OPEN SPACE ADVISORY COMMITTEE
STAFF REPORT

MEETING DATE: December 16, 2013

AGENDA ITEM NUMBER: 3G

STAFF: Juan F. Guzman, Open Space Manager

REQUEST: Discussion only regarding activities, projects, and grants located within the Carson River corridor.

GENERAL DISCUSSION:

1) Carson River Area Management Plan: Staff anticipates being able to meet in January with the Open Space Advisory Committee in order to discuss the sections of the plan pertaining to the conservation easement areas.

2) Federal Lands Bill: The Bureau of Land Management (BLM) anticipates completing the transfer of lands on or around January 1, 2014. The transfers will only include the conservation easement areas consisting of Prison Hill, the Silver Saddle Ranch, and the Ambrose Carson River Natural Area. The staff initiated discussion with the Friends of Silver Saddle Ranch and other groups to create capacity in order to facilitate the management these lands including the simplest of tasks such as opening and closing of the gates to the land stewardship and improvements.

3) Carson River Snapshot Day: Ann Bollinger and Margie Evans worked with the Silver State Charter School teachers and students in order to collect water samples and measure water quality parameters at the Deer Run Road bridge / open space property. These assessments are a part of the program for the entire Carson River watershed being conducted by the Nevada Division of Environmental Protection, Bureau of Water Quality Planning.

4) Carson Water Subconservancy District: The staff met with the Carson Water Subconservancy District and Margie Evans in order to discuss the opportunity to submit for a grant that will allow for the dissemination of information and signs regarding no noxious weeds in the Carson River environment.

5) Ducks Unlimited: The staff conducted a field trip to Buzzy's Ranch with John Ranlett from Ducks Unlimited and Susan Abele with the Fish and Wildlife Service. Susan is the person responsible for the environmental review and compliance for the grant (North American Wetlands Conservation Act).

6) Review of the BLM Pine Nut Land Health Project, Draft Environment Assessment: Staff had the opportunity at the request of the City Manager to review the subject document and submit comments that are attached to this staff report.

7) Trail Signs for Prison Hill: Staff is pleased to announce that the new trail signs for Prison Hill and Silver Saddle Ranch have been delivered and will work with a contractor for installation by the end of December. The signs were paid through a grant obtained by Beneficial Designs from the Nevada State Parks, Recreational Trails Program.

8) Friends of Silver Saddle Ranch: The Friends of Silver Saddle Ranch met with staff in order to discuss the potential of facilitating the management of Silver Saddle Ranch.

RECOMMENDED ACTION: No action may be taken. This item is for discussion only.

CARSON CITY, NEVADA

CONSOLIDATED MUNICIPALITY AND STATE CAPITAL

November 27, 2013

BLM, Sierra Front Field Office
Attn: Brian Buttazoni
5665 Morgan Mill Road
Carson City, Nevada 89701

Re: Comments for the Pine Nut Land Health Project, Draft Environmental Assessment, DOI-BLM-NV-C020-2013-0017-EA, October 2013

Dear Mr. Buttazoni,

The Pine Nut Land Health Project, Draft Environmental Assessment proposes three treatment units within the Carson City jurisdiction – Brunswick Canyon, Eldorado Canyon, and Hackett Canyon. We are deeply concerned that you have not identified any projects near or adjacent to our neighborhoods in wildland-urban interface (WUI).

The Carson City Community Wildfire Protection Plan (CWPP) was completed in July 2009 and includes two neighborhoods adjacent to the Pine Nut Mountain Range.

1) 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 fuel hazard was considered moderate to high and the community risk was considered as high.
2) The Pinion Hills neighborhood is located east of Carson City. The neighborhood is bounded on the west by the Carson River and on the east by the Pine Nut Mountains. The northern boundary includes the residences on Deer Run Road that are located a mile north of Sedge Drive and extends south to the bridge. The fuel hazard was considered moderate and the community risk was considered as high.

