12.0 MEXICAN DAM

FUEL HAZARD: MODERATE – HIGH COMMUNITY RISK: HIGH

The Mexican Dam neighborhood is located in the remote southeast portion of Carson City, south of Silver Saddle Ranch and east of the Northern Nevada Correctional Center. The neighborhood includes residences on both sides of the Carson River, those accessed via Snyder Avenue/Golden Eagle Lane and those accessed by Mexican Dam Road/Sierra Vista Lane. The Mexican Dam neighborhood boundary for this report excludes those houses accessed by Vicky Lane from the south, as fire protection for those homes is provided by Douglas County under a mutual aid agreement with the Carson City Fire Department.

12.1 INTERFACE CONDITIONS AND FUEL HAZARD

The Mexican Dam 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 within the southern portion of the Mexican Dam neighborhood is medium, and the shrub-dominant overstory consists of bitterbrush, rabbitbrush, desert peach and Mormon tea. Shrub heights range from two to six feet. The understory is comprised primarily of Indian ricegrass. Fuel loads range from 2.0 to 4.0 tons per acre and is classified as a **moderate fuel hazard**.

Vegetative fuel density in the southeast interface is heavy and consists of bitterbrush, big sagebrush, Mormon tea and rabbitbrush, with pinion pine trees at higher elevations on the surrounding slopes. Cheatgrass is present in disturbed areas. Fuels generally ranged between two and four feet in height with fuel loading estimated at 4.0 to 6.0 tons per acre. The **fuel hazard is high**.

The terrain surrounding the northwest portion of the Mexican Dam neighborhood is fairly steep, ranging from 8 to 30 percent slopes. The terrain is relatively flat within the Carson River floodplain in the southwest portion of the neighborhood. The predominant wind direction is from the south-southwest in the late afternoon, with occasional strong upslope and cross-slope winds in the late afternoons during the summer months due to thunderstorms. There is very minor fire history in this area.

Fuel hazard conditions and photographs of representative fuel types in the Mexican Dam wildland-urban interface are shown in Figures 12.1 and 12.2, respectively, at the end of this chapter.

Table 12-1 summarizes the history of fuels reduction treatments within the Mexican Dam Assessment Area.

Table 12-1. Fuels treatment history for the Mexican Dam neighborhood.

Treatment Type	Treatment Area (approximate acres)	Treatment Year	Ownership
Fuelbreak 16,540' x 200' and mosaic patches	43	2005	BLM
Hand Treatment 14 parcels	85	2005	Private

12.2 NEIGHBORHOOD RISK/HAZARD RATING

The risk/hazard assessment resulted in classifying the Mexican Dam neighborhood in the **High Hazard** category (64 points). A summary of the values that affect the hazard rating is included in Table 12-2 at the end of this chapter. The primary wildfire hazard conditions in the Mexican Dam neighborhood were related to community design and the potential for severe fire behavior due to topography and fuel loading.

12.2.1 Community Design

Within the Mexican Dam neighborhood structures are scattered throughout wildland areas, and there is no clear line of demarcation between wildland and residential areas. Most homes are situated on lots between one and ten acres in size, and a few are on lots greater than ten acres.

- **Interface Condition:** intermix wildland-urban interface condition.
- **Access:** The Mexican Dam neighborhood is accessed by one paved road in and out of the neighborhood. The road is called Mexican Dam Road to the north of the neighborhood, and changes to Sierra Vista Lane within the neighborhood. The road is between 20 and 24 feet wide and allows adequate room for fire suppression equipment to maneuver. The road gradient is steeper than five percent. Steep roads, several dead end roads greater than 200 feet in length, and limited access to the neighborhood could limit fire suppression and evacuation activities during a wildland fire.
- **Signage:** All street signs and ninety percent of the residential address signs in the Mexican Dam survey area were clearly 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.

12.2.2 Construction Materials

All the homes within the neighborhood were built with fire resistant composite roofing materials; however, eighteen percent of the homes were constructed with combustible siding. Nearly half 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 house.

12.2.3 Defensible Space

Of the forty-nine homes evaluated, many (24 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.

12.2.4 Suppression Capabilities

Wildfire Protection Resources

The Carson City Fire Department provides wildland and structure fire protection in the Mexican Dam neighborhood. However, the neighborhood is beyond the recommended maximum distance of five miles from a fire station. BLM provides fire protection for the public lands surrounding the 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.

Water Sources and Infrastructure

Water availability for fire suppression in Mexican Dam neighborhood is approximately 20 minutes away roundtrip. There is a 10,000-gallon underground tank located at 6600 Sierra Vista Lane and Arroyo Vista.

12.3 RECOMMENDATIONS

Of all the neighborhoods included in this assessment, the Mexican Dam neighborhood is the most remote and the most complicated to access. These features make preventive measures very important for this neighborhood.

- Conduct annual defensible space evaluations on each residence in the neighborhood and conduct hazardous fuels assessments on surrounding public lands.
- Distribute copes of *Living With Fire: A Guide for the Homeowner, Eastern Sierra Front Edition* (U of NV Cooperative Extension).
- Continue 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.
- Monitor brush and cheatgrass conditions on areas masticated in 2005 and maintain as necessary. The 5-year maintenance schedule calls for maintenance activities in 2010. Pre-emergent and broadleaf herbicide application may be necessary to slow the encroachment of cheatgrass, rabbitbrush, and other highly flammable undesirable species.
- Establish an additional 30 acres of fuelbreak (6,981' X 200') to complete protection on the south and east portions of this neighborhood.

Table 12.2 Results of the wildfire risk/hazard rating in the Mexican Dam neighborhood.

