

## 13.0 NORTH CARSON

FUEL HAZARD: MODERATE COMMUNITY RISK: HIGH

The North Carson neighborhood includes the residential area north of the 395 bypass and east of Imus Road. The North Carson neighborhood also includes the industrial area east of Goni Road and north of Arrowhead Road. Major cross streets include Bonanza, Conestoga, Boeing, and Ruby.

### 13.1 INTERFACE CONDITIONS AND FUEL HAZARD

The North Carson neighborhood is characterized as a classic wildland urban interface. Wildland vegetation abuts residential properties with a clear line of separation along back property lines and the native wildland vegetation.

Fuel density is medium and uniform throughout the wildland-urban interface, with inclusions of wildland fuels occurring within the adjacent developed residential parcels. Dominant vegetation consists of big sagebrush, bitterbrush, Mormon tea, and rabbitbrush with an understory consisting of cheatgrass and annual mustard. Shrub heights range between two and six feet. The fuel load is estimated at 2.0 to 4.0 tons per acre and is considered a **moderate fuel hazard**.

The terrain along the north and east sides of the North Carson neighborhood is fairly steep, with slopes in excess of 30 percent in close proximity to private property. Several north/south directional canyons intersect the hillsides. 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 winds in the afternoon 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 repeated fires to the north and east of the North Carson neighborhood.

Fuel hazard conditions around the North Carson neighborhood and photographs of representative fuel types are shown in Figures 13-1 and 13-2 at the end of this chapter.

Table 13-1 summarizes the history of fuels reduction treatments within the vicinity of the North Carson assessment area.

**Table 13-1. Fuels treatment history in the vicinity of the North Carson neighborhood.**

Treatment Type	Treatment Area (approximate acres)	Treatment Year	Ownership
Fuelbreak 63,550 x 100'	58	2006	BLM Private

## 13.2 NEIGHBORHOOD RISK/HAZARD RATING

The risk/hazard assessment resulted in classifying the North Carson neighborhood in the **High Hazard** category (64 points). A summary of the values that affect the hazard rating is included in Table 13-2 at the end of this chapter. The primary wildfire hazard conditions in the North Carson neighborhood were primarily related to lack of defensible space and the potential for severe fire behavior due to topography and fuel loading.

### 13.2.1 Community Design

Within the North Carson neighborhood, there is a clear line of demarcation between the structures and wildland fuels along the roads. Most homes (58 percent) are situated on lots less than one acre in size, and forty-one percent of the homes are located on lots between one and ten acres in size.

- **Interface Condition:** classic wildland-urban interface condition.
- **Access:** The North Carson neighborhood is accessed by several primary roads including Goni, Bonanza, Arrowhead and Emerson. These roads range in width between 20 to 24 feet and allow adequate room for fire suppression equipment to maneuver. The road gradient on primary and secondary roads is greater than five percent. Steep roads can increase response times for heavy vehicles carrying water.
- **Signage:** Twenty percent of street signs within the North Carson neighborhood were not visible. Nine percent of the residential address signs in the survey area 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:** low risk of ignition.

### 13.2.2 Construction Materials

Nearly all of the homes within the neighborhood survey area were built with fire resistant composite roofing materials; however, many of the homes (35 percent) were constructed with combustible siding. Nine 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.

### 13.2.3 Defensible Space

Of the ninety-eight 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.

### 13.2.4 Suppression Capabilities

#### Wildfire Protection Resources

The Carson City Fire Department provides wildland and structure fire protection to the North Carson neighborhood. The Bureau of Land Management also provides wildfire protection for the publicly administered lands surrounding the North Carson neighborhood. Ownership and administration of much of this land will transfer from BLM to Carson City in 2009 or 2010. Fire protection for those lands will become the responsibility of the CCFD.

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### Water Sources and Infrastructure

Water availability for fire suppression in the North Carson neighborhood includes 500 gpm hydrants within 500 feet of structures.

