Herzman/Marshdale – Plan Unit 21

Rating: Very High

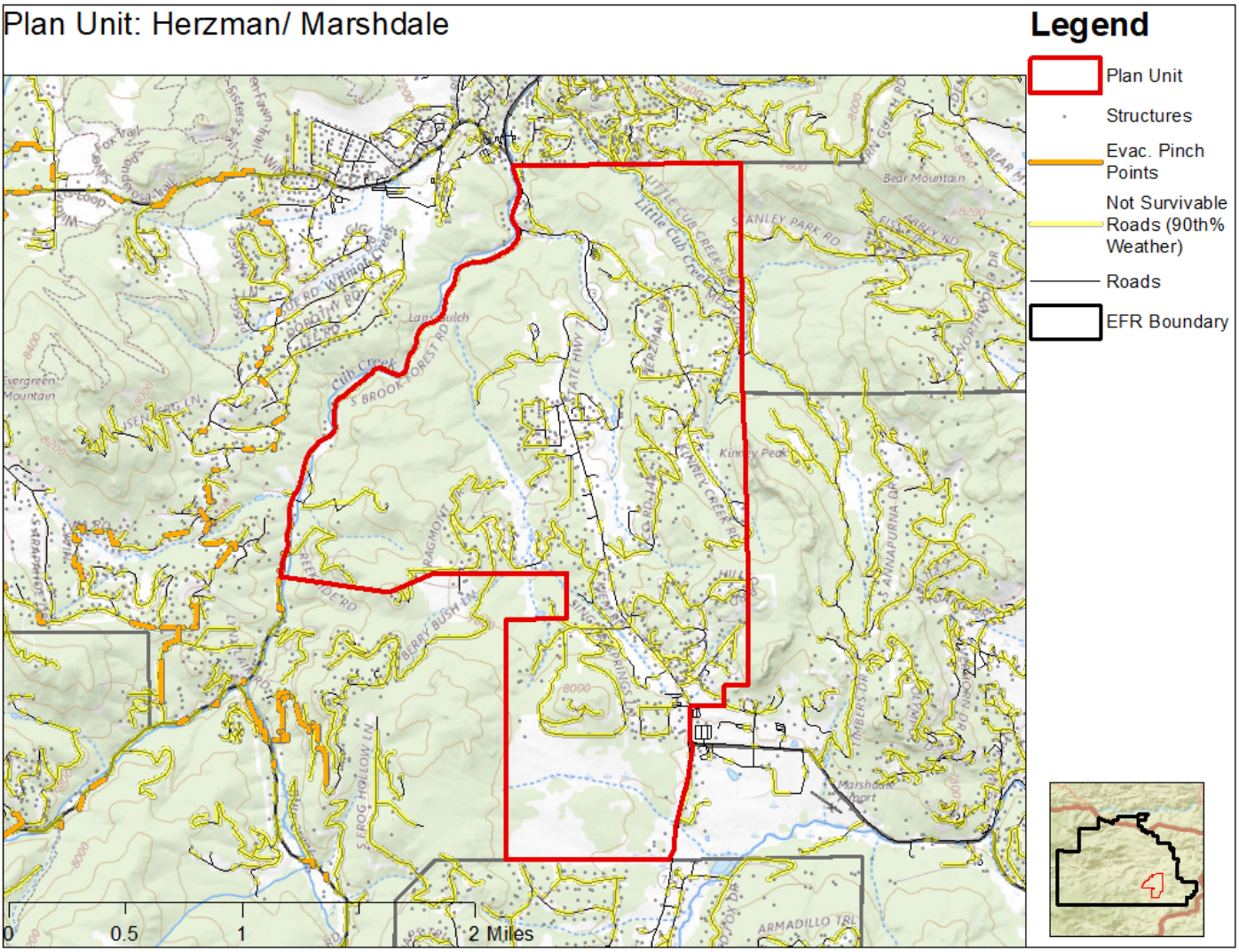
Evacuation Data Summary					
Number of Structures	Number of Cars	Average Time to Evacuate (min)	Median Time to Evacuate (min)	Minimum Time to Evacuate (min)	Maximum Time to Evacuate (min)
573	1482	43	42	33	53

There is some evidence of fuels treatment work in this Plan Unit, but undeveloped stands adjacent to developed properties have hazardous fuel loads, especially on north aspects and higher elevations, particularly on the eastern half. Some areas appear to have naturally low vegetation density, but most residences need significant wildland fuel mitigation. Homes ignition zone improvements are required as many homes have flammable construction materials and insufficient mitigation projects.

