# East Fork Fire Protection District Carson Valley East Fork Township Community Wildfire Protection Plan

2023 Update February 2023



Tamarack Fire 2021

Prepared For: East Fork Fire Protection District District Fire Chief Tod F. Carlini

# Abstract and Approval

Over the last few decades, the wildland fire management environment has profoundly changed. Longer fire seasons, bigger and more intense fires, an increase in acres burned on average each year, and more extreme fire behavior are reasons why the East Fork Fire Protection District (EFFPD) led the District stakeholders in preparation of this Community Wildfire Protection Plan (CWPP) 2023 Update. The Healthy Forests Restoration Act of 2003 promotes continued local involvement and landowner participation in developing treatment recommendations to reduce wildfire hazards. This update was developed collaboratively through meetings with local, state, and federal fire agency representatives and program leads, Fire Adapted Community (FAC) participants, and other interested stakeholders.

The Nevada Network of Fire Adapted Communities was created to strengthen communication and support between agencies and the public that will help create Fire Adapted Communities (FAC) that can withstand an inevitable wildfire and minimize the potential for catastrophic loss of life or property. One FAC chapter is organizing within EFFPD where residents are actively engaging in obtaining political and financial support to create defensible/survivable space and identify and accomplish projects within and around their communities. The recommendations within this CWPP Update are anticipated to be implemented with continued technical support and resources from the Nevada Network of Fire Adapted Communities and through stakeholder partnerships to achieve mutual goals.

Many of the most effective activities aimed at reducing the threat of wildfire in the CWPP communities require that individual property owners coordinate with each other and with local fire agencies. Defensible space, for example, is more effective in small communities when applied uniformly throughout entire neighborhoods. Public education and awareness, neighbors helping neighbors, and proactive individuals setting examples for others to follow are just a few of the approaches that will be necessary to meet the fire safe goals in CWPP plan area.

# Signatures of Approval

In accordance with the Healthy Forests Restoration Act of 2003, the following entities mutually agree with and approve the contents of the East Fork Fire Protection District Community Wildfire Protection Plan 2023 update that:

... was collaboratively developed. Local, state, and federal government representatives and interested parties have been consulted.

... identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatments that will protect at-risk communities and essential infrastructure.

... recommends measures that homeowners and communities can take to reduce the ignitability of structures.

Tod F. Carlini District Fire Chief East Fork Fire Protection District

Jacques Etchegoyhen Board President East Fork Fire Protection District Fire Board

Kacey K.C State Forester/Fire Warden Nevada Division of Forestry

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### **Executive Summary**

Prepared by Tod F. Carlini, District Fire Chief

The East Fork Protection District's Community Wildfire Protection Plan (CWPP) is the result of a community-wide planning effort that included extensive field data gathering, compilation of existing documents, geographic information system (GIS) data, and scientific analyses and recommendations designed to access and reduce the threat of wildfire-related damages to values at risk.

Values at risk include people, property, ecological and environmental elements, and other human and intrinsic values within the project areas. Over time we have seen an ever-increasing exposure within urban interface areas making these values at risk particularly susceptible to damage from wildfire.

This document incorporates new and existing information relating to wildfire, which will be valuable to citizens, policy makers, and public agencies throughout East Fork Fire Protection District and greater Douglas County, Nevada. Participants in this project include the East Fork Fire Protection District, United States Forest Service (USFS), Bureau of Land Management (BLM), the Nevada Division of Forestry (NDF), area home owners' associations (HOA's) and concerned citizens representing several of the informal communities of the District.

The assessment portion of this document estimates the hazards and risks associated with wildland fire in proximity to Wildland-Urban Interface (WUI) areas. This information, in conjunction with identification of the values at risk defines areas of special interest and allows for prioritization of mitigation efforts. From the analysis of this data, solutions and mitigation recommendations are offered that will aid homeowners, land managers, and other interested parties in developing short-term and long-term planning efforts.

The East Fork Fire Protection District CWPP provides a comprehensive analysis of wildfire-related hazards and risks in the wildland urban interface areas served by the District. Wildland Urban Interface (WUI) is the area where human development and activity meets and intermixes with undeveloped, *"wild"* vegetation. The analysis is delivered in the form of a CWPP. It is our hope and desire to build a more wildland fire resistant environment in the future by following the recommendations contained in this document and following the prescribed plans for fuels reduction and management.

# Background

The first Community Wildfire Protection Plan (CWPP) for Douglas County, which included the East Fork Fire Protection District (EFFPD) was prepared by Resource Concepts, Inc. in 2005 (RCI 2005). Potential hazards and risks described in the 2005 CWPP were accurate; however, the actual hazards today have changed or have been reduced in some places due to mitigation activities that have occurred since 2005 (Douglas County 2019). Large scale fuel reduction treatments have been implemented on federal lands; Landowners are increasingly aware of wildland fire risks; vegetation treatments have been implemented on private property; residential development has expanded; and fire suppression capabilities have been enhanced.

The recommendations for hazard mitigation, where possible, are only part of the CWPP process. Another intangible result is forming strong partnerships between local stakeholders who could be directly affected by wildfire and whose knowledge of local conditions is critical to planning and implementing treatments.

Collaboration is an essential part of land and fuels management and planning. Collaboration among all local stakeholders helps managers identify objectives that meet broad social, economic, and ecological goals at the local level. Though collaboration does require an investment of time and money, it can be a helpful process to avoid potential litigation or efforts to obstruct implementation of treatments to reduce risks, hazards, and potentially save lives.

New national programs such as the Collaborative Forest Landscape Restoration Program, Landscape Conservation Cooperatives, and the Joint Fire Science Knowledge Exchange Consortia encourage collaborative alliances, but they have also become fundamental to ensuring adequate funding for fuels management. Organizations that have community support and strong partnerships through collaboration have a strong case for grant funding as well as a strong position when competing for scarce resources.

# Healthy Forests Restoration Act 2003

The Healthy Forests Initiative was enacted into law by the Healthy Forests Restoration Act of 2003 (Public Law 108-408). The Act addresses the need for thinning over-stocked woodland and rangeland fuels on federal, state, local, and private land to help protect communities from intense wildfires, improve fire suppression capabilities, and increase forest and rangeland resistance to destructive insects and disease. The Act encourages communities to create a CWPP to collaboratively designate areas in the Wildland-Urban Interface (WUI) that are the most in need of vegetation mitigation and management. Provisions in the Act include:

- Authorization for fire agencies to conduct fuel reduction projects in the wildland-urban interface;
- Requirements for federal agencies to consider recommendations made by at-risk communities that have developed Community Wildfire Protection Plans; and,
- Authorization for prioritized funding to communities that have adopted Community Wildfire Protection Plans.

The minimum components required for a CWPP include:

- 1. COLLABORATION: Local and state government representatives, in consultation with federal agencies and other interested parties, must collaboratively develop a CWPP.
- 2. PRIORITIZED FUEL REDUCTION: A CWPP must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatment that will protect one or more at-risk communities and essential infrastructure.
- 3. TREATMENT OF STRUCTURAL IGNITABILITY: A CWPP must recommend measures that homeowners and communities can take to reduce the ignitability of structures throughout the area addressed by the plan.

A CWPP shall include the following actions and information:

- Convene decision makers: Form a core team, made up of representatives from the appropriate local governments, local fire authority, and state agency responsible for forest management.
- Involve Federal Agencies: Identify and engage local representatives of the USFS and BLM. Contact and involve other land management agencies as appropriate.
- Engage Interested Parties: Contact and encourage active involvement in plan development from a broad range of interested organizations and stakeholders.
- Establish a Community Base Map: Work with partners to establish a baseline map of the community that defines the community's WUI and displays inhabited areas at risk, forested areas that contain critical human infrastructure, and forest areas at risk for large-scale fire disturbance.
- Develop a Community Risk Assessment: Work with partners to develop a community risk assessment that considers fuel hazards; risk of wildfire occurrence; homes, businesses, and essential infrastructure at risk; other community values at risk; and local preparedness capability. Rate the level of risk for each factor and incorporate into the base map as appropriate.
- Establish Community Priorities and Recommendations: Use the base map and community risk assessment to facilitate a collaborative community discussion that leads to the identification of local priorities for fuel treatment, reducing structural ignitability, and other issues of interest, such as improving fire response capability. Clearly indicate whether priority projects are directly related to protection of communities and essential infrastructure or to reducing wildfire risks to other community values.
- Develop an Action Plan and Assessment Strategy: Develop a detailed implementation strategy to accompany the CWPP, as well as a monitoring plan that will ensure its long-term success.
- Community Wildfire Protection Plan: Finalize the CWPP and communicate the results to community and key partners.
- Final Signature: Have the CWPP signed by a minimum of an applicable local government official, a local fire department official, and did they leave an open blank signature space to be signed by the State of Nevada State Forester. Signatures by all collaborating officials would be preferred.

# **Federal Land Assistance, Management, and Enhancement Act 2009 (Flame Act)**

The Wildland Fire and Leadership Council developed and published the National Cohesive Wildland Fire Management Strategy (Cohesive Strategy) in accordance with Flame Act requirements. The Cohesive Strategy is a strategic policy to work collaboratively among all stakeholders and across all landscapes using best science, to make meaningful progress towards three goals:

- Resilient Landscapes
- Fire Adapted Communities
- Safe & Effective Wildfire Response

The EFFPD CWPP involves diverse land ownership and administration as shown in Figure 1. Authority and responsibility for wildfire suppression and prevention in the plan area resides with EFFPD, Bureau of Land Management (BLM), US Forest Service (USFS), the Nevada Division of Forestry (NDF) and private landowners. Wildfire suppression on tribal land is assigned to the Bureau of Land Management.

The goals of the Cohesive Strategy have been embraced by the CWPP partner agencies and individuals participating in this CWPP Update. The goals are integrated into all work plans and threat reduction activities recommended in this CWPP, particularly the requirement of creating Fire Adapted Communities in areas of high wildfire threat.

# Douglas County Community Risk/Hazard Assessment and CWPP 2005

The Douglas County Risk/Hazard Assessment (RCI 2005) was completed for sixteen communities shown in Table 1. Five primary factors that affect potential fire hazard were evaluated in order to develop a community hazard assessment score: community design, construction materials, defensible space, availability and capability of fire suppression resources, and physical conditions such as the vegetative fuel load and topography. The project fire specialists assigned an ignition risk rating of moderate or high to each community based upon historical ignition patterns, interviews with local fire district personnel, interviews with state and federal agency fire personnel, field visits to each community, and the RCI Fire Specialists' professional judgment based on experience with wildland fire ignitions in Nevada. Vegetation treatments to reduce fuel hazards and other threats for safety and protection of property have been implemented under the existing CWPP and other plans since 2005.

# Need for Update

The hazards and risks that were evaluated and reported in the 2005 CWPP for EFFPD are accurate, as shown in Table 1. Current conditions differ in some areas due to mitigation activities, growth and maturity of vegetative fuels, development, or changed as a result of wildfires that have occurred over the past decade or more and warrant updated review and recommendations (Douglas County 2019).

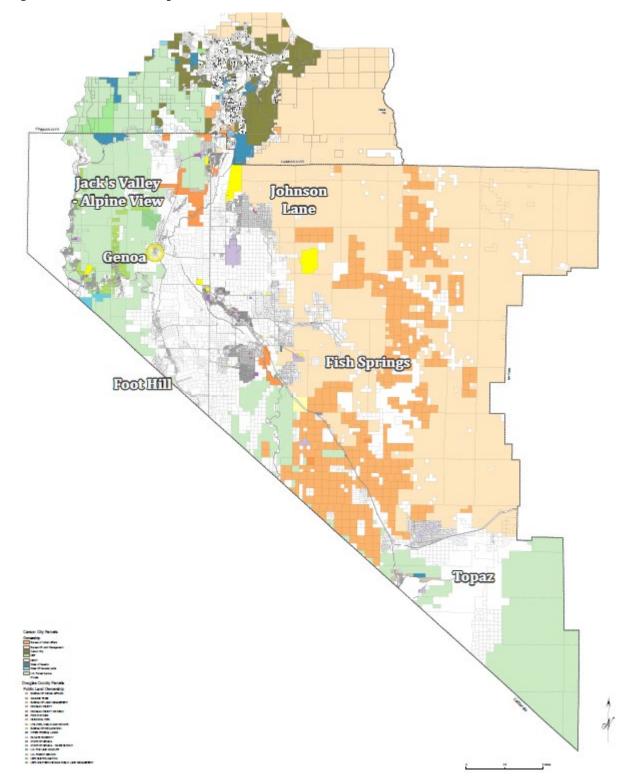


Figure 1 – Land ownership within the East Fork Fire Protection District CWPP Plan Area.

Table 1 - Hazard an	nd risk findings from the	2005 Community Ris	sk and Hazard Assessment
(RCI 2005	5).		

COMMUNITY	INTERFACE CLASSIFICATION	INTERFACE FUEL HAZARD CONDITIONS	Ignition Risk Rating	Community Hazard Rating
ZONE 1				
Alpine View	Intermix	High to Extreme	High	Moderate
Jacks Valley/Indian Hills	Classic and Intermix	Low to High	High	Moderate
North Foothill Road Corridor	Intermix	Low to Extreme	High	High
ZONE 2				
Johnson Lane	Classic and Intermix	Low to High	Moderate	Moderate
ZONE 3				
Bodie Flats	Intermix	High to Extreme	High	Extreme
East Valley	Intermix	Moderate	Moderate	Low
Fish Springs	Intermix	High	High	High*
Pine Nut Creek	Intermix	High	High*	High*
Ruhenstroth	Intermix	Moderate to High	Moderate	Moderate
ZONE 4				
Holbrook Junction	Intermix	Moderate to Extreme	High	High*
Spring Valley/Double Springs	Intermix	Low to High	High	High*
Topaz Lake	Intermix	Low to High	High	Moderate
Topaz Ranch Estates	Intermix	Low to Extreme	High	High
ZONE 5				
Job's Peak Ranch	Intermix	Moderate to High	High	High*
Sheridan Acres	Intermix	Low to Extreme	High	High
ZONE 6				
Genoa	Intermix	Low to Extreme	High	High

# **Fire History**

Several large wildfires have occurred in fire-prone environments in the EFFPD from both natural and human causes. The fire history available in the Agency large fire database are shown in Figure 2 and Table 2. Between 1992 and 2012, 45,068 acres burned in wildland fires. The Autumn Hills Fire in 1996 burned 3,800-acres and destroyed four homes and damaged several others. In July of 2013 Douglas County experienced its largest fire on record. The Bison Fire was started by lightning in the Pine Nut Creek area and burned 25,733 acres in Douglas County (Douglas County 2019). The fire destroyed several abandoned buildings and threatened neighborhoods, prompting evacuations of residential areas. The TRE Fire in the Topaz Ranch Estates community was a human-caused fire in 2012 that destroyed two homes, damaged several others and destroyed several outbuildings. The Tamarack Fire in 2021, which was caused by lightning and started in Alpine County, California, and spread into Nevada at the southern part of the District in the Topaz area, damaged or destroyed 13 structures (Douglas County 2023).

	Significant Wildland Fires Directly or Indirectly Impacting the District						
Year	Name	Acres burned					
1996	Autumn Hills Fire	Kingsbury Grade	3,800				
2004	Waterfall Fire	West Carson City, NV	8,723				
2011	Ray May 1 & 2 Fires	Pine Nut Range	3,895				
2012	Topaz Ranch Estates Fire	Wellington	7,152				
2013	Bison Fire	Gardnerville	25,733				
2020	Numbers Fire	Gardnerville	18,342				
2021	Jacks Valley 2 Fire	Northern Jacks Valley	285				
2021	Tamarack Fire	Alpine County, CA	68,637				
2021	Caldor Fire	El Dorado County, CA	221,835				
2022	Cemetery Fire	Genoa	4				
2022	Lebo Springs Fire	East Douglas County	28				

Table 2 - Significant Wildfires Directly or Indirectly Impacting the District

# Development

Residential development has expanded notably into wildland areas since 2005 throughout all neighborhoods in the plan area. It is expected that population growth in Douglas County will continue to be concentrated in the Carson Valley East Fork Township (Douglas County 2019).

# Wildfire Suppression

EFFPD is organized and managed differently today with multi-jurisdictional pre-planning and response agreements, improved communications and coordination with partners, and expanded education for residents. The District also has actively worked to increase wildfire response capabilities in its jurisdiction through installation of static underground and above-ground static water storage tanks, increased staffing, and upgraded equipment and resource capabilities.

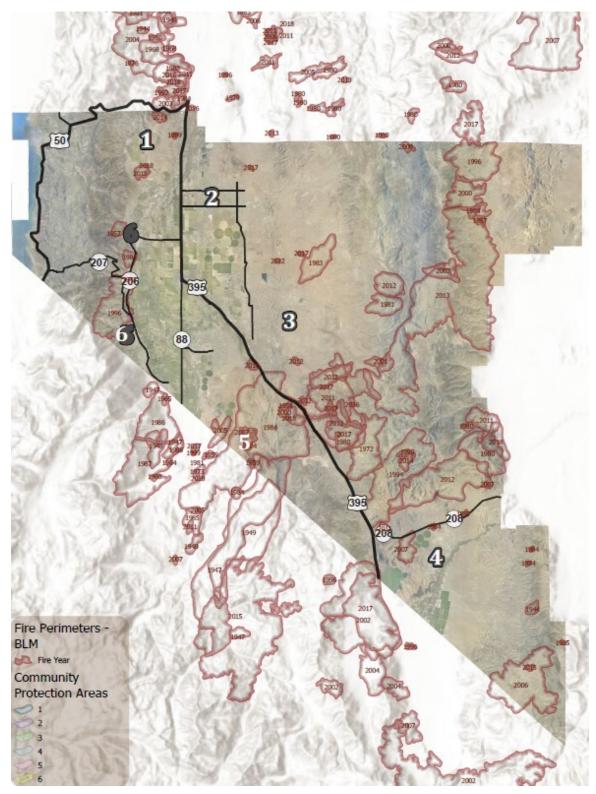
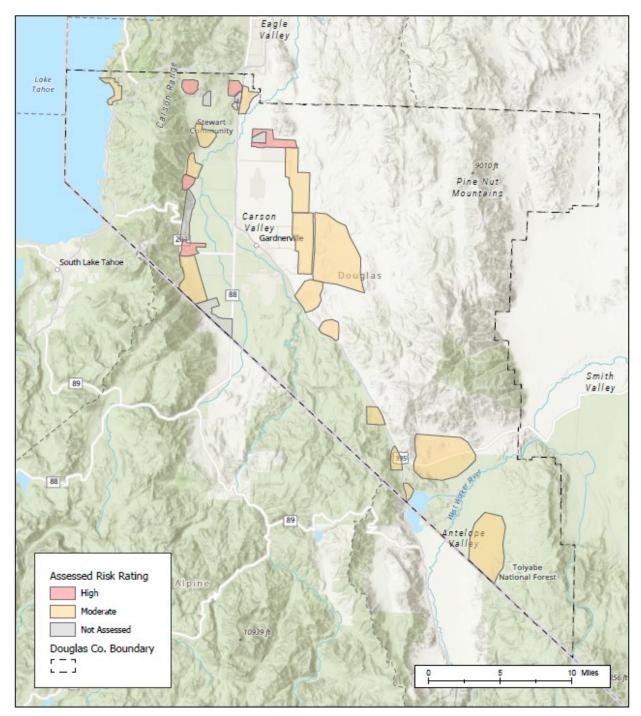


Figure 2 – Wildland fire history in the East Fork Fire Protection District up to 2019





NEVADA Sestimation of the section of	Assessed Communities in Douglas County	A	Disclaimer: The Nevada Division of Forestry makes no claims, representations, or warrantes, express or implied, concerning the validity, the reliability or the accuracy of the GIS data and GIS data products furmitived by the Division, including	DESIGN	INITIALS	DATE
		N		Approved	AT	01/18/2023
	ommunity Boundaries, 2021-2022, Nevada Division of Forestry.		the implied validity of any uses of such data.	Notes:		
			Projection: NAD83 UTM Zone 11 North	1		

Table 3 – Hazard and risk findings from the 2022 Community Wildfire Risk Assessment

HAZARD TABLE FROM THE NEVADA DIVISION OF FORESTRY HAZARD ASSESSMENT 2022	INTERFACE CLASSIFICATION	SUPPRESSION HAZARD RATING	Environment Hazard Rating	Structure Hazard Rating	Total Assessment Hazard Rating			
ZONE 1								
Alpine View	Intermix	Moderate	Moderate	Moderate	Moderate			
Clear Creek	Intermix	Moderate	High	Moderate	High			
Genoa Lakes	Intermix	Low	Moderate	High	Moderate			
James Canyon Loop	Intermix	Low	Moderate	Moderate	Moderate			
Sierra Estates	Intermix	Moderate	Moderate	High	Moderate			
ZONE 2								
Johnson Lane East	Classic and Intermix	Low	Moderate	High	Moderate			
Stephanie Way North	Intermix	Low	Moderate	Moderate	Moderate			
Sunridge	Intermix	Low	Moderate	Moderate	Moderate			
ZONE 3								
Bodie Flats	Intermix	Extreme	High	Moderate	High			
East Valley	Intermix	Low	Moderate	High	Moderate			
Fish Springs	Intermix	Moderate	Moderate	High	Moderate			
Ruhenstroth	Intermix	Moderate	Moderate	Low	Moderate			
ZONE 4								
Holbrook Junction	Intermix	High	Moderate	Moderate	Moderate			
Spring Valley/Double Springs	Intermix	High	High	Moderate	High			
Topaz Lake	Intermix	Moderate	High	Moderate	Moderate			
Topaz Ranch Estates	Intermix	Moderate	High	High	High			
Antelope Valley	Intermix	High	Moderate	Moderate	High			

ZONE 5					
Foothill Rd North	Intermix	Moderate	Moderate	Moderate	Moderate
Foothill South	Intermix	Moderate	Moderate	Moderate	Moderate
Mottsville	Intermix	Low	Moderate	Moderate	Moderate
Sheridan	Intermix	Low	Moderate	Moderate	Moderate
ZONE 6					
Genoa	Intermix	High	High	High	High

### **Purpose and Objectives**

The goals of this CWPP Update are to describe and evaluate the wildfire hazards and risks as they currently exist in EFFPD, identify and prioritize recommendations for federal, state and local fire agencies and to assist private landowners with recommendations to reduce the risk of catastrophic impacts from wildfire. Objectives for recommendations include:

- Supporting the efforts of the existing Fire Adapted Community groups and encourage expanded participation and chapter membership.
- Providing engagement opportunities for collaboration to strengthen communication and support between agencies and the public and help create Fire Adapted Communities that can withstand a wildfire without the loss of life or property.
- Creating and maintaining conditions to improve the effectiveness of suppression activities and firefighter safety.
- Educating homeowners on defensible/survivable space practices and strategies for vegetation mitigation and management at their homes and in their communities.
- Develop a fuels mitigation and management program within the District

### Procedures

### **Community Wildfire Protection Zones**

Areas outside of core urban areas within EFFPD that are at risk for wildland fire were delineated into six Community Wildfire Protection Zones for this CWPP Update Areas as shown in Figure 4 and Table 3. Wildland fuel types and potential wildfire behavior, potential hazards, geographic distinctions, and adjacent land jurisdiction patterns were used to define each zone. Overall recommendations applicable to the entire plan area as well as actions and treatments specific for each Community Wildfire Protection Zone were developed to reduce wildfire threats and severity.

Once the zones were determined, the Nevada Division of Forestry conducted inspections of the communities within those zones that will be the most impacted. The inspections were used to determine the total assessed rating by evaluating the suppression rating, the surrounding environment rating and the structures rating. The suppression rating evaluates features such as ingress and egress, water supply and geographic features. The surrounding environment assessment includes evaluating vegetation, defensible space and topography. The structures rating evaluates roofing materials, debris

in gutters and siding. Each produces a rating of low, moderate or high, depending on the scoring of the three elements. Then the community is given an overall score. This score is the total assessed rating. and given a number and designation of low, moderate or high. See Appendix E.

