



**Hackomiller Parcel Map
Fire Safe Plan
EDC Project # PM23-0006
REVISION 1**

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PLAN APPROVAL SHEET

The Hackomiller Parcel Map Fire Safe Plan (PM23-00006) has been designed to mitigate the wildfire risk presented for the property described in the tentative parcel map application for 5595 Hackomiller Road, in Garden Valley, CA. The plan has been developed to conform with California Code of Regulations Title 14 §§ 1270-1276 (Fire Safe Regulations), California Code of Regulations Title 24, Part 9 - § 4903 (Plans) and El Dorado County Fire Protection Standard W-002 (Wildland Urban Interface Fire Protection Plans).

The Hackomiller Fire Safe Plan has been reviewed and approved by the following fire agencies located in El Dorado County:

DATE PUBLISHED: March 12, 2025

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FORWARD

The following **Hackomiller Parcel Map Fire Safe Plan (FSP)** has been prepared for the Hackomiller Tentative Parcel Map Project (Project) in Garden Valley, California. This FSP for the Project meets the requirements described in Chapter 49 of the California Fire Code and various other State and County statutes and regulations. The FSP addresses the following topics:

- Introduction (Chapter 1)
- Existing Conditions (Chapter 2)
- Regulatory Requirements (Chapter 3)
- Fire Protection Planning (Chapter 4)
- Emergency Preparedness and Evacuation Planning (Chapter 5)
- Fuel Reduction Management and Defensible Space Concepts (Chapter 6)
- Emergency Preparedness and Evacuation Plan Mitigation Strategies (Chapter 7)
- Plan Appendixes (Chapter 8)

The goals of this FSP are as follows:

- » Reduce the exposure of vulnerable structures to high intensity flames.
- » Reduce the quantity of embers accumulating at a building based on factors related to the building characteristics and adjacent fuel treatments.
- » Reduce the likelihood of urban conflagration due to treatment of fuels in proximity to structures.
- » Enhance the level of preparedness by both residents and visitors to evacuate safely during a wildfire or similar hazardous situation.

The FSP specifically applies to the Hackomiller Parcel Map Project (PM23-0006). The FSP provides a framework for the protection of residents and visitors from natural hazards, the prevention of fire, and preparation for responding to an emergency evacuation of the Project should it arise. The FSP is intended to be utilized during the development, construction, and occupancy of the Project.

For the purpose of interpreting and applying the provisions found within each chapter the terms shall and should are found throughout. The use of the term “shall” refer to requirements of the Plan as required through State statute or regulation. The use of the term “should” refer to recommendations cited in the document by the authors.

END OF FORWARD

CHAPTER 1: INTRODUCTION

1.1 Terms and Definitions

Term	Definition
Defensible Space	<p>Is the design and maintenance of natural and/or landscaped areas in an area where mitigation actions are undertaken to reduce building loss from a wildfire. It is also intended to provide access to firefighters for fire suppression actions and to provide a safe zone for them to work. Defensible space is based on four general concepts:</p> <ol style="list-style-type: none"> 1. Elimination of combustible vegetation and other materials within 5' of the building. 2. Fuel removal or reduction within 100' of structures in all directions 3. Thinning, pruning and removal of continuous and dense uninterrupted layers of vegetation 4. Removal of ladder fuels within 6' from the ground to prevent fire spread through tree canopies.
Ember	Small burning or glowing pieces of vegetation or other cellulosic-based materials.
Evacuation Order	Refers to a situation involving an Immediate threat to life. This is a lawful order to leave now. The area is lawfully closed to public access.
Evacuation Warning	Refers to a potential threat to life and/or property. Those who require additional time to evacuate, and those with pets and livestock should leave immediately.

Term	Definition
Fuels Reduction	Refers to the decrease of wildfire fuels such as trees, shrubbery, grasses, and other natural materials to reduce risks to human life and damage to personal property. Fuel reduction can result in less extreme fire behavior and intensity through decreased fire spread rates and reduced flame lengths.
Shelter in Place	Is a strategy in which the individual(s) goes indoors, shut and lock doors and windows. They prepare to self-sustain until further notice and/or contacted by emergency personnel for additional direction.
Temporary Refuge Area	A gathering point for residents if they are temporarily evacuated from their residence, or when evacuation routes are obstructed by smoke, incoming emergency equipment, or directly threatened by fire.
Wildland Fire	Describes an unplanned and uncontrolled fire spreading through vegetative fuels, including any structures or other improvements thereon.
Wildland Urban Interface (WUI)	An area adjacent to hazardous vegetation that poses an increased threat to people and structures. That line, area, or zone where structures and humans meet or intermingle with hazardous areas. WUI types include Intermix, Interface and occluded land areas.

1.2 Project Summary

Project Name: Hackomiller Tentative Parcel Map (PM23-0006).

Location: Unincorporated area of El Dorado County near Garden Valley, CA. The Project is located at 5595 Hackomiller Road in Garden Valley, California. El Dorado County Assessor Parcel #'s 088-021-040. Map Coordinate is 38.84N 120.83W. The Project applicant is Mr. Sean Jackson. Mr. Thomas Van Noord is the agent for the applicant.

Project Description: The Hackomiller Tentative Parcel Map Project proposes to create up to 3 parcels from the existing 169.85-acre parcel. Parcel A is proposed to be 40.05 acres, Parcel B is proposed at 40.01 acres, and Parcel C is proposed at 89.79 acres. All new parcels will have a land use designation of Planned Agricultural (PA) 20 acres. See Figure 1 for the proposed tentative map for the Project.

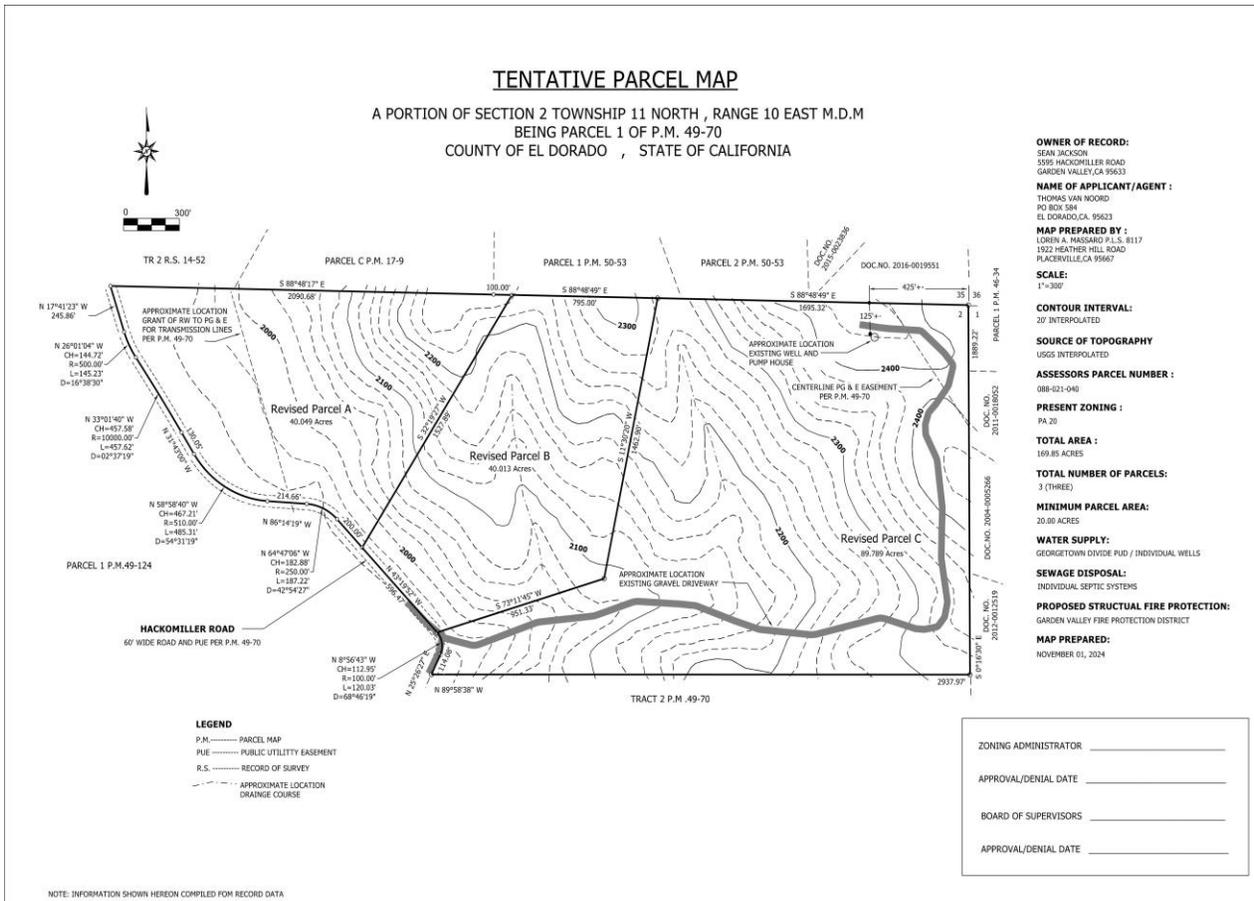


Figure 1: Hackomiller PM Project

The Project proposes to provide additional residential housing on the two new parcels being created by the map. The new resident population¹ for the new parcels is approximately 7.5 persons at build-out. See Figure 2 for the current condition of the Project.



Figure 2: Current Condition of Project Area

The Project is accessed by Hackomiller Road which is a public road maintained by the County of El Dorado. Each new parcel will have a separate driveway connection serving it from the public road. Electrical power supply is provided to the Project by Pacific Gas & Electric (PGE). No municipal water, sewer or natural gas services are proposed for the Project site.

END OF CHAPTER

¹ See U.S. Census Bureau Data for El Dorado County (2022); [U.S. Census Bureau QuickFacts: El Dorado County, California](#)

CHAPTER 2: EXISTING CONDITIONS

2.1 Chapter Overview

The Project is located in the unincorporated community of Garden Valley, California. Garden Valley is located in the western region of El Dorado County in an area frequently described as being “The Georgetown Divide Area.” According to 2021 population statistics² for the Hackomiller Road census block approximately 430 existing residents live in the general area of the Project. The Project is located within El Dorado County Supervisory District 4.

The Project is approximately 169.85 ± acres in size. See Figure 3 for an area map that shows the Project in relation to the adjoining community of Garden Valley.

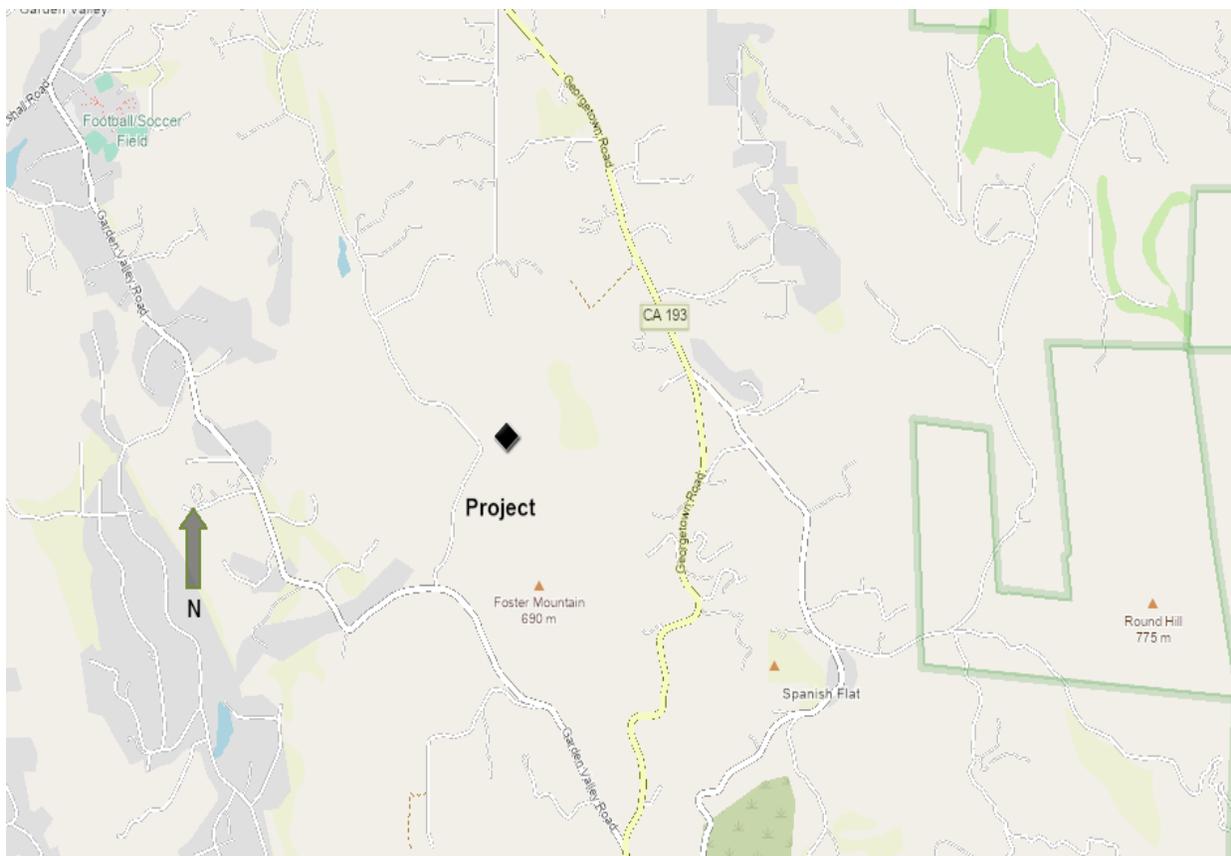


Figure 3: Garden Valley Area Map Showing Project Location

The Project is bordered by the following adjoining properties:

² See Census Block Data for Areas 060170306052000 and 060170306061001; 2020.

- **North Side** - Six (6) 10-acre to 20-acre residential/agricultural and undeveloped parcels (APN#s 060-440-043, 060-440-025, 060-440-047, 060-440-048, 060-041-006 and 060-041-005) are located on Hackomiller Road, Fair Pines Lane, Sky Creations Court, or Windsong Hill Lane north of the Project. Black Oak Mine Road is approximately 8,000 lineal feet north of the Project in this area.
- **East Side** - Four (4) 3-acre to 11.58-acre residential/agricultural and undeveloped parcels (APN#s 088-110-033, 088-110-006, 088-110-009 and 088-110-038) are located on either Poco Loco Lane or American Flat Trail east of the Project. CA Highway 193 is located approximately 1,300 lineal feet of the Project beyond the properties previously described.
- **West Side** - A 61.54-acre residential/agricultural parcel (APN# 088-021-043) is located at 5700 Hackomiller Road west of the Project. Hackomiller Road and the Irish Creek water drainage are also located west of the Project in this general area.
- **South Side** - A 101.48-acre residential/agricultural parcel (APN # 088-021-052) is located at 5695 Hackomiller Road south of the Project site. Garden Valley Road is approximately 4,000 lineal feet south of the Project in this area.

2.2 Vegetation

The Project site is currently undeveloped and contains natural vegetation cover. The site is currently undeveloped with native flora and fauna. See Table 1 for the existing vegetation found on the parcel.

Table 1: Summary of Vegetation Found on the Property

Scientific Name	Common Name
<i>Pinus ponderosa</i>	Ponderosa Pine
<i>Pinus lambertiana</i>	Sugar Pine
<i>Calocedrus decurrens</i>	Incense Cedar
<i>Arbutus menziesii</i>	Madrona
<i>Cytisus scoparius</i>	Scotch Broom
<i>Arctostaphylos</i>	Red Manzanita
<i>Centaurea solstitialis</i>	Yellow Starthistle
<i>Bromus sitchensis var</i>	California Brome
<i>Bromus tectorum</i>	Cheat Grass
<i>Avena Fatua and Avena barbata</i>	Oats, Grass Family

2.3 Climate

Predominant local weather patterns in the Project area³ are characterized by warm, dry summers and cool, wet winters. Dry conditions traditionally begin around the beginning of May and last into late October. An average summer day is 95° - 105° Fahrenheit, winds from the southwest at 0-10 miles per hour, and relative humidity levels in the 15-25 percent range. Summer lightning storms are infrequent in the area. On average, the strongest wind speeds in the Garden Valley area occur in March through May, but winds can frequently exceed 20 mph throughout the local fire season period.

Fire weather in El Dorado County is typically dominated by three general weather phenomena; the delta push influence, north wind events, and east foehn winds caused by high pressure development in the Great Basin⁴. All three weather conditions cause potential increases in fire intensity and size. The delta influence is the most common and surfaces frequently throughout summer.

Characteristically, high pressure systems will dominate Northern California in the summer months bringing extremely hot and dry conditions over much of the region. As these systems develop, they tend to originate near the Delta and Sacramento areas bringing the marine influence to the Unit. This is generally considered a good thing for fire behavior; slightly cooler afternoon temperatures and increases in relative humidity. The downside is the strong winds that typically accompany these patterns can override any benefit that may come from marine air.

This type of wind will subside after sundown causing fire behavior to drop off dramatically. The other critical wind patterns that are difficult to predict for El Dorado County are the northerly and easterly winds. They are relatively rare, and often are forecasted only the day before. Northerly or easterly winds are typically warmer and drier than most other wind patterns due to air compression. These conditions provide the perfect environment for increased fire intensity and large fire growth.

Fire growth is typically wind driven, however as these events recede, fire immediately returns to fuel/topography driven in opposing directions to the wind driven direction. This type of wind event

³ Pilot Hill Remote Automated Weather Station Site; National Weather Service; [Pilot Hill California \(dri.edu\)](#).

⁴ See Strategic Fire Plan for Amador El Dorado Unit; 2023; [2023 Strategic Fire Plan Amador El Dorado Unit \(ca.gov\)](#); P.5.

is commonly referred to as a Santa Ana wind in Southern California, and a foehn wind in the Sierra/Cascade Region.

2.4 Topography

The topography in the general area of the Project is mountainous and uneven and includes the west and south facing slopes of the Coloma-Lotus area. The Project is located adjacent to the Irish Creek drainage at an elevation range of between 1,950 - 2,400 feet above sea level. See Figure 4 for a topographical map for the Project area and surrounding areas.

