

## Bailey Estates

Neighborhood Risk Rating – High

Evacuation Risk Rating – High



Bailey Estates and Horseshoe neighborhoods start with sharp angled turns from 285, which are a forewarning of an at-risk neighborhood. There are two egress points, but in an evacuation scenario with smoke in the air, quickly merging onto 285 will be treacherous. The side of the neighborhood closest to 285 is dense and tightly packed with steep terrain features. As you move towards the back of the neighborhood, the road flattens out and is paved but Crow Gulch will funnel fire towards many homes. It would be difficult to enter the neighborhood with a fire apparatus, and risky to send first responders in without easy egress. Driveways on average are narrow and prohibit use by anything other than a Type 6 Engine. Roofs were variable in condition, but the majority were Class A roofs. Housing stock is older, with wooden decks and older shingled roofs, making the lack of apparent defensible space very concerning. These considerations give Bailey Estates a Hazard Assessment value of 4.

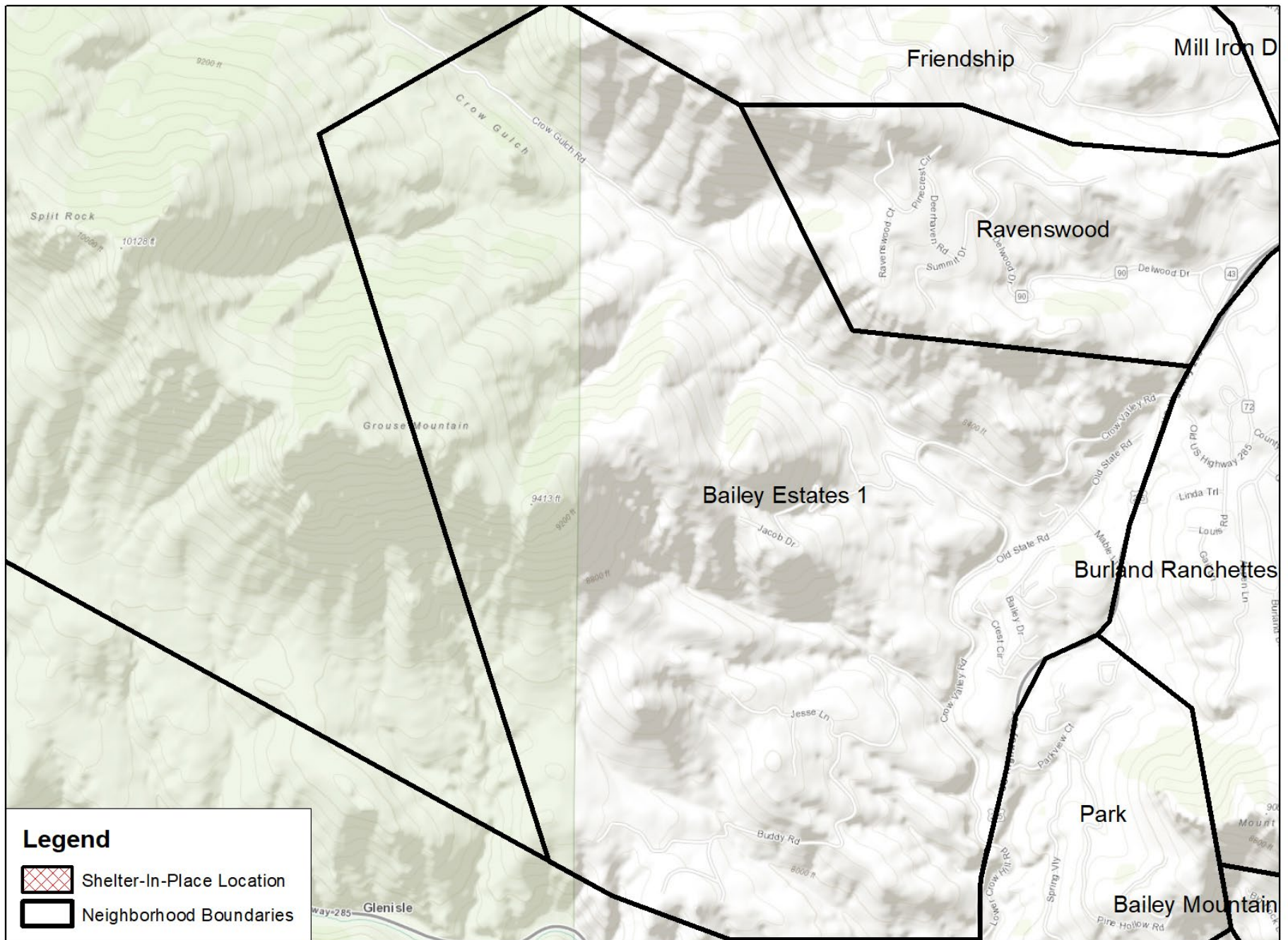


Bailey Estates has 101 total structures. This area has lower radiant heat exposure but will be showered with embers during a wildfire due to nearby fuels. Home hardening to prevent ember exposure from short-range and long-range spotting is necessary for home protection during a wildfire. Bailey Estates has no Evacuation Pinch Points, but much of the roadway is not currently survivable during a wildfire. Roads near the neighborhood exits onto US 285 need mitigation in case residents have long evacuation times through there. Any thinning projects in this neighborhood will benefit greatly when accompanied by robust defensible space work.

**High Priority Implementation Project:** Thinning treatments are needed particularly in areas that will funnel wind and increase fire behavior, like around Crow Gulch. With the terrain influence, treatment width should be greater than 300-feet and dictated by the guidelines in Appendix 7. This thinning treatment can connect to and contribute to proposed district-wide fuel treatment C.

