

# BEAR CREEK WEST – PLAN UNIT 6

*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)
431	894	87	86	76	105

Most development within Bear Creek West is on southerly aspects with great defensible space and thinned mature Ponderosa Pine. A handful of homes occur on very thick mixed-conifer north aspects. These homes are in and adjacent to extremely hazardous fuels and should be first priority for this plan unit’s defensible space work. Road access is good, and terrain is mostly gentle.



Homes around Normandy Road in low-density Ponderosa Pine forest structure with clear evidence of past fuels work. Some mid-slope properties need more thinning from below and increased crown spacing to 15 feet.





In the southwest corner of the Plan Unit along CO 481, the neighborhoods around Ranch Trail and Sacred Mountain Trail, there is a grouping of older wooden homes without defensible space. Driveways are tight and homes appear to not have year-round occupancy. Year round and seasonal residents are at increased evacuation risk.





Moving north, in the area around David Drive and Mary Beth Road, the whole neighborhood has good defensible space and safer adjacent timber fuels. Parcels should maintain the defensible space work and increase can for increased firefighting tactical options.



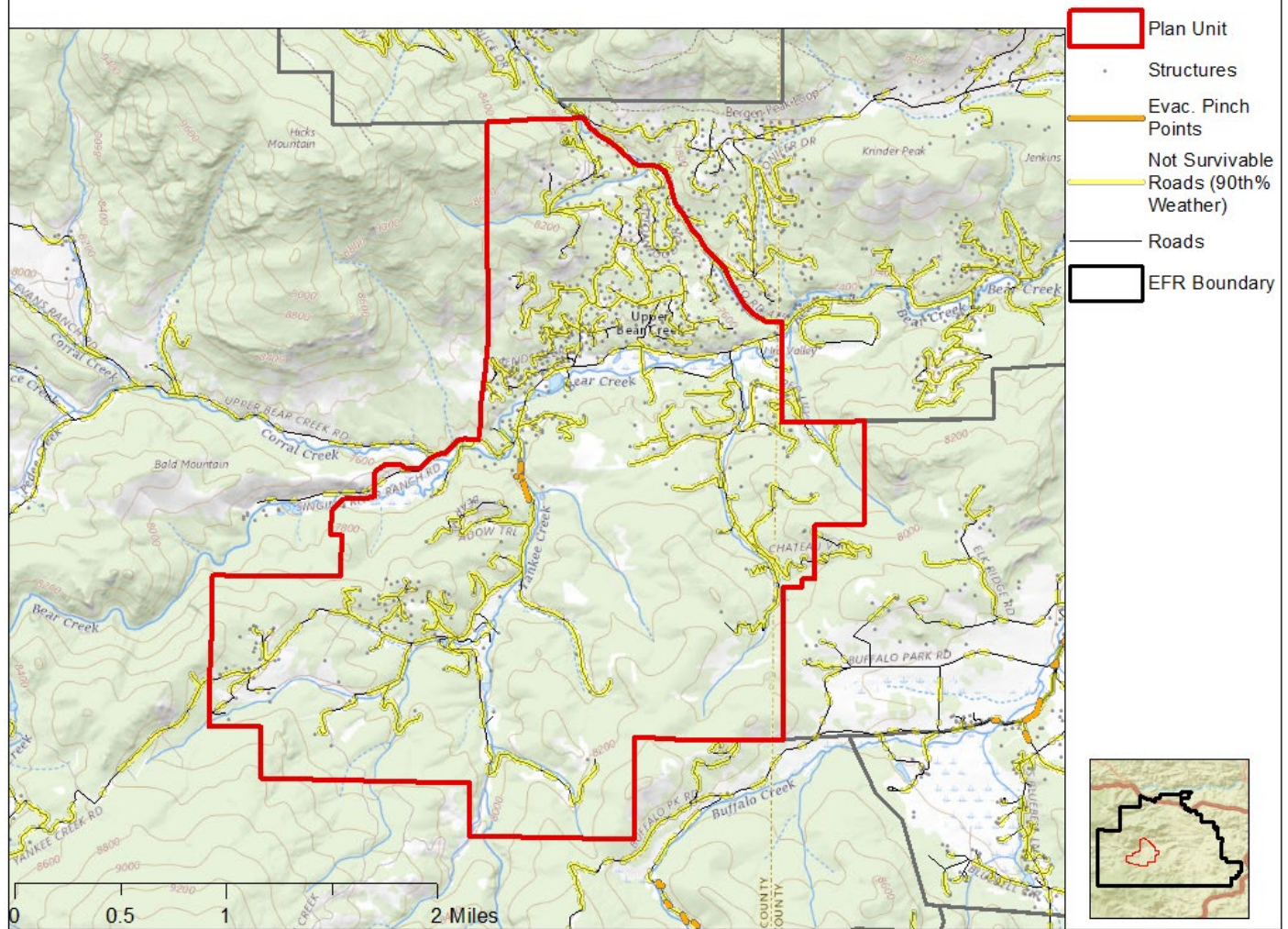


Further along Marion Drive continuing along CO 485, the north aspect fuels are heavy. Some homes are mid-slope with extremely hazardous fuel loads below. Defensible space and home hardening practices make a large difference in risk and need to be implemented here. Other parcels show some evidence of past thinning work that should be maintained.



