

STAGECOACH/HIWAN HILLS – PLAN UNIT 14

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)
1625	4538	79	80	62	97

Areas within this Plan Unit boundary could be separated into two different conditions. Grass dominated areas around El Pinal and Chestnut Drive, between Paint Brush and Ponderosa Drive, and area around Fireweed to Iris Drive share the following characteristics: lack of timber or timber litter to sustain fire spread, and short stature grass fuels limiting fire spread. Fire risk in these areas is lower than other areas within the Plan Unit. Some areas exhibit defensible space while others are situated within moderate timber/litter fuel with no evident wildfire mitigation. It is evident that some landowners have not improved the Home Ignition Zone. It is recommended that these property owners mitigate to match neighboring property. Road access is excellent, and hydrants are present throughout. There are commercial businesses within the unit along the bottom edge adjacent to Evergreen Parkway.



Homes are older but maintained well. Short grass or mowed areas will improve tactical fire response and limit catastrophic ember wash during a wildfire.



El Pinal area has low timber fuel loading and many locations that would serve as shelter-in-place with some improvement. Surface fuels are continuous which will increase rates of spread. Home hardening is very important in this neighborhood as fire spread will be quick, but not as sustained as other parts of this unit.



Most of this Plan Unit has gentle, rolling topography and lower density Ponderosa Pine. Dense pockets of timber in the unit, like along Hidden Village Drive should be thinned to mimic other defensible areas. Roadways are paved and wide with large driveways providing access to large engines. Housing stock is newer with more fire-resistant materials in the area around Histed Drive and Western Drive.

