Kerr Gulch – Plan Unit 11

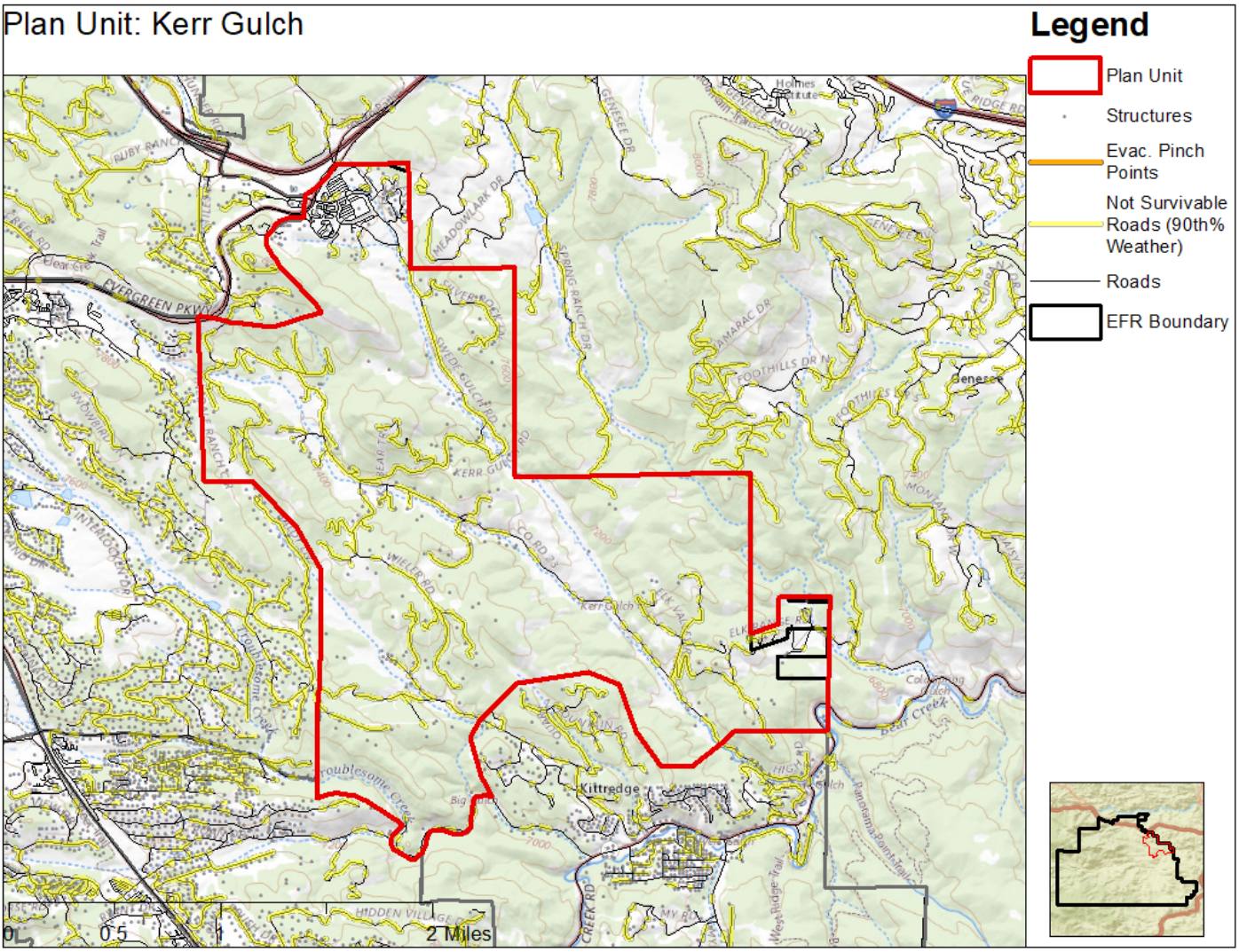
Rating: Moderate

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)
309	1154	39	34	31	56

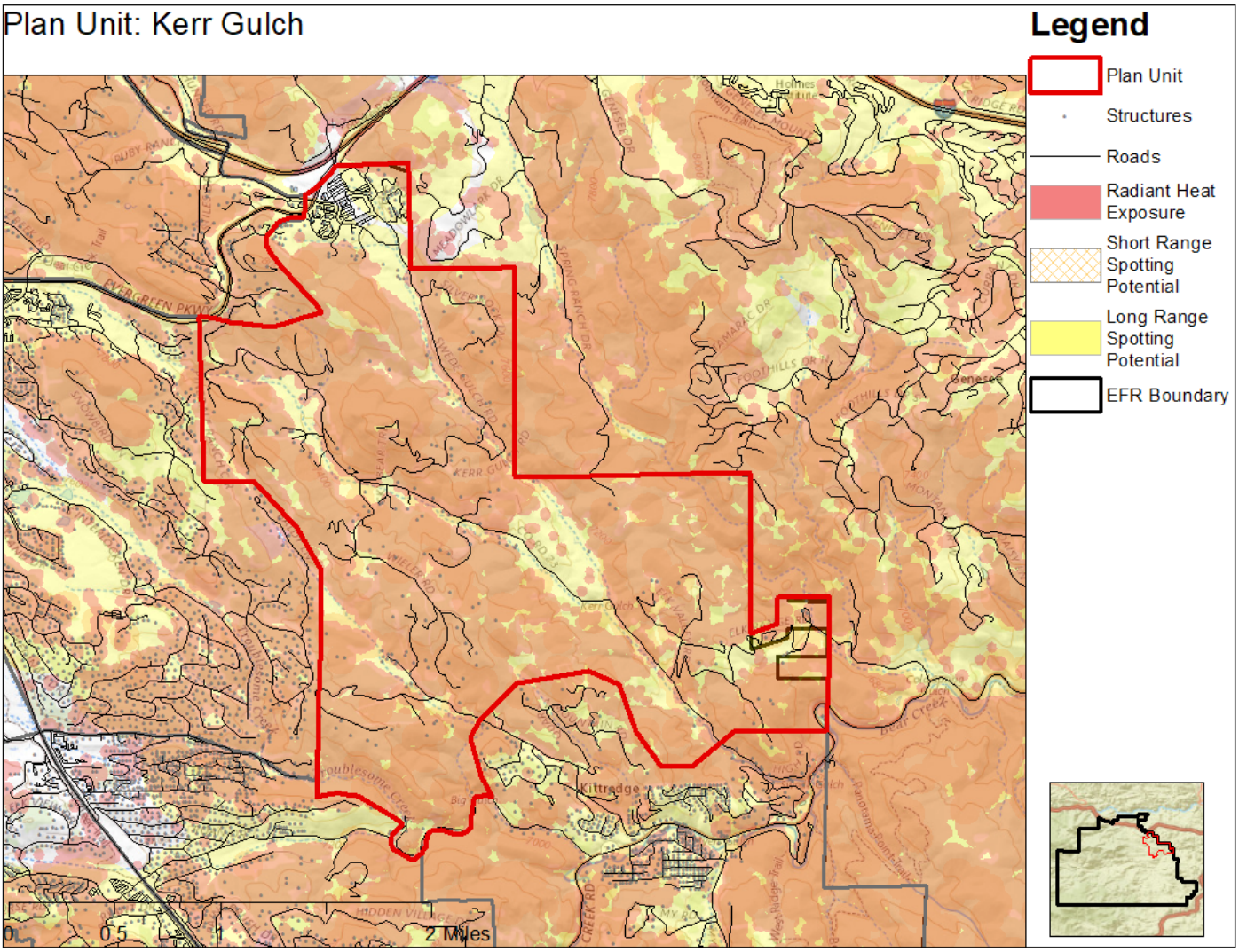
Kerr Gulch appears to have significant fuels treatment. Utilities and powerlines are well maintained, and roads have good signage, however there are some locked gates and numerous private roads throughout which would affect emergency access. Residences in this unit are lower in density and are predominately newer and luxury. A handful of the homes are older with evidence of personal fuels management on their property rather than contracted property management at the higher-end homes. All homes have wide, open driveways and are accessible from the road. Homes in the valley bottom have areas that could serve as shelter locations.

A considerable amount of roadway brush cutting has been completed on some of the main roads, and evidence of historic fuels treatments are present, as piled logs of varying size were found throughout many parts of this unit. In addition to Ponderosa Pine fuels thinning, surface fuels are very homogenous and predominately comprised of grasses and needle litter; It is recommended that much of Kerr Gulch receive prescribed burning application. The fuel structure of this unit would exhibit low-intensity surface fire. This community not only aware but also educated regarding wildfire threats.