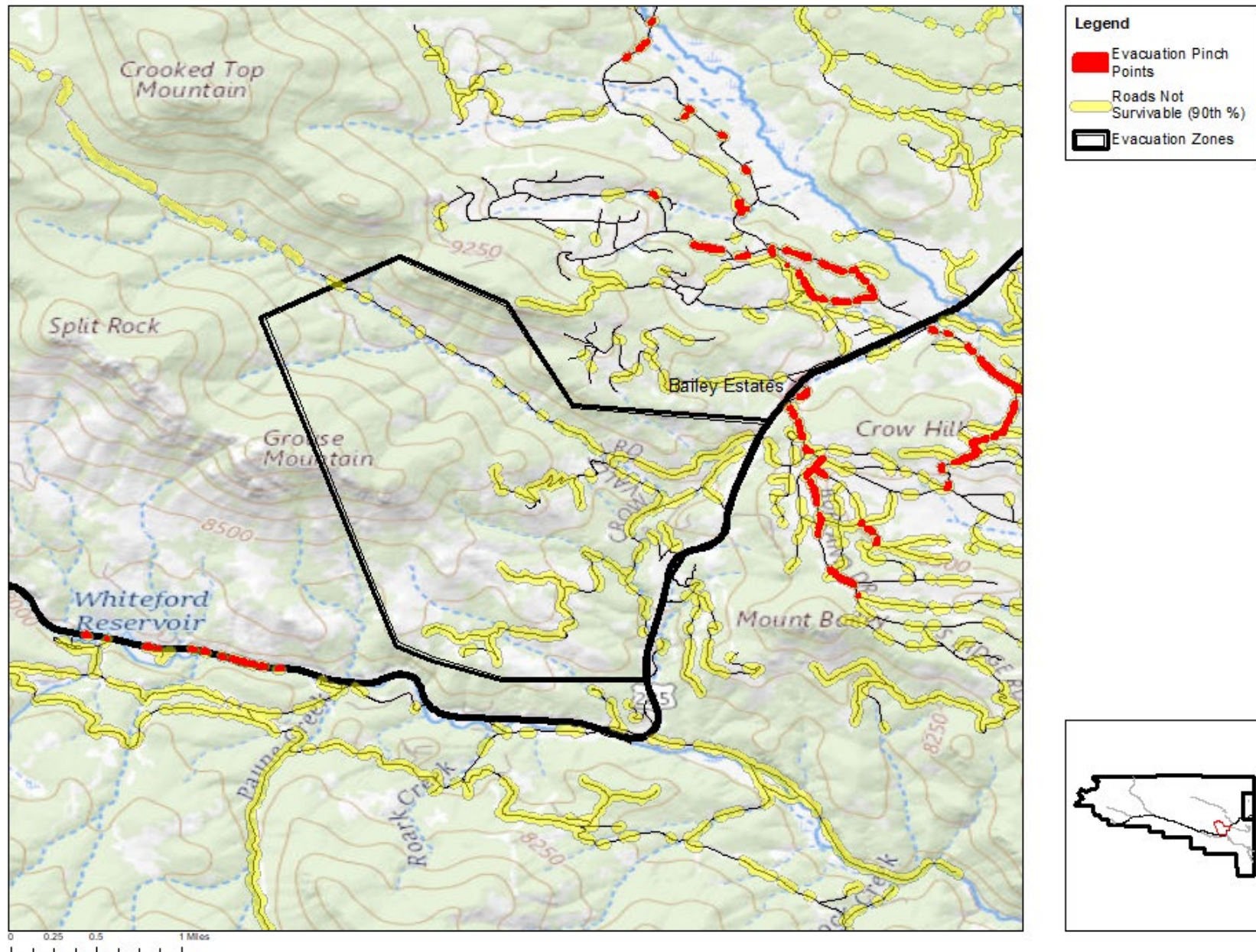


## Shelter-in-Place Proposed Location



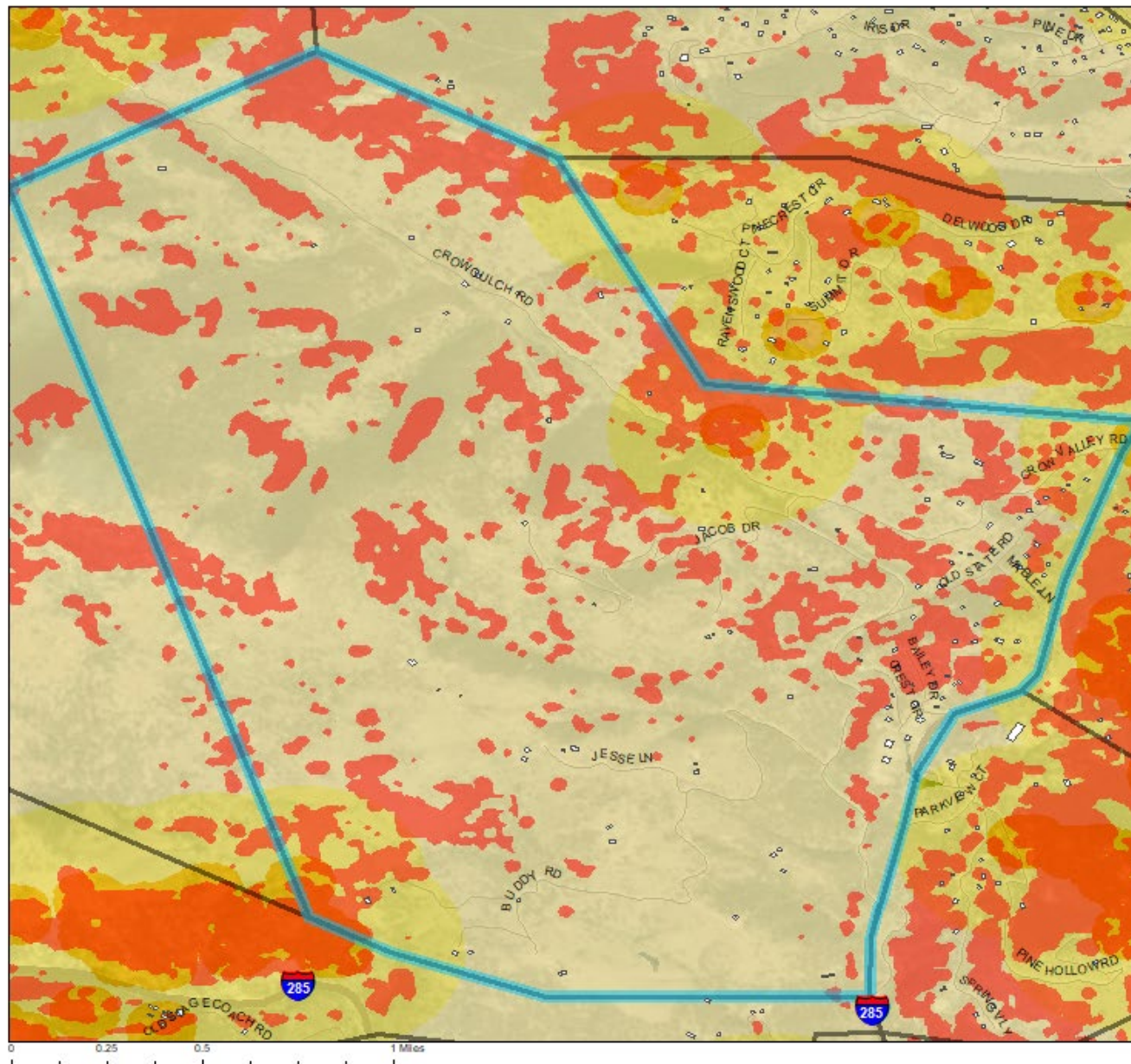


## Evacuation Zone: Bailey Estates - Rating: High

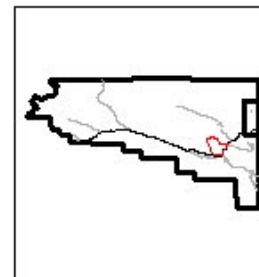




# Neighborhood: Bailey Estates 1 - Rating: High



Strx Density: 0.028529 strx / ac)  
 Percent of Roads Non-Survivable,  
 60th % Weather: 4.37%  
 Percent of Roads Non-Survivable,  
 90th % Weather: 34.69%  
 Historical Ignitions Per Acre: 0.00113  
 Structures at Risk:  
 From Radiant Heat: 19  
 From Short Range Spotting: 0  
 From Long Range Spotting: 101

