

15.0 STEWART – SOUTH CARSON

FUEL HAZARD: MODERATE COMMUNITY RISK: MODERATE

The Stewart – South Carson neighborhood is located in south Carson City, to the east of Highway 395 at the Carson City/Douglas County line, along Delahedeh and Gibson Roads. Clear Creek passes near this portion of the neighborhood. The assessment area is bounded on the north by Bennett and Snyder Avenue and to the south by the Carson City/Douglas County line at Rabe Way and Center Drive. Schultz Drive and an irrigation ditch define the southeast neighborhood boundary.

15.1 INTERFACE CONDITIONS AND FUEL HAZARD

The Stewart – South Carson neighborhood has characteristics of both classic and intermix wildland urban interface conditions. Stewart is primarily characterized by an intermix condition, with wildland fuels continuing throughout the neighborhood and no clear boundary between the wildland vegetation and residential structures. The South Carson area has certain characteristics of a classic wildland urban interface, where wildland vegetation abuts residential properties with a clear line of separation between back property lines and the adjacent native wildland vegetation.

The vegetative fuel density in the Stewart – South Carson wildland-urban interface is heavy. Fuels around the neighborhood consist primarily of big sagebrush and bitterbrush. Typical shrub heights range between three to eight feet, with the taller shrubs found within the Clear Creek floodplain. Fuel loads on the south side of the Clear Creek riparian zone are estimated at 2.0 to 6.0 tons per acre, and are classified as a **high fuel hazard**.

The Stewart neighborhood is on predominantly flat terrain. Hills to the south and west of the neighborhood range from 8 to 30 percent. Winds are predominantly from the south-southwest in the late afternoon.

The terrain along the east side of the South Carson neighborhood is steep (20 to 40 percent slopes). The predominant wind direction is from the south-southwest in the late afternoon, with occasional upslope and cross-slope winds in late afternoons in summer.

Fuel hazard conditions and photographs of representative fuel types around the Stewart-South Carson neighborhood are shown in Figures 15-1 and 15-2 at the end of this chapter.

An existing fuelbreak located along the south side of the neighborhood at Delahedeh Street is approximately 30 feet wide, running the length of the block, and was established in 2004-2005.

Table 15-1 summarizes the history of fuels reduction treatments within the Stewart – South Carson Assessment Area.

Table 15-1. Fuels treatment history for the Stewart–South Carson neighborhood.

Treatment Type	Treatment Area (approximate acres)	Treatment Year	Ownership
Fuelbreak 825' x 30'	1	2004-2005	Washoe Tribe

15.2 NEIGHBORHOOD RISK/HAZARD RATING

Thirty-four residences were evaluated during the neighborhood hazard assessment, which resulted in classifying the Stewart – South Carson neighborhood in the **Moderate Hazard** category (41 points). A summary of the values that affect the hazard rating is included in Table 15-1. The primary wildfire hazard conditions in the Stewart – South Carson were lot sizes and potential for severe fire behavior due to high fuel loads around some structures in the interface and on undeveloped lots in the interior of the neighborhood.

15.2.1 Community Design

The Stewart – South Carson neighborhood contains structures that are scattered throughout the wildland, with no clear boundary between the wildland vegetation and residential areas in many places. The majority of the lots assessed in the Stewart area were on parcels of one acre or less. Parcel sizes were generally larger in the South Carson neighborhood and typically had more than three structures per acre.

- **Interface Condition:** intermix wildland-urban interface condition.
- **Access:** Clear Creek Avenue, Snyder Drive, and Topsy Lane are the primary access roads to the Stewart-South Carson neighborhood. These roads are greater than 24 feet wide and have less than a five percent slope, which provides adequate access for fire suppression equipment. No dead-end roads limit the ability for fire suppression equipment to maneuver or turn around.
- **Signage:** Residential addresses in the survey area were visible on most of the homes assessed (94 percent). Twelve percent of the street signs were not visible. Clear and visible residential addresses are important to assist firefighting personnel in locating homes during low visibility conditions that may occur during wildland fire.
- **Utilities:** All of the utilities were above ground. Power line right-of-ways were properly maintained, which minimizes the possibility of power lines sparking during windstorms and starting fires in nearby vegetation.

15.2.2 Construction Materials

The majority of homes surveyed (91 percent) were constructed using fire resistant composite roofing materials. However, nearly a quarter of the homes in the interface were built with combustible siding. Many of the homes (18 percent) 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.

