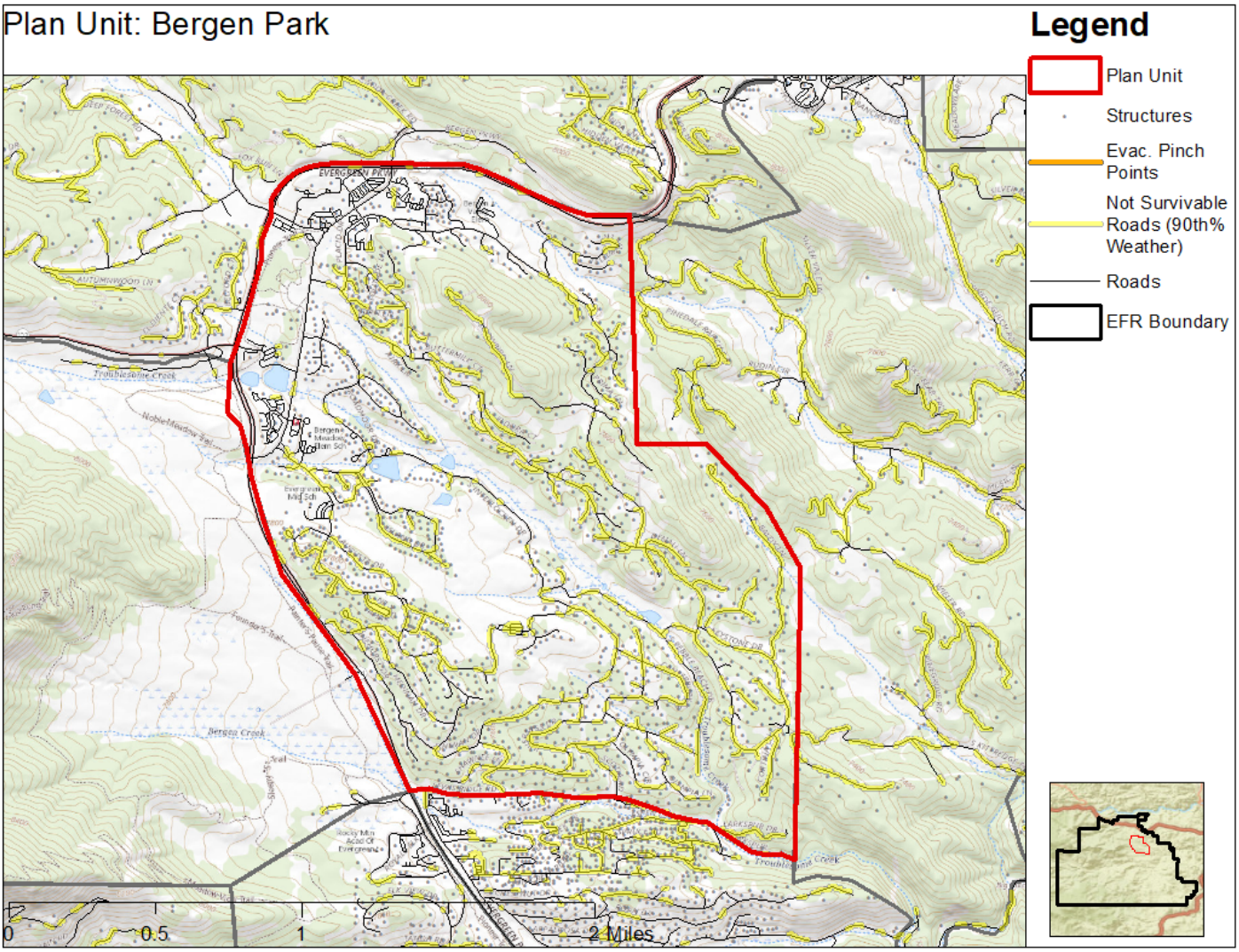
Bergen Park – Plan Unit 10

Rating: Low

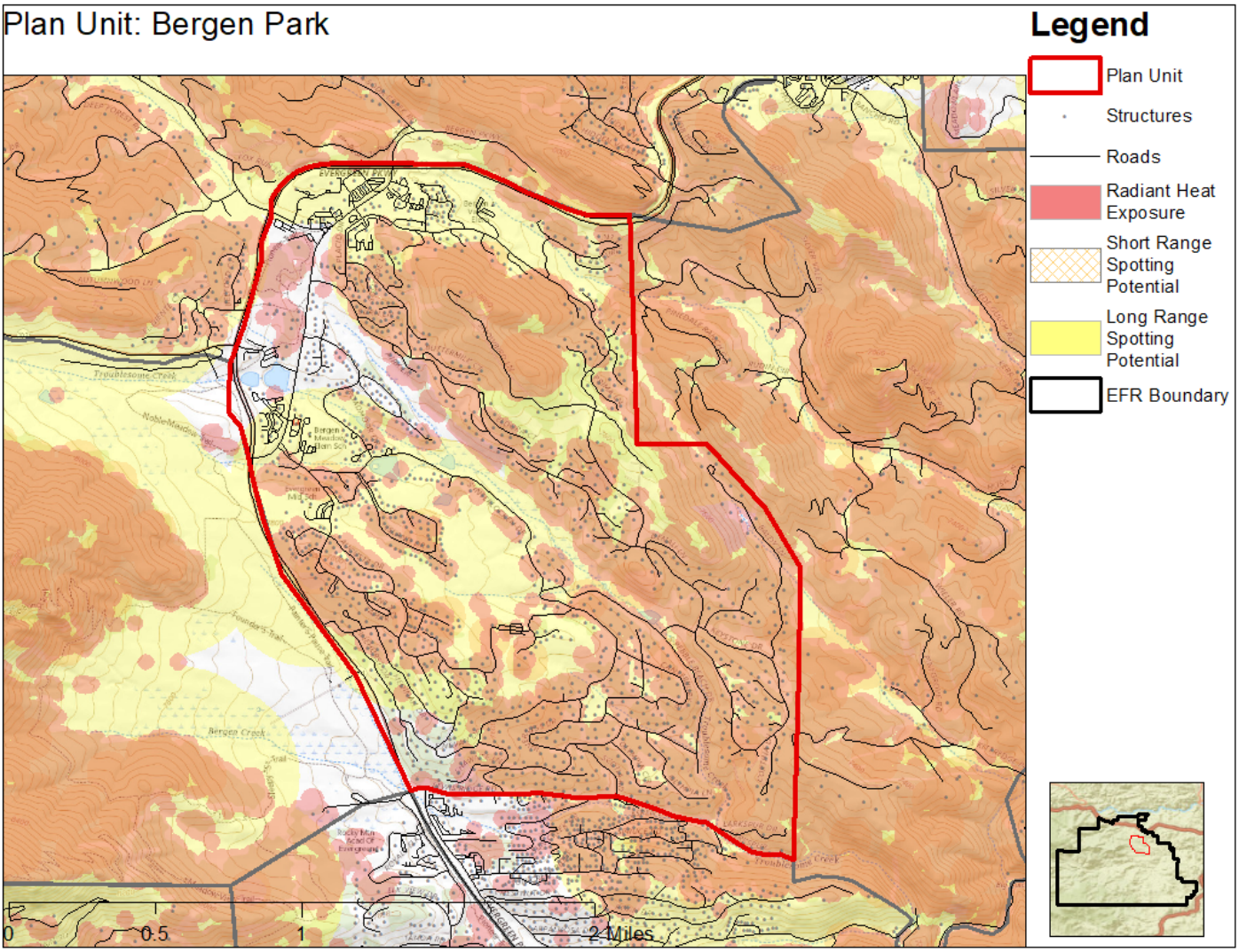
Evacuation Data Summary					
Number of Structures	Number of Cars	Average Time to Evacuate (min)	Median Time to Evacuate (min)	Minimum Time to Evacuate (min)	Maximum Time to Evacuate (min)
1577	4266	63	64	31	76

This unit consists of a robust commercial district with minimal fire risk along highway, a middle elevation band of dense subdivision homes and schools with well-maintained defensible space, and an upper elevation band with newer, luxury homes. Multiple fire-wise signs are present throughout the community, and the level of planning and work done is obvious. Fuels are highly managed and manicured. The only recommendation is to improve signage by adding more "dead end" signs for the many spur roads. It is an exemplary area to show successful fire preparedness. There are hydrants throughout the community, and the roads are excellent. Home Ignition Zone improvement should continue, and treatments should be maintained.