Figure 4 – Community Wildfire Risk Assessment example

### **Community Wildfire Risk Assessment**

Total Assessed Rating

#### 92 - Moderate

Suppression Rating Low Hazard Surrounding Environment Rating Moderate Hazard Structures Rating High Hazard

Fire Protection District East Fork Fire

Fireshed(s) Carson Valley-Carson River, Lower East Fork Carson River

#### **Community Information**

Latitude	39° 0' 24"
Longitude	-119° 42' 1"
Dwelling Units	250
Size	3,319.86 acres
Community Type	Residential - Stick-Built



# **Critical Facilities and Infrastructure**

The Douglas County Hazard Mitigation Plan (2010) defines a critical facility as a public or private facility that provides essential products and services to the general public. These facilities were created for preserving the quality of life in the County and fulfilling important public safety, emergency response, and disaster recovery functions. The Hazard Mitigation Plan identified the following critical facilities:

- Sheriff's Department and detention facility
- Two sheriff substations
- Fifteen fire stations (career, volunteer and combination stations)
- One emergency operation center (EOC)
- Twelve public primary and secondary schools
- One hospital w/emergency room & urgent care
- Two urgent care facilities
- Three communication facilities
- Three Nevada Energy substations and associated infrastructure

# Water Sources

Surface and ground water sources originate within the watersheds associated with this plan area. Domestic water for each community in EFFPD and the Washoe Tribe is dependent upon watersheds that are currently at risk in the planning area.

There are approximately twenty creeks (perennial, intermittent, or ephemeral) along the east slope of the Sierra Nevada that provide irrigation water to agricultural users and municipalities in Douglas County. In addition to the economic loss, a catastrophic wildfire along the eastern slope of the Sierra Nevada Range in Douglas County would substantially increase sediment yield and decrease water infiltration. The increased erosion and sedimentation would adversely impact the irrigation structures and create the need for extensive repair and maintenance on irrigation systems. In the absence of successful reclamation, decreased stream flow and groundwater recharge could reduce water yields. Additionally, mudslide hazards would be present until vegetation established in the burned areas, which would leave homes, roads, pipelines, and other municipal infrastructures at risk of loss (Douglas County 2019).

# Partner Agencies and Collaborations

The CWPP plan area has a strong cadre of fire management agencies that have a long history of cooperation and partnerships in wildfire suppression and prevention. The partner fire agencies in the plan area all work cooperatively to provide the most successful response to wildland fire and hazardous fuels reduction. This includes sharing of resources, combined interagency dispatch centers, the utilization of closest forces regardless of jurisdiction, and providing training to all Nevada fire suppression forces.

A core planning group was created with volunteer representatives from each Community Wildfire Protection Zone and fire agency personnel from the Nevada Division of Forestry (NDF), the Bureau of Land Management (BLM), the US Forest Service (USFS), Nevada Energy (NVE) and EFFPD. This group developed the recommendations brought forward in this CWPP Update. In addition to specific recommendations that address conditions in each Community Wildfire Protection Zone, District-wide recommendations are included to address conditions and needs common to all Zones. Meeting the objectives of this CWPP to support and expand Fire Adapted Communities, engage all stakeholders in preparing to withstand wildfire without loss of life or property, improving firefighter safety and suppression effectiveness, and continuing education for homeowners on defensible/survivable space strategies depend upon continued public involvement to accomplish the recommendations described in this CWPP Update.

EFFPD has also entered into Mutual Aid Agreements with Mono County and Alpine Counties in California that covers a range of fire management and fire suppression actions across jurisdictional boundaries.

### **East Fork Fire Protection District**

EFFPD assumed the lead role in coordinating partners and stakeholders for the development of this CWPP Update. EFFPD is one of three entities required for approval of this CWPP. There are two fire protection districts within Douglas County. The Douglas County Carson Valley East Fork Township, about 700 square miles, receives fire and emergency services from the EFFPD. The EFFPD jurisdictional area defines the plan area for this CWPP 2023 Update. The Tahoe/Douglas Fire Protection District provides service to the remainder of Douglas County in and around the south shore of Lake Tahoe which has prepared a separate CWPP for Lake Tahoe Basin (Tahoe Fire and Fuels Team 2015).

EFFPD is an all risk fire and emergency medical services service provider and is one of Nevada's largest combination fire and EMS agencies based on geography, number of stations, and call volume. Staffing and apparatus housed at each EFFPD fire station is provided in Table 4.

			Minimum					
Apparatus	Туре		Staffing	Pump	Tank			
	District Office Staff Vehicles (Staff Assigned)							
Chief 101	IC Unit		1					
Chief 102	IC Unit		1					
Chief 103	IC Unit		1					
Chief 104	IC Unit		1					
Prevention 101	Staff		1					
Prevention 102	Staff		1					
	-	TASS	5 Facility	<u> </u>	-			
Mechanic 101	Support		1					
Flatbed	Support							
Support Services	Support		1					
Flatbed Trailer	Trailer							
Support Services	Support		1					
	•	Station 1	– 2 Personnel		-			
Battalion 10	IC Unit		1					
Training 10	IC Unit		1					
Utility 1	Utility		Reserve					
Utility 110	Utility		Reserve					
	Station 2 – Gardn	erville/Fish S	prings Volunteer Fire D	epartment				
Utility 2	Utility		Volunteer					
Brush 2	Туре 3		Volunteer	200	650			
Water Tender 2	Type 1, Support		Volunteer	500	3,000			
Antique 2			Antique					

Table 4 - EFFPD Fire Suppression capability

		Minimum		
Apparatus	Туре	Staffing	Pump	Tank
	Station 3 – Ge	noa Volunteer Fire Department		
Utility 3		Volunteer/CERT		
Rehab 3	Trailer	Volunteer/CERT		
Engine 3	Type 1	Volunteer	1,000	750
Water Tender 3	Type 1, Support	Volunteer	500	3,500
Brush 3	Туре 3	Volunteer	200	500
Ranger 3	ATV	Multi-use		
	Station 4 – 3 Personne	l and Topaz Volunteer Fire Depa	rtment	
Squad 4	Heavy Rescue	Cross Staff		
Utility 4				
Engine 4	Туре 1	3	1,500	1,000
Brush 4	Туре 3	Cross Staff	500	500
Water Tender 4	Type 1 Support	Cross Staff	500	3,000
Rescue 4	Туре 1	Cross Staff		
	Station 5 – To	paz Volunteer Fire Department		
Brush 5	Туре 3	Volunteer	500	650
Water Tender 5	Type 1 Support	Volunteer	500	3,000
Utility 4				
Marine 8		Cross Staff		
Ranger 5	ATV			
	Station 6 – Johnso	on Lane Volunteer Fire Departme	ent	
Engine 6	Туре 1	Volunteer	1,000	750
Brush 6	Туре 3	Volunteer	500	650
Water Tender 6	Type 2 Support	Volunteer	500	1,500
Utility 6		Volunteer		
	Station 7 – 7 pe	rsonnel and Ranchos Fire Rescue	2 2	
Engine 7	Туре 1	3	1,260	750
Engine 107	Type 1	Reserve/Volunteer	1,500	750
Brush 7	Туре 3	Cross Staff	500	500
Rescue 7	Туре 1	2		

			Minimum				
Apparatus	Туре		Staffing	Pump	Tank		
Rescue 107	Туре 1		2				
Hazmat 7	Hazardous		Cross				
	Materials Unit		Staff/Volunteer				
Patrol 7	Туре 7		Cross Staff	Air C	Juick		
	Station 8 – Sheridan	Volunteer Fi	re Department – NDF Se	easonal Staff			
Engine 8	Туре 1		Volunteer	1,500	750		
Brush 8	Туре 3		Volunteer	200	500		
Water Tender 8	Type 1, Support		Volunteer	500	3,000		
Utility 8	SCBA		Volunteer				
Stati	on 9 – Fish Springs/Gard	nerville Volur	nteer Fire Departments	– BLM Seasonal Staf	f		
Engine 9	Type 1		Volunteer	1,000	750		
Brush 9	Туре 3		Volunteer	500	650		
Water Tender 9	Type 2, Support		Volunteer	750	1,700		
Squad 9	Incident Support		Volunteer				
Patrol 9	Туре 7		Volunteer				
	Station 10 – Ruhenst	roth Voluntee	er Fire Department – Le	ased to USFS			
Engine 10	Type 1		Volunteer	1,500	750		
Brush 10	Туре 3		Cross Staff	500	650		
Water Tender 10	Type 1, Support		Volunteer	500	3,000		
Patrol 10	Type 7/SCBA		Volunteer	Air C	Juick		
	Station 12 – 6 Perso	onnel – Johnso	on Lane Volunteer Fire I	Department			
Engine 12	Туре 1		3	1,260	750		
Brush 12	Туре 3		Cross Staff	500	650		
Water Tender 12	Type 1, Support		Cross Staff	500	3,000		
Rescue 12	Туре 1		2				
Truck 12	Mid-ship Aerial		Cross Staff	100 foot mid-mo	100 foot mid-mount platform		
Utility 12	Support						
		Station 14 -	- 5 Personnel				
Engine 14	Туре 1		3	1,500	650		

			Minimum			]
Apparatus	Туре		Staffing	Pump	Tank	
Brush 14	Туре 3		Cross Staff	500	650	
Rescue 14	Type 1		2			
Rescue 114	Type 1		Reserve			
Patrol 14	Туре 7		Cross Staff	Air Quick		
	NVI	E – EFFPD Fue	ls Reduction Crew	-	ł	
Brush 1	Туре б		3	500		
Brush 101	Туре б		3	500		
Utility 1	Utility		2			
Chip Truck	Utility		2			
Chipper	Chipper					

#### East Fork Fire Board of Directors

The EFFPD Board of Directors is a five-member governing body for EFFPD and has approval authority for this CWPP Update.

### Nevada Division of Forestry (NDF)

NDF is the State agency given authority for wildfire prevention, mitigation, awareness, and preparedness activities on State and private land across Nevada. NDF State Forester/Fire Warden also has approval authority for this CWPP Update. The focus area for NDF is the 250+ communities located in urban and rural settings across the state. NDF cooperates with and supports the Nevada Network of Fire Adapted Communities, the Nevada Fire Board's Cohesive Strategy-Fire Adapted Communities subcommittee, the Nevada Shared Stewardship initiative, the Sierra Front Wildfire Cooperators, the Living with Fire program, as well as local and federal fire service agencies. They performed the attached Community Wildfire Risk inspections to identify the hazard risk information to include identification of the suppression rating, surrounding environment rating and structures ratings. These ratings for the communities identified in this CWPP are shown in Table 3 and Table 4.

#### The Wildland Fire Protection Program (WFPP)

NDF manages a cooperative agreement program that provides cooperative wildland fire management, prevention and mitigation services to participating Fire Protection Agencies who have responsibility for serving their communities. Nevada's fire protection districts can voluntarily opt-in to the WFPP. Doing so allows local governments and the State to focus limited resources on values at risk in a collaborative manner to ensure that wildland fire management effectiveness is enhanced through shared priorities and collaborative actions. The WFPP works with the local fire protection districts to educate and prepare landowners for the inevitability of wildland fire, mitigate existing wildfire risk, and provide rapid response to fire events with specially trained and equipped suppression forces. The WFPP also

participates in rehabilitation efforts to damaged lands after a fire. Statutory authority for this program can be found in NRS 472. EFFPD is a participant in the WFPP which covers wildland fire suppression costs for fires lasting longer than 24 hours within the District and makes certain State resources are available for prevention and mitigation.

### Network of Fire Adapted Communities (FAC)

The mission of this program is to foster the widespread occurrence of Fire Adapted Communities where Nevadans living with the threat of wildfire fully prepare themselves, their homes, and the landscape where they reside to survive the destructive force of wildfire. The Nevada Network of Fire Adapted Communities is currently supporting about a dozen communities within the plan area, some of which are recognized chapters.

### Bureau of Land Management (BLM)

BLM Nevada Fire and Aviation manages approximately 48 million acres of public lands in Nevada. BLM Nevada statewide firefighting resources are dispatched as needed depending on west-wide fire activity and funding availability. On average BLM resources include the following:

- Seven Single Engine Air Tankers (SEAT);
- Three helicopters, positioned in Las Vegas, Ely and Elko (with the ability to staff 6 helicopters);
- Two air attack aircraft for aerial detection and fire air traffic control;
- Two hotshot crews: Silver State Hot Shots (Carson City) and Ruby Mountain Hot Shots (Elko);
- One Type 2 Initial Attack Crew (Vegas Valley Crew);
- Fifty-one fire engines; and
- Six dozers (Winnemucca, Battle Mountain, and Elko).

Additional aircraft and equipment can be brought to Nevada based upon heightened fire danger and ongoing wildfires through outside agreements.

BLM Fire Prevention and Mitigation Program is responsible for coordinating with the public on fire prevention and establishing mitigation measures for homeowners and the District in the event of a wildfire.

#### **BLM Hazardous Fuels Program**

Fuels management projects to reduce hazardous fuels on public lands are implemented through this program, which help protect valuable natural resources and create a safer environment for the public and wildland firefighters in the event of a wildfire.

### **BLM Emergency Stabilization and Rehabilitation**

The Emergency Stabilization Program includes planned actions initiated post-fire to stabilize and prevent unacceptable degradation to natural and cultural resources, to minimize threats to life and property resulting from the effects of a fire, or to repair/replace/construct physical improvements necessary to prevent degradation of land or resources. Emergency stabilization actions must be taken within one year following containment of a wildland fire. The Burned Area Rehabilitation Program is used to

implement our on-the-ground actions within three years of containment of a wildland fire to repair or improve fire-damaged lands that are unlikely to recover naturally or to repair or replace minor facilities damaged by fire.

### **US Forest Service (USFS)**

The Forest Service works closely with other Tribal, federal, State, County, and local partners in accordance with interagency federal fire policy. The Humboldt-Toiyabe National Forest (HTF) manages forest land interspersed throughout the EFFPD. The HTF operates under a Fire Management Plan that provides direction to fire personnel so they can determine the best management response to an unplanned ignition. This includes ensuring fire fulfills its natural role in some pre-determined areas, and is fully suppressed in other areas such as the Wildland-Urban Interface. The HTF also maintains seasonal fire personnel at EFFPD Station 10 in Ruhenstroth.

### Washoe Tribe

The Washoe Tribal Lands element of the Douglas County Master Plan incorporates the adopted goals and objectives of the Washoe Tribe 2008 Integrated Resource Management Plan (IRMP) described below.

Washoe Tribal Lands include Tribal Trust Lands, such as the Tribal Allotment Lands (also known as Pinenut Allotments). The following information on existing and proposed land uses on Washoe Tribal Lands and Tribal Trust Lands was obtained by reviewing the IRMP.

The Lower Clear Creek parcel is within the EFFPD and is intersected by US 50 and by Old Clear Creek Road north of Jacks Valley. Objectives for the Lower Clear Creek parcel include coordinating with State, County and federal authorities to resolve issues which threaten the future use and resource quality of the Lower Clear Creek Parcel.

Objectives for the Upper Clear Creek Parcel include revising the forest management plan to reflect a healthy forest, continued maintenance of firebreaks, and seeking funding to continue fuels reduction practices on the parcel.

The Pine Nut Allotments are characterized by pinyon and juniper woodlands with topography that ranges from rolling hills (approximately 5,000 feet) to nearly 9,000 feet at the tops of the tallest peaks. The woodlands are severely overstocked due to past management activities, especially fire suppression and are at significant risk from stand replacing wildland fires. Vegetation treatment projects to reduce damaged trees and reduce overall stocking and fuel loading are needed throughout the pinyon- juniper woodland.

The Tribal woodlands need careful management to ensure that decisions which will remove this species carefully consider its characteristic slow regrowth to reach maturity. Without a good woodland management program, vegetation treatments could be accompanied by damages to cultural resources, soils, and wildlife habitat, making an integrated resource management plan critical to Tribal resource management.

### Nevada Energy (NVE)

In the Fall of 2019, Nevada Energy began working with the State of Nevada and local government fire agencies to develop a program to reduce the risk of fires related to NV Energy's electrical infrastructure, such as removal of vegetation around power poles and within their easements as required by NRS 474.580 and the 2018 International Wildland Urban Interface Code. The result is a long-term plan to identify areas of highest fire risk and prioritize elimination of fire hazards in those areas. This fuels reduction work is pro-active and seeks to protect communities from fires within those same areas. NRS 474.580 with NV Energy for the purpose of continuing the collaborative relationship between NV Energy and EFFPD and to facilitate continued hazardous fuels management, stand-by services, and emergency response.

NVE works closely with State of Nevada Foresters to develop and execute a Hazardous Fuels Management Scope of Work which defines a fuel reduction project within a particular area to reduce the vegetation on their rights-of-way. This project work is completed to attempt to prevent an ignition as a result of overhead powerlines and to provide a fuel break in the area as a result.

An ancillary benefit to this agreement is that the positions funded by this program can and currently are used to assist existing EFFPD resources in responding to wildfires and other emergencies. When those emergencies occur, the fuels management crew is trained as wildland firefighters and can be deployed for initial attack and to assist in mop-up and rehabilitation functions, releasing Advanced Life Support and "all hazard" resources for District coverage earlier than previously possible. During those times, the crew would be charged against other funding mechanisms including the District's budget, the WFPP, and/or billed to responsible outside agencies.

### Landowners – Fire Adapted Communities

The role and goal for private lands in a wildfire environment is to be a key component of a Fire Adapted Community. The Washington Fire Adapted Communities Learning Network and the National Wildfire Coordinating Group define a fire adapted community as:

A human community consisting of informed and prepared citizens collaboratively planning and taking action to safely coexist with wildland fire. More fully, Fire Adapted Communities are knowledgeable, engaged communities where actions of residents and agencies in relation to infrastructure, buildings, landscaping and the surrounding ecosystem lessen the need for extensive protection actions and enable the communities to safely accept fire as part of the surrounding landscape.

Fire adaptation happens when local multi-jurisdictional stakeholders work together to identify risk, mitigate it, and maintain the work over time. There isn't a single strategy that reduces risk for private landowners. Because every community is unique, the steps and strategies they take to improve their wildfire resilience will vary from place to place. It is not the responsibility of one agency or group to mitigate wildfire risks. It is the responsibility of everyone who lives and works in the community to identify the actions, that when strategically used together, can reduce the community's risk from wildfire.

# **Education and Outreach**

Douglas County is currently working with the Nevada Division of Forestry's Fire Adapted Nevada to continue to develop the Fire Adapted Communities approach in Douglas County. Currently, there are 9 FirewiseUSA® communities in Douglas County. These are:

- 1. Upper Montgomery Estates
- 2. Alpine View
- 3. Clear Creek Tahoe
- 4. Saratoga Springs
- 5. Genoa
- 6. Lake Village HOA
- 7. North Fork Trails
- 8. Indian Hills
- 9. Sunridge

The East Fork Fire Protection District is working with Fire Adapted Nevada and community leaders throughout the County who are in turn working with their communities to implement actions to increase community safety and create more Fire Adapted Communities. Agency and community leaders see the Fire Adapted Communities approach as an excellent model for community-based outreach and education activities. This provides effective forums for member agencies to regularly meet, conduct planning, coordinate funding opportunities and project implementation and discuss the legal, political, social and financial factors that either promote or impede community wildfire mitigation. The people in our local communities feel they have significant input into the wildland fire mitigation issue and are confident that substantial work is being completed that is materially reducing the risk posed by wildfire. Great challenges remain in Douglas County, but the partnerships that have been formed between the federal, state and local agencies are strong and functional. The Fire District is generally trusted by the community, and acts as a conduit for wildfire and land planning information. Nonetheless, there is capacity to increase connections with other community groups. EFFPD will continue to work with all stakeholders, communities, and resources to continue the outreach and education of wildfire.

# Existing Conditions, Risks, and Recommendations for Community Wildfire Protection Zones

The EFFPD CWPP plan area embodies the conditions of a fire environment. There is a high potential for a catastrophic wildfire event in EFFPD based on weather conditions typified by a high propensity for lightning strikes as an ignition source combined with natural landscape features that include the types of vegetation and topography that make EFFPD a desirable place to live.

The vegetative fuels on private lands throughout much of the EFFPD are arranged in an intermix pattern where widely spaced individual structures and formal landscaping are adjacent to wildland vegetation on the same parcel. This condition is common in rural subdivisions with large parcel sizes of one to ten or more acres where large expanses of sagebrush, woodlands, or forest remain in an undisturbed/unaltered native condition creating a mosaic fuel pattern on and between individual

private parcels. The predominant vegetative fuel types in the plan area, sagebrush steppe/shrubland, pinyon-juniper woodlands, mixed coniferous forest, and annual grassland, are described in additional detail in Appendix A.



Topography in EFFPD is typical of the Tahoe Basin and range physiographic region with abrupt changes in elevations between valley floors and mountain ridgelines. The steep east slope of the Carson Range and the west slope of the Pine Nut Mountains define the west and east sides of the plan area, respectively. Steep slopes contribute to erratic high wind conditions, vegetation pre-heating and drying, and other factors that can result in extreme wildfire behavior. Alluvial fans and rolling hills that occupy the transition area between mountain and valley bottoms are less steep and are bisected with numerous perennial and ephemeral drainage channels and swales that create highly diversified and complex topography. These topographic features also significantly influence fire behavior in EFFPD.

### Zone 1

Zone 1 includes all structures in those portions of EFFPD in the Alpine View, Clear Creek Tahoe, Sierra Country Estates, Genoa Lakes and James Canyon Loop communities. Zone 1 is bordered by the Carson-Douglas County line on the north, Highway 395 on the east, and the town of Genoa on the south as shown in Figure 6. Most of the land in Zone 1 is privately owned with a large block of HTF in the Jacks Valley-Alpine View area, blocks of Washoe Tribe land at the Stewart Ranch, and smaller Washoe Tribe parcels in Jacks Valley and Clear Creek Tahoe. Residential development in Zone 1 has occurred on large size lots conducive to intermix fuel condition pattern with large patches of unmanaged native shrubs throughout most neighborhoods.



#### **Fuel Types and Risks**

The Community Wildfire Risk Assessment for each of these communities in Zone 1 is moderate to high, despite the fuel models. Zone 1 interfaces with agricultural fields on much of the area south of the wildlife management area which presents low wildfire hazards. Sagebrush (Artemisia tridentata) steppe is the predominant fuel type throughout the remainder of Zone 1 and commonly grows in association with mature bitterbrush (Purshia tridentata) which can exceed six feet in height. The woody character of these shrubs consists of both fine and coarse textured branches and accumulated vegetative litter at the base of plants that can be readily ignited during most times of the year and presents an extreme fuel hazard. Under wind-driven wildfire conditions, sparks and fire brands from shrubs can be blown several miles away starting multiple spot fires ahead of an advancing fire line. Fuel types change following fire, but hazardous fuel conditions can remain high or even extreme with rapid invasion and expansion of cheatgrass (Bromus tectorum) and tumble mustard (Sisymbrium altissimum) as can be seen in the James Loop Fire. When sagebrush shrublands become converted to cheatgrass and other annual weeds, the more resistant vegetation type is replaced with a highly flammable fuel bed that increases the potential for ignition and rapid spread of larger wildfires.

Mixed coniferous forest consisting of primarily Jeffrey pine (Pinus jeffreyi) with some white fir (Abies concolor) at the higher elevations occurs around the Clear Creek Tahoe community and the east slopes of the Carson Range. These conifer stands are often characterized with a continuous ground layer of flammable pine needles and mixed shrub stands in forest openings that can be readily ignited.

USFS, NDF and NVE have been very active in conducting fuel reduction and forest health treatments in the vicinity of the Clear Creek Tahoe, Alpine View, and Jacks Valley communities including maintenance work in 2019. Treatment methods included hand thinning and pile burning, mechanical thinning, mastication, cheatgrass control, yarder logging, drill seeding, and tractor logging. (Treatment methods are described in Appendix B). USFS has also proposed or recently completed hand thinning and piling treatments in the North Foothill Corridor between Centennial Drive and Eagle Ridge Loop at the base of the Carson Range near Genoa.

Nevada Energy crews have completed several fuels reduction projects in their power line right-of-way along Jacks Valley Road and to the west of Bavarian Drive in 2021.

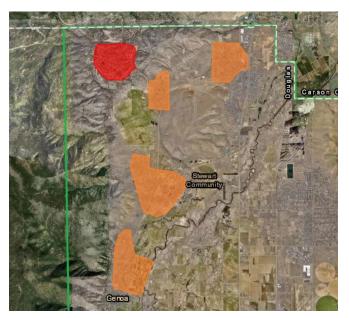
Wildfires that have occurred in Zone 1 since 2005 include the Clear Creek Fire in 2014 that burned 150 acres from a lightning start and the human caused James Loop fire in 2018 that burned 270 acres. Numerous additional wildfire ignitions occurred that were quickly suppressed and do not appear in the wildfire database.

Hazardous intermix fuel conditions consisting of undisturbed patches of either sagebrush steppe or mixed coniferous forest with both ground and ladder fuels occur in parts of all communities in Zone 1. Not all of the property owners in this zone have created or maintained adequate defensible/survivable space around their homes.