### **13.3 RECOMMENDATIONS**

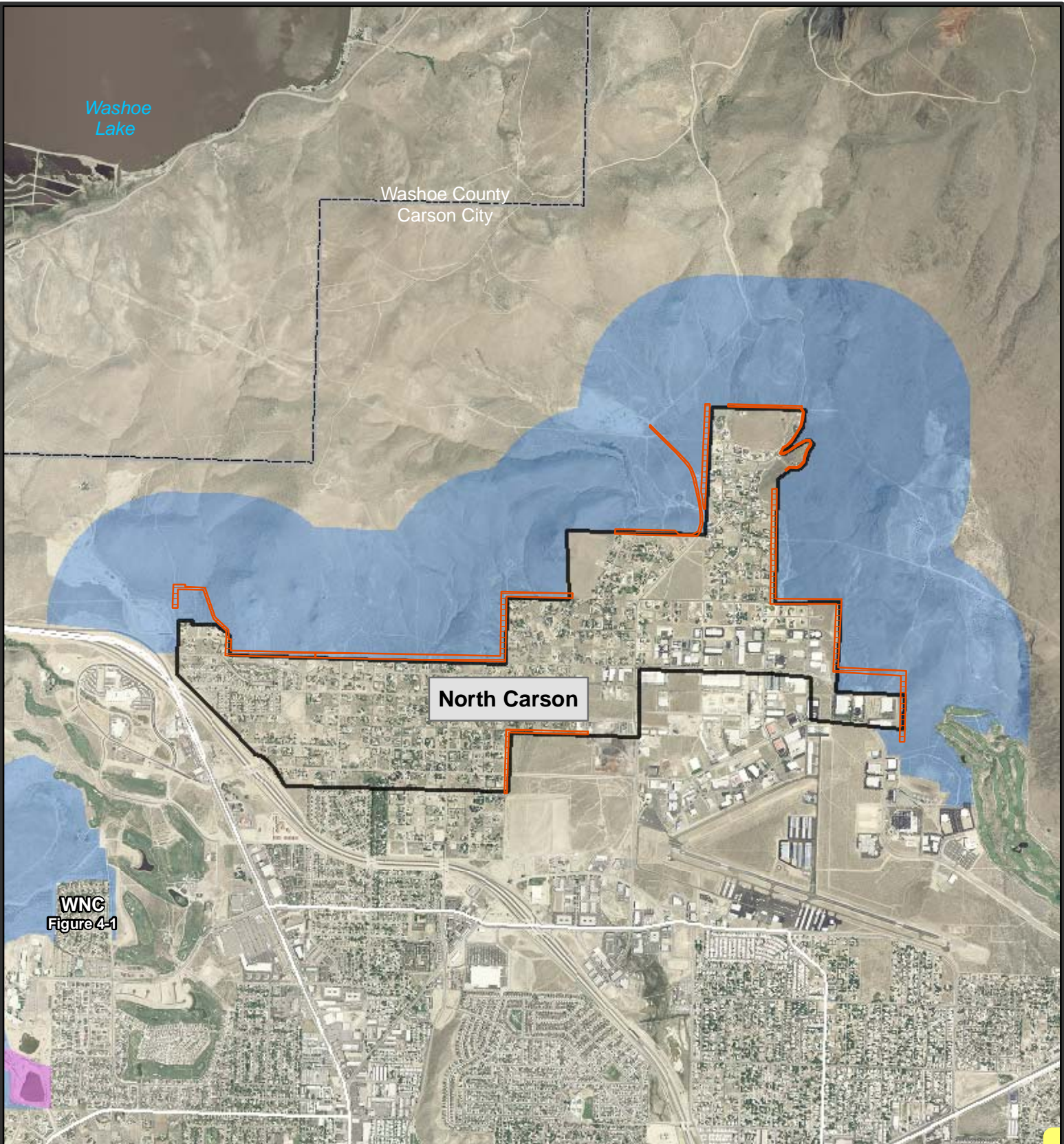
The fuelbreak extending from the borrow pit at the end of Imus Road to the neighborhoods east of Goni Lane was established along the BLM/Private property line in 2006. Field reconnaissance in November 2008 revealed a rapid reestablishment of rabbitbrush within the fuelbreak.

- Remove 85 percent of the shrub component encroaching into the fuelbreak (100 to 150 feet north of the property line). Leave the remaining 15 percent of shrub cover in a clustered mosaic pattern.
- Treat areas 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.
- 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. Develop site-specific seed mixes in collaboration with the jurisdiction involved.
- Establish or maintain 25 to 50 feet of brush clearance around water tanks and pipeline utilities.
- Reinforce defensible space guidelines with homeowners, with special emphasis on replacing ornamental junipers with more fire-resistant landscape species.
- 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).
- Encourage homeowners to follow the UNR Cooperative Extension's recommendations for fire safe landscaping.