We have attached copies of these two chapters of the CWPP which provide further detail regarding vegetation conditions, fuel hazard, treatment history, recommendations, maps, and photos. The entire document can be found online at http://www.carson.org/index.aspx?page=2236.

While it appears these neighborhoods do not offer priority habitat for sage-grouse, Carson City requests that you consider these adjacent, high-risk neighborhoods as highest priority for treatment with fire funding (page 6, subsection 2.1.1.1 Implementation Prioritization).

If you have any questions, please feel free to contact me by email abollinger@carson.org or phone (775) 887-226 or Stacey Giomi, Fire Chief, by email sgiomi@carson.org or phone (775) 887-2210.

Thank you for the opportunity to comment.

Sincerely,

Ann Bollinger
Natural Resource Specialist

cc: Larry Werner, City Manager, Carson City
Stacey Giomi, Fire Chief, Carson City
Roger Moellendorf, Parks and Recreation Director, Carson City
Juan Guzman, Open Space Manager, Carson City

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

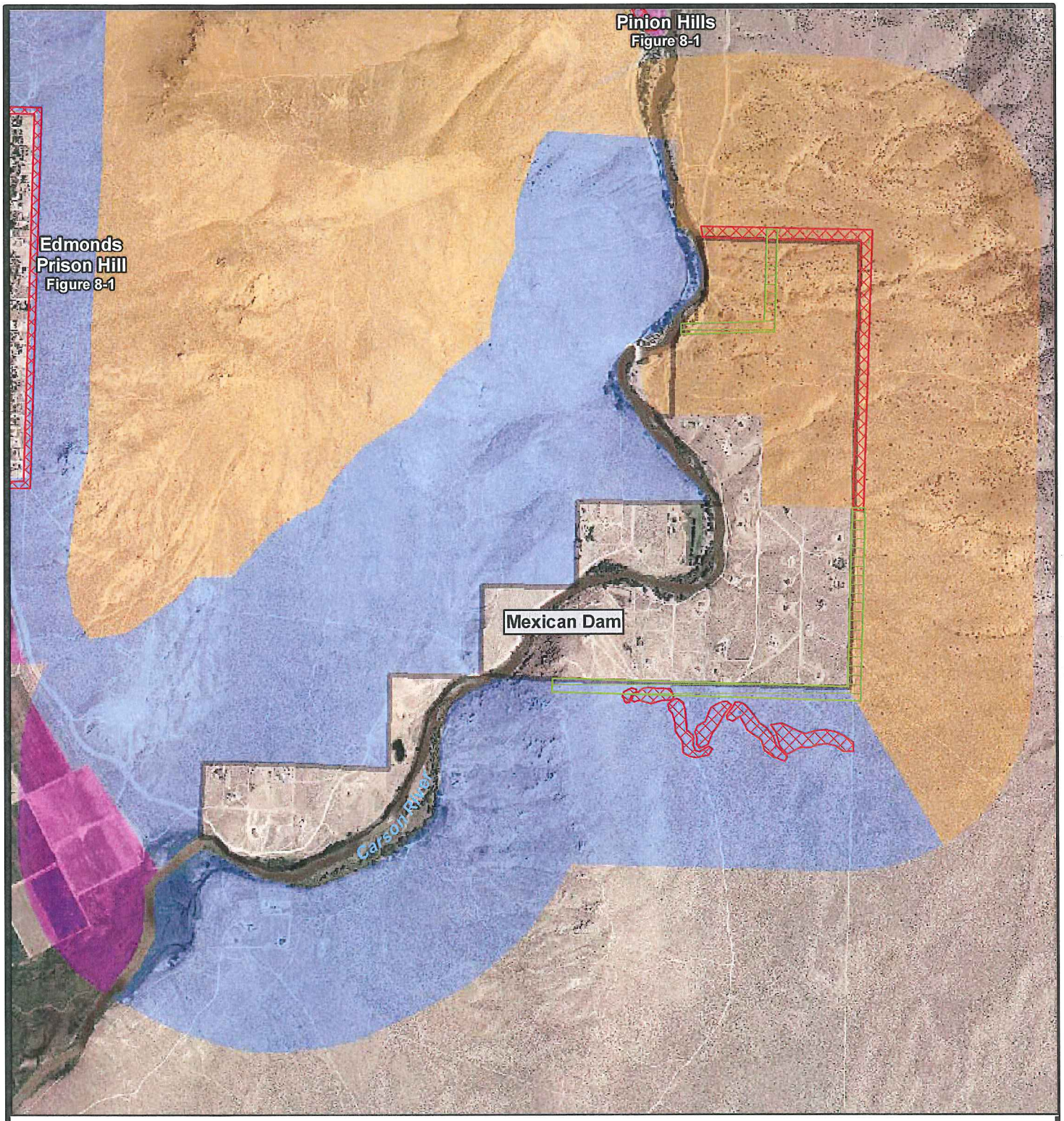

Figure 12-1. Mexican Dam fuel hazard conditions and recommendations for fuel hazard reduction.

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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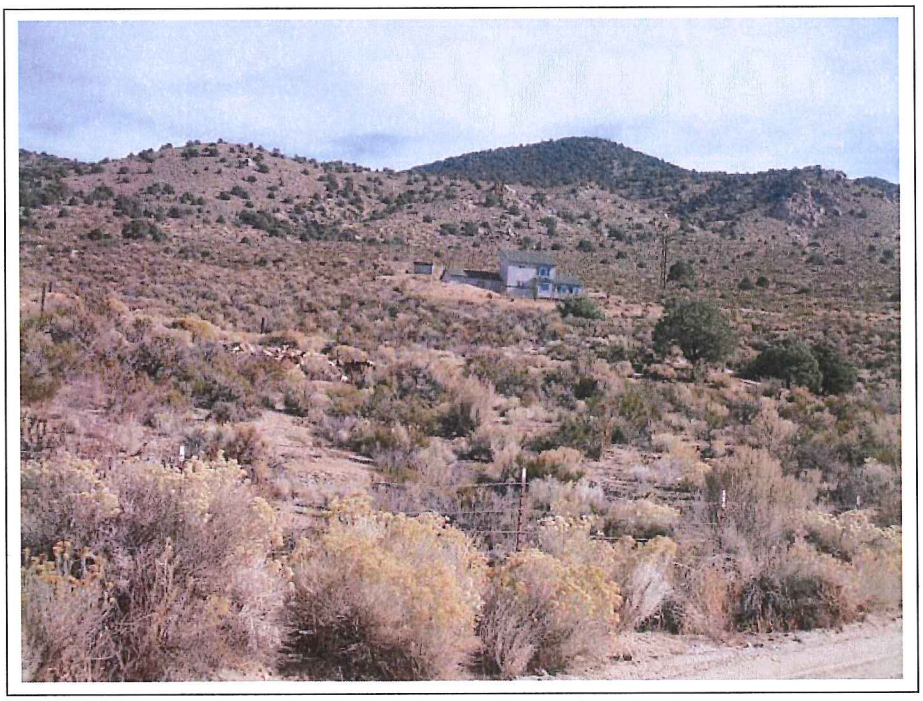
Carson City, Nevada 89703
(775) 883-1600

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

14.0 PINION HILLS

FUEL HAZARD: MODERATE COMMUNITY RISK: HIGH

The Pinion Hills neighborhood is located east of Carson City. The neighborhood is bounded on the west by the Carson River and on the east by the Pine Nut Mountains. The northern boundary includes the residences on Deer Run Road that are located a mile north of Sedge Drive and extends south to Lee's Bridge.

