

Bald Knob Wildfire – Pisgah National Forest, NC

Collaboration is Key – Fuel Treatments that Allowed Fire Management Objectives to Include Restoring Fire Adapted Ecosystems



Fire Activity: July 14 through August 15

Report Published November 2015

“We realized from start that this ignition was in a very difficult place to access and that we couldn’t reasonably ask fire fighters to engage in such rugged terrain. Likewise, considering the heavy fuels and inability to use equipment in this type of terrain we knew suppression tactics would have a low probability of success. Pair all that with the fact that we have restoration treatments and a wildfire history all over this ridge and it really was a great opportunity to step back and think about the appropriate response. With these recent fires we are starting to reap the value of the restoration work under our Collaborative Forest Landscape Restoration Project.” Nicholas Larson, District Ranger, Grandfather Ranger District

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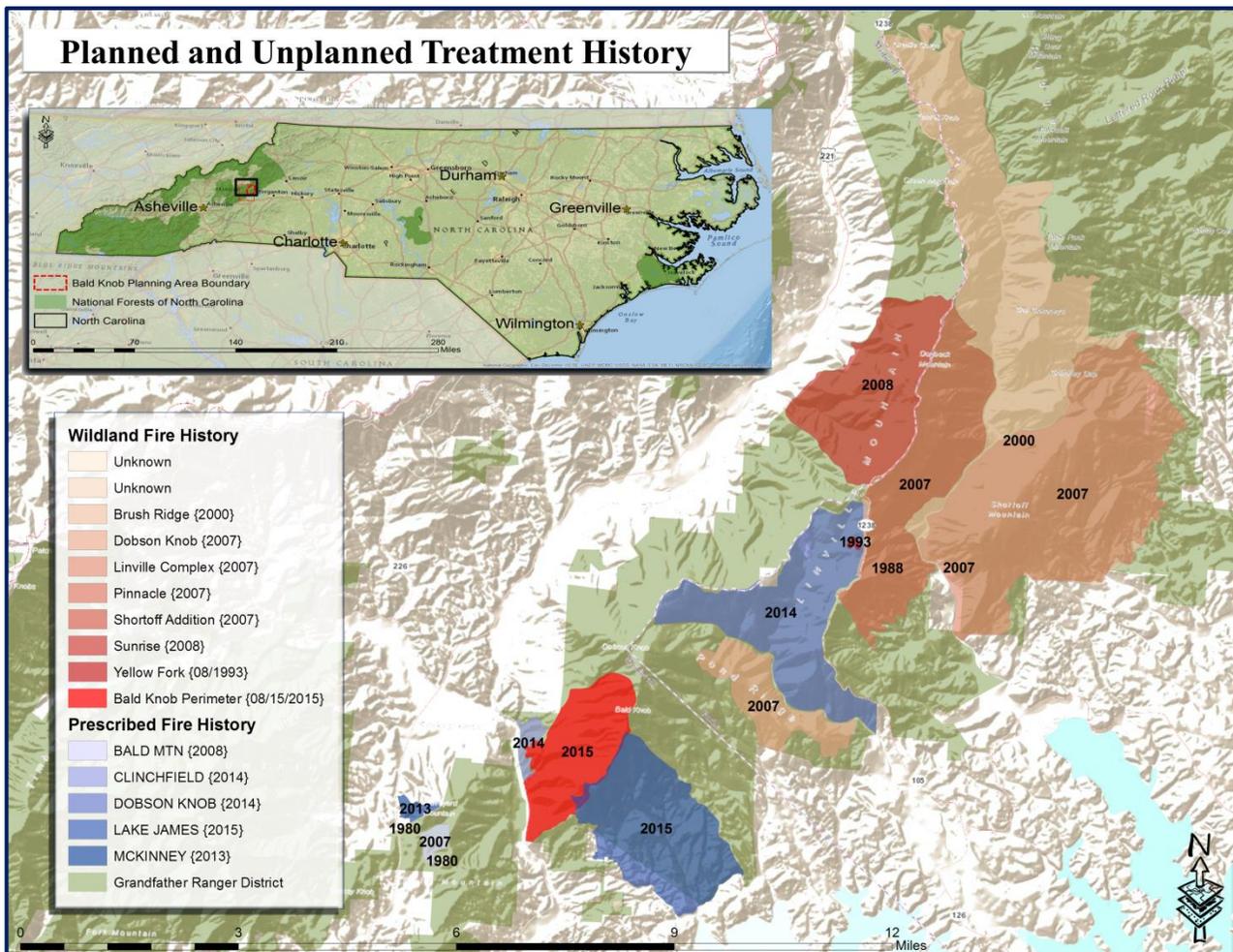
Mountains to Sea Trail

Introduction

A lightning strike started the Bald Knob fire on July 14th about 30 miles east Asheville, North Carolina on the Grandfather Ranger District of the Pisgah National Forest, part of the National Forests in North Carolina. The ignition point was situated in rugged, back country terrain, limiting firefighter access. Fortunately, the surrounding area received fuel treatments and had seen past wildfires. These changes in fuel loading, fuel structure, historic line construction and local knowledge of values at risk afforded managers the opportunity to manage the fire to meet resource objectives while minimizing risk and exposure of firefighters. The strategic placement of the fuel treatments along with the past wildfires allowed for the appropriate response to this wildfire to be one that focused on restoring fire adapted ecosystems and reducing fuels while providing for fire fighter safety and community protection. Collaboration with adjacent landowners and partners through the Collaborative Forest Landscape Restoration Program (CFLRP) was as critical in the planning and implementation of the fuel treatments as it was to the successful management of the Bald Knob fire.

Appropriate Management Response to the Wildfire

On initial detection, it was obvious the fire was located in rough terrain and difficult to access. Direct attack on this wildfire would have posed an increased risk for firefighters and had minimal probability of success. The Fire Management Officer and the District Ranger wanted to choose better ground to fight the fire. Under typical summer conditions, lightning caused fires have little opportunity for growth and do not burn more than a few days before rainfall puts them out. However, current fuel conditions at the time of ignition and weather forecasts indicated this fire could last for numerous weeks. This year's summer drought conditions provided an opportunity for a longer duration event and allowed fire to play its role in a fire adapted ecosystem.



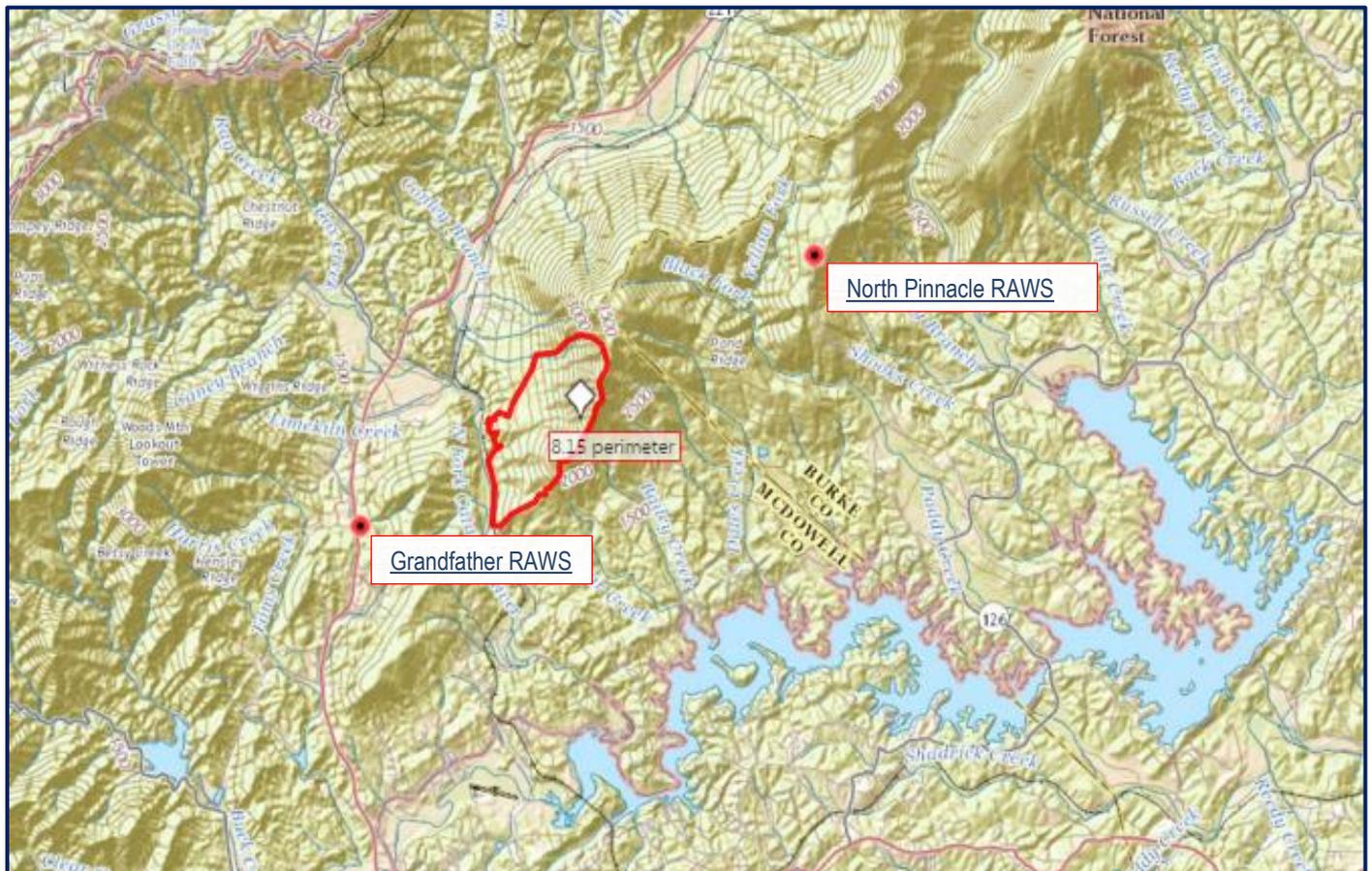
Fire Environment

Two Remote Automated Weather Stations (RAWS) are located in close proximity to the fire location. The Grandfather RAWS lies at an elevation of 1,200 feet approximately three miles southwest of the fire. The North Cove Pinnacle RAWS lies at an elevation of 2,657 feet approximately three and a half miles northeast of the fire. Both RAWS were monitored throughout the fire. However, the Grandfather RAWS was ultimately used in this assessment as well as in the final

calibration and any approved fire behavior modeling outputs in the Wildland Fire Decision Support System (WFSS). An on-site Wildland Fire Module also recorded daily weather observations. There were instances, throughout the duration of the incident, when the RAWS readings were not accurately representing those conditions experienced on the fire. These instances primarily entailed the RAWS reporting significant precipitation amounts and duration that were not being observed on the fire. Ultimately however, the Grandfather RAWS provided valuable climatological data to fire personnel working on all aspects of the Bald Knob fire.



