

16.0 TIMBERLINE

FUEL HAZARD: MODERATE – HIGH COMMUNITY RISK: MODERATE

The Timberline neighborhood includes the residential area located in the foothills west of Carson City and accessed by Timberline Road. The neighborhood includes the homes located on Westwood, Denmar, Woodridge, Lotus, Prospect and Upland roads.

16.1 INTERFACE CONDITIONS AND FUEL HAZARD

The Timberline neighborhood is characterized as an intermix wildland urban interface condition. Wildland fuels continue throughout the neighborhood with no clear boundary between the wildland vegetation and residential structures.

Vegetative fuel density is light to medium within the Timberline wildland-urban interface. Widely spaced Jeffrey pine and a scattered shrub layer consisting of Mormon tea, rabbitbrush and manzanita dominate the light fuel load found in the areas that were burned during the 2004 Waterfall fire. Understory fuels consist predominantly of pubescent wheatgrass, 12 to 18 inches tall. The fuel load ranges from 0.5 to 1.0 ton per acre and is classified as a **moderate fuel hazard**.

Fuel density within the unburned portions of the interface was classified as medium and consists of bitterbrush, big sagebrush, and rabbitbrush ranging from two to eight feet in height. Fuel load ranges from 2.0 to 4.0 tons per acre and is classified as a **high fuel hazard**.

In the center of the neighborhood, in the vicinity of Lotus Drive, a number of large Jeffrey pine trees grow under very dense, closed-canopy conditions. This area represents an **extreme fuel hazard**.

The terrain to the north, west, and south of the Timberline neighborhood is very steep (over 30 percent slopes) with several west\east directional canyons, including Vicee Canyon. Timberline is bounded to the west by reclaimed grass covered slopes up to 20 percent. 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 west of the Timberline neighborhood, and a strong history of recurring wildfires.

Fuel hazard mapping and photographs of representative fuel conditions around the Timberline neighborhood are shown in Figures 16-1 and 16-2 at the end of this chapter.

Table 16-1 summarizes the history of fuels reduction treatments within the Timberline Assessment Area.

Table 16-1. Fuels treatment history for the Timberline neighborhood.

Treatment Type	Treatment Area (approximate acres)	Treatment Year	Ownership
Grazing Treatment	594	2008	Carson City State of Nevada Board of Regents Private
Grazing Treatment	315	2007	Carson City State of Nevada Private
Hand Treatment 26 lots	33	2004	Private
Fuelbreak 1,980' x 100'	5	2004	State of Nevada
Fuelbreak 1,830' x 100'	4	2003	State of Nevada
Fuelbreak Roadside treatment areas	2	2001	State of Nevada

16.2 NEIGHBORHOOD RISK/HAZARD RATING

The risk/hazard assessment resulted in classifying the Timberline neighborhood in the **Moderate Hazard** category (57 points). A summary of the values that affect the hazard rating is included in Table 16-2 at the end of this chapter. The primary wildfire hazard conditions in the Timberline neighborhood were related to community design, including limited access roads and steep grades, construction materials, and the potential for severe fire behavior due to topography and fuel loading.

16.2.1 Community Design

Within the Timberline neighborhood, structures are scattered throughout wildland areas, and there is no clear line of demarcation between wildland vegetation and residential structures. Of the forty-eight homes assessed, most homes (69 percent) are situated on lots less than one acre in size, and fifteen homes (31 percent) are located on lots between one and ten acres in size.

- **Interface Condition:** intermix wildland-urban interface condition.
- **Access:** Timberline Road is the only paved road in and out of the Timberline neighborhood. The road is greater than 24 feet wide and allows adequate room for fire suppression equipment to maneuver. The road gradient is steeper than five percent. Steep roads and limited access to the neighborhood could limit fire suppression and evacuation activities during a wildland fire.
- **Signage:** All street signs within the Timberline survey area were clearly visible. Twenty-one 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.