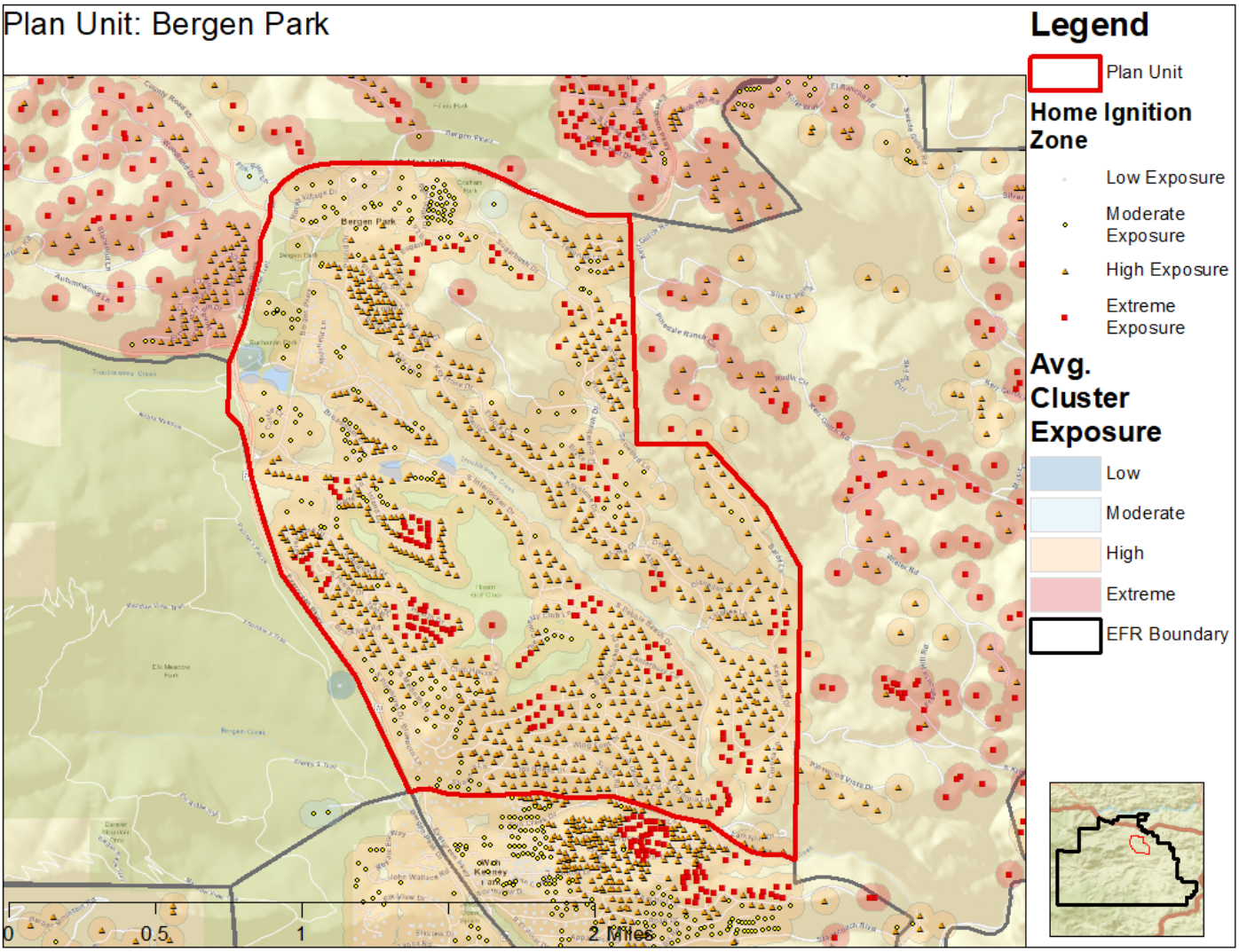
These photos represent exemplary fuels management that is consistent throughout entire community. Trees have been thinned and limbed, and areas have been mowed. There is defensible space throughout the community, which is certified as Firewise.



Bergen Park has no modeled Evacuation Pinch Points. It has a large population and evacuation congestion is predicted. Interlocken Drive and Keystone Drive will be major routes on either side of Evergreen Wah Run. Even without modeled congestion overlapping non-survivable roadway in these locations, it will be imperative to mitigate and maintain these major corridors.