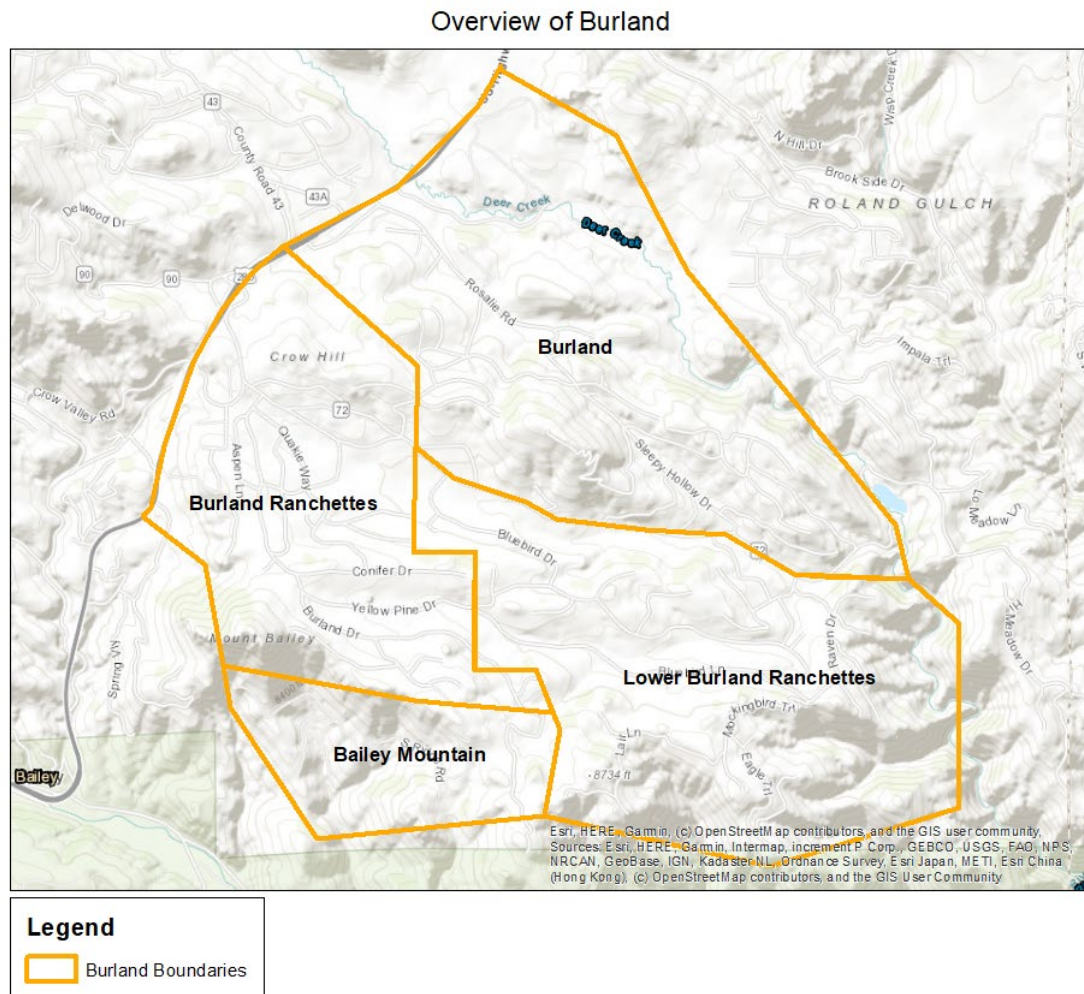




# Bailey Mountain

Neighborhood Risk Rating – High

Evacuation Risk Rating – Extreme



Bailey Mountain sits in a large valley with closed canopy Ponderosa in the valley and up the slopes surrounding it. This neighborhood contains the southern portion of Ridge Road where fuels and topography dramatically change. Housing stock is mixed with some good siding and Class A roofs, and some wooden siding and decks. Most homes don't have apparent defensible space work and it is recommended to make the entire area more defensible, as it would be dangerous to bring engines down the steep entry road in during certain wildfire scenarios. This neighborhood got separated in our analysis due to the poor access in/out for emergency response purposes. Ridge Road is the only way out of this community which leads to the greater Burland neighborhood, also with only one way in/out. The Hazard Assessment value for Bailey Mountain is 4, due to housing materials and roadway risks.



