# Community Wildfire Risk Assessment and Fuel Reduction Plan

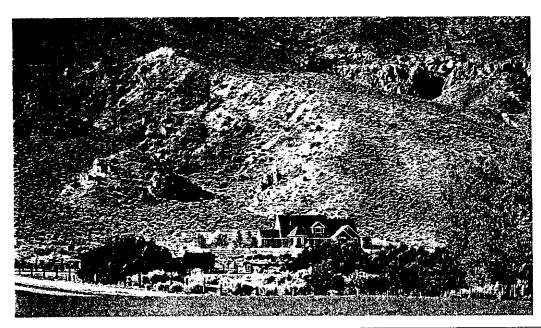
for

### Caliente

in

## Lincoln County, Nevada

December 2002



Prepared For:
LINCOLN COUNTY
P.O. BOX 90
PIOCHE, NEVADA 89043

Prepared By:

EXHIBIT C5 Lands

Document consists of 35 pages.

- Entire document provided.
- Due to size limitations, the cover, inside title page, pages i through ii, and 1 through 2, and page 16 provided.

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 $ENGINEERING \Leftrightarrow PLANNING \Leftrightarrow RESOURCE \ MANAGEMENT$ 



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#### 1.0 INTRODUCTION

During the 2002 fire season more than six million acres and nearly 2,000 homes were lost to wildfires in the western U.S. This record fire year has resulted in the greatest natural resource losses and the highest wildfire suppression costs recorded to date, with reclamation costs yet to be determined. Congress, aware of the potential for this type of tragedy to occur, and the potential for pre-suppression planning to reduce the risk of loss, has allocated National Fire Plan funding for fuel reduction projects. In fiscal year 2001, 775,880 acres were treated for fuel reduction in the wildland/urban interface (National Fire Plan website).

In Nevada, the Nevada Division of Forestry (NDF) administers grants awarded through the National Fire Plan to develop and implement plans to reduce the risk of loss during wildland fires in interface communities. In 2001, Caliente was listed as a community at risk for a wildland/urban interface fire, along with numerous other communities in Lincoln County. Lincoln County submitted an application for assistance to NDF to complete a Wildfire Risk Assessment for Caliente. Resource Concepts, Inc. (RCI) was retained by Lincoln County to perform the risk assessment and provide specific, community-wide fuel reduction recommendations. The primary goals of the plan are to effectively reduce the wildfire threat while sustaining the needs, opportunities, land uses, and values of the community. The fuel hazard reduction methods recommended in this report will assist in reducing the threat and impacts of wildfire.

The objectives of the Caliente Community Fire Safe Plan are to:

- > Empower private landowners by presenting defensible space and firebreak recommendations to reinforce personal safety and protect property.
- > Increase community safety by expanding current fire suppression resources and promoting pre-suppression methods that minimize ignition risks and fuel hazards.
- > Set guidelines that will enable Lincoln County to implement community hazard reduction programs that ensure maintenance of fire safe communities.
- Promote fire hazard reduction and pre-suppression cooperation with public land managers to ensure the sustainability of the fire safe plan for private and public lands alike.

#### 1.1 Project Area Description

The project area includes the private land in and around the town of Caliente. Caliente is located on US Highway 93 about 15 miles south of Panaca and 54 miles east of Alamo. The estimated population of Caliente is 1,320. Caliente is primarily an agricultural community, with the Union Pacific Railroad, the Caliente Youth Center correctional facility, and the Wilkin Mining perlite processing plant comprising most of the additional industry in the area (Figure 1.0).

Land ownership around Caliente consists of both private and public lands. Land use in the general area is mainly composed of agriculture, commercial, residential, railroad, and recreational uses. The Bureau of Land Management (BLM) manages most of the public land in the area, except for Kershaw-Ryan State Park, managed by the Nevada Division of State Parks (Figure 2.0).

#### 1.2 CLIMATE

The climate in Caliente is generally warm to hot in the summers and cool in the winters. The average annual precipitation is approximately 10 inches. The largest amount occurs during the winter months of January, February, March, with a second peak in August. Average annual snow depth is one inch in January, with generally little to no snowfall occurring the rest of the year. On average, temperatures range from 95 degrees (F) in July to 18 degrees (F) in December (Western Regional Climate Center).

Prevailing weather conditions in the area create late morning and afternoon breezes from the south/southwest. During weather changes, stronger winds blow from the same direction. During thunderstorm activity, lightning strikes are common and winds can come from any direction. The predominantly flat terrain in the area makes the vegetation conducive to preheating from sun exposure, especially in the afternoon. Preheating increases the chance of ignition and results in rapid spread of fire, given low humidity, low fuel moisture, and windy conditions. Areas with moderate to steep slopes can be expected to display extreme fire behavior with longer flame lengths.

#### 1.3 WILDFIRE HISTORY

Prior to 1990, wildfire occurrences around the project area were infrequent but resulted in relatively large fires (between 5,000-10,000 acres). Wildfire frequency has increased significantly since 1990. A majority of the most recent fires (1995-2002) have been small, less than 1,000 acres in size. Table 1.0 demonstrates the increase in wildfire frequency for Lincoln County. There is no record of large fires occurring around Caliente, which indicates that any small fires in the area have been controlled.

TABLE 1.0 PARTIAL SUMMARY OF THE WILDFIRE HISTORY IN LINCOLN COUNTY

	PERIOD OF RECORD 1975-1989	PERIOD OF RECORD 1990-2002
Number of Fires	15	92
ACRES BURNED	34,566	182,594

#### 6.0 SUMMARY

The recommendations in this report have been developed specifically for Caliente. They expand on standard recommendations generally proposed for the region, based upon site-specific characteristics observed during the fire risk assessments performed by RCI in August 2002. General and specific recommendations provide a critical starting point for the community to take a proactive approach to reduce the risks to property and life from a wildfire. Recommendations are summarized in Table 2.0.

TABLE 2.0 PRIORITY TREATMENTS TO REDUCE WILDFIRE RISKS IN CALIENTE.

RECOMMENDED TREATMENT	RESPONSIBLE PARTY	DESCRIPTION OF AREA TO BE TREATED
	Property Owners	Install a continuous defensible space treatment, 100 feet wide behind the neighborhood south of US Highway 93.  Weeds and other flammable vegetation and debris should be cleaned up throughout the Community.
Defensible Space	Lincoln County	Coordinate with Power Company(s) to assure regular vegetation maintenance beneath power lines.  Develop brush clearance and biomass disposal programs for safe and timely disposal of debris removed during fuel reduction treatments.
Fuel Reduction	Property Owner	Prune rabbitbrush and other shrubs to a height of 16 to 18 inches on approximately 14 acres on the west side of town, adjacent to Highway 93.
Fire Suppression Resources	Lincoln County	Install one 5,000-gallon water storage tank for fire suppression in each of the communities of Highland Knolls, Indian Ridge, and Beaver Dam that will be compatible with firefighting equipment from Caliente and Panaca.

There is no guarantee that a wildfire will not occur in Caliente even if all of the recommendations in this report are implemented. However, community awareness and individual attention to fuels management on private property will help achieve the highest level of wildfire safety possible.