

EL DORADO HILLS FIRE DEPARTMENT FIRE PROTECTION STANDARD



Wildland Urban Interface Fire Protection Plans STANDARD #W-002 EFFECTIVE 6-6-2022 REVISED 6-6-22

I. PURPOSE:

The purpose of this standard is to communicate the minimum fire safe regulations of the State of California, County of El Dorado (EDC) and the local Fire Code Official for the formation, implementation and on-going use of a *Wildland Urban Interface Fire Protection Plan* (Fire Safe Plan) for new developments and special use permits hereafter created.

II. BACKGROUND:

The California Fire Code (CFC) Section 4903.1 (Where Required), amended by ordinance in EDC by each local fire authority, states: *The fire code official of the fire district may require development projects located in Moderate, High and Very-High Fire Hazard Severity Zones to submit a fire protection plan. This plan shall be approved by both the fire code official and the authorized representative for the local CAL FIRE Unit Chief, if located in the State Responsibility Area (SRA), prior to the recording of the final map for the project by the County of El Dorado.*

III. SCOPE:

This standard identifies when a Fire Safe Plan is required, common definitions associated with the plan creation, who is qualified to prepare plans, the framework for a plan, and how the plan is to be implemented by the property owner or responsible party to mitigate conditions that might cause a wildfire to transmit fire to buildings, threaten to destroy life, overwhelm fire suppression capabilities, or result in large property losses. This standard does not supersede the

fire code official's authority to require more restrictive requirements than those described in this document.

IV. WHERE REQUIRED:

An approved Fire Safe Plan shall be prepared for the following types of development projects:

- A.** The creation of a Specific Plan or similar large-scale project.
- B.** The creation of five (5) or more parcels as part of a parcel or subdivision map.
- C.** A change in zoning or issuance of a discretionary permit which proposes to increase intensity or density.
- D.** New commercial or industrial uses located in High or Very-High Fire Hazard Severity Zones.
- E.** Where in the opinion of either CAL FIRE or the local Fire Code Official it is deemed necessary due to the fire risk or fire hazard associated with the property.

EXCEPTIONS:

- 1.** Accessory and junior accessory dwelling units.
- 2.** Roads used solely for agricultural, mining, or the management and harvesting of wood products.

V. AUTHORITY CITED:

- A.** County of El Dorado General Plan 6.2.2.2 (Limitations to Development).
- B.** 2019 California Fire Code (CFC), Chapter 4, Chapter 4 (Emergency Planning & Preparedness).
- C.** 2020 Local Fire District Ordinance, Chapter 49, Section 4903.1 (WUI Fire Protection Plans).
- D.** 2021 Title 14 of the California Code of Regulations, Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 (Fire Safe Regulations).
- E.** 2019 California Building Code (CBC) Chapter 7A (Materials & Construction Methods for Exterior Wildfire Exposure)

- F. Fire Hazard Planning Technical Advisory Guide (2020) – Governor’s Office of Planning & Research

VI. DEFINITIONS:

- A. **Access** – The roads on a route from a building to the nearest collector road.
- B. **Authority Having Jurisdiction (AHJ)** - A fire department, agency, division, district, or other governmental body responsible for regulating and/or enforcing minimum fire safety standards.
- C. **Building** – Any structure utilized or intended for supporting or sheltering any occupancy.
- D. **Biomass** – Refers to “green waste” materials generated during the defensible space clearing project. This includes grass, weeds, and tree trimming materials.
- E. **CAL FIRE** – Refers to the California Department of Forestry and Fire Protection.
- F. **CWPP** – Refers to the El Dorado County Community Wildfire Protection Plan.
- G. **Defensible Space** – Is the design and maintenance of natural and/or landscaped areas around a structure to reduce the danger from an approaching wildfire. Defensible space is intended to reduce the threat of wildfire spread from the wildland threat area to adjacent structures. 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 three general concepts:
1. Zone 0 - 0-5'; Ember Resistant Zone
 2. Zone 1 – 5'-30'; Lean, Clean and Green Zone
 3. Zone 2 – 30'-100'; Reduced Fuel Zone
 4. Fuel removal or reduction within 100' of structures in all directions
 5. Thinning, pruning and removal of dead vegetation and continuous dense uninterrupted layers of vegetation
 6. Removal of ladder fuels within 6'-10' to prevent fire spread from surface fuels into tree canopies.