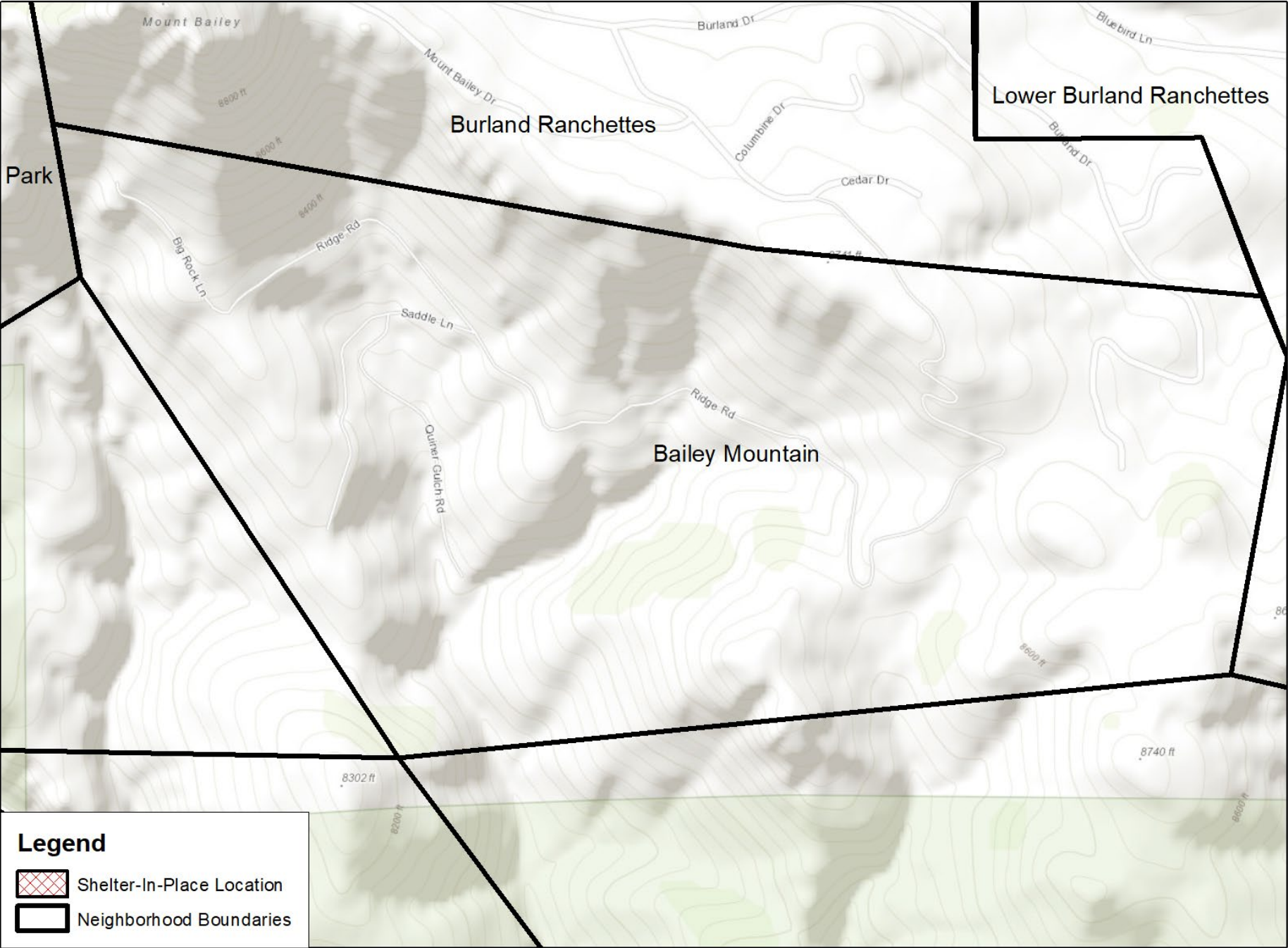


Bailey Mountain has 34 structures, all at risk of long range embers. Roadway survivability is low in this neighborhood during a wildfire, but evacuation congestion does not overlap (until Burland Ranchettes is reached), meaning there are no modeled Evacuation Pinch Points. All residents in this neighborhood should be cautious as the roadway could easily become blocked during evacuation up a steep incline. Improved egress should be a huge priority for this neighborhood. Radiant heat and short-range ember exposure will impact homes in Bailey Mountain, so defensible space is needed as soon as possible to change the outcome for homes here. There is no Shelter-in-Place location in Bailey Mountain. Exiting through Burland Ranchettes, there is a proposed shelter along County Road 72.

**High Priority Implementation Project:** Roadside thinning needs to occur along Ridge Road to facilitate egress. This community should be a top priority for improving evacuation outcomes. Thinning should focus on the steepest slopes first, with at least 350-foot treatment distance surrounding the road.

