

BUFFALO CREEK NORTH – PLAN UNIT 26

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)
434	1154	38	36	31	61

Topography is relatively gentle in this plan unit. Buffalo Creek North has good road access and less hazardous wildland fuels. Two main neighborhoods are separated by Jefferson County Open Space property in the middle of the unit. Fuels in the park are low to moderate density with evidence of ongoing cutting and piling along CO 89. Further west portions of the unit have larger properties and ranches with private roads, large pastures, and lower density Ponderosa Pine forest structures.

The neighborhood in the eastern portion from S Pine Road to S Syndt Road has higher home density in a Ponderosa Pine forest structure, but generally adequate defensible space, hydrants throughout, and is adjacent to a large golf course. These homes mostly have wood siding/decks and should make greater effort to remove vegetation away from structures.



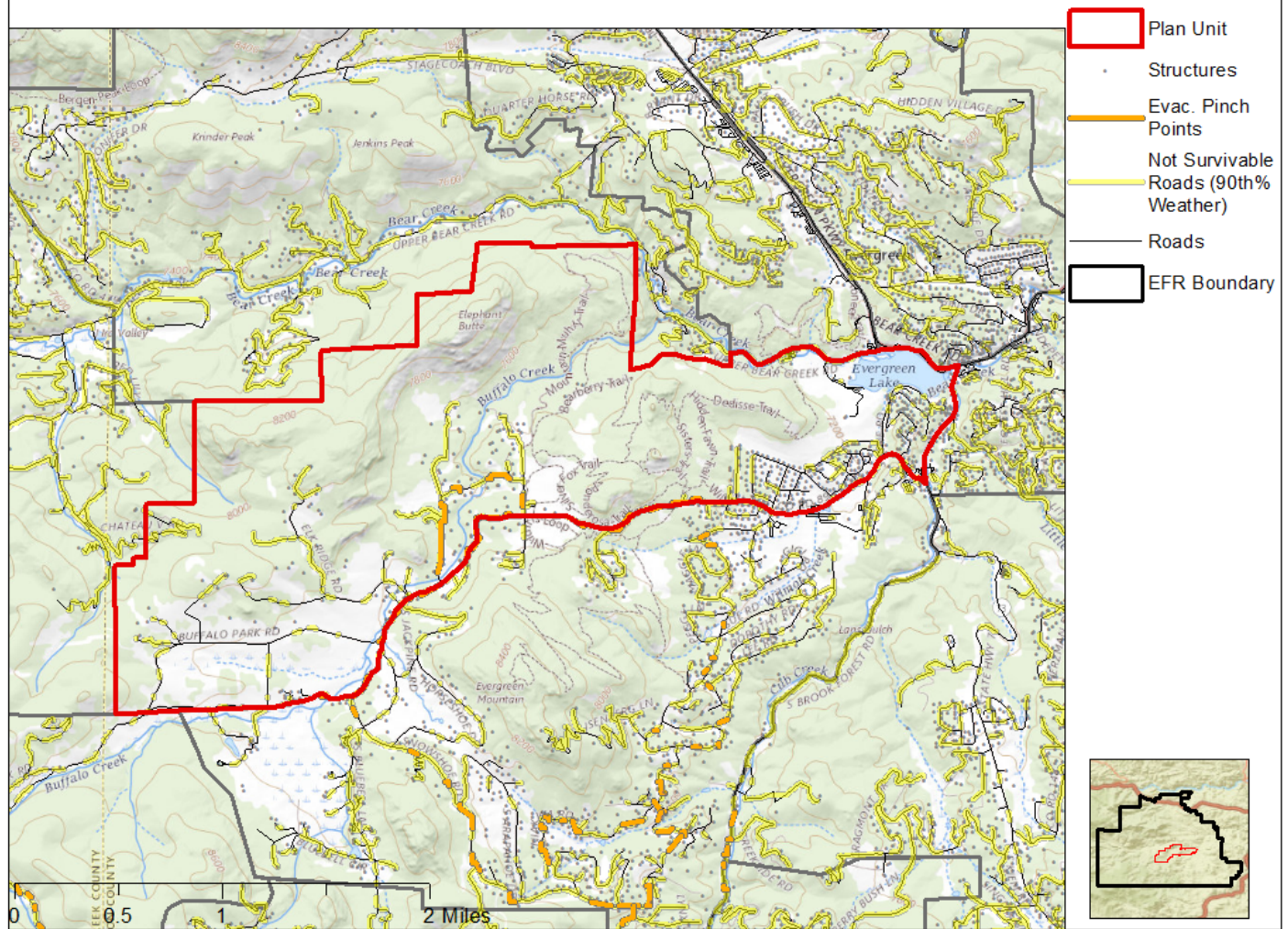
Good quality roads and overall defensible space work will make this neighborhood easier to defend, but home hardening could be improved as many homes are made of wooden materials.