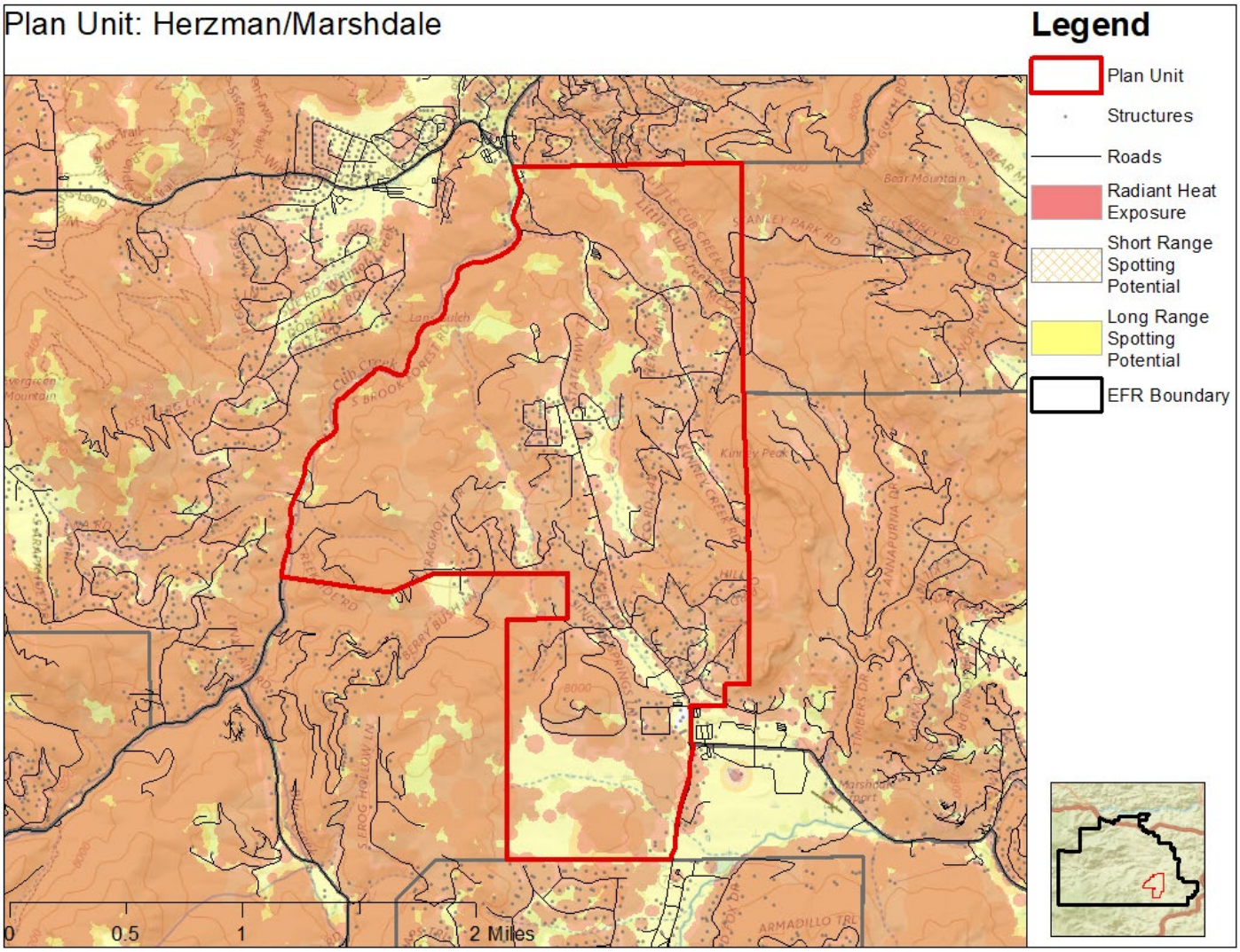
Timber near homes with too tight of crown spacing. Defensible space must extend the full 100 feet from homes as described by Firewise mitigation recommendations. North aspects in drainages or gulches have hazardous timber loads that must be mitigated.

Hazardous fuels are too close to homes, particularly on the edges of this community, like this image from Mesa Drive.

