

# WESTERN EVERGREEN – PLAN UNIT 8

Rating: High

Evacuation Data Summary					
Number of Structures	Number of Cars	Average Time to Evacuate (min)	Median Time to Evacuate (min)	Minimum Time to Evacuate (min)	Maximum Time to Evacuate (min)
53	114	79	85	49	91

It was difficult for the Forest Stewards Guild to assess much of the residential areas due to private roads and gates. Structures are on huge parcels with little risk of structure to structure ignition. Ponderosa Pine and mixed conifer timber stands are very dense in places and could be difficult to access. Roadway treatments would make a large difference for firefighter response and resident evacuation safety. A few homes were observed tucked into denser north aspect fuels where Home Ignition Zone improvements are essential for structure survival.



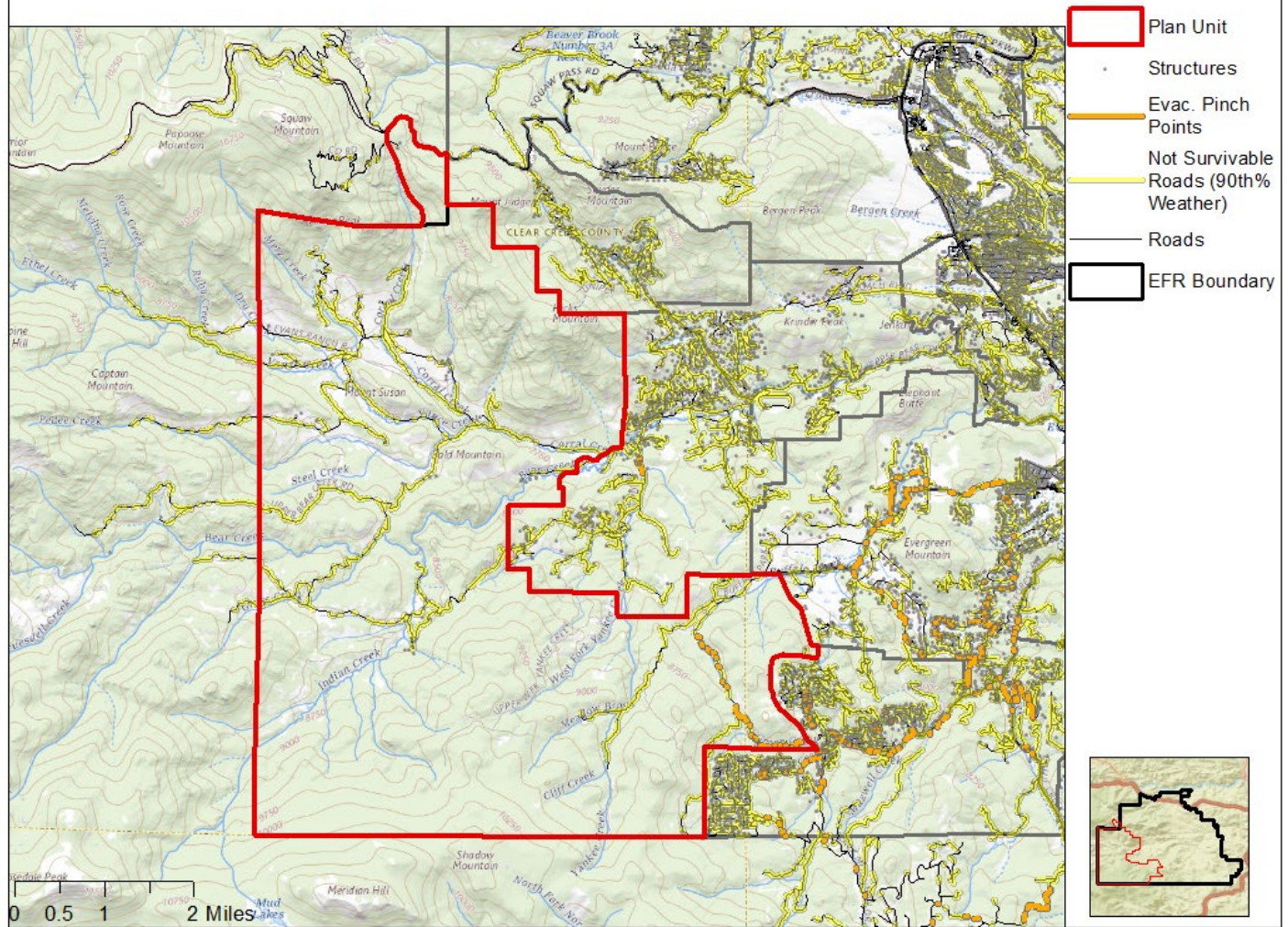




Some meadows and agricultural areas should be expanded and utilized to anchor treatments to for improved tactical response and firefighter safety. Some structures visible have flammable construction materials that need to be improved (roofing material, siding, landscape material, etc.).

## Plan Unit: Western Evergreen

## Legend



Western Evergreen has a section of road with Evacuation Pinch Points. Stransky Road modeled high evacuation congestion and non-survivable fuels adjacent to the road. This location must be mitigated immediately for safety of residents that will need this evacuation corridor. Next priority location should be any of the other evacuation corridors with non-survivable roadway.



**Plan Unit: Western Evergreen**

**Legend**

- Plan Unit
- Structures
- Roads
- Radiant Heat Exposure
- Short Range Spotting Potential
- Long Range Spotting Potential
- EFR Boundary