14.1 INTERFACE CONDITIONS AND FUEL HAZARD

The Pinion Hills 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 was heavy throughout the Pinion Hills neighborhood and wildland-urban interface. Pinion and juniper trees spaced up to twenty feet apart grow within a shrub layer of big sagebrush, bitterbrush, rabbitbrush, and Mormon tea. Tree density is higher near drainages, which can channel air currents and act as chimneys during a wildfire. Ground fuels are dominated by cheatgrass and other annuals. Fuel loads range from 2.0 to 6.0 tons per acre, depending upon tree density. This area is classified as a **high fuel hazard**.

The terrain along the east side of the Pinion Hills neighborhood is very irregular, with slopes from 8 to 20 percent near Deer Run Road to over 30 percent along the base of the Pine Nut Range. The predominant wind direction is from the south-southwest, with strong afternoon upslope and cross slope winds during the summer months. No history or large fires is recorded west of Brunswick Canyon near this neighborhood.

Fuel hazard conditions and representative photographs of fuel types around the Pinion Hills neighborhood are included in Figures 14-1 and 14-2 at the end of this chapter.

Table 14-1 summarizes the history of fuels reduction treatments within the Pinion Hills Assessment Area.

Table 14-1. Fuels treatment history for the Pinion Hills neighborhood.

Treatment Type	Treatment Area (approximate acres)	Treatment Year	Ownership
Fuelbreak 15,100' x 150'	52	2005	BLM

14.2 NEIGHBORHOOD RISK/HAZARD RATING

The risk/hazard assessment resulted in classifying the Pinion Hills neighborhood in the **High Hazard** category (63 points). A summary of the values that affect the hazard rating is included in Table 14-2 at the end of this chapter. The primary wildfire hazard conditions in the Pinion Hills neighborhood were related to community design, including limited access and multiple dead end roads, construction materials, and the potential for severe fire behavior due to topography and fuel loading.

14.2.1 Community Design

Within the Pinion Hills neighborhood there is no clear line of demarcation between the structures and wildland fuels along the roads. Most homes in the survey area (60 percent) are located on lots between one and ten acres in size, and forty percent are located on lots less than one acre in size.

- **Interface Condition:** intermix wildland-urban interface condition.
- **Access:** The Pinion Hills neighborhood is accessed by one primary road in and out of the neighborhood. The road entering the neighborhood from the south, Carson River Road, changes to Pinion Hills Road within the neighborhood. The neighborhood can be accessed from the north by South Deer Run Road. These roads are greater than 24 feet wide which allows access for fire suppression equipment. However, many roads lead to dead ends that limit the ability for fire suppression equipment to maneuver or turn around. The road gradient on primary and secondary roads is greater than five percent. Steep roads and limited access to the neighborhood could limit fire suppression and evacuation activities during a wildland fire.
- **Signage:** Half of the street signs within the Pinion Hills survey area were not visible. Twenty-three percent of the residential address 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:** low risk of ignition.

14.2.2 Construction Materials

Nearly all of the homes surveyed within the neighborhood (93 percent) were built with fire resistant composite roofing materials; however, fifty percent of the homes were constructed with combustible siding. Forty-seven 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, and ignite, readily spreading fire to the home.

14.2.3 Defensible Space

Of the thirty homes evaluated, eight homes (27 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.

14.2.4 Suppression Capabilities

Wildfire Protection Resources

The Carson City Fire Department provides wildland and structure fire protection to the Pinion Hills neighborhood. The Bureau of Land Management provides wildfire protection for the publicly administered lands surrounding the Pinion Hills 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 the Pinion Hills neighborhood is approximately 20 minutes away roundtrip. Within the community there is a 10,000-gallon underground tank located at 1769 Pinion Hills Road.