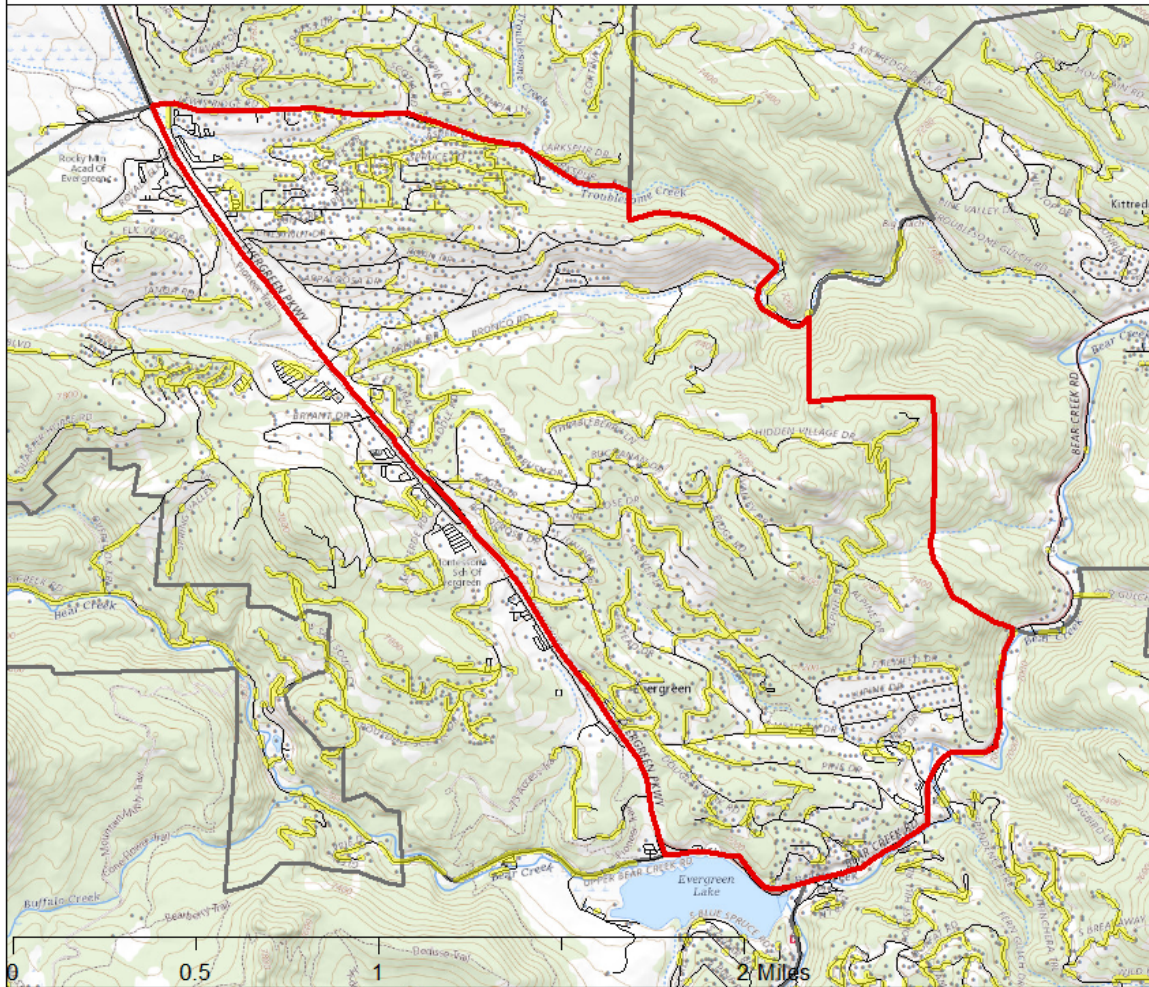


In the timbered areas, fuel loading reflects aspect and owner management. Crown spacing should be 15-feet, at minimum, and roadway clearing should be prioritized. A little work will go a long way in this