

Community Wildfire Risk Assessment and Fuel Reduction Plan

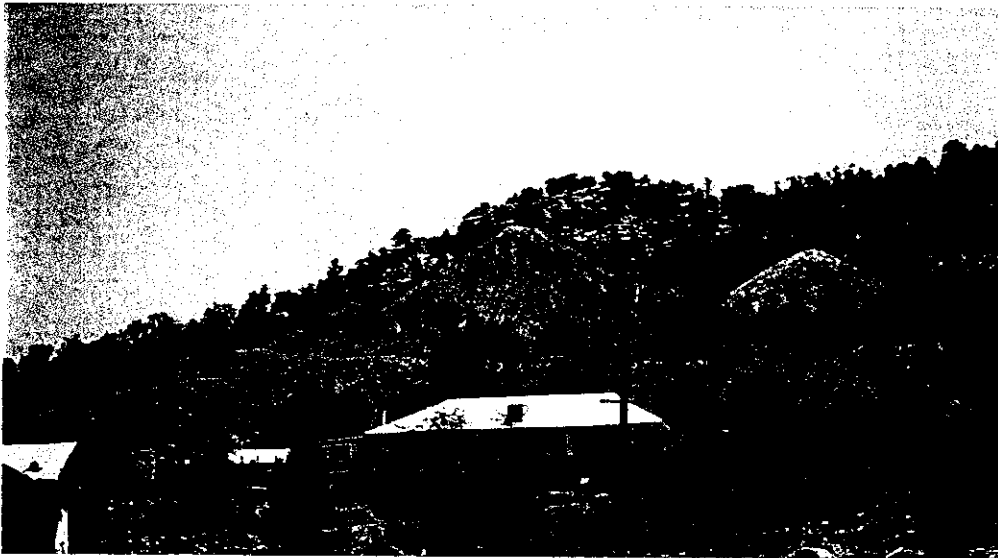
for

The Towns of Pioche and Caselton Heights

in

Lincoln County, Nevada

December 2002



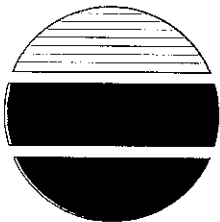
Prepared For:

LINCOLN COUNTY

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Prepared By:



ENGINEERING ♦ PLANNING ♦ RESOURCE MANAGEMENT

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EXHIBIT C6 Lands

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Meeting Date: 01-22-04 ...

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PART I – COMMUNITY RISK ASSESSMENT

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 United States. This record fire year 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 and treatments 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 2001, Pioche was listed as a community at risk for a wildland/urban interface fire, along with numerous other communities in Lincoln County. Fires between 1996 and 2002 burned a total of 2,883 acres in the vicinity of Pioche. This trend illustrates the need for a fire safe plan in Pioche and Caselton Heights, as well as in other areas of Lincoln County.

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 the interface communities. Lincoln County submitted an application for assistance to NDF to complete a Wildfire Risk Assessment for Pioche. 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.

Homeowners will have to make difficult decisions regarding fuels reduction. Common sense dictates that a majority of the fuel be removed to decrease the wildfire hazard and improve fire safe conditions on private property. However, people enjoy living in Pioche for the visual beauty that trees and other vegetation provides. The recommendations given in this report are to assist private property owners in balancing acceptable fuels removal with due consideration to aesthetic values. The recommended fuel hazard reduction methods will assist in reducing the threat and impacts of wildfire. However, the activities recommended in this report cannot absolutely prevent a wildfire from occurring.

The objectives of the Pioche/Caselton Heights Fire Safe Plan are to:

- Empower private landowners by presenting defensible space and firebreak recommendations to reinforce personal safety and protect private 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 to maintain 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 the communities of Pioche and Caselton Heights. Pioche is located approximately 110 miles south of Ely, Nevada on US Highway 93. The estimated population of Pioche is approximately 1,116 people. The small community of Caselton Heights is located approximately 1.7 miles southwest of Pioche over the Pioche Hills. By road, Caselton Heights is approximately nine miles from Pioche on State Route 320 (Figure 1.0). The estimated population of Caselton Heights is approximately 50 residents.

Historic mining had a profound effect on land ownership around Pioche. The distribution of patented mining claims has resulted in a complex land ownership pattern of public and private lands (Figure 2.0). Mining, commercial, residential, and recreational purposes comprise much of the land use in the general area. The Bureau of Land Management (BLM) manages all of the public land around Pioche.

