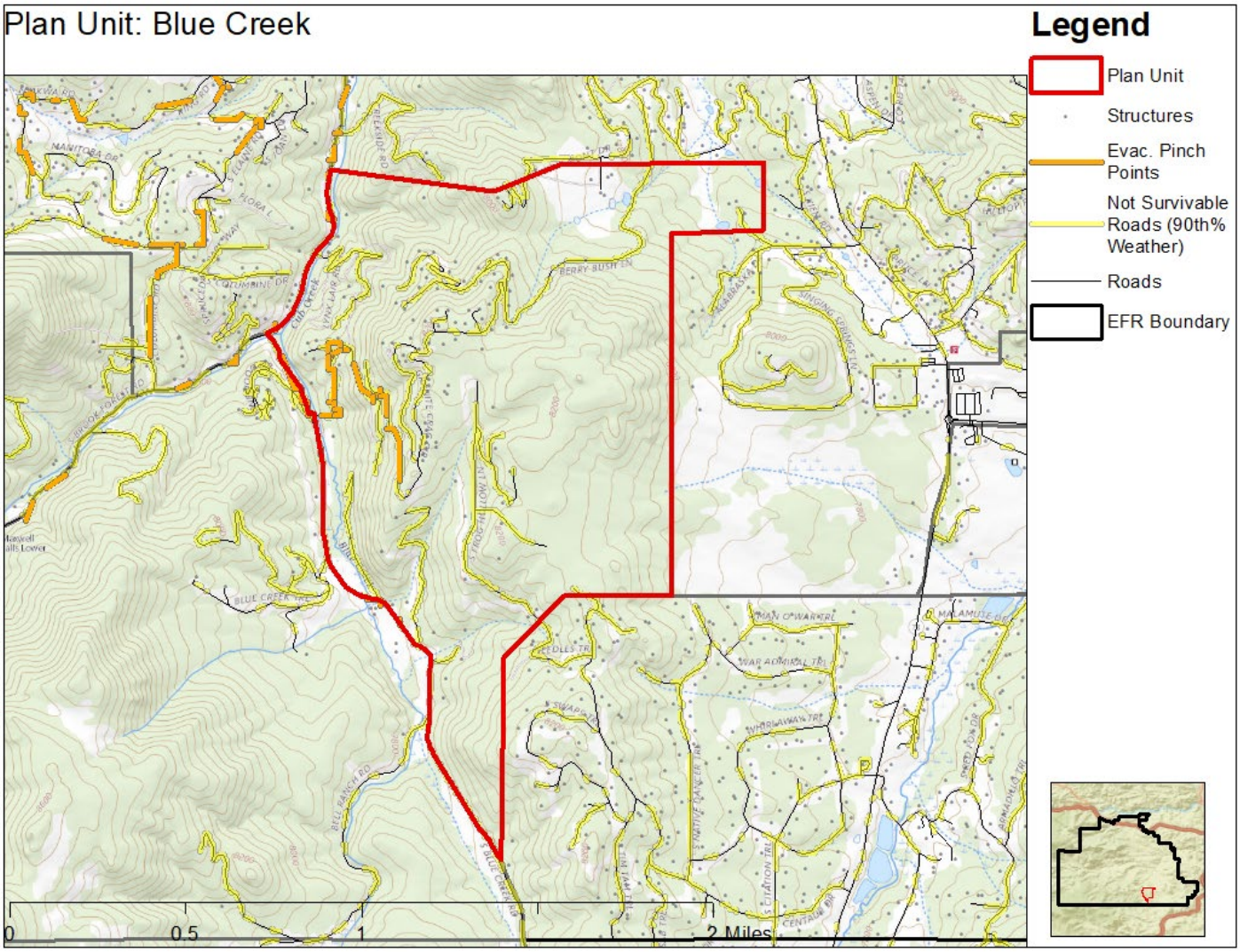
# Blue Creek– Plan Unit 22

## *Rating: Very High*

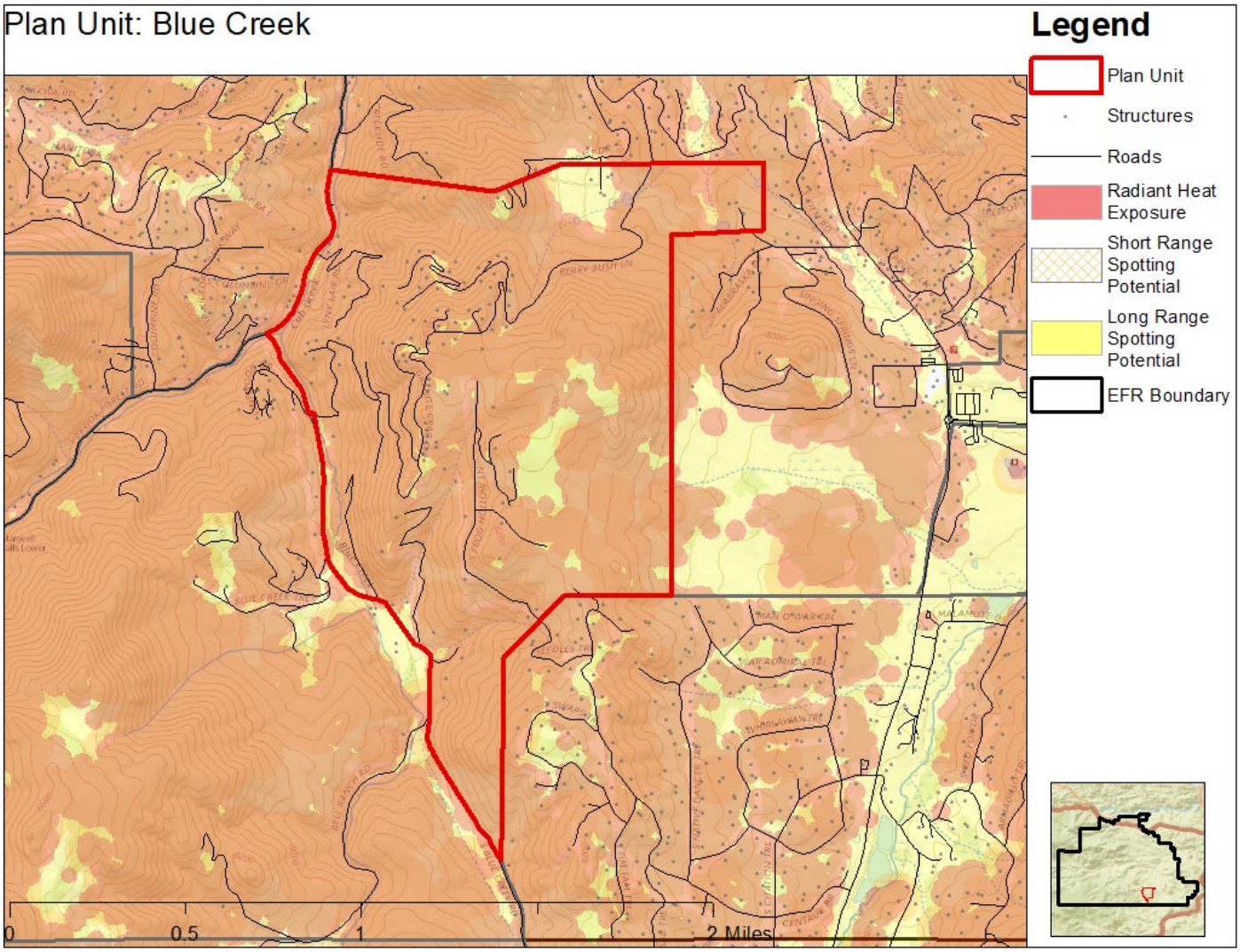
| Evacuation Data Summary | | | | | |
|---|---|---|---|---|---|
| Number of Structures | Number of Cars | Average Time to Evacuate (min) | Median Time to Evacuate (min) | Minimum Time to Evacuate (min) | Maximum Time to Evacuate (min) |
| 142 | 308 | 48 | 49 | 35 | 53 |

Topography plays a major role in the very high-risk classification for Blue Creek, but lack of mitigation intensifies the problem. Most of the unit is in high elevation mixed conifer and Lodgepole Pine forest structures. These areas have heavy fuel loads on steeper slopes. Developed parcels have moderate defensible space, but immediately adjacent undeveloped parcels show standing dead Lodgepole Pine and thick mixed conifer stands. Parcels that are for sale or set for development have been thinned, but once built on they will be abutting adjacent heavy fuels. Overall, a significant portion of Blue Creek needs dramatic wildland fuels mitigation. Roadways are a mix of paved roads of adequate width and narrow, winding dirt roads. Hydrants visible and obvious.