## Plan Unit: Bear Creek West

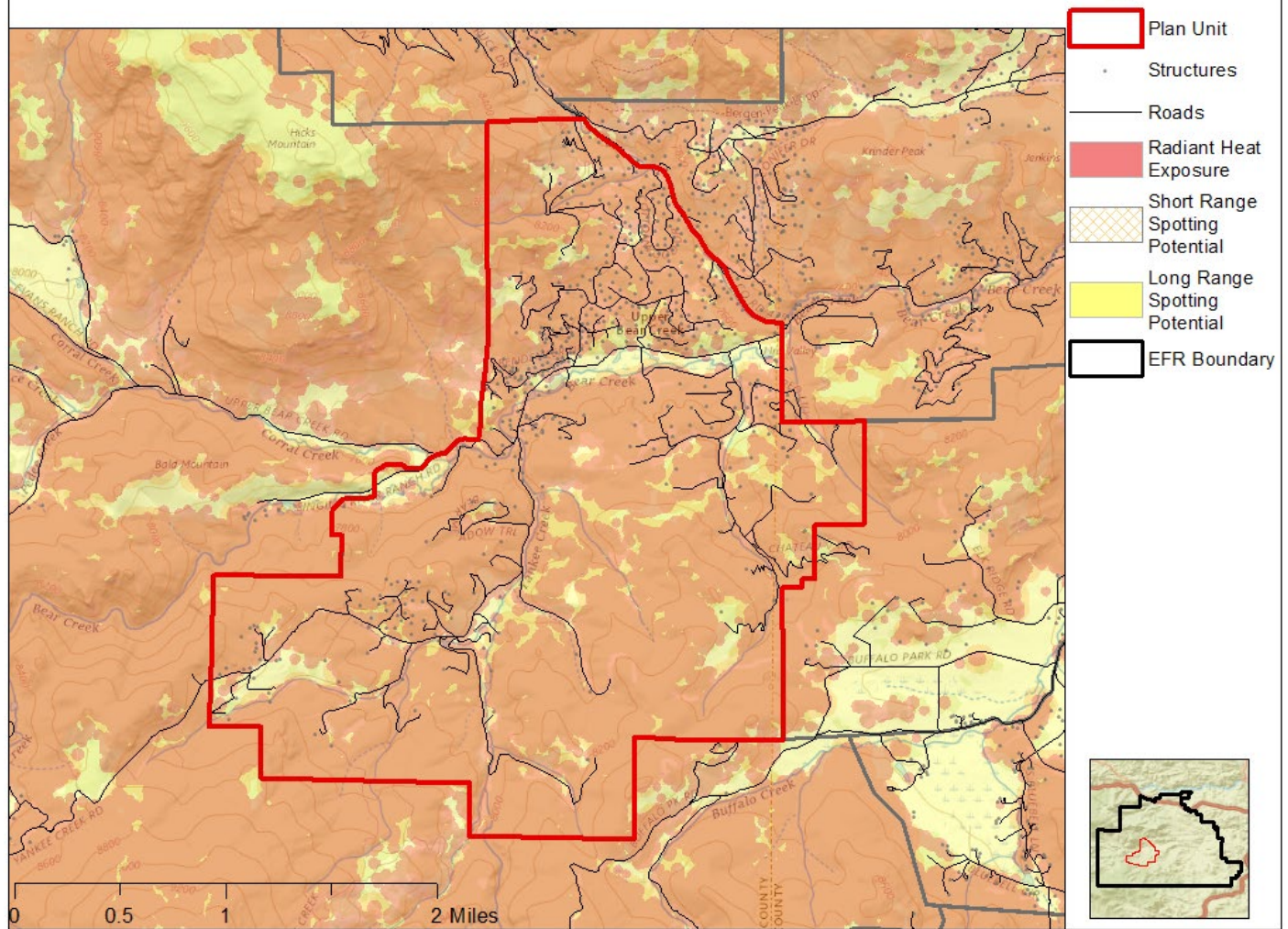
## Legend



Bear Creek West has one Evacuation Pinch Point, along CO Road 481 or Yankee Creek Road. This location must be treated immediately as it is likely to have high evacuation traffic and is not currently survivable under 90<sup>th</sup> percentile fire weather conditions. After this location is mitigated, other surrounding areas on that road and on Upper Bear Creek Road should be next priorities for safe evacuation.