### **Priority Recommendations for Zone 1**

- 1. Collaborate with USFS, EFFPD, NDF, the Nevada Department of Wildlife, and local residents for continued maintenance of fuel reduction treatments on HTF land in the Jacks Valley Wildlife Management Area, around Sierra Country Estates, Alpine View and in the North Foothill Corridor on both national forest and private land as needed. Include herbicide with seeding treatments to create and maintain a mosaic fuel pattern and to control cheatgrass dominance. Maintain hiking trails and use these alignments to create fuelbreaks and access for suppression hand crews, where appropriate, and in a manner to minimize impacts to mule deer habitat.
- 2. Steep slopes on the north side of the Alpine View community are inaccessible for mechanical treatment. Use hand thinning around the north side of Alpine View to complete the fuelbreak around the neighborhood.
- 3. Collaborate with EFFPD, NDF, BIA, NVE and private landowners to break up the dangerous, continuous fuel bed all along the North Foothill Corridor.
- 4. Maintain NVE Fuels Crew personnel at Station 15.

Figure 5 - Community Wildfire Protection Zone 1



### Zone 2

Zone 2 is comprised of Johnson Lane East, Stephanie Way North and Sunridge communities. Zone 2 is located in the northeast quadrant of EFFPD and is bisected by the Carson River with one crossing at Cradlebaugh Bridge on Highway 395, as shown in Figure 7. The Sunridge and Indian Hills communities lie north of the river, east and west of Highway 395, respectively. Communities in Zone 2 south of the river include the greater Johnson Lane area and East Valley south to Stockyard Road, which defines the southern border. All of Zone 2 has good access from Highway 395.

### Fuel Types and Risks.

The Community Wildfire Risk Assessment for each of these communities in Zone 2 is moderate. The predominant wildland fuel type in Zone 2 is sagebrush shrubland with occasional greasewood (Sarcobatus vermiculatus) flats in localized in-flow areas with saline-alkaline affected soils. Shrub cover and density is higher in drainage areas and swales that can act as "wicks" to rapidly carry wildfire into and out of the communities. Much of the Sunridge and Indian Hills communities are on small lots with paved streets and sidewalks and curb and gutter where wildland fuels predominantly about the outer edges of the neighborhoods, described as a classic WUI condition. In contrast, the Johnson Lane and East Valley areas are typically one to ten-acre parcels, or larger, with a mosaic pattern of unmanaged sagebrush shrubland intermixed with formal landscaping and structures. These intermixed patches of hazardous fuels are susceptible to ignitions from spot fires, lightning strikes, and other human-caused fires in and around structures and increase wildfire risks throughout the neighborhood.

The recent fire in Zone 2 is the Lebo Springs fire of 2022, which burned 28 acres and was difficult to access due to the terrain. Many additional ignitions have occurred, most due to lightning, but suppression resources have responded quickly and fires have been kept small. Human and lightning caused wildfires, 10 to 20 acres in size, have occurred around the perimeter of Zone 2 including Hot

Springs Mountain in 2017. Larger fires east of Zone 2 have occurred less than 10 miles away in the fireprone Pine Nut Mountains. NVE fuels crews have completed fuel reduction treatments in the area along and under the NVE powerlines and at the existing NVE substation. Additional treatments are planned by Nevada Energy connecting Sunridge and Johnson Lane.

#### **Priority Recommendations for Zone 2**

- 1. Collaborate with BLM, BIA, and livestock producers to expand the use of targeted grazing treatments on the west slopes and foothills of the Pine Nut Mountains and adjacent to development areas to reduce annual production of cheatgrass. Educate property owners on the benefits of grazing to reduce cheatgrass fine fuel loads.
- 2. Collaborate with BLM and Johnson Lane landowners to plan and construct a fuels reduction treatment on the east side of the Johnson Lane community, starting around Hot Springs Mountain and continuing south to Stockyard Road as shown in Figure 5.
- 3. Collaborate with NDF and private landowners to implement survivable space guidelines consistent with *Living with Fire* and construct fuel reduction treatments and reduce intermix fuel loads in the Johnson Lane and East Valley communities.
- 4. Collaborate with BLM and landowners to locate and develop increased water storage for wildfire fire suppression.



Figure 6 - Community Wildfire Protection Zone 2

#### Zone 3

Zone 3 is comprised of the Bodie Flats, East Valley, Fish Springs and Ruhenstroth communities. The total assessed rating for Zone 3 is moderate to high. Zone 3 is the second largest Community Wildfire Protection Zone in the plan area and encompasses approximately 23,000 acres as shown in Figure 8. Zone 3 is bordered by Stockyard Road on the north and Sawmill Road and Highway 395 on the west. Zone 3 includes the communities of East Valley Road south of Stockyard Road, all of Fish Springs, Pine Nut Valley, Ruhenstroth, Pine View Estates, Bodie Flats, and residences along both sides of Hwy 395. The East Valley community is accessed from Highway 395 on Pine Nut Road and Toler Lane-Fish Springs Road, Buckeye Road, and Stockyard Yard Road. Access from Highway 395 to the Ruhenstroth Community is on Palomino Road and Wiseman Road. Pine View Estates and Bodie Flats are also accessed from Highway 395. Secondary access routes throughout Zone 3 are primarily dirt roads, some of which are maintained by Douglas County and/or BLM.

The majority of Zone 3 is public land managed by the BLM, private land, and Tribal allotment land held in trust by the BIA for the Washoe Tribe. The terrain is quite diverse and bisected by numerous drainages and steep hills.



#### **Fuel Types and Risks**

The Community Wildfire Risk Assessment for each of these communities in Zone 3 is moderate to high sagebrush steppe/shrubland is a prevalent fuel type in Zone 3 and commonly grows in association with bitterbrush, rabbitbrush (Chrysothamnus sp.), desert peach (Prunus andersonii), and sometimes greasewood. The woody character of these shrubs consists of both fine and coarse textured branches and accumulated vegetative litter at the base of plants that can be readily ignited during most times of the year and presents an extreme fuel hazard. Under wind-driven wildfire conditions sparks and fire brands from shrubs can be blown miles away starting multiple spot fires ahead of an advancing fire line. Fuel types change following fire, but hazardous fuel conditions can remain high or even extreme with rapid invasion and expansion of cheatgrass. When sagebrush shrublands become converted to cheatgrass and other annual weeds, the more resistant vegetation type is replaced with a highly flammable fuel bed that increases the potential for ignition and rapid advancement of larger wildfires.

Sagebrush sites gradually transition to Pinyon (Pinus monophylla) and Juniper (Juniperus osteosperma) (P-J) with increased elevation. Both pinyon and juniper trees have relatively thin bark with continuous branching all the way to the ground. In dense stands, lower tree branches frequently intercept adjacent ground fuels such as shrubs, herbaceous groundcover, and smaller trees. This situation creates a dangerous ladder fuel condition where ground fires can be carried into tree canopies, which often results in crown fires. A crown fire is the most perilous of all wildfire conditions and is usually catastrophic in nature since the danger to firefighters is generally too great to deploy ground crews. Encroachment of pinyon-juniper into sagebrush communities has exacerbated the hazardous fuel conditions in the higher elevations of Zone 3.

Residential development in Zone 3 is predominantly within rural subdivisions characterized by intermix fuel conditions. This condition is common in communities with large parcels of one to ten or more acres in size where continuous patches of vegetation remain in an undisturbed/unaltered native condition on individual private parcels. In the event of a wind-driven wildfire, these patches of heavy vegetative fuels throughout neighborhoods are highly susceptible to ignition of multiple spot fires around structures.

Zone 3 and the surrounding areas have an extremely active history of large fires. The South Pine Nut Fire burned into the northeast corner of Zone 3 in 1983. The human-caused Indian Fire burned more than 10,000 acres and crossed Highway 395 into the south part of Zone 3 in 1984. Rehabilitation efforts for the Indian Fire included seeding crested wheatgrass that now, 35 years later, supports a diversity of shrubs and some P-J. The Numbers Fire in 2020 burned 18,342 acres along both sides of Hwy 395. The Pine Nut Mountains in the area between Zone 3 and Zone 4 is one of the most fire prone areas in EFFPD and was burned by the lightning-caused Preacher Fire that encompassed more than 5,000 acres in 2012, and the human-caused Ray May fire that burned nearly 4,000 acres in 2011.

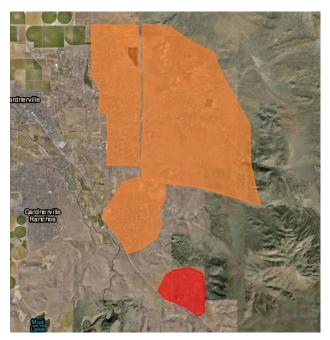
BLM completed numerous fuel mitigation treatment projects in Zone 3, some of which were recommended in the 2005 CWPP. BLM is planning additional fuels treatment in Pine Nut Valley and East Mineral Peak in 2020.

The USFS has located full-time and seasonal fire personnel and apparatus at Station 10 in Ruhenstroth in 2022.

#### **Priority Recommendations for Zone 3**

- Working with Douglas County and BLM, create a secondary ingress/egress route on Mustang Road in Ruhenstroth to reduce response time between Ruhenstroth and Fish Springs communities and to provide a secondary evacuation route.
- 2. Expand BLM fuel reduction treatments in the vicinity of Blue Bird Road.
- 3. Create partnerships among EFFPD, NDF, BLM, and private property owners to submit a grant application for a public/private cooperative project in Fish Springs Canyon to reduce fuel loads and develop fire suppression water supply sources.
- 4. Maintain the BLM fuel reduction treatments in Ruhenstroth east of Rocking Horse Road. Continue to communicate with Ruhenstroth landowners through the Fire Adapted Community chapter to create support for fuel reduction treatments that include adequate tree removal to mitigate the potential for hazardous fire behavior.
- 5. Create an agreement with EFFPD, BLM, BIA and Washoe Tribe to provide assistance and encourage off-grid residents in the east part of Zone 3 in the vicinity of Pinenut Road to assess their wildfire hazard conditions. Collaborate to provide hazard reduction assistance if requested.
- 6. Continue to provide support and encouragement to residents to address patches of heavy fuels on large parcels that contribute to hazardous, intermix fuel conditions.
- 7. Continue the NVE fuels reduction projects in between Zones 3 and 4.
- 8. Develop increased water storage for wildland fire suppression.

Figure 7 - Community Wildfire Protection Zone 3



#### Zone 4

Zone 4 is comprised of the Holbrook Junction, Spring Valley/Double Springs, Topaz Lake, Topaz Ranch Estates, Antelope Valley and China Springs communities. Zone 4 is shown in Figure 9 and is the largest Community Protection Zone in the plan area. Zone 4 includes residences from Leviathan Mine Road to the Nevada/California state line, Double Springs, Holbrook Highlands, Topaz Ranch Estates, Topaz Lake, and all residences off Highway 208 to the Douglas County line. Private property in Double Springs is bordered on all sides by Washoe Tribal allotment lands, held in trust by the BIA. Holbrook Highlands are also bound on the east and west by tribal allotments and bordered by HTF land to the south. Topaz Ranch Estates is the largest Community in Zone 4 and is bordered to the north by public land managed by the BLM. Zone 4 is also characterized by large, undeveloped parcels of private land on both sides of the West Fork Walker River.

#### **Fuel Types and Risks**

The Community Wildfire Risk Assessment for each of these communities in Zone 4 is moderate to high. The predominant fuel types in Zone 4 are sagebrush shrubland and pinyon-juniper. Sagebrush commonly grows in association with mature bitterbrush, rabbitbrush and other shrubs. The woody character of these shrubs consists of both fine and coarse textured branches and accumulated vegetative litter at the base of plants that can be readily ignited during most times of the year and presents an extreme hazard due to the fuel condition. Under wind-driven wildfire conditions sparks and fire brands from shrubs can be blown miles away starting multiple spot fires ahead of an advancing fire line. Fuel types change following fire, but hazardous fuel conditions can remain high or even extreme



with rapid invasion and expansion of cheatgrass (Bromus tectorum). When sagebrush shrublands become converted to cheatgrass and other annual weeds, the more resistant vegetation type is replaced with a highly flammable fuel bed that increases the potential for ignition and rapid advancement of larger wildfires.

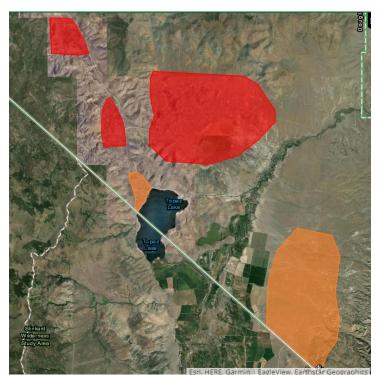
Extreme PJ encroachment around Double Springs, Holbrook Highlands, and Topaz Lake has greatly increased the potential for hazardous wildfire conditions and is among the highest concerns in EFFPD. Both pinyon and juniper trees have relatively thin bark with continuous branching all the way to the ground. In dense stands, lower tree branches frequently intercept adjacent ground fuels, such as shrubs, herbaceous groundcover, and smaller trees. This situation creates a dangerous ladder fuel condition where ground fires can be carried into tree canopies, which often results in crown fires. A crown fire is the most perilous of all wildfire conditions and is usually catastrophic in nature since the danger to firefighters is generally too great to deploy ground crews.

Extensive large wildfires have occurred particularly in and around Holbrook Junction and Topaz Ranch Estates. The Holbrook Fire in 1994 burned over 6,000 acres, the Topaz Ranch Estates Fire in 2012 was over 7,000 acres, and the Slinkard Fire in 2017 was over 9,000 acres. The Tamarack Fire in 2021, though ignited by lightning in California, burned over 17,000 acres and charred both sides of Hwy 395 from Zone 4 and into Zone 3. These massive wildfires resulted in fuel type conversions to cheatgrass, which is now in need of treatment to reestablish fire resilient vegetation types.

## **Priority Recommendations for Zone 4**

- 1. Fuels reduction treatments and defensible/survivable space in extreme fuel hazard locations are needed around Double Springs and Holbrook Junction. Treatment methods should include combinations of hand thinning, mastication-mowing, seeding, and herbicide application. Collaboration is needed among EFFPD, BIA, Washoe Tribe, BLM and private landowners to identify treatment locations and to design treatments and write specifications.
- 2. Continue engagement and coordination with the Washoe Tribe and BIA to implement fuels reduction treatments including pinyon and juniper removal around Double Springs and Holbrook Junction. Treatment designs should include mitigation measures meaningful to the Washoe Tribe such as establishing Pine Nut Management Areas on nearby public land that will be exclusively managed for pinyon tree health and pine nut production to mitigate the loss of pinyon trees in fuel reduction treatment areas.
- 3. Working with the local FAC chapter, identify locations where new fuel breaks are needed around Topaz Lake, and Topaz Ranch Estates and maintain existing fuel breaks including existing portions of the dozer line around Holbrook Highlands that was created during the Slinkard Fire in 2017 and the Tamarack Fire in 2021.
- 4. Work with the BIA and USFS to reestablish improved access on the "switchback" road for wildfire suppression access to adjacent wildlands.
- 5. Continue the NVE fuels reduction projects in between Zones 3 and 4.

Figure 8: Community Wildfire Protection Zone 4



#### Zone 5

Zone 5 includes the south foothill corridor west of State Route 88 between Fairview Lane and the Town of Genoa to include the Foothill Road North, Foothill South, Mottsville, and Sheridan communities, as shown in Figure 10. Zone 5 is mostly private land and includes the communities of Job's Peak Ranch, Sheridan Acres, Autumn Hills, Sierra Country Estates, Sierra Ranch Estates, Whispering Pines, Buffalo Arts Center, and Lower Kingsbury. All structures south of the Town of Genoa to the state line with California and residences on both sides of Foothill Road are included in Zone 5. Zone 5 is easily accessed on Mottsville Lane from Highway 395, and on Waterloo Lane, Centerville Lane and Fairview Lane from State Route 88. Foothill Road traverses the entire length of Zone 5 from north to south.

### **Fuel Types and Risks**

The Community Wildfire Risk Assessment for each of these communities in Zone 5 is moderate. Zone 5 interfaces with agricultural fields on the east which present low wildfire hazards. Other vegetative fuel types in Zone 5 include sagebrush steppe which transitions into mixed coniferous forest on extremely steep slopes to the west that are difficult to access for fuel treatments. Cheatgrass is a component of both fuel types and brings the risk of vegetation type conversion following fire.

Alluvial fans are vegetated in an intermix pattern consisting of sagebrush and bitterbrush and other highly flammable shrubs. The woody character of these shrubs consists of both fine and coarse textured branches and accumulated vegetative litter at the base of plants that can be readily ignited during most times of the year and presents an extreme fuel hazard. Under wind-driven wildfire conditions sparks and fire brands from shrubs can be blown miles away starting multiple spot fires ahead of an advancing fire line. Fuel types change following fire, but hazardous fuel conditions can remain high or even extreme with rapid invasion and expansion of cheatgrass. When sagebrush shrublands become converted to cheatgrass and other annual weeds, the more resistant vegetation type is replaced with a highly flammable fuel bed that increases the potential for ignition and rapid spread of larger wildfires.

Sagebrush sites transition to coniferous Jeffrey pine forest on steep slopes that characterize the east face of the Carson Range. East slopes are heavily bisected with steep, narrow canyons running from west to east with steep side slopes. sparse sagebrush stands, and Jeffrey pine trees. Conifer stands on steep slopes along west side of State Route 206 have potential for extreme wildfire conditions if a crown fire occurs that could burn into residential areas from the south and east, the predominant wind direction.

Extensive wildfire rehabilitation and recovery following the Autumn Hills Fire was successful but has now has regrown and reestablished hazardous fuel conditions throughout the neighborhood with closed canopy sagebrush and bitterbrush shrubs four to five feet tall.

Zone 5 has a history of large wildfires. In 1985 the Fredricksburg Fire burned approximately 3,300 acres just west of Zone 5. The human-caused Autumn Hills Fire in 1996 burned approximately 3,800 acres and burned across the central part of Zone 5.

BLM is planning fuels reduction treatments in Alpine County along the Nevada-California state line that will help protect the vicinity of the Fay Luther Trail system in Nevada. The treatment consists of seeding, mastication, and herbicide application on 210 acres to reduce hazardous fuel conditions, reduce the potential for extreme fire behavior, and to improve fire fighter safety. This project will dovetail well with the shrub mastication treatments completed on adjacent USFS parcels in Nevada in 2012, and the annual herbicide treatments to control cheatgrass that USFS has conducted from 2012 to present.



NVE Fuels reduction projects have been completed in the Foothill corridor and in associated neighborhoods. This included vegetation removal, pole grubbing and fire wrapping of poles.

The Jobs Peak community also implemented a fuels reduction program on private land within the Jobs Peak community including a 30-acre fuel break. Jobs Peak HOA maintains an open space slash pile annually where homeowners can dispose of biomass generated from defensible space maintenance. Other USFS treatments completed in Zone 5 include shrub mastication and cut and pile burning above Jobs Peak and Sierra Country Estates in 2013 and 2014 and hand thinning on upper Kingsbury Grade in 2018.

## **Priority Recommendations for Zone 5**

- 1. Fuels reduction treatments and creation of defensible/survivable space in extreme fuel hazard locations are needed in and around Job's Peak Ranch, Sheridan Acres, Autumn Hills, Sierra Country Estates, Sierra Ranch Estates, and Lower Kingsbury. Treatment methods should include combinations of hand thinning, mastication-mowing, seeding, and herbicide application to control cheatgrass. Collaboration is needed among EFFPD, USFS, NDF, NVE and private landowners to identify treatment locations and to design and write treatment specifications.
- 2. Agency partnerships with private landowners are needed in all communities to provide support and education for private landowners to construct treatments around structures, in open space, and on undeveloped private parcels.
- 3. Improve emergency access connector roads between gated subdivisions. Redesign long, dead-end roads with one-way in and out.
- 4. Continued attention is needed to address mistletoe infestations and maintain forest health on USFS and private land.
- 5. Continue partnering with NDF, USFS, and EFFPD to provide support for seasonal firefighting resources in the area.
- 6. Continue mutual aid agreements with Alpine and Mono Counties, California.

Figure 9 - Community Wildfire Protection Zone 5



### Zone 6

Zone 6 includes all structures in the incorporated Town of Genoa, and the area between Wally's Hot Springs to the south, to Centennial Drive, just south of Genoa cemetery on the north, to Meadowlark Lane on the east, and for a distance of approximately 0.5 miles to the west of Main Street as shown in Figure 11. The entire west side of Zone 6 abuts the east slopes of the Carson Range where slopes become too steep for most residential construction. Zone 6 is mostly privately owned with some HTF land on the west side.

Many of the buildings in Genoa are historic structures that contribute high cultural values to residents and visitors. Genoa is listed in the National Register of Historic Places. Both Genoa and Wally's Hot Springs are listed on the Nevada Register of Historic Places. Development patterns in Genoa has occurred on small lots with high density housing around the historic town center, to larger agricultural (horse) properties on the outskirts of town

### **Fuel Types and Risks**

The hazard risk assessment rating for Zone 6 is high. Outside the historic Town center, alluvial fans are vegetated in an intermix pattern consisting of sagebrush and bitterbrush and other highly flammable shrubs. The woody character of these shrubs consists of both fine and coarse textured branches and accumulated vegetative litter at the base of plants that can be readily ignited during most times of the



year and presents an extreme fuel hazard. Under wind-driven wildfire conditions sparks and fire brands from shrubs can be blown miles away starting multiple spot fires ahead of an advancing fire line. Fuel types change following fire, but hazardous fuel conditions can remain high or even extreme with rapid invasion and expansion of cheatgrass. When sagebrush shrublands become converted to cheatgrass and other annual weeds, the more resistant vegetation type is replaced with a highly flammable fuel bed that increases the potential for ignition and rapid spread of larger wildfires.

Sagebrush sites transition to coniferous Jeffrey pine forest on steep slopes that characterize the east face of the Carson Range. East slopes are heavily bisected with steep, narrow canyons running from west to east with steep side slopes that are vegetated with sparse sagebrush stands and Jeffrey pine trees. Mixed conifer stands on bisected steep slopes along west side of State Route 206 increase risks in Genoa of extreme wildfire conditions from fires burning into the Town from the south and west, the predominant wind direction.

Vegetative fuels, erosive soils, and topography combine to create the potential for dangerous crown fires and extreme wildfire behavior that is both dangerous for fire fighters and limits opportunities for construction of fuel reduction treatments. One wildfire in 1957 was reported to have burned approximately 285 acres in the northwest quadrant of Zone 6. USFS conducted a 40-acre hand cut, pile, and burn treatment across steep slopes and canyons leading into the town area in 2015.

NVE has completed fuels treatment in the area to include vegetation removal, tree trimming, pole grubbing and pole wrapping.

### **Priority Recommendations for Zone 6**

- Initiate a robust effort throughout Zone 6 to reduce hazardous fuel conditions through collaboration with USFS and NDF to evaluate and recommend site specific treatments on private parcels including trimming, tree thinning, pine needle removal, replacement of ornamental juniper plantings, and general yard clean-up.
- 2. Increase private landowner and public participation with EFFPD, USFS, and NDF to prepare for extreme wildfire behavior that is possible from a wildfire on the east slope of the Carson Range under high wind conditions that could blow fire into Genoa. Discuss the options to break up the dangerous fuel conditions on USFS and private land.
- 3. Improve emergency access connector roads between gated subdivisions and the Town. Redesign long, dead-end roads with one-way in and out.
- 4. Continue NVE fuels reduction projects in their right-of-way in the area.



### Figure 10 - Community Wildfire Protection Zone 6

# **Recommended Actions Throughout the Plan Area**

This CWPP Update promotes community involvement and collaboration by identifying opportunities that strengthen communication and support between agencies and the public that will help create Fire Adapted Communities that can withstand an inevitable wildfire and minimize the potential for catastrophic loss of life or property.

The following recommendations apply to all Community Wildfire Protection Zones in this CWPP Update and build upon common conditions and needs. The fundamental approach foreseen to foster formation of recommended partnerships is through the Nevada Network of Fire Adapted Communities and local FAC chapters composed of diverse private landowners, federal, state, local fire agency personnel and other interested parties. Strong partnerships will also facilitate implementation of Senate Bill 329 pertaining to requirements for electric utilities to develop and submit natural disaster protection plans.