Plan Unit as much of the area is well mitigated.

Plan Unit: Stagecoach/ Hiwan Hills

Legend

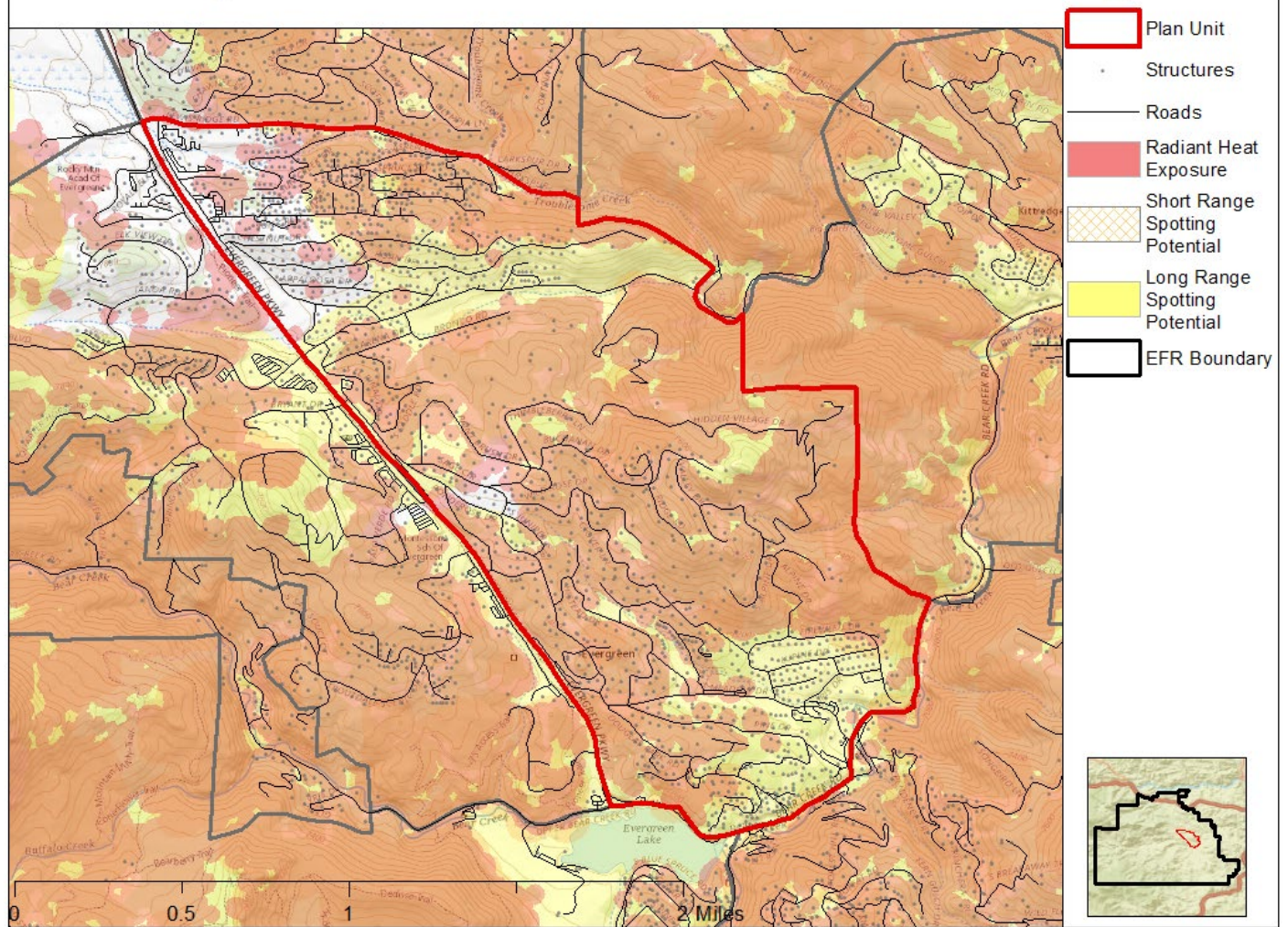
- Plan Unit
- Structures
- Evac. Pinch Points
- Not Survivable Roads (90th% Weather)
- Roads
- EFR Boundary