A. Urban Interface Condition	***2***	
B. Community Design		
1. Ingress / Egress	3	/5
2. Width of Road	3	/5
3. Accessibility	3	/3
4. Secondary Road	5	/5
5. Street Signs	1	/5
6. Address Signs	3	/5
7. Utilities	1	/5
C. Construction Materials		
1. Roofs	1	/10
2. Siding	1	/5
3. Unenclosed Structures	3	/5
D. Defensible Space		
1. Lot Size	3	/5
2. Defensible Space	1	/15
F. Fire Behavior		
1. Fuels	3	/5
2. Fire Behavior	7	/10
3. Slope	4	/10
4. Aspect	7	/10
E. Suppression Capabilities		
1. Water Source	5	/10
2. Department	10	/10

TALLIES

49 Total Houses **5 Residential Streets**

B5. Street Signs

0	not visible	5	visible	100%	visible

B6. Address Signs

5	not visible	44	visible	90%	visible

C1. Roofs

0	combust	49	not combust	100%	not combust

C2. Siding

9	combust	40	not combust	82%	not combust

C3. Unenclosed Structures on Lot

20	not enclosed	29	enclosed	41%	not enclosed

D1. Lot Sizes

0	<1ac	46	>1ac <10ac	3	>10ac

D2. Defensible Space

12	not adequat	37	adequate	76%	adequate

Community Hazard Score: **64** /128

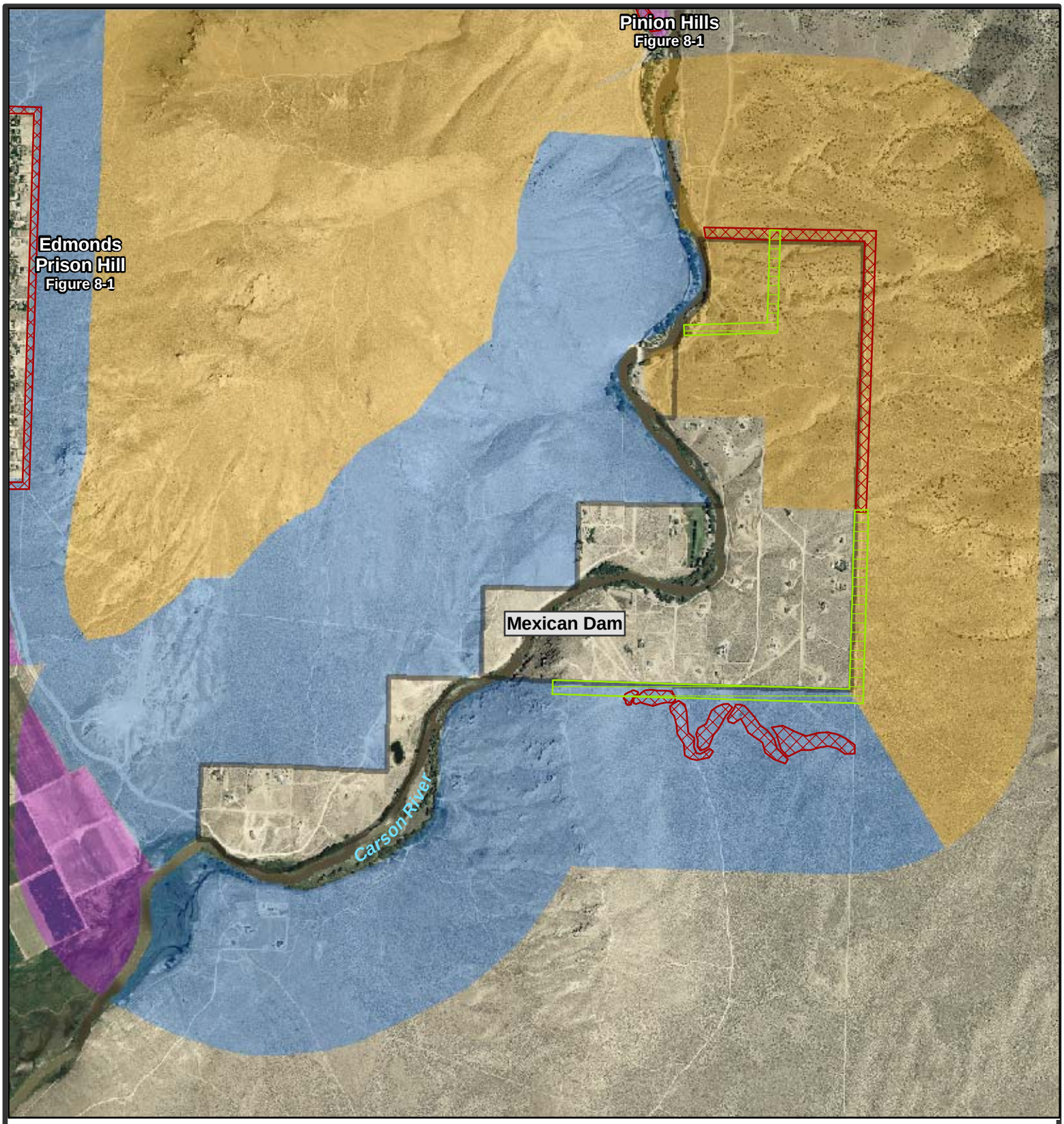

Figure 12-1. Mexican Dam fuel hazard conditions and recommendations for fuel hazard reduction.

Recommended Treatment

- Establish Fuelbreak
- Maintain Fuelbreak

Fuel Hazard Class

- Low
- Moderate
- High
- Neighborhood Boundary

N

0 0.25 0.5

Miles

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

Figure 12-2. Representative fuel types in the wildland-urban interface around the Mexican Dam neighborhood.

Mexican Dam 1. UTM 4332391N 266495E. View to East-Southeast

Mexican Dam 2. UTM 4332254N 266123E. View to North