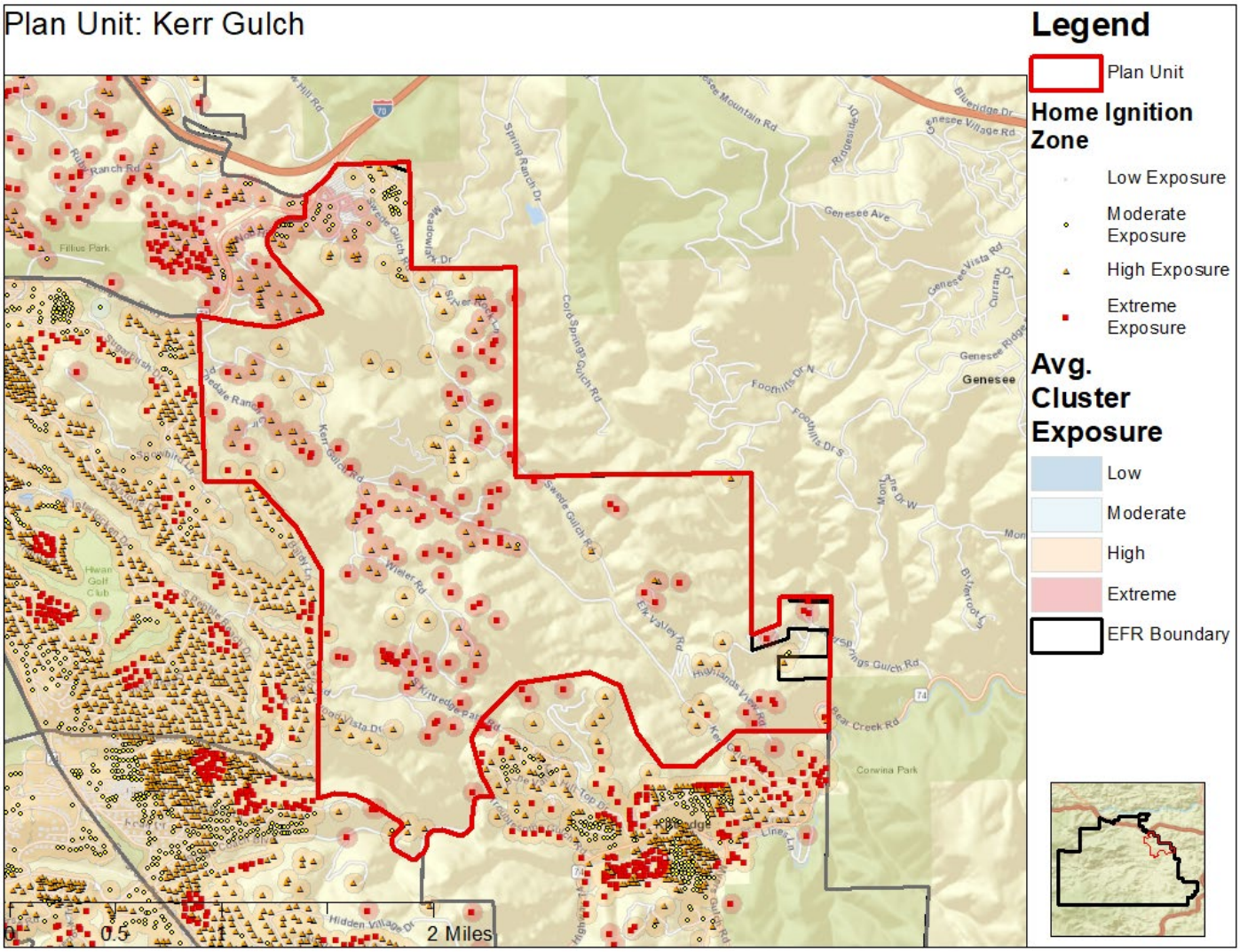
Roadway clearing and mitigation has been done on some properties and not in others. This community should remove more fuel in previously mitigated areas, as maintenance of treatments is very efficient.



