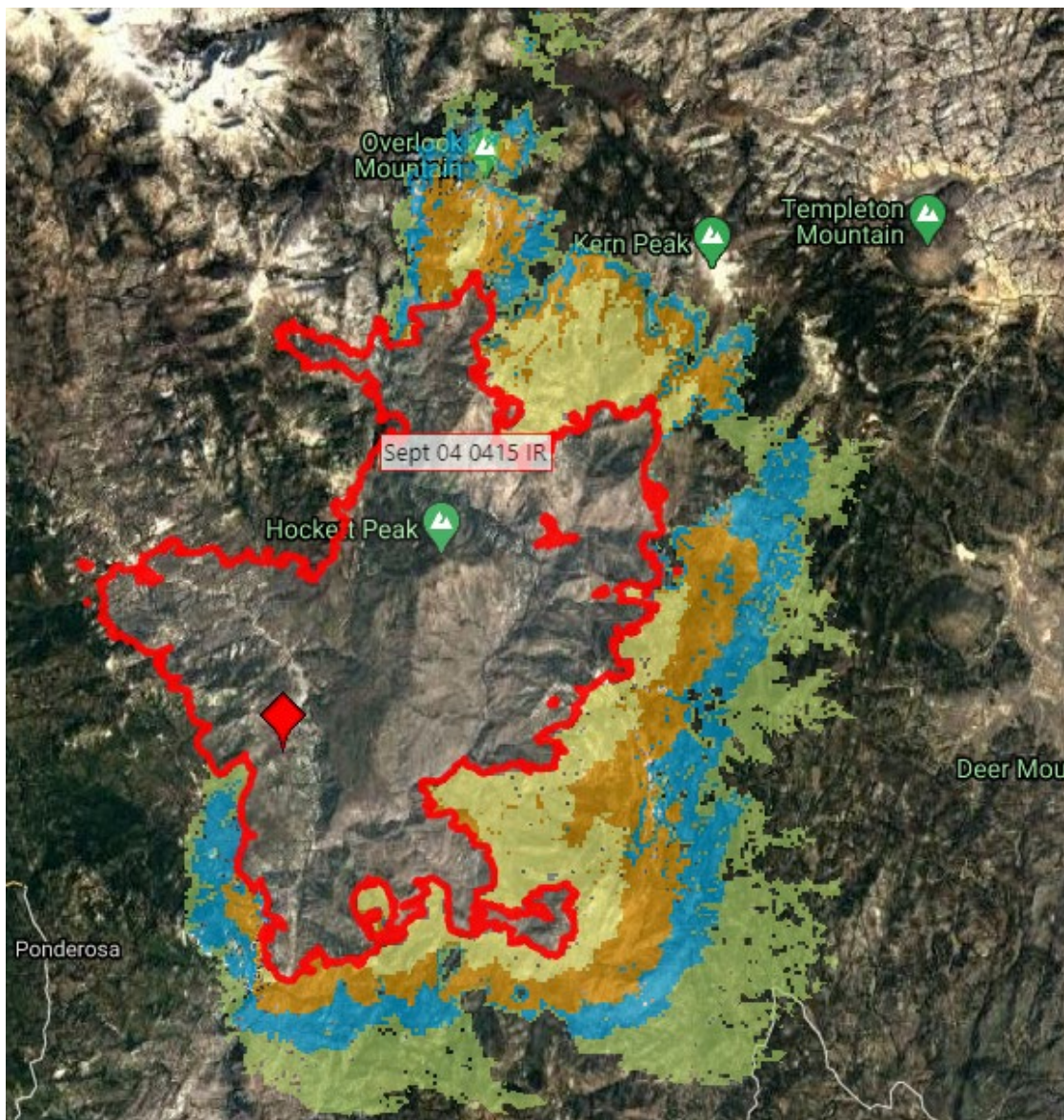
## Castle Fire – Branch V

9/4/2020 Near-term Fire Behavior Modeling

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This is a 4-day Near-term fire modeling run (for 9/4-7) done with ignitions only for the Branch V side of the Castle Fire. Overall, the Castle fire will tend to find SW-aligned drainages and slopes to spread through, with some movement through spotting and rollout. The fire will move slower through most fire scars. Scattered rock outcrops will baffle fire movement. As instability decreases slightly Monday, and winds potentially shift to being northerly, or northwesterly, and open fire edges may move in novel directions. We do not have a solid understanding of how the Kern-influenced terrain winds will play out with a general North wind.

*Calibration for this run is still a work in progress* and growth may not be characterized well. There is uncertainty in the weather forecast on which these results are built. This model output assumes no fire suppression efforts and no barriers to surface fire spread were used. This model does not account for plume-dominated fire behavior, and if instability plays a larger role than anticipated, rates of spread for those times could be higher.