Stagecoach/Hiwan Hills has no modeled Evacuation Pinch Points. The area of highest concern for roadway survivability are the roadways closest to the downtown historic district, including Douglas Park Road and the shorter roads that stem from it. This area of higher population closer to the historic area will likely have evacuation delays and should be mitigated to reflect that fact.

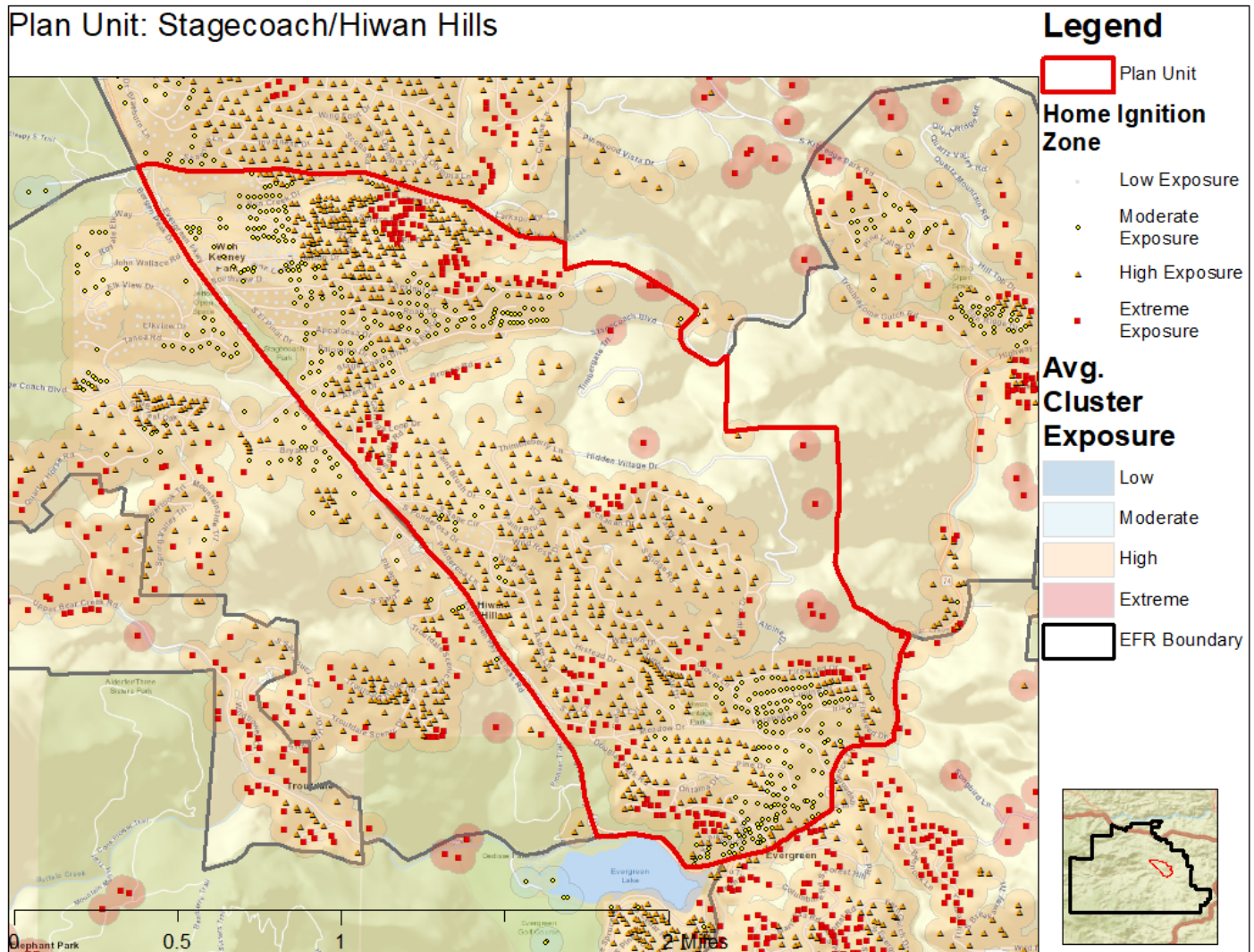
Plan Unit: Stagecoach/Hiwan Hills

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: Stagecoach/Hiwan Hills



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.

Stagecoach/ Hiwan Hills has an average cluster exposure that is high, but many pockets of extreme structure exposures. Defensible space and home hardening will combat the risk to these areas and lower the collective risk. Locations are along Meadow Rue Road and Kinnikinick Road, Fireweed Drive, Pine Drive, Buchanan Drive, Carriage Loop Drive, and the areas surrounding Fir Drive to Spruce Drive.

