SIESTA GROVE

WILDFIRE HAZARD EVALUATION

STRUCTURE HARDENING CLASSIFICATION

And

WILDFIRE MITIGATION PLAN

PREPARED BY

Robert Harvey, CWMS

Rubicon Wildfire Solutions, LLC.

Monument, CO

719-246-3026

June 20, 2026

SIESTA GROVE

Rubicon Wildfire Solutions LLC was engaged by **VERTEX Consulting Services LLC.** of Colorado Springs to conduct the survey, analysis and develop the necessary wildfire reports for the **Siesta Grove subdivision** to meet the El Paso County Community Development and Planning Department requirements for development within the unincorporated areas of El Paso County. These reports meet the requirements of the recently adopted **Colorado Wildfire Resiliency Code (v-1 June 2025).**

Siesta Grove is a proposed subdivision of land bordered by Farrar Road on the east and Siesta Grove on the south. Adjacent lands to the south and east are in an Agriculture classification. Adjacent property to the north is a subdivision known as Haes Haven with 7 primary single family dwellings. The land west is within the High Forest Ranch subdivision and contains a mitigated forest of Ponderosa Pines. The 4 lots within the Siesta Grove subdivision range in size from 2.5 acres to 29 acres with one structure existing on the 29 acre lot that will remain. No other structures exist on the proposed subdivision. A 0.67 acre Mapped PUSCh National Wetlands Inventory straddles the lot boundaries of two lots that abut Farrar Road.

A Site Survey was conducted to determine the factors relevant to wildfire susceptibility, fire spread potential, fire intensity level, structure threat factors, and fire suppression probability in the existing fuels. The survey included topographical features that may influence wildfire behavior in the current land configuration. Adjoining properties were surveyed for a distance of 500 feet of the property boundary to determine if the adjoining property constitutes a fire risk to the proposed subdivision. A Wildfire Risk Analysis at this point in a subdivisions development time line can only identify what conditions are at the present, this cannot account for the modifications in vegetation, grading or other development changes that occur after this report.

FIRE HISTORY: The available records at the CSFS (Colorado Wildfire Risk Viewer) and the data base of BFFR were examined for fire history on this parcel of land or within a relevant distance to the site. This land shows a low to non-existent fire history with no ignitions being recorded on this land or the adjacent properties within the specified distance of 500’ of note is the Black Forest Fire of 2013 that extended in a perimeter of approximately 0.78 miles SW of the site. The Black Forest Fire occurred in a significantly different Fuel Classification than what exists in the Siesta Grove subdivision (proposed) site and would only have seen fire behavior in the seasonal grasses that ember lofting and carry may have involved in fire, this would have been an easily suppressed fire as the land currently exists.

WILDFIRE HAZARD IDENTIFICATION

CHAPTER 3 CWRC

SITE SURVEY

Rubicon Wildfire Solutions conducts all site surveys as boots on the ground to collect relevant information that cannot be clearly observed by the use of UAV or satellite/aerial photograph images that view the area as a flat surface and does not see the understory or below the canopy of a forest. On the day of the survey there had been no snow cover to impact the ground fuels for approximately three weeks.

FUELS: The entire development site fits into a Grasslands Fuel Model (Fuel Model A NFPA 1140, Fire Behavior Fuel Model 1 USFS). There are no shrubs or brush class fuels to alter the fire behavior model such as Gamble Oak or Mountain Mahogany. A small amount of Ponderosa Pine exists on the site but is of low density (continuity) that alteration of the fuel modeling is not warranted for this site.

CWRC Classification 303.2.1 Low Fire Intensity will apply for the entire development site. The Low Classification identifies areas with light to medium surface fuels such as grasses, shrubs and scattered low-density vegetation. These fuels are often discontinuous which limits flame propagation but can sustain burning under moderate weather conditions (winds). Flame Lengths in the observed fuel would not exceed 18" making direct suppression by mobile attack of fire apparatus the preferred suppression tactic. The grasses on site are seasonal grasses with low continuity and cure in late July to August when their availability as a 1 Hour Fuel will hit its peak.

TOPOGRAPHY: The Siesta Ridge development site is situated on the top of the Palmer Divide, a geographical dividing feature that runs generally east and west which contributes to climate distinction north and south of the divide. **While the site is situated on the north side of the division there is no true aspect influence on the fuels (grasses) on the development site, this is due to near total solar exposure with no canopy to creating a cooling effect.**

The overall slope measured out at an average of 1.15% with small, runs of 2% that are not considered a factor in wildfire behavior where 10% is an entry threshold factor in wildfire calculations. No deep ravens, box canyons, steep cut banks or any other topographical features were observed to indicate impacts on wildfire behavior.

LOCAL WEATHER: The local weather at the development site is fairly normal for a high plains environment. The most critical weather factor in wildland fire in this area are high winds that

can exceed 70 mph on occasion. The Black Forest Fire (in proximity) experienced a sustained wind of 45 mph with gusts to 62 mph. Should high winds impact the Siesta Grove site a fire in the grass fuels would likely not sustain itself due to the low density arrangement of the grass stems.

ADJOINING PROPERTIES: The adjoining properties to the west in the High Forest Ranch subdivision are well mitigated and were one of the first subdivisions in Colorado where mitigation occurred prior to building on individual sites. The properties to the north in the Haes Haven subdivision are in the same fuels and topography classifications as the Siesta Grove site and pose no threat to the subdivision. Parcels to the south and east are in agriculture status for grazing lands. These grasses pose the lowest threat to the Siesta Grove site, and are separated by roadways and shoulders that exceed 20 feet in bare mineral composition.

