



Las Conchas Fire Jemez Mountains, NM

The Las Conchas (LC) Fire began around 1pm on June 26, 2011 when a gust of wind blew a 75-foot tall aspen into a power line. From that ridgetop began the largest wildfire in New Mexico history. During the first 14 hours, the fire raced eastward, consuming more than 43,000 acres of forest and destroying dozens of homes. The speed of the fire's spread was astonishing—averaging an acre of forest burned every 1.17 seconds for 14 straight hours. The fire continued to grow over the next five weeks, and was eventually contained by USFS firefighters on August 1st at 156,593 acres (245 square miles).



Las Conchas Fire ignition point. Photo by Bob Parmenter.

Weather and Fuel Conditions

At the time the LC Fire started, the atmosphere was unstable and dry through 22,000 feet above ground level. This also allowed strong winds to mix to the surface from aloft. The temperature was 90°F, relative humidity was 6% and 20-foot winds were gusting to 40 mph from the west. Fuels across the fire area were very dry, with live fuel moistures ranging from 110 in the ponderosa pine to 145 in the oak brush. Dead fuel moistures ranged from 2 to 3 percent in fine fuels and 7 to 10 percent in heavy fuels.

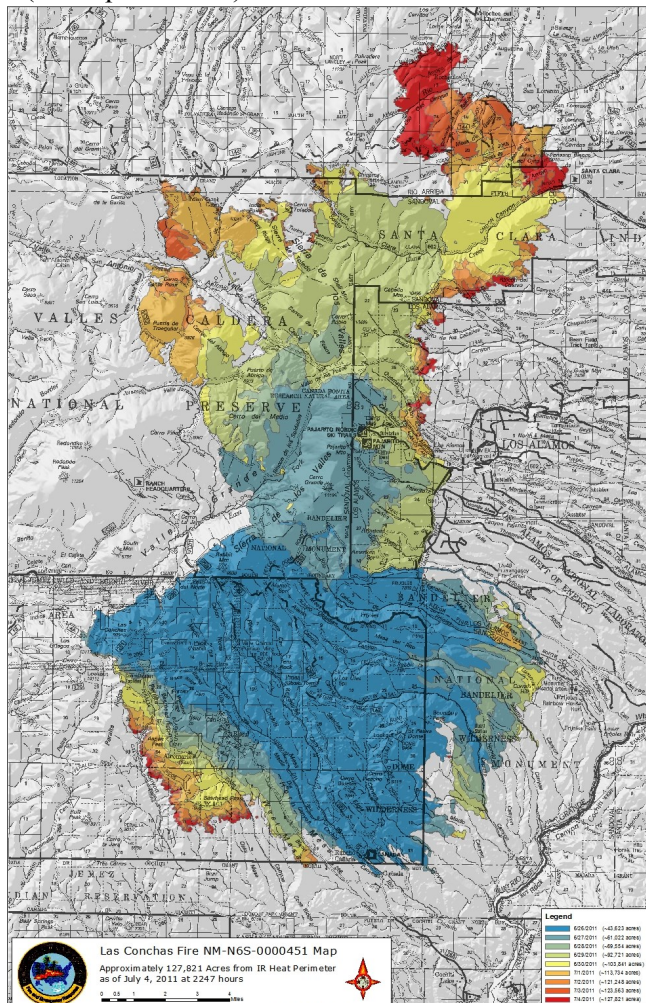
Fire Behavior

The fire demonstrated extreme fire behavior and long range spotting where winds and terrain aligned to funnel winds and cause the fire to become plume dominated. Extremely dry fuel moistures led to nearly complete consumption and very little smoldering fire. Active crown fire occurred mainly in mixed conifer fuel types with passive crown fire occurring in ponderosa pine and pinyon-juniper fuel types.

Stage III fire restrictions had been put in place prior to the fire start, closing forest roads and backcountry use in the area. This action most likely saved lives. With as quickly as the fire moved, evacuation of the area would have been impossible if there had been disbursed recreation going on in the Forest and Park.

