5.0 C-HILL

FUEL HAZARD: MODERATE COMMUNITY RISK: MODERATE

The C-Hill neighborhood includes residences along the urban-wildland interface at the base of C-Hill. The neighborhood begins to the southwest of King Street and Ormsby Boulevard and wraps south and east around the base of C-Hill along Terrace and Crain Streets, ending near the Lake Glen Apartments and Stewart Street.

5.1 INTERFACE CONDITIONS AND FUEL HAZARD

The C-Hill neighborhood is characterized by a classic interface condition. The vegetative fuel density in the C-Hill wildland-urban interface is light, with an estimated fuel load of 0.5 to 1.0 tons per acre and a **moderate fuel hazard rating**. The 2004 Waterfall fire reduced nearly all the vegetative fuel around the neighborhood at that time. Post-fire reseeding has been generally successful, as the ground fuels now consist primarily of the fire-resistant perennial species seeded during rehabilitation efforts in the fall of 2004. Cheatgrass occurrence is moderate and can range from moderate to heavy depending on winter and spring precipitation. The shrub community is dominated by rabbitbrush, which readily resprouts following fire, Mormon tea, and occasional young bitterbrush seedlings. Shrubs will eventually reoccupy and dominate the hillside canopy and necessitate retreatment for maintenance.

The topography of the C-Hill interface is composed of slopes consistently greater than 30 percent on north and east-facing slopes. Along with vegetative composition and structure, topography influences the potential fire hazard in the wildland-urban interface and is the only factor that cannot easily be changed. The predominant wind direction is from the south-southwest, with strong afternoon downslope winds during the summer months and on the approach of cold fronts. Downslope afternoon winds along the Eastern Sierra Front commonly spread wildfire into the wildland-urban interface, and are the most common factor contributing to structure loss in a WUI for this region. There is a history of lightning strikes and recurrent fires to the west and south of the C-Hill neighborhood. Fuel hazard conditions around the C-Hill neighborhood are shown in Figure 5-1. Photographs of the typical fuel conditions are shown in Figure 5-2.

A 15-feet wide fire access road traverses the C-Hill wildland-urban interface between 40 and 175 feet from homeowner property lines along Terrace Street. Though the access road follows the property lines on Crain Street, residences are approximately 350 feet downslope from the firebreak road. A 10 to 15-feet wide fuelbreak has been established along the homeowners back property lines from King Street at Canyon Park Court (west of Ormsby) to Terrace Drive at the Mormon Church. The fuelbreak was well maintained in the fall of 2008. Table 5-1 summarizes the history of fuels reduction treatments within the vicinity of the C-Hill neighborhood.

Table 5-1. Fuels treatment history in the wildland-urban interface around the C-Hill neighborhood.

Treatment Type	Treatment Area (approximate acres)	Treatment Year	Ownership
Fuelbreak (maintenance)	1	2008	Carson City USFS Private
Grazing	1,330	2006-2008	Carson City USFS Private
Fuelbreak 3,950' x 150'	13	2004	Carson City USFS Private
Fuelbreak 2,355' x 150'	5	2003	Carson City Private

5.2 NEIGHBORHOOD RISK/HAZARD RATING

The risk/hazard assessment resulted in classifying the C-Hill neighborhood in the **Moderate Hazard** category (59 points). A summary of the values that affect the hazard rating is included in Table 5-2 at the end of this chapter. The primary wildfire hazard conditions in the C-Hill neighborhood were related to construction materials, defensible space, and the potential for severe fire behavior due to topography.

5.2.1 Neighborhood Design

Throughout most of C-Hill neighborhood, there is a clear line of demarcation between wildland fuels and structures in the neighborhood. Most homes surveyed in the C-Hill neighborhood are situated on lots less than one acre in size, and there are typically three or more structures per acre. As such, most structures are spaced relatively close together.

- > Interface Condition: classic wildland-urban interface condition.
- ➤ Access: Fifth Street, Thompson Street, and Terrace Street are the primary access roads to the C-Hill neighborhood. These roads are greater than 24 feet wide which allows for accessibility of fire suppression equipment, but have greater than a five percent slope which may increase response times for heavy vehicles carrying water.
- ➤ **Signage:** All street signs were visible within C-Hill survey area; however, twenty percent of residential address signs were not visible. Clear and visible residential addresses are important to aid firefighting personnel in locating homes during low visibility conditions that may occur during wildland fire.
- ➤ Utilities: low risk of ignition.

5.2.2 Construction Materials

Many homes within the C-Hill survey area were not built with fire resistant composite roofing materials (26 percent) or non-combustible siding (46 percent). Over half of the residences (52 percent) had unenclosed or unscreened balconies, decks, porches, eaves, or attic vents that create drafty places where sparks and embers can be trapped, smolder, ignite, and rapidly spread fire to the house.

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5.2.3 Defensible Space

Of the forty-six homes evaluated, nearly half (41 percent) did not have landscaping that would meet the minimum defensible space requirement to help protect the home and minimize the potential for damage or loss during a wildfire.

5.2.4 Suppression Capabilities

Wildfire Protection Resources

The Carson City Fire Department and the NDF Sierra Forest Fire Protection District are responsible for wildfire and structure fire protection on state and private lands within the C-Hill neighborhood. The US Forest Service also provides fire protection for the national forest lands west of the C-Hill neighborhood. Ownership and administration of a portion of this land will transfer from USFS to Carson City in 2009 or 2010. Fire protection for those lands will become the responsibility of the CCFD.

Water Sources and Infrastructure

Water availability for fire suppression in the C-Hill neighborhood is provided by 500 gpm hydrants within 500 feet of structures.