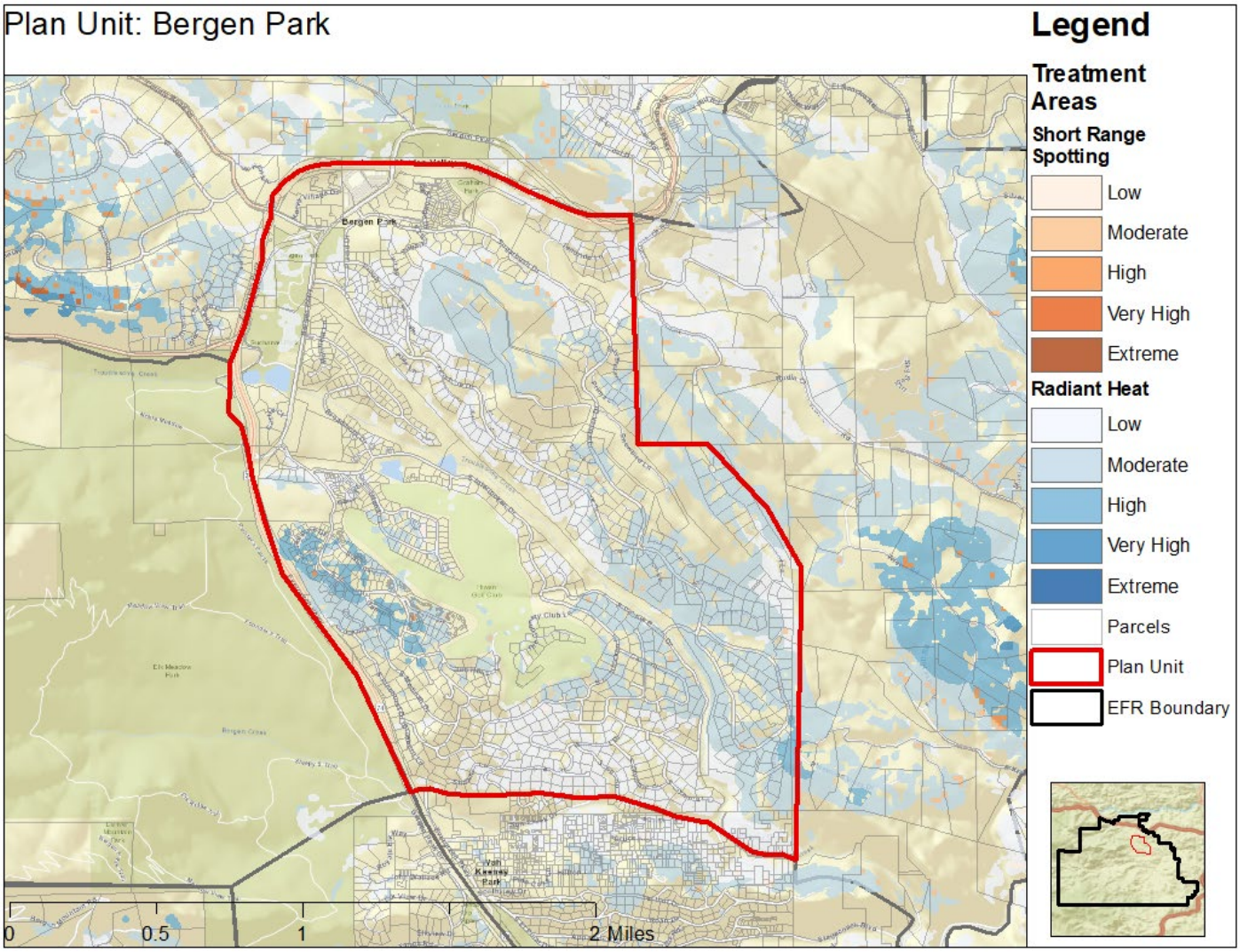
Radiant Heat exposure is designed to show neighborhoods where vegetation will create fire behavior extreme enough to ignite home materials. Short- and long- range spotting is when embers travel a distance from the fire and continue its spread away from the main fire –this can be a deluge of embers that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