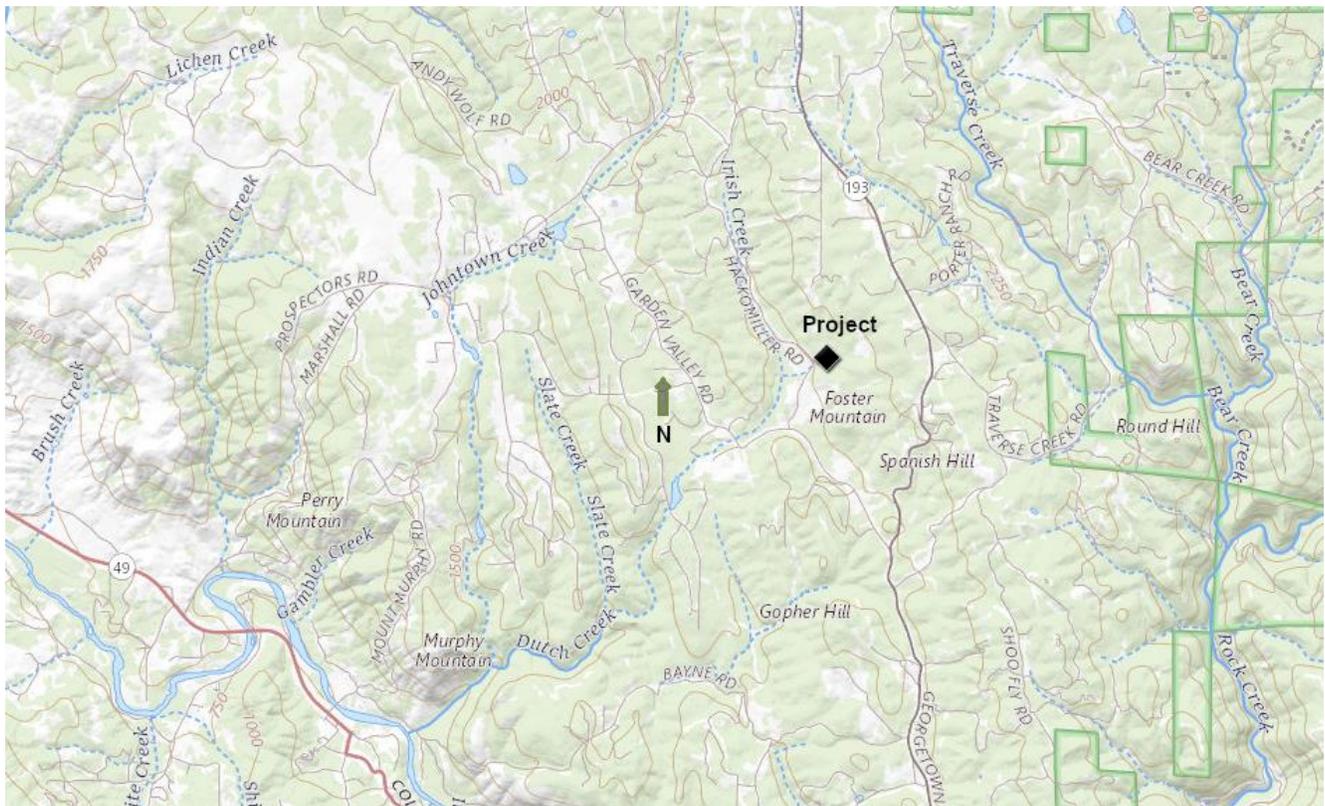


Figure 4: Hackomiller Tentative Parcel Map Project, Area Topography Map

See Table 2 for a breakdown of slope averages found on each parcel proposed in the Project.

Table 2: Summary of Slope Ranges Found on Each Parcel

Parcel #	0 -20% Flat or Mild Slope	21 - 40% Moderate Slope	>40% Steep Slope	Total
A	27.20	12.85	0	40.05
B	40.01	0	0	40.01
C	69.0.	20.79	0	89.79

Aspect: The aspect factor shall reflect the direction the slope upon which the Building Being Evaluated is located faces. If used, this factor shall reflect the historic and estimated impact on losses related to aspect, as described in this subdivision (e)(4).

2.5 Existing and Planned Land Use Pattern

The Project is located at 5595 Hackomiller Road in Garden Valley, California. El Dorado County Assessor Parcel #'s 088-021-040. The property is approximately 169.85 acres in size.

The Project proposes to create up to -3 parcels from the existing parcel. Parcel A is proposed to be 40.05 acres, Parcel B is proposed at 40.01 acres, and Parcel C is proposed at 89.79 acres. All new parcels will have a land use designation of Planned Agricultural (PA) 20 acre. No information on the location of proposed structures on each parcel is known at this time.

2.6 Fire History

According to CAL FIRE statistics the majority of wildland fires that have occurred in the western El Dorado County area were ignited from one of the following sources: debris burning (34%), Undetermined (14%), Equipment (13%), Vehicle (9%) and Other (9%) causes.⁵ Debris and Open Burning was the Number 1 cause of vegetation fires in the Garden Valley and surrounding communities in the Georgetown Divide Area in 2022.

Several large wildfires (>300 acres) have been reported in the Project area between 1910 - 2022. The Project side was impacted by a wildfire in 1916 that damaged 1,860 acres, and again in 1954 by a wildfire that damaged 1,860 acres. A notable wildfire that impacted the Garden Valley area was the "Kelsey" fire⁶ in 1994. This fire occurred in the nearby Kelsey community just south of the Project. This fire destroyed fourteen residential structures and damaged an unknown number of acres. No injuries/deaths were reported.

Figure 5 describes the significant wildland fire history in the vicinity of the Project area.

⁵ *Strategic Fire Plan Amador o El Dorado o Sacramento o Alpine Unit*, (2023); P.57.

⁶ See El Dorado County Local Hazard Mitigation Plan (2021); Page M-39.

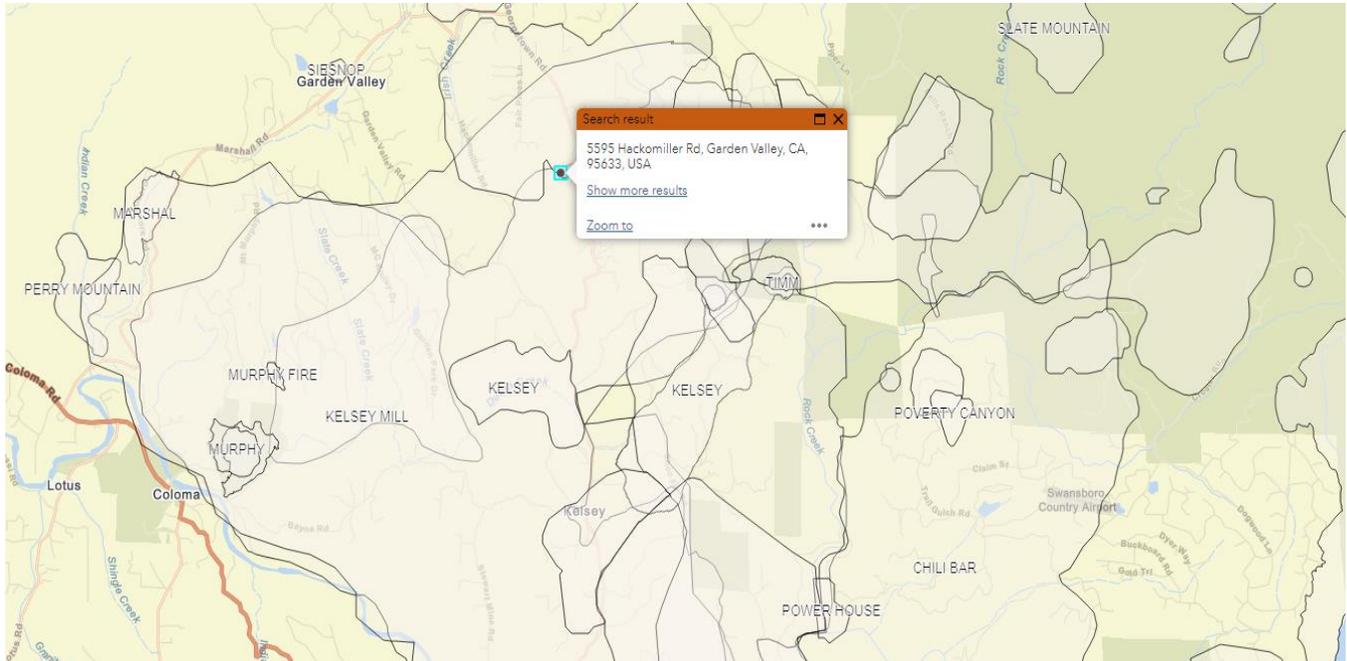


Figure 5: Large Wildfire History in the Garden Valley Region (1910-2022)

2.7 Fire Hazard Severity Zone Designation

The term Fire Hazard refers to the dangerous accumulation of flammable fuels in open space areas and other wildland urban interface areas. It is typically described at the landscape (area) level. Usually referring to the density of live or dead vegetation that may be ignited by the various fire risks or causes that can increase a fire's intensity or rate of spread. Fire hazard is based on the vegetation types likely to be present over the next 50 years that contribute to fire severity and ember production, the topography of the area and the average fire weather conditions present in the area.

Fire Hazard ratings are provided by CAL FIRE as part of their *Fire Hazard Zone Severity Mapping* program. One of the major hazards in the western El Dorado County region is the threat of a disastrous wildfire endangering both people and property. The Project is also described as being within an area generally referred to as a Wildland Urban Interface⁷ (WUI) zone.

The area is vulnerable to the threat of wildfire throughout the year subject to a variety of conditions including, but not limited to:

⁷ Describes locations in which the local fire official determines the topographical features, vegetation fuel types, local weather conditions, and prevailing winds can result in the potential for ignition of the buildings within the area from flames and firebrands of a wildland fire.

- Daily weather conditions such as air temperature, humidity, wind speed and direction.
- Climatic conditions such as drought, extended seasonal periods of hot, dry weather typically found in the summer and fall months, or seasonal rains typically found in the winter and spring months.
- Fuel moisture and growth cycle periods, especially in fine fuels such as the herbs and shrubs that are prevalent in the area.
- Human caused ignition factors such as arson, escaped debris burns and unsafe equipment operation.

The Project area is located within a State Responsibility Area. The current CAL FIRE Hazard Severity Zone⁸ Map for El Dorado County identifies the Project as being inside a **Very-High Fire Hazard Severity Zone**. See Figure 6 for the Fire Hazard Map information for the Project and surrounding community.

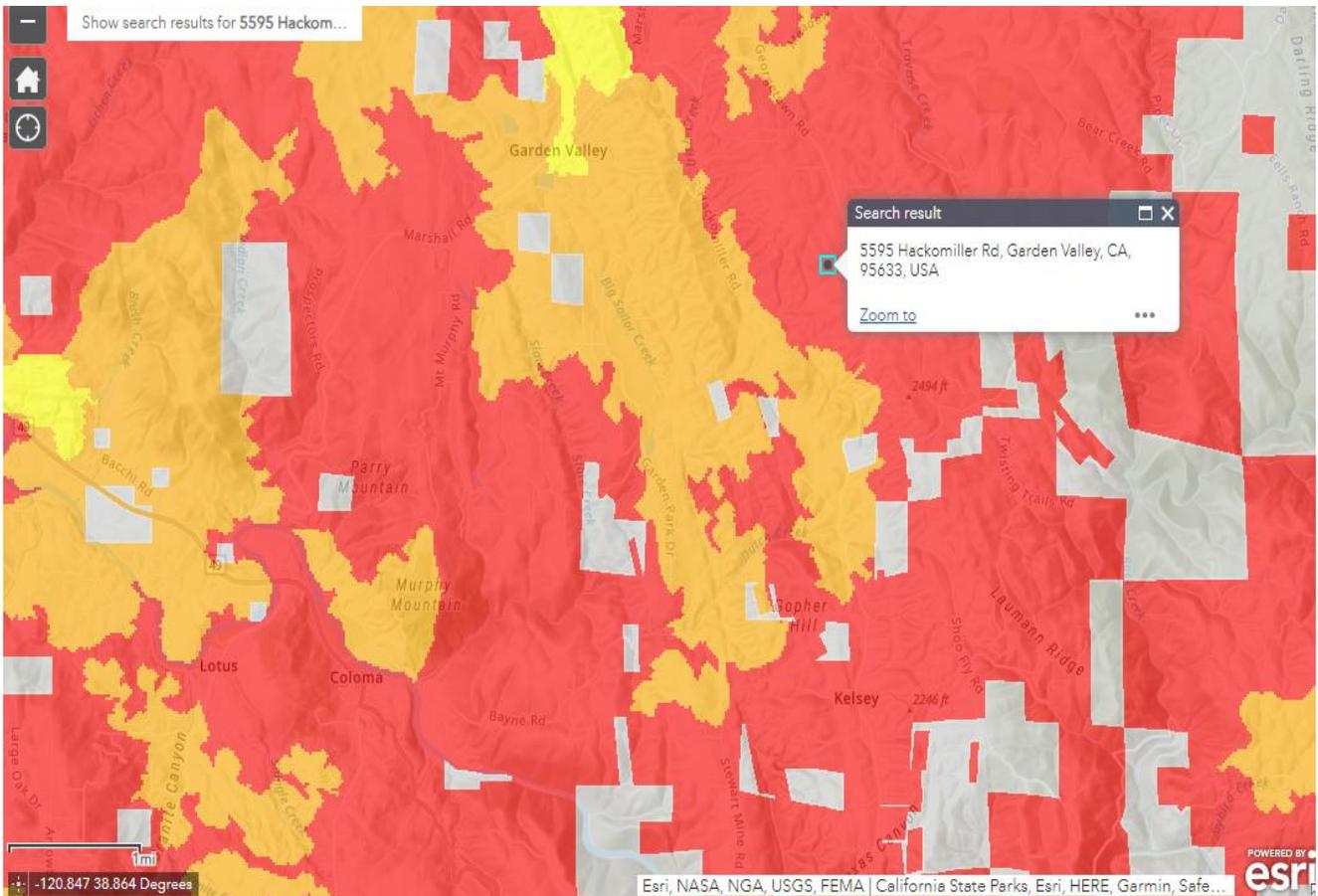


Figure 6: Fire Hazard Severity Zone Map for the Hackomiller Area (2024)

⁸CAL FIRE; Fire Hazard Severity Zone Map for El Dorado County (November, 2007); http://frap.fire.ca.gov/webdata/maps/placer/fhszs_map.31.pdf.

2.8 Fire and Emergency Response

Fire, rescue, and pre-hospital emergency medical services for the Garden Valley community is provided by the Garden Valley Fire Protection District (GRV)⁹. The Garden Valley Fire Protection District is a combination volunteer/career fire district. GRV operates one staffed and two volunteer fire stations and serves an area of approximately 60 square miles. GRV staffing is one fire captain and one chief officer to staff these fire stations on a 24-hours-per-day, seven-days-per-week operational schedule.

CAL FIRE operates one fire station in the Garden Valley region to meet its wildfire suppression and prevention mission. This fire station is located at CAL FIRE Station 50 in Garden Valley and is approximately 3.2 miles from the Project. CAL FIRE staffs two state funded fire engines with a crew of 3-4 firefighters on a seasonal basis from this location.

GRV and CAL FIRE emergency response travel times for the first arriving unit to the Project are on-average less than 8 minutes. These response times are consistent with El Dorado County General Plan Policy 5.1.2.2¹⁰ which calls for an average response time to emergency calls of between fifteen and forty-five minutes in rural centers. See Table 3 for additional information on local fire station locations and distance to both the Project and Garden Valley community.

Fire Station Identification	Address	Travel Distance to Project	Staffed Year Round
GRV Station 51	4860 Marshall Road Garden Valley	2.7 Miles	Yes
CAL FIRE Sta 50	5061 Marshall Road Garden Valley	3.2 Miles	Yes
GEO Sta 61	6283 Main Street Georgetown	6.3 Miles	Yes
CAL FIRE Sta 70	4731 Pedro Hill Road Pilot Hill	14.3 Miles	No ¹¹
ECF Sta 72	7200 St. Florian Court Cool	14.7 Miles	Yes

⁹ See Garden Valley Fire Protection District Website; "About Us"; [About Us - Garden Valley Fire Protection District](#); accessed August 21, 2023.

¹⁰ See *El Dorado County General Plan*, 2004; Public Services and Utilities Element Section, P.91.

¹¹ CAL FIRE Station 70 is a seasonal wildland fire station operated by CAL FIRE typically between April-October.

During a major emergency incident such as a building fire, wildland fire, hazardous materials spill, or similar event it is likely that GRV and CAL FIRE will dispatch multiple fire station crews to assist in controlling the incident. It is probable that five or more fire suppression units would be dispatched from multiple fire stations located in the western El Dorado County region. Figure 7 shows the regional locations of the five closest fire stations to both the Project and Garden Valley community.

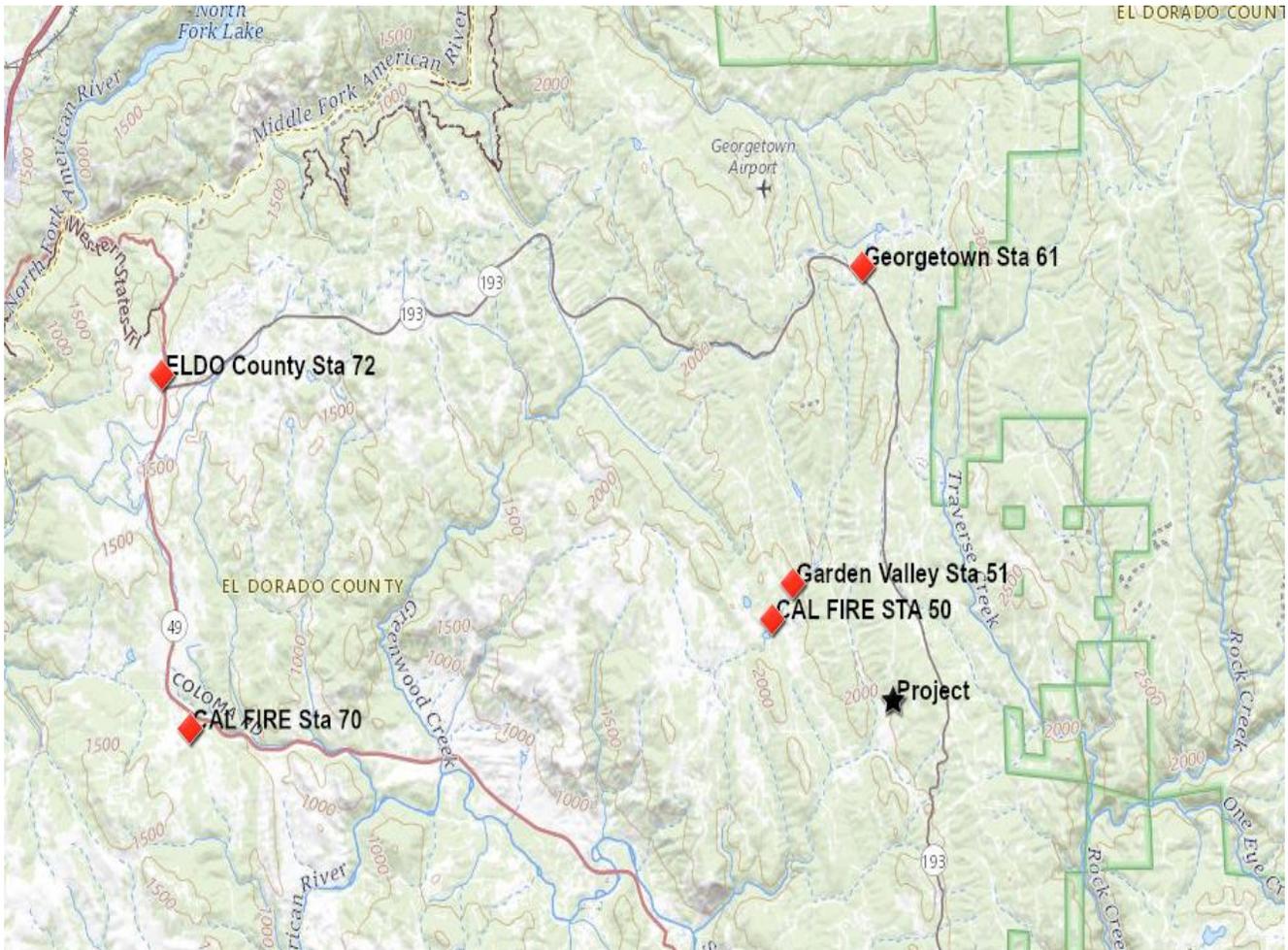


Figure 7: Staffed Fire Stations Near Project

A GRV, CAL FIRE, and local fire agency emergency response into the Project will occur along the Hackomiller Road corridor from both the north and south directions. Three fire stations (51, 50, and 61) are located north of the area; while two stations (70 and 72) are located west of the area. The closest paramedic ambulance to the Project is located in Georgetown, and has an average emergency response time of less than fifteen minutes.

