Little Cub Creek – Plan Unit 20

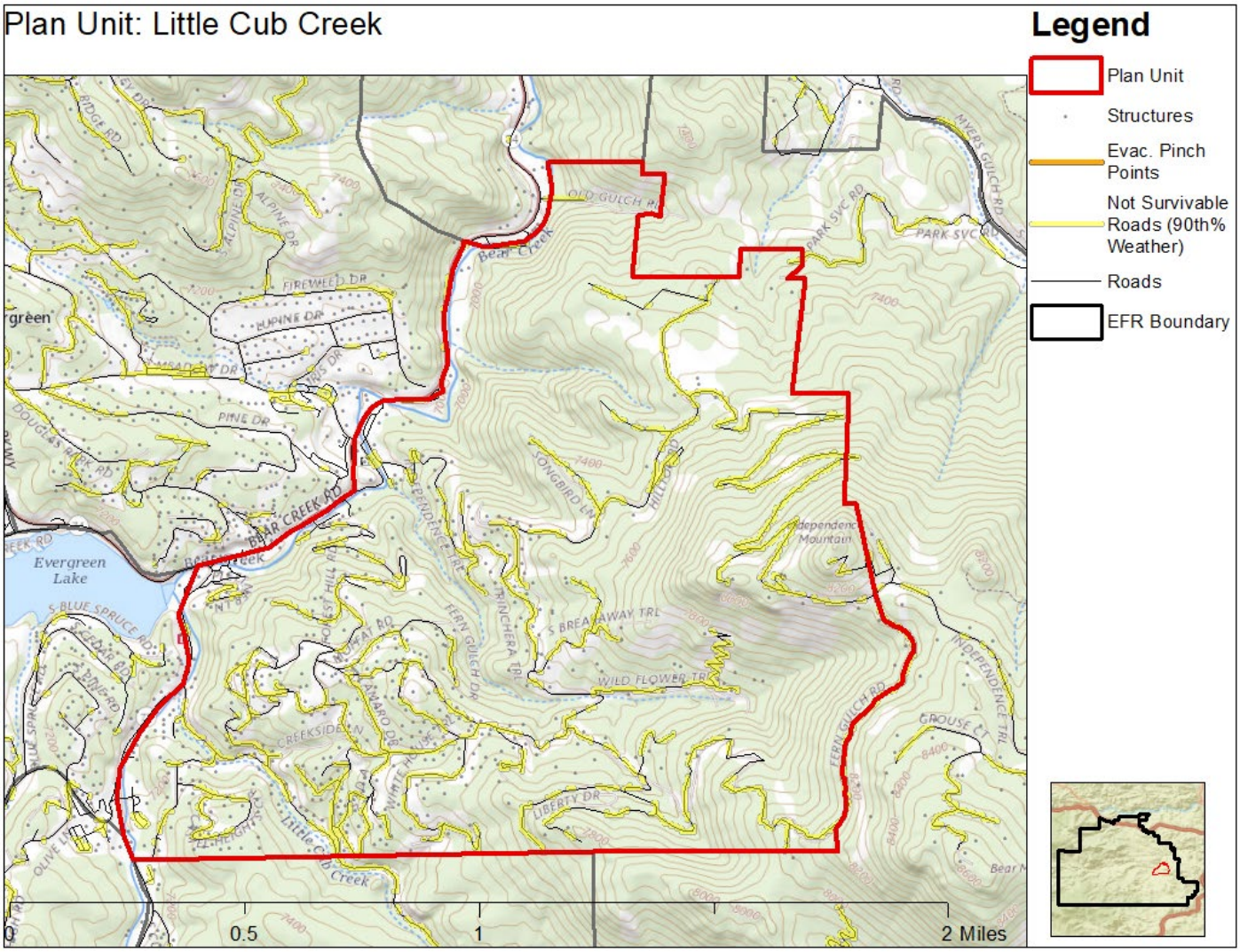
Rating: Extreme

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)
622	1540	51	51	42	65

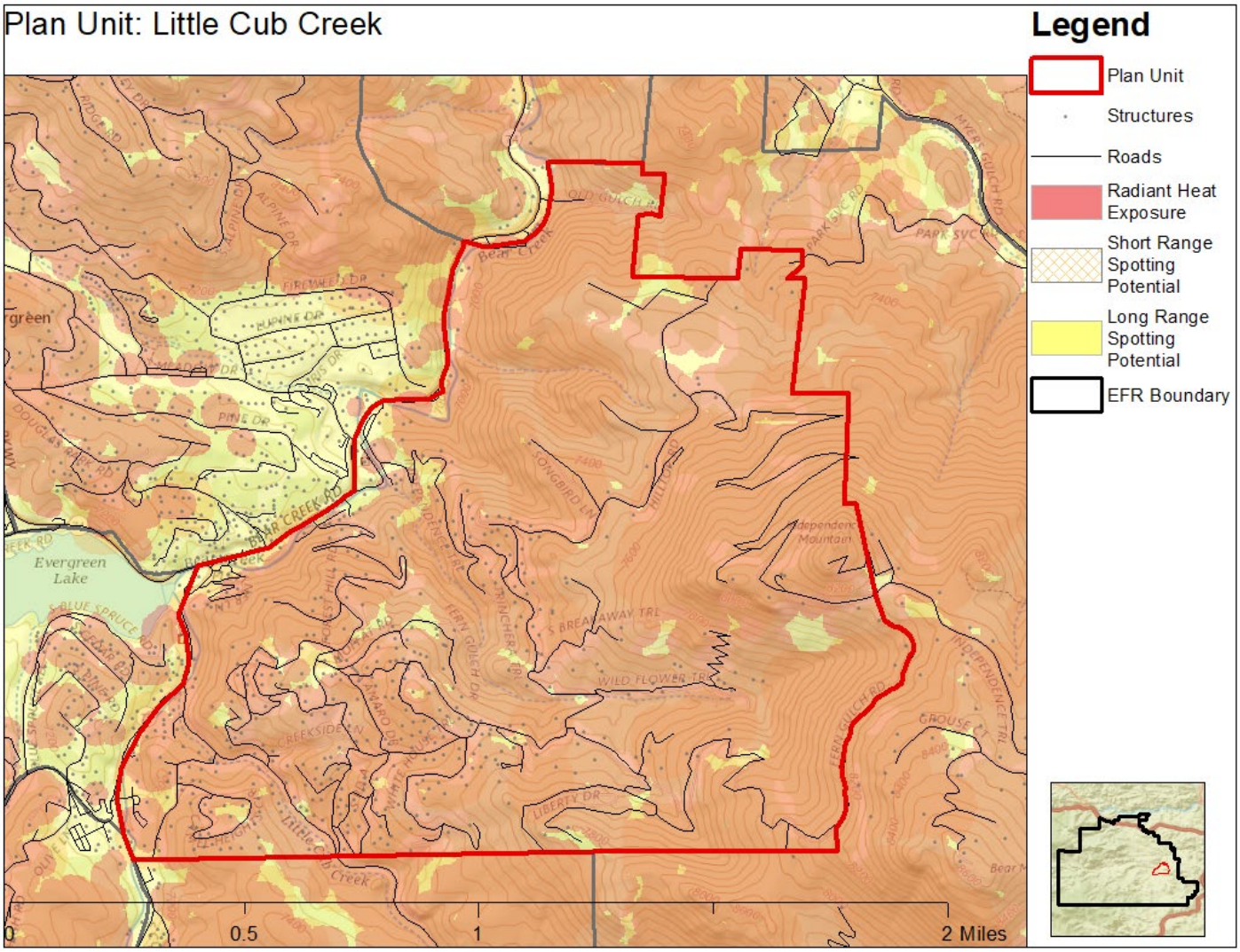
Little Cub Creek's road network is narrow and winding with unclear street signage. Roads are steep and narrow with tight switchbacks and limited visibility, inadequate turnouts, and many dead ends. Many homes are mid-slope with dense fuels below. A few large, high end homes are at the highest elevations and appear that they are perched in steep terrain with continuous timber fuels surrounding. Home construction materials are almost exclusively wood, but most have Class A roofs. Topographic features (steep, ravines, chimneys) throughout will significantly limit suppression options. Entire community should be classified as rescue-drive by. It appears that minimal defensible space work has been done. Presence of fire hydrants throughout benefits the defensibility, however powerlines are tightly woven throughout the homes and fuel. It is recommended that individual home ignition zone work and neighborhood wide defensible space work be completed.

Note tight switchbacks and maze of power lines through dense timber fuel in area around S Independence Trail.