Rugged terrain of the Bald Knob Wildfire

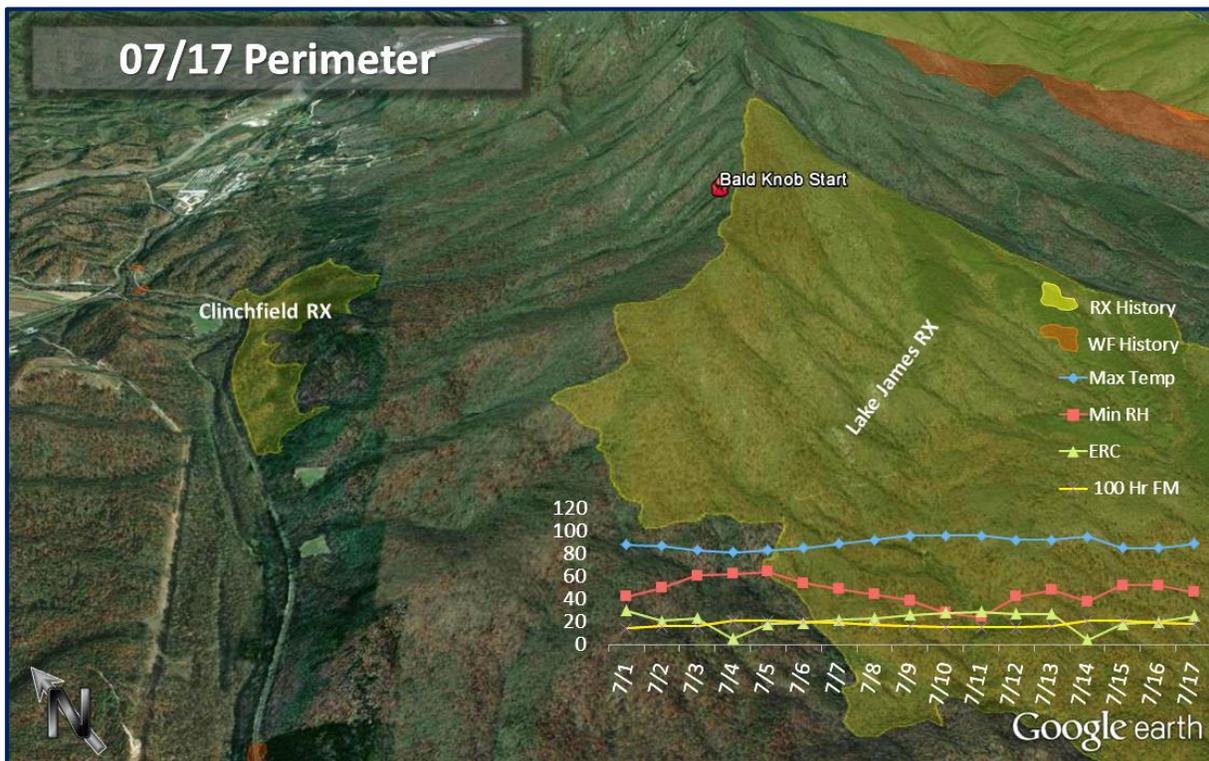


Narrative/Chronology

July 14-17

Lightning ignited the Bald Knob Fire on July 14th in steep and remote terrain less than three quarters of a mile south southwest of Bald Knob. 1300 hour Grandfather RAWS recorded a high temperature of 95, low relative humidity of 36 percent, and variable winds up to 7 miles per hour. Acreage of the fire at this time is unknown, as the fire is yet undetected.

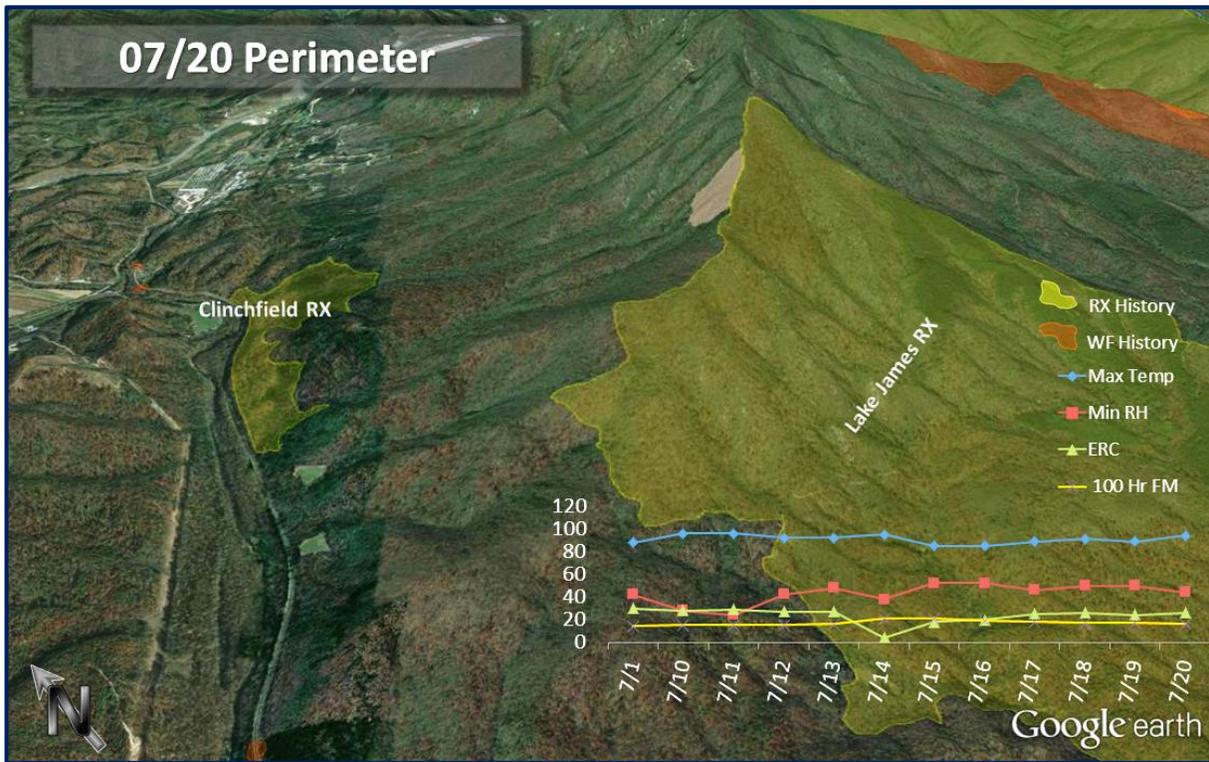
The fire burned under low to moderate conditions until being discovered in the late afternoon on the 17th. Fire behavior predominately consisted of low to moderate fire spread with growth occurring through flanking and backing in heavy concentrations of down and dead fuels. The RAWS recorded a high temperature of 89, low relative humidity of 46 percent, and wind gusts of 7 miles per hour. Acreage at discovery is reported at ¼ of an acre.



Climatology graphs overlaid on the perimeter maps represent daily 1300 hour readings from the Grandfather RAWS.