2.9 Emergency Ingress and Egress

The primary emergency vehicle access / civilian evacuation road serving the Project in Hackomiller Road. Hackomiller Road runs generally north - south, and is a public road maintain by the County of El Dorado. Hackomiller Road connects to Black Oak Mine Road on the north, and Garden Valley Road on the south.

Road widths along Hackomiller Road range between 12 - 20 feet in width. Vertical road clearances from obstructions along Hackomiller Road are on average above ten (10) feet in height. See Figure 8 for an area map for the Project and surrounding areas.

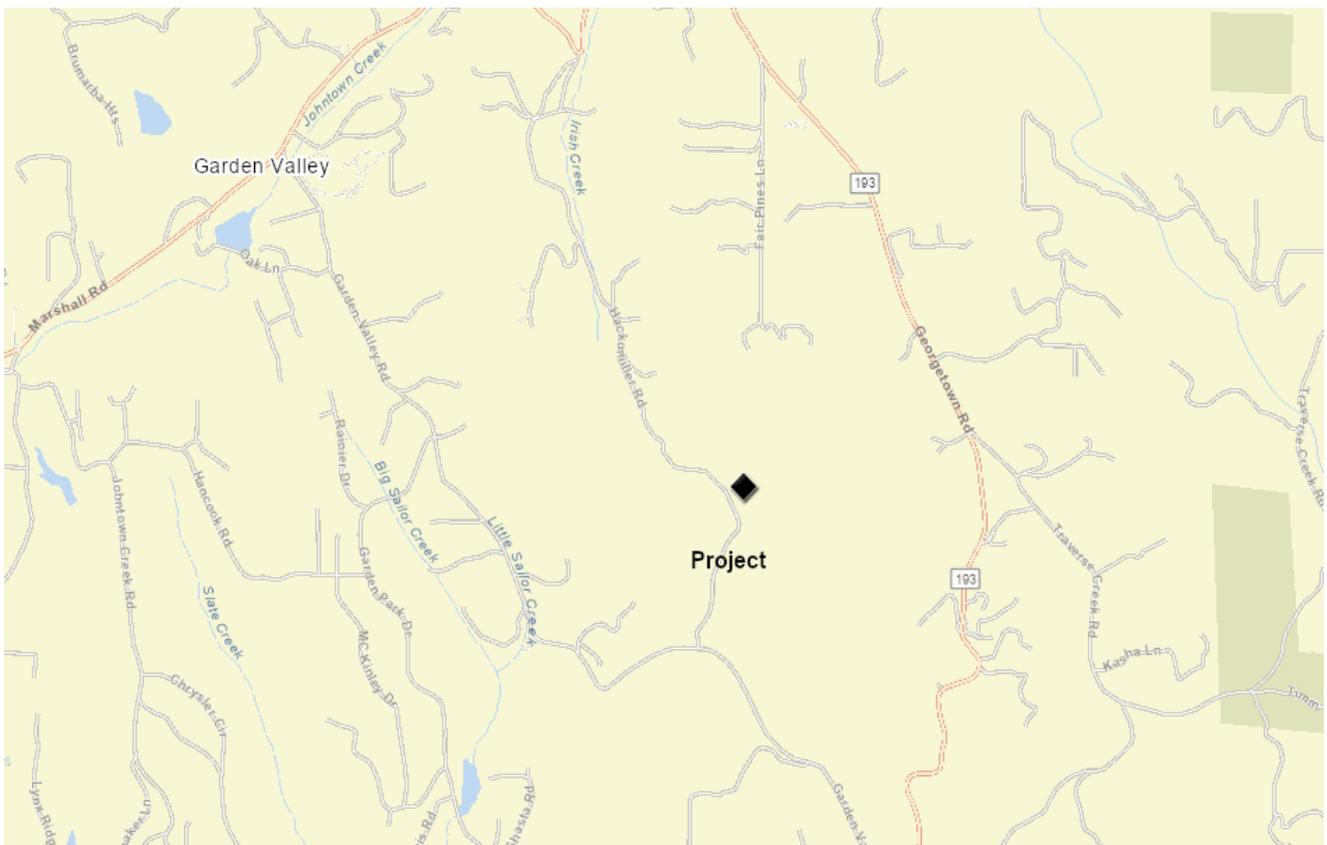


Figure 8: Area Map for Project

The existing parcel is served by a driveway that is in excess of 800 feet in length. The driveway is secured by a gated entry. Address signage is posted at the driveway entrance. Parcels A-B will be provided with a separate approved driveway connection to them from Hackomiller Road.

Chapter 3: REGULATORY REQUIREMENTS

3.1 Chapter Overview

Development of the proposed Project will be subject to federal and state laws, county ordinances and regulations. The key provisions that would address hazards and emergencies within the FSP are summarized below, and, in some cases, reproduced in the appendices.

The County of El Dorado, through its General Plan¹², has identified natural hazards that include severe weather, seismic and geological events, landslides, flooding, and wildfires, as the highest vulnerability to County residents. A review of the information¹³ provided in the General Plan shows the Project as being at greatest risk to the threat of a wildfire. The focus of the FSP will be to address efforts to reduce the wildfire threat within the Project and surrounding areas.

3.2 El Dorado County General Plan

The El Dorado County General Plan¹⁴ contains two sections that provide public safety policy guidance related to the Project. Chapter 5 (Public Services and Utilities Element) and Chapter 6 (Health and Safety Element). Chapter 5 was last amended in December, 2015. Chapter 6 was last updated by the County in August, 2019.

The following Public Services and Utilities Element polices of the County are applicable to the proposed Project:

Policy 5.1.2.2. Provision of public services to new discretionary development shall not result in a reduction of service below minimum established standards to current users, pursuant to Table 5-1.

Policy 5.1.2.3. New development shall be required to pay its proportionate share of the costs of infrastructure improvements required to serve the project to the extent permitted by State law. Lack of available public or private services or adequate infrastructure to serve the project

¹² See *El Dorado County General Plan Public - Health, Safety and Noise Element*, (2019)

¹³ *ibid*

¹⁴ See El Dorado County General Plan (2004); [Adopted General Plan \(edcgov.us\)](#); accessed August 31, 2023.

which cannot be satisfactorily mitigated shall be grounds for denial of any project or cause for the reduction of size, density, and/or intensity otherwise indicated on the General Plan land use map to the extent allowed by State law.

Policy 5.1.2.4. Service standards for public services and emergency services in Rural Centers and Rural Regions are different than in Community Regions based on lower intensity and density of land use.

Policy 5.2.1.2. An adequate quantity and quality of water for all uses, including fire protection, shall be provided for with discretionary development.

Policy 5.7.2.1. Prior to approval of new development, the responsible fire protection district shall be requested to review all applications to determine the ability of the district to provide protection services. The ability to provide fire protection to existing development shall not be reduced below acceptable levels as a consequence of new development.

Policy 5.7.4.1. Prior to approval of new development, the applicant shall be required to demonstrate that adequate medical emergency services are available and that adequate emergency vehicle access will be provided concurrent with development.

Policy 5.7.4.2. Prior to approval of new development, the Emergency Medical Services Agency shall be requested to review all applications to determine the ability of the department to provide protection services. The ability to provide protection to existing development shall not be reduced below acceptable levels as a consequence of new development. Recommendations such as the need for additional equipment, facilities, and adequate access may be incorporated as conditions of approval.

In addition, the Health and Safety Element of the General Plan includes the following policies regarding fire protection within El Dorado County:

Policy 6.2.1.1. Implement Fire Safe ordinance to attain and maintain defensible space through conditioning of tentative maps and in new development at the final map and/or building permit stage.

Policy 6.2.1.2. Coordinate with the local Fire Safe Councils, California Department of Forestry and Fire Protection, and federal and state agencies having land use jurisdiction in El Dorado County in the development of a countywide fuels management strategy.

Policy 6.2.2.1. Fire Hazard Severity Zone Maps shall be consulted in the review of all projects so that standards and mitigation measures appropriate to each hazard classification can be applied. Land use densities and intensities shall be determined by mitigation measures in areas designated as high or very high fire hazard.

Policy 6.2.2.2. The County shall preclude development in areas of high and very high wildland fire hazard or in areas identified as wildland-urban interface (WUI) communities within the vicinity of Federal lands that are a high risk for wildfire, as listed in the Federal Register Executive Order 13728 of May 18, 2016, unless such development can be adequately protected from wildland fire hazard, as demonstrated in a WUI Fire Safe Plan prepared by a qualified professional as approved by the El Dorado County Fire Prevention Officers Association. The WUI Fire Safe Plan shall be approved by the local Fire Protection District having jurisdiction and/or California Department of Forestry and Fire Protection. (Resolution 124- 2019, August 6, 2019)

Policy 6.2.3.1. As a requirement for approving new development, the County must find, based on information provided by the applicant and the responsible fire protection district that, concurrent with development, adequate emergency water flow, fire access, and firefighting personnel and equipment will be available in accordance with applicable State and local fire district standards. Public Health, Safety, and Noise Element El Dorado County General Plan Page 114 (Amended August 2019) July 2004

Policy 6.2.3.2. As a requirement of new development, the applicant must demonstrate that adequate access exists, or can be provided to ensure that emergency vehicles can access the site and private vehicles can evacuate the area.

Policy 6.2.3.4. All new development and public works projects shall be consistent with applicable State Wildland Fire Standards and other relevant State and federal fire requirements.

Policy 6.2.4.1. Discretionary development within high and very high fire hazard areas shall be conditioned to designate fuel break zones that comply with fire safe requirements to benefit the new and, where possible, existing development.

3.3 Tentative Map and Parcel Map Requirements in the SRA

California Government Code § 66474.02 requires that a legislative body of a county make specific findings before approving a tentative map, or a parcel map for which a tentative map was not required, for an area located in the State Responsibility Area (SRA) or Local Responsibility Area (LRA) VHFHSZ. The findings must show that that the subdivision is consistent with regulations adopted by the State Board pursuant to Sections 4290 and 4291 of the Public Resources Code (PRC) (refer to the Fire Safe Regulations section of the TA) or consistent with local ordinances certified by the State Board as meeting or exceeding the State regulations.

The county must also submit a copy of the findings to the State Board. Certain tentative maps or parcel maps for purposes of open space and conservation are exempt, as specified in the statute. The findings described above must be made in order to approve a tentative or parcel map. Even if the lead agency adopts a statement of overriding considerations for a proposed project, or if the lead agency determines a project to be exempt to CEQA, the substantive requirements in the Government Code regarding fire protection must be satisfied. Information on how to submit these subdivision maps to the State Board can be found in the California Code of Regulations (CCR), Title 14, §§ 1266.00, 1266.01, and 1266.02.

3.4 Fire Safe Regulations

California Public Resource Code (PRC) Section 4290. The State Board of Forestry has the authority to adopt regulations for minimum fire safety standards applicable to SRA lands under the authority of the department, and to VHFHSZs. The Fire Safe regulations are codified in CCR, Title 14 (Natural Resources), Division 1.5 (Department of Forestry), Chapter 7 (Fire Protection) under Subchapter 2 (SRA Fire Safe Regulations), §§ 1270-1276. These regulations generally address the following:

- Standards for signs identifying streets, roads, and structures.
- Minimum private water supply reserves for emergency fire use.
- Fuel modification standards for fuel breaks and greenbelts.
- Road and driveway standards for emergency fire equipment access and public evacuation.

They do not supersede local regulations that equal or exceed minimum regulations adopted by the State (PRC § 4290(c)).

California Building Standards Code

The State of California has adopted a minimum model code for use within all 58 counties of the State. These provisions can be found within California Code of Regulations Title 24 - Parts 1 through 12. The code is updated on a triennial basis with the last update occurring on January 1, 2023.

The California Building Standards Code is a compilation of three types of building standards from three different origins:

- Building standards that have been adopted by state agencies without change from building standards contained in national model codes;
- Building standards that have been adopted and adapted from national model codes to address California's ever-changing conditions; and
- Building standards, authorized by the California legislature, that constitute amendments not covered by national model codes, that have been created and adopted to address particular California concerns.

All occupancies in California are subject to national model codes adopted into Title 24, and occupancies are further subject to amendments adopted by state agencies and ordinances implemented by local jurisdictions' governing bodies.

3.5 Defensible Space Regulations

California PRC Section 4291 / Government Code (GC) Section 51182. These State statute and regulatory provisions define and describe mandatory fire protection measures and

responsibilities for maintaining defensible space that apply to all property within the SRA in California. Per GC § 51182, defensible space regulations also apply to all property in the VHFHSZ within the Local Responsibility Area (LRA).

The defensible space requirements generally include, but are not limited to, the following:

- 100 feet minimum of vegetation management (“defensible space”) around homes
- Removal of dead/dying vegetation
- Vegetation removal around chimneys/stovepipes

Depending on the area, defensible space requirements may include certain exemptions and exceptions from code. Moreover, jurisdictions may require extension of the minimum distance beyond property lines or as needed for insurance. The State Board provides direction for complying with the defensible space regulations in CCR Title 14, §§ 1299.01- 1299.05 which incorporates by reference additional information outlined in the State Board’s General Guidelines for Creating Defensible Space. Due to the recent passage of AB 3074 (2020), defensible space compliance will soon require more intense fuel reduction activities and the creation of an ember-resistant zone within 5 feet of a structure. The State Board will provide additional guidance and must amend the regulations to reflect these changes on or before January 1, 2023.

El Dorado County Code Chapter 8.09

The County of El Dorado has more restrictive requirements, in some cases, than State statutes and regulations pertaining to Defensible Space around homes and structures. El Dorado County Codes and Ordinances Chapter 8.09 pertains to all requirements and administrative actions associated with Vegetation Management and Defensible Space. The purpose of this chapter is to provide for the removal of hazardous vegetation and combustible materials situated in the unincorporated areas of the County so as to reduce the potential for fire and to promote the safety and welfare of the community. The chapter applies to all improved parcels and designated unimproved parcels within the County, and establishes annual on-going maintenance of those parcels to prevent vegetation from growing back and posing a fire hazard to the community.

3.6 Other Plans and Regulations

El Dorado County Local Hazard Mitigation Plan.

The County of El Dorado last updated its Local Hazard Mitigation Plan (LHMP) in April, 2019¹⁵. The purpose of the LHMP is to guide hazard mitigation planning to better protect the people and property of the County from the effect of hazard events. Based on a comprehensive risk assessment the LHMP identified that it is vulnerable to several hazards. The threat of wildfire was among those hazards identified as posing the highest risk to the communities and population within the County.

The wildfire risk assessment provisions within the LHMP are described within Section 3.2.15. Wildfires are identified within the LHMP¹⁶ as highly likely to occur within all areas of the County. Prolong dry seasons, warmer temperatures created by climate change, drought and tree mortality are all significant factors in the increased risk of wildfire occurring in the County.

California Governor's Office of Planning and Research - Fire Hazard Planning Technical Advisory

This planning guide is one in a series of technical advisories provided by the Governor's Office of Planning and Research (OPR) as a service to professional planners, land use officials, and California Environmental Quality Act (CEQA) practitioners. OPR issues technical guidance on issues that broadly affect land use planning, including the application of CEQA. The advisory was published in August, 2022.

The goal of this technical advisory is to provide a robust planning framework for addressing fire hazards, reducing risk, and increasing resilience across California's diverse communities and landscapes. To accomplish this goal, it is essential that local agencies (i.e., cities and counties) develop and incorporate effective policies and implementation programs in their general plans and integrate their general plans with other relevant hazard and risk reduction policies, plans,

¹⁵ See El Dorado County Local Hazard Mitigation Plan; [EIDoradoCounty_LHMP.pdf \(edcgov.us\)](#); accessed August 31, 2023.

¹⁶ *ibid*

and programs. This advisory provides guidance on those policies and programs, and is also intended to assist city and county planners in discussions with professionals from fire hazard prevention and mitigation, disaster preparedness, and emergency response and recovery agencies as they work together to develop effective fire hazard policies for the general plan.

Local Fire District Fire Prevention Codes and Standards

There are currently twelve (12) independent community service districts, water districts and fire districts that provide fire protection within the County of El Dorado. Many of these special districts have established more restrictive fire prevention regulations than those found in CCR Title 14 (Fire Safe Regulations) and Title 24 - Part 9 (California Fire Code). These regulations are adopted through the local special district via ordinance as part of the triennial statewide code adoption process.

In addition, the El Dorado County Fire Chiefs Association has created several Fire Protection Standards, as permitted by the California Fire Code, to clarify certain provisions of the Code and their application locally. See Chapter 8 - Appendix F of this FSP for a list of these local standards.