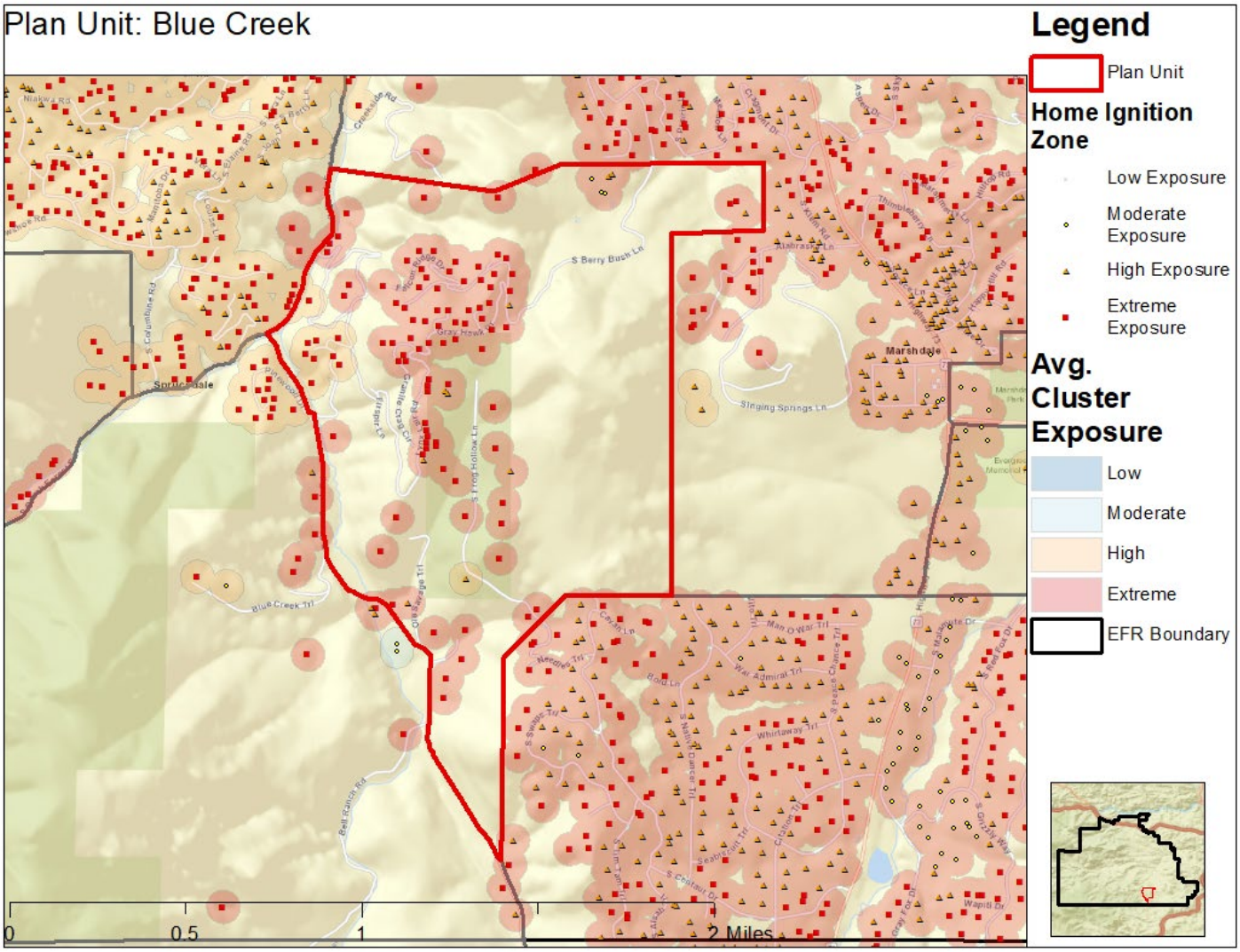
Only smaller developed and future home sites have evidence of thinning of vegetation, which is unlikely to be for wildfire mitigation. These sites will require extended defensible space zone once homes have been constructed.




Blue Creek has multiple Evacuation Pinch Points which must be a high priority for the district, and community leaders that live here. Blue Creek Road from the entrance off CO Road 75 onto Lynx Lair Road is extremely congested, with non-survivable roads. This is a very important place to mitigate the roadway. Then going north on CO Road 75 until the intersection with S Brook Forest Road is an Evacuation Pinch Point as well, which has consequences beyond the residents of this Plan Unit.



