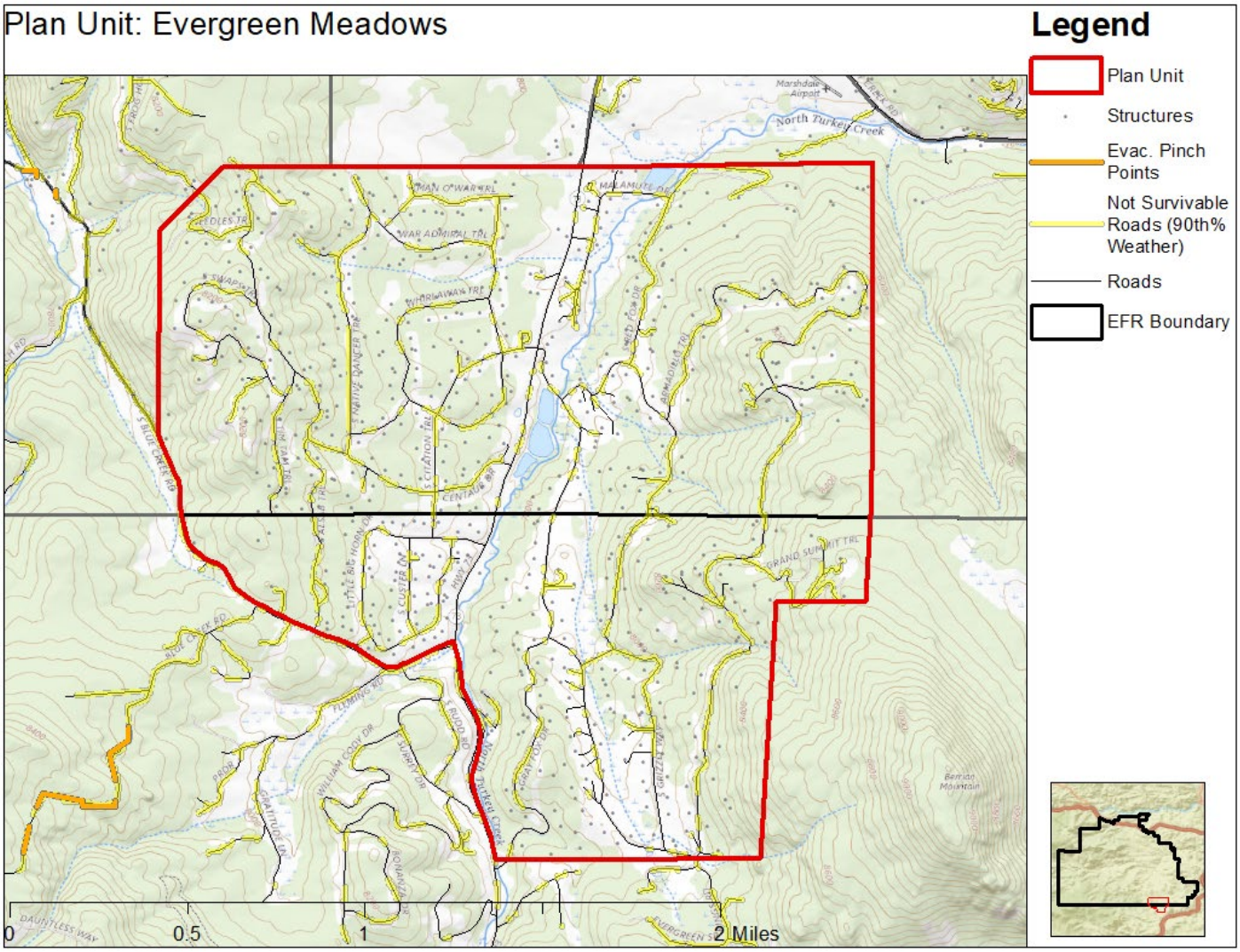
Evergreen Meadows – Plan Unit 2

Rating: Moderate

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)
583	1350	86	87	34	100

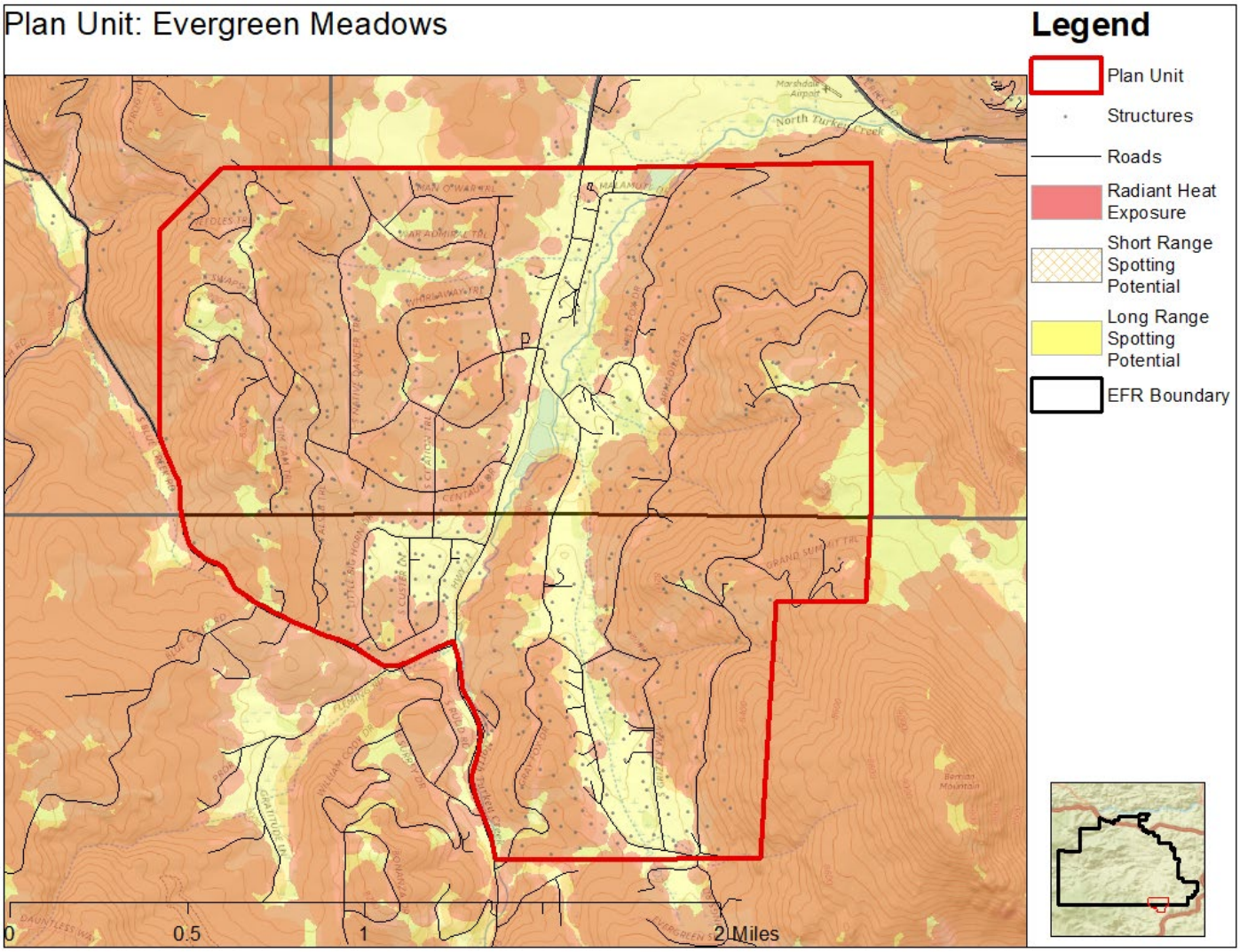
Low elevation and southern aspect homes are situated in grass fuel types. Reduced fuel height decreases risk to this part of the community. Portions of the neighborhood on a northern aspect with higher elevation have predominately Ponderosa Pine and some mixed conifer forest stands. Residents have done substantial thinning and defensible space work. While leaving thicker patches away from their homes, along roads or property lines, possibly as a privacy screen. In some cases, this prevents the parcels from meeting defensible space guidelines. Recommendations for Evergreen Meadows are increasing and maintaining defensible space for individual homes and structures. Ingress and Egress on roadways are great, but water sources in neighborhoods are lacking.

Many homes on ridges have evidence of thorough treatments but some portions of properties have been left untouched, such as some property visible from S Centaur Drive.