END OF CHAPTER

CHAPTER 4: FIRE PROTECTION PLANNING

4.1 Chapter Overview

The purpose of this Chapter is to describe the recommended fire prevention and emergency planning best practices for the Hackomiller Tentative Parcel Map Project. This Chapter is consistent with nationally recognized and accepted practices for safeguarding life and property from the hazards of fire and other dangerous conditions associated with a wildfire and/or urban conflagration. This Chapter is based on a Project-specific wildfire hazard and risk assessment as described in California Fire Code Section 4903 and includes analysis on the following subjects:

- Emergency Vehicle Access Requirements
- Road and Address Signage Requirements
- Emergency Water Supply Requirements
- Applicable Building Codes and Standards for Wildfire Safety
- Fire Protection System Requirements

4.2 Wildfire Hazard and Risk Assessment Factors

The threat of wildfire exposure to people, critical infrastructure, structures, and communities is based upon a comprehensive vulnerability assessment of an area. This vulnerability assessment is usually completed through the evaluation of both *fire hazard* and *fire risk* factors. The term “hazard” describes the density of live or dead vegetation that may be ignited by the various fire risks or causes that can increase a fire’s intensity or rate of spread such as topography or weather conditions. The term “risk” describes the potential damage a fire can cause to structures, critical assets/infrastructure, and other values at risk in individual open space areas and other wildland urban interface areas.

Landowners, managers, and fire officials need to consider the potential fire hazard and risk factors that may make their community vulnerable to a wildfire when making land management and development decisions in fire-prone areas¹⁷. This assessment also aids fire agencies in the preparation of pre-incident plans and resource deployment actions such as fire equipment

¹⁷ Wildfire Hazard and Risk Assessment, United Nations Office for Disaster Risk Reduction, 2017

staffing levels and resource placement during critical fire periods. This assessment should consider the factors described in Table 4 when assessing the wildfire exposure potential for an area:

Table 4: Hazard and Risk Assessment Factors

Hazard Assessment Factors

- Landscape level vegetation (fuel) types
- Landscape level topography
- Weather conditions present during seasonal and critical fire weather periods
- Prior fire history in the area
- Ember / firebrand spread potential
- Other criteria as determined by CAL FIRE

Risk Assessment Factors

- Subdivision design points
- Site vegetation (fuel) types
- Site topography
- Defensible Space measures
- Building construction materials used
- Roofing materials used
- Local fire protection capabilities
- Fire protection water sources
- Utilities
- Critical assets / infrastructure at risk

4.2.1 Wildfire Vulnerability Assessment for the Project

The fire risk factor scoring for the Project is described in Table 3. The overall risk rating can be described as Low (0-29), Moderate (40-59), High (60-74) and Very-High (75+). When analyzing individual fire risk factor ratings within the Project area the following terms are used:

- **LOW RISK** - Fire risk factors present typically do not support rapid fire spread.
- **MODERATE RISK** - Fire risk factors present may support moderate fire spread, but burning ember distribution is limited to less than ½ mile.
- **HIGH RISK** - Fire risk factors present may support rapid fire spread and ember distribution beyond ½ mile.
- **VERY-HIGH RISK** - Fire risk factors present may support extreme fire spread and intensity.

NOTE: Two Very High-Risk factors are currently identified within the Project area.

See Table 5 and the subsequent description below for additional analysis on the fire risk rating for the Project.

Table 5: Fire Risk Rating¹⁸ for the Hackomiller Tentative Parcel Map Project

No.	Risk Factor	Low	Moderate	High	Very-High	Total
		0-3	4-6	7-8	9-10	
1	Subdivision Design Points			8		8
2	Vegetation Fuel Type				9	9
3	Defensible Space		6			6
4	Site Topography				9	9
5	Building Construction Materials		6			6
6	Roofing Materials		6			6
7	Fire Protection - Water Source			8		8
8	Fire Protection - Fire Department Capability			8		8
9	Utilities			8		8
10	Critical Assets / Infrastructure at Risk	0				0
	Total	0	18	32	18	68

Overall Wildfire Risk Rating: **High** (68)

The fire risk factors associated with the *Subdivision Design Points* are considered “**High**” based on the current site plan design. The Project is accessed via one primary road. Hackomiller Road connects to two secondary roads; Black Oak Mine Road on the north end and Garden Valley Road on the south end. All roads identified are public roads maintained by the County of El Dorado. Both secondary roads connect to adjoining public roads (CA Highway 193 and Marshall Road).

Both Black Oak Mine and Garden Valley Roads are 20 feet or more in width. Hackomiller Road has an average width of between 12-20 feet along the entire road. The road width directly in front of the Project is 16 feet. All roads serving the Project have an average road grade of between 0-10%. All street signs are present.

¹⁸ Based on the 2023 ICC Wildland Urban Interface Code

The fire risk factors associated with the *Vegetation Fuel Types* are considered “**Very-High**” based on the current site plan design. The Project contains large segments of acreage of various timber types, chaparral, and other shrub types, along with annual grasses and other hazardous vegetation. Parcels A-C are undeveloped and have a significant existing fire fuel load that can contribute to significant fire spread during a wildfire.

The fire risk factors associated with *Defensible Space* are considered “**Moderate**” for the Project. Preparedness actions such as ensuring that adequate defensible space meeting the requirements found in State and Local regulations, along with on-going wildfire fuel reduction practices established with this FSP on undeveloped sections of the Project, will limit the risk of a wildfire damaging structures within this Project and surrounding communities.

The fire risk factors associated with *Site Topography* are considered “**Very-High**” for the Project. All parcels established within this Project have average slopes of between 20-39%. The Project is located on west and south aspects. These factors, along with the vegetation fuel described previously, will lead to rapid fire spread conditions during heightened fire danger periods.

The fire risk factors associated with *Building Construction Materials* are considered “**Moderate**” for the Project. All new building constructed within the Project will utilize materials and construction methods for exterior wildfire exposure as described in California Building Code Chapter 7A and this FSP.

The fire risk factors associated with *Roofing Materials* are considered “**Moderate**” for the Project. All new structures built within the Project will be provided with a Class A Roof as required by El Dorado County Code Section 110.16.110. The design of each roof assembly shall comply with California Building Code Section 705A.

The fire risk factors associated with *Fire Protection - Water Source* are considered “**High**” for the Project. The Project is within 3,000-4,000 feet of existing municipal fire hydrants operated by GDPUD. No existing public or private water main system for fire protection is available within 1,000 feet of the Project. To mitigate the impact of this practical effect, the Project shall ensure that all new structures constructed hereafter provide an approved on-site private water tank system for fire protection as required by GRV and CAL FIRE. These tank systems will be installed

with each individual building permit application at the time the permit is approved by the County of El Dorado.

The fire risk factors associated with *Fire Protection - Fire Department Capability* are considered “**High**” for the Project. The Project site is currently served by GRV and CAL FIRE. Emergency response times to the Project site are consistent with the average response time standards for rural region areas established by the County of El Dorado.

Emergency response resources to the Project is subject to seasonal staffing variations. GRV normally staffs in primary engine at Station 51 with 1-2 firefighters at any one time. CAL FIRE Station 70 is not staffed year-round at this point of time. Additional resources from fire stations at greater travel distances may be required at certain points throughout the year to meet minimum firefighting resources during the early stages of an emergency incident.

The fire risk factors associated with *Utilities* are considered “**High**” for the Project. An existing aboveground PG&E 12-21kV electrical distribution power line bisects Parcels A, B and D. Parcel C does not have an identified power source. Each parcel will receive domestic water supply through an on-site well. Each parcel will likely have a LP-Gas storage tank for heat and other fuel needs.

The fire risk factor associated with *Critical Assets / Infrastructure at Risk* sites in the Project should be considered “**Low**” for the Project. An ecologically significant area has been identified within an approximately 4.0-acre area on the north end of Parcel B. The Project as proposed contains no other values and assets identified within Chapter 8 - Appendix A.

It is important to remember that the risk factor ratings described do not infer that a community is at greater or less risk due to its overall rating. Fires can, and do, cause significant damage to property and structures even when they occur in areas that may receive an overall low or moderate rating. Failure to maintain adequate defensible space, critical fire weather conditions and/or lack of available fire suppression resources due to other emergency incidents may cause a fire to increase its intensity and fire spread beyond the capabilities of firefighters on scene.

4.4 Emergency Vehicle Access Requirements

Emergency vehicle access is an important element of the FSP for the Project area. Emergency vehicle access can be described as the means (e.g., roads, bike paths, trails, etc.) by which firefighters can enter an area to quickly mitigate a wildfire incident before it spreads to adjacent properties and critical assets / infrastructure at risk. Joint efforts to develop and maintain ingress/egress for local evacuation and fire suppression response are required to ensure that both public and firefighter safety is provided.

The main entry/exit point and emergency response route to the Project will be Hackomiller Road. Each parcel will be accessed from Hackomiller Road by a driveway connection. Driveways shall be constructed to meet the following minimum standards:

- Driveways serving as the primary means for emergency vehicle access shall be provided to within 150-feet of all portions of the building.
- Driveways shall provide not less than 10-feet of unobstructed width, not including shoulders, throughout the entire length of the road. An unobstructed horizontal clearance of not less than 14-feet, and a vertical clearance of 13-feet, 6-inches, shall be provided along the length of the driveway.
- Driveways exceeding 150-feet in length, but less than 800-feet, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds 800-feet turnouts shall be provided no more than 400-feet apart.
- Turnouts shall be a minimum 10-feet in width and 30-feet in length with minimum 25-foot tapered ends.
- Driveways shall be designed and maintained to support the imposed live load of not less than 40,000 pounds gross vehicle weight for emergency vehicle access.
- At no point may driveway grades exceed 16% without approval by GRV and with mitigations to meet the "Same Practical Effect" requirements described in CCR Title 14, §1273.03.

See Chapter 8 - Appendix D for further analysis on how the project complies with the fire safe provisions required by California Code of Regulations (CCR) Title 14 - Sections 1270-1275.

A coordinated pre-planning effort between GRV, CAL FIRE and the land owners will contribute to a timely and effective fire suppression response. The pre-planning efforts include accurate mapping that identifies the fire access system and available water supplies. It also identifies community evacuation routes and safe refuge areas. The sharing of electronic site files can enhance GIS efforts and ensure accurate mapping is completed.

4.5 Road and Address Signage Requirements

All structures within the Project shall be issued an address by the County of El Dorado which conforms with the overall address system. Utility and miscellaneous structures are not required to have a separate address. The address installation, location and visibility on the building shall meet the requirements found in CCR Title 24, Part 9 (Fire Code), Section 505. Address signs shall meet the following criteria:

- Sign assemblies shall be constructed of non-combustible materials.
- Sign background shall be of a reflective material and of a contrasting color to the address numbers or letters.
- Address numbers or letters shall be of a reflective material, of a contrasting color to the sign background, and with a height of not less than 4-inches and with a width of ½-inch stroke.
- Spacing between address numbers or letters shall be between ½-inch and 1-inch.

When the building addressed is located more than 150-feet from Hackomiller Road the address sign shall be placed at the driveway entrance onto the parcel. The address sign shall meet the following additional criteria:

- Signs shall be mounted between 4-feet and 7-feet above grade.
- Posted no further than 5-feet from either the driveway or roadway travelled way, and on the same side of the road as the serviced driveway.
- Oriented perpendicular to the direction of travel on the roadway and legible from both directions of travel on the driveway.

4.6 Fire Protection Water Supply Requirements

Section 1275.02 (Water Supply) of California Code of Regulations Title 14 (Fire Safe Regulations), and Section 507 (Fire Protection Water Supplies) of California Code of Regulations Title 24 - Part 9 (California Fire Code), both require an approved water supply that is capable of supplying the required fire flow for fire protection for all new structures hereafter constructed. As the number of structures and their square footages is not known at this date the following general information on required fire flows is the only data currently available for analysis. The required fire flows for determining the water supply needs for the project is described in Table 6.

Table 6: Fire-Flow Requirements¹⁹ for the Project

Fire-Flow Calculation Area (square feet)	Automatic Sprinkler System Type	Minimum Fire-Flow (gallons per minute) ²⁰	Flow Duration (hours)
0-3,600	CFC 903.3.1.3 ²¹	500	1/2
3,601 and greater	CFC 903.3.1.3	½ Value in CFC Table B105.1 (2)	1

The Project is located in a rural area of Garden Valley that has limited water supply capabilities for fire protection available to it. The municipal water service provider for the Garden Valley area is the Georgetown Divide Public Utility District (GDPUD). There are two existing municipal fire hydrants²² in the general area of the Project.

- Hydrant # **530** is located approximately 4,000 feet north of the Project at Hackomiller Road and Atlas Lane. The hydrant provided more than 715 gallons per minute at 20 PSI per test records provided by GDPUD.
- Hydrant # **244** is located approximately 3,000 feet south of the Project at Garden Valley Road and Hackomiller Road. The hydrant provided more than 715 gallons per minute at 20 PSI per test records provided by GDPUD.

¹⁹ "Fire Flow" is the flow rate of a water supply, measured at 20 pounds per square inch (psi) residual pressure, that is available for firefighting.

²⁰ CFC Appendix Section B103.2 authorizes the fire code official to increase the fire-flow requirements when conditions indicate an unusual susceptibility to group fires or conflagrations.

²¹ See NFPA Standard 13D (*Standard for the Installation of Sprinkler Systems in One and Two-Family Dwellings and Manufactured Homes*) as amended by the State of California in Title 24 - Part 9, Chapter 80.

²² Information obtained via e-mail communications with Garden Valley FPD Chief Norman, August 29, 2023.

Both hydrants are supplied by a 6-inch water line. The existing water system on Hackomiller Road is not a looped system. There are no capital improvements projects scheduled by GDPUD for the area that will improve the water system capabilities, or allow the placement of new fire hydrants to serve the Project.

As a nearby municipal water supply is unavailable for the Project, the applicant is proposing to utilize a rural stationary water tank system for fire protection to meet the requirements of GRV and CAL FIRE on each new parcel whenever new structures are constructed on them. This water system shall meet the requirements described in CCR Title 14 §1275.02(b) and El Dorado County Fire Protection Standard D-003.

4.7 Building Siting and Setbacks

All parcels within the Project must provide a minimum 30-foot setback for all structures from all property lines and/or the center of a road, as required by CCR Title 14 - § 1276.01 (a). The purpose of this setback requirement is to reduce the intensity of a wildfire through structure-to-structure ignition sources. A reduction of this minimum setback is permitted by this regulation in some cases²³. As all three new parcels are large enough to plan future structures from being placed too close to adjoining property lines future land owners, and their design team, should ensure that future structures are placed outside this setback criteria.

Development near slopes should be set back far enough from the slope's edge to provide safety from flames moving up the slope or lapping over the edge. The safety area depends on the height of structures and potential flame lengths of burning vegetation on the slope. See Figure 9 for additional details.



California Public Utility Commission (CPUC) General Order 95²⁴, Rule 37, Table 1, Column E, Case Numbers 6 and 7, establish minimum building setback requirements from overhead powerlines. Vertical clearances above structures shall be no less than 12-feet. Horizontal clearances of conductors from structures shall be no less than 6-feet.

CCR Title 14 - §1276.02 requires local jurisdictions to identify “Strategic Ridgelines”, for all land use projects to reduce the fire risk and improve fire protection in the community. All three new parcels being created by this Project are not located in a potential ridgeline area. GRV has confirmed that no strategic ridgelines are proposed at this time in the Hackomiller Road area or within the Project boundaries.²⁵

4.8 Applicable Building Codes and Standards for Wildfire Safety

New structures constructed within the Project will comply with the current requirements of the California Building Code (CBC). All dwellings in the Project shall be provided with an approved automatic fire sprinkler system, as required by State law and County of El Dorado Planning & Building Department requirements. Accessory structures, detached garages, outdoor living space structures, and other miscellaneous structures located on the property shall be constructed in accordance with the current CBC requirements to reduce the risk of a fire spreading to the primary structures on-site. See Chapter 8 - Appendix E for additional details regarding local building department requirements.

For general building construction standards for new residential dwellings refer to the current California Building Standards Code located at: [Codes \(ca.gov\)](https://www.ca.gov/codes).

Single-family dwellings, storage structures and accessory structures constructed within the Project shall be constructed and maintained in accordance with the current design standards found in *California Building Code (CBC) Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure)*. Examples of where construction methods and other development activities shall meet the ignition resistant requirements found in this Chapter include, but are not limited to, the following:

²⁴ See CPUC website; [Original GO95 - rule 37 - Table 1 \(ca.gov\)](https://www.cpuc.ca.gov/governance/rules-and-ordinances/rules-and-ordinances-repository); accessed September 5, 2023.

²⁵ Phone communication with Garden Valley Fire Protection District Chief Wes Norman, August 30, 2023.

- Class A roof assembly with a Class A roof covering, fire resistant valley flashing, and an approved means to prevent the accumulation of leaves and debris in roof gutters.
- Ventilation openings into enclosed attics, enclosed eave soffit spaces, enclosed rafter spaces and underfloor ventilation openings.
- Exterior wall materials, decks, porches, balconies, stairs, and other projections.
- Roof eaves and exterior porch ceilings.
- Exterior windows, doors, glazing and skylights.
- Accessory structures and miscellaneous structures located within 50' of another building.

The following specific material and construction methods above the minimum criteria described in CBC Chapter 7A shall be implemented within the Project to reduce the potential for building-to-building fire spread.

- Block any spaces between roof decking and the Class A roof covering to prevent embers from catching and igniting the building.
- Eaves shall be boxed in (soffit-eave design) and protected with ignition resistant or non-combustible materials.
- Utilize ignition resistant building materials, such as stucco, fiber cement wall siding, fire retardant treated wood, or other approved materials when neighboring structures are within 30-feet.
- Use ember and flame-resistant vents (WUI) to protect exterior wall openings when the wall is located within 30-feet of another building or faces the Wildland Fuel Reduction Zone areas.
- Limit the size and number of windows to bedroom rescue window openings and other essential location when the exterior wall is located within 30-feet of another building.

Fencing materials located within 5-feet of a building shall be constructed of non-combustible materials. Areas located between 0-feet and 5-feet from all structures shall remain non-combustible. Landscape materials and other vegetation located within 0'-100' of dwellings shall comply with the fire-resistant standards of GRV and CAL FIRE.

Exterior combustible decks that cantilever over the natural slope of the property shall be enclosed to reduce the potential of burning embers from a wildfire creating spot fires that can extend into the building.

4.9 Fire Protection System Requirements

All structures within the Project are required to comply with the applicable fire protection system requirements described in CFC Chapter 9. An approved automatic fire sprinkler system is required by these regulations within all new single-family structures within the Project. The design of these fire sprinkler systems shall conform with CFC 903.3.1.2 (NFPA 13D Sprinkler Systems).

Water tank systems for fire protection will be required for all new building(s) constructed on each parcel. The system shall comply with the current requirements of GRV as identified within El Dorado County Fire Protection Standard No. D-003 or other approved method. The system shall be installed and maintained by the landowner prior to the construction of any new building on the parcel.

Smoke and Carbon Monoxide alarm devices shall be provided in all occupied living areas of each building as described in CFC Sections 907.2.11 and 915.