- 1. Develop strong support from the EFFPD Fire Board to promote adoption of a comprehensive *International Wildland Urban Interface Code*, consistent with Nevada State Law.
- 2. Participate in NDF, BLM, and USFS grant programs and with the Nevada legislature to acquire funding to create a full time, dedicated coordinator position in EFFPD who will provide leadership, technical, and financial support to the new and upcoming Fire Adapted Community program and to manage a fuels reduction program in EFFPD communities. The Coordinator would also be assigned the responsibility as the Tribal liaison for EFFPD to expand coordination and fortify partnerships between EFFPD and the Washoe Tribe.
- 3. Expand community outreach and education on the importance of the *Living with Fire* recommendations through annual events in Fire Adapted Communities, other community events, and through social media. Formally adopt recommendations consistent with the *Living with Fire* model and the *International Wildland Urban Interface Code* as the minimum standard for desired conditions for defensible/survivable space on developed parcels in Community Wildfire Protection Zones.
- 4. Coordinate with federal land managers to educate residents and visitors through signage, social media, and public service announcements on the dangers of recreational target shooting during high fire hazard days. Pursue public and private partners to fund and develop shooting ranges in fare-safe areas.
- 5. Collaborate with homeowner associations and neighborhood groups to plan and construct fuels reduction treatments in and around their respective developments. Particular attention should be paid to brush pile, ornamental junipers, wood pile, and overgrown landscaping.
- 6. Conduct education and outreach to residents regarding evacuation plans consistent with the Douglas County Emergency Operations Plan.
- Participate in Southern Nevada Public Land Management Act (SNPLMA) funding opportunities for eligible Sierra Front projects in Zone 1 (North foothills Corridor/Jacks Valley), Zone 5 (South Foothills Corridor), and Zone 6 (Genoa).
- Disposal of biomass generated from defensible space and fuel reduction treatments can sometimes be most efficiently handled through community programs. Obtain necessary funding for EFFPD to organize and operate a chipping / compost your combustibles program

with trailers or collection sites for continued maintenance of defensible/survivable space and fuel reduction on private property.

- 9. Engage BIA and Washoe Tribe in Fire Adapted Community partnerships and integrated woodland management planning and projects.
- 10. Prioritize fuel reduction treatment locations on Nonfederal land to compliment adjacent treatments on Federal and Tribal lands (USFS, BLM, and BIA) and develop holistic landscape scale fuels management goals.
- 11. Collaborate with BLM, NDF, NVE and USFS to annually stage seasonal fire crews and brush engines at Station 8 (Sheridan), Station 9 (Fish Springs), and Station 15 (Jacks Valley) to reduce initial response time to wildland fire calls.
- 12. Establish seedings of crested wheatgrass and other fire-resistant species such as forage kochia in fire scars and other disturbances to prevent establishment and persistence of cheatgrass and tumble mustard. Refer to Fred's Lane (Zone 3) as an example of reduced cheatgrass establishment in a successful seeding.
- 13. Collaborate with the Carson Valley Conservation District Cooperative Weed Management Area Program to expand voluntary participation in the invasive weed control program on private property.
- 14. Create agreements for annual mowing of the entire extent of County, State and Federal road rights-of-way within Community Wildfire Protection Zones.
- 15. Contract personnel to provide expertise and oversite in the area of fuels management and wildland fire defense on private land.
- 16. Collaborate with NV Energy for clearance of brush and vegetative growth from electrical transmission and distribution lines. This shall include the trimming of trees and removal of ground level vegetation within the entire easement area. Participate with NV Energy for compliance with Senate Bill 329 NRS Chapter 704 to develop a natural disaster protection plan for EFFPD that:
  - Identifies areas within the District that are subject to a heightened threat of fire or other natural disaster;
  - Proposes an approach for the mitigation of potential fires or other natural disasters that is cost effective, prudent, and reasonable;
  - Describes the preventive measures and programs that the electric utility will implement to minimize the risk of its electric infrastructure causing a fire;
  - Describes the participation of the electric utility, including, without limitation, any commitments made in any community wildfire protection plans, as defined in 16 U.S.C. § 6511 established in Nevada;
  - Describes the procedures the electric utility intends to use for vegetation management; and
  - Describes the ability of the electric utility to implement the natural disaster protection plan and identify additional funding needed for the implementation of the plan.
- 17. Complete an annual evaluation of projects completed in accordance with SB 329, NRS Chapter 704.

# **Priorities**

## Criteria for treatment prioritization

Projects may be prioritized through a variety of funding mechanism requirements recognizing that, at this time, no one funding source will provide enough resources to fully fund the entire CWPP Update.

Treatment area prioritization will be developed within each Community Wildfire Protection Zone by Fire Adapted Community Groups to meet their specific goals and objectives. Prioritization criteria may include:

- Cost effectiveness defined here as targeted fuel reduction treatments conducted at a reasonable cost that produces meaningful protection of life, property, and the environment.
- Ease of permitting and ease of treatment.
- Collaboration on multiple ownerships and jurisdictions.
- Potential to achieve landscape scale risk reduction.

### **District-wide priorities**

The partners within EFFPD identified the following actions that are equal in order of importance.

- Expand public involvement with the Nevada Network of Fire Adapted Communities. These groups allow land managers and other stakeholders to talk and work together, which tends to forge greater agreement on treatment objectives. Facilitate local groups to continue meeting and complete Fire Adapted Community Assessments.
- Support the efforts of landowners to reduce fuels on private land by implementing an aggressive fuels management program that includes a seasonal crew, a composting/trailer program, a chipping program, survivable space enforcement, and fuels consultation with landowners.
- Provide the framework of oversight, technical support, and administration for local groups who participate in planning and implementation of fuel reduction treatments.
- Create and implement a regular maintenance schedule for fuel reduction treatments.
- Adopt priorities for submitting grant funding applications through EFFPD consistent with the stakeholder group and this CWPP.

# **References**

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Hess-McGeown, T. 2012. Washoe Tribe of Nevada and California Environmental Protection Project. Washoe Wisk'e'em Project Award Number: DE-EE0003284.

Washoe Tribe of Nevada and California Comprehensive Economic Development Strategy Narrative/Profile 2011

Nevada Division of Forestry Community Assessment Tool

# Appendix A. Wildfire Fuel Types in the Plan Area

Wildfire potential or hazard is defined by the fire behavior characteristics as a result of the three primary inputs: fuels, weather, and topography. Fuels are the foundation for calculating the wildfire potential and are the only input that can be modified through treatments to reduce wildfire hazards.

## Sagebrush Steppe / Sagebrush Shrublands

Big sagebrush shrublands (Artemisia. tridentata wyomingensis) in lower elevation valleys and sagebrush steppe (Artemisia tridentata vaseyana) at mid to higher elevation foothills are the most prevalent fuel types in the plan area. Sagebrush fuel types often grow in association with other highly flammable shrubs such as bitterbrush (Pursahia tridentata), rubber rabbitbrush (Ericameria nauseosa), horsebrush (Tetradymia sp.), and Mormon tea (Ephedra viridis and E. nevadensis). Most sagebrush sites in the plan area are composed of mature shrubs creating a highly flammable, continuous fuel bed capable of supporting extreme fire behavior.

In general, the woody crowns of these shrubs consists of both fine and coarse textured, live and dead branches with accumulations of vegetative litter at the base of plants that can be readily ignited during most times of the year in the absence of snow cover. Under wind-driven wildfire conditions sagebrush sparks and fire brands can be blown miles away starting numerous spot fires ahead of an advancing fire line.

The introduction and rapid expansion of cheatgrass (Bromus tectorum), an invasive annual plant, in low to mid elevation sagebrush communities creates fine fuel continuity between shrubs that greatly increase the hazards for ignition of larger, rapidly spreading fires. Open burned sites are increasingly being dominated by cheatgrass in the drier parts of the plan area. Once the conversion to cheatgrass occurs, any return to the original sagebrush ecosystem is often not possible without extensive and lengthy restoration efforts.

Encroachment of pinyon pine (Pinus monophylla) and Utah juniper (Juniperus osteosperma) into sagebrush sites has exacerbated the hazardous fuel conditions and potential for extreme fire behavior in the mid to higher elevations of the plan area and created conditions for larger, more intense fires. With higher tree density there is an increased probability that a crown fire will burn hotter, consuming entire landscapes leaving an open site vulnerable to occupation by undesirable invasive plants such as cheatgrass and other weedy species such as tumble mustard (Sisymbrium altissimum) and Russian thistle (Salsola kali).

## Annual grassland

Cheatgrass (Bromus tectorum) is a common, introduced annual grass, and aggressively invades disturbed areas, especially following wildfire. Cheatgrass and other invasive weeds are common components in unburned shrub communities that provide a local seed source for rapid reestablishment following fire. Seeds may also be introduced to an area during suppression activity. Burned areas provide ideal conditions for cheatgrass and weed germination. Annual cool season plants such as cheatgrass and tumble mustard (Sisymbrium altissimum) can easily gain dominance before native vegetation has a chance to recover from the fire and will dominate a burned area for decades. Annual

tumble mustard is a common associated species with cheatgrass on burned and disturbed sites in the plan area.

The annual production or volume of cheatgrass fuel produced each year is highly variable and dependent on winter and spring precipitation. Plants can range from only a few inches tall in a dry year to over two feet tall on the very same site in wet years. In a normal or above normal precipitation year, cheatgrass can be considered a high hazard fuel type. In dry years, cheatgrass is generally sparse and low in stature and poses a low fire behavior hazard because it tends to burn with a relatively low intensity. However, in both dry and wet years, dried cheatgrass creates a highly flammable fuel bed that is easily ignited with the propensity to rapidly burn into adjacent cover types that may be characterized by more severe and hazardous fire behavior.

Eliminating cheatgrass is an arduous task. Mowing defensible space and fuelbreak areas annually before seed maturity is effective in reducing cheatgrass growth. In areas where livestock may be utilized, implementing early-season intensive grazing up to and during flowering may aid in depleting the seed bank and reduce the annual fuel load. It may take years and intensive treatment efforts to control cheatgrass in an area, but it is a desirable conservation objective in order to revert the landscape to the natural fire cycle and reduce the occurrence of large, catastrophic wildfires. Community-wide efforts in cooperation with county, state, and federal agencies are necessary for successful cheatgrass reduction treatments.

## **Pinyon-Juniper**

Singleleaf pinyon (Pinus monophylla) and Utah juniper (Juniperus osteosperma) are the dominant components of a plant community commonly referred to as Pinyon-Juniper, or P-J. Pinyon-juniper woodlands were once characterized by a discontinuous distribution on the landscape and a heterogeneous internal fuel structure with a mosaic pattern of shrubs and trees resulting from the canopy openings created by small and frequent wildfires. Over the last century the area and density of P-J trees has increased from three- to ten-fold due to fire exclusion, improper grazing, favorable climatic conditions, and recovery from settlement-era harvesting.

A great deal of the woodland expansion has occurred in the more productive sagebrush sites such as canyon bottoms and swales. In the absence of fire, the trees are well-adapted and competitive in these environments. Prior to P-J encroachment these areas supported some of the more diverse and productive sagebrush ecosystems. Following P-J encroachment these sites support some of the highest levels of tree dominance and highest fuel loads. The expansion and infilling of pinyon and juniper trees increase the risk of larger and more severe wildfires.

Removal of trees on encroached sites has multiple wildlife and ecological benefits in addition to fuel reduction. Selection of areas for treatment to remove trees on encroached sites should be based on topographic features, areas that tend to have a higher fire frequency, and sites that were previously dominated by sagebrush communities and still have sufficient remnants of native perennial grasses and shrubs to reoccupy treated sites (commonly referred to as Phase 1 encroachment). Pinyon removal projects also should be planned in collaboration with the Washoe Tribe to incorporate tribal cultural values and uses into treatment designs and specifications.

Mastication and cut and pile treatments are generally used to treat Phase 1 encroachment. In advanced stages of encroachment, tree crowns grow together and prevent understory growth of shrubs and herbaceous vegetation and will not recover to pre-encroachment conditions without extensive cost and rehabilitation efforts (commonly referred to as Phase 3 encroachment).

### **Mixed Coniferous Forest**

Mixed coniferous forest types of Jeffrey pine (Pinus jeffreyi) and white fir (Abies concolor) occur at the higher elevations in the Carson Range along the western part of the plan area. These conifer stands are often characterized with a continuous ground layer of flammable pine needles. Sagebrush and bitterbrush are also common associated species in canopy openings. One of the important changes since Euro-American settlement in mixed conifer forests has been increased homogeneity of species composition at the landscape scale. More homogeneous mixed conifer forests can facilitate larger, high-severity fires.

In most mixed conifer forests, thinning that treats both the canopy and understory (crown and low thinning) combined with prescribed fire is the most effective way to reduce wildfire hazard. However, land management objectives or external constraints can make other tools, such as mastication or prescribed fire alone, more appropriate. After about ten years, fuels begin building up towards pretreatment levels in many mixed conifer forests and treatments must be maintained for their fuel reduction effect to be sustained. No single treatment will reverse a long history of fire exclusion.

Forests in lower precipitation zones are characterized by increased tree density that commonly facilitates bark beetle, mistletoe, and root disease mortality. In Sierra Nevada mixed conifer forests, fire suppression, insects, and diseases in association with periodic drought events have become the most important mortality agents (Maloney and Rizzo 2002). Mistletoe infection may have increased over the last century because before Euro-American settlement fire had some sanitation effect on mistletoe.

The combination of thinning and prescribed fire is a particularly useful approach to fuel reduction. While thinning can alter forest structure (density, canopy base height, canopy continuity, and canopy bulk density), prescribed fire can reduce surface fuel loads and increase canopy base height (Vaillant et al. 2009b). Desired conditions often rely on a combination of thinning from below and prescribed fire treatments to reduce surface, ladder, and crown fuel loads (Moghaddas et al. 2010).

# Appendix B: Mitigation Treatments for Fuels Reduction

Treatments are used to achieve the desired fuel loading conditions through manipulation or removal of wildland vegetation in a manner to reduce potential fire behavior and facilitate conditions that will ensure safe and effective fire suppression. The type of treatment strategy to use depends upon cost effectiveness, availability of implementation resources, the size and type of vegetation to be removed, and site-specific resource protection needs. A focus on landscape scales, rather than on just individual project scales, can improve treatment effectiveness (Tahoe Fire and Fuels Team 2015). Landscape scale treatments are most effective when they cross jurisdictional and ownership boundaries.

Specific project specifications that explicitly define what vegetation would be removed in the project and how it would be accomplished must be developed for each site-specific project. However, general prescriptions and treatment methodologies are described in the subsequent sections.

### **Herbicide Application**

Selective herbicides have been used for decades to decrease shrub cover on sagebrush sites and decrease competition to create growth advantages for perennial grasses. The herbicide 2,4-D, a translocated growth-regulator, has generally been the most effective and economical chemical for sagebrush control. Aerial applications of 2,4-D in late spring, near the end of the effective spraying period for sagebrush, will also provide temporary control of rabbitbrush. Though this selective herbicide does not damage perennial grasses, it can severely damage perennial forbs.

Herbicide application is also frequently needed with rehabilitation treatments following fire to control reestablish and dominance of cheatgrass. Preemergent treatments generally include seeding of perennial herbaceous species the following year.

## **Mechanical Removal and Thinning**

Land managers are using fire and fire surrogate treatments (e.g., cut and leave and mastication) in an attempt to both increase the ecological resilience of sagebrush ecosystems and decrease the risk of high-severity fires.

There are also several mechanical methods available for controlling sagebrush and increasing lower fuel hazard herbaceous production. Sagebrush plants can be cut off near the base with a heavy-duty mower, broken off or uprooted with a pipe harrow, and crushed with an aerator (large rolling cylinder), causing limited disturbance to desirable understory species. Two passes with a pipe harrow or aerator are required for a higher level of sagebrush control. Where the understory of desirable perennial grasses and forbs is depleted, plowing or disking will kill sagebrush and prepare a seedbed for herbaceous species to be seeded at the time of the treatment. Extreme caution is needed when selecting shrub removal treatment areas to carefully evaluate the potential for cheatgrass dominance following shrub removal.

Chaining and thinning are the most commonly used mechanical methods to reduce P-J tree cover. This may be necessary prior to prescribed burning in order to reduce crown fuels and stimulate understory vegetation. The strategy for implementing these treatments relies on a mosaic of fuel treatments that reduces fire spread and intensity. The size, type, and arrangement of the chain can be varied to accomplish different objectives and control the size and amount of trees removed. Double chaining in

opposite directions removes additional trees missed in the first pass and covers the seed after the area has been broadcast seeded prior to the second pass. A once-over chaining is appropriate if sufficient understory remains, trees are sparse and mature, and seeding is not required. Although usually a standalone procedure, chaining should generally be used only as an effective first treatment followed by a second treatment, such as prescribed fire, which would remove the surviving trees.

Mechanical thinning is generally prohibited on slopes more than 30 percent and on sensitive areas, such as stream environment zones where hand thinning is used. Hand thinning is used to remove trees less than 16 inches in diameter on steeper slopes, and in sensitive areas. Hand thinning may also involve pruning, which removes lower branches on trees, increasing the crown-base height (the distance from surface fuels to tree crowns), and the distance between shrubs and trees. Pruning is labor-intensive but can be a very effective method on private property to create defensible/survivable space.

Thinning without treatment of the residual slash can increase wildfire hazard. Common approaches to slash removal include pile burning, broadcast burning, mastication, and slash removal. Piling slash and burning it under controlled conditions is often a preferred treatment, because the chance of fire escaping is low and prescription windows are wide.

## **Mastication & Chipping**

Mastication is increasingly being used as a mechanical thinning method and to reduce ladder and surface fuels. Masticators consist of a mastication head on the end of an articulated arm that moves through the forest on a tracked or rubber-tired machine or mounted on a small loader-type machine with rubber tracks. Fuels are ground up into irregular-shaped chunks and left on the ground. The irregular-shapes allow air and water to seep between them, hastening decomposition. Chips are created when material is fed into a chipper and either removed from the site as biomass or spread on site.

Mastication does not remove fuel from the stand as prescribed fire does; rather, it changes fuel characteristics. Mastication can increase surface fuel depth and continuity, allowing fires to spread more easily and burn hotter at the soil surface. An adverse effect of mastication is that it can inhibit herbaceous species growth and tree regeneration because of reduction in available light, soil temperatures, and seed access to mineral soil.

### **Prescribed Burning**

Prescribed burning in sagebrush fuel types can be successful when there are sufficient perennial grasses and forbs to provide understory fuels to carry the fire and to respond to reestablishment in the absence of sagebrush competition after the fire. Big sagebrush does not resprout following fire, allowing several years of increased herbaceous production before it reenters and gradually regains dominance in the community. If present, other shrubs such as rabbitbrush and horsebrush resprout from basal stem buds, increasing in abundance after fire, and may require a follow-up herbicide treatment.

Burning is usually done in the fall when fine fuels (dormant perennial grasses and forbs) and sagebrush canopies are drier and environmental conditions (air temperature, relative humidity, and wind) are more suitable for carrying a fire. During the spring, there are fewer days with favorable environmental conditions for burning, and increased fuel moisture usually limits burn size.

Prescribed fire in pinyon-juniper has been used to reduce fuel loads and attain many additional ecological benefits. While prescribed fire can be beneficial, many limitations exist. Vegetation response following fire depends on the composition of the shrub community on a site and the level of tree dominance. As trees increasingly dominate a site, the associated sagebrush composition is are greatly reduced. This reduction in fine fuels often makes it difficult for a fire to carry through a tree/shrub co-dominated stand. Site selection for a fire in P-J stands must be carefully planned and executed by wildfire specialists and range or forest ecologists and with consideration for Tribal cultural needs.

Pile burning is used on steep slopes where machines are prohibited and adjacent to developed areas where machines cannot process or otherwise remove material. Understory burning may be used to remove slash created by machine thinning and as an additional treatment in previously treated areas, or to restore forest health and to mimic historic frequent low-intensity fires.

## **Targeted Grazing**

Grazing can be an effective method of reducing both woody and herbaceous fuel loads. When cheatgrass is intensively grazed by cattle just prior to emergence of the inflorescence in the spring, and 80-90% of the biomass is removed, there is a significant reduction in flame length and rate of fire spread during the subsequent fire season. Grazing by sheep or goats can reduce both fine and woody fuels. These practices are most effective when sequenced appropriately in an integrated management approach. Due to the short grazing window and large number of animals required, these treatments are best applied in a strip instead of a large block.

## Seeding

A longer-term fuel break can be created by green stripping, where flammable cheatgrass is replaced by vegetation that is less likely to ignite and carry a fire. Strips up to 100 m (325 ft) wide are either disked or treated with herbicide to control cheatgrass and then seeded with species that maintain higher moisture content during the growing season, e.g. crested wheatgrass and forage kochia.

Seeding may be required after a tree removal treatment to prevent the establishment of invasive and noxious weeds if the understory is depleted. Seeding should occur prior to the next growing season to minimize the potential for establishment of invasive species. Fall seeding is the most ideal time to seed in the Intermountain West. Fixed wing aircraft, helicopters, or rangeland drills are normally used for seeding. Aerial seeding treats large areas on steeper slopes. Drill seeding is used in open areas. Aerial seeding followed by chaining after fire significantly increased seeded grass cover and decreased cheatgrass cover compared to seeding alone.

Drill seeders with multiple seed boxes, metering devices, and depth bands on disks can dispense multiple species with varying seed sizes and shapes and seeding depth requirements. Ground broadcast seeding can be coupled with mechanical treatments, and is often used to seed areas that are inappropriate for drill seeding, such as rocky, rough, or steep terrain, areas with large amounts of debris, and small, irregularly shaped areas.

### **Maintenance of Treatments**

In general, fire severity increases with time since treatment. Plants grow, fuels accumulate, and managers must repeat or maintain treatments in order to sustain their effectiveness on reducing wildfire hazard. Each treatment creates different conditions and so the interval between treatments to maintain a particular level of fire resilience will differ. It has been suggested that treatment/maintenance intervals should be similar to the historic fire return interval, since treatments are a surrogate for natural fire. Estimates for the longevity of prescribed burn effects range from ten to 14 years in the Sierra Nevada.

In most cases, fuel reduction areas will need second-entry treatments to move projects towards their final desired condition objective. Secondary and maintenance treatments and the prescriptions that drive them will depend upon the effectiveness of the initial treatments and how the vegetation responds afterward. In general, fine fuels, such as those in the lowest elevations will need several entries to maintain project fuel conditions in desired states. In other cases, such as where shrub reduction is the primary focus, subsequent treatments with prescribed fire or animal treatments may be necessary to reduce subsequent fine fuel growth.

# Appendix C: List of Preparers

Sheila Anderson, Technical Editor Pete Anderson, Technical Advisor

• East Fork Fire and Paramedic

Tod F. Carlini, District Fire Chief

Amy Ray, Deputy Fire Chief/Fire Marshal

Scott Frasier, Battalion Chief (Ret.)

• Bureau of Land Management

Tim Roide

• US Forest Service

#### Steve Howell

AnnaBelle Monti, Forester

• Nevada Division of Forestry

Ryan Shane

Kelli Nevills, Conservation Specialist II/Fire Adapted Nevada Coordinator

# Appendix D: Grants and Assistance

### NDF Volunteer Fire Department Assistance

Rapid population growth places an increased demand on volunteer fire departments by a public, which expects a high level of quality service. The Volunteer Fire Assistance Program provides an excellent opportunity for qualifying volunteer fire departments to receive training and purchase equipment and supplies such as protective clothing, self-contained breathing apparatus, hose nozzles, radios, pagers, pumps, generators, and other fire equipment. The Volunteer Fire Assistance funds enable rural fire departments to respond to wildfires, especially in the wildland urban interface areas. NDF awards these funds through a grant process and this program benefits communities and landowners. EFFPD has been a regular participant of this program and has been awarded multiple grants in the past. For more information on the Volunteer Fire Assistance program from our federal funders, please go to http://www.fs.fed.us/fire/partners/vfa/.

### State Fire Assistance Program

The State Fire Assistance grant program provides funding to NDF to increase its capacity and effectiveness through better equipment, training, fire prevention education, and mitigating wildfire risk through hazardous fuels reduction. The primary benefit for EFFPD and communities in the district comes through opportunities to apply for any of the competitive grant programs that are offered annually through the program. Funding is used to updated Community wildfire protection plans, educate citizens and landowners on wildfire prevention and mitigation as well as implement fuels treatment projects using a combination of hand crews, mechanical thinning, chipping, mulching, and seeding. Grant funded projects reduce the threat of catastrophic fire by developing green strips, creating defensible space and improving forest health. NDF solicits pre-proposals each year and then selects those grants that will effectively compete with other states for federal grant funds. NDF will assist those with proposals selected to compete by helping the cooperators develop a full proposal that will be submitted by NDF to the federal competitive grant evaluation committee. If applications compete well with those from other states and federal funds are allocated, then NDF will receive the funds and either sub-grant them to the applicants or administer them in-house.