Plan Unit: Stagecoach/Hiwan Hills

Legend

Treatment Areas

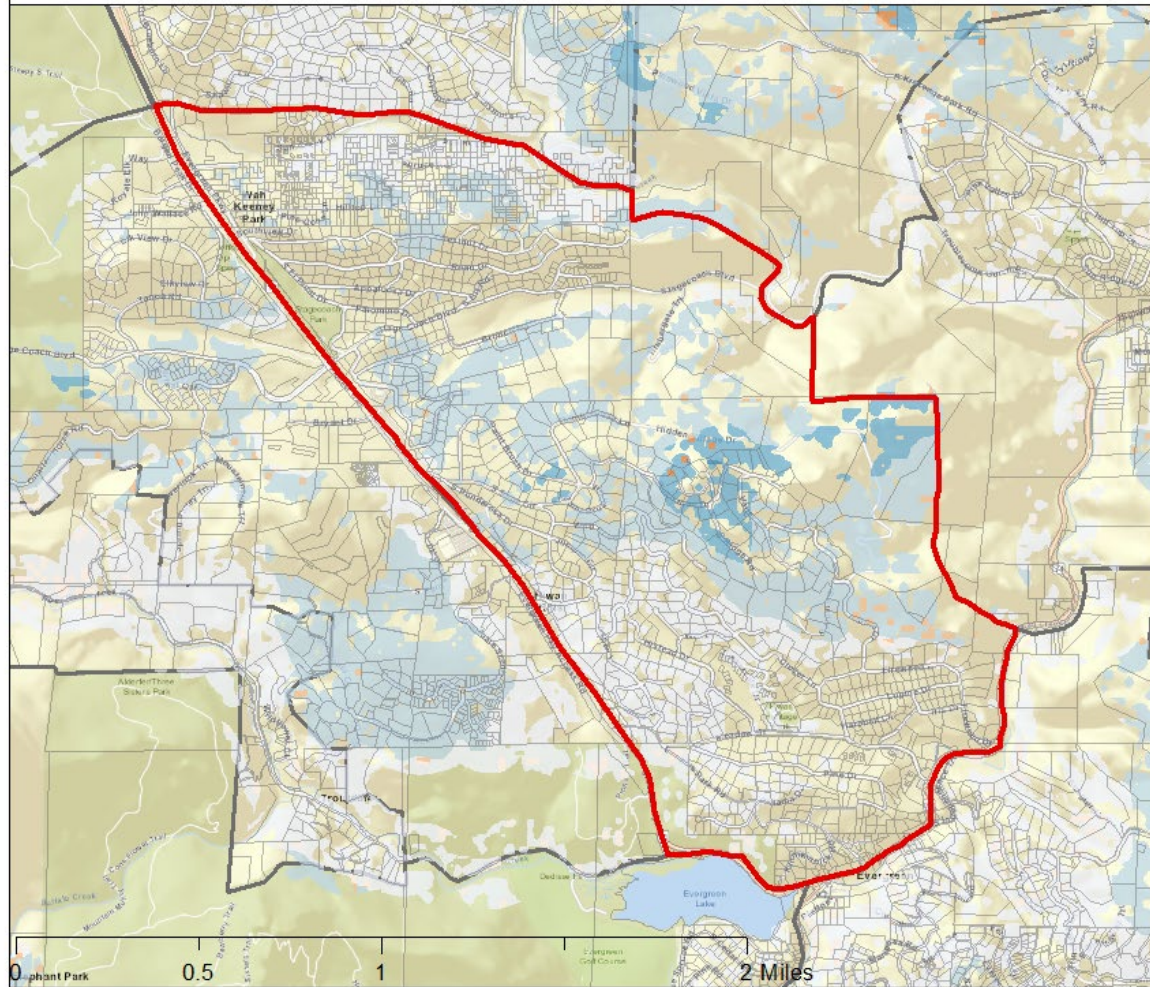
Short Range Spotting

- Low
- Moderate
- High
- Very High
- Extreme

Radiant Heat