END OF CHAPTER

CHAPTER 5: EMERGENCY PREPAREDNESS AND EVACUATION PLANNING

5.1 Chapter Overview

The purpose of this chapter is to describe the community evacuation plan for the Project and surrounding neighborhoods in the event of an evacuation warning or order being issued by local officials of a local wildfire or similar event. See Chapter 8 - Appendix C for additional details.

This Chapter is based on a Project-specific hazard and risk assessment as described in Chapter 4, and includes analysis on the following subjects:

- Community Evacuation Types and Decision Making
- Community Evacuation Routes
- Temporary Refuge Areas
- Emergency Evacuation Shelters
- Emergency Evacuation Education Materials
- Emergency Notification

5.2 Community Evacuation Types and Decision Making

The decision to initiate a local evacuation during a wildfire emergency rests with the public safety agencies (law enforcement and fire) based on a comprehensive threat assessment made in the field. The implementation and enforcement of evacuation orders rests with law enforcement.

Evacuation types typically focus on one or more of the following methods:

- Evacuation Warnings Issued by Public Safety Officials
- Evacuation Orders Issued by Public Safety Officials
- Temporary Refuge Area / Shelter in Place Decisions made by Residents/Visitors

The principal goal of a wildfire evacuation is to protect the public from the threat of a wildfire without injury or death.²⁶ To achieve this goal the objectives of a manageable and successful evacuation by the public include the following:

- Immediate identification of a wildfire threat and constant awareness of the fire behavior that may impact your location;
- Receiving emergency alerts and communications from public safety officials and responding to their directions in an appropriate fashion;
- Recognizing the need to depart from the area in a judicious and prepared departure;
- Safely and competently evacuating to an area outside a hazardous area;

The County of El Dorado does not currently make its community evacuation plans for the Garden Valley area available to the public for review. No pre-designated emergency evacuation shelters are identified by the County. A temporary refuge area is available approximately 3 miles north at Black Oak Mine High School on Garden Valley Road when evacuating from the area is not possible. See Figure 10 for area map with the available evacuation routes for the Project.

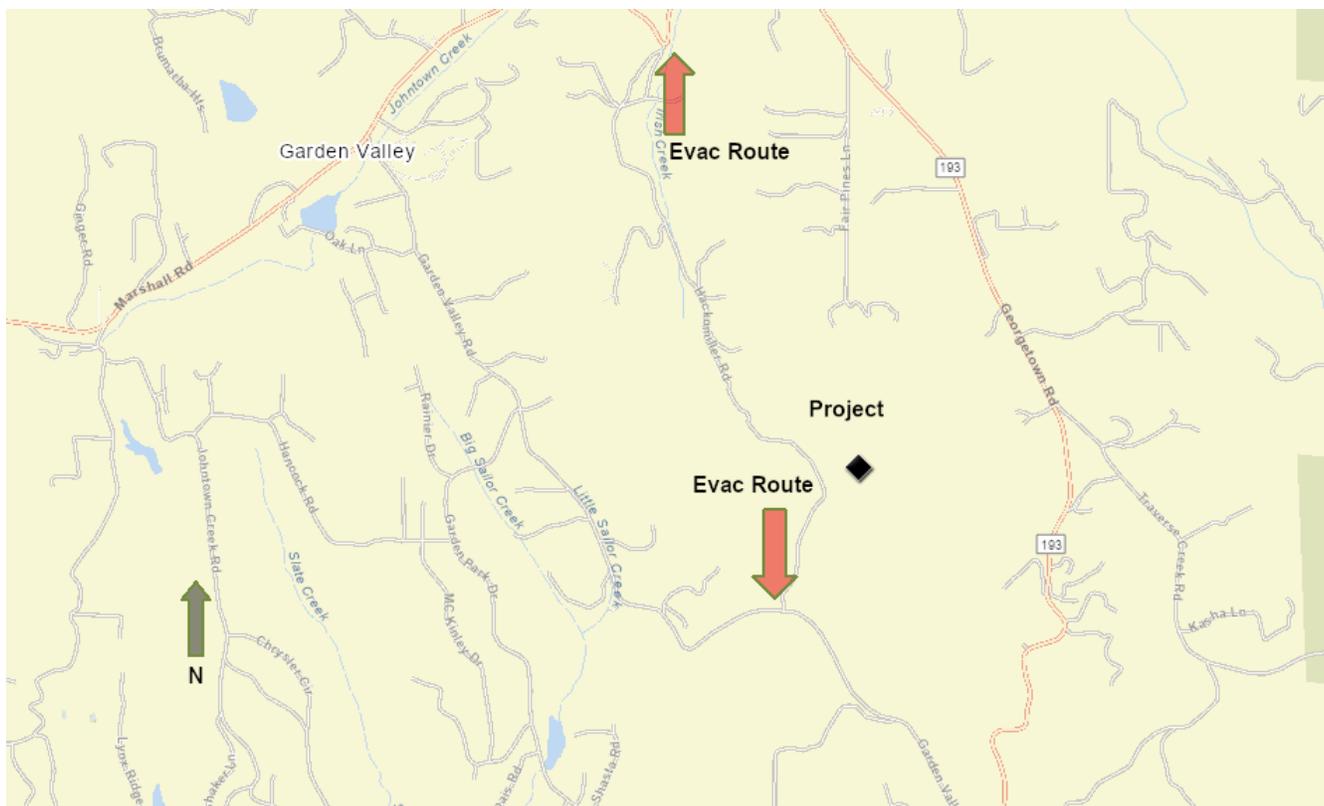


Figure 10: Area Map for Project Showing Evacuation Routes

²⁶ See *Literature Review of the State-of-the-Science in Wildfire Evacuation* (2022); Marin Wildfire Prevention Authority.

The location of the Project next to two known community transportation routes (Marshall Road and CA Highway 193) will permit the Project population and the existing community population to efficiently evacuate the area while maintaining emergency vehicle access. In addition, the resident and visitor population (8 persons +/-) will not adversely impact the existing evacuation routes used during an emergency by the Garden Valley community.

Future residents and visitors should remain vigilant to the threat of a wildfire in the area at all times. Residents should utilize the resources described in Sections 5.3 and 5.4, and be prepared to evacuate their families and animals when ordered to evacuate by a law enforcement or fire official. As the direction of fire travel in the Garden Valley area may occur from any direction, residents and visitors should be familiar with all available transportation routes in the area so as to use the one that is most appropriate based on the situation.

5.3 Emergency Evacuation Education Measures

CAL FIRE has an effective community education program to assist residents and visitors prepare for a wildfire²⁷. The program is titled *Ready-Set-Go* and is designed to assist persons in preparing for and leaving a residence threatened by a local wildfire. This information should be made available to new and existing residents and homeowners through information packets and community websites whenever practical. See Chapter 8 - Appendix I for additional information about this program.

5.4 Emergency Notification

Community notification is an important aspect of evacuation planning. In El Dorado County all public safety agencies have partnered to implement the *RAVE* alert notification system.²⁸ The alert system is managed by the El Dorado County Sheriff's Office and allows for public safety agencies to quickly send an emergency alert to citizens in all geographic areas of the County.

²⁷ CAL FIRE, *Ready Set Go*; <http://www.readyforwildfire.org/>.

²⁸ El Dorado County RAVE, Citizen Notification System; [El Dorado County Emergency Alerts \(edso.org\)](http://www.edso.org)

This system enables the El Dorado County Sheriff's Office team to provide residents with critical information quickly in a variety of situations, such as severe weather, unexpected road closures, missing persons, and evacuations of structures or neighborhoods. El Dorado RAVE provides community members with emergency notifications through telephone call, text message, and email notifications.

El Dorado County has been authorized by FEMA to use the Integrated Public Alert & Warning System (IPAWS). This is FEMA's national system for local alerts that provides authenticated emergency and life-saving information to the public through mobile phones using Wireless Emergency Alerts, to radio and television via the Emergency Alert System, and on the National Oceanic and Atmospheric Administration's Weather Radio.

END OF CHAPTER

CHAPTER 6: FUEL REDUCTION MANAGEMENT AND DEFENSIBLE SPACE CONCEPTS

6.1 Chapter Overview

The purpose of this chapter is to describe the recommended long-term comprehensive fuel reduction management and defensible space best practices for the Project. The best practices include [1] adequate defensible space within 100' of all structures; and [2] the establishment of a Wildfire Fuel Reduction Zone (WFRZ) for all lands between 100-200' of structures when the adjacent slope on average exceeds 20%. This Chapter is based on California Government Code Section 51182 and California Fire Code Section 4903 and includes analysis on the following subjects:

- Defensible Space Requirements
- Wildfire Fuel Reduction Zone Requirements
- Defensible Space Zone and Wildfire Fuel Reduction Zone Criteria
- Fuel Reduction on Vacant Parcels / During Construction
- Annual Fuel Reduction Maintenance Frequency

6.2 Defensible Space Requirements

The term “Defensible Space” refers to reducing the wildfire vulnerability in WUI Zones by actions that will decrease the potential of heat, flames and embers spreading to structures. Defensible space work around structures should be performed within 3 zone areas based on the fire risk reduction efforts necessary to protect the occupants and property.

The 3 defensible space zones around structures are described as:

Zone 0 - Ember Resistant Zone

Zone 0 extends 5-feet from structures, structures, decks, etc.

The ember-resistant zone is currently not required by law, but scientific data has proven it to be the most important of all the defensible space zones. This zone includes the area under and around all attached decks, and requires the most stringent wildfire fuel reduction. The ember-resistant zone is designed to keep fire or embers from igniting materials that can spread the fire to the home. The following provides guidance for this zone, which may change based on the regulation developed by the California Board of Forestry and Fire Protection.

1. Use hardscape like gravel, pavers, concrete and other noncombustible mulch materials. No combustible bark or mulch.
2. Remove all dead and dying weeds, grass, plants, shrubs, trees, branches, and vegetative debris (leaves, needles, cones, bark, etc.); Check roofs, gutters, decks, porches, stairways, etc.
3. Remove all branches within 10-feet of any chimney or stovepipe outlet
4. Limit plants in this area to low growing, nonwoody, properly watered, and maintained plants.
5. Limit combustible items (outdoor furniture, planters, etc.) on top of decks
6. Relocate firewood and lumber to Zone 2
7. Replace combustible fencing, gates, and arbors attach to the home with non-combustible alternatives
8. Consider relocating garbage and recycling containers outside this zone
9. Consider relocating boats, RVs, vehicles, and other combustible items outside this zone

Zone 1 - Lean, Clean and Green Zone

Zone 1 extends 30-feet from structures, structures, decks, etc. or to the property line, whichever is closer.

10. Remove all dead plants, grass, and weeds (vegetation).
11. Remove dead or dry leaves and pine needles from yard, roof, and rain gutters.
12. Remove branches that hang over roof and keep dead branches 10-feet away from your chimney.
13. Trim trees regularly to keep branches a minimum of 10- feet from other trees.

14. Relocate wood piles to Zone 2.
15. Remove or prune flammable plants and shrubs near windows.
16. Remove vegetation and items that could catch fire from around and under decks, balconies, and stairs.
17. Create a separation between trees, shrubs and items that could catch fire, such as patio furniture, wood piles, swing sets, etc.

Zone 2 - Reduce Fuel Zone

Zone 2 extends from 30-feet to 100-feet out from structures, structures, decks, etc. or to the property line, whichever is closer.

18. Cut or mow annual grass down to a maximum height of 4 inches.
19. All exposed wood piles must have a minimum of 10 feet clearance around them, down to bare mineral soil, in all directions.
20. Create horizontal space between shrubs and trees. (See diagram)
21. Create vertical space between grass, shrubs, and trees. (See diagram)
22. Remove fallen leaves, needles, twigs, bark, cones, and small branches. However, they may be permitted to a depth of 3 inches.

All Zones

23. Mow before 10:00 am, but never when its windy or excessively dry.
24. Protect water quality, do not clear vegetation near waterways to bare soil. Vegetation removal can cause soil erosion - especially on steep slopes.
25. Logs or stumps embedded in the soil must be removed in Zone 0. In Zones 1 and 2 they need to be removed or isolated from other vegetation.

Many of these efforts shall be performed by the property owner except in cases whereby the setback distance of the building extends onto another property and/or undeveloped land. In those cases, a coordinated effort will be required between the individual property owners will be required.

Figure 11 provides additional information on defensible zone spaces around structures.

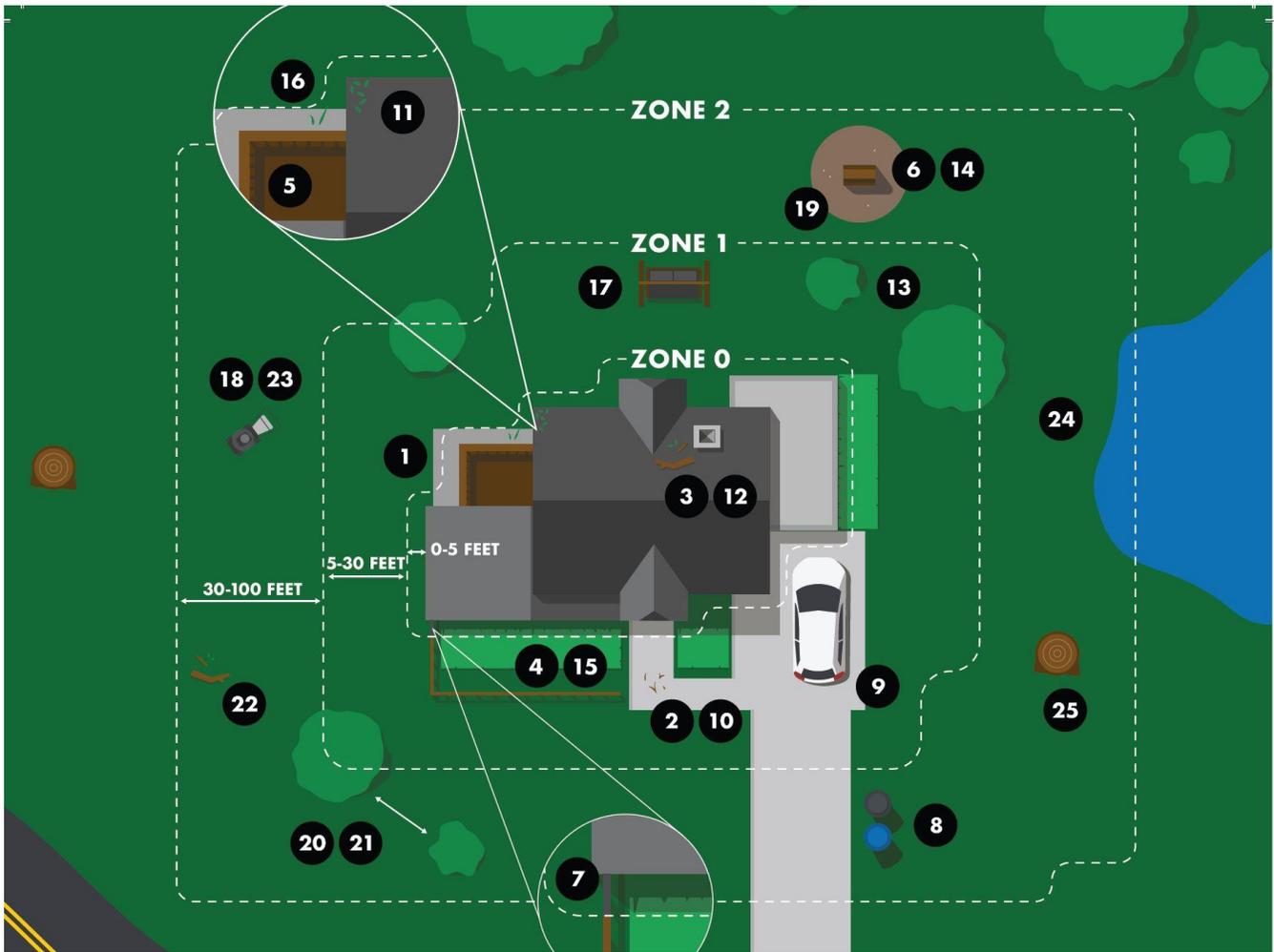


Figure 11: CAL FIRE Defensible Space Zones

6.3 Wildfire Fuel Reduction Zone Requirements

A 100-foot Wildfire Fuel Reduction Zone (WFRZ) shall be implemented and maintained in the area outside the Defensible Space Zone when structures are located on slopes that exceed 20% in accordance with CAL FIRE, GRV and El Dorado County requirements. The WFRZ shall be constructed and accepted by GRV prior to the issuance of the occupancy permit issued by the County of El Dorado for the building. Maintenance of the WFRZ shall be the responsibility of the land owner.

See the specific Defensible Space and Wildfire Fuel Reduction Zone criteria for the Project below for additional details.

6.4 Specific Defensible Space Zone (DSZ) and Wildfire Fuel Reduction Zone (WFRZ) Criteria for the Project

- A. Fuel reduction work shall include the mowing of annual grasses down to a height of 4-inches or less, removal of dead and diseased trees, debris, and the removal of tree limbs on live trees up to a height of 6-feet above the ground. Tree branches are to be limbed to at least 6-feet when possible. The minimum height may be lowered when trees are young or small; or if it is unsafe to reach a 6-foot height due to terrain, equipment, or skill level.
- B. Understory fuels over 1-foot in height are to be removed in order to develop vertical separation and low horizontal continuity of fuels. Individual plants or pairs of plants may be retained provided there is a horizontal separation between plants of 3 to 5 times the height of the residual plants and the residual plants are not within the drip lines of an overstory tree.
- C. Fuel reduction shall include the removal of all dead vegetation 4 inches or less in diameter. Trunks shall be cut flush with the ground. The removal of additional trees shall be done in consultation with CAL FIRE, GRV and County staff.
- D. Threatened and/or endangered species may be present within the WFRZ areas. The recommendations of the Project biologist shall be implemented with respect to avoiding loss or harm to the affected species, or restoration and/or compensation measures to be undertaken if the species' habitat cannot be avoided. For example, if nesting raptors are present, the nesting tree shall not be removed and no tree removal or mechanical activity shall occur within a buffer zone established around the nest until the young have fledged. The Federal and/or State agency with jurisdiction over the affected protected species shall also be consulted.
- E. Annual grasses shall be maintained below 2-inches in height within 30-feet of structures and 4-inches in height in all other areas just after the grasses cure in early summer. Additional fuel treatment work may be necessary throughout the year within 100-feet of structures to maintain defensible space requirements.