The middle neighborhood in the S. Le Master Road area has larger lots, newer homes, and generally good defensible space. However, many parcels have not treated the entire property, leaving a thick vegetative wall along roads and property boundaries increase risk during evacuation.



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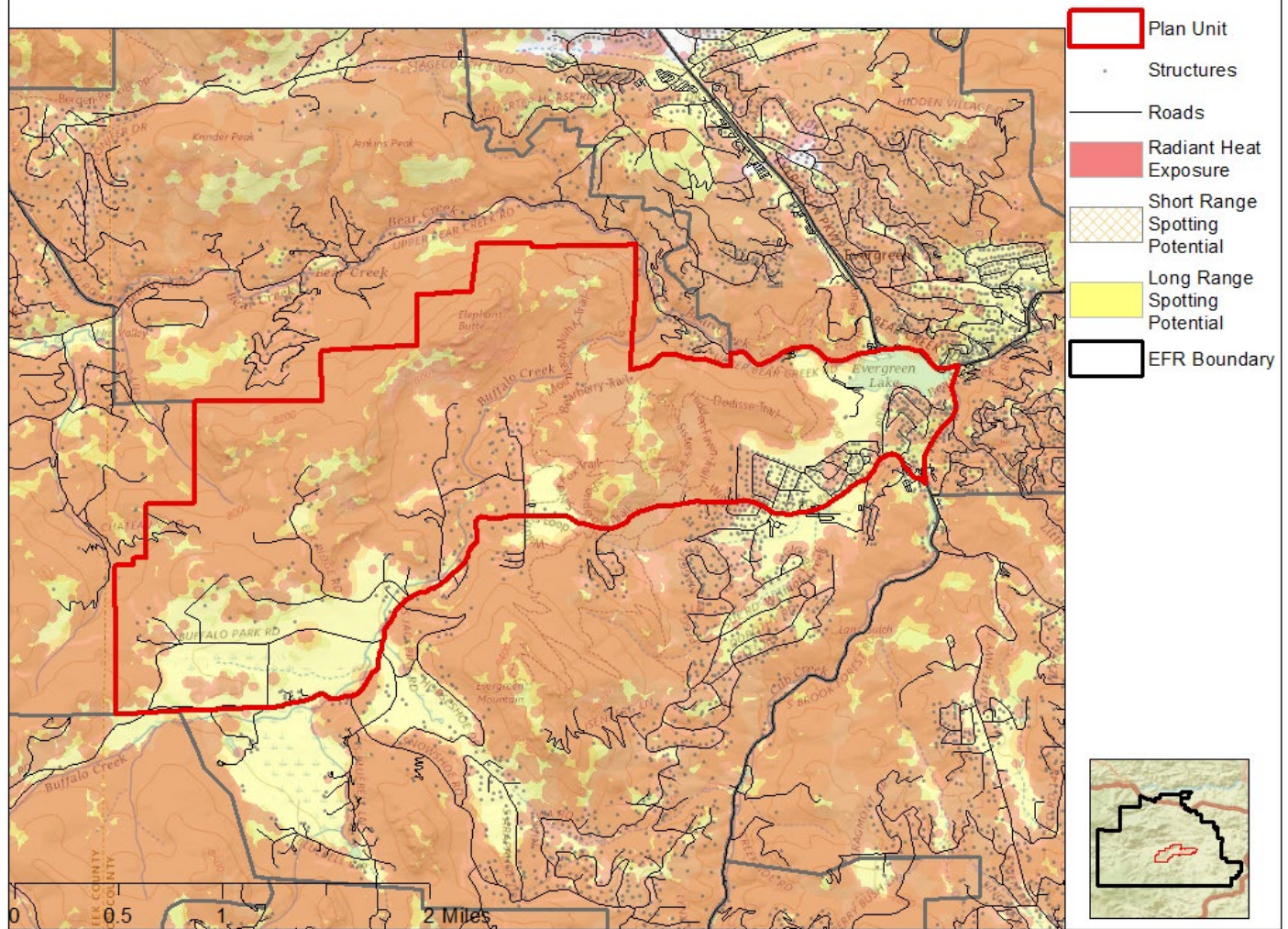
Legend