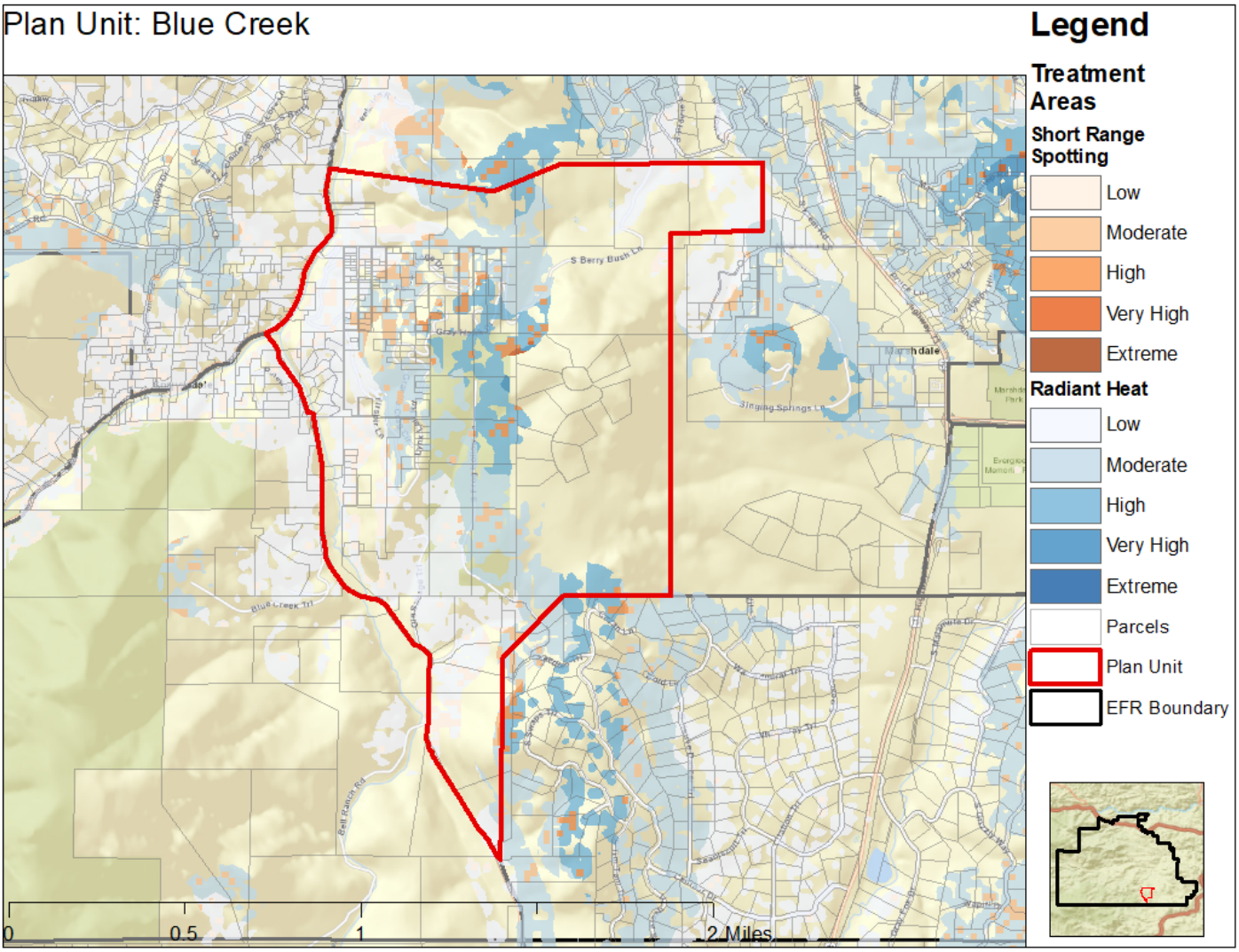

Radiant Heat exposure is designed to show neighborhoods where vegetation will create fire behavior extreme enough to ignite home materials. Short- and long- range spotting is when embers travel a distance from the fire and continue its spread away from the main fire –this can be a deluge of embers that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

Blue Creek 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. The homes around Lynx Lair Road and internal to that circular area, is a huge priority due to slope and density of vegetation.




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.

Treatment in and around S Frog Hollow Lane will be accessible and beneficial to structures and residents at extreme risk of radiant heat and short-range spotting. This major drainage has the potential for extreme fire behavior and can provide a tactical line of defense for firefighters attempting to prevent catastrophic wildfire spread.

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

There is no location in Blue Creek that is large enough and with favorable slope and vegetation to recommend shelter-in-place. Topography in Blue Creek makes all fire mitigation difficult, including creation of shelter locations.