- F. It is desirable to remove as much brush and large vegetation as possible within the DSZ and WFRZ areas. However, if individual plants or pairs of plants are desired to be left, leave plants with the following characteristics: young plants less than 5 feet tall and individual or pairs of plants that are no more than 5-feet in width.
- G. Tree snags shall be removed when they meet one or more of the following criteria:
- Snags 17-inch Diameter Breast Height (DBH) or smaller
 - Snags greater than 30-feet in height
 - Snags which are capable of reaching a building
 - Snags closer than 100-feet from adjoining snags.
- H. The cutting of vegetation materials shall be done with CAL FIRE approved spark arrestors.
- I. The removal of annual grasses and other fine fuels shall be completed through the use of plastic string weed trimmers or other CAL FIRE approved equipment.
- J. Chipping of material is permitted. Chipped material shall be removed from the site unless otherwise approved by the land owner representative.
- K. Prescribed burning and / or herbicide use is not allowed within the DSZ and WFRZ areas unless such use is approved by CAL FIRE, GRV and the County of El Dorado.
- L. Approved fire suppression equipment is required on-site at all times during the fuel-reduction activities
- M. All fuel reduction work shall be performed using every reasonable measure to minimize erosion, ground disturbing activities and soil damage. Where the ground is exposed by fuel reduction efforts, the area shall be revegetated and/or erosion control measures shall be installed prior to October 15.
- N. Pruning on live trees shall be performed in accordance with the Best Management Practices set forth by the International Society of Arboriculture (ISA) and conform to ANSI A300 Standards for Tree Care.

- O. The following tree-spacing guidelines are recommended when feasible; and when not in conflict with applicable standards or codes; and after consultation with the CAL FIRE, GRV and El Dorado County Planning and Building Department, or the respective agency representative(s):
- Intermediate Zone (5-feet to 30-feet from structures) - trees / clumps of trees should have a minimum of 18 feet between tree tops. This provision would typically include those trees on private property that extend into the open space.
 - Extended zone (30-feet to 100 feet from structures) - trees/clumps of trees should have a minimum of 12 feet between tree tops.
 - Extended Zone (100-feet to 200-feet from structures) - trees/clumps of trees should have a minimum of 6 feet between tree tops.

6.5 Fuel Reduction on Vacant Parcels / During Construction

Undeveloped parcels adjacent to structures, either when vacant or under construction, can pose a significant fire risk to adjacent occupied structures. To reduce the risk of wildfires spreading to nearby structures a 100-foot defensible space zone shall be established and maintained between developed parcels and adjacent undeveloped parcels or during construction activities. Construction related work such as welding and other “hot work” activities during critical fire periods can pose an increased risk of fire ignition that can lead to a significant wildfire risk. Construction activities shall conform to the current Fire Code provision required by GRV and CAL FIRE.

6.6 Annual Fuel Reduction Maintenance Frequency

The effectiveness of the long-term comprehensive effort requires certain elements to be maintained on an annual or otherwise noted frequency. The coordination of fuel reduction work between the applicant, GRV and CAL FIRE staff, and the adjacent land owner(s) to complete these projects in a timely fashion is imperative for the success in minimizing the wildfire risk in the Project area.

Table 7 provides additional details regarding the recommended maintenance frequency for various activities described in the Plan.

Table 7: Maintenance Frequency for the DSZ and WFRZ

Action Item	Party Responsible	Frequency
Complete annual inspection of the WFRZ using the criteria found in Section 6.4 prior to the declaration of fire season by CAL FIRE to identify the scope of maintenance work required.	Land Owner	Annual
Remove/trim annual grasses to less than 2-inches in height within 30-feet of structures and 4-inches height within 200-feet of adjacent property lines.	Land Owner	Annual
Remove debris piles, dead trees (snags) or dying trees, down trees, and limbs. ²⁹	Land Owner	Annual
Removal of understory fuels that contribute to fire spread.	Land Owner	Annual
Removal or treatment of invasive exotic plant species that may invade the area cleared in the DSZ and WFRZ areas.	Land Owner	Annual
Remove biomass materials from the site and dispose of in accordance with best practices.	Land Owner	Annual
Remove ladder fuels (tree limbs) to 6-foot DBH and increase tree canopy spacing.	Land Owner	10 Year

²⁹ This plan recognizes that dead and dying trees may provide a beneficial use for the habitat. The removal of this vegetation should be completed after an inspection by representatives from CAL FIRE, GRV and the Land Owner has been completed and a scope of work agreed on by both parties.

CHAPTER 7: SUMMARY OF KEY FINDINGS AND PROJECT RECOMMENDATIONS

7.1 Key Findings for the Project

- A. The Project design is consistent with the El Dorado County General Plan fire safety policies and regulations described in Chapter 3.
- B. Fire and rescue services for the Project site are the responsibility of the Garden Valley Fire Protection District (GRV) in accordance with California Government Code § 66474.02(a)(2)(A).
- C. Wildfire protection for the Project and adjacent undeveloped state responsibility areas are the responsibility of CAL FIRE.
- D. The Hackomiller Tentative Parcel Map (Project) is located within a CAL FIRE designated **Very-High** Fire Hazard Severity Zone. The Project is therefore subject to the regulations found in California Public Resource Code Section's 4290 and 4291. See Chapter 8 - Appendix C for additional information.
- E. The Project will be subject to the wildfire mitigation regulations found in the California Building Standard Codes (California Code of Regulations Title 24, Parts 1-12).
- F. The Project has an overall Fire Risk Rating of **High** based upon the ten fire rating criteria outlined in the report.
- G. The Project has no proposed uses that are identified as Critical Assets, Essential Service Locations, or Vulnerable Populations that could be at risk during a wildfire.
- H. No strategic ridgelines to reduce fire risk and improve fire protection, as described by California Code of Regulations Title 14 - §1276.02, have been identified by the Garden Valley Fire Protection District within the Project or adjoining areas.

- I. The location of the Project next to two known community transportation routes (Marshall Road and CA Highway 193) will permit the Project population and the existing community population to efficiently evacuate the area while maintaining emergency vehicle access. No off-site public road improvements are required to Hackomiller Road as part of this Project to provide fire equipment access and civilian evacuation routes in the area.
- J. The resident and visitor population (8 persons +/-) will not adversely impact the existing evacuation routes used during an emergency by the Garden Valley community.

7.2 Fire Protection Plan Mitigation Strategies

1. All private roads and driveways within the Project shall be constructed, and maintained in accordance with GRV and CAL FIRE requirements.
2. All structures, with the exception of utility and accessory structures, shall be provided with approved address identification prior to occupancy.
3. The Project will meet the minimum fire-flow requirements, or the same practical effect through the use of on-site stationary water tanks for fire suppression, as described in Section 4.6 and as required in California Fire Code (CFC) Section 507. See Chapter 8 - Appendix G for additional details on the sizing of on-site water storage tanks for fire protection.
4. All residential dwellings in the Project will be provided with an approved automatic fire sprinkler system designed in accordance with the CFC. Upon occupancy these systems shall be operable and maintained by the individual land owners at all times.
5. All structures constructed shall have a minimum 30-foot setback from property lines to reduce the threat of a wildfire impinging directly on the building. Setback areas may contain driveways, parking areas and/or other non-combustible surfaces.
6. Fencing materials used within 5-feet of all structures shall be constructed of non-combustible materials.

7. Combustible sheds and other outbuildings shall be kept at least 30 feet from residential dwellings and other structures on each parcel.
8. All structures shall be constructed and maintained in accordance with the current design standards found in *California Building Code (CBC) Chapter 7A (Materials and Construction Methods for Exterior Wildfire Exposure)*.
9. All new structures shall be provided with a Class A roof covering as required by the El Dorado County Building Code.
10. The following specific material and construction methods above the minimum criteria described in CBC Chapter 7A shall be implemented within the Project to reduce the potential for building-to-building fire spread.
 - Block any spaces between roof decking and the Class A roof covering to prevent embers from catching and igniting the building.
 - Eaves shall be boxed in (soffit-eave design) and protected with ignition resistant or non-combustible materials.
 - Utilize ignition resistant building materials, such as stucco, fiber cement wall siding, fire retardant treated wood, or other approved materials when neighboring structures are within 30-feet.
 - Use WUI ember and flame-resistant vents to protect exterior wall openings when the wall is located within 30-feet of another building or faces the Wildland Fuel Reduction Zone areas.
 - Limit the size and number of windows to bedroom rescue window openings and other essential location when the exterior wall is located within 30-feet of another building.
11. A coordinated pre-planning effort should be developed between GRV, CAL FIRE and the land owners to create emergency response maps that identify fire access points, water supply locations, community evacuation routes and safe refuge areas.

12. Fuel reduction practices for the Project shall follow the guidelines identified in Chapter 6.
13. A 5-foot defensible space ember-resistant zone (Zone 0) shall be maintained around structures (including fencing within 5 feet).
14. Undeveloped parcels within the Project shall have all hazardous fuels, including annual grasses and dead vegetation, reduced to 4-inches or less within 100-feet of structures, and 10-feet along roads and driveways, during the CAL FIRE declared fire season period.

7.3 Emergency Preparedness and Evacuation Plan Mitigation Strategies

15. CAL FIRE *Ready-Set-Go* education materials should be made available to all new residents of the Project for their use in preparing for an evacuation. GRV and CAL FIRE should be encouraged to visit the neighborhood annually to discuss this material and answer questions by the homeowners. See Chapter 8 - Appendix I for additional details.
16. El Dorado County OES education materials on the *RAVE* program should be made available to all new residents of the Project for use in receiving timely notification information regarding the need to evacuate. See Chapter 8 - Appendix K for additional details.

END OF CHAPTER

Chapter 8: PLAN APPENDIXES

Appendix A: Critical Assets / Populations at Risk Checklist

Facility Type	Essential Service	Population at Risk	Infrabuilding at Risk	Facility Count
Fire Station	X			0
Police Station	X			0
Emergency Evacuation Shelter*	X			0
Government Facilities	X			0
General Acute Care Hospital	X			0
Medical Health Facility		X		0
Adult Residential Care Facility		X		0
Child Care Facility		X		0
Adult Care Facility		X		0
Public Elementary School		X		0
Private Elementary School		X		0
Public Middle School		X		0
Private Middle School		X		0
Public High School		X		0
Private High School		X		0
College / University		X		0
Vulnerable Population Centers**		X		0
Water Treatment Plant			X	0
Water Storage Facility			X	0
Water Conveyance System			X	0
Electrical Transmission Lines			X	0
Electrical Substation			X	0
Sewer Lift Station			X	0
Telecommunications Facilities			X	0
Corporation Yard	X			0
* Includes General Population, Access/Functional Needs Shelters, and Animal Shelters				
** Includes Disadvantaged, Disabled and Low-Income Census Areas				

Appendix B: PRC 4290 and 4291 Checklist

Project Name:				
	CCR Title 14	Conforms	Does Not Conform	N/A
<i>Safe Access and Egress</i>				
Road Width	§1273.01	X		
Roadway Surface	§1273.02	X		
Road Grades	§1273.03	X		
Road Radius	§1273.04	X		
Road Turnarounds	§1273.05	X		
Road Turnouts	§1273.06	X		
Road and Driveway Structures	§1273.07	X		
Dead-end Roads	§1273.08	X		
Gate Entrances	§1273.09	X		
<i>Signing and Building Numbering</i>				
Road Name Signs	§1274.01	X		
Road Sign Installation	§1274.02	X		
Addresses for Structures	§1274.03	X		
Address Installation, Location	§1274.04	X		
<i>Fire Water Standards</i>				
Application	§1275.01	X		
Approved Fire Water Supply	§1275.02	X		
Hydrants	§1275.03	X		
Signing of Water Sources	§1275.04	X		
<i>Building Siting and Fuel Mod.</i>				
Building and Parcel Siting/Setbacks	§1276.01	X		
Ridgelines	§1276.02			X
Fuel Breaks	§1276.03			X
Greenbelts, Open Spaces	§1276.04			X
Disposal of Flammable Vegetation	§1276.05			X

NOTES:

1. No roadway structures (e.g., bridges, culverts, etc.) and dead-end roads are proposed within the project.
2. The review of road designs will occur during the civil improvement and building permit application process.
3. The review of proposed street signage and building numbering will occur during later phases of the project.

Appendix C: Emergency Evacuation Planning Checklist

No.	Risk Factor	Yes	No	Unknown
1	Existing Evacuation Plan is Current?			X
2	General Population Shelters Identified?			X
3	Special Care Shelters Identified?			X
4	Animal Care Shelters Identified?			X
5	Temporary Safe Refuge Areas Identified?			X
6	Emergency Evacuation Routes Identified?	X		
7	Mass Notification System Identified/Used?	X		
8	Ready-Set-Go or Similar Program Used?			X
9	Evacuation Plans Available to the Public?			X
10	Are First Responders Briefed on the Plan?			X
	Total			

Notes:

1. El Dorado County OES has not publicly created an emergency evacuation plan for use by the public and first responders as of the date of this plan.
- 2-4. El Dorado County OES has not publicly designated emergency evacuation shelters throughout the County prior to large-scale emergencies.
- 5-6. The primary emergency evacuation routes in the Garden Valley area have not been formally designated by El Dorado County OES as of the date of this plan. The primary transportation routes out of the area include Marshall Road to either the Rural Centers of Georgetown or Coloma-Lotus, and CA Highway 193 to either the City of Placerville or the Rural Center of Cool.
7. El Dorado County OES uses *RAVE* as its emergency notification system. The system relies on notifications through existing telephone lines and through “opt-in” sign-ups for cell phones and other devices. See Chapter 8 - Appendix K for additional information on this notification system.
- 8-10. GRV and the adjacent fire agencies utilize tactical pre-fire plans that brief first responders on various pre-fire information.

Appendix D: California Code of Regulations Title 14 §1270-1276

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State Minimum Fire Safe Regulations

Board of Forestry and Fire Protection



FOR INFORMATIONAL USE ONLY

View the official California Code of Regulations online at
govt.westlaw.com/calregs

As of April 1, 2023

California Code of Regulations
Title 14 Natural Resources
Division 1.5 Department of Forestry
Chapter 7 - Fire Protection
Subchapter 2 State Minimum Fire Safe Regulations
Articles 1-5

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Article 1 Administration**§ 1270.00. Title**

Subchapter 2 shall be known as the "State Minimum Fire Safe Regulations," and shall constitute the minimum Wildfire protection standards of the California Board of Forestry and Fire Protection.

§ 1270.01. Definitions

The following definitions are applicable to Subchapter 2.

- (a) **Agriculture:** Land used for agricultural purposes as defined in a Local Jurisdiction's zoning ordinances.
- (b) **Board:** California Board of Forestry and Fire Protection.
- (c) **Building:** Any Structure used or intended for supporting or sheltering any use or Occupancy, except those classified as Utility and Miscellaneous Group U.
- (d) **CAL FIRE:** California Department of Forestry and Fire Protection.
- (e) **Dead-end Road:** A Road that has only one point of vehicular ingress/egress, including cul-de-sacs and Roads that loop back on themselves
- (f) **Defensible Space:** The area within the perimeter of a parcel, Development, neighborhood or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching Wildfire or defense against encroaching Wildfires or escaping Structure fires. The perimeter as used in this regulation is the area encompassing the parcel or parcels proposed for construction and/or Development, excluding the physical Structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, Road names and Building identification, and fuel modification measures.
- (g) **Development:** As defined in section 66418.1 of the California Government Code.
- (h) **Director:** Director of the Department of Forestry and Fire Protection or their designee.
- (i) **Driveway:** A vehicular pathway that serves no more than four (4) Residential Units and any number of non-commercial or non-industrial Utility or Miscellaneous Group U Buildings on each parcel. A Driveway shall not serve commercial or industrial uses at any size or scale.
- (j) **Exception:** An alternative to the specified standard requested by the applicant that may be necessary due to health, safety, environmental conditions, physical site limitations or other limiting conditions, such as recorded historical sites, that provides mitigation of the problem.
- (k) **Fire Apparatus:** A vehicle designed to be used under emergency conditions to transport personnel and equipment or to support emergency response, including but not limited to the suppression of fires.
- (l) **Fire Authority:** A fire department, agency, division, district, or other governmental body responsible for regulating and/or enforcing minimum fire safety standards in the Local Jurisdiction.
- (m) **Fire Hydrant:** A valved connection on a water supply or storage system for the purpose of providing water for fire protection and suppression operations.
- (n) **Fuel Break:** A strategically located area where the volume and arrangement of vegetation has been managed to limit fire intensity, fire severity, rate of spread, crown fire potential, and/or ember production.
- (o) **Greenbelts:** open space, parks, wildlands, other areas, or a combination thereof, as designated by Local Jurisdictions, which are in, surround, or are adjacent to a city or urbanized area, that may function as Fuel Breaks and where Building construction is restricted or prohibited.
- (p) **Greenways:** Linear open spaces or corridors that link parks and neighborhoods within a community through natural or manmade trails and paths.

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- (q) Hammerhead/T: A "T" shaped, three-point Turnaround space for Fire Apparatus on a Road or Driveway, being no narrower than the Road or Driveway that serves it.
- (r) Hazardous Land Use: A land use that presents a significantly elevated potential for the ignition, prolonged duration, or increased intensity of a Wildfire due to the presence of flammable materials, liquids, or gasses, or other features that initiate or sustain combustion. Such uses are determined by the Local Jurisdiction and may include, but are not limited to, power-generation and distribution facilities; wood processing or storage sites; flammable gas or liquids processing or storage sites; or shooting ranges.
- (s) Local Jurisdiction: Any county, city/county agency or department, or any locally authorized district that approves or has the authority to regulate Development.
- (t) Municipal-Type Water System: A system having water pipes servicing Fire Hydrants and designed to furnish, over and above domestic consumption, a minimum of 250 gpm (950 L/min) at 20 psi (138 kPa) residual pressure for a two (2) hour duration.
- (u) Occupancy: The purpose for which a Building, or part thereof, is used or intended to be used.
- (v) One-way Road: A Road that provides a minimum of one Traffic Lane width designed for traffic flow in one direction only.
- (w) Residential Unit: Any Building or portion thereof which contains living facilities including provisions for sleeping, eating, cooking and/or sanitation, for one or more persons. Manufactured homes, mobile homes, and factory-built housing are considered Residential Units.
- (x) Ridgeline: The line of intersection of two opposing slope aspects running parallel to the long axis of the highest elevation of land; or an area of higher ground separating two adjacent streams or watersheds.
- (y) Road: A public or private vehicular pathway to more than four (4) Residential Units, or to any industrial or commercial Occupancy.
- (z) Road or Driveway Structures: Bridges, culverts, and other appurtenant Structures which supplement the Traffic Lane or Shoulders.
- (aa) Same Practical Effect: As used in this subchapter, means an Exception or alternative with the capability of applying accepted wildland fire suppression strategies and tactics, and provisions for fire fighter safety, including:
- (1) access for emergency wildland fire equipment,
 - (2) safe civilian evacuation,
 - (3) signing that avoids delays in emergency equipment response,
 - (4) available and accessible water to effectively attack Wildfire or defend a Structure from Wildfire, and
 - (5) fuel modification sufficient for civilian and fire fighter safety.
- (bb) Shoulder: A vehicular pathway adjacent to the Traffic Lane.
- (cc) State Responsibility Area (SRA): As defined in Public Resources Code sections 4126-4127; and the California Code of Regulations, title 14, division 1.5, chapter 7, article 1, sections 1220-1220.5.
- §(ee) Structure: That which is built or constructed or any piece of work artificially built up or composed of parts joined together in some definite manner.
- (ff) Traffic Lane: The portion of a Road or Driveway that provides a single line of vehicle travel.
- (gg) Turnaround: An area which allows for a safe opposite change of direction for Fire Apparatus at the end of a Road or Driveway.
- (hh) Turnout: A widening in a Road or Driveway to allow vehicles to pass.