1.2 CLIMATE

The climate in Pioche and Caselton Heights is generally warm to hot in the summers and cool in the winters. The average annual precipitation is approximately 10 to 14 inches. The largest amounts occur during January, February, March, with a second peak in August. Average annual snow depth is three inches in January, with lesser amounts of snowfall in December, February and March. Average temperatures range from 87 degrees (F) in July to 21 degrees (F) in January (Western Regional Climate Center website).

Prevailing weather conditions in the Pioche/Caselton Heights area create upslope breezes that begin in the late morning and change to down slope breezes in the evening. Winds are generally from the south and southwest in the late morning or afternoon. During weather changes stronger winds blow from the same direction. During thunderstorm activity lightning strikes are common and winds can come from any direction. Due to the terrain in the area it is not uncommon for erratic winds to swirl in multiple directions.

9.0 SUMMARY

The recommendations in this report have been specifically developed for Pioche and Caselton Heights. They expand on standard recommendations generally proposed for the region, based upon site-specific characteristics observed during the fire risk assessments performed by RCI. General and specific recommendations provide a critical starting point for each community in taking a proactive approach to reduce the risks to property and life from a wildfire. Recommendations are summarized in Tables 2.0 and 3.0.

TABLE 2.0 PRIORITY TREATMENTS TO REDUCE WILDFIRE RISKS IN PIOCHE.

RECOMMENDED TREATMENT	RESPONSIBLE PARTY	DESCRIPTION OF AREA TO BE TREATED
Firebreaks	Nevada Department of Transportation Lincoln County BLM	Install 50 feet of firebreak treatment on either side of Highway 93 and an additional 100 feet of fuel thinning for a distance of 0.6 miles.
Fuel Reduction Treatments	Property Owners BLM	Install fuel reduction treatments for 300 feet along the west side of the US Highway 93 bypass for 1.8 miles. Maintain fuel reduction treatments.
	Property Owners	Thin and prune trees and shrubs for a width of 600 feet for 0.6 miles on the west side of town. Remove annual rye and replace with low-stature perennial grasses.
Defensible Space	Property Owners	Install a continuous defensible space treatment 200 feet wide behind the homes on the west side of Hill Street and US Highway 93 for a distance of approximately 1.0 mile. Remove weeds and other flammable vegetation and debris throughout the Town.
	Lincoln County	Develop brush clearance and biomass disposal programs for safe and timely disposal of debris removed during fuel reduction treatments.
Fire Suppression	Lincoln County Pioche VFD	Purchase and install a back-up generator for the fire suppression water supply.

TABLE 3.0 PRIORITY TREATMENTS TO REDUCE WILDFIRE RISKS IN CASELTON HEIGHTS.

RECOMMENDED TREATMENT	RESPONSIBLE PARTY	DESCRIPTION OF AREA TO BE TREATED
Firebreaks	Property Owners BLM	Install a 50-foot wide firebreak treatment on the west side of W Road for 0.3 miles. Construct firebreaks 50 feet wide on both sides of the two roads into Caselton Heights from State Route 320 for a distance of 0.5 miles on each road.
	Property Owners Lincoln County BLM	Coordinate with the Power Company(s) to remove trees and large shrubs for a width of 100 feet beneath the power line west of Caselton for a distance of 0.8 miles.
Fuel Reduction Treatments	Property Owners	Thin and prune trees and shrubs along the southeast side of Caselton Heights, 150 feet wide and approximately 0.4 miles long. Construct a fuel reduction treatment for 250 feet beyond the proposed firebreak west of W Road. Maintain fuel reduction treatments.
Defensible Space	Property Owners	Remove weeds and other flammable vegetation and debris throughout the Community.
	Lincoln County	Develop brush clearance and biomass disposal programs for safe and timely disposal of debris removed during fuel reduction treatments.

It will take a significant and on-going effort and commitment to modify the fuel structure in the P-J woodlands and dense shrublands and maintain that modified environment to accomplish hazard reduction.

In order to effectively reduce wildfire risks and efficiently implement long term risk management plans, fuel reduction treatments must occur on both public lands adjacent to Pioche/Caselton Heights and the private lands within the Communities. Recognizing this need, Lincoln County is currently developing a Memorandum of Understanding (MOU) with the BLM to transfer the fuel treatment and maintenance responsibility for public lands around Pioche and Caselton Heights to Lincoln County. Such an agreement would allow the County to implement vegetation treatments, and help to provide protection for life and property in the Pioche and Caselton Heights Communities.

There is no guarantee that another devastating wildfire will not occur near or within the Pioche/Caselton Heights communities. However, community awareness and individual attention to fuels management on private property will help achieve the highest level of wildfire safety possible for Pioche and Caselton Heights.