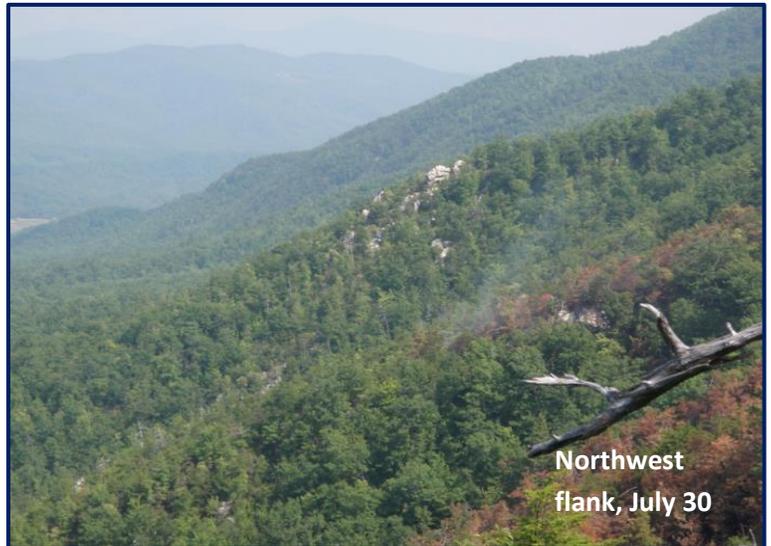
July 20

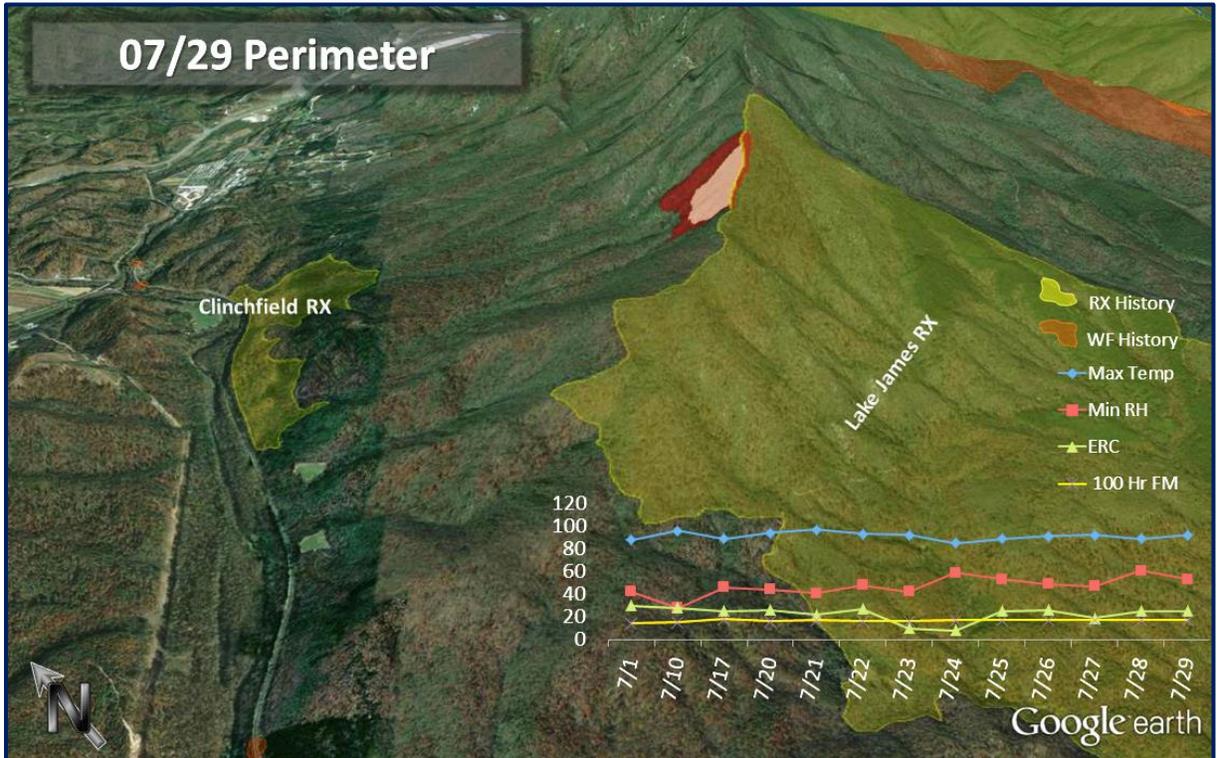
The fire continued to burn under low to moderate conditions and moved to the ridgetop/Lake James Prescribed Fire boundary south of Bald Knob. Grandfather RAWS recorded .09" of rain since the 14th of July, however, fire managers' report that rainfall activity hasn't impacted the incident. It's observed that the Lake James prescribed burn unit, treated most recently in January 2015, is holding the fire from any spread to the east of the ridge top. Grandfather RAWS recorded a high temperature of 94, relative humidity of 44 percent, and wind gusts of 12 miles per hour. 10-Hour fuel moistures are at 11 percent. The fire consumed roughly 30 acres in the past three days.



July 21-30

The continued to flank the Lake James prescribed burn unit with movement to the north and south of the prescribed fire boundary. Under abnormally dry and moderate drought conditions, the fire continued to move through the herbaceous understory consuming these herbs as well as 100 and 1000-hour fuels. The RAWs recorded over 2 inches of rain during this time period however, only traces of this amount were observed on the fire. Isolated cloud cover and traces of precipitation continue to moderate fire behavior. High temperatures over the past nine days were in the low 90s, low relative humidity hovered between the upper 40s and lower 50s, and winds consistently gusted at a minimum of 7 with high gusts of 14 and 15 miles per hour. Acreage estimates at this time are true projections due to limiting terrain. Acreage on the 30th of July is approximately 100 acres.





July 31-August 2

Fire continued to creep and smolder with periodic moments of increased movement with outflow thunderstorm winds. Maximum observed flame heights of 2 feet were observed. Fire activity was creeping with isolated and group torching, and short uphill runs. Fire was well established in a drainage on the northwest corner and active on the north flank along

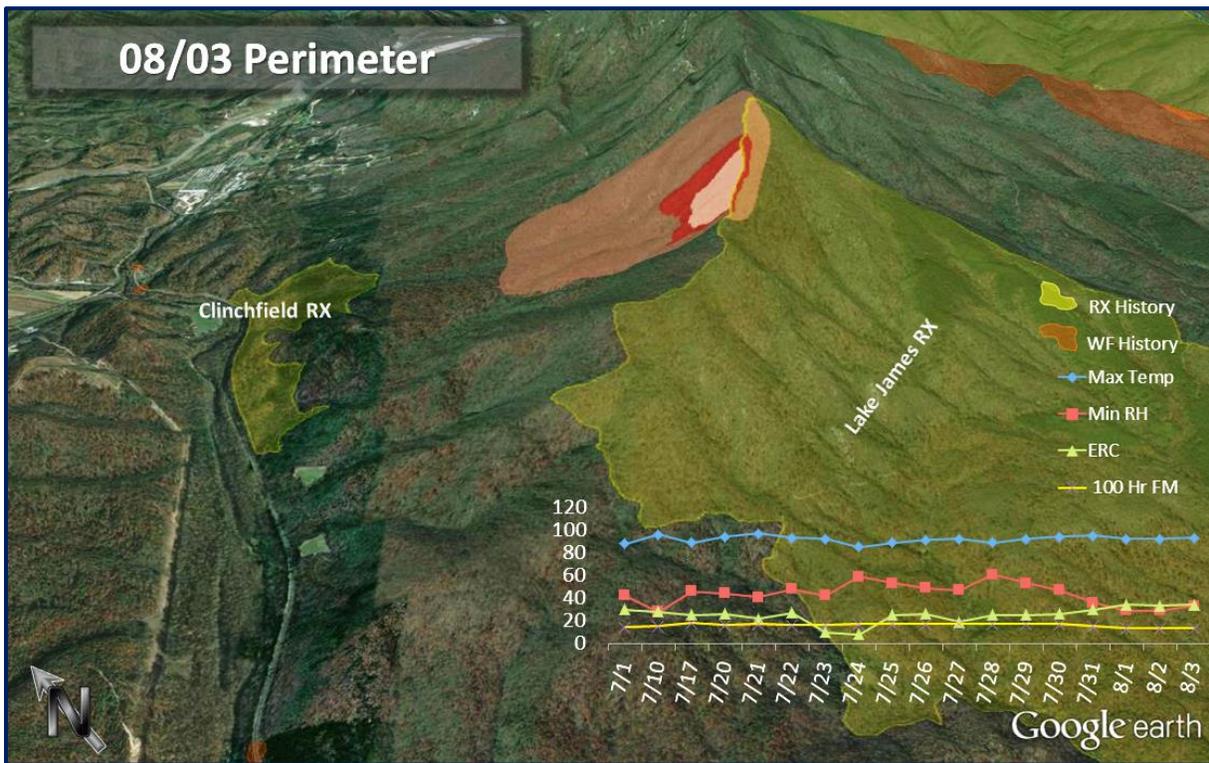
the Mountains-to-Sea Trail. Starting around 1400 on July 31, activity increased with torching and short uphill runs producing thicker, gray-black smoke. At 1500, a wind shift from south to north revealed a new spot fire established a quarter mile north of the main fire. The spot grew to about 3-5 acres in 2 hours. Fire on the 31st reached a point ¼ of a mile from Bald Knob. Over the three days, high temperatures hovered between 92 and 95 degrees while relative humidity bottomed out at 29 on both the 1st and 2nd of August.