# Appendix E: Zone Assessment Summary

## Zone 1:

- 1. Alpine View
- 2. Clear Creek
- 3. Genoa Lakes
- 4. James Canyon Loop
- 5. Sierra Estates

## <u>Zone 2:</u>

- 1. Johnson Lane East
- 2. Stephanie Way North
- 3. <u>Sunridge</u>

## <u>Zone 3:</u>

- 1. Bodie Flats
- 2. East Valley
- 3. <u>Fish Springs</u>
- 4. <u>Ruhenstroth</u>

## <u>Zone 4:</u>

- 1. Antelope Valley
- 2. Holbrook Junction
- 3. <u>Spring Valley</u>
- 4. <u>Topaz</u>
- 5. <u>Topaz Ranch Estates</u>

## Zone 5:

- 1. Foothill Road North
- 2. Foothill South
- 3. <u>Mottsville</u>
- 4. <u>Sheridan</u>

## <u>Zone 6:</u>

1. <u>Genoa</u>

Douglas County, Nevada



## **Community Wildfire Risk Assessment**

## **Total Assessed Rating**

## 85 - Moderate

Suppression Rating <u>Moderate</u> Hazard Surrounding Environment Rating <u>Moderate</u> Hazard Structures Rating <u>Moderate</u> Hazard

Fire Protection District East Fork Fire

Fireshed(s) Carson Valley-Carson River

## **Community Information**

Latitude	39° 5' 15"
Longitude	-119° 49' 13"
Dwelling Units	65
Size	316.54 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



Douglas County, Nevada



Douglas County, Nevada



### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

#### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

Road width is > 24 feet

→ Road width is > 20 feet and < 24 feet Road width is < 20 feet</p>

**Recommended Mitigation Strategies** 

- □ Keep shoulders of road clear for emergency vehicle use at all times
- □ Consider providing pull-offs every 100 yards

#### **Road Accessibility**

→ Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

**Recommended Mitigation Strategies** 

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



#### **Secondary Road Terminus**

Roads ends in a cul-de-sac, diameter > 100 feet

 $\rightarrow$  Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

**Recommended Mitigation Strategies** 

Coordinate with emergency responders to test cul-de-sac turnaround with their emergency response vehicles

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

→ Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

□ N/A

Douglas County, Nevada



#### **Geographic Features**

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- $\rightarrow$  5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

#### **Recommended Mitigation Strategies**

- □ Work with community to become more proactive towards protecting your life and property against wildfires; Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

Predomi	nant Vegetation
	Light (grass)
$\rightarrow$	Medium (brush)
	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)
Re	commended Mitigation Strategies
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees
	Prune trees 6-10 feet from the ground
Defensik	le Space
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2
	50 to 75% of homes meet criteria in Zone 0, 1 & 2
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present
Re	commended Mitigation Strategies
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space
	Mow lawns regularly
	Water grass, plants, trees and mulch regularly
	Create a spacing of 30 feet between tree crowns
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materia
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures
	Consider xeriscaping

Douglas County, Nevada

#### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

#### **Recommended Mitigation Strategies**

□ N/A

#### Slope

Slope 0% - 5%

→ Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

#### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

 $\rightarrow$  Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

#### **Recommended Mitigation Strategies**

□ Know who to call should there be a problem with electric lines in community

#### **Topographical Features**

#### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

#### **Recommended Mitigation Strategies**

□ N/A

Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

#### Undeveloped Lots with Restricted Access and/or Not Maintained

- → Fewer than 10% of lots are undeveloped
  - 10% to 30% of lots are undeveloped
  - 31% to 50% of lots are undeveloped
  - Greater than 51% of lots are undeveloped

Recommended Mitigation Strategies

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- Consider developing covenant restrictions, if applicable





Douglas County, Nevada



#### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### **Ventilation and Soffits**

> 75% of homes have non-combustible ventilation soffits with mesh or screening

→ 50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Â Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

→ 50-74% of homes have non-combustible siding

< 50% of homes have non-combustible siding

#### Recommended Mitigation Strategies

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

### Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- → 50-74% of homes have skirting underneath
  - < 50% of homes have skirting underneath

#### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments

#### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

#### **Recommended Mitigation Strategies**

□ N/A

#### Propane

#### → > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

#### Recommended Mitigation Strategies

□ N/A

Douglas County, Nevada

#### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

#### Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

Recommended Mitigation Strategies

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

#### COMMENTS



Douglas County, Nevada



## **Community Wildfire Risk Assessment**

## **Total Assessed Rating**

## 107 - High

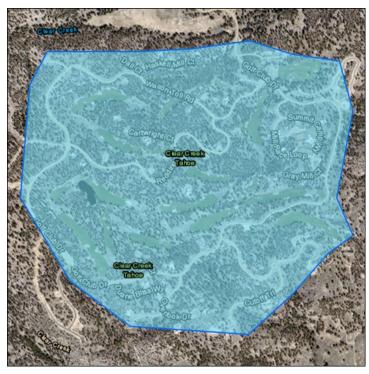
Suppression Rating Moderate Hazard Surrounding Environment Rating High Hazard Structures Rating Moderate Hazard

Fire Protection District East Fork Fire

Fireshed(s) Carson Valley-Carson River

## **Community Information**

Latitude	39° 6' 0"
Longitude	-119° 50' 35"
Dwelling Units	50
Size	599.81 acres
Community Type	Residential - Stick-Built
Assessed By:	Cole Brandeburg
Assessment Date:	04-12-2022



Douglas County, Nevada



Douglas County, Nevada



### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

#### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

**Recommended Mitigation Strategies** 

□ Keep shoulders of road clear for emergency vehicle use whenever possible

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



#### Secondary Road Terminus

- → Roads ends in a cul-de-sac, diameter > 100 feet
  - Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

#### **Recommended Mitigation Strategies**

- □ Maintain unobstructed access into cul-de-sacs
- □ Ensure cul-de-sacs are free of vehicles and/or other items

#### **Street Signs**

Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

→ Present or inconsistent but wooden, non-reflective, or lettering less than 4" Not present

**Recommended Mitigation Strategies** 

- □ Consider upgrading to reflective, noncombustible street signs to improve emergency response efforts
- □ Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

Maintain driveway access and clearance

#### Water Supply

→ Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

- Ensure hydrants and water sources are marked, accessible and properly maintained
- □ Keep hydrants clear of obstructions and vegetation

Douglas County, Nevada



## **Geographic Features**

No notable geographical features present to hinder fire suppression

→ Suppression efforts hindered by geographical features (e.g. hazardous terrain)

Recommended Mitigation Strategies

□ Ensure emergency responders are aware of local geographic features that can hinder fire suppression efforts; consider pre-suppression plan

## Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)

5 mi. or less from Agency with Response Authority (VFD)

 $\rightarrow$  > 5 mi. from Agency with Response Authority FD

## Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- Discuss with closest Fire Department to identify quicker response strategies and other potential solutions

## **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

ightarrow HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

edom	inant Vegetation	
	Light (grass) Medium (brush)	
$\rightarrow$	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)	
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)	
Recommended Mitigation Strategies		
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation	
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees	
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees	
	Prune trees 6-10 feet from the ground	
Defensible Space		
	> 75% of homes meet criteria in Zone 0, 1 & 2	
	50 to 75% of homes meet criteria in Zone 0, 1 & 2	
→	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures	
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures	
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present	
Recommended Mitigation Strategies		
	N/A	

Douglas County, Nevada

## Structure-to-Structure Ignition

No Possible Structure-to-Structure Ignition

→ Possible Structure-to-Structure Ignition

## **Recommended Mitigation Strategies**

- □ Work with neighbors to remove/prune vegetation between houses to mitigate structure-to-structure ignition risk; consder non-combustible fencing 5 feet from structure
- Consider use of sprinkler systems to keep vegetation moisture levels up
- □ Replace flammable roofs, siding, soffits, etc. with nonflammable when possible

## Slope

Slope 0% - 5%

Slope 6 % - 10%

→ Slope 11% - 30%

Slope > 31%

## **Recommended Mitigation Strategies**

□ Increase defensible space in areas with steeper slopes

## Vegetation on Electric Transmission Lines

ightarrow No above ground electric transmission lines present

Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

**Recommended Mitigation Strategies** 

□ Know who to call should there be a problem with electric lines in community

## **Topographical Features**

No topographical features adversely affect wildland fire behavior

→ Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 

□ Maintain situational awareness of fire danger in your area, as local topographical features can adversely affect wildland behavior



Douglas County, Nevada

## Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

## → Adjacent to wildlands with accumulated fuels

## **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

## Undeveloped Lots with Restricted Access and/or Not Maintained

Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

→ 31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable





Douglas County, Nevada



## STRUCTURES ASSESSMENT

## **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

## **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

## Debris on Roof and/or Gutters

## → No

Yes

## **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

## **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- □ Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

## Siding

> 75% of homes have non-combustible siding

→ 50-74% of homes have non-combustible siding

< 50% of homes have non-combustible siding

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

## Douglas County, Nevada



Undersk			
$\rightarrow$	> 75% of homes have skirting underneath raised floors/decks		
	50-74% of homes have skirting underneath		
	< 50% of homes have skirting underneath		
Re	commended Mitigation Strategies		
	Remove combustible vegetation and leaf litter		
	Spread gravel or other non-combustible material under the deck		
	Screen in the bottom of the deck with metal 1/8-inch screening		
	Separate wooden fences from the house with a stone or metal barrier		
Wooder	n Attachments		
$\rightarrow$	> 75% of homes have NO Wooden Attachments		
	50-74% of homes have NO Wooden Attachments		
	< 50% of homes have NO Wooden Attachments		
Re	commended Mitigation Strategies		
	Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially		
	during high fire danger periods)		
	Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire		
_	resistant materials Be aware that wooden attachments can act as a fuse to the structure		
Building	; Setback		
	Not applicable		
→	Greater than or equal to 30 feet from slope		
	Less than 30 feet from slope		
Re	commended Mitigation Strategies		
	Review suggested defensible space and vegetation management as pertains to building setback		
Propane			
	> 30 feet from the house and surrounding vegetation maintained		
	Fewer than 30 feet from the house and/or surrounding vegetation not maintained		
$\rightarrow$	N/A		
Re	commended Mitigation Strategies		
	N/A		

Douglas County, Nevada

## **Electric Utilities**

→ Electric Underground

Electric Overhead drop maintained

Electric Overhead drop not maintained

## Recommended Mitigation Strategies

- □ Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable materials (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

## Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

## COMMENTS



Douglas County, Nevada



## **Community Wildfire Risk Assessment**

## **Total Assessed Rating**

## 90 - Moderate

Suppression Rating Low Hazard Surrounding Environment Rating Moderate Hazard Structures Rating High Hazard

Fire Protection District East Fork Fire

Fireshed(s) Carson Valley-Carson River

## **Community Information**

Latitude	39° 1' 7"
Longitude	-119° 50' 8"
Dwelling Units	300
Size	760.64 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



Douglas County, Nevada



Douglas County, Nevada



## SUPPRESSION ASSESSMENT

## **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

## **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

### **Recommended Mitigation Strategies**

□ Keep shoulders of road clear for emergency vehicle use whenever possible

### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



## **Secondary Road Terminus**

- → Roads ends in a cul-de-sac, diameter > 100 feet
  - Roads ends in a cul-de-sac, diameter < 100 feet
  - Dead end roads <200 feet long

Dead end roads >200 feet long

## **Recommended Mitigation Strategies**

- □ Maintain unobstructed access into cul-de-sacs
- □ Ensure cul-de-sacs are free of vehicles and/or other items

### **Street Signs**

ightarrow Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective Present or inconsistent but wooden, non-reflective, or lettering less than 4" Not present

**Recommended Mitigation Strategies** 

Keep street signs visible and clear of vegetation and fine fuels

### Driveways

### → Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

### Water Supply

ightarrow Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

- **Ensure hydrants and water sources are marked, accessible and properly maintained**
- □ Keep hydrants clear of obstructions and vegetation

Douglas County, Nevada



## **Geographic Features**

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

## Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

### Local Response Resources

- 5 mi. or less from Agency with Response Authority (Staffed FD)
- 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
- → 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency
- □ Consider Volunteer recruitment from the Community

## **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- □ Work with community to become more proactive towards protecting your life and property against wildfires; Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

Predomi	nant Vegetation			
	Light (grass)			
$\rightarrow$	Medium (brush)			
	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)			
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)			
Recommended Mitigation Strategies				
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation			
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees			
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees			
	Prune trees 6-10 feet from the ground			
Defensik	le Space			
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2			
	50 to 75% of homes meet criteria in Zone 0, 1 & 2			
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures			
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures			
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present			
Re	commended Mitigation Strategies			
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space			
	Mow lawns regularly			
	Water grass, plants, trees and mulch regularly			
	Create a spacing of 30 feet between tree crowns			
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materia			
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures			
	Consider xeriscaping			

Douglas County, Nevada

## Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

## **Recommended Mitigation Strategies**

□ N/A

## Slope

Slope 0% - 5%

→ Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

## **Vegetation on Electric Transmission Lines**

## ightarrow No above ground electric transmission lines present

Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

## **Recommended Mitigation Strategies**

Know who to call should there be a problem with electric lines in community

## **Topographical Features**

## → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 

□ N/A



Douglas County, Nevada

## Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

## **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

## Undeveloped Lots with Restricted Access and/or Not Maintained

Fewer than 10% of lots are undeveloped

→ 10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- Consider developing covenant restrictions, if applicable



Douglas County, Nevada



## STRUCTURES ASSESSMENT

## **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

## **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

## Debris on Roof and/or Gutters

## → No

Yes

### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

### **Ventilation and Soffits**

> 75% of homes have non-combustible ventilation soffits with mesh or screening

→ 50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

## **Recommended Mitigation Strategies**

- □ Â Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- □ Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

## Douglas County, Nevada



### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- → 50-74% of homes have skirting underneath
  - < 50% of homes have skirting underneath

## **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

## Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments

### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

## **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

## **Recommended Mitigation Strategies**

□ N/A

## Propane

> 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

 $\rightarrow$  N/A

Recommended Mitigation Strategies

□ N/A

Douglas County, Nevada

## **Electric Utilities**

→ Electric Underground

Electric Overhead drop maintained

Electric Overhead drop not maintained

## Recommended Mitigation Strategies

- □ Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable materials (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

## Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS





Douglas County, Nevada



## **Community Wildfire Risk Assessment**

## **Total Assessed Rating**

## 56 - Moderate

Suppression Rating Low Hazard Surrounding Environment Rating Moderate Hazard Structures Rating Moderate Hazard

Fire Protection District East Fork Fire

Fireshed(s) Carson Valley-Carson River

## **Community Information**

Latitude	39° 3' 1"
Longitude	-119° 49' 20"
Dwelling Units	350
Size	971.89 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



Douglas County, Nevada



Douglas County, Nevada



## SUPPRESSION ASSESSMENT

## **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

## **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

## **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

**Recommended Mitigation Strategies** 

□ Keep shoulders of road clear for emergency vehicle use whenever possible

## **Road Accessibility**

## → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

## **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



## Secondary Road Terminus

- → Roads ends in a cul-de-sac, diameter > 100 feet
  - Roads ends in a cul-de-sac, diameter < 100 feet
  - Dead end roads <200 feet long

Dead end roads >200 feet long

## **Recommended Mitigation Strategies**

- □ Maintain unobstructed access into cul-de-sacs
- □ Ensure cul-de-sacs are free of vehicles and/or other items

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective Present or inconsistent but wooden, non-reflective, or lettering less than 4" Not present

**Recommended Mitigation Strategies** 

Keep street signs visible and clear of vegetation and fine fuels

### Driveways

### → Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

### Water Supply

ightarrow Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

- **Ensure hydrants and water sources are marked, accessible and properly maintained**
- □ Keep hydrants clear of obstructions and vegetation

Douglas County, Nevada



## **Geographic Features**

### → No notable geographical features present to hinder fire suppression

Suppression efforts hindered by geographical features (e.g. hazardous terrain)

### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
- → 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency
- Consider Volunteer recruitment from the Community

## **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

- ightarrow HOA present; HAS structure for sustained fire prevention and mitigation
  - Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

## Predominant Vegetation

- → Light (grass)
  - Medium (brush)

Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)

Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)

## **Recommended Mitigation Strategies**

- □ Use brick or stone along the edge of interior fuels/open space to slow the flame spread
- □ Consider landscaping using single plants or groups within interior fuels/open space to separate fuels
- □ Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation

## Defensible Space

→ >75% of homes meet criteria in Zone 0, 1 & 2

50 to 75% of homes meet criteria in Zone 0, 1 & 2

< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures

< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures

Fuels heavy/extreme amongst structures & other urban hazards/materials are present

- □ Be aware of the risks from falling embers in relation to nearby fuels and defensible space
- □ Mow lawns regularly
- □ Water grass, plants, trees and mulch regularly
- □ Create a spacing of 30 feet between tree crowns
- Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials
- Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures
- Consider xeriscaping

Douglas County, Nevada

### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

## Slope

Slope 0% - 5%

→ Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

## **Vegetation on Electric Transmission Lines**

## ightarrow No above ground electric transmission lines present

Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

## **Recommended Mitigation Strategies**

Know who to call should there be a problem with electric lines in community

## **Topographical Features**

## → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 

□ N/A



Douglas County, Nevada

## Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

## **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

## Undeveloped Lots with Restricted Access and/or Not Maintained

Fewer than 10% of lots are undeveloped

→ 10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

- □ Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable





Douglas County, Nevada



## STRUCTURES ASSESSMENT

## **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

## **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

## Debris on Roof and/or Gutters

## → No

Yes

## **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

## Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

## **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

## Siding

→ >75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

< 50% of homes have non-combustible siding

- Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



Unde	erski	rting			
	→	> 75% of homes have skirting underneath raised floors/decks			
		50-74% of homes have skirting underneath			
		< 50% of homes have skirting underneath			
	Recommended Mitigation Strategies				
		Remove combustible vegetation and leaf litter			
		Spread gravel or other non-combustible material under the deck			
		Screen in the bottom of the deck with metal 1/8-inch screening			
		Separate wooden fences from the house with a stone or metal barrier			
Woo	den	Attachments			
		> 75% of homes have NO Wooden Attachments			
		50-74% of homes have NO Wooden Attachments			
	→	< 50% of homes have NO Wooden Attachments			
	Recommended Mitigation Strategies				
		Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)			
		Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials			
		Be aware that wooden attachments can act as a fuse to the structure			
Build	ling	Setback			
	→	Not applicable			
		Greater than or equal to 30 feet from slope			
		Less than 30 feet from slope			
	Red	commended Mitigation Strategies			
		N/A			
Propa	ane				
		> 30 feet from the house and surrounding vegetation maintained			
		Fewer than 30 feet from the house and/or surrounding vegetation not maintained			
	→	N/A			
	Rec	commended Mitigation Strategies			

Douglas County, Nevada

## **Electric Utilities**

→ Electric Underground

Electric Overhead drop maintained

Electric Overhead drop not maintained

## Recommended Mitigation Strategies

- □ Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable materials (rock, stone) around base of electrical cabinets
- □ Plant less flammable bushes and shrubs around electrical cabinets

### Non-Combustible Zone 0

→ >75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



Douglas County, Nevada



## **Community Wildfire Risk Assessment**

## **Total Assessed Rating**

## 90 - Moderate

Suppression Rating Moderate Hazard Surrounding Environment Rating Moderate Hazard Structures Rating High Hazard

Fire Protection District East Fork Fire

Fireshed(s) Carson Valley-Carson River

## **Community Information**

Latitude	39° 5' 59"
Longitude	-119° 47' 8"
Dwelling Units	250
Size	547.99 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



Douglas County, Nevada



Douglas County, Nevada



## SUPPRESSION ASSESSMENT

### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

## **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

### **Road Width**

Road width is > 24 feet

→ Road width is > 20 feet and < 24 feet Road width is < 20 feet</p>

**Recommended Mitigation Strategies** 

- □ Keep shoulders of road clear for emergency vehicle use at all times
- □ Consider providing pull-offs every 100 yards

## **Road Accessibility**

→ Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

**Recommended Mitigation Strategies** 

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



## **Secondary Road Terminus**

Roads ends in a cul-de-sac, diameter > 100 feet

 $\rightarrow$  Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

**Recommended Mitigation Strategies** 

Coordinate with emergency responders to test cul-de-sac turnaround with their emergency response vehicles

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

### Driveways

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

→ Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

□ N/A

Douglas County, Nevada



## **Geographic Features**

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

## Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

### Local Response Resources

- → 5 mi. or less from Agency with Response Authority (Staffed FD)
  - 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

### Recommended Mitigation Strategies

- **Establish and maintain contact with the closest Fire Department; consider pre-suppression plan**
- □ Be aware of the importance of early detection and reporting of any emergency

### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

- HOA present; HAS structure for sustained fire prevention and mitigation
- Municipal govt present; HAS structure for sustained fire prevention and mitigation
- GID present; LACKS structure for sustained fire prevention and mitigation
- HOA present; LACKS structure for sustained fire prevention and mitigation
- → Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- □ Work with community to become more proactive towards protecting your life and property against wildfires; Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

## Predominant Vegetation

Light (grass)

## → Medium (brush)

Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)

Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)

## **Recommended Mitigation Strategies**

- □ Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation
- □ Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees
- Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees
- □ Prune trees 6-10 feet from the ground

## Defensible Space

- > 75% of homes meet criteria in Zone 0, 1 & 2
- → 50 to 75% of homes meet criteria in Zone 0, 1 & 2
  - < 50% of homes meet criteria in Zone 0, 1 & 2 Light fuels amongst structures
  - < 50% of homes meet criteria in Zone 0, 1 & 2 Moderate fuels amongst structures

Fuels heavy/extreme amongst structures & other urban hazards/materials are present

- Be aware of the risks from falling embers in relation to nearby fuels and defensible space
- □ Mow lawns regularly
- □ Water grass, plants, trees and mulch regularly
- □ Create a spacing of 30 feet between tree crowns
- Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials
- □ Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures
- Consider xeriscaping
- D Plant a mixture of deciduous trees (e.g. oak and maple) and coniferous trees (e.g. pine)
- □ Create fuel breaks like driveways and gravel walkways

Douglas County, Nevada

## Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

## Slope

→ Slope 0% - 5%

Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

## **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

→ Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

## **Recommended Mitigation Strategies**

□ Know who to call should there be a problem with electric lines in community

## **Topographical Features**

→ No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 

□ N/A



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

#### Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### **Ventilation and Soffits**

> 75% of homes have non-combustible ventilation soffits with mesh or screening

→ 50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Â Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- □ Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

→ 50-74% of homes have non-combustible siding

< 50% of homes have non-combustible siding

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- → 50-74% of homes have skirting underneath
  - < 50% of homes have skirting underneath

#### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments

#### **Recommended Mitigation Strategies**

- □ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

#### **Recommended Mitigation Strategies**

□ N/A

### Propane

> 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

 $\rightarrow$  N/A

Recommended Mitigation Strategies

Douglas County, Nevada

### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

### Non-Combustible Zone 0

> 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

ightarrow 50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ N/A

COMMENTS

Nevada Natural Resources and Fire Information Portal - Community Assessor



Douglas County, Nevada



## **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

## 92 - Moderate

Suppression Rating Low Hazard Surrounding Environment Rating Moderate Hazard Structures Rating High Hazard

**Fire Protection District** East Fork Fire

### Fireshed(s)

Lower East Fork Carson River, Carson Valley-Carson River

### **Community Information**

Latitude	39° 0' 24"
Longitude	-119° 42' 1"
Dwelling Units	250
Size	3,319.86 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



Douglas County, Nevada



Douglas County, Nevada



### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

#### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

**Recommended Mitigation Strategies** 

□ Keep shoulders of road clear for emergency vehicle use whenever possible

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



### **Secondary Road Terminus**

Roads ends in a cul-de-sac, diameter > 100 feet

 $\rightarrow$  Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

**Recommended Mitigation Strategies** 

Coordinate with emergency responders to test cul-de-sac turnaround with their emergency response vehicles

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

→ Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

Douglas County, Nevada



#### **Geographic Features**

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- $\rightarrow$  5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

Predo	Predominant Vegetation			
		Light (grass)		
	→	Medium (brush)		
		Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)		
		Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)		
	Recommended Mitigation Strategies			
		Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation		
		Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees		
		Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees		
		Prune trees 6-10 feet from the ground		
Defensible Space				
	→	> 75% of homes meet criteria in Zone 0, 1 & 2		
		50 to 75% of homes meet criteria in Zone 0, 1 & 2		
		< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures		
		< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures		
		Fuels heavy/extreme amongst structures & other urban hazards/materials are present		
	Rec	rommended Mitigation Strategies		
		Be aware of the risks from falling embers in relation to nearby fuels and defensible space		
		Mow lawns regularly		
		Water grass, plants, trees and mulch regularly		
		Create a spacing of 30 feet between tree crowns		
		Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials		
		Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures		
		Consider xeriscaping		