- Low
- Moderate
- High
- Very High
- Extreme

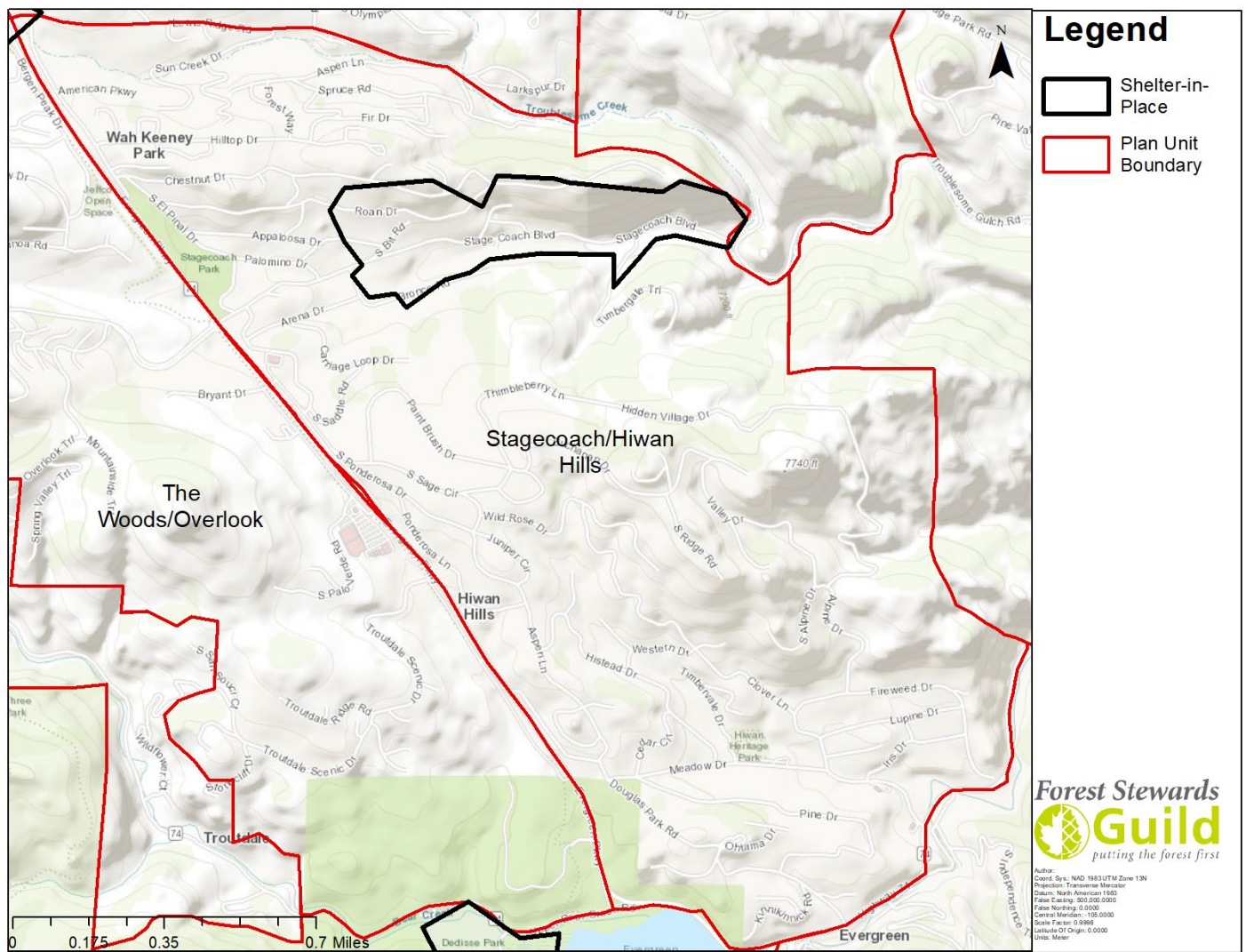
- Parcels
- Plan Unit
- EFR Boundary



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.