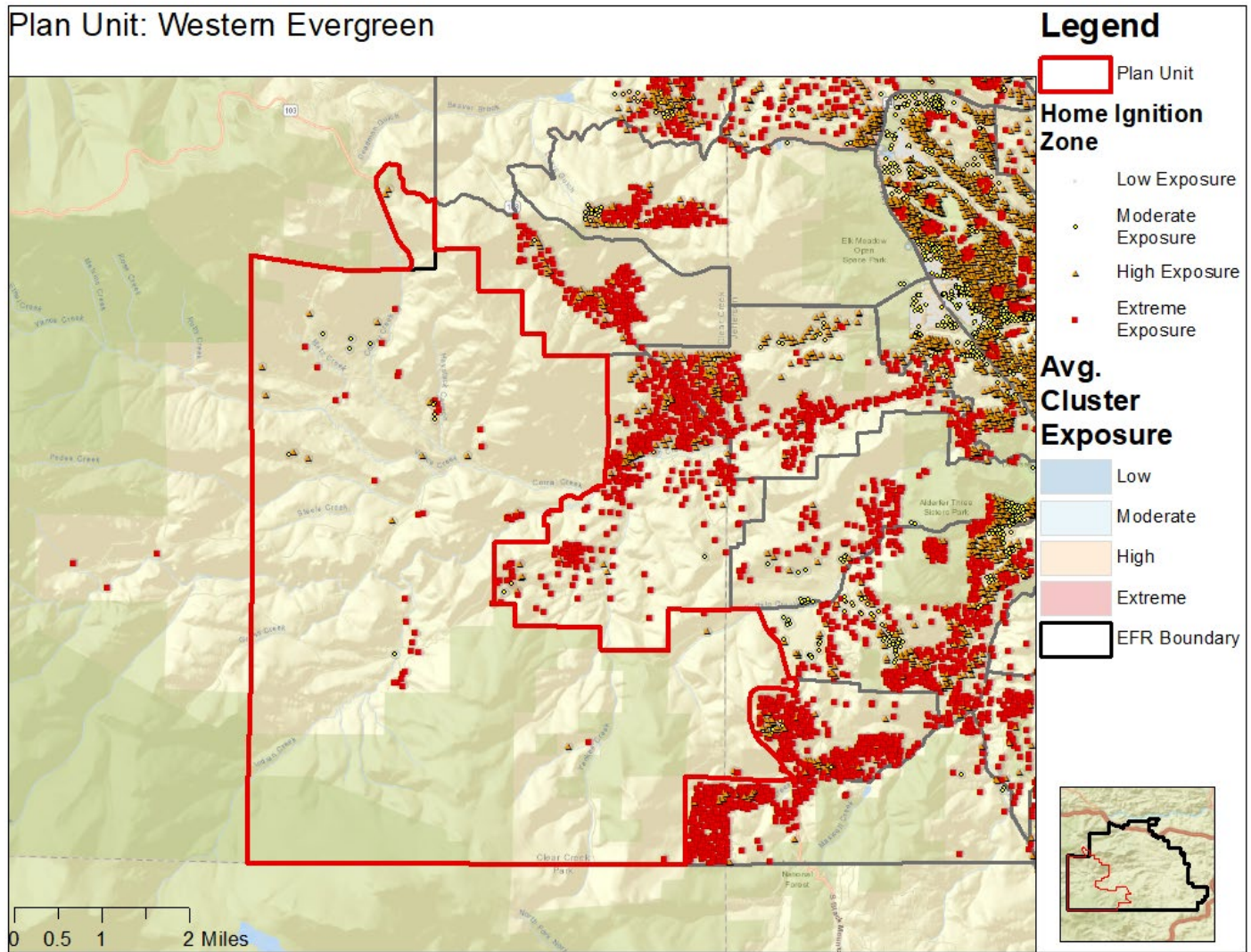
0 0.5 1 2 Miles

The map displays the Western Evergreen Plan Unit, outlined in red. It shows a complex network of roads and structures. The background is color-coded to represent radiant heat exposure (shades of orange and red) and spotting potential (yellow and white areas). A scale bar at the bottom left indicates distances up to 2 miles. An inset map at the bottom right shows the location of the plan unit within a larger regional context.

Radiant Heat exposure is designed to show neighborhoods where vegetation will create fire behavior extreme enough to ignite home materials. Short- and long- range spotting is when embers travel a distance from the fire and continue its spread away from the main fire –this can be a deluge of embers that is difficult to combat. These ignition risks are present to extreme degrees in Evergreen Fire Protection District. Different visualizations of this data are mapped on the following pages and will give residents a clearer path forward to mitigation.



## Plan Unit: Western Evergreen



Ember exposure outputs (radiant heat, short range spotting, and long-range spotting, as seen above) were overlaid with structure points buffered as the Home Ignition Zone (100 ft). Structures in which greater than 50% of the home ignition zone was covered by radiant heat, short range spotting, or long-range spotting were defined as being at risk from that hazard. Extreme exposure means all three factors are present, as the model indicates.

These values were then aggregated at the structure cluster level which are dissolved 100 m buffers of structures. If a structure's 100m buffer intersects a different structure's buffer, they are part of the same cluster. Average exposure to all the structures in the cluster is displayed behind the structure point on the above map. This means that even though some structures may be a lower risk due to the wildland fuels adjacent to their home, they will be still at extreme risk as home to home ignition is extremely likely.

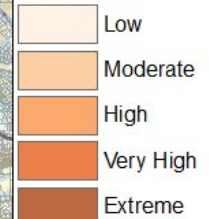
Structures are quite dispersed in Western Evergreen, so the recommendation here is for individual homeowners to work on home hardening to make their property less vulnerable to embers. Couple this action with defensible space improvements to make defense of these homes possible. With such remote structures, it will be challenging to defend homes among miles of unmitigated fuels.