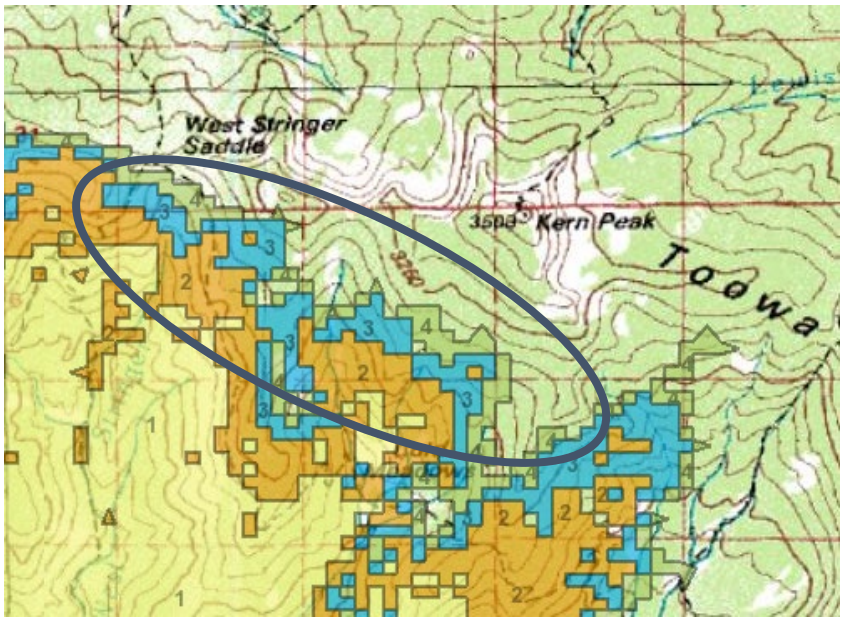


Specific 4-day fire spread notes for Branch V: (Starting north and going clockwise around the branch)

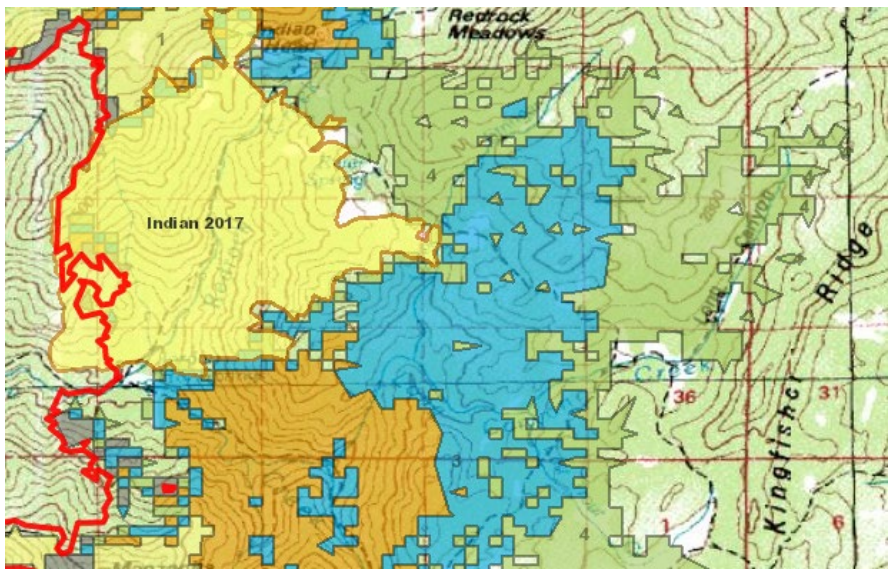
If heat were present along the north finger of the fire in the 'Hell For Sure' area, south winds could bring it up near Overlook Mountain, and fire could flank down from there to structures near the NPS boundary and confluence of the Kern and Golden Trout Creek within 4 burn periods (by 9/7).

This run shows a potential for spotting across Volcano meadows near the tunnel corral.

The fire edge southeast of Kern Peak will likely make a run towards Kern Peak over the next 2 burn periods quickly through grass and brush fuels, but will slow as it reaches the rock below the peak and the slope reversal to the west of the peak.



The 2017 Indian fire and 2019 Jordan fire decreased fuels southwest of Redrock Meadows and will reduce potential for fire spread here. However, the fire could spread 3+ miles per day in the nearby drainages aligned with predicted SW winds, particularly on Monday (slightly less stability predicted than previous days.)





This modeling run has the fire reaching the Casa Vieja structures on Sunday 9/6 if predicted winds and stability trends hold. The lack of consistent and wind-aligned drainages between the fire and Monache Mountain should lead to relatively slower growth towards this peak.

On the SE portion of Branch V, the 2017 Schaeffer fire modified fuels, mainly in the areas of higher fire severity. The Schaeffer will slow fire growth some, however unimpeded fire with predicted weather conditions may reach the Blackrock station in approximately 4 days.

On the very southern part of Branch V along the Kern, if there were heat along the fire edge or spotting, the fire could move with morning winds and/or back against predominant south winds, with growth increasing Monday due to forecasted northerly winds.