Fire Activity, Aug 2

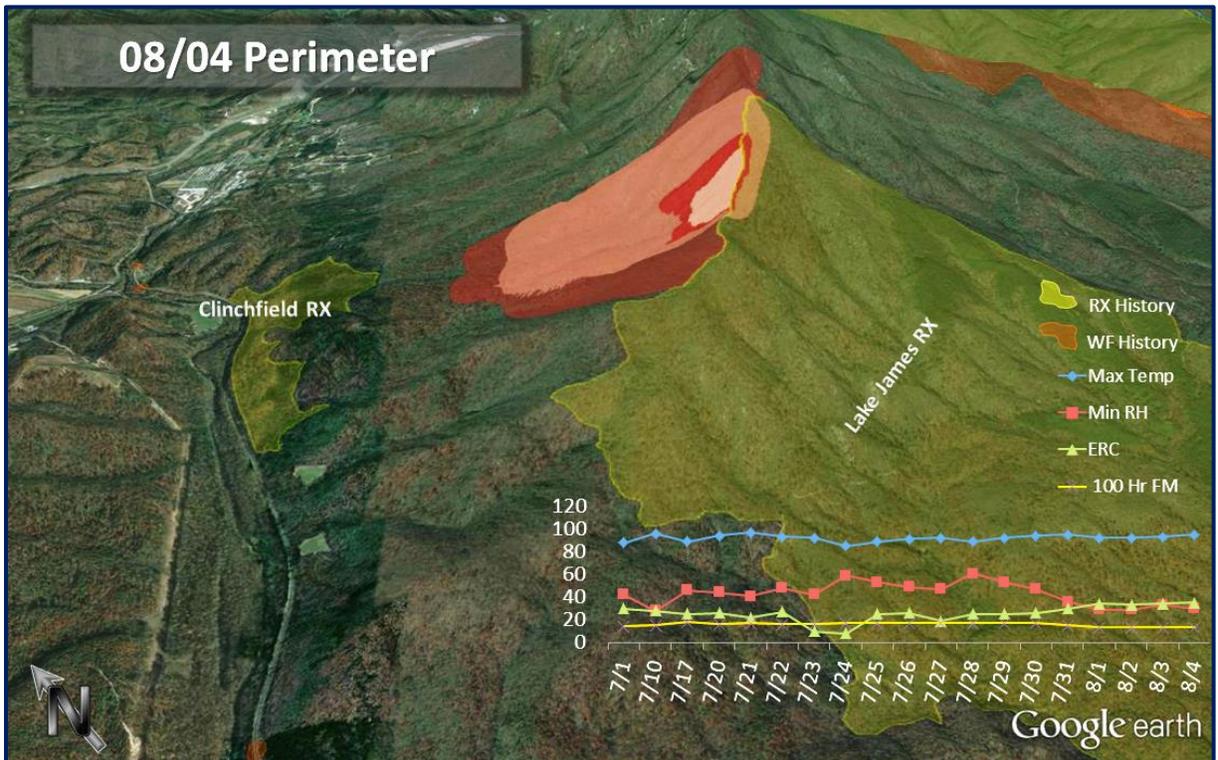
August 3

The fire was active on the north, west and south flanks today, and burned an estimated 100-150 new acres. Early in the day, the most activity was on the northern and western flanks, as they backed and flanked into light north winds at rates of 1-5 chains per hour. Around 1600, the southern flank of the fire came into alignment with wind and terrain and made short runs to the top of the southern end of the Bald Knob ridge. A high temperature of 97 degrees and a low relative humidity of 33 percent were recorded at the Grandfather RAWS.



August 4

The fire was active on all flanks, and burned an estimated 50-100 new acres. After the inversion lifted around 1100, fire activity picked up on the west and south flanks. Fire crept over the top of Bald Knob and onto its eastern slope around 1500. Two thunderstorms passed east and west of the fire around 1600, which produced some brief and gusty outflow winds, and shifted the smoke from south to north and east. After the wind shifts calmed, skies cleared again and the north flank saw increased activity. A high temperature of 95 degrees and a low relative humidity of 30 percent was recorded at the Grandfather RAWS.

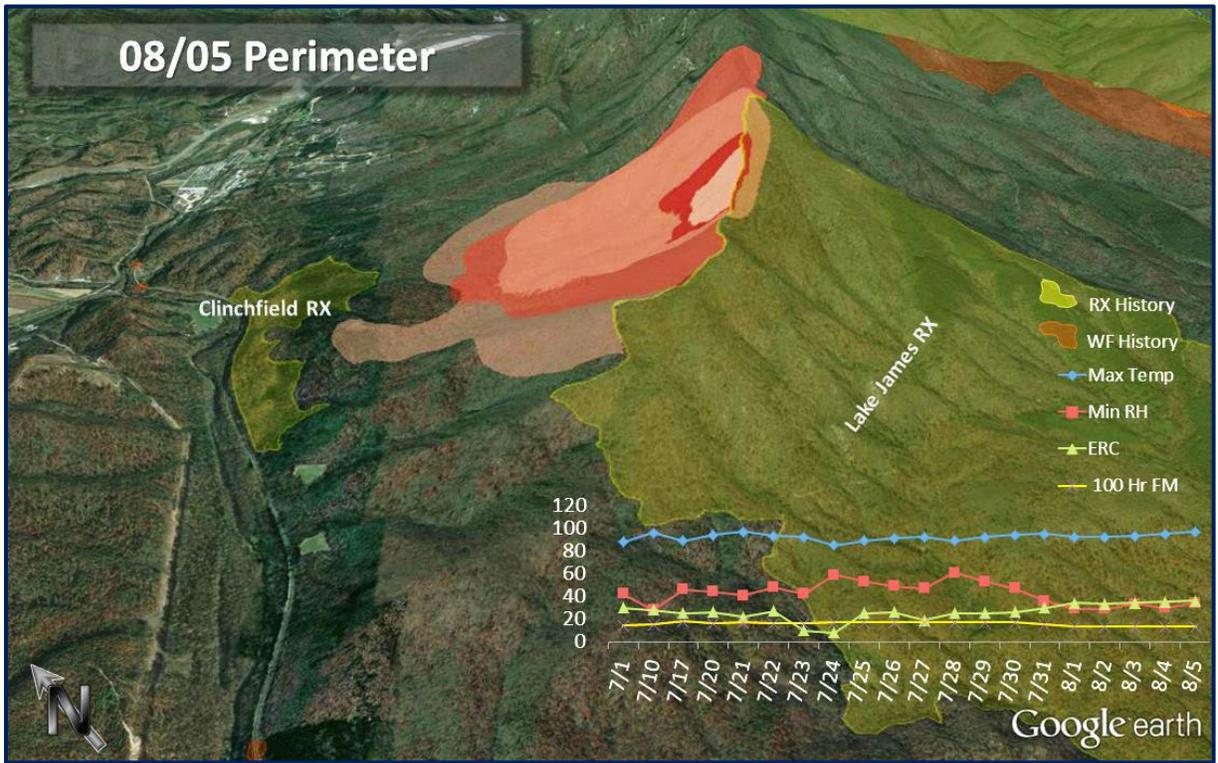


August 5

The fire was most active on the west and south flanks today, with good activity on the north flank as well. Isolated and group torching was observed on the west and south flanks as early as 1130. Several spot fires were found south of the southern containment lines in a prescribed fire unit that was burned in January. Most of the spots were small and burning in decaying logs, though two spot fires burned to ¼ and 1 acre. Suppression actions were not taken on these spot fires as they posed no risk to the planning area and burned themselves out by the following shift. While winds were primarily light and variable, at about 1800 thunderstorms near the fire produced outflow winds from the northwest that increased fire activity on the north flank of the fire. A high temperature of 97 degrees and low relative humidity of 34 percent was recorded at the Grandfather RAWs. A trace (.01") of precipitation was also recorded at the RAWs.



Group torching, southwest slope of Dobson Knob Aug 5

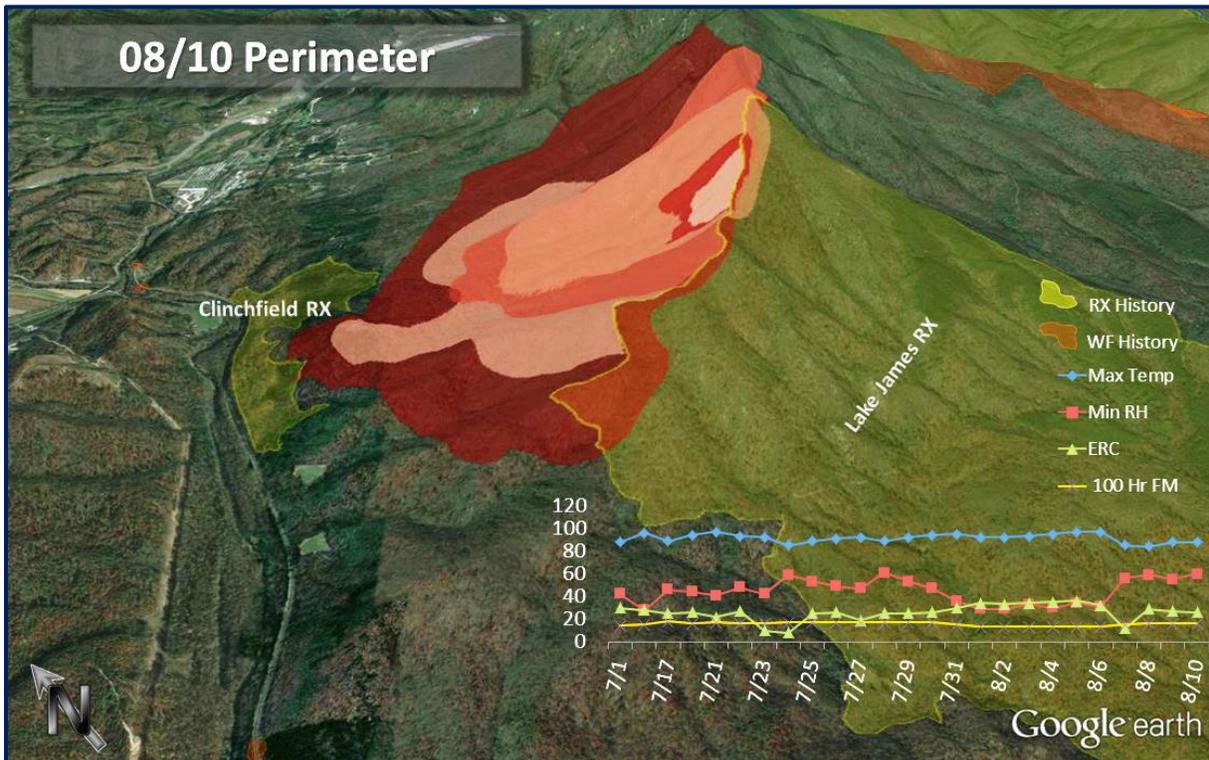


Well-formed column produced by increased fire activity as a result of outflow thunderstorm winds on Aug 5