Kerr Gulch has no modeled Evacuation Pinch Points. Kerr Gulch Road and Swede Gulch Roads are the most important evacuation corridors. Though congestion blocks do not match with locations of non-survivable roadway, these roads need major mitigation work to be safe and efficient evacuation routes. These locations can also help firefighters respond to fires centrally located in Kerr Gulch and have better tactical options.



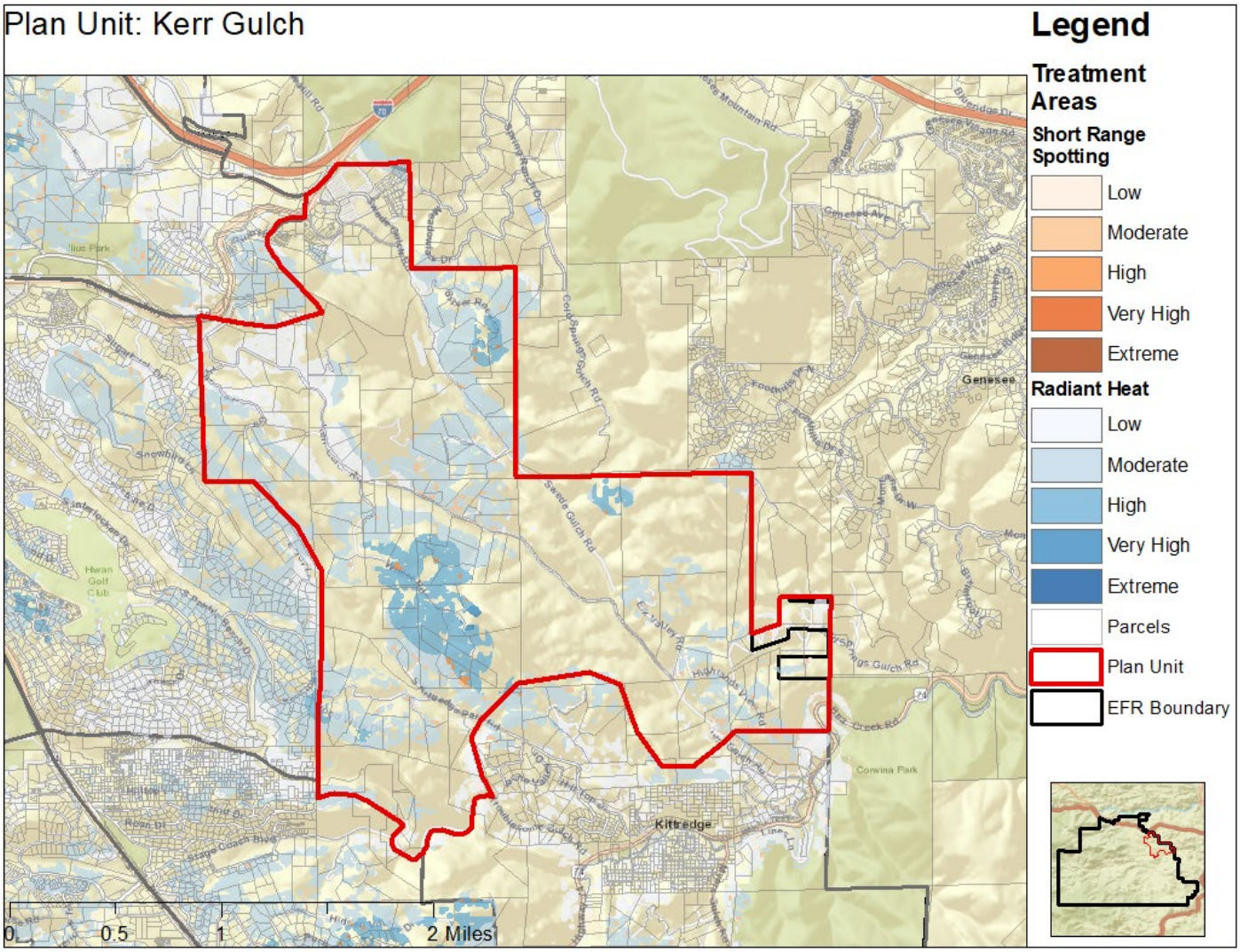
Radiant Heat exposure is designed to show neighborhoods where vegetation will create fire behavior extreme enough to ignite home materials. Short- and long- range spotting is when embers travel a distance from the fire and continue its spread away from the main fire –this can be a deluge of embers that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