- H. Development** – means the uses to which the land which is the subject of a map shall be put, the buildings to be constructed on it, and all alterations of the land and construction incident thereto.
- I. Emergency Vehicle/Evacuation Access Road (EVA)** - A road or other connection designed to connect directly to a through road and used to comply with 14CCR §1273.08 (Maximum Length of New Dead-end Roads). The road shall serve as a secondary means of emergency vehicle access and civilian evacuation for the project.
- J. Fire Code Official** – The fire chief or other designated authority charged with the administration and enforcement of the code, or a duly authorized representative.
- K. Firefighting Water Supply** – Water supply that is dedicated to the use of the fire department for the suppression of any type of fire.
- L. Fire Hazard** – Is 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.
- M. Fire Resistant Vegetation** – Plants, shrubs, trees, and other vegetation which exhibit properties, such as high moisture content, little accumulation of dead vegetation, and low sap or resin content, that make them less likely to ignite or contribute heat or spread flame in a fire than native vegetation typically found in the region. **Note:** The following sources contain examples of vegetation that can be considered fire resistant vegetation. (Fire Resistant Plants for Home Landscapes, A Pacific Northwest Extension publication; Home Landscaping for Fire, University of California Division of Agriculture and Natural Resources; Sunset Western Garden Book).
- N. Fire Risk** – Is the potential damage a fire can cause to buildings, critical assets/infrastructure and other values at risk in individual open space areas and other

wildland urban interface areas. Fire risk does consider modification that may affect susceptibility of property to damage such as defensible space, fire sprinkler systems and building construction that can reduce the risk of burning embers igniting buildings. Fire hazard does not equal fire risk but is an important factor in determining fire risk.

- O. 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.
- P. Greenbelts** – Agricultural lands, open space, parks, wildlands, or a combination thereof, as designated by a local jurisdiction, which surround or are adjacent to a city or urbanized area, and restrict or prohibit development.
- Q. Greenways** – Linear open spaces or corridors that link parks and neighborhoods within a community through natural or manmade trails and paths.
- R. Local Responsibility Area (LRA)** – Those areas of land not classified by the State Board of Forestry where the financial responsibility of preventing and suppressing wildfires is that of the State or Federal government, PRC §4125.
- S. Public 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 as a last resort.
- T. Shaded Fuel Break** – Is a strategy used whereby a strip of land containing fuel (for example, living trees and brush, and dead branches, needles, or downed logs) has been modified to reduce the amount of combustible materials to act as a “strategic landscape” to limit the fire’s ability to spread rapidly. Constructing a shaded fuel break is the process of selectively thinning and removing more flammable understory vegetation while leaving the majority of larger tree species in place. Along roadways, shaded fuel breaks create safer ingress and egress routes for fire personnel and citizens.
- U. Shelter in Placeⁱ** – Is a community approach to protecting neighborhood and individual homes from the imminent threat of a wildfire when residents are unable to evacuate. The communities are built to specific fire safety standards adopted by the AHJ that may allow

the residents who are unable to evacuate to remain inside their ignition-resistant home until the immediate emergency is over.

- V. State Responsibility Area (SRA)** – Areas of the State in which the financial responsibility of preventing and suppressing fires has been determined by the State Board of Forestry and Fire Protection, to be primarily the responsibility of the State, PRC §4102.
- W. Wildfire** – Any uncontrolled fire spreading through vegetative fuels that threatens to destroy life, property, or resources, PRC §4103 and 4104.
- X. Wildland-Urban Interface (WUI)** – A geographical area identified by the State as a “Fire Hazard Severity Zone” in accordance with the PRC §4201 through 4204 and Government Code §51175 through 51189, or through the Healthy Forest Restoration Act of 2003 (Public Law 108-148), as an area within or adjacent to an at-risk community that is identified to be at a significant risk from wildfires.

VII. REQUIRED PERMITS:

- A.** Concurrent with the submission of an application for a Parcel Map or Tentative Subdivision Map that would result in a total of five (5) or more parcels, or other entitlement application for projects described in Section IV, to the County of El Dorado, the project applicant shall submit the required Fire Safe Plan to the AHJ and CAL FIRE - Amador-El Dorado- Unit (AEU) for approval.
- B.** Prior to the approval of a certificate of occupancy for a building the project shall demonstrate to the satisfaction of the AHJ and CAL FIRE that the project complies with all applicable provisions found in the Fire Safe Plan.
- C.** Prior to the recording of a Parcel Map or approval of a Final Subdivision Map, or other entitlement for projects described in Section IV, by the County of El Dorado, the project shall adequately demonstrate that all provisions of the Fire Safe Plan, including the maintenance of green belts, greenways, fuel breaks, shaded fuel breaks and other vegetation management requirements, have either [1] been met to the satisfaction of the

AHJ and CAL FIRE; or [2] that a development agreement or bonding of the required infrastructure has been agreed to by the AHJ and CAL FIRE.

- D. Prior to June 1st each year the property owner or their representative shall demonstrate to the satisfaction of the AHJ and CAL FIRE that the project [1] complies with all relevant provisions of the Fire Safe Plan; and [2] that all fire hazards in the development have been mitigated.
- E. Fire Safe Plans shall be reviewed and updated by the property owner no less than once every five calendar years after its original approval to ensure that the project complies with all current regulations and requirements for existing developments. The AHJ and CAL FIRE shall review and approve this plan update prior to its use.

VIII. QUALIFICATIONS & LICENSES REQUIRED FOR PLAN DEVELOPMENT:

The following persons and / or concerns are qualified to prepare and submit Fire Safe Plans on behalf of the development projects described in Section IV.