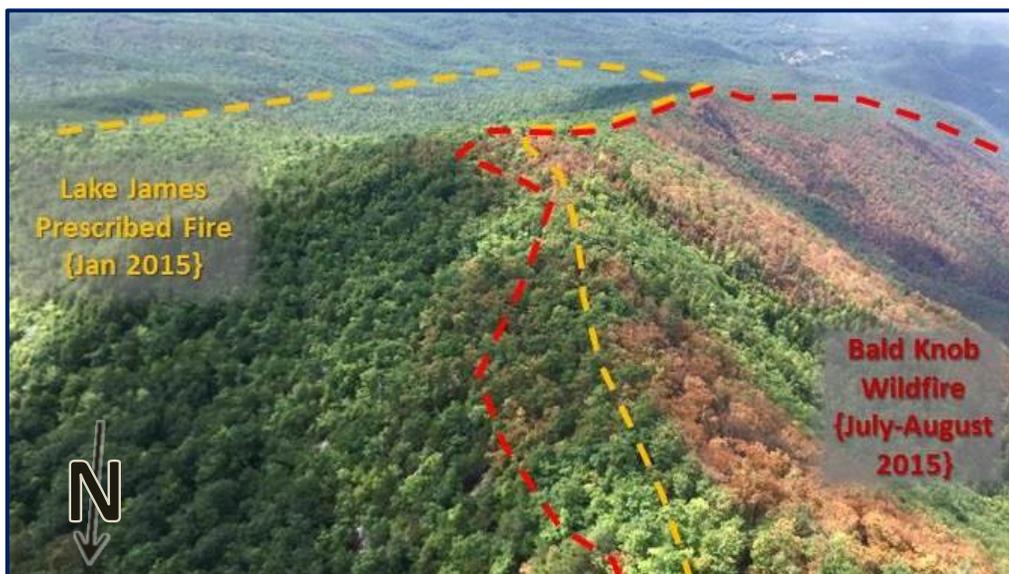
At 1815, a dramatic wind shift from the northwest began pushing smoke to the south and fueled the development of a well-formed column rising to about 10,000 feet above ground level. Outflow winds from passing thunderstorms continued to be the primary driver of fire spread to the west and south.

August 6-10

Fire activity and spread moderated over the next five days. Fire continued to spread through creeping and smoldering with isolated periods of movement through group torching and spotting with outflow winds caused by passing thunderstorms. A high temperature of 97 degrees and low relative humidity of 31 percent was recorded at the RAWS. Two hundredths of an inch of precipitation was also recorded at the RAWS.

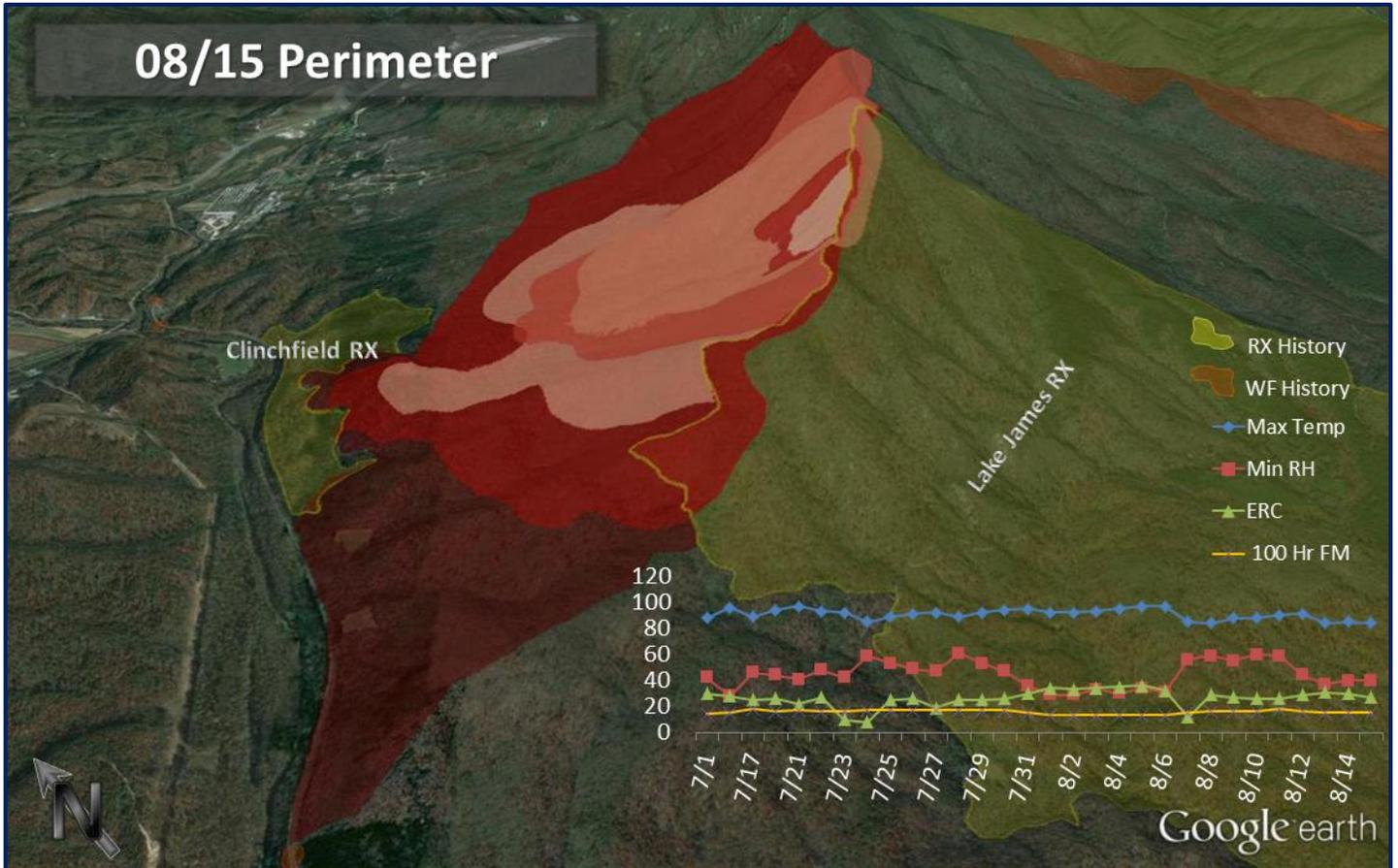


The photo below highlights areas where the Bald Knob Wildfire burned into, and held at, the Lake James Prescribed Fire of January 2015.



August 11-15

The majority of fire growth over the next five days was the result of control and secure firing operations. New and existing dozer lines were used to slowly back the fire from the main perimeter to areas in which firefighters could safely accomplish control objectives. Moderated weather conditions over this time period also allowed for successful firing and control operations. On the 15th of August, after a month of activity, the Bald Knob Wildfire had burned just over 1,200 acres.



Fire backing through leaf litter on the western flank along the Mountain-to-Sea Trail

Fire activity ended on August 15th, however, the fire was not officially declared out until September 21st. Hot-spots remained within the burned area but no active smoke was observed. Due to the difficulty of access and area of unburned fuels between the fire and the control lines, managers were unable to declare the fire officially out until after a period of heavy precipitation over multiple days.

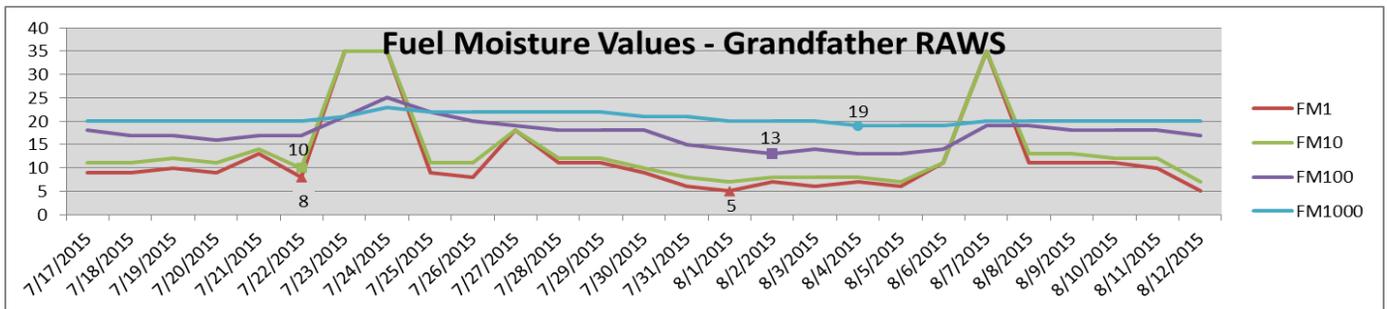
Fire Weather

During the late winter and early spring of 2015, prior to the Bald Knob Fire's ignition, fairly typical weather patterns were observed over the North Carolina Mountains. Rainfall accumulation totals at the Grandfather RAWS hovered at slightly below average through early March. Mid-March through mid-June observed an uptick in rainfall events however these events were limited to sporadic two to three day events as isolated thunderstorms moved across the area. Drying conditions began building over portions of North Carolina in mid to late June. High pressure began dominating the fire weather pattern, with only brief and periodic weak low pressure disturbance.