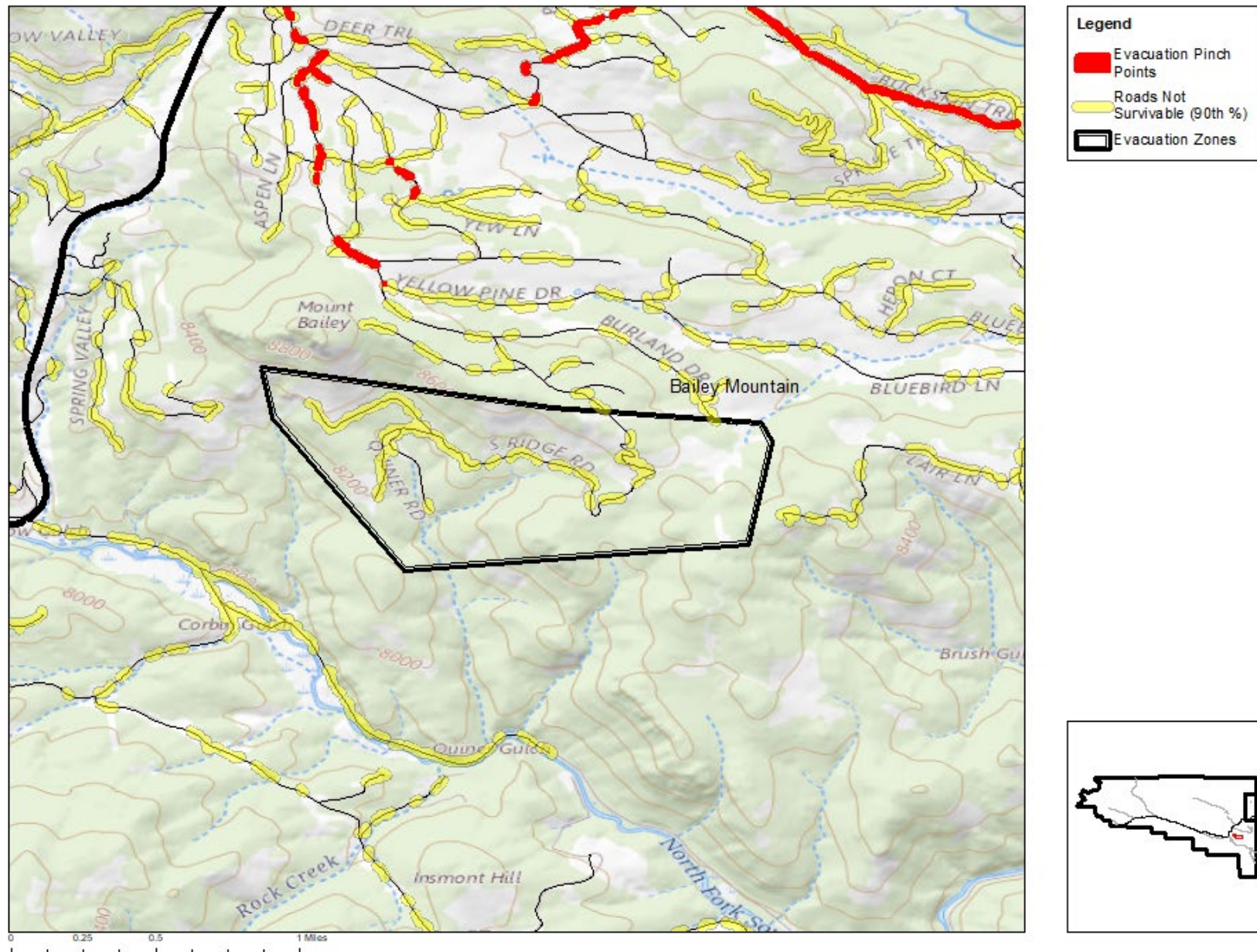


Shelter-in-Place Proposed Location



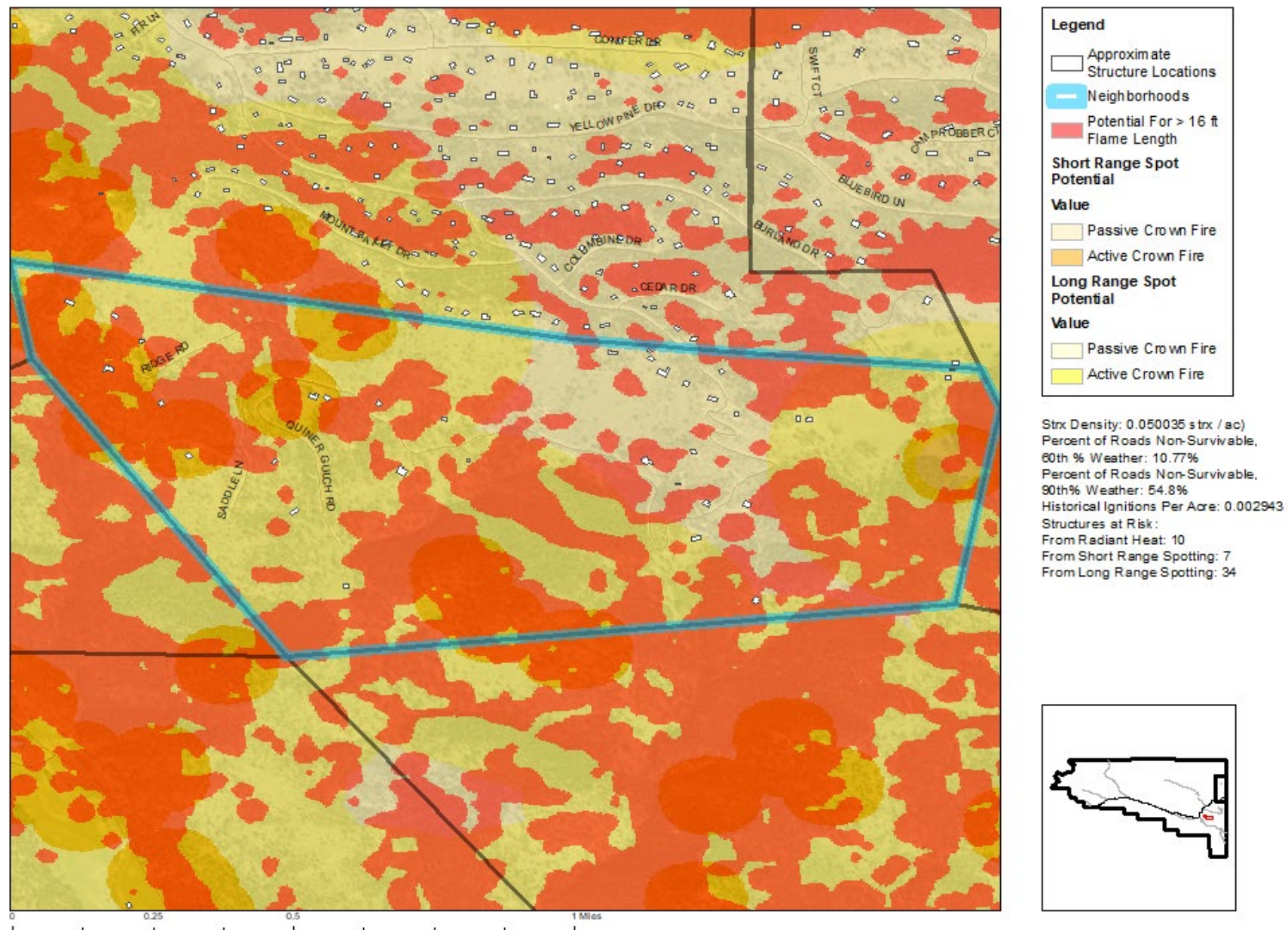


## Evacuation Zone: Bailey Mountain - Rating: Extreme





## Neighborhood: Bailey Mountain - Rating: High





## Bailey

Neighborhood Risk Rating – High

Evacuation Risk Rating – High



The commercial district and homes around the town of Bailey sit in a drainage that will be problematic and hard to defend during a wildfire. Structures are very close together which could result in rapid structure to structure ignitions that would make access and suppression difficult. Vegetation goes right up to commercial buildings, so the downtown doesn't benefit from the built environment as some towns do. Some buildings with surrounding pavement will have a better chance of surviving a fire front. Improvement to building materials and defensible space surrounding the commercial center is highly recommended. Traffic and evacuation are also major issues to resolve for smoother egress. 