**Table 13.2 Results of the wildfire risk/hazard rating in the North Carson neighborhood.**


<p><b>A. Urban Interface Condition</b>     <b>1</b></p> <p><b>B. Community Design</b></p> <p>1. Ingress / Egress     <u>1</u> /5</p> <p>2. Width of Road     <u>3</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>3</u> /5</p> <p>6. Address Signs     <u>1</u> /5</p> <p>7. Utilities     <u>1</u> /5</p> <p><b>C. Construction Materials</b></p> <p>1. Roofs     <u>1</u> /10</p> <p>2. Siding     <u>5</u> /5</p> <p>3. Unenclosed Structures     <u>1</u> /5</p> <p><b>D. Defensible Space</b></p> <p>1. Lot Size     <u>5</u> /5</p> <p>2. Defensible Space     <u>7</u> /15</p> <p><b>F. Fire Behavior</b></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>10</u> /10</p> <p><b>E. Suppression Capabilities</b></p> <p>1. Water Source     <u>1</u> /10</p> <p>2. Department     <u>1</u> /10</p>	<p><b>TALLIES</b></p> <p style="text-align: center;"><b>98 Total Houses     15 Residential Streets</b></p> <hr/> <p><b>B5. Street Signs</b></p> <p><u>3</u> not visible     <u>12</u> visible     <u>80%</u> visible</p> <p><b>B6. Address Signs</b></p> <p><u>9</u> not visible     <u>89</u> visible     <u>91%</u> visible</p> <p><b>C1. Roofs</b></p> <p><u>6</u> combust     <u>92</u> not combust     <u>94%</u> not combust</p> <p><b>C2. Siding</b></p> <p><u>34</u> combust     <u>64</u> not combust     <u>65%</u> not combust</p> <p><b>C3. Unenclosed Structures on Lot</b></p> <p><u>9</u> not enclosed     <u>89</u> enclosed     <u>9%</u> not enclosed</p> <p><b>D1. Lot Sizes</b></p> <p><u>57</u> &lt;1ac     <u>40</u> &gt;1ac &lt;10ac     <u>1</u> &gt;10ac</p> <p><b>D2. Defensible Space</b></p> <p><u>40</u> not adequat     <u>58</u> adequate     <u>59%</u> adequate</p>
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**Community Hazard Score:**     64 /128



**Figure 13-1. North Carson fuel hazard conditions and recommendations for fuel hazard reduction.**

**Recommended Treatments**

 Maintain Fuelbreak

**Fuel Hazard Class**

 Low

 Moderate

 Neighborhood Boundary

0 0.4 0.8

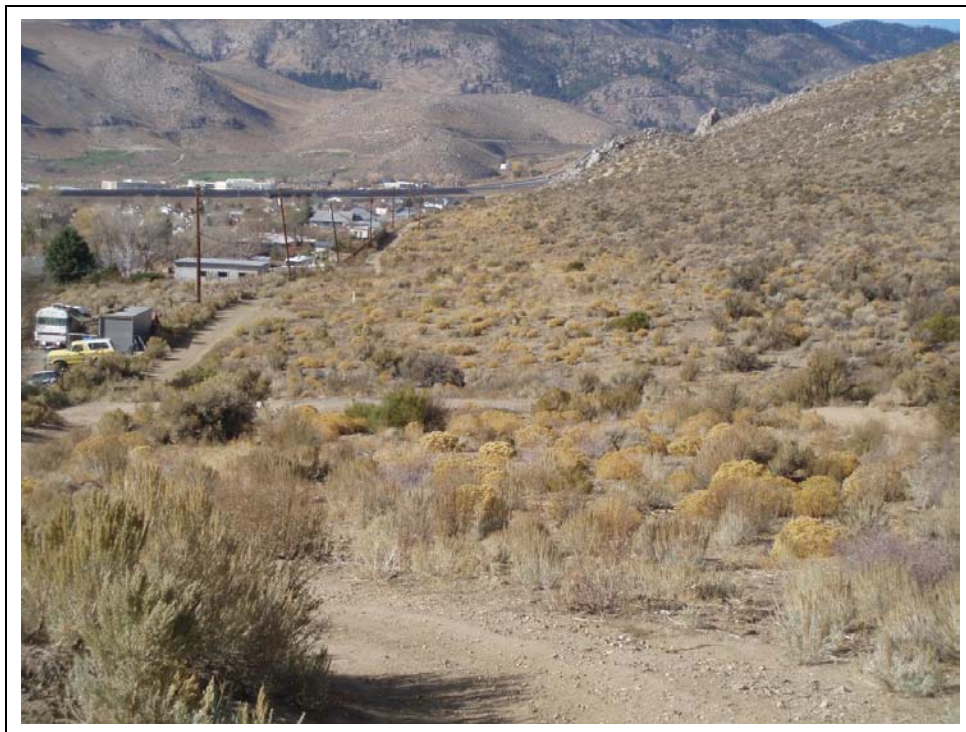
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**Figure 13-2. Representative fuel types in the wildland-urban interface around the North Carson neighborhood.**



North Carson 1. UTM 4343135N 260531E. View to East



North Carson 2. UTM 4343163N 260863E. View to West