Previous Fires

Several large wildfires have occurred across the landscape where the LC Fire burned. Reduced fire behavior occurred in the most recent fire



For more information on the Las Conchas Fire, visit Inciweb at www.inciweb.org/incident/2385/ or the Santa Fe National Forest homepage at www.fs.fed.us/r3/sfe/index.html



Las Conchas Fire ignition as seen from space.

perimeters, whereas areas with older fires resulted in little to no reduction in fire behavior. On the northeastern edge of the fire perimeter the fire burned into both the Cerro Grande

(2000) and Oso (1998) fire areas which was useful in slowing the LC Fire spread. The northern edge of the fire burned into the South Fork Fire (2010) which served as a barrier to firespread.

Fuel Treatment Effectiveness

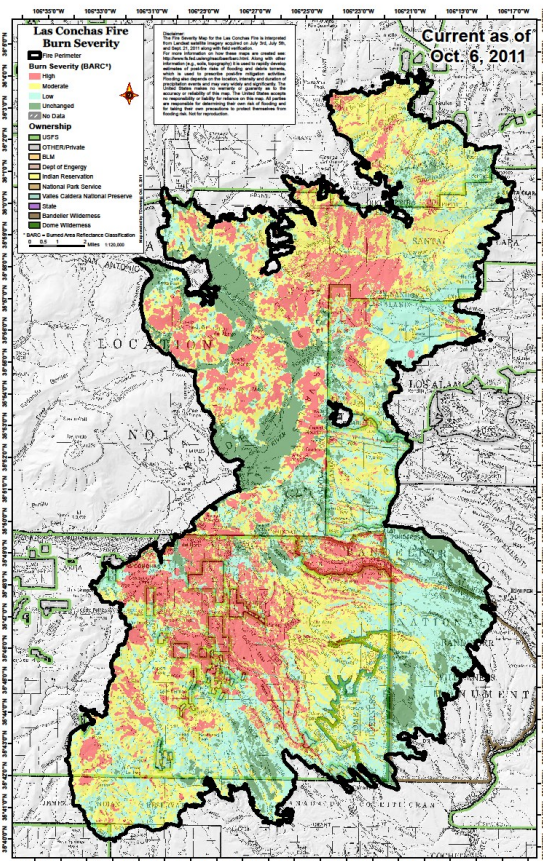
The LC Fire encountered two areas that had been treated for hazardous fuel reduction within the last 10 years on USFS lands and another area that had been treated 16 to 21 years ago but was still effective. First, thinning and fuelbreak projects were conducted in the Cochiti Mesa WUI area (2004 - 2008). These treated areas caused the fire to drop to the ground briefly. Second, thinning and fire treatments done in the Valle II Hazardous Fuels Reduction Project (2003 – 2009) created

conditions in which firefighters were able to safely conduct burnout and holding operations to keep fire from spreading onto Los Alamos National Laboratory (LANL) property and into the community of Los Alamos. Third, thinning and prescribed fire treatments during the Blanco and Gallina projects (early to mid 1990s) along Forest Road 144 helped firefighters conduct successful burnout operations to keep fire from spreading further north.

Treatments had also been done around the LANL and the town of Los Alamos. The Valles Caldera National Preserve had no fuels treatments in the area except for a previous prescribed burn in the Valle Toledo grassland.

BAER Implementation

BAER treatments began around July 20, 2011 within the Santa Fe National Forest. Aerial seeding occurred on 5,200 acres and aerial mulching is underway on 1,100 acres. Road improvements and work in drainages is completed. Approximately 117 cultural sites were identified and treated by hand. The Valles Caldera has done some rehabilitation and hazard reduction, but no large scale projects. Santa Clara Pueblo is also conducting active restoration projects.



Las Conchas At-A-Glance

Date of Origin: Sunday June 26th, 2011

Size: 156,593 acres

Location (% of total acres burned): On Santa Fe National Forest (50%) in Sandoval, Los Alamos, and Rio Arriba Counties; Santa Clara Pueblo (11%); Jemez Pueblo (2%); Cochiti Pueblo; Santo Domingo Pueblo (<1%); Bandelier National Monument (14%); Valles Caldera National Preserve (19%); and state and private in-holdings (3%).

Cause: Human

Total Personnel: up to 2,196 (varied over time)

Resources: 9 Helicopters; 26 Engines; 28 Water Tenders; 6 Dozers

Structures Destroyed: 63 homes, 49 outbuildings

Suppression Cost: \$40.9M (as of September 2011)