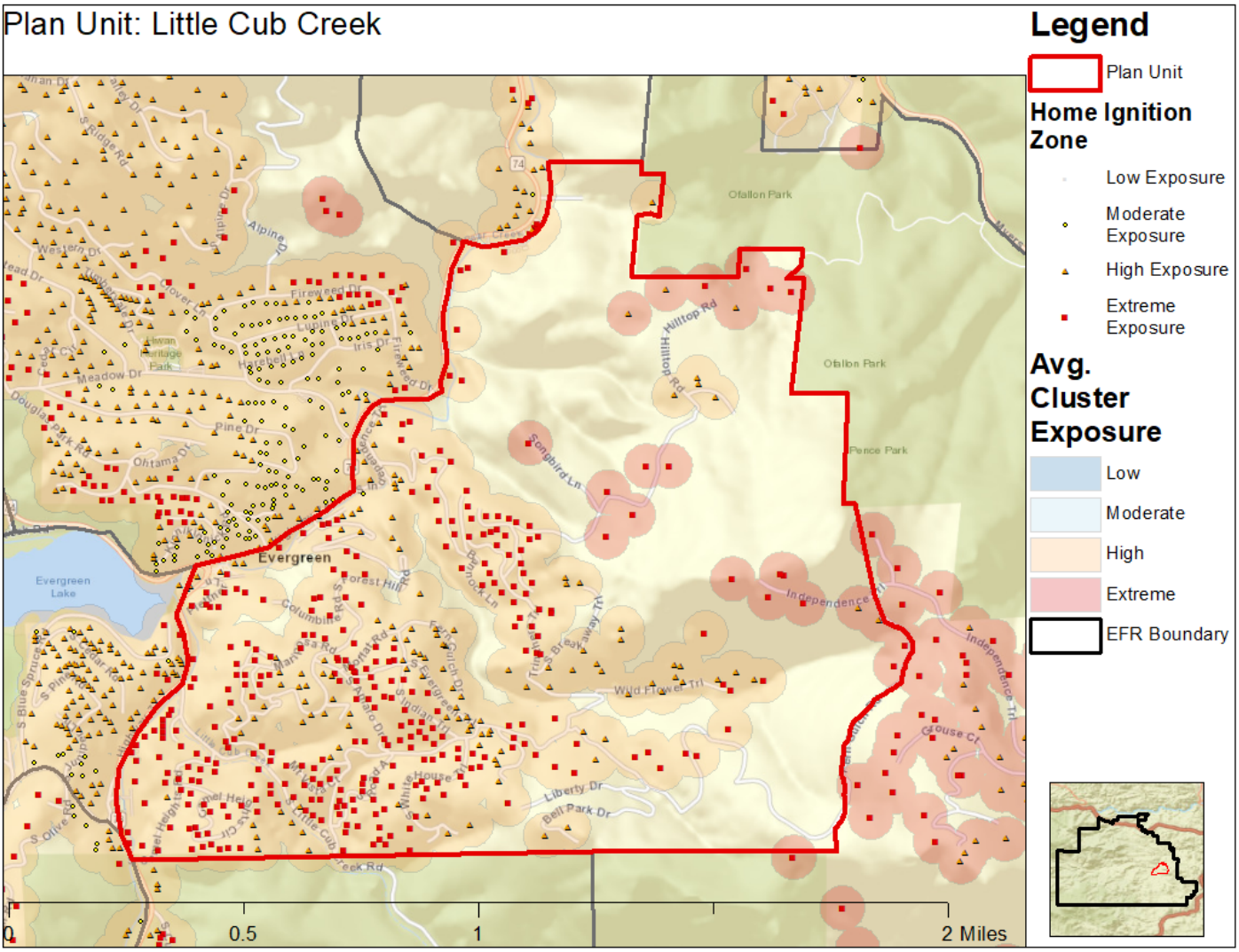
Minimal defensible space present with flammable home construction. Thick timber and steep slopes coupled with tight winding roadway makes this a challenge for evacuation and suppression. Parts of the Plan Unit are essentially single roadway ingress/egress points as travel through parts of this neighborhood would be dangerous during certain wildfire conditions.



Little Cub Creek has no modeled Evacuation Pinch Points, though it should be mentioned that Bear Creek Road running through downtown Evergreen will likely be more congested than shown in the model. Survivability of that roadway also does not consider the highly flammable historic structures located there. Evacuation routes should be mitigated for residents in Little Cub Creek, including Mountain Park Road and Fern Gulch Road.