Nevada Natural Resources and Fire Information Portal - Community Assessor

Douglas County, Nevada

#### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

#### Slope

→ Slope 0% - 5%

Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

#### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

→ Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

**Recommended Mitigation Strategies** 

□ Know who to call should there be a problem with electric lines in community

#### **Topographical Features**

→ No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

### Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### **Ventilation and Soffits**

> 75% of homes have non-combustible ventilation soffits with mesh or screening

→ 50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Â Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- 50-74% of homes have skirting underneath
- → < 50% of homes have skirting underneath</p>

### Recommended Mitigation Strategies

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments</p>

#### **Recommended Mitigation Strategies**

- □ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

### **Recommended Mitigation Strategies**

□ N/A

### Propane

> 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

 $\rightarrow$  N/A

Recommended Mitigation Strategies

Douglas County, Nevada

### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



Douglas County, Nevada



## **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

## 75 - Moderate

Suppression Rating Low Hazard Surrounding Environment Rating Moderate Hazard Structures Rating Moderate Hazard

Fire Protection District East Fork Fire

Fireshed(s) Carson Valley-Carson River

### **Community Information**

Latitude	39° 2' 53"
Longitude	-119° 44' 16"
Dwelling Units	300
Size	1,752.94 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



Douglas County, Nevada



Douglas County, Nevada



### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

#### ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

#### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

#### **Recommended Mitigation Strategies**

□ Keep shoulders of road clear for emergency vehicle use whenever possible

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



#### **Secondary Road Terminus**

Roads ends in a cul-de-sac, diameter > 100 feet

 $\rightarrow$  Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

**Recommended Mitigation Strategies** 

Coordinate with emergency responders to test cul-de-sac turnaround with their emergency response vehicles

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

#### **Driveways**

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

→ Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

Douglas County, Nevada



#### Geographic Features

→ No notable geographical features present to hinder fire suppression

Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- $\rightarrow$  5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

### **Predominant Vegetation** Light (grass) Medium (brush) → Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc) Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy) **Recommended Mitigation Strategies** Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees Prune trees 6-10 feet from the ground **Defensible Space** → >75% of homes meet criteria in Zone 0, 1 & 2 50 to 75% of homes meet criteria in Zone 0, 1 & 2 < 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures < 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures Fuels heavy/extreme amongst structures & other urban hazards/materials are present **Recommended Mitigation Strategies** Be aware of the risks from falling embers in relation to nearby fuels and defensible space П Mow lawns regularly □ Water grass, plants, trees and mulch regularly Create a spacing of 30 feet between tree crowns Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures Consider xeriscaping

Douglas County, Nevada

#### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

#### Slope

- → Slope 0% 5%
  - Slope 6 % 10%
  - Slope 11% 30%

Slope > 31%

### **Recommended Mitigation Strategies**

□ N/A

#### **Vegetation on Electric Transmission Lines**

### ightarrow No above ground electric transmission lines present

Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

#### **Recommended Mitigation Strategies**

Know who to call should there be a problem with electric lines in community

#### **Topographical Features**

### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

### **Recommended Mitigation Strategies**





Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

### Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

Recommended Mitigation Strategies

D Provide Living with Fire/Firewise construction guidelines to developers /owners

□ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### **Ventilation and Soffits**

> 75% of homes have non-combustible ventilation soffits with mesh or screening

→ 50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Â Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- 50-74% of homes have skirting underneath
- $\rightarrow$  < 50% of homes have skirting underneath

### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### Wooden Attachments

→ >75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

< 50% of homes have NO Wooden Attachments

#### **Recommended Mitigation Strategies**

- □ Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

#### **Recommended Mitigation Strategies**

□ N/A

### Propane

> 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

 $\rightarrow$  N/A

Recommended Mitigation Strategies

Douglas County, Nevada

#### **Electric Utilities**

→ Electric Underground

Electric Overhead drop maintained

Electric Overhead drop not maintained

#### Recommended Mitigation Strategies

- □ Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable materials (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



# Sunridge

Douglas County, Nevada



## **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

## 71 - Moderate

Suppression Rating Low Hazard Surrounding Environment Rating Moderate Hazard Structures Rating Moderate Hazard

Fire Protection District East Fork Fire

Fireshed(s) Carson Valley-Carson River

### **Community Information**

Latitude	39° 5' 17"
Longitude	-119° 46' 11"
Dwelling Units	595
Size	845.66 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



# Sunridge

Douglas County, Nevada





### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

#### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

#### **Recommended Mitigation Strategies**

□ Keep shoulders of road clear for emergency vehicle use whenever possible

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place



### Secondary Road Terminus

Roads ends in a cul-de-sac, diameter > 100 feet

→ Roads ends in a cul-de-sac, diameter < 100 feet</p>

Dead end roads <200 feet long

Dead end roads >200 feet long

**Recommended Mitigation Strategies** 

Coordinate with emergency responders to test cul-de-sac turnaround with their emergency response vehicles

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

ightarrow Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

**Ensure hydrants and water sources are marked, accessible and properly maintained** 

□ Keep hydrants clear of obstructions and vegetation

# Sunridge

Douglas County, Nevada



#### **Geographic Features**

No notable geographical features present to hinder fire suppression

→ Suppression efforts hindered by geographical features (e.g. hazardous terrain)

**Recommended Mitigation Strategies** 

□ Ensure emergency responders are aware of local geographic features that can hinder fire suppression efforts; consider pre-suppression plan

#### Local Response Resources

- → 5 mi. or less from Agency with Response Authority (Staffed FD)
  - 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)

5 mi. or less from Agency with Response Authority (VFD)

> 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

#### **Community Organization/Governance**

- → GID present; HAS structure for sustained fire prevention and mitigation
   HOA present; HAS structure for sustained fire prevention and mitigation
   Municipal govt present; HAS structure for sustained fire prevention and mitigation
   GID present; LACKS structure for sustained fire prevention and mitigation
   HOA present; LACKS structure for sustained fire prevention and mitigation
   Municipal govt present; LACKS structure for sustained fire prevention and mitigation
   HOA present; LACKS structure for sustained fire prevention and mitigation
   Municipal govt present; LACKS structure for sustained fire prevention and mitigation
   Lacks any structure for sustained fire prevention and mitigation
   Recommended Mitigation Strategies
   Host a Community Education Event at least once a year; Become a Firewise USA® Site
  - □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan



SURROUNDING ENVIRONMENT ASSESSMENT

Predominant Vegetation		
	Light (grass)	
$\rightarrow$	Medium (brush)	
	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)	
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)	
Red	commended Mitigation Strategies	
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation	
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees	
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees	
	Prune trees 6-10 feet from the ground	
Defensible Space		
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2	
	50 to 75% of homes meet criteria in Zone 0, 1 & 2	
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures	
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures	
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present	
Recommended Mitigation Strategies		
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space	
	Mow lawns regularly	
	Water grass, plants, trees and mulch regularly	
	Create a spacing of 30 feet between tree crowns	
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping material	
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures	
	Consider xeriscaping	

#### Structure-to-Structure Ignition

No Possible Structure-to-Structure Ignition

→ Possible Structure-to-Structure Ignition

#### **Recommended Mitigation Strategies**

- □ Work with neighbors to remove/prune vegetation between houses to mitigate structure-to-structure ignition risk; consder non-combustible fencing 5 feet from structure
- Consider use of sprinkler systems to keep vegetation moisture levels up
- □ Replace flammable roofs, siding, soffits, etc. with nonflammable when possible

#### Slope

→ Slope 0% - 5%

Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

#### Vegetation on Electric Transmission Lines

#### ightarrow No above ground electric transmission lines present

Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

**Recommended Mitigation Strategies** 

□ Know who to call should there be a problem with electric lines in community

#### **Topographical Features**

→ No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 





#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

#### Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

Recommended Mitigation Strategies

D Provide Living with Fire/Firewise construction guidelines to developers /owners

□ Consider developing covenant restrictions, if applicable





### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

# Sunridge

## Douglas County, Nevada



Undersk	rting		
$\rightarrow$	> 75% of homes have skirting underneath raised floors/decks		
	50-74% of homes have skirting underneath		
	< 50% of homes have skirting underneath		
Red	commended Mitigation Strategies		
	Remove combustible vegetation and leaf litter		
	Spread gravel or other non-combustible material under the deck		
	Screen in the bottom of the deck with metal 1/8-inch screening		
	Separate wooden fences from the house with a stone or metal barrier		
Wooden Attachments			
	> 75% of homes have NO Wooden Attachments		
$\rightarrow$	50-74% of homes have NO Wooden Attachments		
	< 50% of homes have NO Wooden Attachments		
Red	commended Mitigation Strategies		
	Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially		
	during high fire danger periods)		
	Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials		
	Be aware that wooden attachments can act as a fuse to the structure		
Building	Setback		
$\rightarrow$	Not applicable		
	Greater than or equal to 30 feet from slope		
	Less than 30 feet from slope		
Re	commended Mitigation Strategies		
	N/A		
Propane			
	> 30 feet from the house and surrounding vegetation maintained		
	Fewer than 30 feet from the house and/or surrounding vegetation not maintained		
→	N/A		
Red	commended Mitigation Strategies		
	N/A		

Douglas County, Nevada

#### **Electric Utilities**

→ Electric Underground

Electric Overhead drop maintained

Electric Overhead drop not maintained

#### Recommended Mitigation Strategies

- □ Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable materials (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

→ >75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

Recommended Mitigation Strategies

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS





Douglas County, Nevada



### **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 129 - High

Suppression Rating Extreme Hazard Surrounding Environment Rating High Hazard Structures Rating Moderate Hazard

# Fire Protection District

East Fork Fire

### Fireshed(s)

Middle East Fork Carson River, Lower East Fork Carson River

### **Community Information**

Latitude	38° 51' 34"
Longitude	-119° 39' 8"
Dwelling Units	25
Size	900.56 acres
Community Type	Residential - Mobile
Assessed By:	Alex Jares
Assessment Date:	04-11-2022



Douglas County, Nevada





#### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

→ One road in and out (entrance and exit is the same)

**Recommended Mitigation Strategies** 

- □ Keep community ingress/egress open and maintained (cleared of vegetation, vehicles, and/or any obstructions)
- □ Consider developing safety zones and a plan for Shelter-in-Place; consult with Local Fire Department
- □ Consider adding a secondary ingress / egress route for use in emergencies

#### **Road Width**

Road width is > 24 feet

→ Road width is > 20 feet and < 24 feet</p>

Road width is < 20 feet

**Recommended Mitigation Strategies** 

- □ Keep shoulders of road clear for emergency vehicle use at all times
- □ Consider providing pull-offs every 100 yards

#### **Road Accessibility**

Surfaced road

 $\rightarrow$  Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

Consider road improvements to reduce the risk driving in extreme grades, tight corners, and road intersections

□ Coordinate with fire department to test access with emergency response vehicles

Douglas County, Nevada



#### **Secondary Road Terminus**

Roads ends in a cul-de-sac, diameter > 100 feet

Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

→ Dead end roads >200 feet long

#### **Recommended Mitigation Strategies**

Ensure emergency responders are aware of dead-end roads; Consider signing all dead ends.

□ If dead-end roads are narrow, restrict access during an emergency

#### **Street Signs**

Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

→ Not present

#### **Recommended Mitigation Strategies**

□ Consider installing reflective, noncombustible street signs to support emergency response efforts

#### Driveways

#### → Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

 $\rightarrow$  No water sources in or within 4 miles of the community

- □ Be aware of limited access to a water source and coordinate with the closest Fire Department accordingly; consider pre-suppression plan
- □ Identify nearby potential water sources (e.g. pools); consider pre-suppression plan
- D Plan for water source installations within or closer to community; consider pre-suppression plan

Douglas County, Nevada



#### **Geographic Features**

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

- 5 mi. or less from Agency with Response Authority (Staffed FD)
- 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
- 5 mi. or less from Agency with Response Authority (VFD)
- $\rightarrow$  > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- Discuss with closest Fire Department to identify quicker response strategies and other potential solutions

#### **Community Organization/Governance**

- GID present; HAS structure for sustained fire prevention and mitigation
- HOA present; HAS structure for sustained fire prevention and mitigation
- Municipal govt present; HAS structure for sustained fire prevention and mitigation
- GID present; LACKS structure for sustained fire prevention and mitigation
- HOA present; LACKS structure for sustained fire prevention and mitigation
- Municipal govt present; LACKS structure for sustained fire prevention and mitigation
- ightarrow Lacks any structure for sustained fire prevention and mitigation
- Recommended Mitigation Strategies
- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- Host a Community Education Event at least once a year
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan
- □ Ensure individual homes are ignition-resistant, hardened, and Firewise/Living with Fire concepts are followed

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

redom	inant Vegetation	
	Light (grass) Medium (brush)	
$\rightarrow$	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)	
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)	
Recommended Mitigation Strategies		
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation	
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees	
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees	
	Prune trees 6-10 feet from the ground	
efensil	ble Space	
	> 75% of homes meet criteria in Zone 0, 1 & 2	
	50 to 75% of homes meet criteria in Zone 0, 1 & 2	
$\rightarrow$	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures	
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures	
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present	
Re	commended Mitigation Strategies	
	N/A	

Douglas County, Nevada

#### **Structure-to-Structure Ignition**

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

#### Slope

→ Slope 0% - 5%

Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

#### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

 $\rightarrow$  Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

**Recommended Mitigation Strategies** 

Know who to call should there be a problem with electric lines in community

#### **Topographical Features**

→ No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 

□ N/A



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

#### Undeveloped Lots with Restricted Access and/or Not Maintained

- → Fewer than 10% of lots are undeveloped
  - 10% to 30% of lots are undeveloped
  - 31% to 50% of lots are undeveloped
  - Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



#### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

#### Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- → 50-74% of homes have skirting underneath
  - < 50% of homes have skirting underneath

#### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### Wooden Attachments

> 75% of homes have NO Wooden Attachments

→ 50-74% of homes have NO Wooden Attachments

< 50% of homes have NO Wooden Attachments

#### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

#### **Recommended Mitigation Strategies**

□ N/A

#### Propane

#### → > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

#### Recommended Mitigation Strategies

□ N/A

Douglas County, Nevada

#### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS





Douglas County, Nevada



### **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 84 - Moderate

Suppression Rating Low Hazard Surrounding Environment Rating Moderate Hazard Structures Rating High Hazard

**Fire Protection District** East Fork Fire

### Fireshed(s)

Lower East Fork Carson River, Carson Valley-Carson River

### **Community Information**

Latitude	38° 56' 53"
Longitude	-119° 41' 23"
Dwelling Units	725
Size	3,325.90 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-11-2022



Douglas County, Nevada



Douglas County, Nevada



#### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

#### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

**Recommended Mitigation Strategies** 

□ Keep shoulders of road clear for emergency vehicle use whenever possible

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place



#### Secondary Road Terminus

Roads ends in a cul-de-sac, diameter > 100 feet

 $\rightarrow$  Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

**Recommended Mitigation Strategies** 

Coordinate with emergency responders to test cul-de-sac turnaround with their emergency response vehicles

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

→ Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

□ N/A

Douglas County, Nevada



#### **Geographic Features**

→ No notable geographical features present to hinder fire suppression

Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- $\rightarrow$  5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- □ Work with community to become more proactive towards protecting your life and property against wildfires; Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

Predomi	nant Vegetation
	Light (grass)
$\rightarrow$	Medium (brush)
	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)
Red	commended Mitigation Strategies
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation
Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees	
Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees	
	Prune trees 6-10 feet from the ground
Defensib	le Space
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2
	50 to 75% of homes meet criteria in Zone 0, 1 & 2
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present
Red	commended Mitigation Strategies
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space
	Mow lawns regularly
	Water grass, plants, trees and mulch regularly
	Create a spacing of 30 feet between tree crowns
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materia
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures
	Consider xeriscaping

Douglas County, Nevada

#### **Structure-to-Structure Ignition**

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

#### Slope

- → Slope 0% 5%
  - Slope 6 % 10%
  - Slope 11% 30%

Slope > 31%

#### **Recommended Mitigation Strategies**

□ N/A

#### **Vegetation on Electric Transmission Lines**

#### ightarrow No above ground electric transmission lines present

Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

#### **Recommended Mitigation Strategies**

Know who to call should there be a problem with electric lines in community

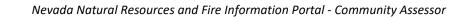
#### **Topographical Features**

#### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

#### **Recommended Mitigation Strategies**

□ N/A





Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

#### Undeveloped Lots with Restricted Access and/or Not Maintained

- → Fewer than 10% of lots are undeveloped
  - 10% to 30% of lots are undeveloped
  - 31% to 50% of lots are undeveloped
  - Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



#### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- 50-74% of homes have skirting underneath
- → < 50% of homes have skirting underneath</p>

#### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments

#### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

#### **Recommended Mitigation Strategies**

□ N/A

#### Propane

> 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

 $\rightarrow$  N/A

Recommended Mitigation Strategies

□ N/A

Douglas County, Nevada

#### **Electric Utilities**

→ Electric Underground

Electric Overhead drop maintained

Electric Overhead drop not maintained

#### Recommended Mitigation Strategies

- □ Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable materials (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

→ >75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

Recommended Mitigation Strategies

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



Douglas County, Nevada



### **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 97 - Moderate

Suppression Rating Moderate Hazard Surrounding Environment Rating Moderate Hazard Structures Rating High Hazard

Fire Protection District East Fork Fire

Fireshed(s) Lower East Fork Carson River

### **Community Information**

Latitude	38° 56' 4"
Longitude	-119° 38' 53"
Dwelling Units	150
Size	8,683.83 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-11-2022



Douglas County, Nevada



Douglas County, Nevada



#### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

#### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

**Recommended Mitigation Strategies** 

□ Keep shoulders of road clear for emergency vehicle use whenever possible

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



#### Secondary Road Terminus

- → Roads ends in a cul-de-sac, diameter > 100 feet
  - Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

#### **Recommended Mitigation Strategies**

- □ Maintain unobstructed access into cul-de-sacs
- □ Ensure cul-de-sacs are free of vehicles and/or other items

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective Present or inconsistent but wooden, non-reflective, or lettering less than 4" Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

#### → Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

 $\rightarrow$  No water sources in or within 4 miles of the community

- □ Be aware of limited access to a water source and coordinate with the closest Fire Department accordingly; consider pre-suppression plan
- □ Identify nearby potential water sources (e.g. pools); consider pre-suppression plan
- D Plan for water source installations within or closer to community; consider pre-suppression plan

Douglas County, Nevada



#### **Geographic Features**

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

- 5 mi. or less from Agency with Response Authority (Staffed FD)
- 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
- → 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency
- □ Consider Volunteer recruitment from the Community

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- □ Work with community to become more proactive towards protecting your life and property against wildfires; Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

Predomi	nant Vegetation				
	Light (grass)				
$\rightarrow$	Medium (brush)				
	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)				
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)				
Re	commended Mitigation Strategies				
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation				
Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees					
Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees					
	Prune trees 6-10 feet from the ground				
Defensik	le Space				
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2				
	50 to 75% of homes meet criteria in Zone 0, 1 & 2				
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures				
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures				
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present				
Re	commended Mitigation Strategies				
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space				
	Mow lawns regularly				
	Water grass, plants, trees and mulch regularly				
	Create a spacing of 30 feet between tree crowns				
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materia				
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures				
	Consider xeriscaping				

Douglas County, Nevada

#### **Structure-to-Structure Ignition**

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

#### Slope

→ Slope 0% - 5%

Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

#### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

 $\rightarrow$  Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

**Recommended Mitigation Strategies** 

Know who to call should there be a problem with electric lines in community

#### **Topographical Features**

#### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 

□ N/A



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

#### Undeveloped Lots with Restricted Access and/or Not Maintained

- → Fewer than 10% of lots are undeveloped
  - 10% to 30% of lots are undeveloped
  - 31% to 50% of lots are undeveloped
  - Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



#### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - < 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- 50-74% of homes have skirting underneath
- $\rightarrow$  < 50% of homes have skirting underneath

#### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments</p>

#### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

#### **Recommended Mitigation Strategies**

□ N/A

#### Propane

#### $\rightarrow$ > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

#### Recommended Mitigation Strategies

□ N/A

Douglas County, Nevada

#### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

Recommended Mitigation Strategies

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS





## Ruhenstroth

Douglas County, Nevada



## **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 51 - Moderate

Suppression Rating <u>Moderate</u> Hazard Surrounding Environment Rating <u>Moderate</u> Hazard Structures Rating <u>Low</u> Hazard

**Fire Protection District** East Fork Fire

### Fireshed(s)

Middle East Fork Carson River, Lower East Fork Carson River

### **Community Information**

Latitude	38° 53' 36"
Longitude	-119° 40' 47"
Dwelling Units	120
Size	1,929.71 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-11-2022



## Ruhenstroth

Douglas County, Nevada



Douglas County, Nevada



# SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

**Recommended Mitigation Strategies** 

□ Keep shoulders of road clear for emergency vehicle use whenever possible

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



## **Secondary Road Terminus**

- $\rightarrow$  Roads ends in a cul-de-sac, diameter > 100 feet
  - Roads ends in a cul-de-sac, diameter < 100 feet
  - Dead end roads <200 feet long

Dead end roads >200 feet long

#### **Recommended Mitigation Strategies**

- □ Maintain unobstructed access into cul-de-sacs
- □ Ensure cul-de-sacs are free of vehicles and/or other items

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective Present or inconsistent but wooden, non-reflective, or lettering less than 4" Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

#### → Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

→ Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

Be aware of limited access to a water source and coordinate with the closest Fire Department accordingly

Douglas County, Nevada



#### **Geographic Features**

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

- → 5 mi. or less from Agency with Response Authority (Staffed FD)
  - 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- **Establish and maintain contact with the closest Fire Department; consider pre-suppression plan**
- □ Be aware of the importance of early detection and reporting of any emergency

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

- HOA present; HAS structure for sustained fire prevention and mitigation
- Municipal govt present; HAS structure for sustained fire prevention and mitigation
- GID present; LACKS structure for sustained fire prevention and mitigation
- HOA present; LACKS structure for sustained fire prevention and mitigation
- → Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

## **Predominant Vegetation** Light (grass) Medium (brush) → Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc) Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy) **Recommended Mitigation Strategies** Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees Prune trees 6-10 feet from the ground **Defensible Space** → >75% of homes meet criteria in Zone 0, 1 & 2 50 to 75% of homes meet criteria in Zone 0, 1 & 2 < 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures < 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures Fuels heavy/extreme amongst structures & other urban hazards/materials are present **Recommended Mitigation Strategies** Be aware of the risks from falling embers in relation to nearby fuels and defensible space П Mow lawns regularly □ Water grass, plants, trees and mulch regularly Create a spacing of 30 feet between tree crowns Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures п Consider xeriscaping

Douglas County, Nevada

#### **Structure-to-Structure Ignition**

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

### Slope

- → Slope 0% 5%
  - Slope 6 % 10%
  - Slope 11% 30%

Slope > 31%

## **Recommended Mitigation Strategies**

□ N/A

#### **Vegetation on Electric Transmission Lines**

## ightarrow No above ground electric transmission lines present

Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

### **Recommended Mitigation Strategies**

Know who to call should there be a problem with electric lines in community

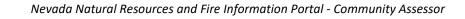
#### **Topographical Features**

#### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

### **Recommended Mitigation Strategies**

□ N/A



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

## Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



# STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- □ Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

→ 50-74% of homes have non-combustible siding

< 50% of homes have non-combustible siding

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



Underskirting					
	→	> 75% of homes have skirting underneath raised floors/decks			
		50-74% of homes have skirting underneath			
		< 50% of homes have skirting underneath			
	Recommended Mitigation Strategies				
		Remove combustible vegetation and leaf litter			
		Spread gravel or other non-combustible material under the deck			
		Screen in the bottom of the deck with metal 1/8-inch screening			
		Separate wooden fences from the house with a stone or metal barrier			
Wooden Attachments					
	→	> 75% of homes have NO Wooden Attachments			
		50-74% of homes have NO Wooden Attachments			
		< 50% of homes have NO Wooden Attachments			
	Recommended Mitigation Strategies				
		Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially			
		during high fire danger periods)			
		Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire			
	_	resistant materials Be aware that wooden attachments can act as a fuse to the structure			
Build	Building Setback				
	→	Not applicable			
		Greater than or equal to 30 feet from slope			
		Less than 30 feet from slope			
	Rec	commended Mitigation Strategies			
		N/A			
Propane					
		> 30 feet from the house and surrounding vegetation maintained			
		Fewer than 30 feet from the house and/or surrounding vegetation not maintained			
	→	N/A			
	Recommended Mitigation Strategies				
		N/A			

Douglas County, Nevada

## **Electric Utilities**

→ Electric Underground

Electric Overhead drop maintained

Electric Overhead drop not maintained

#### Recommended Mitigation Strategies

- □ Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable materials (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



Douglas County, Nevada



# **Community Wildfire Risk Assessment**

# **Total Assessed Rating**

# 78 - Moderate

Suppression Rating <u>High</u> Hazard Surrounding Environment Rating <u>Moderate</u> Hazard Structures Rating <u>Moderate</u> Hazard

Fire Protection District East Fork Fire

Fireshed(s) Middle West Walker River

# **Community Information**

Latitude	38° 38' 45"
Longitude	-119° 26' 28"
Dwelling Units	20
Size	5,834.10 acres
Community Type	Agricultural/Rural
Assessed By:	Kevin Quenga
Assessment Date:	04-11-2022



Douglas County, Nevada



Douglas County, Nevada



## SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

## **Road Width**

Road width is > 24 feet

→ Road width is > 20 feet and < 24 feet Road width is < 20 feet</p>

**Recommended Mitigation Strategies** 

- □ Keep shoulders of road clear for emergency vehicle use at all times
- □ Consider providing pull-offs every 100 yards

#### **Road Accessibility**

Surfaced road

→ Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

- □ Consider road improvements to reduce the risk driving in extreme grades, tight corners, and road intersections
- □ Coordinate with fire department to test access with emergency response vehicles

Douglas County, Nevada



## **Secondary Road Terminus**

Roads ends in a cul-de-sac, diameter > 100 feet

Roads ends in a cul-de-sac, diameter < 100 feet

→ Dead end roads <200 feet long Dead end roads >200 feet long

### **Recommended Mitigation Strategies**

Ensure emergency responder are aware of dead-end roads; Consider signing all dead ends.