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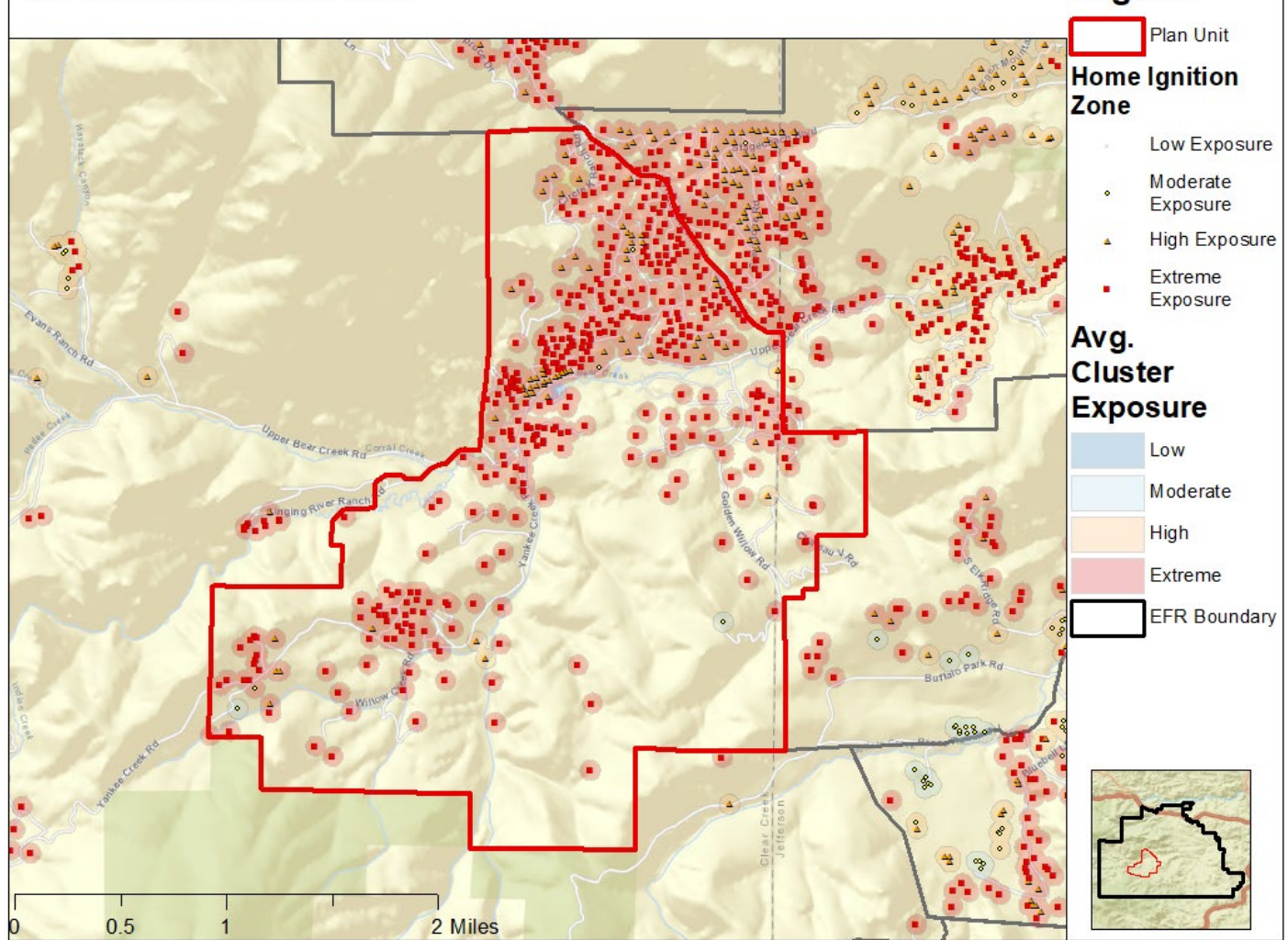
## Legend