Buffalo Creek North has many Evacuation Pinch Points along Buffalo Park Road. This is a major evacuation corridor for multiple plan units and should be a primary roadway project. From S. Jackpine Road to S Knotty Pine Road, Buffalo Park Road has many pinch points and non-survivable fuels along roadways. There are internal roadways as well that Buffalo Creek North should work to mitigate, including Buffalo Creek Road and S. Le Masters Road.

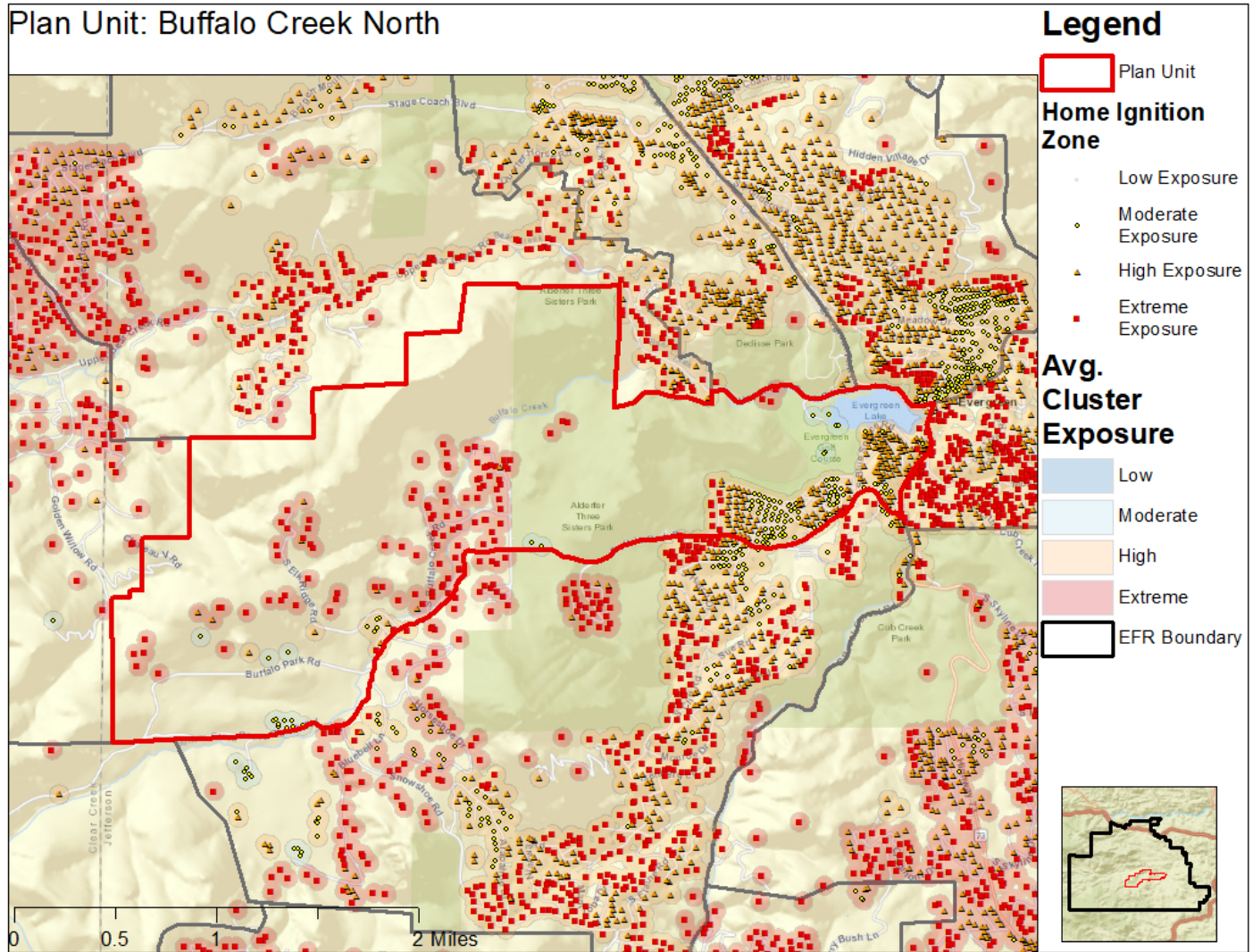
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Legend



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.