15.2.3 Defensible Space

Of the thirty-four homes evaluated, many (15 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.

15.2.4 Suppression Capabilities

Wildfire Protection Resources

The Carson City Fire Department provides wildland and structure fire protection to the Stewart–South Carson neighborhood. The BLM Carson City Field Office also has wildland fire suppression responsibility for Washoe Tribe lands in Stewart.

Water Sources and Infrastructure

Water for fire suppression in the Stewart area is provided by 500 gpm hydrants within 500 feet of structures. Water for fire suppression in the South Carson neighborhood is from sources 20 minutes away roundtrip.

15.3 RECOMMENDATIONS

- Establish a Fire Safe Chapter in this neighborhood and encourage neighborhood participation.
- Continue the defensible space dumpster program to provide homeowners with an easily accessible biomass removal option.
- Distribute copies of *Living With Fire: A Guide for the Homeowner, Eastern Sierra Front Edition* (U of NV Cooperative Extension).
- Establish a fuelbreak approximately 4,000 feet by 125 feet (11 acres) beginning at the county line near the Clear Creek Mobile Home Park and the Stewart Cemetery, running to Clear Creek Avenue and behind Delahedeh, along the previously established fuelbreak. Thin shrubs to a minimum horizontal distance of twice the remaining shrub height or by creating a clustered mosaic pattern.
- Conduct annual assessments of fuel hazard conditions on all lots in the South Carson neighborhood and notify inattentive property owners of ordinances that require fuel hazard reduction. Brush mastication is recommended on approximately 48 acres throughout the neighborhood.
- If cheatgrass control is required, treat existing fuel reduction treatment areas with a pre-emergent herbicide according to the recommendations from the University of Nevada Cooperative Extension or the jurisdiction involved.
- If needed, reseed treated areas in the fall of the year (October-November) with a fire-resistant seed mixture. A sample seed mix and specifications for the Carson City interface area is included in Appendix E. Create a site-specific seed mix in collaboration with the jurisdiction involved.
- If resprouting rabbitbrush becomes excessive use an appropriate herbicide application as recommended by the University of Nevada Cooperative Extension or the jurisdiction involved to control rabbitbrush reestablishment.
- Establish a formal agreement between Carson City Fire Department and the Washoe Tribe for fire protection on tribal land in the Stewart neighborhood.

Table 15.2 Results of the wildfire risk/hazard rating in the Stewart-South Carson neighborhood.

<p>A. Urban Interface Condition <u>1</u></p> <p>B. Community Design</p> <p>1. Ingress / Egress <u>1</u> /5</p> <p>2. Width of Road <u>1</u> /5</p> <p>3. Accessibility <u>1</u> /3</p> <p>4. Secondary Road <u>1</u> /5</p> <p>5. Street Signs <u>3</u> /5</p> <p>6. Address Signs <u>1</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>1</u> /5</p> <p>3. Unenclosed Structures <u>1</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>5</u> /5</p> <p>2. Fire Behavior <u>7</u> /10</p> <p>3. Slope <u>4</u> /10</p> <p>4. Aspect <u>1</u> /10</p> <p>E. Suppression Capabilities</p> <p>1. Water Source <u>5</u> /10</p> <p>2. Department <u>1</u> /10</p>	<p>TALLIES</p> <p>34 Total Houses 8 Residential Streets</p> <p>B5. Street Signs</p> <p><u>1</u> not visible <u>7</u> visible <u>88%</u> visible</p> <p>B6. Address Signs</p> <p><u>2</u> not visible <u>32</u> visible <u>94%</u> visible</p> <p>C1. Roofs</p> <p><u>3</u> combust <u>31</u> not combust <u>91%</u> not combust</p> <p>C2. Siding</p> <p><u>8</u> combust <u>26</u> not combust <u>76%</u> not combust</p> <p>C3. Unenclosed Structures on Lot</p> <p><u>6</u> not enclosed <u>28</u> enclosed <u>18%</u> not enclosed</p> <p>D1. Lot Sizes</p> <p><u>21</u> <1ac <u>13</u> >1ac <10ac <u>0</u> >10ac</p> <p>D2. Defensible Space</p> <p><u>5</u> not adequat <u>29</u> adequate <u>85%</u> adequate</p>
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Community Hazard Score: 41 /128