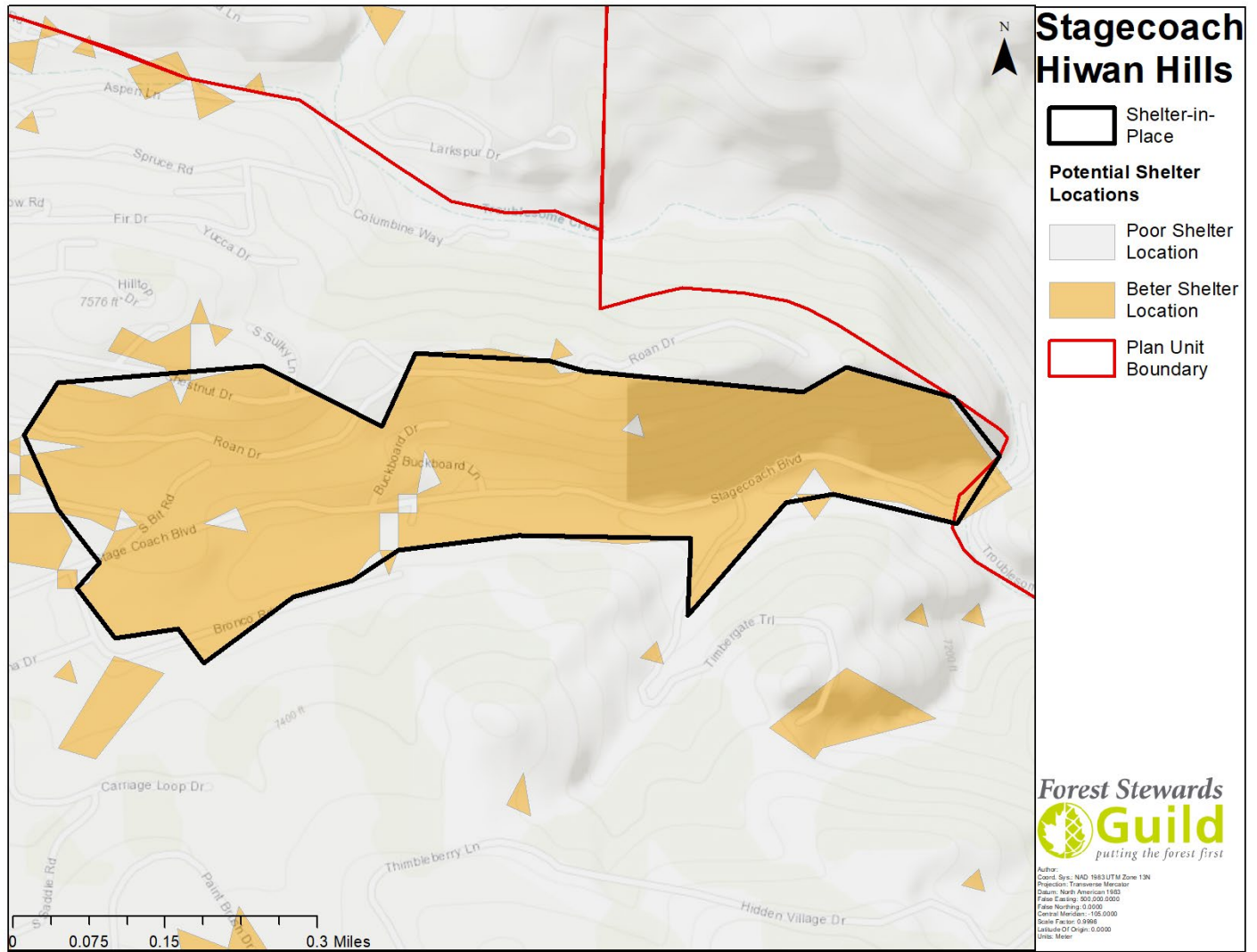
As mentioned before the area around Buchanan Drive has topography and dense vegetation which contributes to pockets of extreme structure exposure. This area shows up from Hidden Village Drive to Ridge Road. This priority location for mitigation work will decrease risk in the area and provide improved tactical options for firefighters.

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 Stagecoach/ Hiwan Hills, there is a location that could be possible for shelter-in-place is along Stage Coach Boulevard, and around Buckboard Drive With some expansion and mitigation north and south into the dense wildland vegetation, this area could truly be viable. In this area, it is all private land, so Evergreen Fire Rescue will need the support of residents to create a shelter-in-place location in this neighborhood.



This is a close view of the proposed shelter-in-place location for Stagecoach/ Hiwan Hills. Poor shelter locations within this boundary are areas where fuel loading is still too high. These areas should be mitigated to improve the overall shelter location.