285 has higher traffic and a steep grade in Bailey. With smoke and evacuation panic, this area could become a major choke point. This gives Bailey and the Commercial District a Hazard Assessment value of 3.



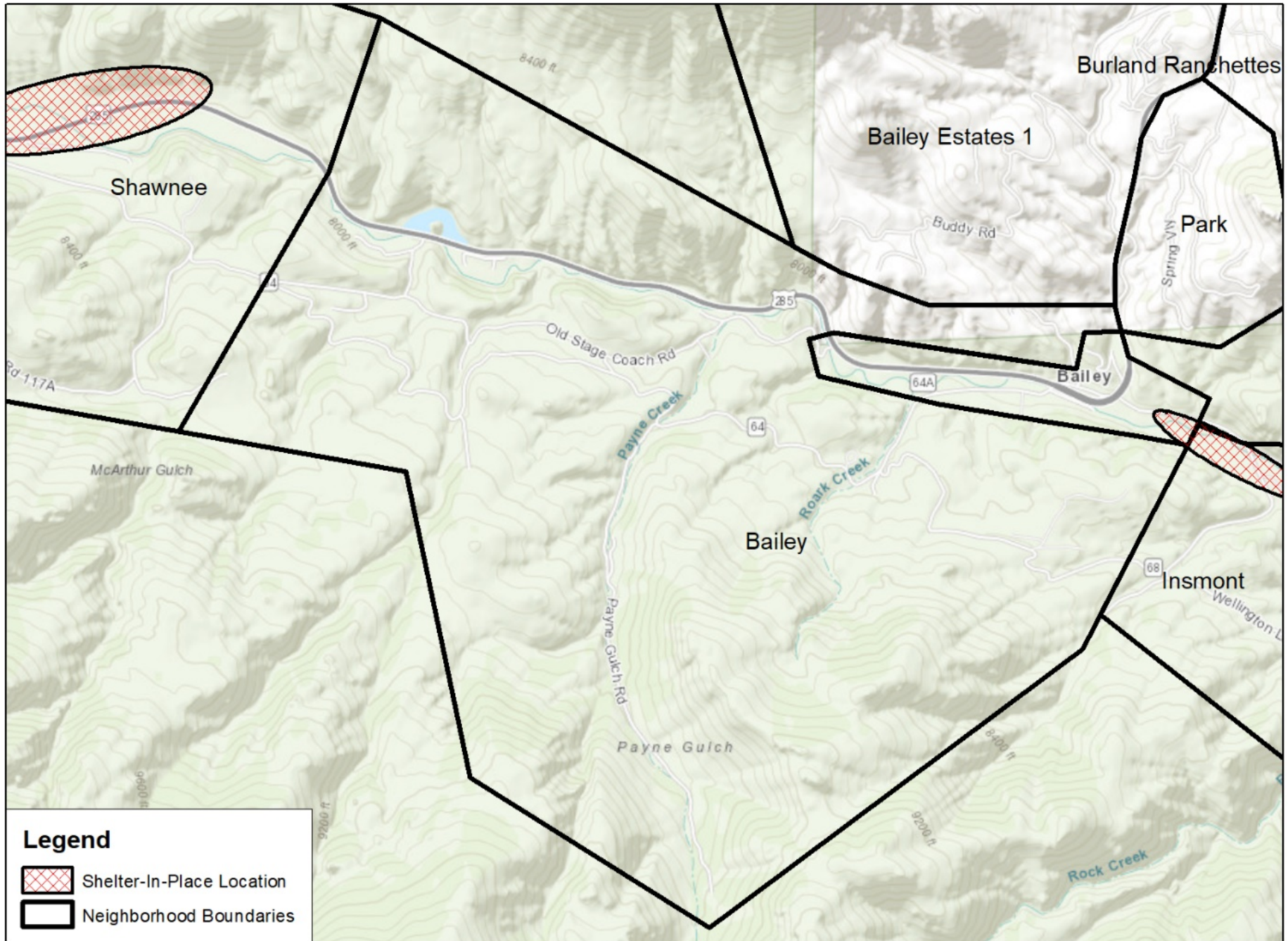


Some roadways in the Bailey neighborhood were mitigated by the U.S. Forest Service (USFS), which wasn't reflected by our baseline vegetation data. The roadway survivability should be better than shown but could use additional work in area that weren't mitigated, particularly along Payne Gulch. There are 171 structures in Bailey and the Commercial District. The risk of home exposure to embers or radiant heat, however, won't have changed from the USFS mitigation for the most part, and should be a number one priority for reduction here by each resident.