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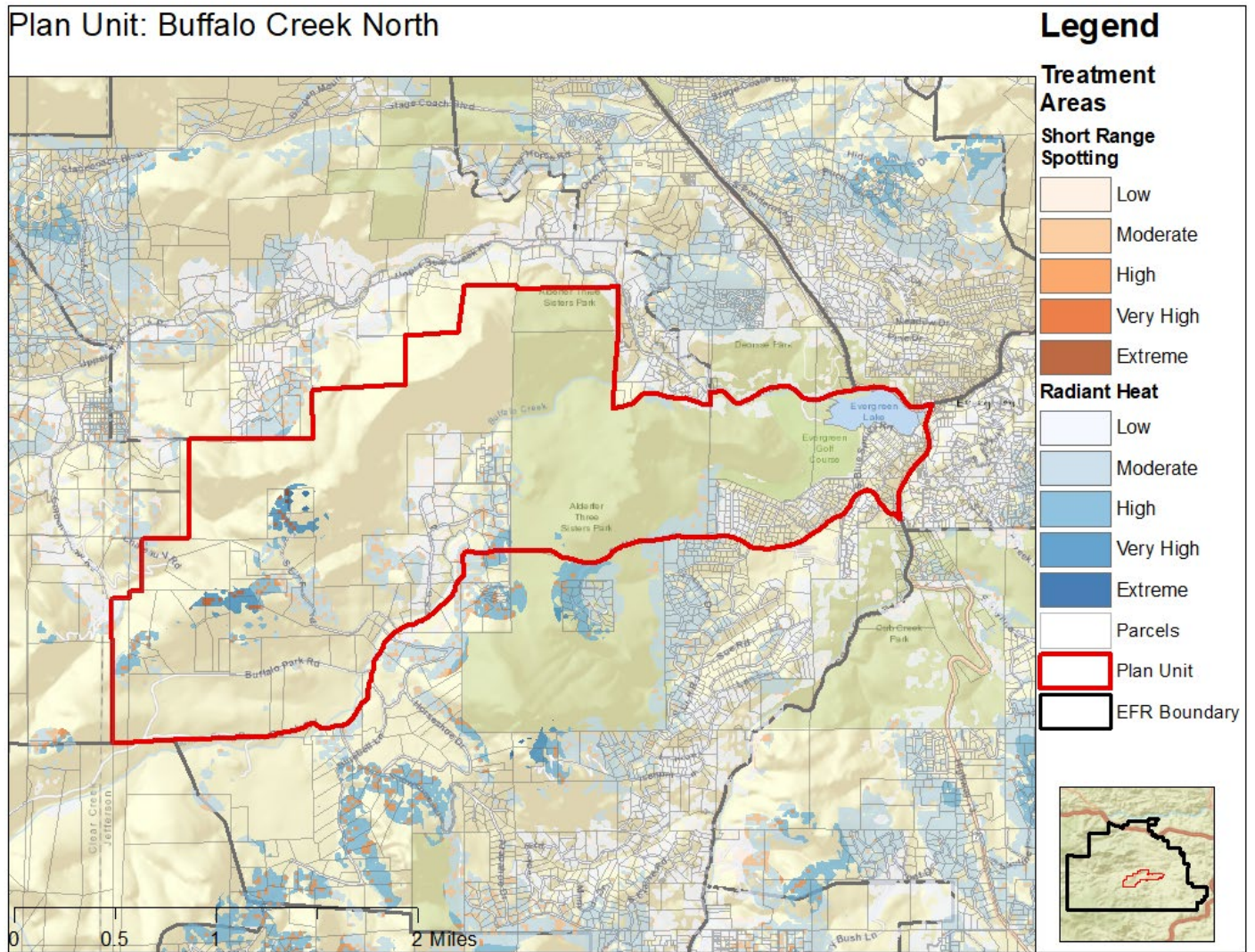


Ember exposure outputs (radiant heat, short range spotting, and long-range spotting, as seen above) were overlaid with structure points buffered as the Home Ignition Zone (100 ft). Structures in which greater than 50% of the home ignition zone was covered by radiant heat, short range spotting, or long-range 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.