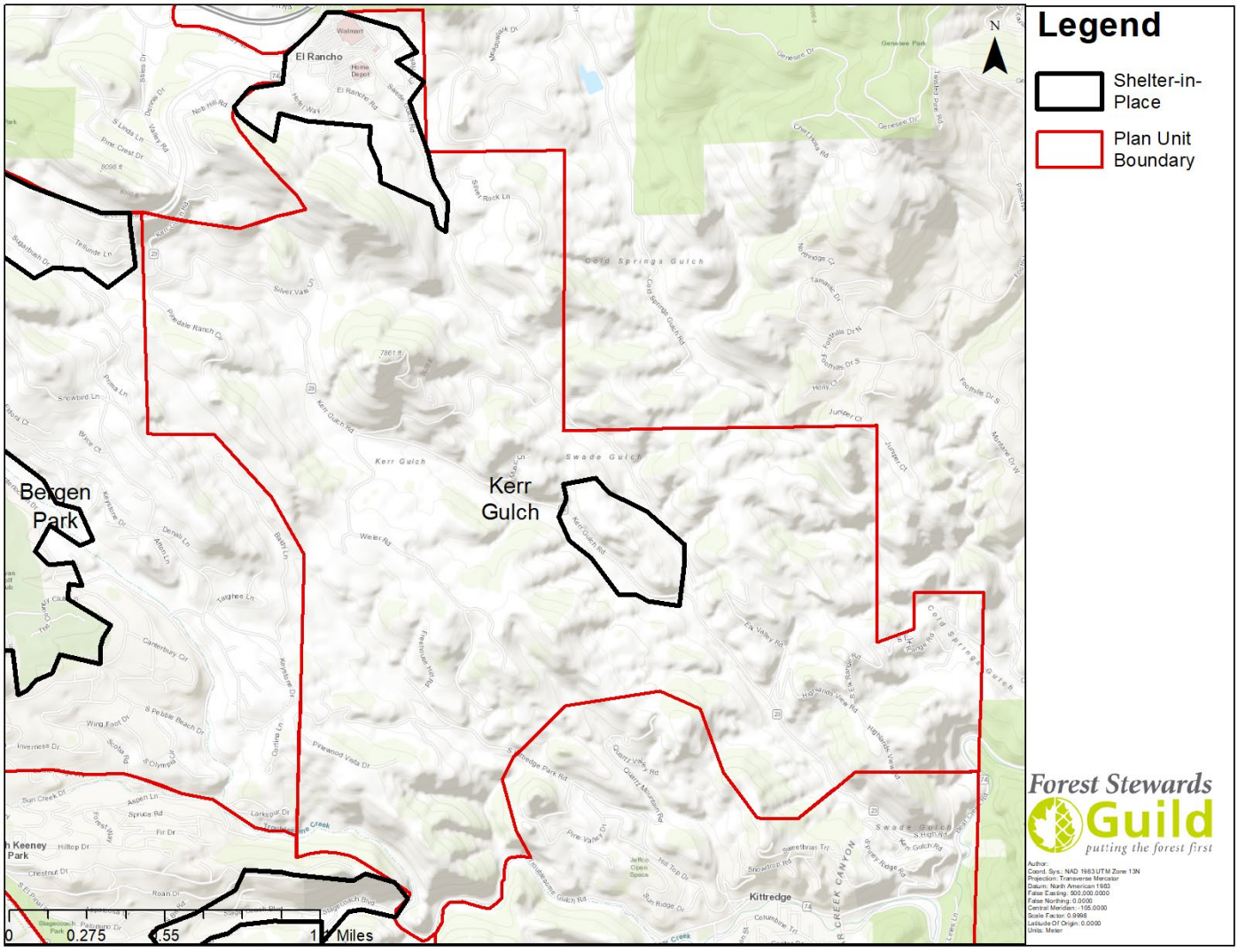
Kerr Gulch's structures are fairly dispersed with some extreme exposure homes and clusters of homes. Home hardening and defensible space will improve all structures here and reduce risk of home to home transmission. On the north end of S Kittredge Park Road, there is a denser cluster of structures that could be a great priority location to begin this work.



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.