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

### Driveways

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

→ Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

Coordinate with fire department and land owners to train/test use of local water sources (e.g. ponds, lakes)

Douglas County, Nevada



#### Geographic Features

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

- 5 mi. or less from Agency with Response Authority (Staffed FD)
- 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
- → 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency
- □ Consider Volunteer recruitment from the Community

## **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- □ Work with community to become more proactive towards protecting your life and property against wildfires; Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

Predominant Vegetation					
	Light (grass)				
$\rightarrow$	Medium (brush)				
	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)				
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)				
Red	Recommended Mitigation Strategies				
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation				
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees				
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees				
	Prune trees 6-10 feet from the ground				
Defensible Space					
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2				
	50 to 75% of homes meet criteria in Zone 0, 1 & 2				
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures				
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures				
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present				
Recommended Mitigation Strategies					
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space				
	Mow lawns regularly				
	Water grass, plants, trees and mulch regularly				
	Create a spacing of 30 feet between tree crowns				
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials				
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures				
	Consider xeriscaping				

Douglas County, Nevada

#### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

### Slope

- → Slope 0% 5%
  - Slope 6 % 10%
  - Slope 11% 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

### **Vegetation on Electric Transmission Lines**

## ightarrow No above ground electric transmission lines present

Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

### **Recommended Mitigation Strategies**

Know who to call should there be a problem with electric lines in community

### **Topographical Features**

#### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 

□ N/A



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

## Undeveloped Lots with Restricted Access and/or Not Maintained

Fewer than 10% of lots are undeveloped

→ 10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



# STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - < 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

### Debris on Roof and/or Gutters

### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

→ 50-74% of homes have non-combustible siding

< 50% of homes have non-combustible siding

- Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- 50-74% of homes have skirting underneath
- → < 50% of homes have skirting underneath</p>

## **Recommended Mitigation Strategies**

- Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### Wooden Attachments

→ >75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

< 50% of homes have NO Wooden Attachments

#### **Recommended Mitigation Strategies**

- □ Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

#### **Recommended Mitigation Strategies**

□ N/A

## Propane

#### → > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

## Recommended Mitigation Strategies

□ N/A

Douglas County, Nevada

### **Electric Utilities**

→ Electric Underground

Electric Overhead drop maintained

Electric Overhead drop not maintained

#### Recommended Mitigation Strategies

- □ Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable materials (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



Douglas County, Nevada



# **Community Wildfire Risk Assessment**

# **Total Assessed Rating**

# 118 - High

Suppression Rating <u>High</u> Hazard Surrounding Environment Rating <u>High</u> Hazard Structures Rating <u>Moderate</u> Hazard

Fire Protection District East Fork Fire

Fireshed(s) Lower West Walker River

# **Community Information**

Latitude	38° 43' 45"
Longitude	-119° 33' 47"
Dwelling Units	70
Size	649.44 acres
Community Type	Residential - Stick-Built
Assessed By:	Kevin Quenga
Assessment Date:	04-11-2022



Douglas County, Nevada



Douglas County, Nevada



# SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

→ One road in and out (entrance and exit is the same)

**Recommended Mitigation Strategies** 

- □ Keep community ingress/egress open and maintained (cleared of vegetation, vehicles, and/or any obstructions)
- Consider developing safety zones and a plan for Shelter-in-Place; consult with Local Fire Department
- □ Consider adding a secondary ingress / egress route for use in emergencies

#### **Road Width**

Road width is > 24 feet

→ Road width is > 20 feet and < 24 feet</p>

Road width is < 20 feet

**Recommended Mitigation Strategies** 

- □ Keep shoulders of road clear for emergency vehicle use at all times
- □ Consider providing pull-offs every 100 yards

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

**Recommended Mitigation Strategies** 

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



## **Secondary Road Terminus**

- $\rightarrow$  Roads ends in a cul-de-sac, diameter > 100 feet
  - Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

### **Recommended Mitigation Strategies**

- □ Maintain unobstructed access into cul-de-sacs
- □ Ensure cul-de-sacs are free of vehicles and/or other items

#### **Street Signs**

ightarrow Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective Present or inconsistent but wooden, non-reflective, or lettering less than 4" Not present

**Recommended Mitigation Strategies** 

Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

#### → Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

ightarrow Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

Be aware of limited access to a water source and coordinate with the closest Fire Department accordingly

Douglas County, Nevada



#### **Geographic Features**

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

- → 5 mi. or less from Agency with Response Authority (Staffed FD)
  - 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- **Establish and maintain contact with the closest Fire Department; consider pre-suppression plan**
- □ Be aware of the importance of early detection and reporting of any emergency

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

- HOA present; HAS structure for sustained fire prevention and mitigation
- Municipal govt present; HAS structure for sustained fire prevention and mitigation
- GID present; LACKS structure for sustained fire prevention and mitigation
- HOA present; LACKS structure for sustained fire prevention and mitigation
- → Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

## **Predominant Vegetation** Light (grass) Medium (brush) Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc) → Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy) **Recommended Mitigation Strategies** Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees Prune trees 6-10 feet from the ground **Defensible Space** > 75% of homes meet criteria in Zone 0, 1 & 2 → 50 to 75% of homes meet criteria in Zone 0, 1 & 2 < 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures < 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures Fuels heavy/extreme amongst structures & other urban hazards/materials are present **Recommended Mitigation Strategies** Be aware of the risks from falling embers in relation to nearby fuels and defensible space п Mow lawns regularly □ Water grass, plants, trees and mulch regularly Create a spacing of 30 feet between tree crowns Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures Consider xeriscaping Plant a mixture of deciduous trees (e.g. oak and maple) and coniferous trees (e.g. pine) п

Create fuel breaks like driveways and gravel walkways

Douglas County, Nevada

#### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

## **Recommended Mitigation Strategies**

□ N/A

#### Slope

Slope 0% - 5%

- → Slope 6 % 10%
  - Slope 11% 30%

Slope > 31%

## **Recommended Mitigation Strategies**

□ N/A

### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

Above ground electric transmission lines are maintained

 $\rightarrow$  Above ground electric transmission lines are NOT maintained

#### **Recommended Mitigation Strategies**

Work with NDF and/or local fire protection district to alert electric provider (NVEnergy) of needed line maintenance

## **Topographical Features**

No topographical features adversely affect wildland fire behavior

→ Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

## **Recommended Mitigation Strategies**

□ Maintain situational awareness of fire danger in your area, as local topographical features can adversely affect wildland behavior



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

# Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

Recommended Mitigation Strategies

D Provide Living with Fire/Firewise construction guidelines to developers /owners

□ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



# STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- Place angle flashing over openings between the roof decking and fascia board

### Debris on Roof and/or Gutters

### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### **Ventilation and Soffits**

> 75% of homes have non-combustible ventilation soffits with mesh or screening

→ 50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Â Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- → 50-74% of homes have skirting underneath
  - < 50% of homes have skirting underneath

### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### Wooden Attachments

→ >75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

< 50% of homes have NO Wooden Attachments

#### **Recommended Mitigation Strategies**

- □ Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

#### **Recommended Mitigation Strategies**

□ N/A

#### Propane

#### → > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

## Recommended Mitigation Strategies

□ N/A

Douglas County, Nevada

## **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



Douglas County, Nevada



# **Community Wildfire Risk Assessment**

# **Total Assessed Rating**

# 116 - High

Suppression Rating <u>High</u> Hazard Surrounding Environment Rating <u>High</u> Hazard Structures Rating <u>Moderate</u> Hazard

**Fire Protection District** East Fork Fire

# Fireshed(s)

Middle East Fork Carson River, Lower West Walker River

# **Community Information**

Latitude	38° 46' 22"
Longitude	-119° 35' 31"
Dwelling Units	75
Size	827.06 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-11-2022



Douglas County, Nevada



Douglas County, Nevada



# SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

Road width is > 24 feet

→ Road width is > 20 feet and < 24 feet Road width is < 20 feet</p>

**Recommended Mitigation Strategies** 

- □ Keep shoulders of road clear for emergency vehicle use at all times
- □ Consider providing pull-offs every 100 yards

### **Road Accessibility**

→ Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

**Recommended Mitigation Strategies** 

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



# **Secondary Road Terminus**

Roads ends in a cul-de-sac, diameter > 100 feet

Roads ends in a cul-de-sac, diameter < 100 feet

→ Dead end roads <200 feet long Dead end roads >200 feet long

### **Recommended Mitigation Strategies**

Ensure emergency responder are aware of dead-end roads; Consider signing all dead ends.

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

### Driveways

# → Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

## → No water sources in or within 4 miles of the community

- □ Be aware of limited access to a water source and coordinate with the closest Fire Department accordingly; consider pre-suppression plan
- □ Identify nearby potential water sources (e.g. pools); consider pre-suppression plan
- Plan for water source installations within or closer to community; consider pre-suppression plan

Douglas County, Nevada



#### **Geographic Features**

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

- 5 mi. or less from Agency with Response Authority (Staffed FD)
- 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
- 5 mi. or less from Agency with Response Authority (VFD)
- → > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- Discuss with closest Fire Department to identify quicker response strategies and other potential solutions

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

- HOA present; HAS structure for sustained fire prevention and mitigation
- Municipal govt present; HAS structure for sustained fire prevention and mitigation
- GID present; LACKS structure for sustained fire prevention and mitigation
- HOA present; LACKS structure for sustained fire prevention and mitigation
- → Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

SURROU	SURROUNDING ENVIRONMENT ASSESSMENT		
Predomi	Predominant Vegetation		
	Light (grass)		
	Medium (brush)		
$\rightarrow$	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)		
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)		
Re	commended Mitigation Strategies		
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation		
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees		
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees		
	Prune trees 6-10 feet from the ground		
Defensit	ole Space		
	> 75% of homes meet criteria in Zone 0, 1 & 2		
$\rightarrow$	50 to 75% of homes meet criteria in Zone 0, 1 & 2		
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures		
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures		
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present		
Re	commended Mitigation Strategies		
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space		
	Mow lawns regularly		
	Water grass, plants, trees and mulch regularly		
	Create a spacing of 30 feet between tree crowns		
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping material		
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures		
	Consider xeriscaping		
	Plant a mixture of deciduous trees (e.g. oak and maple) and coniferous trees (e.g. pine)		
	Create fuel breaks like driveways and gravel walkways		

Douglas County, Nevada

#### **Structure-to-Structure Ignition**

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

#### Slope

Slope 0% - 5%

→ Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

#### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

 $\rightarrow$  Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

**Recommended Mitigation Strategies** 

□ Know who to call should there be a problem with electric lines in community

#### **Topographical Features**

→ No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 

□ N/A



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

#### Undeveloped Lots with Restricted Access and/or Not Maintained

- → Fewer than 10% of lots are undeveloped
  - 10% to 30% of lots are undeveloped
  - 31% to 50% of lots are undeveloped
  - Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



#### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### **Ventilation and Soffits**

> 75% of homes have non-combustible ventilation soffits with mesh or screening

→ 50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Â Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- □ Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- → 50-74% of homes have skirting underneath
  - < 50% of homes have skirting underneath

#### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### Wooden Attachments

> 75% of homes have NO Wooden Attachments

→ 50-74% of homes have NO Wooden Attachments

< 50% of homes have NO Wooden Attachments

#### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

#### **Recommended Mitigation Strategies**

□ N/A

#### Propane

#### → > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

#### Recommended Mitigation Strategies

□ N/A

Douglas County, Nevada

#### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

#### Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



### Topaz

Douglas County, Nevada



### **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 99 - Moderate

Suppression Rating Moderate Hazard Surrounding Environment Rating High Hazard Structures Rating Moderate Hazard

Fire Protection District East Fork Fire

Fireshed(s) Middle West Walker River

### **Community Information**

Latitude	38° 41' 54"
Longitude	-119° 32' 45"
Dwelling Units	120
Size	350.56 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-11-2022



# Topaz

Douglas County, Nevada





#### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

#### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

Road width is > 24 feet

Road width is > 20 feet and < 24 feet

→ Road width is < 20 feet

#### **Recommended Mitigation Strategies**

- □ Keep shoulders of road clear for emergency vehicle use at all times
- □ Consider providing pull-offs every 100 yards for emergency vehicle use
- □ Coordinate with fire department to ensure they are aware of road width limitations
- Be aware that road width could limit emergency vehicles to brush trucks only

#### Road Accessibility

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

**Recommended Mitigation Strategies** 

□ Ensure that road maintenance plan is in place



#### Secondary Road Terminus

Roads ends in a cul-de-sac, diameter > 100 feet

 $\rightarrow$  Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

#### **Recommended Mitigation Strategies**

Coordinate with emergency responders to test cul-de-sac turnaround with their emergency response vehicles

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

→ Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

Coordinate with fire department and land owners to train/test use of local water sources (e.g. ponds, lakes)

Douglas County, Nevada



#### Geographic Features

#### → No notable geographical features present to hinder fire suppression

Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- $\rightarrow$  5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

Predomi	nant Vegetation
	Light (grass)
	Medium (brush)
$\rightarrow$	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)
Red	ommended Mitigation Strategies
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees
	Prune trees 6-10 feet from the ground
Defensib	le Space
	> 75% of homes meet criteria in Zone 0, 1 & 2
$\rightarrow$	50 to 75% of homes meet criteria in Zone 0, 1 & 2
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present
Red	ommended Mitigation Strategies
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space
	Mow lawns regularly
	Water grass, plants, trees and mulch regularly
	Create a spacing of 30 feet between tree crowns
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping material
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures
	Consider xeriscaping
	Plant a mixture of deciduous trees (e.g. oak and maple) and coniferous trees (e.g. pine)
	Create fuel breaks like driveways and gravel walkways

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Douglas County, Nevada

#### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

#### **Recommended Mitigation Strategies**

□ N/A

#### Slope

Slope 0% - 5%

→ Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

#### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

 $\rightarrow$  Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

**Recommended Mitigation Strategies** 

□ Know who to call should there be a problem with electric lines in community

#### **Topographical Features**

#### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 

□ N/A



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

#### → Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

#### Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

Recommended Mitigation Strategies

D Provide Living with Fire/Firewise construction guidelines to developers /owners

Consider developing covenant restrictions, if applicable



### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

# Topaz

### Douglas County, Nevada



Under	ski	rting
-	÷	> 75% of homes have skirting underneath raised floors/decks
		50-74% of homes have skirting underneath
		< 50% of homes have skirting underneath
ŀ	Rec	ommended Mitigation Strategies
1		Remove combustible vegetation and leaf litter
1		Spread gravel or other non-combustible material under the deck
1		Screen in the bottom of the deck with metal 1/8-inch screening
I		Separate wooden fences from the house with a stone or metal barrier
Wood	en	Attachments
-	÷	> 75% of homes have NO Wooden Attachments
		50-74% of homes have NO Wooden Attachments
		< 50% of homes have NO Wooden Attachments
ŀ	Rec	ommended Mitigation Strategies
1		Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially
		during high fire danger periods)
		Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
		Be aware that wooden attachments can act as a fuse to the structure
	_	
Buildi	ng	Setback
	→	Not applicable
		Greater than or equal to 30 feet from slope
		Less than 30 feet from slope
	Rec	ommended Mitigation Strategies
		N/A
Propa	ne	
-	÷	> 30 feet from the house and surrounding vegetation maintained
		Fewer than 30 feet from the house and/or surrounding vegetation not maintained
		N/A
ŀ	Rec	ommended Mitigation Strategies
		N/A

Douglas County, Nevada

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#### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

> 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

ightarrow 50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ N/A

COMMENTS

Douglas County, Nevada



### **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 128 - High

Suppression Rating <u>Moderate</u> Hazard Surrounding Environment Rating <u>High</u> Hazard Structures Rating <u>High</u> Hazard

Fire Protection District East Fork Fire

Fireshed(s) Lower West Walker River

### **Community Information**

Latitude	38° 44' 2"
Longitude	-119° 30' 13"
Dwelling Units	500
Size	7,037.35 acres
Community Type	Residential - Mobile
Assessed By:	Alex Jares
Assessment Date:	04-11-2022



Douglas County, Nevada



Douglas County, Nevada



### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

#### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

Road width is > 24 feet

→ Road width is > 20 feet and < 24 feet Road width is < 20 feet</p>

**Recommended Mitigation Strategies** 

- □ Keep shoulders of road clear for emergency vehicle use at all times
- □ Consider providing pull-offs every 100 yards

#### **Road Accessibility**

→ Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

**Recommended Mitigation Strategies** 

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



#### **Secondary Road Terminus**

Roads ends in a cul-de-sac, diameter > 100 feet

Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

→ Dead end roads >200 feet long

#### **Recommended Mitigation Strategies**

Ensure emergency responders are aware of dead-end roads; Consider signing all dead ends.

□ If dead-end roads are narrow, restrict access during an emergency

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

#### → Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

### → Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

□ N/A

Douglas County, Nevada



#### Geographic Features

No notable geographical features present to hinder fire suppression

→ Suppression efforts hindered by geographical features (e.g. hazardous terrain)

Recommended Mitigation Strategies

□ Ensure emergency responders are aware of local geographic features that can hinder fire suppression efforts; consider pre-suppression plan

#### Local Response Resources

- → 5 mi. or less from Agency with Response Authority (Staffed FD)
  - 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)

5 mi. or less from Agency with Response Authority (VFD)

> 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

Predomi	inant Vegetation		
	Light (grass)		
	Medium (brush)		
$\rightarrow$	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)		
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)		
Rea	commended Mitigation Strategies		
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation		
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees		
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees		
	Prune trees 6-10 feet from the ground		
Defensik	Defensible Space		
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2		
	50 to 75% of homes meet criteria in Zone 0, 1 & 2		
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures		
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures		
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present		
Rei	commended Mitigation Strategies		
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space		
	Mow lawns regularly		
	Water grass, plants, trees and mulch regularly		
	Create a spacing of 30 feet between tree crowns		
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials		
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures		
	Consider xeriscaping		

Douglas County, Nevada

#### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

#### **Recommended Mitigation Strategies**

□ N/A

#### Slope

Slope 0% - 5%

Slope 6 % - 10%

→ Slope 11% - 30%

Slope > 31%

#### **Recommended Mitigation Strategies**

□ Increase defensible space in areas with steeper slopes

#### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

Above ground electric transmission lines are maintained

→ Above ground electric transmission lines are NOT maintained

#### **Recommended Mitigation Strategies**

Work with NDF and/or local fire protection district to alert electric provider (NVEnergy) of needed line maintenance

#### **Topographical Features**

No topographical features adversely affect wildland fire behavior

→ Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

#### **Recommended Mitigation Strategies**

□ Maintain situational awareness of fire danger in your area, as local topographical features can adversely affect wildland behavior



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

#### Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



#### STRUCTURES ASSESSMENT

#### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

#### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

#### Debris on Roof and/or Gutters

#### → No

Yes

#### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

#### **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



#### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- → 50-74% of homes have skirting underneath
  - < 50% of homes have skirting underneath

#### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

#### **Wooden Attachments**

> 75% of homes have NO Wooden Attachments

→ 50-74% of homes have NO Wooden Attachments

< 50% of homes have NO Wooden Attachments

#### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

#### **Building Setback**

Not applicable

- → Greater than or equal to 30 feet from slope
  - Less than 30 feet from slope

#### **Recommended Mitigation Strategies**

□ Review suggested defensible space and vegetation management as pertains to building setback

#### Propane

→ > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

#### Recommended Mitigation Strategies

□ N/A

Douglas County, Nevada

#### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

#### Non-Combustible Zone 0

> 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

ightarrow 50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ N/A

COMMENTS

Nevada Natural Resources and Fire Information Portal - Community Assessor



Douglas County, Nevada



### **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 88 - Moderate

Suppression Rating <u>Moderate</u> Hazard Surrounding Environment Rating <u>Moderate</u> Hazard Structures Rating <u>Moderate</u> Hazard

### **Fire Protection District**

East Fork Fire

### Fireshed(s)

Carson Valley-Carson River, West Fork Carson River

### **Community Information**

Latitude	38° 58' 10"
Longitude	-119° 50' 28"
Dwelling Units	100
Size	1,212.86 acres
Community Type	Agricultural/Rural
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



Douglas County, Nevada



Douglas County, Nevada



#### SUPPRESSION ASSESSMENT

#### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

#### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

**Recommended Mitigation Strategies** 

□ Keep shoulders of road clear for emergency vehicle use whenever possible

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



#### **Secondary Road Terminus**

Roads ends in a cul-de-sac, diameter > 100 feet

→ Roads ends in a cul-de-sac, diameter < 100 feet</p>

Dead end roads <200 feet long

Dead end roads >200 feet long

**Recommended Mitigation Strategies** 

Coordinate with emergency responders to test cul-de-sac turnaround with their emergency response vehicles

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

#### **Driveways**

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

→ Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

□ Coordinate with fire department and land owners to train/test use of local water sources (e.g. ponds, lakes)

Douglas County, Nevada



#### Geographic Features

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

#### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

#### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- $\rightarrow$  5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

#### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

#### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan

Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

Predom	Predominant Vegetation		
	Light (grass)		
$\rightarrow$	Medium (brush)		
	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)		
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)		
Re	commended Mitigation Strategies		
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation		
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees		
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees		
	Prune trees 6-10 feet from the ground		
Defensible Space			
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2		
	50 to 75% of homes meet criteria in Zone 0, 1 & 2		
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures		
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures		
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present		
Re	commended Mitigation Strategies		
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space		
	Mow lawns regularly		
	Water grass, plants, trees and mulch regularly		
	Create a spacing of 30 feet between tree crowns		
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials		
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures		
I –	Consider veriscoping		

Consider xeriscaping

Douglas County, Nevada

#### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

#### Slope

Slope 0% - 5%

→ Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

#### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

 $\rightarrow$  Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

**Recommended Mitigation Strategies** 

Know who to call should there be a problem with electric lines in community

#### **Topographical Features**

#### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 

□ N/A



Douglas County, Nevada

#### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

#### Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

Recommended Mitigation Strategies

D Provide Living with Fire/Firewise construction guidelines to developers /owners

□ Consider developing covenant restrictions, if applicable



## **Foothill Road North**

Douglas County, Nevada



### STRUCTURES ASSESSMENT

### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- Place angle flashing over openings between the roof decking and fascia board

### Debris on Roof and/or Gutters

### → No

Yes

### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

### **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

### Siding

> 75% of homes have non-combustible siding

→ 50-74% of homes have non-combustible siding

< 50% of homes have non-combustible siding

- Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

## **Foothill Road North**

Douglas County, Nevada



### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- 50-74% of homes have skirting underneath
- $\rightarrow$  < 50% of homes have skirting underneath

### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

### Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments

### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

### **Recommended Mitigation Strategies**

□ N/A

### Propane

### $\rightarrow$ > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

### Recommended Mitigation Strategies

## **Foothill Road North**

Douglas County, Nevada

### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

Recommended Mitigation Strategies

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



Douglas County, Nevada



### **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 88 - Moderate

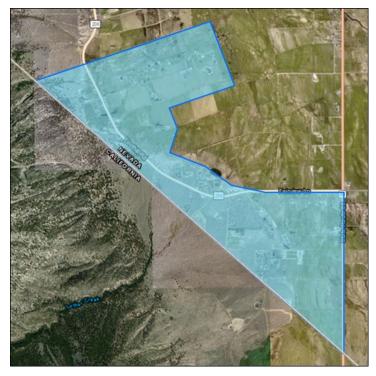
Suppression Rating Moderate Hazard Surrounding Environment Rating Moderate Hazard Structures Rating Moderate Hazard