5.3 RECOMMENDATIONS

Recommended and planned treatments for the C-Hill neighborhood are shown on Figure 5-1 and described in Table 5-3.

Treatment Type	Treatment Area (acres)	Ownership
Fuelbreak 3,560' x 100' Hand-treatment	8	Carson City USFS Private
Grazing	1,330	Carson City USFS Private

Table 5-3. Fuels treatments recommended or planned within the vicinity of the C-Hill neighborhood.

Additional recommendations based upon the 2008 risk assessment are provided to reduce wildfire risks in the wildland-urban interface around the C-Hill neighborhood:

- ➤ Encourage homeowners to follow the UNR Cooperative Extension's recommendations for fire safe landscaping.
- ➤ Thin shrubs in the area between the homeowners' 15-feet wide fuelbreak behind Terrace Street and the fire access road to the west.
- ➤ If cheatgrass control is necessary, treat the area with a pre-emergent herbicide according to the recommendations from the University of Nevada Cooperative Extension or as approved by the jurisdiction involved.
- ➤ If resprouting rabbitbrush becomes excessive use an appropriate herbicide application as recommended by the University of Nevada Cooperative Extension or as approved by the jurisdiction involved.

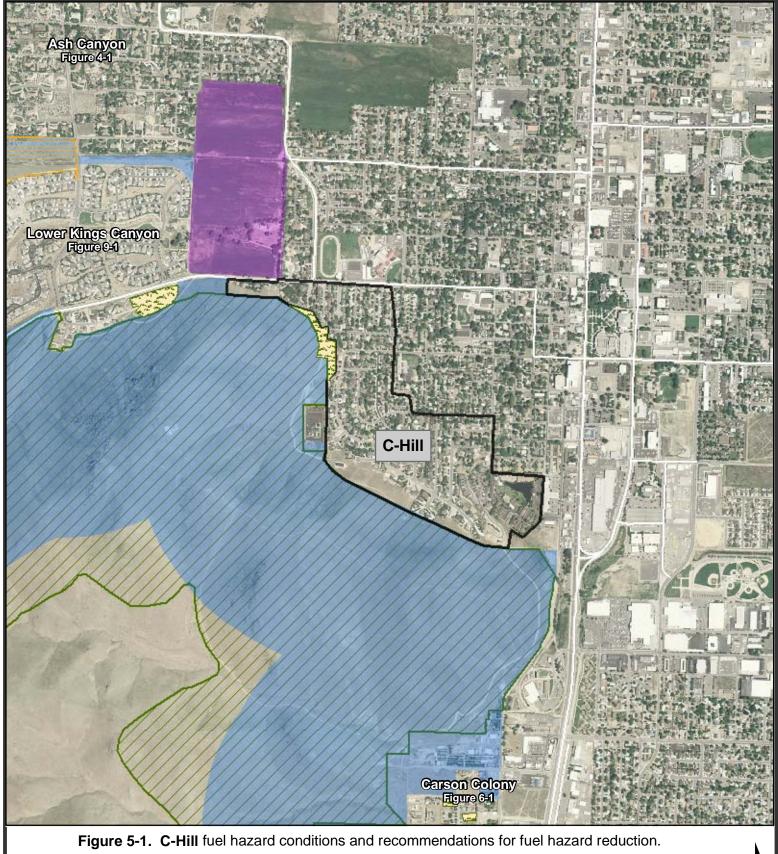
Resource Concepts, Inc.

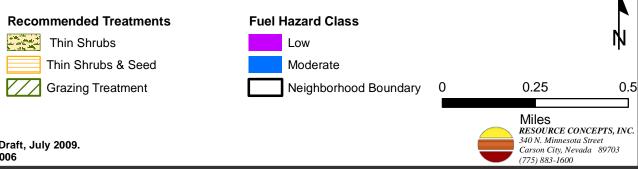
- ➤ If needed, reseed the fuelbreak in the fall of the year (October-November) with a fireresistant seed mixture. A sample seed mix and seeding specifications for the Carson City interface area is included in Appendix E. Develop site-specific seed mixes in collaboration with the jurisdiction involved.
- ➤ Conduct annual defensible space and hazardous fuels evaluations on private and public lands.
- ➤ Distribute copes of *Living With Fire: A Guide for the Homeowner, Eastern Sierra Front Edition* (U of NV Cooperative Extension).

Table 5.2 Results of the wildfire risk/hazard rating in the C-Hill neighborhood.

A. Urban Interface Condition	1 TALLIES
B. Community Design	46 Total Houses 10 Residential Streets
1. Ingress / Egress 1 2. Width of Road 1 3. Accessibility 3 4. Secondary Road 1 5. Street Signs 1 6. Address Signs 3	B5. Street Signs
7. Utilities 1	/5 visible
C. Construction Materials 1. Roofs 5	C1. Roofs 12 combust 34 not 74% not combust
2. Siding 53. Unenclosed Structures 5	/5
D. Defensible Space	combust
1. Lot Size 5	/5 C3. Unenclosed Structures on Lot
2. Defensible Space 7	/15
F. Fire Behavior	D1. Lot Sizes
1. Fuels 1 2. Fire Behavior 7 3. Slope 10 4. Aspect 1	
E. Suppression Capabilities	
1. Water Source 1	/10
2. Department 1	_/10

Community
Hazard Score: 59 /128





Carson City CWPP Final Draft, July 2009. Base map: NAIP Aerial, 2006

Figure 5-2. Representative fuel types in the wildland-urban interface around the C-Hill neighborhood.



C-Hill 1. UTM 4338497N 259760E. View to South.



C-Hill 2. UTM 4338537N 259730E. View to West.