SITE ANTICIPATED FIRE BEHAVIOR

Given the factors observed during the ground survey the anticipated fire behavior in the current state of grasslands is **a low intensity grass fire with Flame Lengths not exceeding 2' in a cured seasonal grass fuel bed that has experienced a high degree of fuels drying. With a Flame Length of 2' the thermal output is typically 20 BTUSec/FT which indicates a spread rate of approximately 3' per minute but may increase to 10' per minute with strong influencing winds. The fuel density of grass is marginal for effective carry of fire with a large percentage of bare soil visible per square foot across the survey area.**

The standard tactic in fire situations in grass classifications like this is Envelopment with off road capable engines in a pump and roll configuration.

COLORADO WILDFIRE RISK VIEWER

The Colorado Wildfire Risk Viewer (Colorado State Forest Service) is based on aerial surveys and subsequent mapping that was developed without ground verification to qualify what a photo interpreter was seeing. This tool has not had sufficient updates to note modifications that have occurred during its life and it does not take into account what mitigation, fuel reduction or natural singular fuels profile exist under a forested canopy. The Colorado Wildfire Risk Viewer is a fairly low accuracy indicator of wildland fire behavior characteristics and risk to properties that have changed profiles over the years. The CWRV was developed for a baseline understanding by homeowners, Realtors and Planning Agencies about wildfire risk and is not used by fire agencies or firefighters to determine any factor in fire behavior, trends analysis, evacuation routes or as an indicator for wildfire intensity. The CWRV Tool is only included here as a requirement by the El Paso County Planning and Community Development Department.

Fire Intensity Level – Low (this indicates the level of intensity under aerial survey).

Burn Probability – Moderate (this is the Viewer indicator of fuels ignition and consumption probabilities on site).

WUI – Low (this indicates the amount of structures considered exposed to WUI fire).

Values at Risk – Low (VAR relates to improvements such as structures or harvestable crop). There is an identified National Wetlands Inventory site within Siesta Grove development site.

Surface Fuels – GR2 Low Load Climate Grass, Dry (a classification of predominate fuels)

Vegetation – Grasslands

Canopy Cover – 0% (indicates how much of the site has a forest canopy).

Slope – Lowest Slope Factor

Widfire Ignitions – 0 ignitions reported on private land. The Risk Viewer does not include the Black Forest fire ignition point(s) in it's fire threat inventory.

STRUCTURE HARDENING

CHAPTER 4

CLASS 1 – STRUCTURE HARDENING, SECTION 403 of the Colorado Wildfire Resilience Code will apply to structures built on Siesta Grove parcels. The report developers responsibility in this section is to identify the Classification based on the observed and planned factors so that a structure is not over built or underbuilt to meet wildfire resistance, it is not the responsibility of the surveyor/report developer to re-write the pertinent Section of the CWRC, rather the homeowner, Architect, Designer and Builder must avail themselves of a copy of the CWRC that is applicable at the time of Building Permit issuance. The current CWRC is available on the Colorado Department of Public Safety website at no cost.

Given the low intensity of natural fuels the minimal amount of structure hardening is required for structures in this development. **One requirement is critical and that is found in Section 403.4 Ventilation Openings. The requirement for the noncombustible, corrosion-resistant, metal mesh with openings not to exceed 1/8-inch is crucial to prevent embers which can carry great distances being blocked entry into the structure.**

In considering the ember carry factor all exposed, horizontal surfaces should be of a non-combustible or low combustible material. In the United States there are recorded embers carried on winds of the 6 mile range from fire to receptive combustible structure components.

Special Note Siesta Grove: The existing single family dwelling and ancillary structures on the 29 acre lot may be in the category of Existing Non-Conforming in regards to the structure hardening requirements. This must be determined by the El Paso County Planning Department and the Regional Building Department.

SITE and AREA REQUIREMENTS

(MITIGATION)

CHAPTER 5

All of the observed conditions indicate that Siesta Grove subdivision site classification for mitigation shall be dictated by requirements found in the CWRC in **SECTION 502 CLASS 1 REQUIREMENTS.** The report developer's responsibility in this section is to determine factors for Classification assignment based on observations and known plans for development. It is not the responsibility of the report developer to write verbatim the requirements of the indicated section. The homeowner, Landscape Designer, Builder and any associated trades that will work on a project in this development must obtain a copy of the current at time of Building Permit issuance. The Colorado Wildfire Resilience Code can be obtained from the Colorado Department of Public Safety website at no cost.

All elements and requirements found in the CLASS 1, section 502 are critical to keep wildfire from impacting the structure.

The Immediate Zone (Zone 0 in some jurisdictions) is found to be the most critical zone in regards to structure survivability, this requires that a distance of 0'-5' from the structure, considered from protruding structure elements such as overhangs contain no combustible materials including shrubbery, grasses and storage of combustible furniture or refuse containers.

The homeowner should consider consulting with a CWMS in the design stages of the landscaping to avoid plantings in non-appropriate areas and to qualify that the design plan meets the requirements of the CWRC.

CAUTINARY NOTE: The homeowner should consult with a representative of the insurance company their structure will be insured by in the early phases of design so that any conflict with the insurance companies requirements can be avoided.

Reports prepared by:

Robert C. Harvey, **CWMS**

NFPA #1190244-CWMS