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- (ii) Undeveloped Ridgeline: A Ridgeline with no Buildings.
- (jj) Utility and Miscellaneous Group U: A Structure of an accessory character or a miscellaneous Structure not classified in any specific Occupancy permitted, constructed, equipped, and maintained to conform to the requirements of Title 24, California Building Standards Code.
- (kk) Vertical Clearance: The minimum specified height of a bridge, overhead projection, or vegetation clearance above the Road or Driveway.
- (ll) Vertical Curve: A curve at a high or low point of a Road that provides a gradual transition between two Road grades or slopes.
- (mm) Very High Fire Hazard Severity Zone (VHFHSZ): As defined in Government Code section 51177(i).
- (nn) Wildfire: Has the same meaning as “forest fire” in Public Resources Code Section 4103.

§ 1270.02. Purpose

- (a) Subchapter 2 has been prepared and adopted for the purpose of establishing state minimum Wildfire protection standards in conjunction with Building, construction, and Development in the State Responsibility Area (SRA) and, after July 1, 2021, the Very High Fire Hazard Severity Zones, as defined in Government Code § 51177(i) (VHFHSZ).
- (b) The future design and construction of Structures, subdivisions and Developments in the SRA and, after July 1, 2021, the VHFHSZ shall provide for basic emergency access and perimeter Wildfire protection measures as specified in the following articles.
- (c) These standards shall provide for emergency access; signing and Building numbering; private water supply reserves for emergency fire use; vegetation modification, Fuel Breaks, Greenbelts, and measures to preserve Undeveloped Ridgelines. Subchapter 2 specifies the minimums for such measures.

§ 1270.03. Scope

- (a) Subchapter 2 shall apply to:
 - (1) the perimeters and access to all residential, commercial, and industrial Building construction within the SRA approved after January 1, 1991, and those approved after July 1, 2021 within the VHFHSZ, except as set forth below in subsection (b).
 - (2) the siting of newly installed commercial modulars, manufactured homes, mobilehomes, and factory-built housing, as defined in Health and Safety Code sections 18001.8, 18007, 18008, and 19971;
 - (3) all tentative and parcel maps or other Developments approved after January 1, 1991; and
 - (4) applications for Building permits on a parcel approved in a pre-1991 parcel or tentative map to the extent that conditions relating to the perimeters and access to the Buildings were not imposed as part of the approval of the parcel or tentative map.
- (b) Subchapter 2 does not apply where an application for a Building permit is filed after January 1, 1991 for Building construction on a parcel that was formed from a parcel map or tentative map (if the final map for the tentative map is approved within the time prescribed by the local ordinance) approved prior to January 1, 1991, to the extent that conditions relating to the perimeters and access to the Buildings were imposed by the parcel map or final tentative map approved prior to January 1, 1991.
- (c) Affected activities include, but are not limited to:
 - (1) permitting or approval of new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d);
 - (2) application for a Building permit for new construction not relating to an existing Structure;

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- (3) application for a use permit;
 - (4) Road construction including construction of a Road that does not currently exist, or extension of an existing Road.
- (d) The standards in Subchapter 2 applicable to Roads shall not apply to Roads used solely for Agriculture; mining; or the management of timberland or harvesting of forest products.

§ 1270.04. Provisions for Application of these Regulations

This Subchapter shall be applied as follows:

- (a) the Local Jurisdictions shall provide the Director of the California Department of Forestry and Fire Protection (CAL FIRE) or their designee with notice of applications for Building permits, tentative parcel maps, tentative maps, and installation or use permits for construction or Development within the SRA, or if after July, 1 2021, the VHFHSZ.
- (b) the Director or their designee may review and make fire protection recommendations on applicable construction or development permits or maps provided by the Local Jurisdiction.
- (c) the Local Jurisdiction shall ensure that the applicable sections of this Subchapter become a condition of approval of any applicable construction or Development permit or map.

§ 1270.05. Local Regulations

- (a) Subchapter 2 shall serve as the minimum Wildfire protection standards applied in SRA and VHFHSZ. However, Subchapter 2 does not supersede local regulations which equal or exceed the standards of this Subchapter.
- (b) A local regulation equals or exceeds a minimum standard of this Subchapter only if, at a minimum, the local regulation also fully complies with the corresponding minimum standard in this Subchapter.
- (c) A Local Jurisdiction shall not apply exemptions to Subchapter 2 that are not enumerated in Subchapter 2. Exceptions requested and approved in conformance with § 1270.07 (Exceptions to Standards) may be granted on a case-by-case basis.
- (d) Notwithstanding a local regulation that equals or exceeds the State Minimum Fire Safe Regulations, Building construction shall comply with the State Minimum Fire Safe Regulations.

§ 1270.06. Inspections

Inspections shall conform to the following requirements:

- (a) Inspections in the SRA shall be made by:
 - (1) the Director, or
 - (2) Local Jurisdictions that have assumed state fire protection responsibility on SRA lands, or
 - (3) Local Jurisdictions where the inspection duties have been formally delegated by the Director to the Local Jurisdictions, pursuant to subsection (b).
- (b) The Director may delegate inspection authority to a Local Jurisdiction subject to all of the following criteria:
 - (1) The Local Jurisdiction represents that they have appropriate resources to perform the delegated inspection authority.
 - (2) The Local Jurisdiction acknowledges that CAL FIRE's authority under subsection (d) shall not be waived or restricted.
 - (3) The Local Jurisdiction consents to the delegation of inspection authority.
 - (4) The Director may revoke the delegation at any time.
 - (5) The delegation of inspection authority, and any subsequent revocation of the delegation, shall be documented in writing, and retained on file at the CAL FIRE Unit headquarters that administers SRA fire protection in the area.
- (c) Inspections in the VHFHSZ shall be made by the Local Jurisdiction.

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(d) Nothing in this section abrogates CAL FIRE's authority to inspect and enforce state forest and fire laws in the SRA even when the inspection duties have been delegated pursuant to this section.

(e) Reports of violations within the SRA shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in the Local Jurisdiction.

(f) When inspections are conducted, they shall occur prior to: the issuance of the use permit or certificate of Occupancy; the recordation of the parcel map or final map; the filing of a notice of completion; or the final inspection of any project or Building permit.

§ 1270.07. Exceptions to Standards

(a) Upon request by the applicant, an Exception to standards within this Subchapter may be allowed by the Inspection entity in accordance with 14 CCR § 1270.06 (Inspections) where the Exceptions provide the Same Practical Effect as these regulations towards providing Defensible Space. Exceptions granted by the Local Jurisdiction listed in 14 CCR § 1270.06, shall be made on a case-by-case basis only. Exceptions granted by the Local Jurisdiction listed in 14 CCR § 1270.06 shall be forwarded to the appropriate CAL FIRE unit headquarters that administers SRA fire protection in that Local Jurisdiction, or the county in which the Local Jurisdiction is located and shall be retained on file at the Unit Office.

(b) Requests for an Exception shall be made in writing to the Local Jurisdiction listed in 14 CCR § 1270.06 by the applicant or the applicant's authorized representative.

At a minimum, the request shall state the specific section(s) for which an Exception is requested; material facts supporting the contention of the applicant; the details of the Exception proposed; and a map showing the proposed location and siting of the Exception. Local Jurisdictions listed in § 1270.06 (Inspections) may establish additional procedures or requirements for Exception requests.

(c) Where an Exception is not granted by the inspection entity, the applicant may appeal such denial to the Local Jurisdiction. The Local Jurisdiction may establish or utilize an appeal process consistent with existing local building or planning department appeal processes.

(d) Before the Local Jurisdiction makes a determination on an appeal, the inspector shall be consulted and shall provide to that Local Jurisdiction documentation outlining the effects of the requested Exception on Wildfire protection.

(e) If an appeal is granted, the Local Jurisdiction shall make findings that the decision meets the intent of providing Defensible Space consistent with these regulations. Such findings shall include a statement of reasons for the decision. A written copy of these findings shall be provided to the CAL FIRE Unit headquarters that administers SRA fire protection in that Local Jurisdiction.

§ 1270.08. Distance Measurements

All specified or referenced distances are measured along the ground, unless otherwise stated.

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Article 2 Ingress and Egress**§ 1273.00. Intent**

Roads, and Driveways, whether public or private, unless exempted under 14 CCR § 1270.03(d), shall provide for safe access for emergency Wildfire equipment and civilian evacuation concurrently, and shall provide unobstructed traffic circulation during a Wildfire emergency consistent with 14 CCR §§ 1273.00 through 1273.09.

§ 1273.01. Width.

(a) All roads shall be constructed to provide a minimum of two ten (10) foot traffic lanes, not including shoulder and striping. These traffic lanes shall provide for two-way traffic flow to support emergency vehicle and civilian egress, unless other standards are provided in this article or additional requirements are mandated by Local Jurisdictions or local subdivision requirements. Vertical clearances shall conform to the requirements in California Vehicle Code section 35250.

(b) All One-way Roads shall be constructed to provide a minimum of one twelve (12) foot traffic lane, not including Shoulders. The Local Jurisdiction may approve One-way Roads.

(1) All one-way roads shall, at both ends, connect to a road with two traffic lanes providing for travel in different directions, and shall provide access to an area currently zoned for no more than ten (10) Residential Units.

(2) In no case shall a One-way Road exceed 2,640 feet in length. A turnout shall be placed and constructed at approximately the midpoint of each One-way Road.

(c) All driveways shall be constructed to provide a minimum of one (1) ten (10) foot traffic lane, fourteen (14) feet unobstructed horizontal clearance, and unobstructed vertical clearance of thirteen feet, six inches (13' 6").

§ 1273.02. Road Surface

(a) Roads shall be designed and maintained to support the imposed load of Fire Apparatus weighing at least 75,000 pounds, and provide an aggregate base.

(b) Road and Driveway Structures shall be designed and maintained to support at least 40,000 pounds.

(c) Project proponent shall provide engineering specifications to support design, if requested by the Local Jurisdiction.

§ 1273.03. Grades

(a) At no point shall the grade for all Roads and Driveways exceed 16 percent.

(b) The grade may exceed 16%, not to exceed 20%, with approval from the Local Jurisdiction and with mitigations to provide for Same Practical Effect.

§ 1273.04. Radius

(a) No Road or Road Structure shall have a horizontal inside radius of curvature of less than fifty (50) feet. An additional surface width of four (4) feet shall be added to curves of 50-100 feet radius; two (2) feet to those from 100-200 feet.

(b) The length of vertical curves in Roadways, exclusive of gutters, ditches, and drainage structures designed to hold or divert water, shall be not less than one hundred (100) feet.

§ 1273.05. Turnarounds

(a) Turnarounds are required on Driveways and Dead-end Roads.

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- (b) The minimum turning radius for a turnaround shall be forty (40) feet, not including parking, in accordance with the figures in 14 CCR §§ 1273.05(e) and 1273.05(f). If a hammerhead/T is used instead, the top of the “T” shall be a minimum of sixty (60) feet in length.
 - (c) Driveways exceeding 150 feet in length, but less than 800 feet in length, shall provide a turnout near the midpoint of the Driveway. Where the driveway exceeds 800 feet, turnouts shall be provided no more than 400 feet apart.
 - (d) A turnaround shall be provided on Driveways over 300 feet in length and shall be within fifty (50) feet of the building.
 - (d) Each Dead-end Road shall have a turnaround constructed at its terminus. Where parcels are zoned five (5) acres or larger, turnarounds shall be provided at a maximum of 1,320 foot intervals.
 - (e) Figure A. Turnarounds on roads with two ten-foot traffic lanes.
- Figure A/Image 1 on the left is a visual representation of paragraph (b).
- (f) Figure B. Turnarounds on driveways with one ten-foot traffic lane.
- Figure B/Image 2 on the right is a visual representation of paragraph (b).

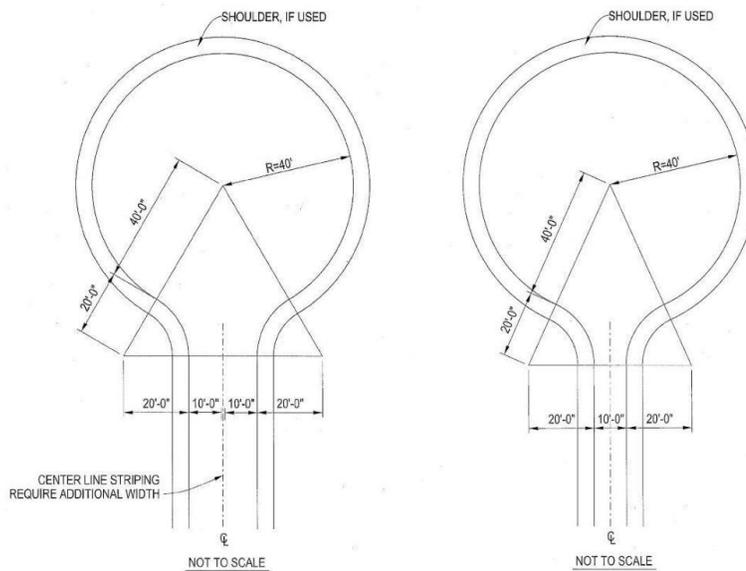


FIGURE FOR 14 CCR § 1273.05. TURNAROUND EXAMPLES

§ 1273.06. Turnouts

Turnouts shall be a minimum of twelve (12) feet wide and thirty (30) feet long with a minimum twenty-five (25) foot taper on each end.

§ 1273.07. Road and Driveway Structures

- (a) Appropriate signing, including but not limited to weight or vertical clearance limitations, One-way Road or single traffic lane conditions, shall reflect the capability of each bridge.
- (b) Where a bridge or an elevated surface is part of a Fire Apparatus access road, the bridge shall be constructed and maintained in accordance with the American Association of State and

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Highway Transportation Officials Standard Specifications for Highway Bridges, 17th Edition, published 2002 (known as AASHTO HB-17), hereby incorporated by reference. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits shall be posted at both entrances to bridges when required by the local authority having jurisdiction.

(c) Where elevated surfaces designed for emergency vehicle use are adjacent to surfaces which are not designed for such use, barriers, or signs, or both, as approved by the local authority having jurisdiction, shall be installed and maintained.

(d) A bridge with only one traffic lane may be authorized by the Local Jurisdiction; however, it shall provide for unobstructed visibility from one end to the other and turnouts at both ends.

§ 1273.08. Dead-end Roads

(a) The maximum length of a Dead-end Road, including all Dead-end Roads accessed from that Dead-end Road, shall not exceed the following cumulative lengths, regardless of the number of parcels served:

- parcels zoned for less than one acre - 800 feet
- parcels zoned for 1 acre to 4.99 acres - 1,320 feet
- parcels zoned for 5 acres to 19.99 acres - 2,640 feet
- parcels zoned for 20 acres or larger - 5,280 feet

All lengths shall be measured from the edge of the Road surface at the intersection that begins the Road to the end of the Road surface at its farthest point. Where a dead-end road crosses areas of differing zoned parcel sizes requiring different length limits, the shortest allowable length shall apply.

(b) See 14 CCR § 1273.05 for dead-end road turnaround requirements.

§ 1273.09. Gate Entrances

(a) Gate entrances shall be at least two (2) feet wider than the width of the traffic lane(s) serving that gate and a minimum width of fourteen (14) feet unobstructed horizontal clearance and unobstructed vertical clearance of thirteen feet, six inches (13' 6").

(b) All gates providing access from a Road to a Driveway shall be located at least thirty (30) feet from the roadway and shall open to allow a vehicle to stop without obstructing traffic on that Road.

(c) Where a One-way Road with a single traffic lane provides access to a gated entrance, a forty (40) foot turning radius shall be used.

(d) Security gates shall not be installed without approval. Where security gates are installed, they shall have an approved means of emergency operation. Approval shall be by the local authority having jurisdiction. The security gates and the emergency operation shall be maintained operational at all times.

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Article 3 Signing and Building Numbering**§ 1274.00. Intent**

To facilitate locating a fire and to avoid delays in response, all newly constructed or approved Roads and Buildings shall be designated by names or numbers posted on signs clearly visible and legible from the Road. This section shall not restrict the size of letters or numbers appearing on road signs for other purposes.

§ 1274.01. Road Signs.

(a) Newly constructed or approved Roads must be identified by a name or number through a consistent system that provides for sequenced or patterned numbering and/or non-duplicative naming within each Local Jurisdiction. This section does not require any entity to rename or renumber existing roads, nor shall a Road providing access only to a single commercial or industrial Occupancy require naming or numbering.

(b) The size of letters, numbers, and symbols for Road signs shall be a minimum four (4) inch letter height, half inch (.5) inch stroke, reflectorized, contrasting with the background color of the sign.

§ 1274.02. Road Sign Installation, Location, and Visibility.

(a) Road signs shall be visible and legible from both directions of vehicle travel for a distance of at least one hundred (100) feet.

(b) Signs required by this article identifying intersecting Roads shall be placed at the intersection of those Roads.

(c) A sign identifying traffic access or flow limitations, including but not limited to weight or vertical clearance limitations, dead-end roads, one-way roads, or single lane conditions, shall be placed:

(1) at the intersection preceding the traffic access limitation, and

(2) no more than one hundred (100) feet before such traffic access limitation.

(d) Road signs required by this article shall be posted at the beginning of construction and shall be maintained thereafter.

§ 1274.03. Addresses for Buildings.

(a) All Buildings shall be issued an address by the Local Jurisdiction which conforms to that jurisdiction's overall address system. Utility and miscellaneous Group U Buildings are not required to have a separate address; however, each Residential Unit within a Building shall be separately identified.

(b) The size of letters, numbers, and symbols for addresses shall conform to the standards in the California Fire Code, California Code of Regulations title 24, part 9.

(c) Addresses for residential Buildings shall be reflectorized.

§ 1274.04. Address Installation, Location, and Visibility.

(a) All buildings shall have a permanently posted address which shall be plainly legible and visible from the Road fronting the property.

(b) Where access is by means of a private Road and the address identification cannot be viewed from the public way, an unobstructed sign or other means shall be used so that the address is visible from the public way.

(c) Address signs along one-way Roads shall be visible from both directions.

