



Creating a Fire Resilient Landscape in the Pisgah National Forest

The National Cohesive Wildland Fire Management Strategy is a national collaborative effort to bring a broad cross-section of stakeholders together to address wildland fire management challenges. The Strategy directs wildland fire planning activities and has three primary goals: restore and maintain landscapes, develop Fire-Adapted Communities, and improve wildfire response.

Activity	Impact
# days Bald Knob wildfire burned	70
# acres burned	1,200
% area surrounding wildfire that had fuel treatment (prescribed fire, previous wildfire)	75%
# acres burned in Grandfather Ranger District since 2011	20,000

Bald Knob Wildfire

On July 14, 2015, a lightning strike ignited a wildfire on Bald Knob in the Grandfather Ranger District (GRD) of the Pisgah National Forest. Only 30 miles outside of Asheville, North Carolina and on rugged terrain difficult to access, the wildfire may have posed greater threat had it not been adjacent to areas containing recent fuel treatments (prescribed fire) and wildfires. These treatments, as part of the Collaborative Forest Landscape Restoration Program (CFLRP), reduced fire fuel loads in the forest and enabled the Bald Knob fire to safely burn while protecting firefighters, local residents, structures, power line corridors, communication towers, and Forest Service property and surrounding land. Fuel treatments positively influenced the fire's spread and allowed firefighting efforts to truly focus on protection of private properties. The inaccessible terrain as well as the confine and contain strategy allowed ample time to keep the effected community well informed of current fire behavior, smoke impacts and management plans for the fire.

A typical summer in the GRD includes ample thunderstorms and rainfall, where significant wildfires ignited by lightning are few and often self-extinguish in a few

days. The summer of 2015, however, had drought conditions, meaning the potential for a fire to burn several weeks versus a few days was more probable and this was the fate at Bald Knob. Areas to the north of the Bald Knob wildfire contained reduced fuels from previous wildfires and areas to the northeast, southeast, and west were recently treated with prescribed fire. Though these fuel treatment areas did not completely halt the spread of the wildfire, they did positively influence fire behavior, enabling fire fighters to safely contain the fire in fuel-treated areas while focusing resources on fire spread in non-fuel treated areas to the north and west. The Bald Knob fire was officially declared over on September 21st, burning over 1,200 acres in 70 days.

Data collected during and after the fire enabled fire personnel to safely manage the fire and evaluate fuel consumption. Two Remote Automated Weather Stations (RAWS), located close to the fire, were used to supply climatic conditions to fire personnel and daily weather observations were also recorded by a Wildland Fuels Module. These data were then incorporated into fire behavior models and Wildland Fire Decision Support System. Fuel models were used

Success stories highlight regional wildland fire accomplishments that support implementation of the National Cohesive Wildland Fire Management Strategy in the Southeast. The stories demonstrate how the Southeast is improving its "fire resiliency" through technology, education and outreach, forest management, collaboration, and more. Success stories also serve as a model for other communities to follow.

to assess fire behavior based on the vegetation at Bald Knob, which included forest types heavily impacted by a southern pine beetle epidemic, thus containing heavy fuel loads and thick understories of rhododendron and mountain laurel.

Grandfather Restoration Project

Fire has been an important forest management tool in the GRD since the 1970s, originally being used for site preparation and wildlife management. In 2006, The Nature Conservancy's involvement with GRD through the Southern Blue Ridge Fire Learning Network helped shift prescribed fire objectives from simply fuels reduction to the restoration of landscape-level fire adapted ecosystems. In 2009, in accordance with the national fire plan, the GRD began managing natural-ignition wildfires, meaning wildfires were allowed to burn if able to be safely contained. In 2011, the GRD became one of 23 national CFLRP projects. The CFLRP is a national program that supports collaborative, science-based ecosystem restoration of priority forest landscapes in a variety of ways, including reducing wildfire management costs by restoring natural fire regimes and demonstrating how ecological restoration techniques, like prescribed fire use, achieve ecological objectives. The Grandfather Restoration Project CFLRP provided financial and collaborative resources to increase the use of prescribed fire and other forest restoration activities across the GRD. Since the Grandfather Restoration project began, 20,000 acres have been treated with prescribed fire in a patchwork over the landscape, increasing prescribed fire use 6-fold on the GRD. Some of the Grandfather Restoration Project goals are to restore fire adapted landscapes, reduce wildfire risks, and improve wildlife habitat and forest health. The success of the CFLRP project or the management approach of wildfires like Bald Knob would not be possible without the active partner participation the CFLRP brings.

Prior to the wildfire, Bald Knob was identified as a high priority area for both fuels reduction and fire adapted communities. After the fire, the acreage burned in the Bald Knob fire contributes to the patchwork of fire-adapted landscapes currently managed at GRD and can assist in modifying fire behavior in future, adjacent wildfires.

Additional Information:

Collaborative Forest Landscape Restoration Project: <http://www.fs.fed.us/restoration/CFLRP/>

Grandfather Ranger District: <http://www.fs.usda.gov/recarea/nfsnc/recreation/otheractivities/recarea/?recid=48954&actid=24>

Grandfather Restoration Project: <http://www.fs.usda.gov/detail/nfsnc/home/?cid=stelpdb5356937>

<https://grandfatherrestorationproject.wordpress.com/>



Landscape following the Bald Knob Fire. Credit: Adam Warwick, The Nature Conservancy



Bald Knob Wildfire. Credit: Adam Warwick, The Nature Conservancy



Aerial view of the Bald Knob Wildfire. Credit: Greg Philipp, US Forest Service

Contact: Nicholas Larson, District Ranger, Pisgah National Forest, nicholaslarson@fs.fed.us; Clint Cross, Regional Fuels Specialist, Southern Regional Office, clintcross@fs.fed.us; Jim Menakis, Fire Ecologist, WO Fire & Aviation Mangement, jmenakis@fs.fed.us

Partners: Pisgah National Forest-Grandfather Ranger District, US Forest Service, The Nature Conservancy-Southern Blue Ridge Fire Learning Network, other partners



Southern Regional
Extension Forestry