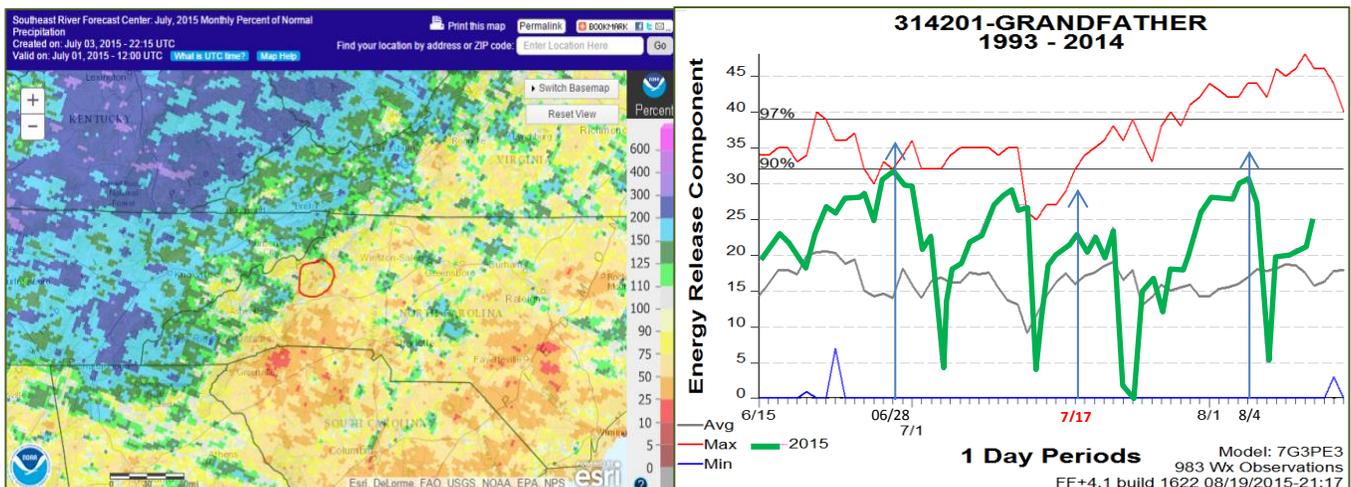
Fuels Conditions

The majority of vegetative communities impacted by the Bald Knob Fire, in terms of fire behavior attributes, can be generally characterized by applying Hal Anderson's Fuel Model 9 or Scott and Burgan's Fuel Models 186 and/or 189. Scott and Burgan's Fuel Model 189 better describes the current conditions given increased dead fuel load due to the southern pine beetle epidemic of the late 1990s and early 2000s. These vegetative communities consist of predominantly evergreen woodlands with pitch pine along the rocky south and west facing slopes below Bald Knob, as well as Table Mountain pine along the ridge tops. A thick, poorly decomposed duff layer, along with dead wood and highly volatile mountain-laurel and rhododendron understory shrubs, creates a strongly fire-prone habitat.

The graph below displays dead fuel moisture trends. It is observed that throughout the incident, fuel moisture values remained at critically low thresholds, which in turned allowed for consumption of the heavy 100 and 1000-hr fuels and aided in spot fire receptiveness. The lowest daily reading for each value is indicated on the graph.



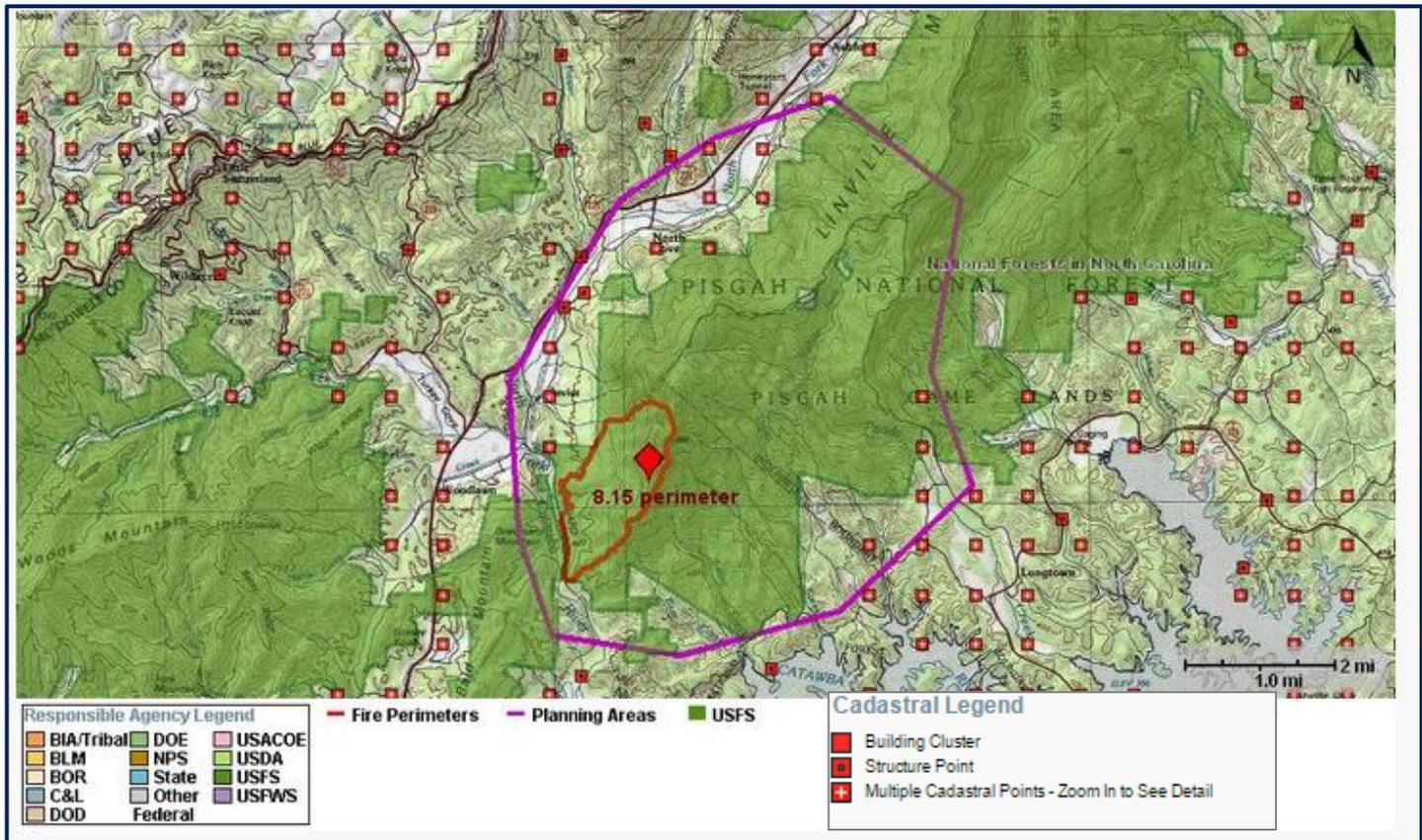
A significant contributor to low dead fuel moistures was a departure from normal rainfall accumulation throughout the month of July. The map below left displays Percent of Normal Precipitation for the month of July over the fire area. It is observed that the majority of the fire area averaged nearly 50 percent of normal rainfall accumulation for the month. The Energy Release Component (ERC) graph displays the trending ERC a month prior to the fires ignition and through the incident. The blue vertical arrows represent an ERC value at the 90th percentile on the 28th of June, ERC value on the fire discovery date of July 17th, and the last ERC peak near the 90th percentile on the 4th of August. The dips in ERC trend coincide with precipitation events recorded at the Grandfather RAWS.



Potential Consequences

The potential negative consequences that could have resulted from undesired fire spread are worth noting. The map below displays private property and building clusters around the fire, as well as communication sites and a power-line corridor to the north of the fire. Building clusters, identified as red blocks, are located immediately adjacent to the forest boundary in every direction. Communication towers are located to the north of the fire. The most obvious consequences would have been the increased risk to firefighters, risk to civilians, and any loss of structure. Continued smoke impacts were also a potential during this long duration event. Although there were no reported instances of smoke related health issues, long duration wildfire events do produce and emit smoke over extended periods of time.

Additional consequences could come in the form of a deterioration of working relationships and trust between the National Forest and local partners as well as private community members. Great efforts have been made to build relationships while implementing an all-hands and all-lands approach to wildland fire and fuels management on the Grandfather Ranger District.