- A. California licensed foresters, landscape architects and arborists with fire behavior experience.
- B. Certified Wildfire Mitigation Specialists.
- C. Subject matter experts deemed qualified by the fire code official and CAL FIRE.
- D. A AHJ or other approved federal, state or local agency.

IX. FIRE SAFE PLAN REQUIREMENTS:

- A. Fire Safe Plans shall be based on a site-specific wildfire risk assessment that includes considerations of location, topography, aspect, flammable vegetation, climatic conditions, and fire history. The plan shall address water supply, emergency vehicle access, building ignition and fire-resistance factors, fire protection systems and equipment, defensible space, fuel breaks, buffer zones and vegetation management to

reduce hazard severity and risk. Fire Safe Plans shall be formatted in the following areas to ensure consistency:

1. A cover sheet that identifies the name of the project, the County of El Dorado Planning Permit Number (if applicable), the date prepared and the name of the concern that prepared the plan.
 2. A plan signature page that includes the name and organization of the plan preparer, CAL FIRE – Amador & El Dorado Unit (AEU) representative and the authorized representative for the AHJ.
 3. A section of the plan shall identify the following features of the project:
 - a. Total size of the project
 - b. Information on the adjoining properties on all sides, including current land uses, and, if known, existing structures and densities, planned construction, natural vegetation, environmental restoration plans, roads and parks.
 - c. A map with all project boundary lines, slope contour lines, proposed structure foundation footprints, and proposed roads and driveways. The map shall also identify fuel modification zones and methods of identifying the fuel modification zone boundaries.
 4. A section of the plan shall summarize all recommendations for the project, the timing in which the recommendations are to be implemented, and who the responsible party is to complete these recommendations.
- B.** The plan shall evaluate whether the project will substantially impair an adopted emergency response plan or emergency evacuation plan. The plan shall identify potential mitigation measures that can be adequately employed to reduce the impacts caused to the existing response or evacuation plan.

- C. The plan shall evaluate whether the project exacerbates the wildfire risk due to slope, prevailing winds and other factors. The plan shall identify potential mitigation measures that can be adequately employed to reduce the overall wildfire risk due to the factors identified.
- D. The plan shall identify the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or on-going impacts to the environment. The plan shall identify potential mitigation measures for vegetation reduction around emergency access, evacuation routes and associated infrastructure that can be implemented to ensure that this infrastructure is installed and maintained by the project and successor parties.
- E. The plan shall identify whether the project will expose people or structures to significant risks, including downslope or downstream flooding or landscape, as a result of runoff, post-fire slope instability, or drainage changes.
- F. The plan shall evaluate [1] the local fire protection capabilities; and [2] fire suppression water supply capabilities to adequately serve the project and make recommendations to improve or mitigate deficiencies identified during the analysis of the project.
- G. The plan shall evaluate community wildfire evacuation routes required for the project for their capacity, safety, and viability under a range of scenarios and to ensure consistency with CAL FIRE, CAL OES and AHJ requirements.
- H. The plan shall provide legally binding statements regarding community responsibility for the maintenance of fuel modification zones. The legally binding statements shall be

incorporated into the project covenants, conditions, and restriction regarding property owner responsibilities for vegetation maintenance.

- I. The plan shall include a map identifying all proposed plants in the fuel modification zones with a legend that includes a symbol for each proposed plant species. The plan shall include specific information on each species proposed, including but not limited to:
 - 1. The plant life-form
 - 2. Scientific and common name; and
 - 3. Expected height and width of mature growth

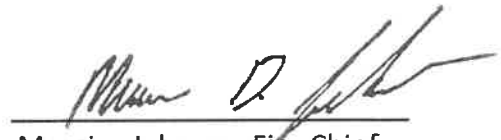
The map shall identify irrigated and non-irrigated zones. The map shall identify all points of access for equipment and personnel to maintain vegetation in common areas.

- J. The cost of fire safe plan preparation and review shall be the responsibility of the project applicant.
- K. The use of alternative materials, designs and methods of construction and equipment proposed within a FSP shall be approved by the AHJ in accordance with CFC §104.9.
- L. Applications for appeal of provisions found in a FSP shall be heard by the AJH Board of Appeals in accordance with CFC §109.
- M. The approved fire safe plan shall be retained by both the AHJ and CAL FIRE for future use. The plan shall also be provided to the project applicant and successor parties for use in implementing the plan provisions.

Approved By:



Ronald A. Phillips, Project Management
Specialist



Maurice Johnson, Fire Chief

HOW TO DISTINGUISH CHANGES TO THIS STANDARD FROM PRIOR STANDARD PROVISIONS

| Indicates a new standard section has been added.

RED indicates language changes have been made since the previous version of this standard.

ⁱ The shelter in place concept is normally associated with new communities and developments where fire protection features such as defensible space, home hardening, Class A roofs, automatic fire sprinkler systems, etc.... are present.