16.2.2 Construction Materials

All the homes within the survey area were built with fire resistant composite roofing materials; however, half of the homes were constructed with combustible siding. Sixty-three percent of the homes had unenclosed structures such as a porch, balcony, or deck that create drafty places where sparks and embers can be trapped, smolder, ignite, and readily spread fire to the home.

16.2.3 Defensible Space

Of the forty-eight homes evaluated, several (29 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.

16.2.4 Suppression Capabilities

Wildfire Protection Resources

The Carson City Fire Department provides structure fire protection to the Timberline neighborhood and the NDF Sierra Forest Fire Protection District provides wildland fire suppression. The U.S. Forest Service also provides fire protection for the national forest lands surrounding the Timberline neighborhood. Ownership and administration of much 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 Timberline neighborhood includes 500 gpm hydrants within 500 feet of structures.

16.3 RECOMMENDATIONS

Recommended and planned treatments for Timberline neighborhood are shown on Figure 16-1 and described in Table 16-3.

Table 16-3. Fuels treatment activities planned or recommended for the Timberline neighborhood.

Treatment Type	Treatment Area (approximate acres)	Ownership
Drill Seeding	59	Private
Grazing	910	Carson City Board of Regents State of Nevada Private

Additional recommendations for the Timberline neighborhood based on the 2008 risk/hazard assessment are as follows:

- Investigate options for establishing an emergency exit route from the community via the existing unpaved road that exits the neighborhood toward the west at the top of Timberline Drive, crosses Vicee Canyon to the south and continues to the south of Vicee Wash, west of Western Nevada College.
- For residences with large Jeffrey pine trees within 20 feet of structures, remove tree branches that come in contact with the home's exterior walls, eaves, or roof, as well as any branches that overhang the home.

- In the vicinity of Lotus Circle, reduce tree canopy closure by selective thinning. On flat to gently sloping ground, the ideal distance between tree canopies is ten feet. The separation distance will be greater on steeper slopes.
- North of the corner of Timberline and Prospect, salvage plastic tree tubes from pine plantings. If a pine replanting effort is to be coordinated, planting should occur late in the fall just before the ground freezes. This will permit the plantings to take full advantage of snow pack moisture in the springtime.
- Conduct annual defensible space and hazardous fuels evaluations on private and public lands.
- Distribute copies of *Living With Fire: A Guide for the Homeowner, Eastern Sierra Front Edition*. (U of NV Cooperative Extension).
- Continue implementing the defensible space dumpster program to provide homeowners with an easily accessible biomass removal option.
- Encourage homeowners to follow the UNR Cooperative Extension's recommendations for fire safe landscaping.

Table 16.2 Results of the wildfire risk/hazard rating in the Timberline neighborhood.

<p>A. Urban Interface Condition 1</p> <p>B. Community Design</p> <p>1. Ingress / Egress <u>5</u> /5</p> <p>2. Width of Road <u>1</u> /5</p> <p>3. Accessibility <u>3</u> /3</p> <p>4. Secondary Road <u>1</u> /5</p> <p>5. Street Signs <u>1</u> /5</p> <p>6. Address Signs <u>3</u> /5</p> <p>7. Utilities <u>1</u> /5</p> <p>C. Construction Materials</p> <p>1. Roofs <u>1</u> /10</p> <p>2. Siding <u>5</u> /5</p> <p>3. Unenclosed Structures <u>5</u> /5</p> <p>D. Defensible Space</p> <p>1. Lot Size <u>5</u> /5</p> <p>2. Defensible Space <u>1</u> /15</p> <p>F. Fire Behavior</p> <p>1. Fuels <u>3</u> /5</p> <p>2. Fire Behavior <u>7</u> /10</p> <p>3. Slope <u>10</u> /10</p> <p>4. Aspect <u>3</u> /10</p> <p>E. Suppression Capabilities</p> <p>1. Water Source <u>1</u> /10</p> <p>2. Department <u>1</u> /10</p>	<p>TALLIES</p> <p style="text-align: center;">48 Total Houses 6 Residential Streets</p> <hr/> <p>B5. Street Signs</p> <p><u>0</u> not visible <u>6</u> visible <u>100%</u> visible</p> <p>B6. Address Signs</p> <p><u>10</u> not visible <u>38</u> visible <u>79%</u> visible</p> <p>C1. Roofs</p> <p><u>0</u> combust <u>48</u> not combust <u>100%</u> not combust</p> <p>C2. Siding</p> <p><u>24</u> combust <u>24</u> not combust <u>50%</u> not combust</p> <p>C3. Unenclosed Structures on Lot</p> <p><u>30</u> not enclosed <u>18</u> enclosed <u>63%</u> not enclosed</p> <p>D1. Lot Sizes</p> <p><u>33</u> <1ac <u>15</u> >1ac <10ac <u>0</u> >10ac</p> <p>D2. Defensible Space</p> <p><u>14</u> not adequat <u>34</u> adequate <u>71%</u> adequate</p>
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Community Hazard Score: 57 /128