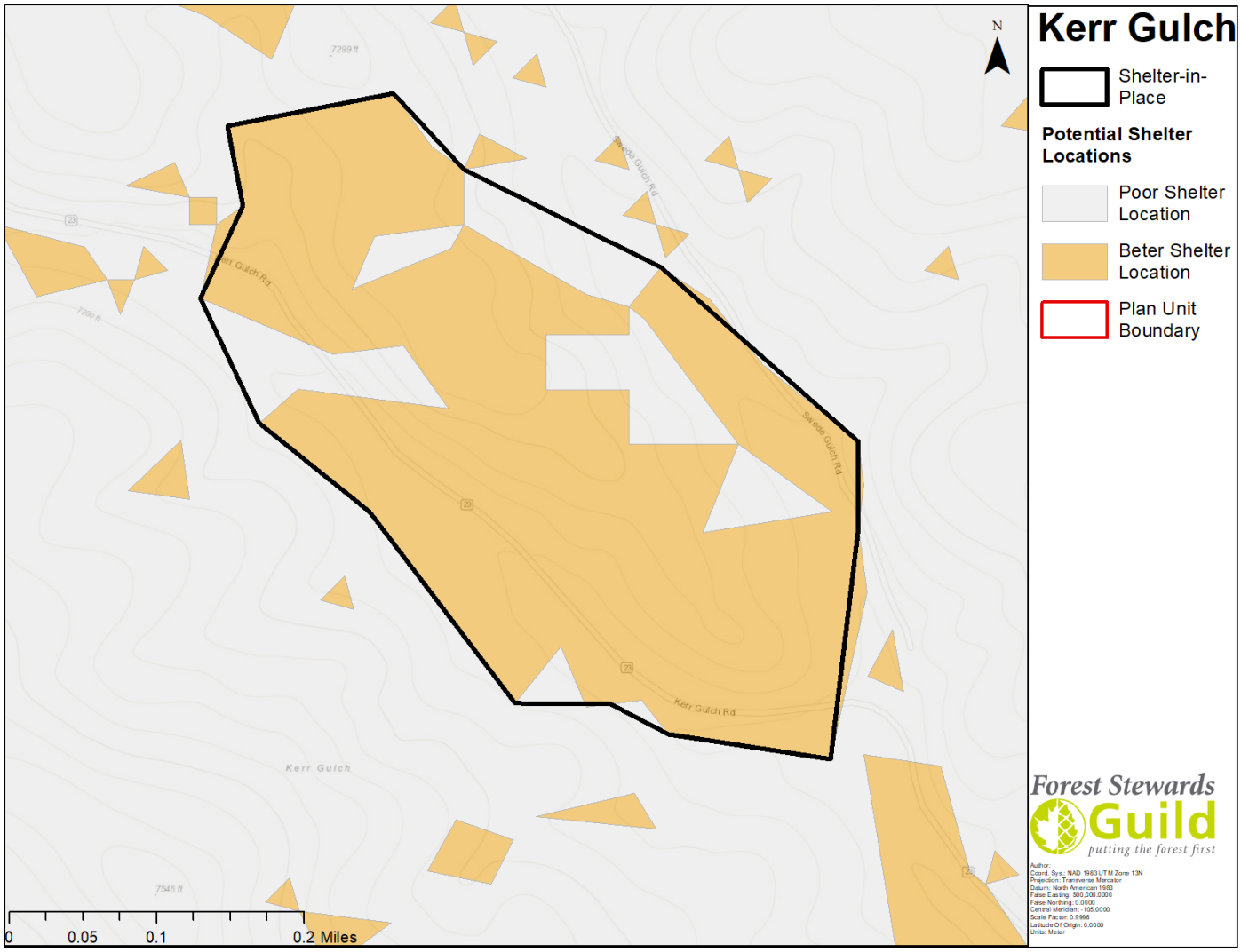
The area around S Kittredge Park Road and to the north along Wieler Road is an accessible area with high fuel loading and potential for ember cast. This is a priority action location for this Plan Unit. This gentle slope area has dense vegetation that could be cut to provide tactical and community protection measures to Kerr Gulch as a whole.