**High Priority Implementation Project:** With extreme fuel loading in this neighborhood, roadway thinning treatments are recommended, particularly around the Bailey Commercial District. Thinning projects should be prioritized in connection to the work already completed by USFS and expand to facilitate better egress and improve tactical options south of US 285.

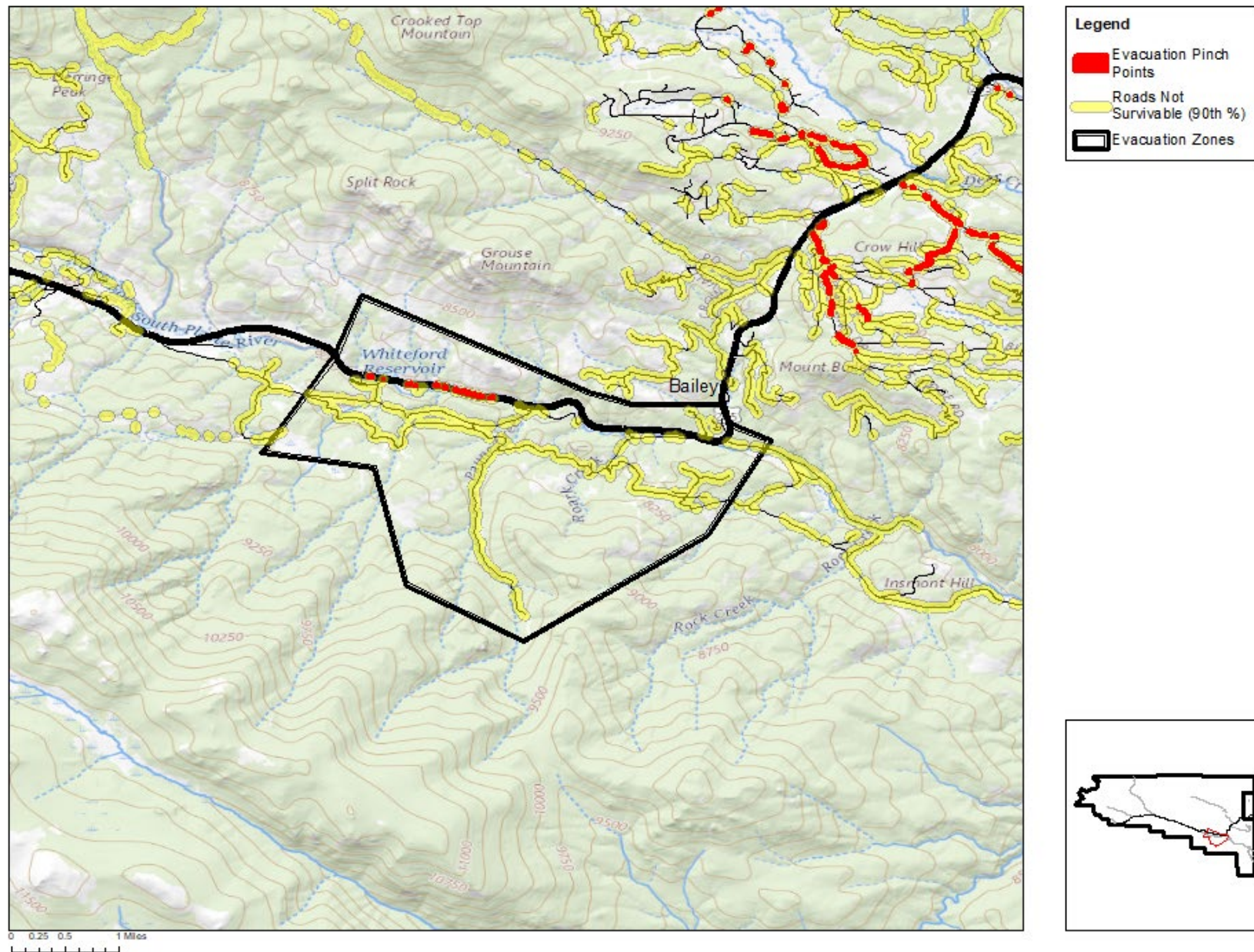


## Shelter-in-Place Proposed Location



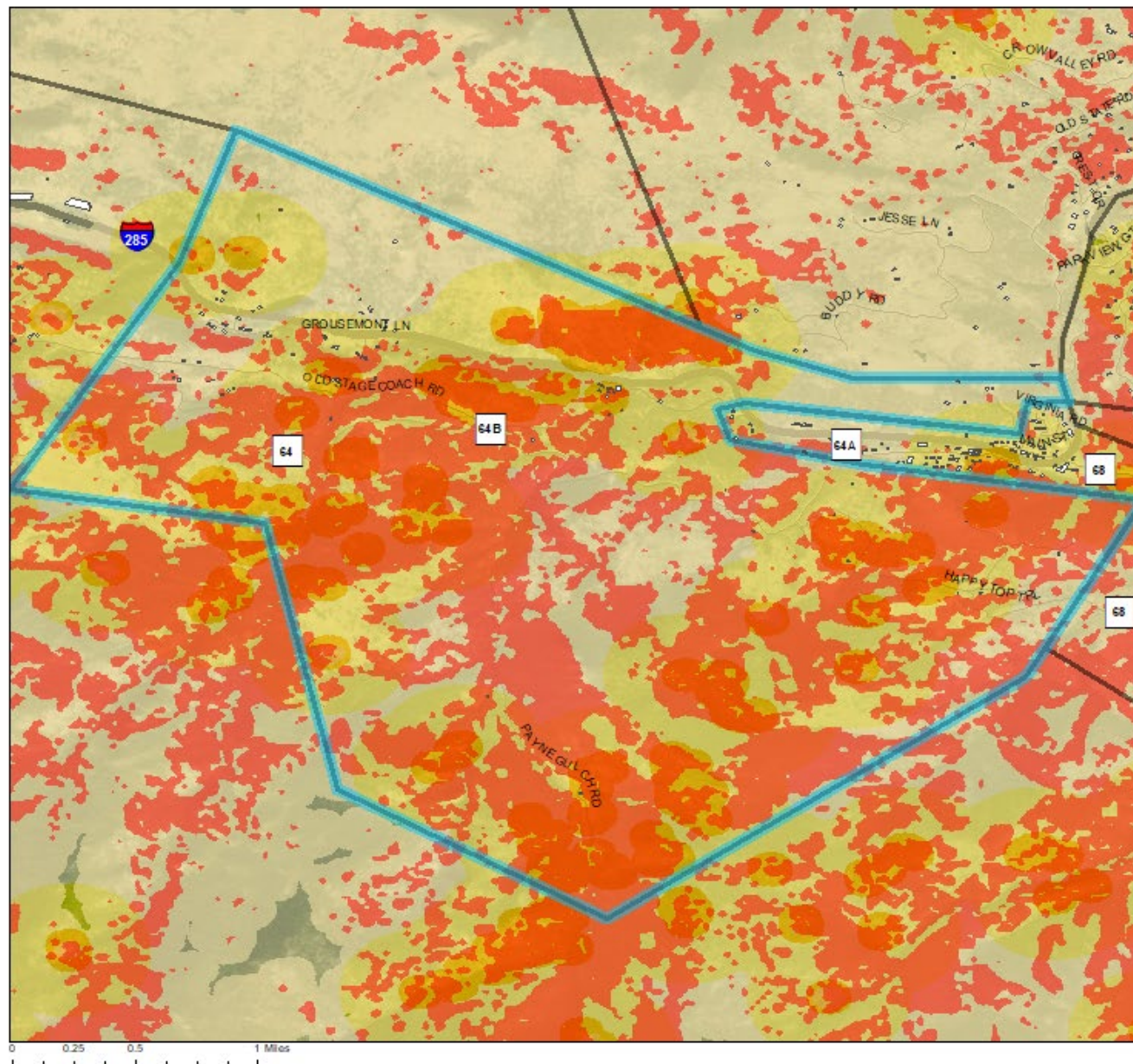


## Evacuation Zone: Bailey - Rating: High

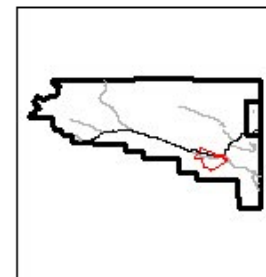




## Neighborhood: Bailey - Rating: High

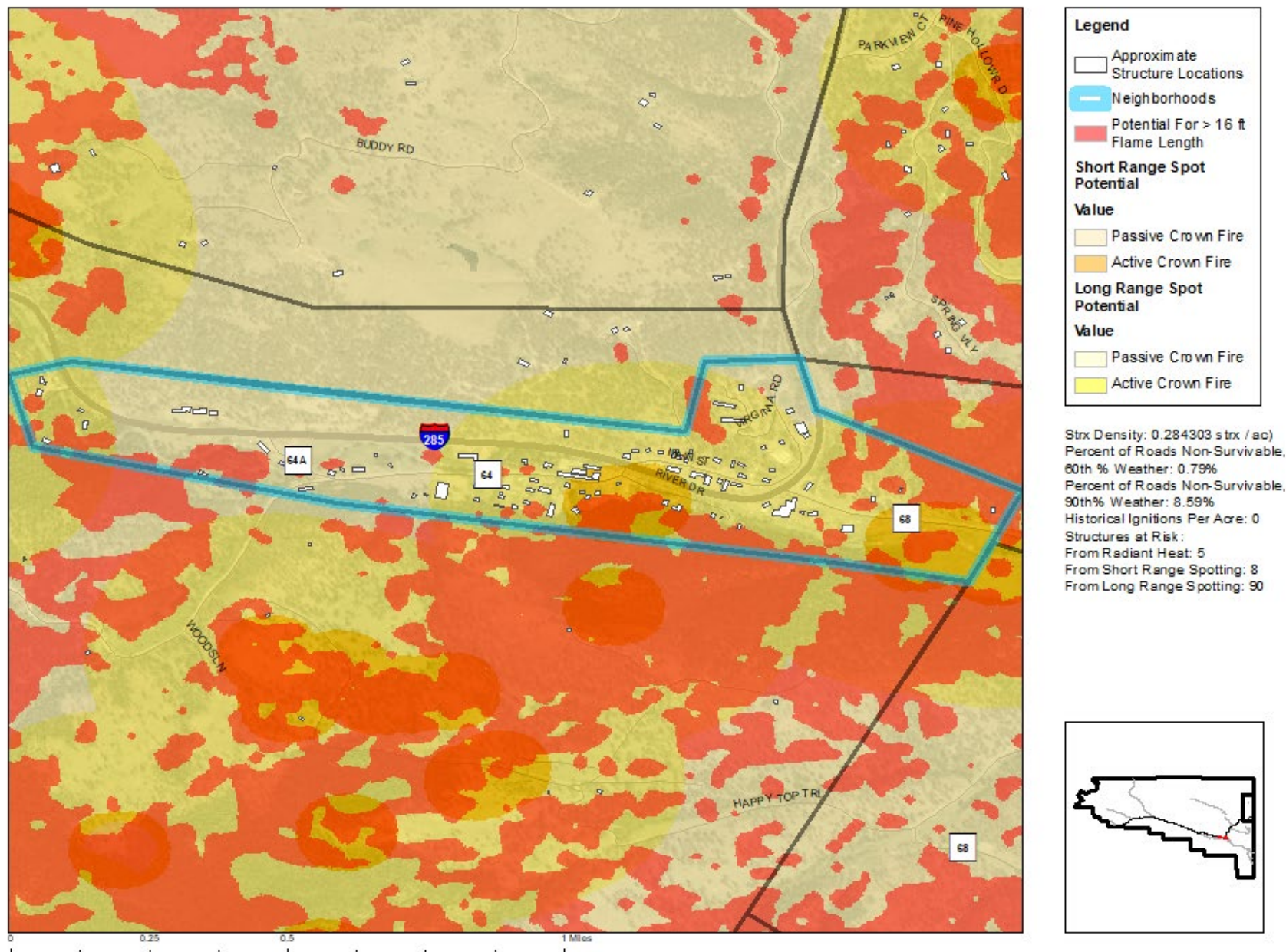


Strx Density: 0.013386 strx / ac)  
 Percent of Roads Non-Survivable,  
 60th % Weather: 14.35%  
 Percent of Roads Non-Survivable,  
 90th % Weather: 44.12%  
 Historical Ignitions Per Acre: 0.002314  
 Structures at Risk:  
 From Radiant Heat: 21  
 From Short Range Spotting: 18  
 From Long Range Spotting: 81