Within the Planning Area Boundary the following known Values Inventory was identified:

- 32 Building Clusters within Burke County
- 63 Building Clusters within McDowell County
- 546 Acres within Class 1 Airsheds (Linville Gorge Wilderness Area)
- 17 Communication Towers
- 14,918 Acres USFS Land
- 6,791 Acres non-USFS Land

Fuels Treatment

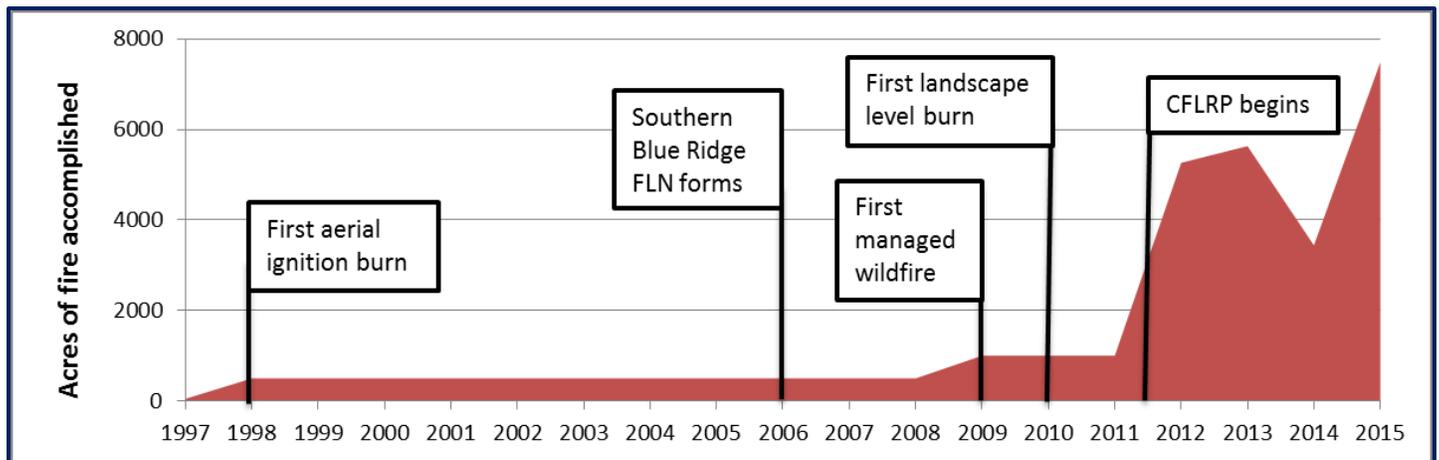
Treatment History

The recent prescribed fire fuel treatments and past wildfires in the immediate area around the wildfire were on the forefront of the Fire Management Officer and District Ranger decision. The fire was surrounded on three sides by either a strategic reduction in fuels in the form of prescribed burning or a change in condition and reduction in fuels as a result of past wildfire history. Areas to the northeast, southeast and west were recently treated with prescribed fire, while areas to the north had older wildfire “footprints.” These past fires may not have completely halted the spread of the Bald Knob fire but would have reduced the fire behavior, allowing firefighters opportunities to safely contain the wildfire. These past activities reassured managers of the conditions and values at risk on three sides of the fire, focusing the new actions around protecting the private lands to west and north of the fire.

Timeline

Treatments within the Bald Knob Fire planning area are part of a larger mosaic of prescribed fire treatments and wildfire history on the Grandfather Ranger District. Under the Grandfather Restoration Project, over 20,000 acres have been treated with prescribed fire since 2011. This acreage represents a marked shift in fire implementation over historical treatment levels, made possible by the priority status of the project, additional resources, and collaborative support through the CFLRP.

Fire has been a management tool for site preparation and maintenance of wildlife openings on the Grandfather Ranger District since the 1970's. The initial shift in fire use occurred in 1998, with the first use of a helicopter for aerial ignition on a prescribed burn. This new tool allowed the district fire management officer to burn larger, more complex areas, at that time focusing on fuel reduction. In 2006, the Southern Blue Ridge Fire Learning Network (FLN) formed, marking a shift in objectives from simply fuel reduction to include restoration of fire adapted ecosystems. The collaboration around the Southern Blue Ridge FLN moved the district from looking at fire impacts on a single burn unit to a holistic approach of creating a mosaic of fire across the landscape.



In 2009, the Grandfather Ranger district began managing natural-ignition wildfires. This change in management coincided with national policy changes in the guidance for implementation of the national fire plan that gave preference toward natural ignitions being managed as a natural process. Even with an emphasis on managed wildfire and landscape prescribed burning (>1,000 acre burn units), it was not until the start of the CFLRP that the Grandfather Ranger District was able to significantly increase burn capacity.

The start of the CFLRP marked a 6-fold increase in acres of fire accomplished, with a target of 6,000 acres per year. The added resources from the Grandfather Restoration Project allowed for more frequent entries into burn units. This was critical in the response to the Bald Knob Fire, since each prescribed fire unit within the planning area had received

treatment in within the past 2 years.

Lake James Prescribed Burn

Treatment Dates: March 2011, January 2015

Size: 1950 acres

Fuels: Understory is high to moderate density of ericaceous shrubs. Due to the previous treatment, 10-hour and 100-hour fuels are higher in some areas. Fuel model 9 – 12 tons/ac (prior to last burn)

Dobson Knob Prescribed Burn

Treatment Dates: April 2011 (east), January 2012 (west), March 2014 (east)

Size: 2,365 acres (west side: 877 acres, east side: 1,488 acres)

Fuels: Understory is high to moderate density of ericaceous shrubs. Fuel model 9 – 4 tons/ac. Due to the previous treatment, 10-hour and 100-hour fuels are higher in some areas. These areas are fuel model 11- 12 tons/ac (prior to last burn).

Clinchfield Railroad Prescribed Burn

Treatment Dates: March 1994, March 2011, February 2014

Size: 120 acres

Fuels: Due to previous burns the understory is beginning to change from ericaceous shrubs to shade tolerant herbaceous plants. Fuel model 9 – 1-3 tons per acre (prior to last burn).

Objectives

The goal set forth in the Pisgah National Forest Land Management Plan (1984) regarding prescribed fire management is to maintain, and where possible, enhance the diversity of plant and animal communities of the southern Appalachians. Treatments are intended to mimic nature's processes to the greatest degree possible. The general objectives of all burns within the Grandfather Ranger District are to: (1) reduce hazardous fuels; (2) restore and improve fire adapted and fire dependent ecosystems; and (3) improve habitat for wildlife by decreasing the amount of mountain laurel and rhododendron allowing establishment of mast producing species. More specifically, the objectives for the prescribed burns conducted within the planning area for the Bald Knob Fire were:

- Reduce 1-hour and 10-hour fuels by 50-80%
- Re-introduce fire to this landscape to restore health and resiliency
- Leave approximately 90-100% (Dobson knob is 50-75%) of the duff layer to prevent soil erosion
- Decrease the density of the woody understory shade tolerant species (Mountain Laurel and Rhododendron specifically) to allow more sunlight to reach the forest floor and stimulate herbaceous vegetation growth.
- Burn approximately 70-90% of total acres via ignition of the prominent ridgetops in a natural mosaic pattern with some areas receiving moderate intensity fire and others receiving a lower intensity fire pattern

Collaboration

The fuel treatments around the Bald Knob Fire are part of Grandfather Restoration Project, one of twenty-three projects under the National CFLRP. This project is focused around restoring fire resilient ecosystems while providing for community protection. It was developed through a collaborative process engaging a wide range of partners. Along with restoring fire adapted vegetation, the Project seeks to improve wildlife habitat and forest composition in degraded stands, treat Eastern and Carolina hemlocks for the destructive hemlock woolly adelgid, treat sensitive areas including the Linville Gorge Wilderness and Wilson Creek Wild and Scenic River for non-native invasive plants, and restore watershed health to benefit native trout and improve water quality.

The Grandfather Restoration Project has support for the use of prescribed fire from its partners, which include state and

federal agencies, local and regional non-profit organizations, recreation interests, and forest product users. Much of the collaborative group began as partners in the Southern Blue Ridge Fire Learning Network (FLN) and participates in both planning efforts and on the ground implementation of burns. The district is encouraged to take advantage of opportunities for managed wildfire. When lightning-caused fires occur on the district, the collaborative is interested in why a decision is made to manage versus suppress. In areas where there are few resources at risk, management of wildfires for resource benefit is the preferred response.

In planning the Grandfather Restoration Project, the district used a structured prescribed fire prioritization process led by collaborative members and supported by the FLN. The Grandfather Restoration Project identified the Bald Mountain and Dobson Knob area as high priority for treatment based on the fire adapted ecology and departure from historic fire conditions. This prioritized three of the treatment areas surrounding the Bald Knob fire. Through the FLN, the district entered into agreements with a local university to monitor effects of prescribed fire and analyze results according to project needs. This information feeds back into management decisions and allows the district to report the successes of the prescribed fire program.