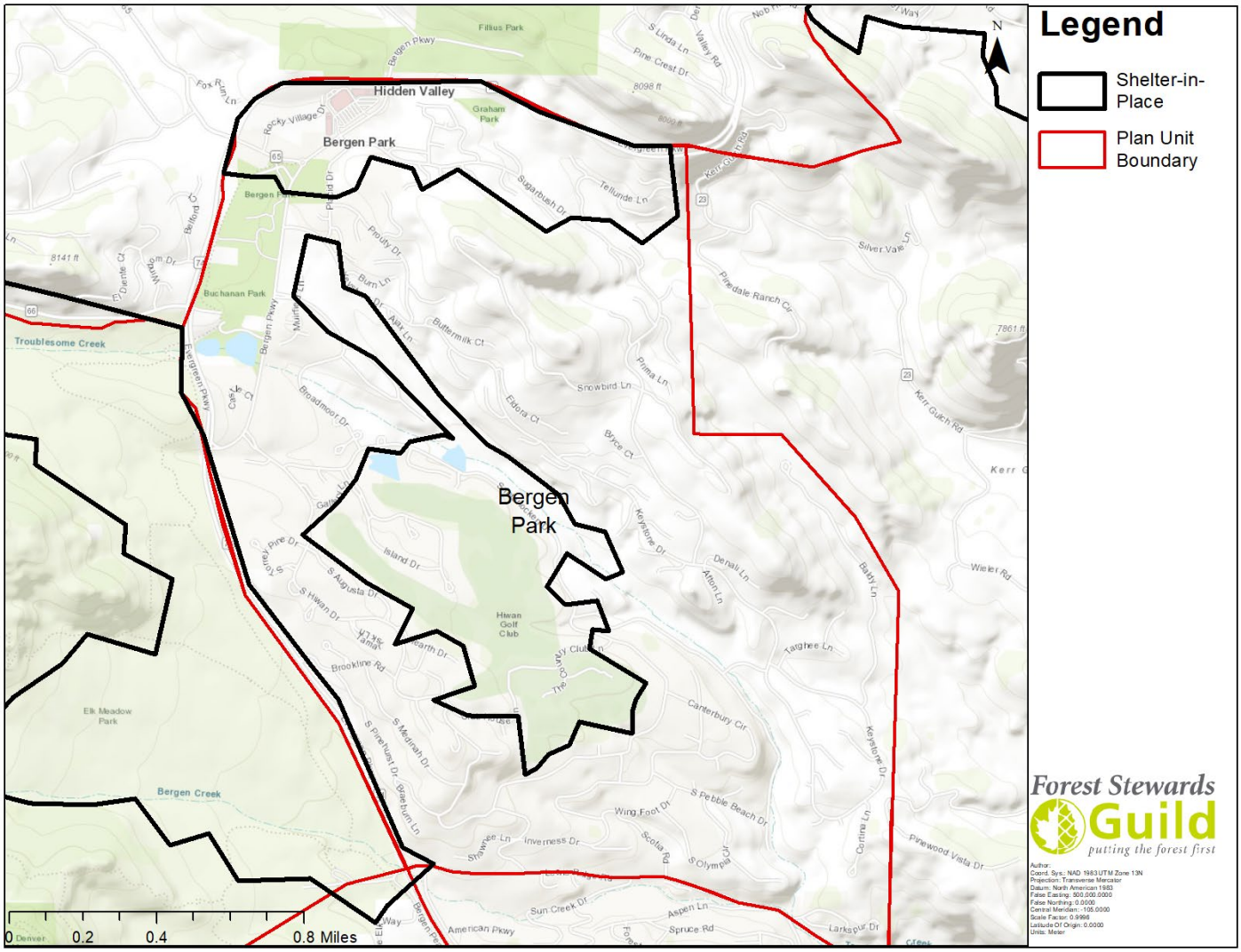
Bergen Park has some of the lowest structure exposure in Evergreen Fire Protection District, but still has quite a few homes at extreme risk. Average cluster exposure is high throughout. Pockets of extreme exposure should be mitigated with home hardening and defensible space to reduce the overall rating of the Plan Unit.



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.