Shelter-in-place

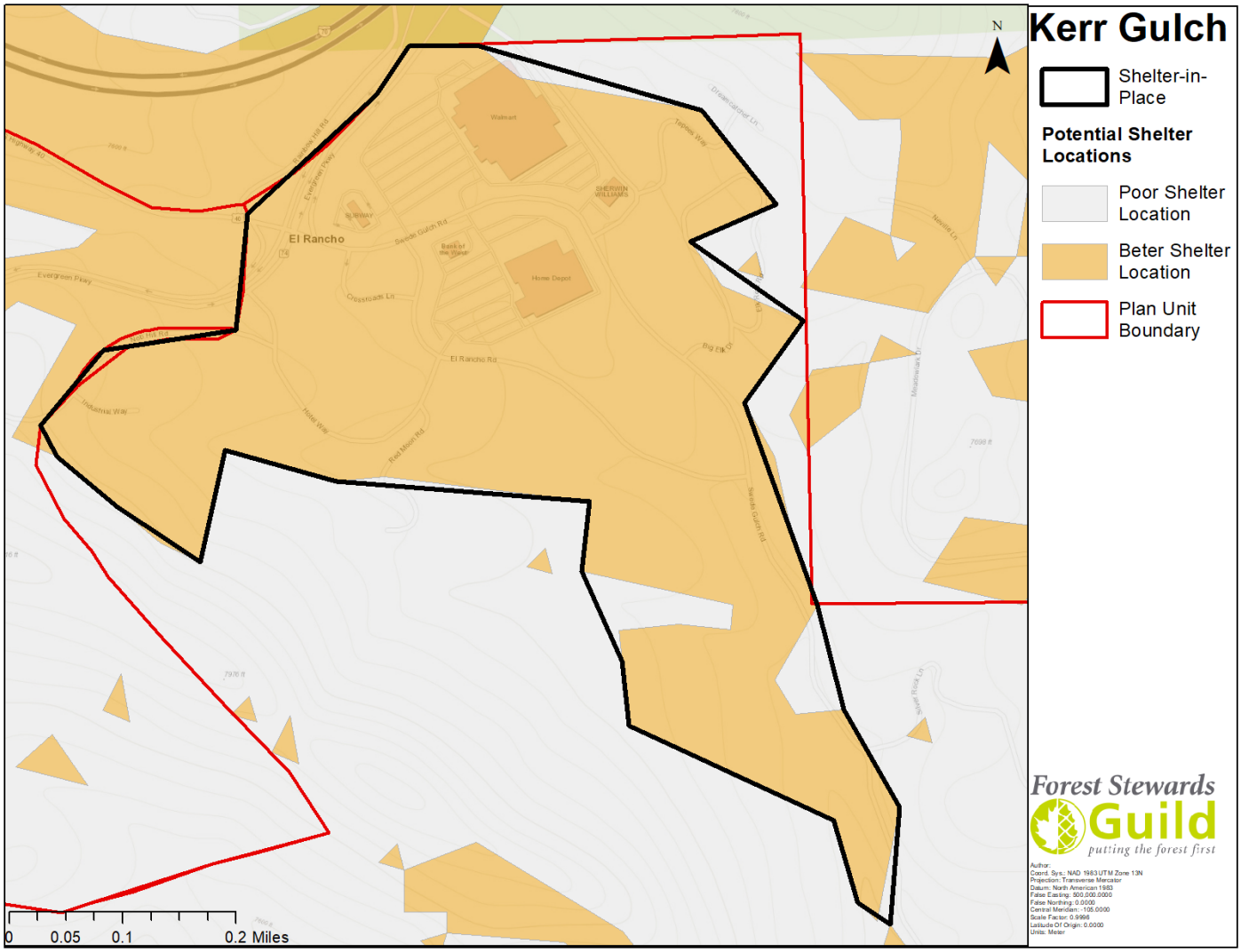


For the purposes of this CWPP, a shelter-in-place location is a location within a neighborhood that residents could drive to and survive the flame front of a wildfire. Shelter-in-place locations are a worst-case scenario option where all other evacuation and rescue efforts have failed. A shelter-in place 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.

A section of private land in the center of Kerr Gulch along Kerr Gulch Road and Music Lane could be a shelter-in-place location, although it is quite small and steep. This would need mitigation and clear direction for residents to be utilized properly. Residents could also shelter near Home Depot and Walmart and in the adjacent meadow along Swede Gulch Road. This area could house a great number of residents with very little flammable material. Some wildland fuels should be mitigated on the adjacent north-facing slope.



This is a close view of a proposed shelter-in-place location for Kerr Gulch. 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.



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