



Village of Ruidoso Wildfire Hazard Mitigation

Full Mitigation Best Practice Story

Lincoln County, New Mexico

Ruidoso, NM - With funds from the Federal Emergency Management Agency (FEMA), the Village of Ruidoso, New Mexico successfully completed a major mitigation effort to protect its residents from forest fires. This community, with both permanent and seasonal residents, is located by the Lincoln National Forest, adjacent to the Mescalero Apache Reservation. With more than 20 percent of its perimeter adjacent to forests, Ruidoso is a wildland/urban interface community.



In 2000, because of its location, Ruidoso was ranked first within the state by the New Mexico Forestry Division and second in the nation by the United States Forestry Service for significant risk of catastrophic fire. The major concern was that the forests surrounding Ruidoso contained tree densities with more than 10 times that of a healthy Ponderosa pine ecosystem. These extreme densities cause excessive fuel and unhealthy conditions, which contribute to fire dangers. A forest fire near or in urban Ruidoso could be catastrophic to residential property, water supply, economic vitality, and the population.

Emphasizing the concern was the 8,200 acre Cree fire on May 7, 2000, which started from an escaped campfire in the nearby Smokey Bear Ranger District of the Lincoln National Forest. The fire caused no loss of life but did threaten area homes. The fire resulted in local, State, and Federal emergency declarations. The cost to the Village of Ruidoso was \$6,000,000. Had the fire burned on the west side of the village, property damage and loss of life would have been catastrophic.

"The Village decided to quit 'hitting the snooze alarm' and take action," said Rick Delaco, Director of Forestry. Delaco was hired in 2000 by the Village of Ruidoso as a wildland forester serving an urban community and charged with developing and managing a healthy forest and developing a community forest management plan.

In November 2000, the new Village of Ruidoso Forestry Department began coordinating a multi-jurisdictional land management working group, consisting of nine State, Federal, and local entities, working together to create a wildfire protection plan. "For the Village of Ruidoso, identifying and obtaining the FEMA mitigation grant was a significant contribution to this comprehensive fire management and community protection effort," commented Delaco.

In 2002, the Kokopelli fire caused no loss of life but did destroy 29 homes. In 2003, the Village of Ruidoso applied for funds from FEMA to mitigate, or lessen, potential fire sources in public lands near residents by reducing sources of ignition. Crucial to the Wildfire Hazard Mitigation plan submitted is the concept that fire can be beneficial to the forest. "Fire in a forest, which is too dense or contains unhealthy trees due to vegetation or overpopulation, can be dangerous. Ideally forest fire should be low to the ground and be restricted from moving up to the tops of trees where it will burn at the mercy of the wind," explains Delaco.

The Village of Ruidoso provided \$133,901 towards the mitigation project and FEMA provided \$389,427 with the New Mexico Department of Homeland Security facilitating the grant. The focus was to thin public forests of Eagle Creek (438 acres) and Grindstone (210 acres), especially the southwest portion of those locations, because of prevailing winds, which could easily move fire towards Ruidoso residential neighborhoods. A primary concern in these areas was the potential effect fire could have to storing and processing drinking water, which result from soil erosion to Ruidoso watershed areas. Consideration was given to archaeological, environmental, historical, and wildlife biology. A second project was the removal and reduction of trees and vegetation along right-of-ways to protect against electrical arcing. Some 25 miles of electric transmission and distribution lines were identified because of potential ignition of fire by electrical arcing caused by tree branches rubbing against energized power lines.

In 2003, in collaboration with Texas New Mexico Power, trees by power lines exceeding a distance of 10 feet and smaller voltage trimmed at 6 feet were trimmed or cleared. The crews also removed brush and vegetation and trees within the Village right-of-ways, including medians and beside roads, to minimize human-related ignition, such as cigarettes.

In Grindstone and Eagle Creek, the mitigation was conducted in 2006. Trees less than 12 inches in diameter were removed by hand, reducing the total density by half. Special attention was given to recreational areas. Forest debris was burned by the Ruidoso fire department. Chippings were used in trail and recreation areas and firewood made available to citizens. Now,

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maintenance of the treated areas is underway. The Village of Ruidoso is using prescribed fire scheduled for October 2008.

"FEMA was great to work with and the wildland hazard mitigation really helped Ruidoso reduce the possibility of catastrophic wildfire," said Delaco.

Activity/Project Location

Geographical Area: **Single County in a State**

FEMA Region: **Region VI**

State: **New Mexico**

County: **Lincoln County**

City/Community: **Ruidoso**

Key Activity/Project Information

Sector: **Public/Private Partnership**

Hazard Type: **Wildfire**

Activity/Project Type: **Land Use/Planning; Vegetation Management**

Activity/Project Start Date: **11/2000**

Activity/Project End Date: **Ongoing**

Funding Source: **Hazard Mitigation Grant Program (HMGP); Local Sources**

Funding Recipient: **Local Government**

Funding Recipient Name: **Village of Ruidoso**

Application/Project Number: **unknown**

Activity/Project Economic Analysis

Cost: **\$389,427.00 (Actual)**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Yes**

Federal Disaster #: **1329 , 05/13/2000**

Federal Disaster Year: **2000**

Value Tested By Disaster? **Unknown**

Repetitive Loss Property? **Unknown**

Reference URLs

No URLs were submitted

Main Points

No Main Points were entered.



Grindstone Lake area in 2001 before 2006 mitigation.



Grindstone lake area after 2006 mitigation.