## Plan Unit: Western Evergreen

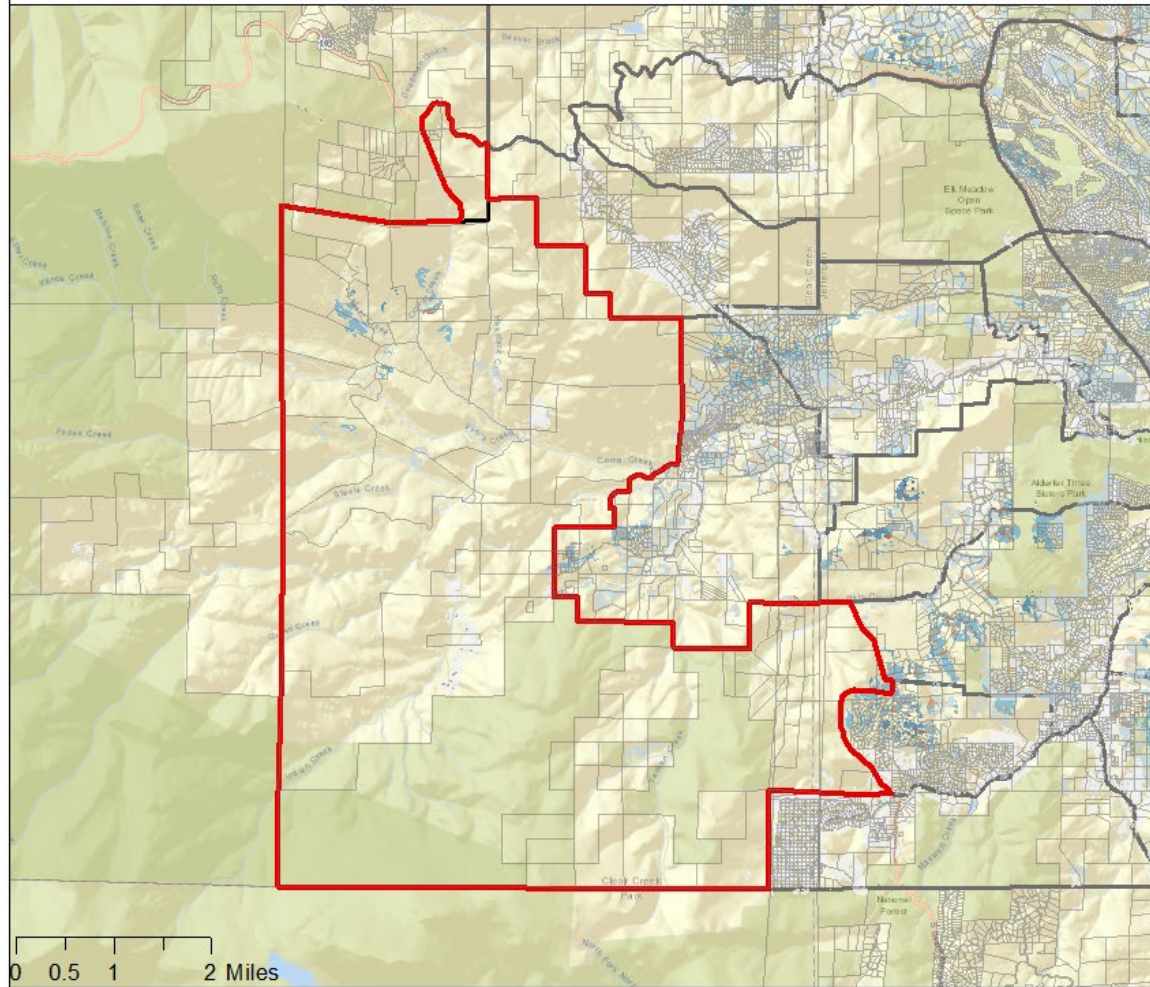
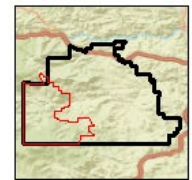
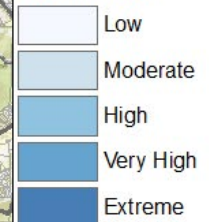
## Legend

### Treatment Areas

#### Short Range Spotting



#### Radiant Heat



Radiant heat and short-range ember exposure are displayed and filtered by accessible treatment areas (by slope and distance to a roadway). High to Extreme risk areas displayed in those maps are highest priority to protect from radiant heat and short-range spotting, however, this does not negate the need for defensible space treatment across the landscape.

There is quite a bit left off this map as to what wildland fuels are accessible and in need of immediate mitigation in Western Evergreen. This Plan Unit is better addressed in the landscape-scale fuel treatment section of the CWPP. Residents, USFS, and Jefferson County schools will need to address some of the high-risk areas here and plan to protect Evergreen Fire Protection District as a whole.

### **Shelter-in-place**

No shelter-in-place location is recommended at this time for Western Evergreen. Along Evans Ranch Road, a riparian and agricultural corridor could become a shelter-in-place if the surrounding vegetation were thinned and removed. This location is partially Jefferson County Schools property and should be an eventual to create a shelter location for the Mount Evans Outdoor Lab School, an important value at risk. There is still too much wildland vegetation here posing a risk to residents and students to become a shelter location.