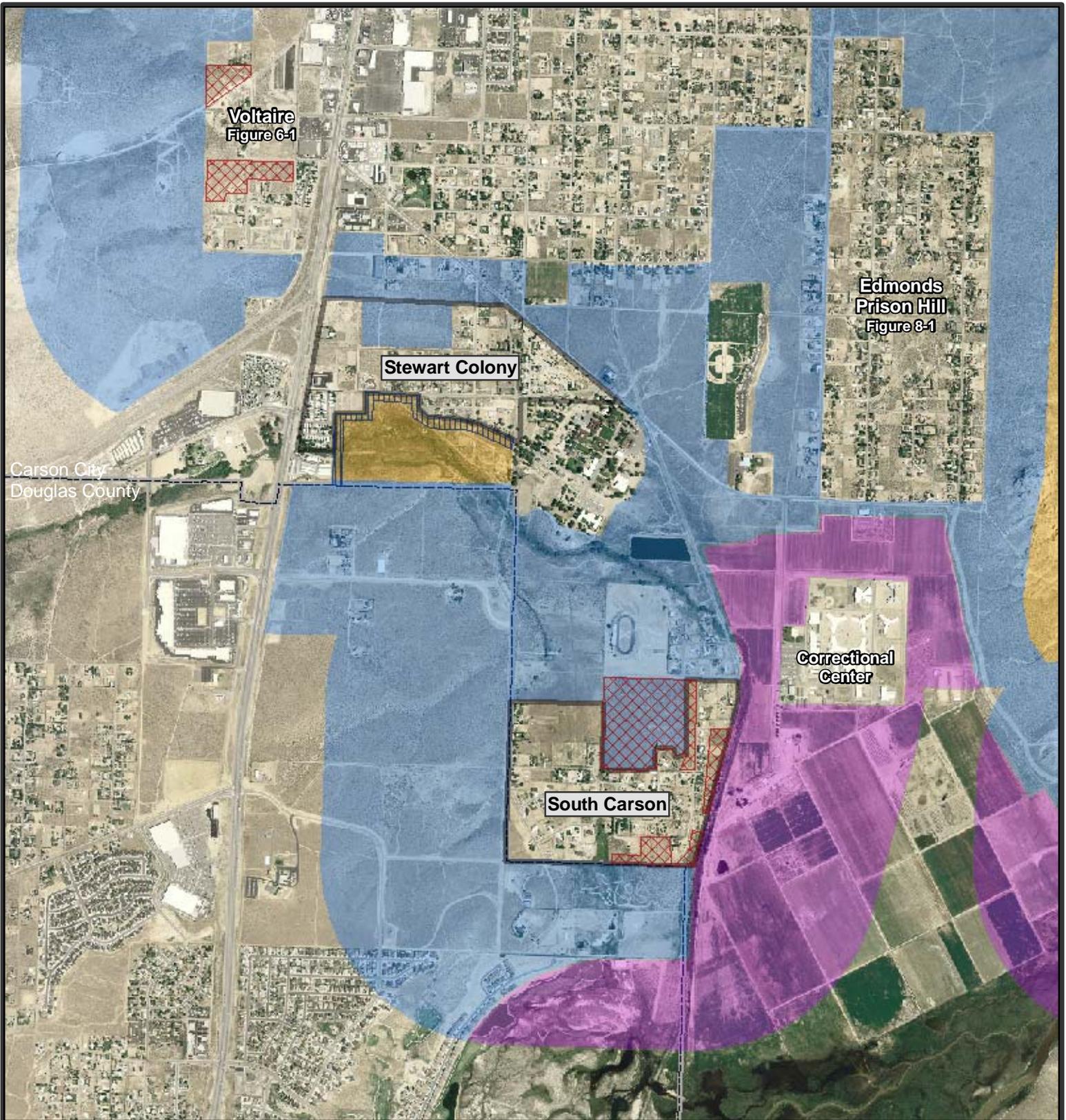


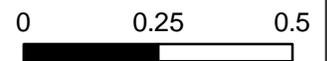
Figure 15-1. Stewart-South Carson fuel hazard conditions and recommendations for fuel hazard reduction.

Recommended Treatments

-  Establish fuelbreak
-  Shrub Thinning

Fuel Hazard Class

-  Low
-  Moderate
-  High
-  Neighborhood Boundary



Miles

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Figure 15-2. Representative fuel types in the wildland-urban interface around the Stewart-South Carson neighborhood.



Stewart-South Carson 1. UTM4333367N 260854E. View to East



Stewart-South Carson 2. UTM 4333360N 261075E. View to West