Lake James Prescribed Fire Fuel Treatment -- January 2015



Collaborative members discuss fire effects in the Blue Gravel Fire area

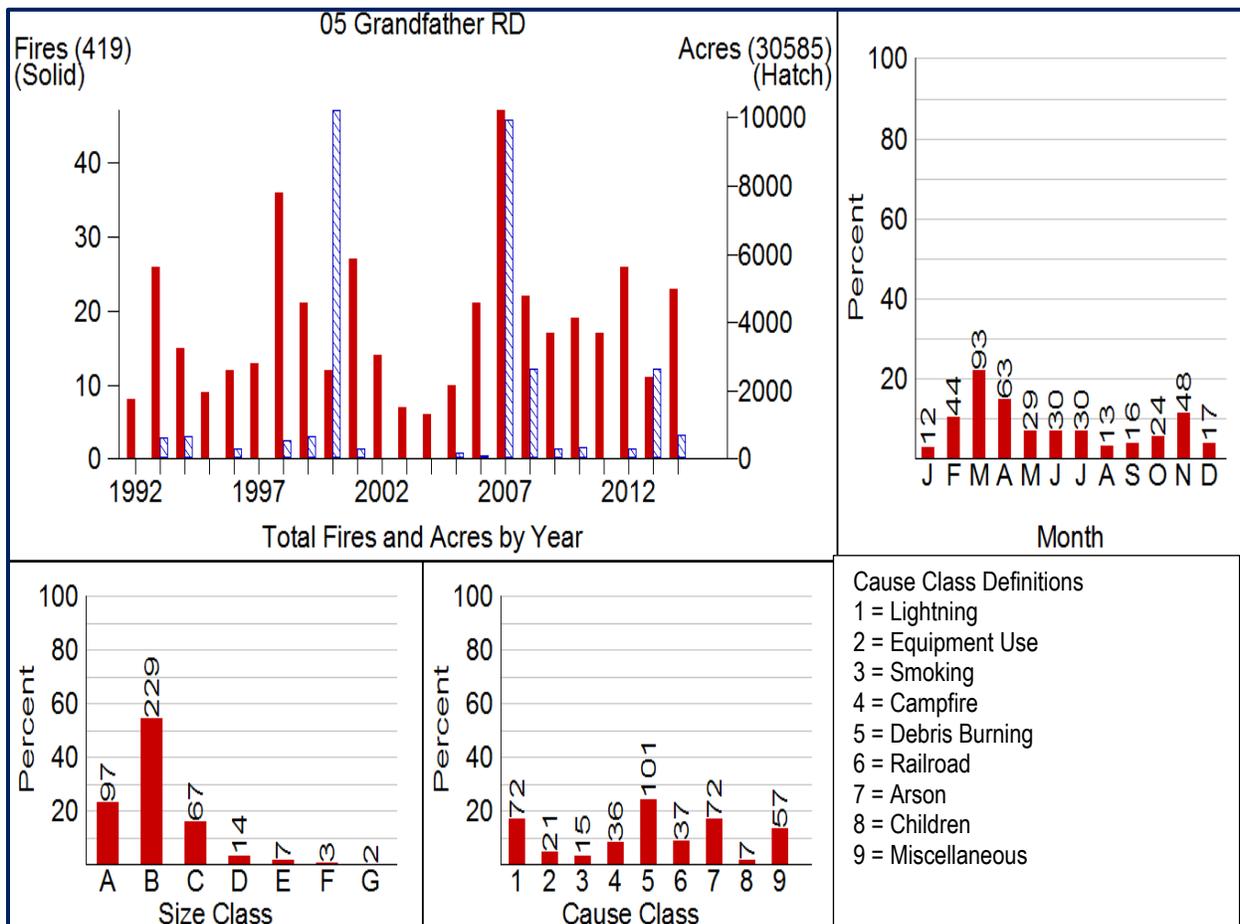
“In a few decades, the Grandfather District can once again be a place where fire is playing its natural role, helping promote forest health.” Josh Kelly, a Public Lands Field Biologist with Mountain True (a grassroots environmental group), described the Grandfather Restoration Project earlier this year.

Past Wildfires

Wildfire is not new to the Bald Mountain area. Recent wildfires burned in the Dobson Knob area, Shortoff Mountain, and the Pinnacle in the spring and summer of 2007. In 2008 the Sunrise wildfire burned just west of Linville Gorge Wilderness. The Table Rock fire burned within the Wilderness in the fall of 2013. In spring of 2015, the Blue Gravel Fire burned southeast of Shortoff Mountain.

These recent wildfires and prescribed burns have informed the USFS about the presence of more rare, fire adapted plant species and fire adapted vegetation. As land managers consider the pace and scale of restoration across the landscape, targeting existing remnant populations of fire adapted species and known high fire return intervals for restoration can widen the decision space when managing an unplanned wildfire. The Grandfather Restoration Project treatments along with historic fire footprints are now aiding managers' decisions as is evident from the shift in wildfire management objectives and strategies of the Bald Knob, Wolf Creek (2015), Blue Gravel (2015) and Brown Mountain fires (2014).

The graph below highlights the historical fire occurrence of the Grandfather Ranger District over the past two decades. Between 1992 and 2014 over 400 unplanned fires burned over 30,000 acres. The peak of wildfire season typically falls in March and April. With June, July, and August observing the highest percentage of lightning cause ignition (75%), it is also apparent that the district has observed wildland fire activity in each month of the calendar year with the potential for large fire occurrence under certain environmental conditions. Twenty two percent of the wildfires occurring on the district were greater than 100 acres while five percent were over 300 acres.



Fire and Fuel Treatments Interaction

Effectiveness

The James Lake prescribed burn was treated six months prior to the wildfire and stopped the Bald Knob fire on the southeastern edge, creating a barrier to nearby communities and private land. The Clinchfield prescribed burn, treated last year, provided protection to several nearby residents west of the wildfire by allowing firefighters to utilize existing fuels breaks to contain the wildfire. Likewise, the Dobson Knob prescribed burn, treated last year, would have provided control opportunities for fire fighters had the wildfire grown that large towards the northeast. All of these treatments were critical in containing the fire and were used in the decision for managing the fire for resource benefit.

Existing lines from the surrounding prescribed burns were used in the confine and contain strategy for the Bald Knob fire. The only prescribed fire area that experienced fire activity in the Bald Knob fire was the Lake James burn. On August 5th, a localized thunderstorm with high winds allowed the wildfire to spot across the control line into the Lake James burn unit.



High severity effects of Bald Knob wildfire at the edge of a control line. Fire effects were severe at this location, a southern slope near the top of the ridge. Canopy trees were scorched to 35' high, consuming small and medium sized branches. All litter and duff was consumed.



High severity fire effects of spot fire into Lake James Prescribed Fire burn unit. Effects are indistinguishable from the wildfire across the line, but fire intensity dropped significantly once the thunderstorm-related wind event subsided.

The Lake James burn unit in this area consists of a mature dry oak-pine community. During the prescribed fire, litter was consumed but the duff layer remained intact. Understory following the most recent prescribed burn recovery has been good, with ericaceous shrubs (blueberries) already reaching about 6" in height and grasses resprouting. Some mid-story trees were top-killed but are sprouting as well. The areas across the control line into which embers ignited were open-canopy woodland, with plenty of opportunity for wind to push the fire. Fire effects also indicate that the spot was wind-driven under dry conditions, as litter and duff were consumed to mineral soil and logs were charred to consumed. The combination of topography, aspect, short-term weather event, and vegetation condition allowed the spots to occur. However once the wind diminished, the spot fire self-extinguished almost immediately with no intervention.

The Lake James fuel treatment clearly influenced the spread of the wildfire. FLN monitoring plots in the Lake James treatment area showed a significant reduction in Mountain Laurel and Rhododendron shrub height throughout the burn unit. The decrease in this highly volatile live fuel within the burn unit when compared to the surrounding untreated area was likely significant in reducing spread of the wildfire. The Clinchfield and Dobson knob prescribed burn units experienced a similar reduction in Mountain Laurel and Rhododendron, providing a fuel break that supported the management decision.

How it was used

The District Ranger decided to manage this wildfire with a confine and contain strategy to provide for community protection where values at risk were high and provide for resource benefit where values at risk were low. This approach provided ample decision space to use appropriate strategies in protecting residential areas and private values, while falling back to existing fire-lines and natural barriers as the fire moved through fire adapted ecosystems on National Forest Lands. The fire history in the area provided plenty of time for firefighters to prioritize work near private lands and improve old roads and natural barriers to the south and east as needed. This also afforded the time to engage the affected communities in the objectives of the fire as well as keep them informed on smoke impacts and the fire's progress.



Achieving National Cohesive Wildland Fire Management Strategy Goals

The Grandfather Restoration Project fuel treatments were key in deciding that the **appropriate fire management response** to the Bald Knob wildfire was to manage the wildfire for resource benefits while providing for fire fighter and public safety. These treatments along with the management strategy for this wildfire moved the vegetation closer towards the desired condition of **fire resilient landscapes**. Through the collaborative process, the Grandfather Restoration Project is reducing risk and helping to create **fire adapted communities**. The Grandfather Restoration Project along with management of the Bald Knob Fire clearly demonstrates success in meeting the three goals of the Cohesive Strategy (resilient landscapes, fire adapted communities, and safe and effective wildfire response).

Communication Strategy

Prior to the wildfire, the collaborative efforts of the Forest Service and partners set the stage for communicating with adjacent landowners and communities. Fire officials held numerous public meetings to provide information on fire behavior and strategies. While some members of the public still expressed concern that the agency did not use all the tools at its disposal, there was a prevailing opinion in the local community that the fuel conditions Bald Knob fire area posed a hazard to local residences and managed fire was the only option for reducing that hazard. Consistent and regular public communication helped build community support for the objectives and the tactics used to manage this fire.

“This mountain needs to burn” was a sentiment expressed by several members of the local community at the public meetings. “Everyone who lives near here knows that mountain will burn one day.”

Media and public interest was high through the duration of the incident, with daily requests from local and regional television, newspaper, and radio outlets. The communication strategy evolved throughout the incident as the situation changed. In the first weeks of the fire where there was little movement, management of the fire for multiple resource benefits was emphasized. As the fire became more active and smoke impacted local communities, communication

shifted to focus on the progress of fire line construction and providing for public and firefighter safety. Throughout the incident, public information officers emphasized the confine and contain strategy used on the fire.

“With confine and contain, we’re looking at a big box and keeping the fire within that box so that it’s not going to put any structures at risk, but allow it to play the natural role that wildfire would have in the ecosystem.” A quote from US Forest Service Public Information Officer Lisa Jennings in the Avery Journal Times, a local newspaper, explained.

Communication also emphasized the role of fire in the area. Linville Gorge, just east of the Bald Knob fire, receives the most lightning strikes of anywhere in North Carolina. Tree cores from Linville Gorge show that large, area-wide fires occurred every 6-13 years before modern fire suppression. The focus on fire as a historic and natural part of the ecosystem helped set the stage for future wildfire response and provided important context for efforts to restore fire adapted ecosystems.



August 6 Public Meeting

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Restoring Fire Adapted Ecosystems

Grass understory returns following the Shortoff wildfire in 2007 and the Blue Gravel wildfire in April 2015.

About 8 miles northeast of the Bald Knob Wildfire

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