14.3 RECOMMENDATIONS

- Conduct an assessment of fuel hazard conditions on all lots within the neighborhood boundaries and notify inattentive property owners of Ordinances that require fuel hazard reduction.
- Thin pinyon-juniper stands within and to the south and east of the Pinion Hills neighborhood. Outside of the defensible space zone, gradually diminish the intensity of tree and brush thinning within 0.5 miles of the neighborhood boundary.
- Monitor brush and invasive grass species encroachment on existing and future fuel reduction treatment areas and maintain as necessary. If needed, treat the area 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. An example of a recommended seed mixture 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.
- Remove, reduce, and replace vegetation to create defensible space around homes according to the guidelines in Appendix B.
- 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).
- Encourage homeowners to follow the UNR Cooperative Extension's recommendations for fire safe landscaping.
- Continue implementing the defensible space dumpster program to provide homeowners with an easily accessible biomass removal option

Table 14.2 Results of the wildfire risk/hazard rating in the Pinion Hills neighborhood.

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

TALLIES

30 Total Houses **6 Residential Streets**

B5. Street Signs

3 not visible | 3 visible | 50% visible

B6. Address Signs

7 not visible | 23 visible | 77% visible

C1. Roofs

2 combust | 28 not combust | 93% not combust

C2. Siding

15 combust | 15 not combust | 50% not combust

C3. Unenclosed Structures on Lot

14 not enclosed | 16 enclosed | 47% not enclosed

D1. Lot Sizes

12 <1ac | 18 >1ac <10ac | 0 >10ac

D2. Defensible Space

8 not adequat | 22 adequate | 73% adequate

Community Hazard Score: 63 /128

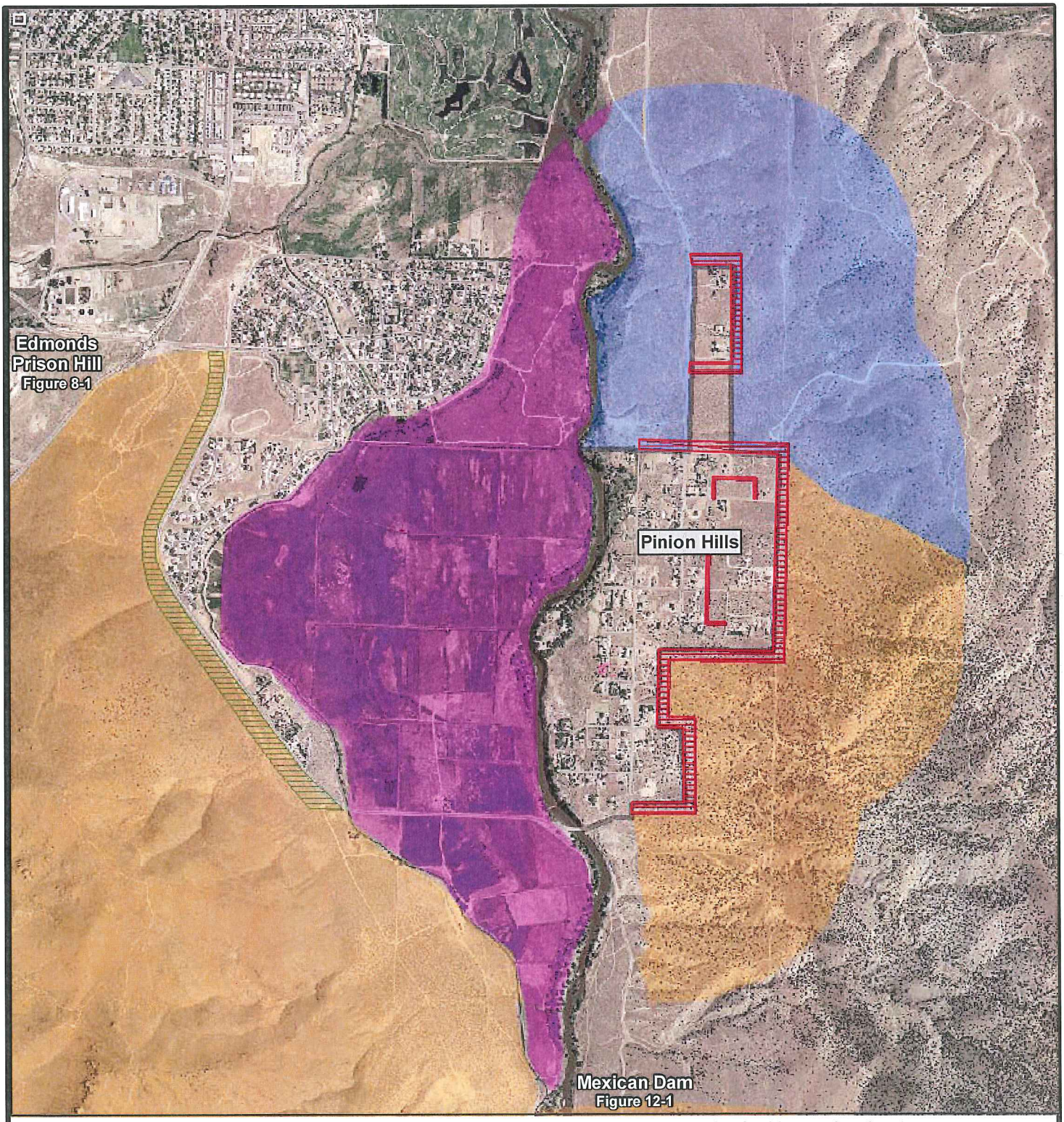


Figure 14-1. Pinion Hills fuel hazard conditions and recommendations for fuel hazard reduction.

Recommended Treatments
- Establish fuelbreak
- Maintain fuelbreak

Fuel Hazard Class
- Low
- Moderate
- High
- Neighborhood Boundary

N

0 0.25 0.5
Miles

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

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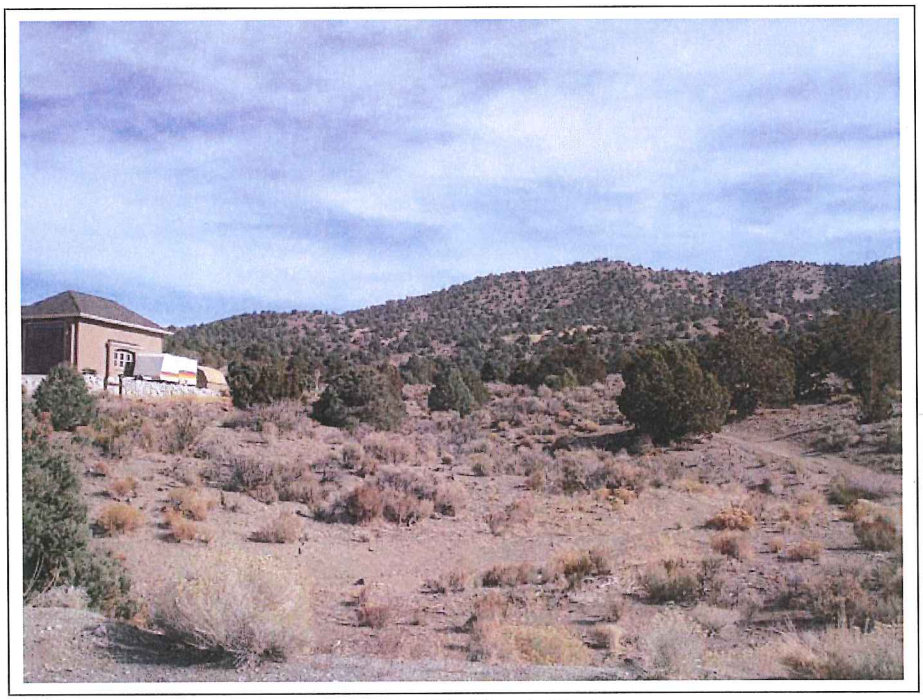
Carson City, Nevada 89703
(775) 883-1600

Figure 14-2. Representative fuel types in the wildland-urban interface around the Pinion Hills neighborhood.

Pinion Hills 1. UTM 4337700N 267073E. View to West



Pinion Hills 2. UTM 4336178N 266418E. View to East