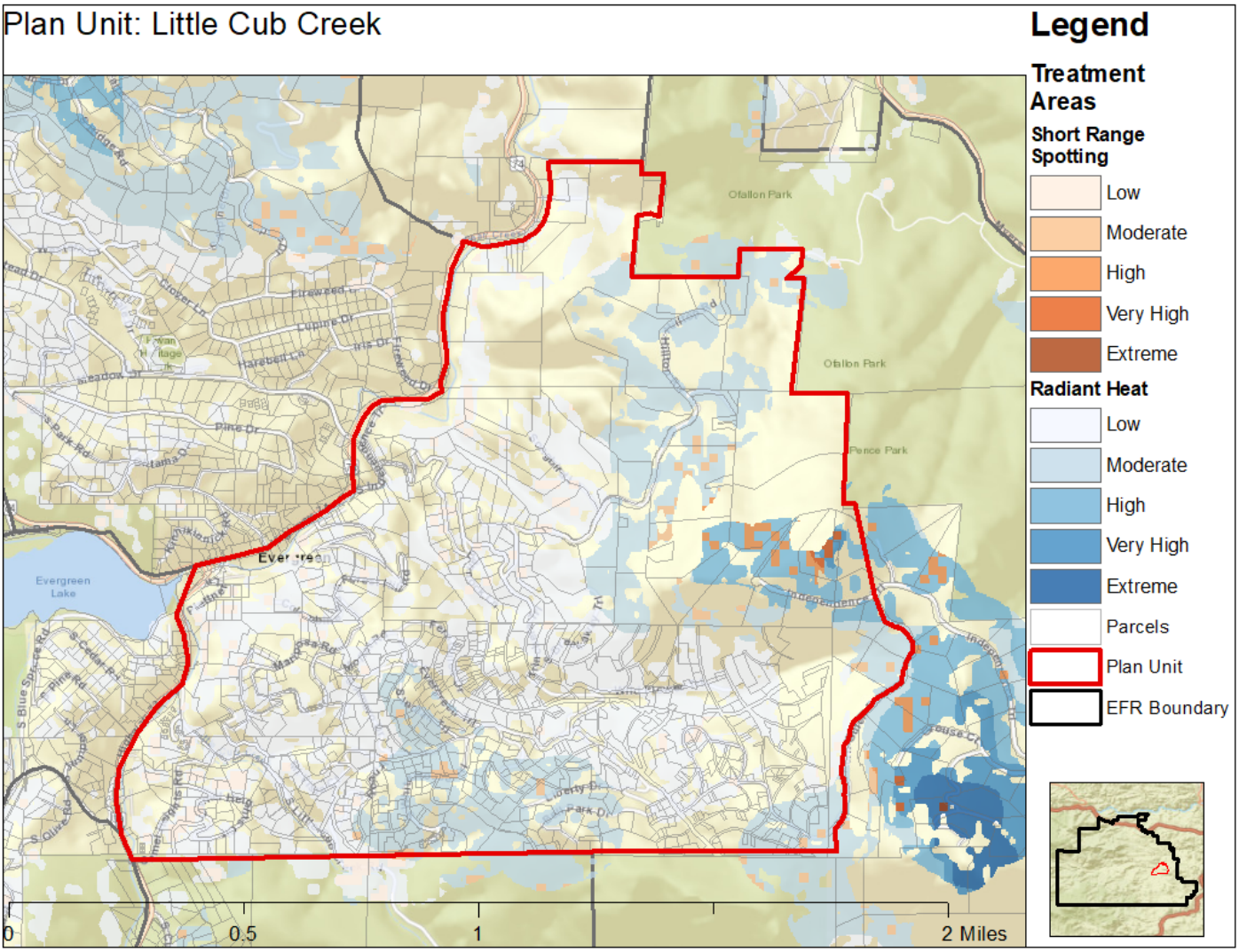
Radiant Heat exposure is designed to show neighborhoods where vegetation will create fire behavior extreme enough to ignite home materials. Short- and long- range spotting is when embers travel a distance from the fire and continue its spread away from the main fire –this can be a deluge of embers that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

Highest average cluster exposure in Little Cub Creek is along the eastern boundary of the Plan Unit. Most of the population, however, lives on the western side, with huge pockets of extreme exposure structures. This means that homes in their vicinity will be at higher risk of home to home ignition. The areas between S Forest Hill Road to S White House Trail and Camel Heights Road is a particularly concerning cluster of structure exposure to be just south of downtown Evergreen.



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.

As seen in the previous structure exposure map, the highest risk area is along the eastern edge. Topography and an overwhelming density of trees create a problem area for residents and first responders. Independence Trail and the areas surrounding are accessible for treatment and in great need of mitigation.

Shelter-in-place

There is no currently recommended shelter-in-place location for Little Cub Creek Plan Unit. No location shows up as sufficiently large. Slope is a major factor in the inability to create good shelter here.