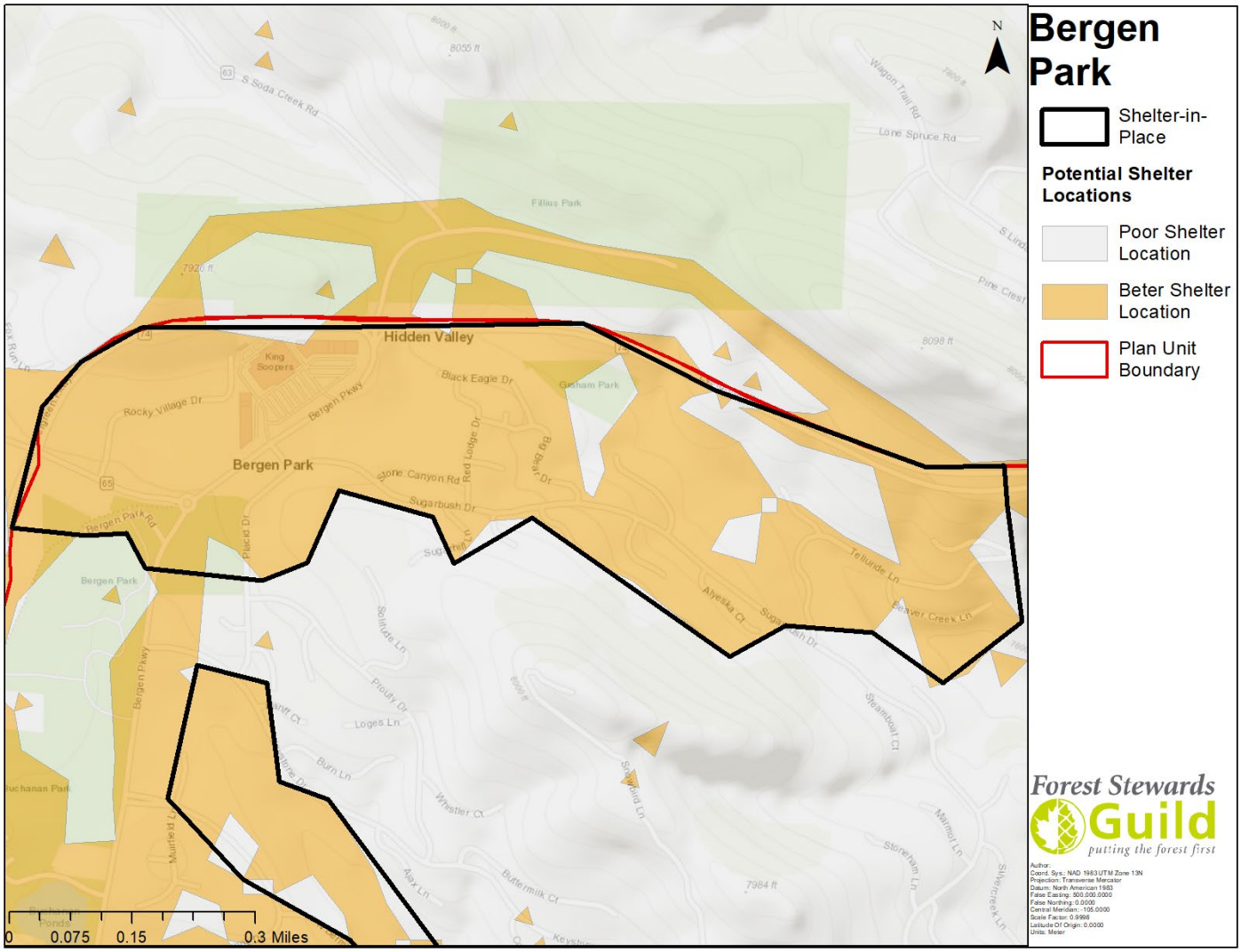
The location most in need of treatment in Bergen Park is the area between Hearth Drive, Augusta Drive, and Colorado 74. This area is extremely accessible and would be easy to mitigate, protecting the rest of Bergen Park. This neighborhood is in much better condition than others in Evergreen which lowers its priority ranking. This does not mean that improvements could not be made.