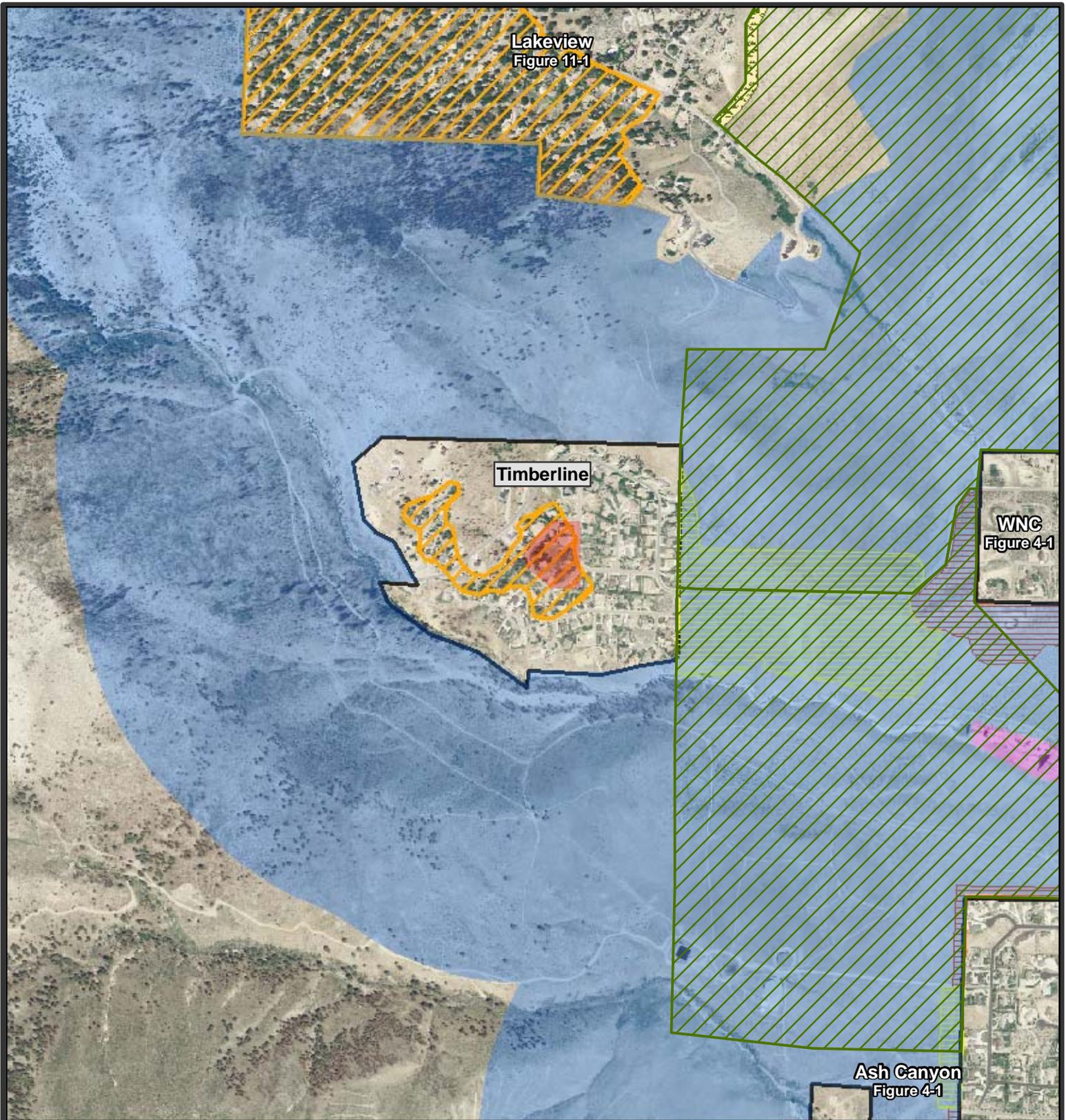


Figure 16-1. Timberline fuel hazard conditions and recommendations for fuel hazard reduction.

Recommended Treatments

-  Thin Shrubs
-  Thin Shrubs & Seed
-  Drill Seed
-  Pruning/ Selective Thinning
-  Grazing Treatment

Fuel Hazard Class

-  Low
-  Moderate
-  Extreme