Buffalo Creek North has many extreme exposure structures, and the average cluster exposure is extreme on the western side of the Plan Unit. 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, as well as the high-risk cluster to the east. The homes along S. Le Master and Buffalo Creek Road are highest extreme exposure density and highest priority and should work with Jefferson County Open Space to mitigated fuels where the private boundaries touch and overlap.

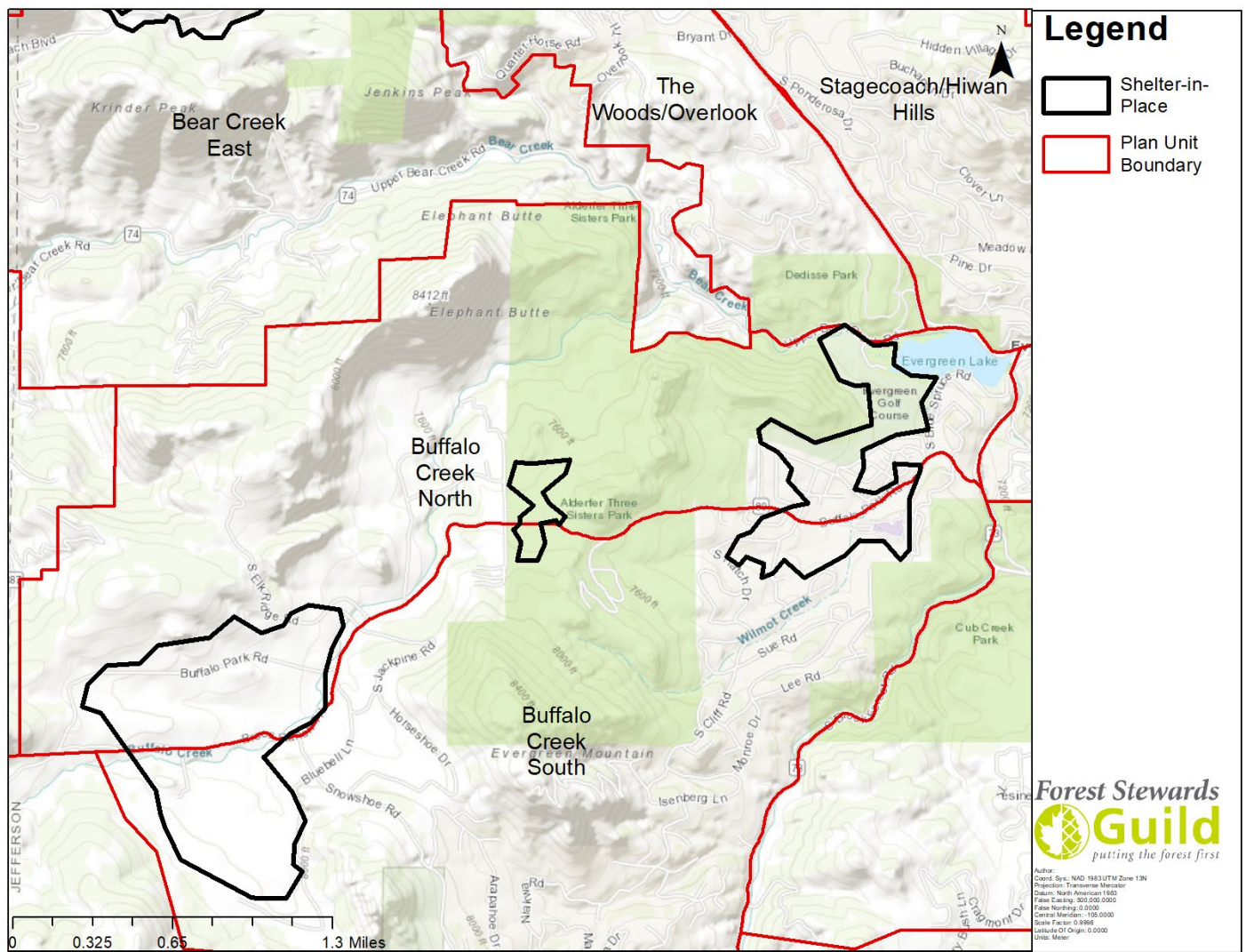
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Radiant heat and short-range ember exposure are displayed and filtered by accessible treatment areas (by slope and distance to a roadway). High to Extreme risk areas displayed in those maps are highest priority to protect from radiant heat and short-range spotting, however, this does not negate the need for defensible space treatment across the landscape.