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: Bear Creek West

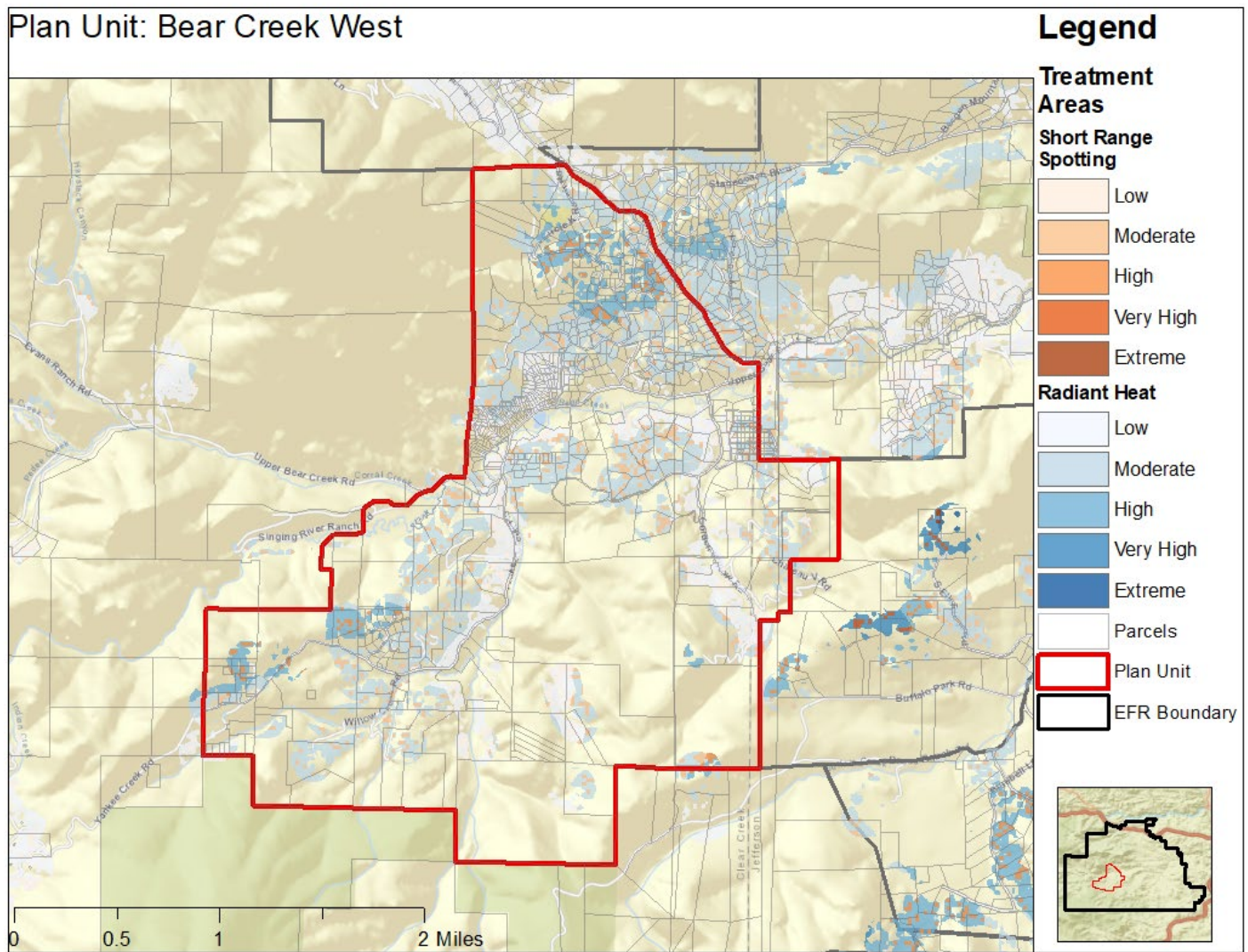


Ember exposure outputs (radiant heat, short range spotting, and long-range spotting, as seen above) were overlaid with structure points buffered as the Home Ignition Zone (100 ft). Structures in which greater than 50% of the home ignition zone was covered by radiant heat, short range spotting, or long-range 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.

Most of the residential areas in Bear Creek West have huge problems with structural risk and average cluster exposure. This means that without home hardening practices, homes are very likely to ignite. Without defensible space improvements, all homes in this community are at extreme risk of exposure to wildfire and rapid transmission of embers.

## Plan Unit: Bear Creek West



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.

In Bear Creek West, residences with treatable conditions and great importance to other residences and plan units is the area in the north of this unit. Between CO Road 485 and Circle K Ranch Road, there are unmitigated fuels in and around residences that need to be thinned to allow firefighter response to the area. This will also work to improve risks to nearby, and high risk, Bear Creek East.

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

There are no recommended shelter-in-place locations for Bear Creek West. There are some areas that would be possible with great mitigation efforts, but they are adjacent to some of Evergreen's worst fire hazard areas. Landscape-scale treatments are necessary in this area to facilitate the implementation of a shelter location.