Fire Protection District East Fork Fire

Fireshed(s) West Fork Carson River

### **Community Information**

Latitude	38° 52' 10"
Longitude	-119° 47' 59"
Dwelling Units	100
Size	1,449.78 acres
Community Type	Agricultural/Rural
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



Douglas County, Nevada



Douglas County, Nevada



### SUPPRESSION ASSESSMENT

### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

**Recommended Mitigation Strategies** 

□ Keep shoulders of road clear for emergency vehicle use whenever possible

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place

Douglas County, Nevada



### **Secondary Road Terminus**

- $\rightarrow$  Roads ends in a cul-de-sac, diameter > 100 feet
  - Roads ends in a cul-de-sac, diameter < 100 feet
  - Dead end roads <200 feet long

Dead end roads >200 feet long

### **Recommended Mitigation Strategies**

- □ Maintain unobstructed access into cul-de-sacs
- □ Ensure cul-de-sacs are free of vehicles and/or other items

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective Present or inconsistent but wooden, non-reflective, or lettering less than 4" Not present

**Recommended Mitigation Strategies** 

Keep street signs visible and clear of vegetation and fine fuels

#### Driveways

#### → Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

#### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

ightarrow Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

Be aware of limited access to a water source and coordinate with the closest Fire Department accordingly

Douglas County, Nevada



### Geographic Features

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- $\rightarrow$  5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

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→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- □ Work with community to become more proactive towards protecting your life and property against wildfires; Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
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Douglas County, Nevada



SURROUNDING ENVIRONMENT ASSESSMENT

Due de met			
Predominant Vegetation			
	Light (grass)		
$\rightarrow$	Medium (brush)		
	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)		
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)		
Rea	Recommended Mitigation Strategies		
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation		
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees		
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees		
	Prune trees 6-10 feet from the ground		
Defensible Space			
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2		
	50 to 75% of homes meet criteria in Zone 0, 1 & 2		
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures		
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures		
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present		
Rea	commended Mitigation Strategies		
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space		
	Mow lawns regularly		
	Water grass, plants, trees and mulch regularly		
	Create a spacing of 30 feet between tree crowns		
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials		
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures		
	Consider xeriscaping		

Douglas County, Nevada

### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

**Recommended Mitigation Strategies** 

□ N/A

### Slope

Slope 0% - 5%

→ Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

 $\rightarrow$  Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

**Recommended Mitigation Strategies** 

Know who to call should there be a problem with electric lines in community

### **Topographical Features**

### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

**Recommended Mitigation Strategies** 



Douglas County, Nevada

### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

### Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



### STRUCTURES ASSESSMENT

### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

### Debris on Roof and/or Gutters

### → No

Yes

### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### Ventilation and Soffits

 $\rightarrow$  > 75% of homes have non-combustible ventilation soffits with mesh or screening

50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

### **Recommended Mitigation Strategies**

- □ Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- □ Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

### Siding

> 75% of homes have non-combustible siding

→ 50-74% of homes have non-combustible siding

< 50% of homes have non-combustible siding

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- 50-74% of homes have skirting underneath
- $\rightarrow$  < 50% of homes have skirting underneath

### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- □ Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

### Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments

### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

### **Recommended Mitigation Strategies**

□ N/A

### Propane

### $\rightarrow$ > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

### Recommended Mitigation Strategies

Douglas County, Nevada

### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

### Non-Combustible Zone 0

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< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

Recommended Mitigation Strategies

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



Douglas County, Nevada



### **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 88 - Moderate

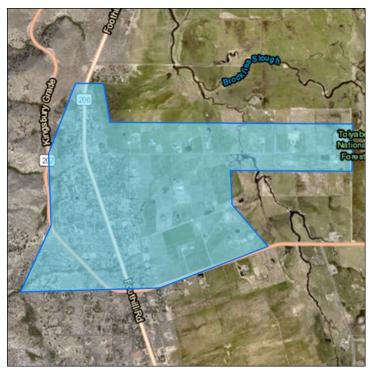
Suppression Rating Low Hazard Surrounding Environment Rating Moderate Hazard Structures Rating Moderate Hazard

Fire Protection District East Fork Fire

Fireshed(s) West Fork Carson River

### **Community Information**

Latitude	38° 56' 11"
Longitude	-119° 50' 10"
Dwelling Units	75
Size	756.34 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



Douglas County, Nevada



Douglas County, Nevada



### SUPPRESSION ASSESSMENT

### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

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- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

**Recommended Mitigation Strategies** 

□ Keep shoulders of road clear for emergency vehicle use whenever possible

### **Road Accessibility**

### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place



### Secondary Road Terminus

Roads ends in a cul-de-sac, diameter > 100 feet

 $\rightarrow$  Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

**Recommended Mitigation Strategies** 

Coordinate with emergency responders to test cul-de-sac turnaround with their emergency response vehicles

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

### Driveways

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

Maintain driveway access and clearance

### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

→ Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 

Douglas County, Nevada



### **Geographic Features**

→ No notable geographical features present to hinder fire suppression

Suppression efforts hindered by geographical features (e.g. hazardous terrain)

### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- $\rightarrow$  5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan



SURROUNDING ENVIRONMENT ASSESSMENT

Predominant Vegetation	
	Light (grass)
$\rightarrow$	Medium (brush)
	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)
Recommended Mitigation Strategies	
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees
	Prune trees 6-10 feet from the ground
Defensible Space	
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2
	50 to 75% of homes meet criteria in Zone 0, 1 & 2
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present
Rea	commended Mitigation Strategies
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space
	Mow lawns regularly
	Water grass, plants, trees and mulch regularly
	Create a spacing of 30 feet between tree crowns
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping material
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures
	Consider xeriscaping

Douglas County, Nevada

### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

### **Recommended Mitigation Strategies**

□ N/A

### Slope

Slope 0% - 5%

→ Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

 $\rightarrow$  Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

### **Recommended Mitigation Strategies**

Know who to call should there be a problem with electric lines in community

### **Topographical Features**

### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

### **Recommended Mitigation Strategies**





Douglas County, Nevada

### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

→ Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

### Undeveloped Lots with Restricted Access and/or Not Maintained

- → Fewer than 10% of lots are undeveloped
  - 10% to 30% of lots are undeveloped
  - 31% to 50% of lots are undeveloped
  - Greater than 51% of lots are undeveloped

- D Provide Living with Fire/Firewise construction guidelines to developers /owners
- □ Consider developing covenant restrictions, if applicable



Douglas County, Nevada



### STRUCTURES ASSESSMENT

### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- Place angle flashing over openings between the roof decking and fascia board

### Debris on Roof and/or Gutters

### → No

Yes

### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

### **Ventilation and Soffits**

> 75% of homes have non-combustible ventilation soffits with mesh or screening

→ 50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

### **Recommended Mitigation Strategies**

- □ Â Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

### Siding

> 75% of homes have non-combustible siding

→ 50-74% of homes have non-combustible siding

< 50% of homes have non-combustible siding

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

Douglas County, Nevada



### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- 50-74% of homes have skirting underneath
- $\rightarrow$  < 50% of homes have skirting underneath

### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

### Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments

### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

### **Recommended Mitigation Strategies**

□ N/A

### Propane

### $\rightarrow$ > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

### Recommended Mitigation Strategies

Douglas County, Nevada

### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS



## Sheridan

Douglas County, Nevada



### **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 88 - Moderate

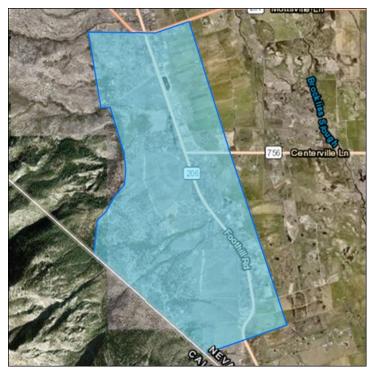
Suppression Rating Low Hazard Surrounding Environment Rating Moderate Hazard Structures Rating Moderate Hazard

Fire Protection District East Fork Fire

Fireshed(s) West Fork Carson River

### **Community Information**

Latitude	38° 54' 16"
Longitude	-119° 49' 57"
Dwelling Units	150
Size	2,671.08 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



# Sheridan

Douglas County, Nevada





### SUPPRESSION ASSESSMENT

### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

ightarrow 2 or more roads in/out with SLIGHT response/evacuation complexity

2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Ask Local Fire Department about Ready, Set, Go!

#### **Road Width**

→ Road width is > 24 feet

Road width is > 20 feet and < 24 feet

Road width is < 20 feet

**Recommended Mitigation Strategies** 

□ Keep shoulders of road clear for emergency vehicle use whenever possible

#### **Road Accessibility**

#### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

#### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place



### Secondary Road Terminus

Roads ends in a cul-de-sac, diameter > 100 feet

 $\rightarrow$  Roads ends in a cul-de-sac, diameter < 100 feet

Dead end roads <200 feet long

Dead end roads >200 feet long

**Recommended Mitigation Strategies** 

Coordinate with emergency responders to test cul-de-sac turnaround with their emergency response vehicles

#### **Street Signs**

 $\rightarrow$  Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

Present or inconsistent but wooden, non-reflective, or lettering less than 4"

Not present

**Recommended Mitigation Strategies** 

□ Keep street signs visible and clear of vegetation and fine fuels

### Driveways

→ Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

Maintain driveway access and clearance

### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

→ Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 



### **Geographic Features**

- → No notable geographical features present to hinder fire suppression
  - Suppression efforts hindered by geographical features (e.g. hazardous terrain)

### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- $\rightarrow$  5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
  - 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

### Recommended Mitigation Strategies

- Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency

### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- Work with community to become more proactive towards protecting your life and property against wildfires;
   Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan



SURROUNDING ENVIRONMENT ASSESSMENT

Predominant Vegetation	
	Light (grass)
$\rightarrow$	Medium (brush)
	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)
	Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)
Recommended Mitigation Strategies	
	Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation
	Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees
	Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees
	Prune trees 6-10 feet from the ground
Defensible Space	
$\rightarrow$	> 75% of homes meet criteria in Zone 0, 1 & 2
	50 to 75% of homes meet criteria in Zone 0, 1 & 2
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures
	< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures
	Fuels heavy/extreme amongst structures & other urban hazards/materials are present
Re	commended Mitigation Strategies
	Be aware of the risks from falling embers in relation to nearby fuels and defensible space
	Mow lawns regularly
	Water grass, plants, trees and mulch regularly
	Create a spacing of 30 feet between tree crowns
	Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materia
	Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures
	Consider xeriscaping

## Sheridan

Douglas County, Nevada

### Structure-to-Structure Ignition

→ No Possible Structure-to-Structure Ignition Possible Structure-to-Structure Ignition

### **Recommended Mitigation Strategies**

□ N/A

### Slope

Slope 0% - 5%

→ Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

 $\rightarrow$  Above ground electric transmission lines are maintained

Above ground electric transmission lines are NOT maintained

### **Recommended Mitigation Strategies**

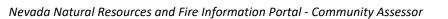
Know who to call should there be a problem with electric lines in community

### **Topographical Features**

### → No topographical features adversely affect wildland fire behavior

Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

### **Recommended Mitigation Strategies**





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### Douglas County, Nevada

### Adjacency to Wildlands

Not adjacent to wildlands with accumulated fuels

#### → Adjacent to wildlands with accumulated fuels

#### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

### Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

Recommended Mitigation Strategies

D Provide Living with Fire/Firewise construction guidelines to developers /owners

□ Consider developing covenant restrictions, if applicable



### STRUCTURES ASSESSMENT

### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- D Place angle flashing over openings between the roof decking and fascia board

### Debris on Roof and/or Gutters

### → No

Yes

### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

#### **Ventilation and Soffits**

> 75% of homes have non-combustible ventilation soffits with mesh or screening

→ 50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

### **Recommended Mitigation Strategies**

- □ Â Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- □ Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

#### Siding

> 75% of homes have non-combustible siding

→ 50-74% of homes have non-combustible siding

< 50% of homes have non-combustible siding

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

## Sheridan

Douglas County, Nevada



### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- 50-74% of homes have skirting underneath
- → < 50% of homes have skirting underneath</p>

### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

### Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments

### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

### **Recommended Mitigation Strategies**

□ N/A

### Propane

### $\rightarrow$ > 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

N/A

### Recommended Mitigation Strategies

## Sheridan

Douglas County, Nevada

### **Electric Utilities**

Electric Underground

→ Electric Overhead drop maintained

Electric Overhead drop not maintained

### Recommended Mitigation Strategies

- □ Â Keep vegetation pruned and mowed around electric cabinets
- D Place non-flammable mulch (rock, stone) around base of electrical cabinets
- Plant less flammable bushes and shrubs around electrical cabinets

### Non-Combustible Zone 0

ightarrow > 75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

**Recommended Mitigation Strategies** 

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

### COMMENTS





### Genoa

Douglas County, Nevada



### **Community Wildfire Risk Assessment**

### **Total Assessed Rating**

### 143 - High

Suppression Rating <u>High</u> Hazard Surrounding Environment Rating <u>High</u> Hazard Structures Rating <u>High</u> Hazard

Fire Protection District East Fork Fire

Fireshed(s) Carson Valley-Carson River

### **Community Information**

Latitude	39° 0' 12"
Longitude	-119° 50' 32"
Dwelling Units	150
Size	448.08 acres
Community Type	Residential - Stick-Built
Assessed By:	Alex Jares
Assessment Date:	04-12-2022



### Genoa

Douglas County, Nevada





### SUPPRESSION ASSESSMENT

### **Ingress and Egress**

2 or more roads in/out with NO response/evacuation complexity

2 or more roads in/out with SLIGHT response/evacuation complexity

→ 2 or more roads in/out with MODERATE/HIGH response/evacuation complexity

One road in and out (entrance and exit is the same)

### **Recommended Mitigation Strategies**

- □ Keep community ingress/egress open and maintained (cleared of vegetation)
- Develop community plan for evacuation routes, safe zones, staging areas
- □ If community is gated, develop evacuation plan and ensure emergency responder access
- □ Ensure residents know their closest exit in case of emergency
- □ Conduct an annual evacuation drill with ALL response agencies (Live/Sandtable)
- □ Ensure adequate notification plan exists/ALL residents know how and when to go.
- □ Ask Local Fire Department about Ready, Set, Go!

### **Road Width**

Road width is > 24 feet

Road width is > 20 feet and < 24 feet

→ Road width is < 20 feet</p>

### **Recommended Mitigation Strategies**

- □ Keep shoulders of road clear for emergency vehicle use at all times
- Consider providing pull-offs every 100 yards for emergency vehicle use
- Coordinate with fire department to ensure they are aware of road width limitations
- Be aware that road width could limit emergency vehicles to brush trucks only

### **Road Accessibility**

### → Surfaced road

Non-surfaced road, grade less than or equal to 5%

Non-surfaced road, grade greater than 5%

Non-maintained dirt road

### **Recommended Mitigation Strategies**

□ Ensure that road maintenance plan is in place



### **Secondary Road Terminus**

Roads ends in a cul-de-sac, diameter > 100 feet

Roads ends in a cul-de-sac, diameter < 100 feet

→ Dead end roads <200 feet long Dead end roads >200 feet long

### **Recommended Mitigation Strategies**

□ Ensure emergency responder are aware of dead-end roads; Consider signing all dead ends.

#### **Street Signs**

Present throughout, lettering 4 inches high, non-flammable and reflective

Inconsistent throughout, lettering 4 inches high, non-flammable and reflective

→ Present or inconsistent but wooden, non-reflective, or lettering less than 4"
Not present

Not present

### Recommended Mitigation Strategies

- □ Consider upgrading to reflective, noncombustible street signs to improve emergency response efforts
- Keep street signs visible and clear of vegetation and fine fuels

### Driveways

### → Average driveway allows access to homes

Average driveway restricts access to homes

**Recommended Mitigation Strategies** 

□ Maintain driveway access and clearance

### Water Supply

Pressurized hydrants spaced less than 1000 feet apart

### → Pressurized hydrants spaced more than 1000 feet apart

Dry Hydrant(s) / Draft available within the community

Other accessible sources within community (pond, lake, etc.)

Water sources located within 4 miles of community (incl heli dip sites)

No water sources in or within 4 miles of the community

**Recommended Mitigation Strategies** 



### Geographic Features

### → No notable geographical features present to hinder fire suppression

Suppression efforts hindered by geographical features (e.g. hazardous terrain)

### Recommended Mitigation Strategies

□ Be aware of local geographic features and plan appropriately in the event of a wildfire approaching your area; consider pre-suppression plan

### Local Response Resources

5 mi. or less from Agency with Response Authority (Staffed FD)

- 5 mi. or less from Agency with Response Authority (Mixed Staff/VFD)
- → 5 mi. or less from Agency with Response Authority (VFD)
  - > 5 mi. from Agency with Response Authority FD

### Recommended Mitigation Strategies

- □ Establish and maintain contact with the closest Fire Department; consider pre-suppression plan
- □ Be aware of the importance of early detection and reporting of any emergency
- □ Consider Volunteer recruitment from the Community

### **Community Organization/Governance**

GID present; HAS structure for sustained fire prevention and mitigation

HOA present; HAS structure for sustained fire prevention and mitigation

Municipal govt present; HAS structure for sustained fire prevention and mitigation

GID present; LACKS structure for sustained fire prevention and mitigation

HOA present; LACKS structure for sustained fire prevention and mitigation

→ Municipal govt present; LACKS structure for sustained fire prevention and mitigation

Lacks any structure for sustained fire prevention and mitigation

- □ Work with community to become more proactive towards protecting your life and property against wildfires; Become a Firewise USA<sup>®</sup> Site
- □ Host a Community Education Event at least once a year; Become a Firewise USA® Site
- □ Complete Community Risk Mitigation Project(s) as identified by Community Action Plan



SURROUNDING ENVIRONMENT ASSESSMENT

Predor	Predominant Vegetation		
		Light (grass)	
		Medium (brush)	
-	<b>&gt;</b>	Heavy (timber, overgrown sage, Pinyon/Juniper with dead/down, etc)	
		Extreme / Slash (Any Combination of contiguous Light, Medium, Heavy)	
R	Recommended Mitigation Strategies		
		Consider removal of ladder fuels that allow fire to climb from lower to higher vegetation	
		Trim tree canopies regularly to keep their branches a minimum of 10' from structures and other trees	
C		Leave 30 feet between clusters of two to three trees, or 20 feet between individual trees	
		Prune trees 6-10 feet from the ground	
Defensible Space			
	¥	> 75% of homes meet criteria in Zone 0, 1 & 2	
		50 to 75% of homes meet criteria in Zone 0, 1 & 2	
		< 50% of homes meet criteria in Zone 0, 1 & 2 - Light fuels amongst structures	
		< 50% of homes meet criteria in Zone 0, 1 & 2 - Moderate fuels amongst structures	
		Fuels heavy/extreme amongst structures & other urban hazards/materials are present	
R	Reco	ommended Mitigation Strategies	
		Be aware of the risks from falling embers in relation to nearby fuels and defensible space	
		Mow lawns regularly	
C		Water grass, plants, trees and mulch regularly	
		Create a spacing of 30 feet between tree crowns	
		Create a non-combustible area (zone 0) within 5 feet of your home, using non-flammable landscaping materials	
		Remove dead vegetation from under the deck and within 10 feet of the house; stack firewood away from structures	
		Consider xeriscaping	

### Structure-to-Structure Ignition

No Possible Structure-to-Structure Ignition

### → Possible Structure-to-Structure Ignition

### **Recommended Mitigation Strategies**

- □ Work with neighbors to remove/prune vegetation between houses to mitigate structure-to-structure ignition risk; consder non-combustible fencing 5 feet from structure
- Consider use of sprinkler systems to keep vegetation moisture levels up
- □ Replace flammable roofs, siding, soffits, etc. with nonflammable when possible

### Slope

Slope 0% - 5%

→ Slope 6 % - 10%

Slope 11% - 30%

Slope > 31%

**Recommended Mitigation Strategies** 

□ N/A

### **Vegetation on Electric Transmission Lines**

No above ground electric transmission lines present

Above ground electric transmission lines are maintained

→ Above ground electric transmission lines are NOT maintained

**Recommended Mitigation Strategies** 

Work with NDF and/or local fire protection district to alert electric provider (NVEnergy) of needed line maintenance

### **Topographical Features**

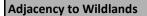
No topographical features adversely affect wildland fire behavior

→ Topographical features adversely affect wildland fire behavior (box canyons, chimneys, etc.)

### **Recommended Mitigation Strategies**

□ Maintain situational awareness of fire danger in your area, as local topographical features can adversely affect wildland behavior





Not adjacent to wildlands with accumulated fuels

### → Adjacent to wildlands with accumulated fuels

### **Recommended Mitigation Strategies**

□ When possible, install firebreaks and reduce fuel loads around community boundary to reduce risk from adjacent wildlands; Work with neighboring land owners

### Undeveloped Lots with Restricted Access and/or Not Maintained

→ Fewer than 10% of lots are undeveloped

10% to 30% of lots are undeveloped

31% to 50% of lots are undeveloped

Greater than 51% of lots are undeveloped

Recommended Mitigation Strategies

D Provide Living with Fire/Firewise construction guidelines to developers /owners

□ Consider developing covenant restrictions, if applicable





### STRUCTURES ASSESSMENT

### **Roofing Materials**

- ightarrow > 75% of homes have metal, tile or class A asphalt or fiberglass shingles
  - 50 to 75% of homes have metal, tile or class A asphalt or fiberglass shingles

< 50% of homes have metal, tile or class A asphalt or fiberglass shingles

### **Recommended Mitigation Strategies**

- □ Use fire-resistant roofing material such as metal, tile or Class A shingles
- □ Inspect for and address gaps in roofing that can expose roof decking or supports
- Place angle flashing over openings between the roof decking and fascia board

### Debris on Roof and/or Gutters

### → No

Yes

### **Recommended Mitigation Strategies**

- □ Clear branch, leaf-litter and other debris from roof and gutters regularly
- □ Prune tree limbs away from roof

### **Ventilation and Soffits**

> 75% of homes have non-combustible ventilation soffits with mesh or screening

→ 50-74% of homes have non-combustible ventilation soffits with mesh or screening

< 50% of homes have non-combustible ventilation soffits with mesh or screening

### **Recommended Mitigation Strategies**

- □ Â Clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation
- □ Enclose or box-in eaves with non-combustible materials such as metal, cement board or stucco
- □ Install a 1/8 inch metal screen behind roof vents

### Siding

> 75% of homes have non-combustible siding

50-74% of homes have non-combustible siding

→ < 50% of homes have non-combustible siding</p>

- □ Keep landscaping materials and vegetation away from combustible siding
- □ Create 5-foot non-combustible area (Zone 0) around house
- □ Replace with noncombustible siding when possible

### Genoa

Douglas County, Nevada



### Underskirting

- > 75% of homes have skirting underneath raised floors/decks
- → 50-74% of homes have skirting underneath
  - < 50% of homes have skirting underneath

### **Recommended Mitigation Strategies**

- □ Remove combustible vegetation and leaf litter
- Spread gravel or other non-combustible material under the deck
- □ Screen in the bottom of the deck with metal 1/8-inch screening
- □ Separate wooden fences from the house with a stone or metal barrier

### Wooden Attachments

> 75% of homes have NO Wooden Attachments

50-74% of homes have NO Wooden Attachments

→ < 50% of homes have NO Wooden Attachments</p>

### **Recommended Mitigation Strategies**

- ☐ Â Maintain debris-free decks (e.g. remove ignitable furniture, planters and covering propane grills, especially during high fire danger periods)
- □ Consider disconnecting fences from structures, or replacing materials directly attached to structures with fire resistant materials
- □ Be aware that wooden attachments can act as a fuse to the structure

### **Building Setback**

→ Not applicable

Greater than or equal to 30 feet from slope

Less than 30 feet from slope

### **Recommended Mitigation Strategies**

□ N/A

### Propane

> 30 feet from the house and surrounding vegetation maintained

Fewer than 30 feet from the house and/or surrounding vegetation not maintained

 $\rightarrow$  N/A

Recommended Mitigation Strategies

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### **Electric Utilities**

Electric Underground

Electric Overhead drop maintained

### → Electric Overhead drop not maintained

Recommended Mitigation Strategies

□ Keep vegetation pruned and mowed around electric right of ways; Drop to home is homeowner responsibility

### Non-Combustible Zone 0

→ >75% of homes/outbuildings have adjacent 5-ft non-combustible zone

50-74% of homes/outbuildings have adjacent 5-ft non-combustible zone

< 50% of homes/outbuildings have adjacent 5-ft non-combustible zone

Recommended Mitigation Strategies

□ Remove flammable materials and Create 5-foot non-combustible area (Zone 0) around house

COMMENTS