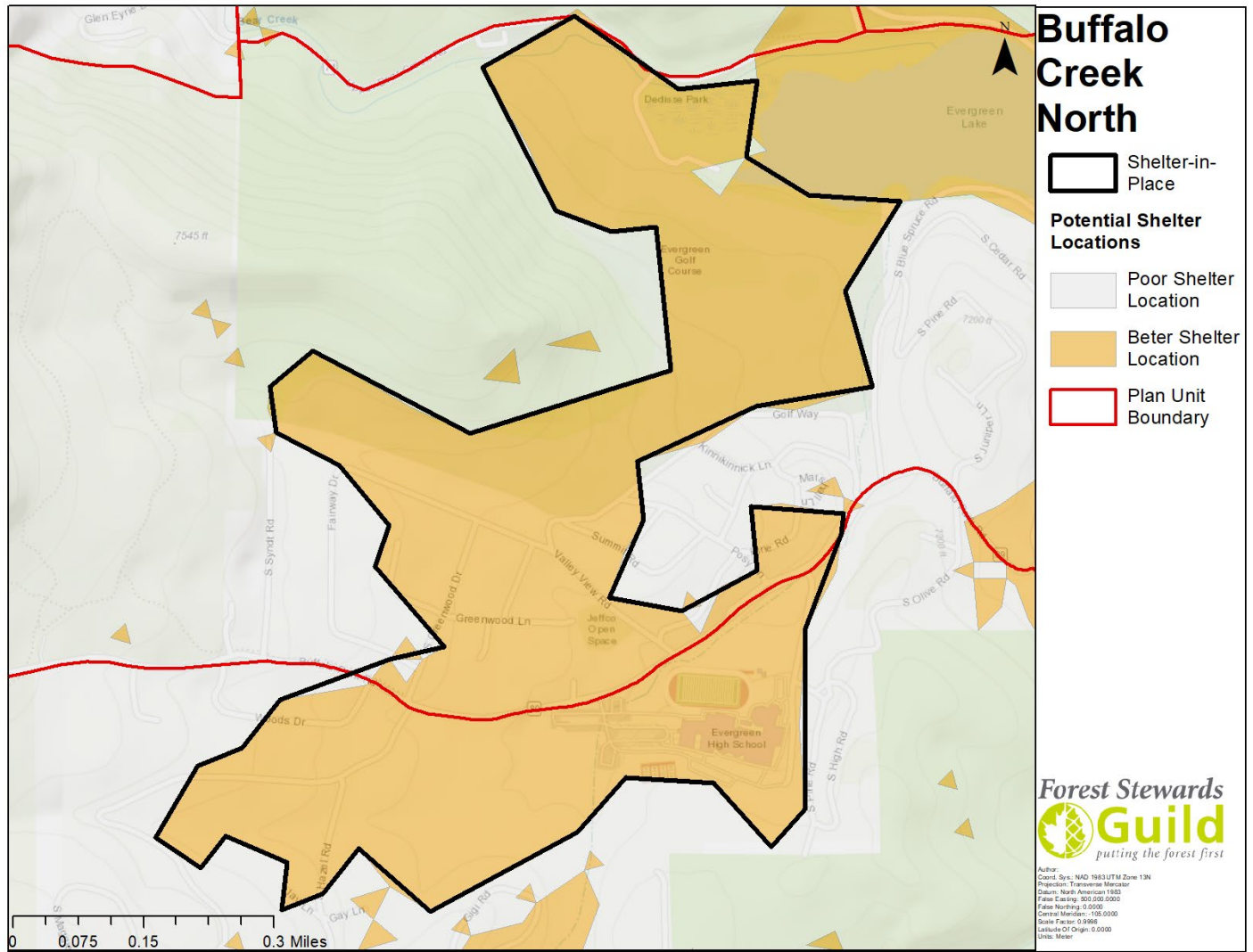
The highest priority fuel treatment area is on the western side of Buffalo Creek North, and could serve as a tactical option, if treated well and vegetation density was greatly reduced, to protect the rest of Buffalo Creek North. This area is along Elk Ridge Road and spans a variety of aspects and slopes. The area highlighted in the above map is treatable and high risk and should be the first location for CWPIP fuel treatment.