Shelter-in-place

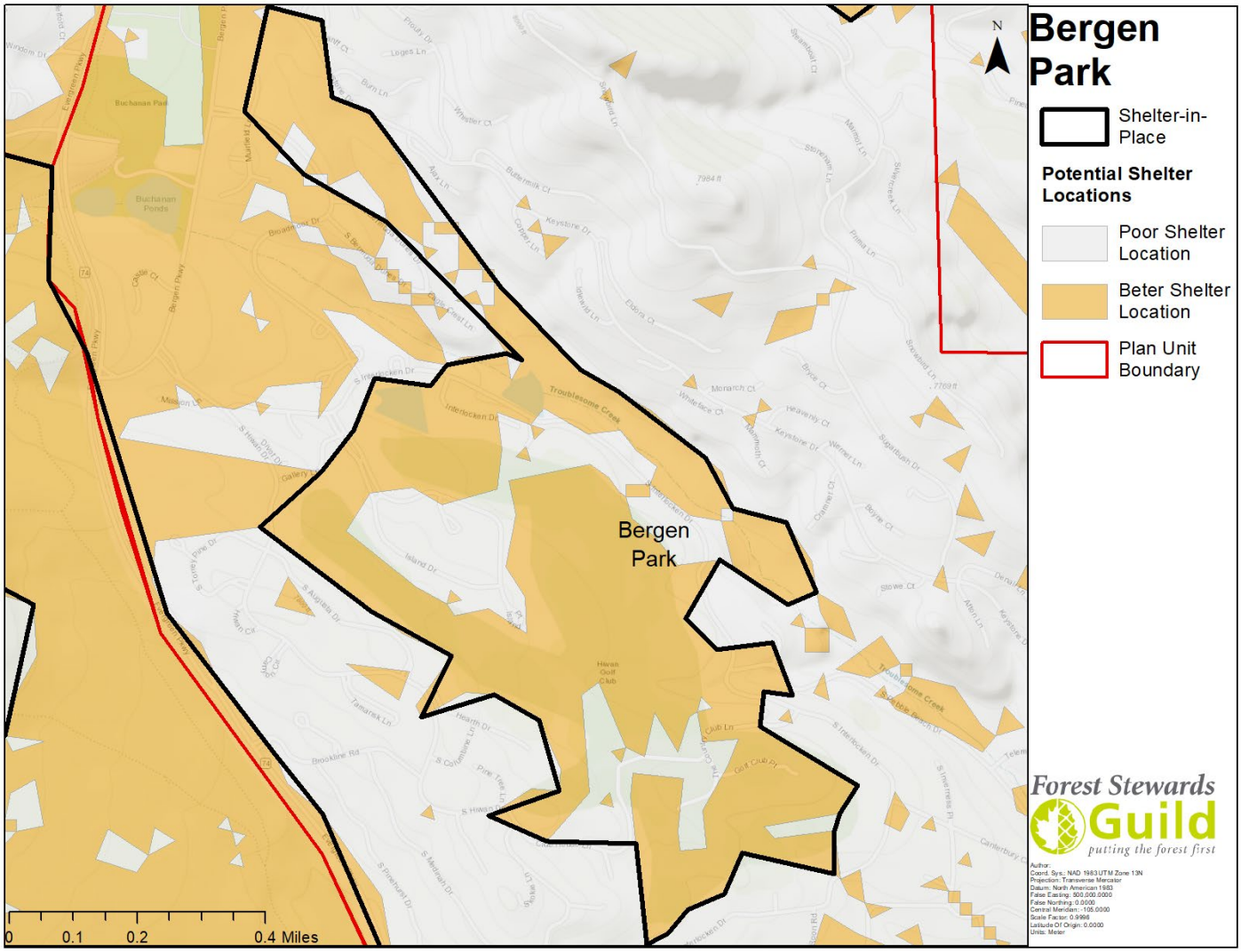


For the purposes of this CWPP, a shelter-in-place location is a location within a neighborhood that residents could drive to and survive the flame front of a wildfire. Shelter-in-place locations are a worst-case scenario option where all other evacuation and rescue efforts have failed. A shelter-in place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

Hiwan Golf Club area will be possible for shelter in place, though access will need to be coordinated. This area is adjacent to some vegetation that should be mitigated to improve the quality of this shelter location. Bergen Park itself on the north side of the plan unit, though a commercial area, will be a good place to shelter in place too.



This is a close view of one proposed shelter-in-place location in Bergen Park Plan Unit. This area is commercial and will require law enforcement coordination of traffic.



This is a close view of a proposed shelter-in-place location for Bergen Park. This area is segmented greatly by unmitigated vegetation. Working with the golf course to achieve shelter location objectives is imperative before utilizing this area for shelter.