-  Neighborhood Boundary

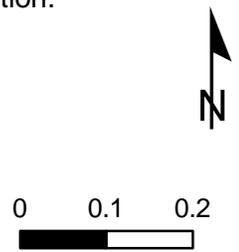
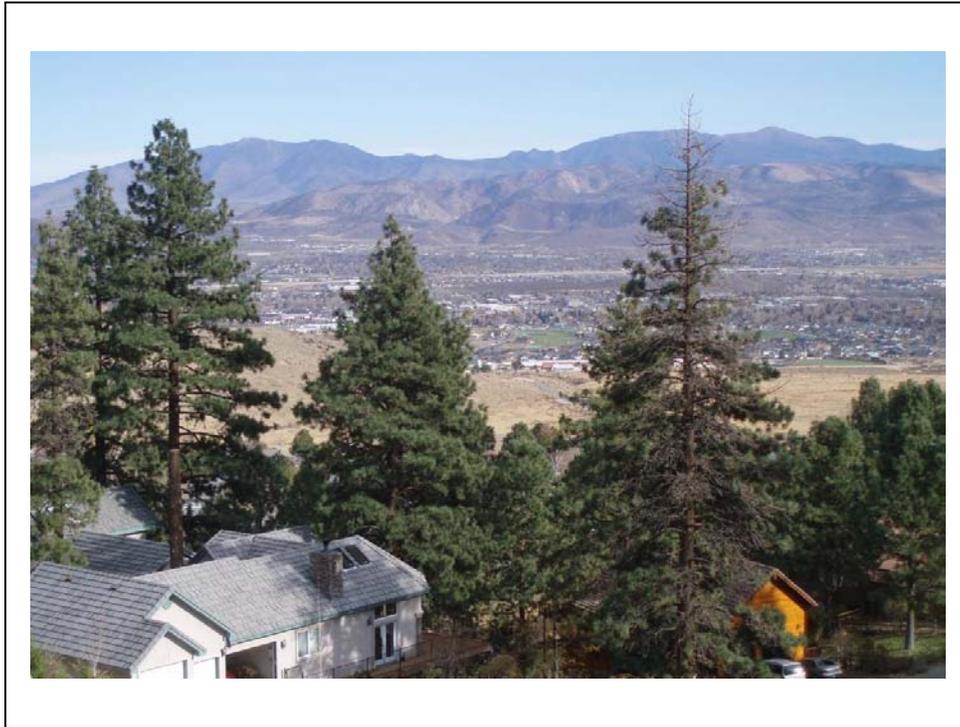


Figure 16-2. Representative fuel types in the wildland-urban interface around the Timberline neighborhood.



Timberline 1. UTM 4341466N 257189E. View to East



Timberline 2. UTM 4341311N 257030E. View to South