Shelter-in-place

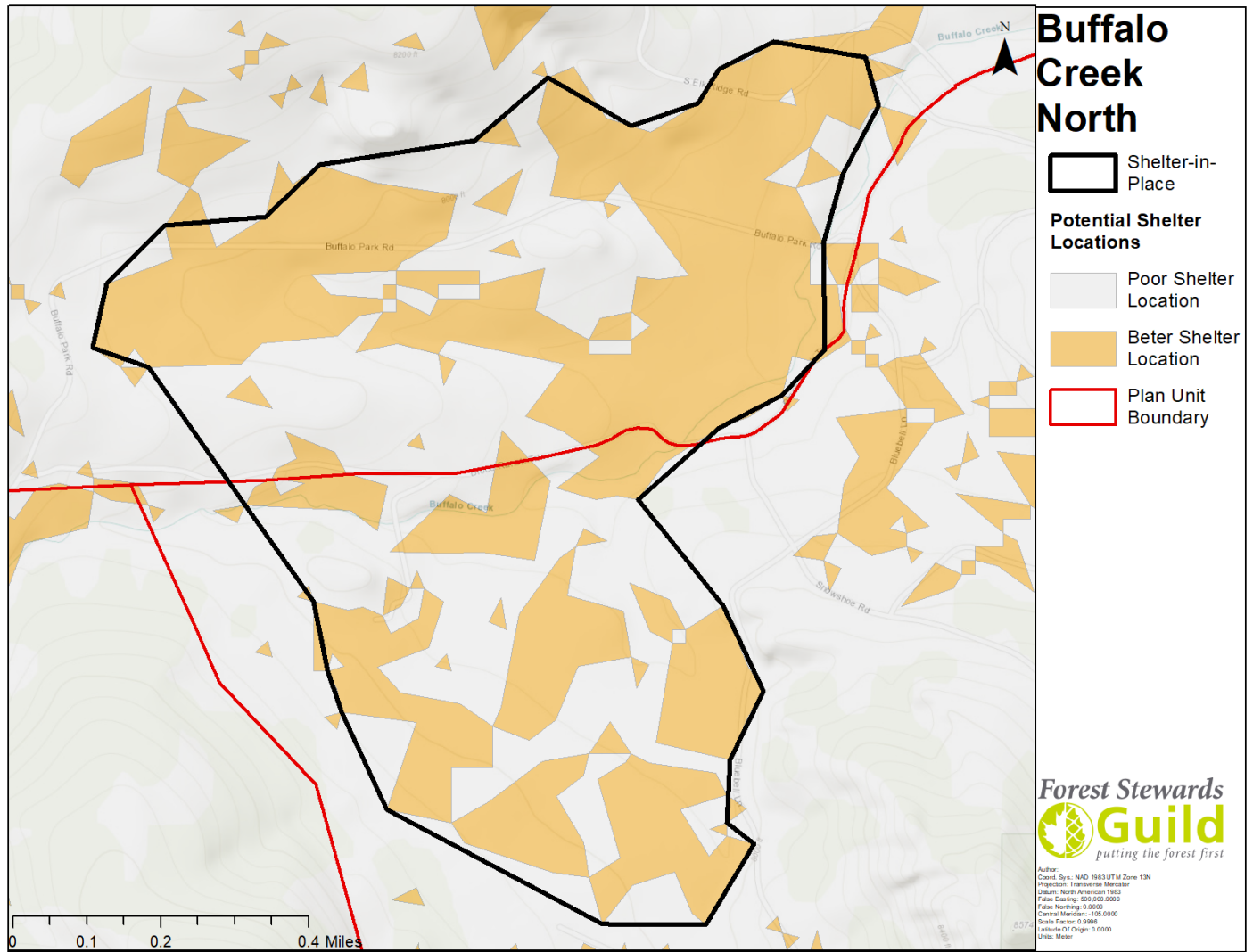


For the purposes of this CWPP, a shelter-in-place location is a location within a neighborhood that residents could drive to and survive the flame front of a wildfire. Shelter-in-place locations are a worst-case scenario option where all other evacuation and rescue efforts have failed. A shelter-in place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