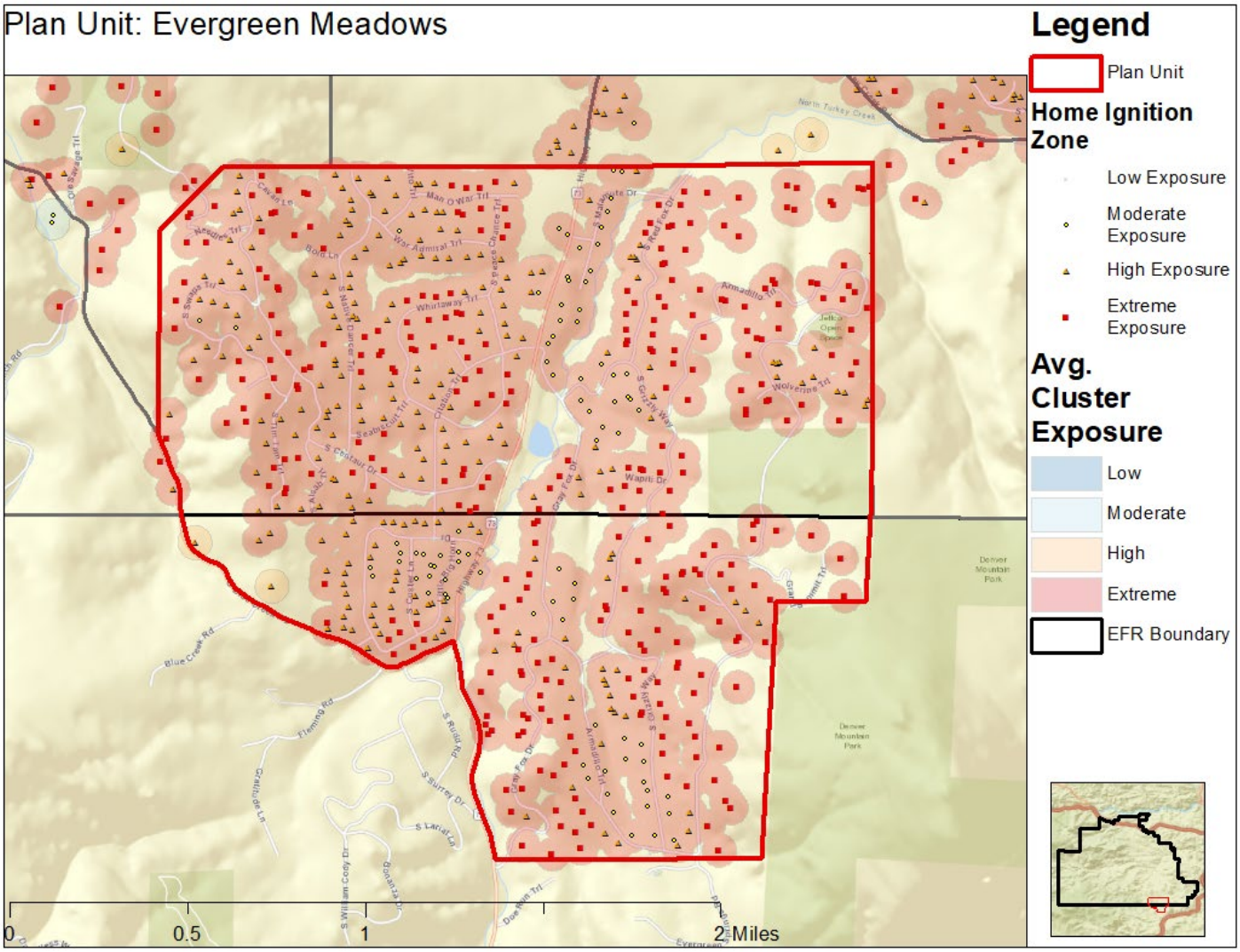


Roadways that overlap with predicted greater than 8 ft flame lengths under 90th percentile fire weather conditions are non-survivable. If the model indicates high evacuation congestion and non-survivable roadway are in the same place, there is a high risk to life safety. These sites are referred to as Evacuation Pinch Points. More information about this analysis can be found in the Roadway Survivability and Evacuation Sections of the CWPP document.

Evergreen Meadows has no modeled Evacuation Pinch Points. CO Road 73 is a major evacuation corridor for Evergreen Meadows and is in great shape. On this road between Gray Fox Rd. and S. Centaur Dr. there is some vegetation along the roadway that could be mitigated to further improve this location. The next recommended priority areas are next evacuation roadways that are non-survivable. This should include S. Centaur Dr., Fleming Rd., Citation Trail, Native Dancer Trail, and S. Grizzly Way. Residents should work together in this Plan Unit to improve roadways and focus first on roads closest to CO Road 73.