(d) Where multiple addresses are required at a single driveway, they shall be mounted on a single sign or post.

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- (e) Where a Road provides access solely to a single commercial or industrial business, the address sign shall be placed at the nearest Road intersection providing access to that site, or otherwise posted to provide for unobstructed visibility from that intersection.
- (f) In all cases, the address shall be posted at the beginning of construction and shall be maintained thereafter.

Article 4 Emergency Water Standards**§ 1275.00. Intent**

Emergency water for Wildfire protection shall be available, accessible, and maintained in quantities and locations specified in the statute and these regulations in order to attack a Wildfire or defend property from a Wildfire.

§ 1275.01. Application

The provisions of this article shall apply in the tentative and parcel map process when new parcels are approved by the Local Jurisdiction.

§ 1275.02. Water Supply.

- (a) When a water supply for structure defense is required to be installed, such protection shall be installed and made serviceable prior to and during the time of construction except when alternative methods of protection are provided and approved by the Local Jurisdiction.
- (b) Water systems equaling or exceeding the California Fire Code, California Code of Regulations title 24, part 9, or, where a municipal-type water supply is unavailable, National Fire Protection Association (NFPA) 1142, "Standard on Water Supplies for Suburban and Rural Fire Fighting," 2017 Edition, hereby incorporated by reference, shall be accepted as meeting the requirements of this article.
- (c) Such emergency water may be provided in a fire agency mobile water tender, or naturally occurring or man made containment structure, as long as the specified quantity is immediately available.
- (d) Nothing in this article prohibits the combined storage of emergency Wildfire and structural firefighting water supplies unless so prohibited by local ordinance or specified by the local fire agency.
- (e) Where freeze or crash protection is required by Local Jurisdictions, such protection measures shall be provided.

§ 1275.03. Hydrants and Fire Valves.

- (a) The hydrant or fire valve shall be eighteen (18) inches above the finished surface. Its location in relation to the road or driveway and to the building(s) or structure(s) it serves shall comply with California Fire Code, California Code of Regulations title 24, part 9, Chapter 5, and Appendix C.
- (b) The hydrant head shall be a two and half (2 1/2) inch National Hose male thread with cap for pressure and gravity flow systems and four and a half (4 1/2) inch for draft systems.
- (c) Hydrants shall be wet or dry barrel and have suitable freeze or crash protection as required by the local jurisdiction.

§ 1275.04. Signing of Water Sources.

- (a) Each hydrant, fire valve, or access to water shall be identified as follows:
- (1) if located along a driveway, a reflectorized blue marker, with a minimum dimension of three (3) inches shall be located on the driveway address sign and mounted on a fire retardant post, or
 - (2) if located along a road,

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- (i) a reflectorized blue marker, with a minimum dimension of three (3) inches, shall be mounted on a fire retardant post. The sign post shall be within three (3) feet of said hydrant or fire valve, with the sign no less than three (3) feet nor greater than five (5) feet above ground, in a horizontal position and visible from the driveway, or
- (ii) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

§ 1275.04. Signing of Water Sources.

- (a) Each Fire Hydrant or access to water shall be identified as follows:
 - (1) if located along a Driveway, a reflectorized blue marker, with a minimum dimension of three (3) inches shall be located on the Driveway address sign and mounted on a fire retardant post, or
 - (2) if located along a Road,
 - (i) a reflectorized blue marker, with a minimum dimension of three (3) inches, shall be mounted on a fire retardant post. The sign post shall be within three (3) feet of said Fire Hydrant with the sign no less than three (3) feet nor greater than five (5) feet above ground, in a horizontal position and visible from the Driveway, or
 - (ii) as specified in the State Fire Marshal's Guidelines for Fire Hydrant Markings Along State Highways and Freeways, May 1988.

Article 5 Building Siting, Setbacks, and Fuel Modification**§ 1276.00 Intent**

To reduce the intensity of a Wildfire, reducing the volume and density of flammable vegetation around Development through strategic fuel modification, parcel siting and Building setbacks, and the protection of Undeveloped Ridgelines shall provide for increased safety for emergency fire equipment, including evacuating civilians, and a point of attack or defense from a Wildfire.

§ 1276.01. Building and Parcel Siting and Setbacks

- (a) All parcels shall provide a minimum thirty (30) foot setback for all Buildings from all property lines and/or the center of a Road, except as provided for in subsection (b).
- (b) A reduction in the minimum setback shall be based upon practical reasons, which may include but are not limited to, parcel dimensions or size, topographic limitations, Development density requirements or other Development patterns that promote low-carbon emission outcomes; sensitive habitat; or other site constraints, and shall provide for an alternative method to reduce Structure-to-Structure ignition by incorporating features such as, but not limited to:
 - (1) non-combustible block walls or fences; or
 - (2) non-combustible material extending five (5) feet horizontally from the furthest extent of the Building; or
 - (3) hardscape landscaping; or
 - (4) a reduction of exposed windows on the side of the Structure with a less than thirty (30) foot setback; or
 - (5) the most protective requirements in the California Building Code, California Code of Regulations Title 24, Part 2, Chapter 7A, as required by the Local Jurisdiction.

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§ 1276.02. Ridgelines

- (a) The Local Jurisdiction shall identify Strategic Ridgelines, if any, to reduce fire risk and improve fire protection through an assessment of the following factors:
- (1) Topography;
 - (2) Vegetation;
 - (3) Proximity to any existing or proposed residential, commercial, or industrial land uses;
 - (4) Construction where mass grading may significantly alter the topography resulting in the elimination of Ridgeline fire risks;
 - (5) Ability to support effective fire suppression; and
 - (6) Other factors, if any, deemed relevant by the Local Jurisdiction.
- (b) Preservation of Undeveloped Ridgelines identified as strategically important shall be required pursuant to this section.
- (c) New Buildings on Undeveloped Ridgelines identified as strategically important are prohibited, as described in subsections (c)(1), (c)(2), and (c)(3).
- (1) New Residential Units are prohibited within or at the top of drainages or other topographic features common to Ridgelines that act as chimneys to funnel convective heat from Wildfires.
 - (2) Nothing in this subsection shall be construed to alter the extent to which utility infrastructure, including but not limited to wireless telecommunications facilities, as defined in Government Code section 65850.6, subdivision (d)(2), or Storage Group S or Utility and Miscellaneous Group U Structures, may be constructed on Undeveloped Ridgelines.
 - (3) Local Jurisdictions may approve Buildings on Strategic Ridgelines where Development activities such as mass grading will significantly alter the topography that results in the elimination of Ridgeline fire risks.
- (d) The Local Jurisdiction may implement further specific requirements to preserve Undeveloped Ridgelines.

§ 1276.03. Fuel Breaks

- (a) When Building construction meets the following criteria, the Local Jurisdiction shall determine the need and location for Fuel Breaks in consultation with the Fire Authority:
- (1) the permitting or approval of three (3) or more new parcels, excluding lot line adjustments as specified in Government Code (GC) section 66412(d); or
 - (2) an application for a change of zoning increasing zoning intensity or density; or
 - (3) an application for a change in use permit increasing use intensity or density.
- (b) Fuel Breaks required by the Local Jurisdiction, in consultation with the Fire Authority, shall be located, designed, and maintained in a condition that reduces the potential of damaging radiant and convective heat or ember exposure to Access routes, Buildings, or infrastructure within the Development.
- (c) Fuel Breaks shall have, at a minimum, one point of entry for fire fighters and any Fire Apparatus. The specific number of entry points and entry requirements shall be determined by the Local Jurisdiction, in consultation with the Fire Authority.
- (d) Fuel Breaks may be required at locations such as, but not limited to:
- (1) Directly adjacent to defensible space as defined by 14 CCR § 1299.02 to reduce radiant and convective heat exposure, ember impacts, or support fire suppression tactics;
 - (2) Directly adjacent to Roads to manage radiant and convective heat exposure or ember impacts, increase evacuation safety, or support fire suppression tactics;
 - (3) Directly adjacent to a Hazardous Land Use to limit the spread of fire from such uses, reduce radiant and convective heat exposure, or support fire suppression tactics;

Appendix E: El Dorado Co. Code Section 110.16 Uniform Building Code

Specific Provisions Applicable to the Project that are found in the El Dorado County Code.

Fire Protection System Shop Drawings

Sec. 110.16.030. - International Building Code, Appendix Chapter 1 Section

106.1.1.1—Fire protection system shop drawings.



Appendix Chapter 1 Section 106.1.1.1 of the International Building Code shall have added:

Plans for buildings more than two stories in height of other than Group R, Division 3 and Group U Occupancies shall indicate how required structural and fire-resistive integrity will be maintained where a penetration will be made for electrical, mechanical, plumbing, and communication conduits, pipes, and similar systems.

The installer shall submit plans showing the proposed installation, indicating the location of the equipment and such accessories as may be required to ensure the proper and safe performance of its function.

(Code 1997, § 15.16.030; Ord. No. 4948, 10-19-2010)

Class A Roof Cover Requirements

Sec. 110.16.110. - International Building Code As Amended, Chapter 15,

Section 1505, Fire classification.



Section 1505 of the International Building Code is amended to read:

1505.1.2 Roof coverings within the unincorporated area of El Dorado County:

The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure shall be a fire-retardant roof covering that is at least Class A for all residential occupancies and Class B for all commercial, industrial and public assembly buildings.

Where, in any specific case, different sections of applicable codes specify different materials, methods of construction, or other requirements, the most restrictive provisions shall govern.

(Code 1997, § 15.16.110; Ord. No. 4948, 10-19-2010)

Appendix F: El Dorado County Fire Chiefs Association Standards

The El Dorado County Fire Chiefs Association has developed a series of fire protection standards that are designed to assist landowners, developers and builders understand and interpret the fire protection design criteria locally. All of the current fire protection standards can be accessed at the following location:

[Fire Prevention Officers - El Dorado County Fire Chiefs association \(edchiefs.org\)](http://edchiefs.org).

The following fire protection standards may apply to this tentative parcel map project:

Standard B-001; Addressing of Structures

Standard B-002; Automatic & Manual Gates on Fire Access Roadways and Driveways

Standard B-003; Emergency Apparatus Access Ways

Standard D-003; Water Supplies for Suburban and Rural Firefighting

Standard G-001; Fire Department Access & Clearances During Construction

Standard H-005; Solar Photovoltaic Standard

Appendix G: Water Tank Sizing for Rural Fire Protection Water Supplies

Select Excerpt from El Dorado County Regional Fire Protection Standard D-003 (Water Supplies for Suburban and Rural Firefighting). All information provided below accepts that the building is equipped with either a residential or commercial automatic fire sprinkler system as required by the current requirements found in Chapter 9 of the California Fire Code. See complete fire protection standard (D-003) for all installation design requirements.

Residential Building Square Footage	Minimum Firefighting Water Supply with Fire Sprinklers	Draft Hydrant Outlet Size ³⁰
<= 1,200 sf	2,500 gallons	4.5"
1,201 - 2,500 sf	2,500 gallons	4.5"
2,501 - 5,000 sf	5,000 gallons	4.5"
5,001 - 7,500 sf	7,500 gallons ³¹	4.5"
7,501 - 10,000 sf	10,000 gallons	4.5"
10,001 - 12,500 sf	12,500 gallons	4.5"
12,501 - 15,000 sf	15,000 gallons	4.5"
15,001 - 17,500 sf	17,500 gallons	4.5"
17,501 - 20,000 sf	20,000 gallons	4.5"

Table A: Water Storage Tank Size Requirements

*Water supply for larger structures, other than the ones listed above, shall be determined by GRV, and shall be designed in 2,500-gallon increments.

*Structures with exposures, as defined by NFPA 1142, shall require a minimum 3,000 gallons water.

³⁰ A 4.5" draft hydrant outlet requires minimum 4" supply piping from the tank to the 4.5" male national hose thread (NH) draft hydrant outlet assembly and shall include a 4.5" female to 2.5" male national hose thread (NH) reducer w/ cap.

³¹ A permit may be required from the County of El Dorado Building Official for all individual tanks capable of holding more than 5,000 gallons of water.

Appendix H: Characteristics of Fire Resistive Vegetation

All plants will burn under extreme fire weather conditions such as drought. However, plants burn at different intensities and rates of consumption. Fire-resistive plants burn at a relatively low intensity, slow rates of spread and with short flame lengths. The following are characteristics³² of fire-resistive vegetation:

- Growth with little or no accumulation of dead vegetation (either on the ground or standing upright).
- Non-resinous plants (willow, poplar, or tulip trees).
- Low volume of total vegetation (for example, a grass area as opposed to a forest or shrub-covered land).
- Plants with high live fuel moisture (plants that contain a large amount of water in comparison to their dry weight).
- Drought-tolerant plants (deeply rooted plants with thick, heavy leaves).
- Stands without ladder fuels (plants without small, fine branches and limbs between the ground and the canopy of overtopping shrubs and trees).
- Plants requiring little maintenance (slow-growing plants that, when maintained, require little care).
- Plants with woody stems and branches that require prolonged heating to ignite.

³² See International Code Council *Wildland Urban Interface Code Section F101; 2021*.

Appendix I: Ready – Set – Go Wildfire Evacuation Program

The geography, weather patterns and number of Wildland Urban Interface communities in California make it a state particularly threatened by devastating wildfire. To help educate property owners and residents in areas most at risk, CAL FIRE has developed a communications program called “Ready, Set, Go!” that breaks down the actions needed to be ready for wildfire.

Ready, Set, Go! Program



Get prepared for wildfire before it strikes by following Ready, Set, Go!

- Be Ready: Create and maintain defensible space and harden your home against flying embers.
- Get Set: Prepare your family and home ahead of time for the possibility of having to evacuate.
- Be Ready to GO!: Take the evacuation steps necessary to give your family and home the best chance of surviving a wildfire.

Go to this link for additional information on the Ready - Set - Go program: [What is the Ready, Set, Go! Program? \(wildlandfirersg.org\)](http://wildlandfirersg.org).

Appendix J: FIREWISE USA®



The National Fire Protection Association (NFPA) Firewise USA® recognition program provides a collaborative framework to help neighbors in a geographic area get organized, find direction, and take action to increase the ignition resistance of their homes and community and to reduce wildfire risks at the local level. Any community that meets a set of voluntary criteria on an annual basis and retains an “In Good Standing Status” may identify itself as being a Firewise® Site.

The Firewise USA® program is administered by NFPA® and is co-sponsored by the USDA Forest Service and the National Association of State Foresters. While the NFPA® administers this program, individuals and communities participate on a voluntary basis. The NFPA® disclaims liability for any personal injury, property, or other damages of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly, or indirectly resulting from participation in the Firewise USA® program. The NFPA® also makes no guaranty or warranty as to the accuracy or completeness of program guidance.

Go to this link for additional information on the FIREWISE USA program: [NFPA - Firewise USA®](#).

Appendix K: El Dorado County Emergency Alert Program

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El Dorado County
EMERGENCY ALERTS
Powered By: **RAVE**
MOBILE SAFETY

Overview

The El Dorado County Sheriff's Office of Emergency Services alert and warning system provides a number of ways in which the county may contact the community in the event of an emergency such as evacuations due to wildfires, hazardous material spills, or urgent law enforcement operations.

The El Dorado County Office of Emergency Services partnered with CalOES to bring the El Dorado County Emergency Alerts notification service to residents and businesses by app, telephone, cell phone, text message, email, and social media when there is a threat to the health or safety of residents.

If you previously signed up for notifications through **Code RED** (El Dorado County's former alert system), you do not need to sign up again to continue receiving notifications. The information from **CodeRED** will migrate over to the new system. We do however encourage new registration as a better way to update your notification options. You may receive notifications from both El Dorado County Emergency Alerts and CodeRED during the transition period. However, we recommend that you [CLICK HERE](#) and sign into El Dorado County Emergency Alerts to verify your information is correct. Your User ID should be your email address. If you forgot you User ID or need your password reset, click "Forgot User ID or Password".

For more information see the FAQ's below.

Should the City of Placerville and the City of South Lake Tahoe come opt-in you will be given the opportunity at registration to opt-in to messages from all agencies that affect your listed address.

New Users

[CLICK HERE](#) to create a new account and sign up to start receiving emergency notifications

Existing Users

[CLICK HERE](#) to log in and edit your existing account

El Dorado County Emergency Alerts Sign Up Instructions

Click on "Sign Up" button above to add your information to this notification system.

You will be asked to create an account:

- Create a Username (email address is recommended)
- Create a Password. Password must be 8 or more characters; at least 1 lower case letter, 1 upper case letter, 1 number, and 1 special character
- Enter preliminary contact information
- Check that you agree to the Terms of Service
- Click "Create Account"

Enter your Address

Most alerts are sent to a specific group, based on the geographical location of the incident or event. Note that if the pin on the map is not over your residence, you can move it to an appropriate location by clicking and dragging the pin. You will not receive any location-based alerts if you do not provide an accurate address.

Add Additional Contacts

After creating your profile, the system will give you the opportunity to add additional household members (Emails), additional addresses, and additional phone numbers.

Below you will see links to download the mobile application for [Android](#) and [iOS devices](#).

Save El Dorado County Emergency Alerts in your Contacts

After creating your account, you may wish to save the contact information for El Dorado County Emergency Alerts to avoid confusing it with a SPAM call or email. Telephone messaging will show a CallerID of 530-621-7595. Emails will come from edcgov@getrave.com. Text messages will come from a six-digit short code that may vary, which cannot be saved.

You may receive notifications from both El Dorado County Emergency Alerts and **CodeRED** during the transition period. If you have not previously signed up for **CodeRED**, please [CLICK HERE](#).

GET THE **Smart911** APP

This new system offers several improvements to include App notifications via Rave's **Smart 911** app. You will receive App notifications if you are in an affected area, even if that area is not your registered address. We also encourage new registration with **Smart911** as a better way to update your profile and notification options.

Appendix L: About the Author

This Fire Safe Plan was prepared in 2023 by Phillips Consulting Services of Georgetown, CA. The author, Ronald A. Phillips, has over 40 years of experience in both fire safety and emergency preparedness. Mr. Phillips served in a variety of positions within the California Fire Service including the position of Fire Chief for the City of Folsom between 2010 - 2016. He has a Bachelor of Science degree in Fire Administration along with several state and national program certificates in specialties such as the emergency management, fire prevention, arson & fire investigation, and the incident command system.

Phillips Consulting Services aids both public and private partners in the following areas of expertise:

- Δ POST Incident Analysis & After-Action Reviews
- Δ Homeland Security Exercises / Improvement Plans
- Δ Emergency Management Planning & Documents
- Δ Community Fire & Rescue Master Planning
- Δ Special Event Planning
- Δ Firewise™ Community Assessments & Plans
- Δ WUI Site Assessments
- Δ Pre-Incident Planning for First Responders
- Δ Fire Code Inspections
- Δ Emergency Evacuation Planning & Training