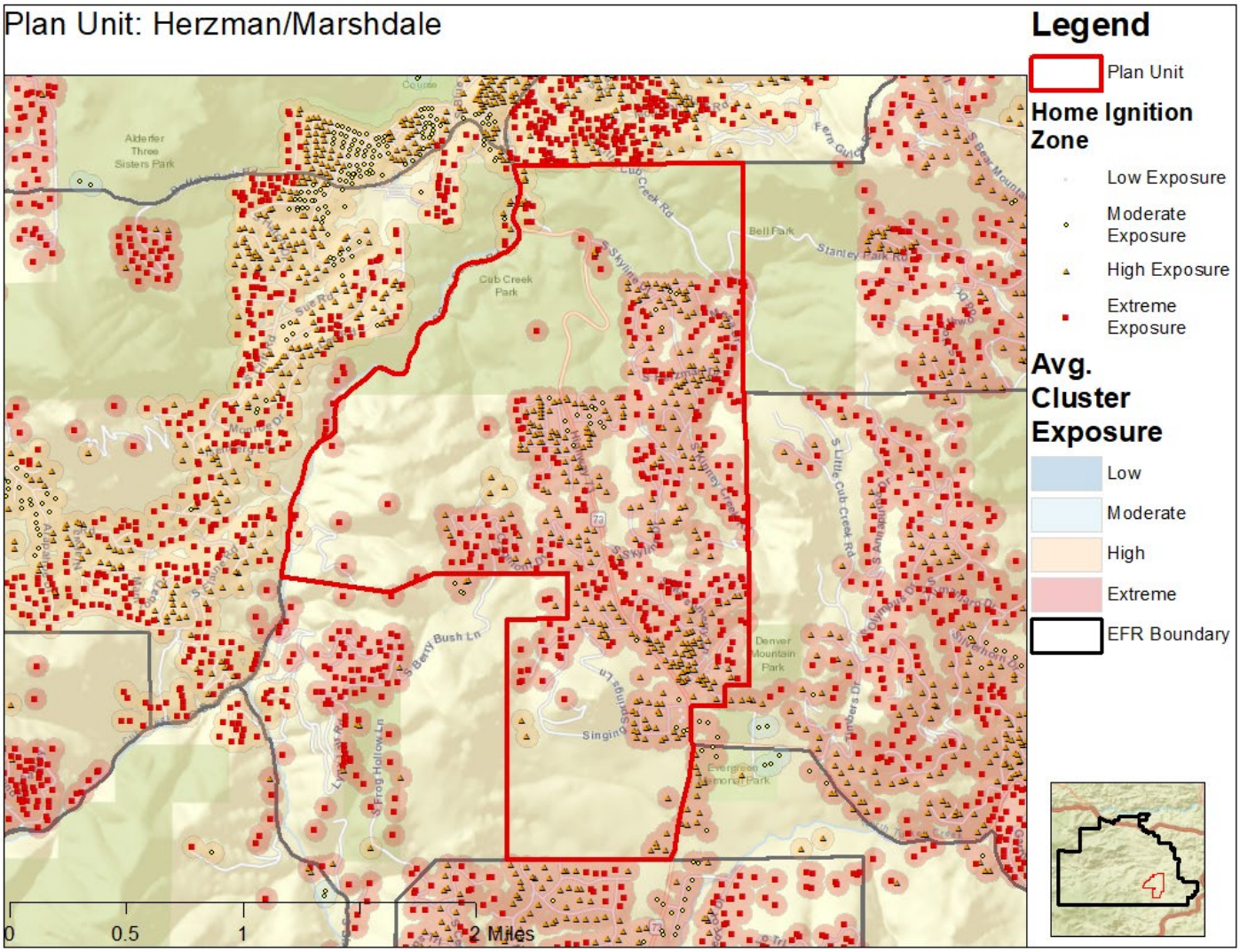
This eastern side of Herzman/Marshdale is the most at risk due to topography and intense fuel loading. Homes in the area around Hilltop Road have steeper slopes with unmitigated mixed conifer forest stands surrounding properties and evacuation routes. It is recommended that thinning and roadway clearing take place.



One Evacuation Pinch Point touches Herzman/Marshdale, along S brook Forest Road, the western boundary of the Plan Unit. This is highest priority for roadway mitigation. Then moving into the unit, sections of CO Road 73 should be mitigated as this is a major evacuation corridor for residents. After these corridors are mitigated and maintained, mitigators can move to feeder and residential roadways.