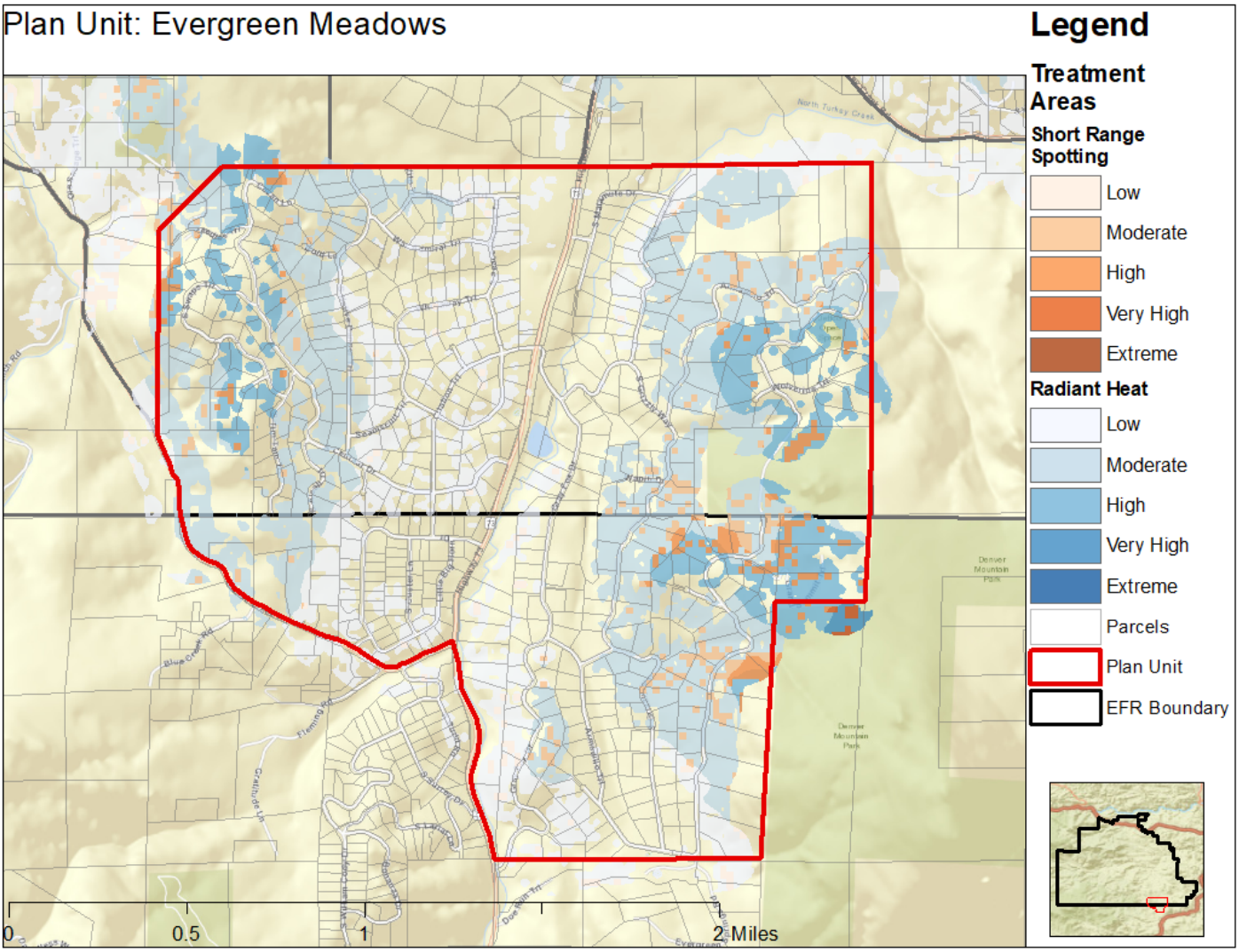
Radiant Heat exposure is designed to show neighborhoods where vegetation will create fire behavior extreme enough to ignite home materials. Short- and long- range spotting is when embers travel a distance from the fire and continue its spread away from the main fire –this can be a deluge of embers that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

Evergreen Meadows has many high and 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. Edges of Evergreen Meadows, on the East and West sides, are most vulnerable to 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.

Eastern and western sides of Evergreen Meadows are in highest need of fuel treatment, defensible space, and home hardening improvements. This community should work together to implement this mitigation work, as the cluster exposure indicates all residents are at risk from these extreme exposure areas.

Shelter-in-Place

For the purposes of this CWPP, a shelter-in-place location is a location within a neighborhood that residents could drive to and survive the flame front of a wildfire. Shelter-in-place locations are a worst-case scenario option where all other evacuation and rescue efforts have failed. A shelter-in place location is an area where a person can stay safe during a flaming front. No resident should view these locations as a great place to go during a wildfire. If these locations are needed, first responders will direct vehicles in the right direction and determine how many vehicles will be safe during that wildfire event. Evergreen Fire Protection District was modeled for slope and vegetation throughout Evergreen and 20 mph winds using the Butler equation, described in detail in the Shelter-In-Place fuel treatment prescription section.

In Evergreen Meadows, there is no current location to propose shelter-in-place work. The meadows and riparian corridor surrounding CO Road 73 could potentially shelter some individuals, but it is a tight area around the roadway, so it is not a recommended location.