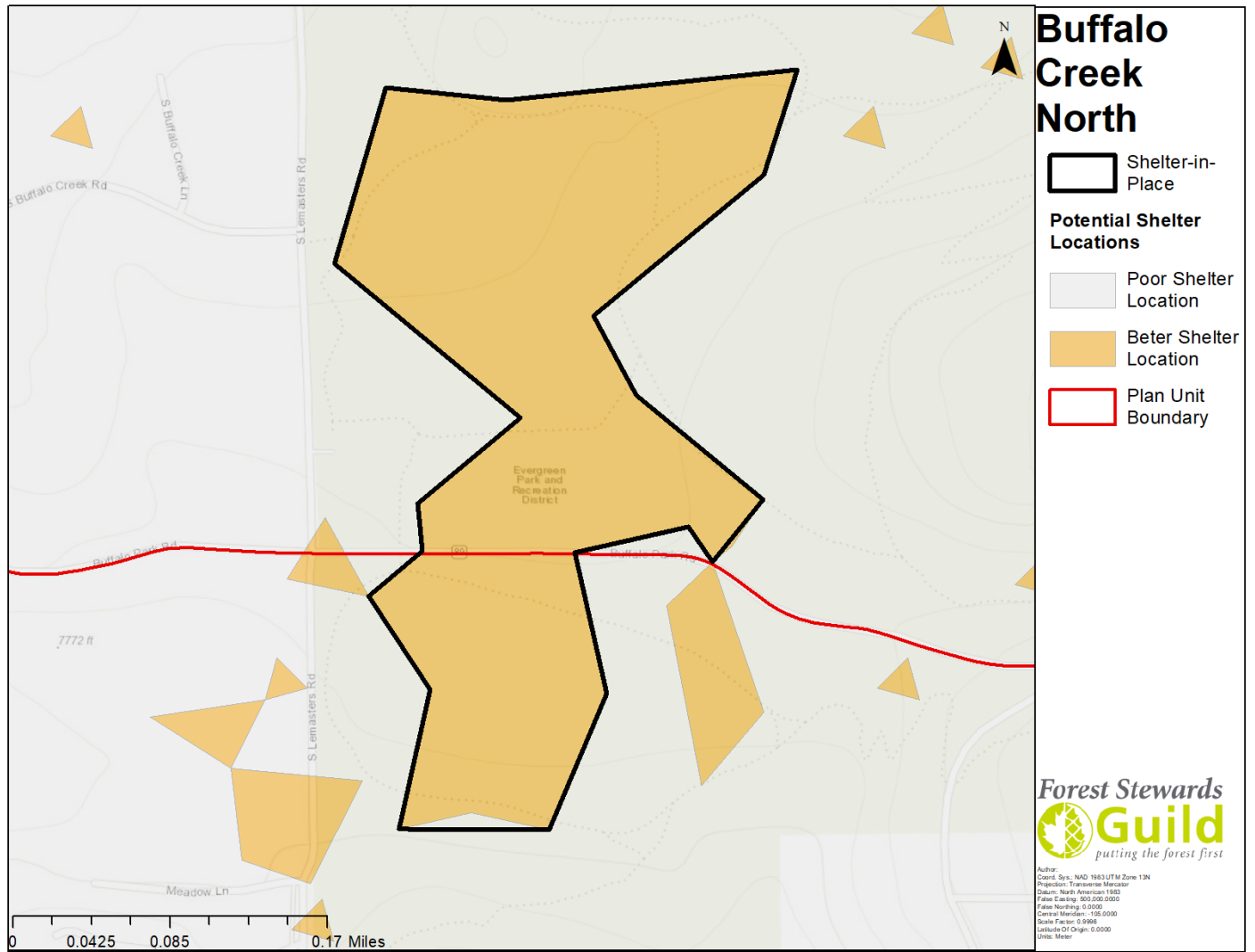
The Evergreen Golf Course and surrounding Denver Mountain Park - Dedisse Park should be expanded upon to create a great shelter-in-place, centrally located in Evergreen. Evergreen High School south of Buffalo Park Road is also a great location to shelter in place. The Jefferson County School District and Denver Mountain Parks should assist, as possible, in maintaining and expanding this area. To the east of S Lemasters Road, a small area to shelter is located on Jefferson County Open Space - Alderfer/Three Sisters Property. The surrounding area should be mitigated and expanded to make this a great shelter-in-place location. Lastly, the area surrounding Buffalo Park Road and Broce Ranch Trail has some great agricultural properties to be used for shelter-in-place, but first, a great deal of thinning and clearing must be done to make this area feasible and safe. These locations span Buffalo Creek North and South and both CWPIPs should address them.



This is a close view of a proposed shelter-in-place location for Buffalo Creek North. These areas should be mitigated to improve the overall shelter location.



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