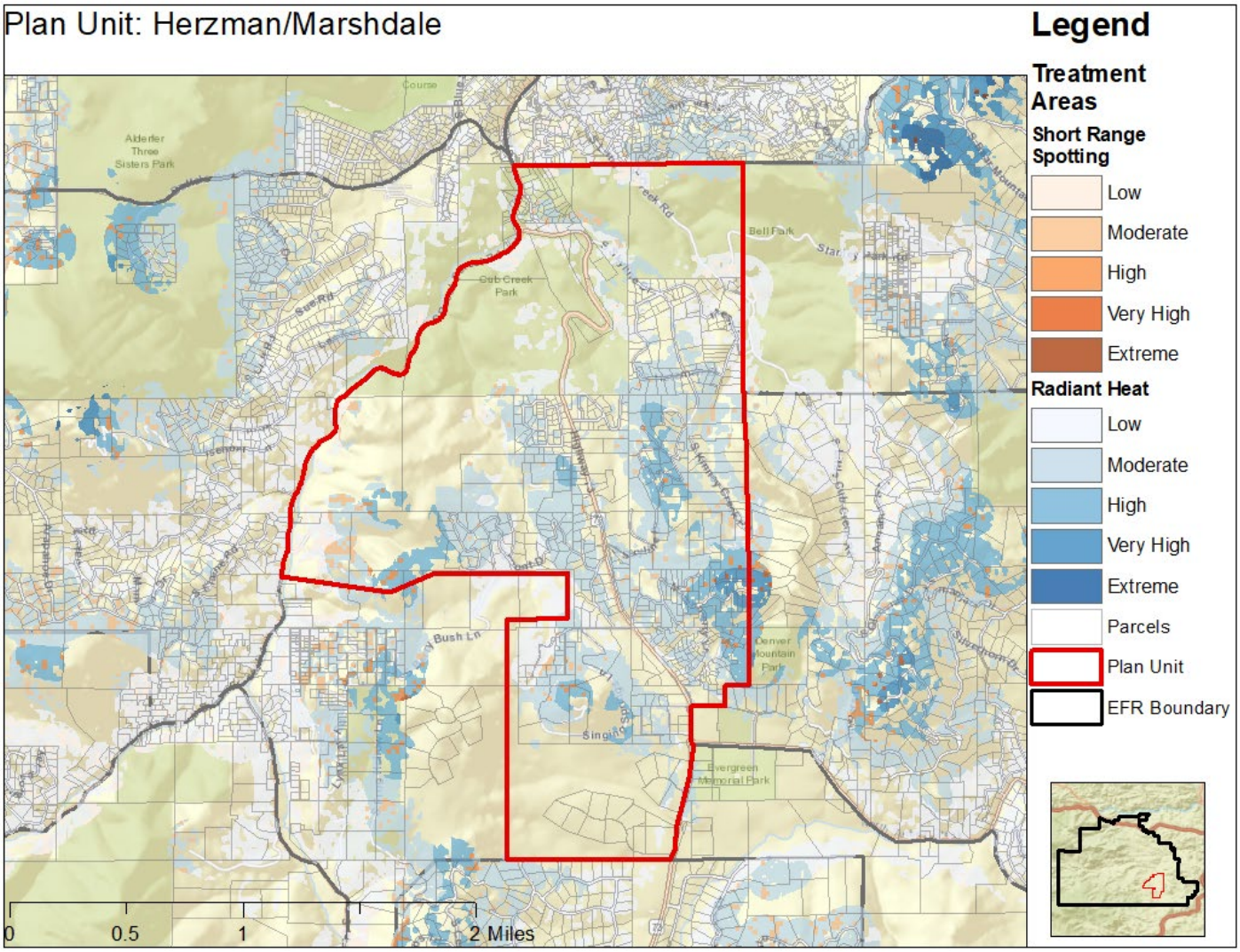
Radiant Heat exposure is designed to show neighborhoods where vegetation will create fire behavior extreme enough to ignite home materials. Short- and long- range spotting is when embers travel a distance from the fire and continue its spread away from the main fire –this can be a deluge of embers that 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.



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.

Herzman/Marshdale has many extreme exposure structures, and the average cluster exposure is extreme. This extreme cluster exposure means homes that are at lower risk from radiant heat & short- and long-range spotting are put at higher risk by their connection to other, higher risk structures. Developing robust defensible space work and implementing home hardening practices will reduce the rating of this cluster. A recommended priority area is around Marshmerry Lane.



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 are a few areas of high treatment importance for Herzman/Marshdale that are accessible. Between Hilltop Road and Kinney Creek road, and the surrounding area, dense vegetation threatens extreme radiant heat and short-range spotting potential. Local organizers should assist in making priority decisions, but this map highlights areas of extreme concern and treatment possibility.

Shelter-in-place

There is no currently recommended location to create shelter-in-place in Herzman/Marshdale. No location is sufficiently large enough for shelter and dense vegetation threatens the rest of the community.