# Neighborhood: Bailey Commercial District - Rating: High

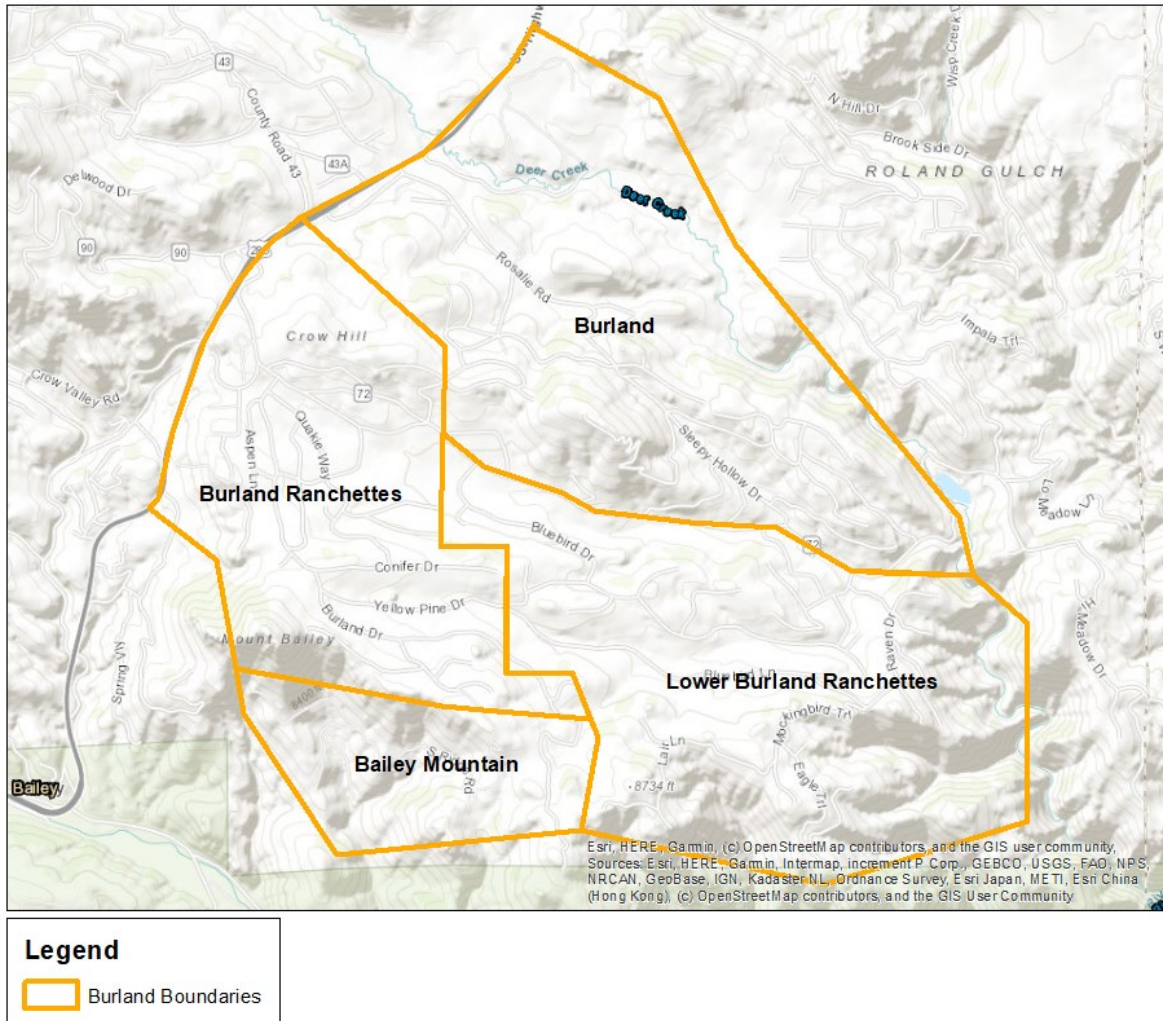




# Burland

Neighborhood Risk Rating – Moderate

Evacuation Risk Rating – High



This neighborhood is characterized by closed canopy Ponderosa and steep topography. Two prominent wildfires in the Front Range’s memory touched this neighborhood, the Buffalo Creek and the Hi-Meadow, and the scars are a great reminder of what is possible. Home construction is from the late 70’s to early 80s with Class A roofs and a mixture of siding. A few homes had wood siding, and many had wooden porches attached to the home. Terrain in this neighborhood is less steep except for the area around Dick Mountain and is surrounded by quite steep terrain that will negatively influence fire behavior. There is only one true evacuation exit in this community, with wide roadway for egress. The Hazard Assessment value is 3.



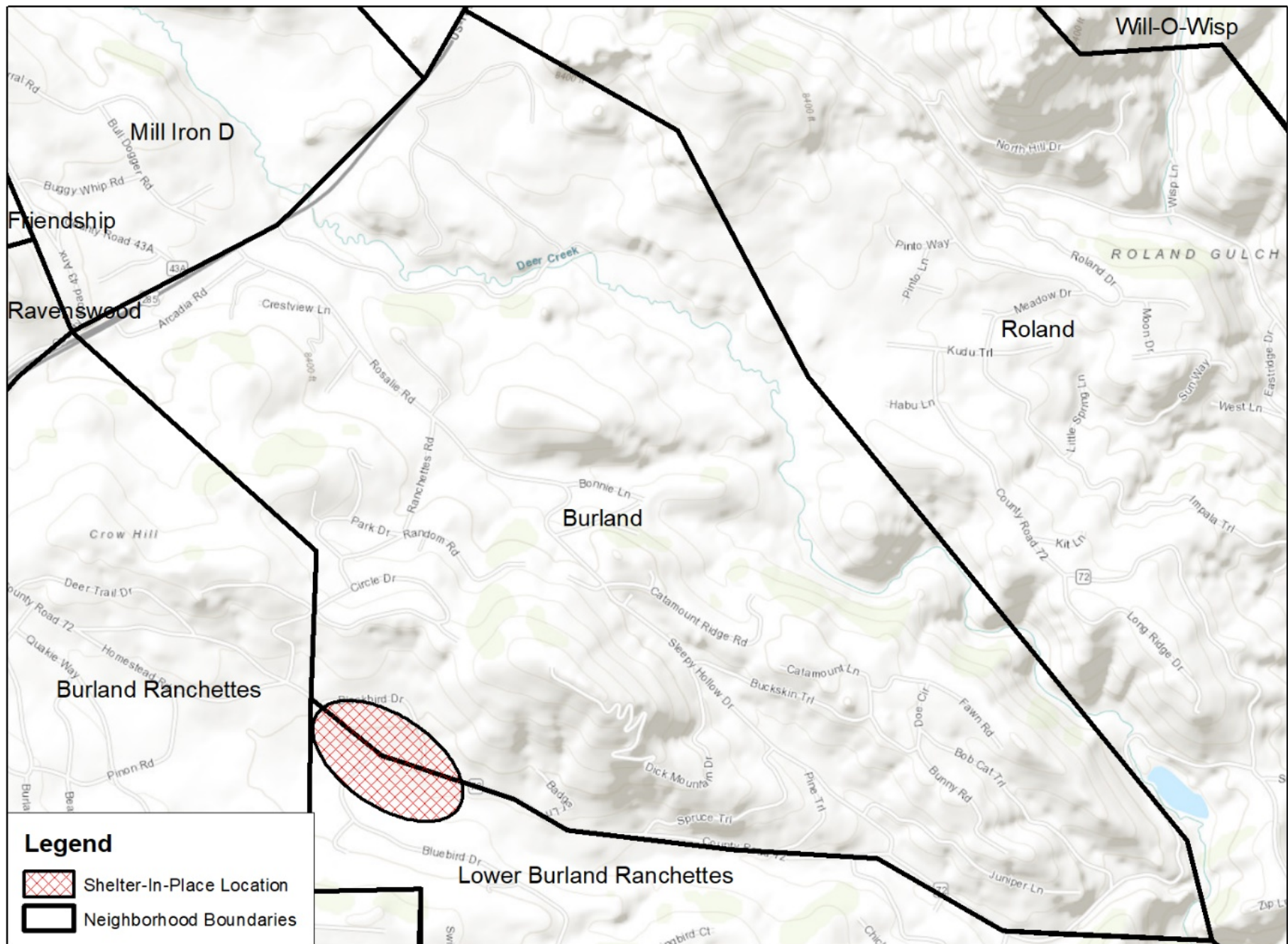


By the ball fields on County Road 72, residents could shelter-in-place. Burland has 381 structures mapped. More than 100 structures are at risk during 90<sup>th</sup> percentile fire weather days and almost half of the roadways are not survivable. Major targeted work needs to happen throughout Burland and adjacent neighborhoods to change the risk and ability to defend this area. Residents here can work to improve the condition of their Home Ignition Zone and maintain and expand shelter-in-place locations.

**High Priority Implementation Project:** Two projects are of equal importance in this neighborhood. Treating roadways to improve egress conditions will dramatically reduce risk to live safety. Fuels treatment should also include dramatic expansion of shelter-in-place locations. For the population density in and around Burland, there should be adequate shelter for 500 vehicles. Use Appendix 8 to determine locations where adequate space is available.

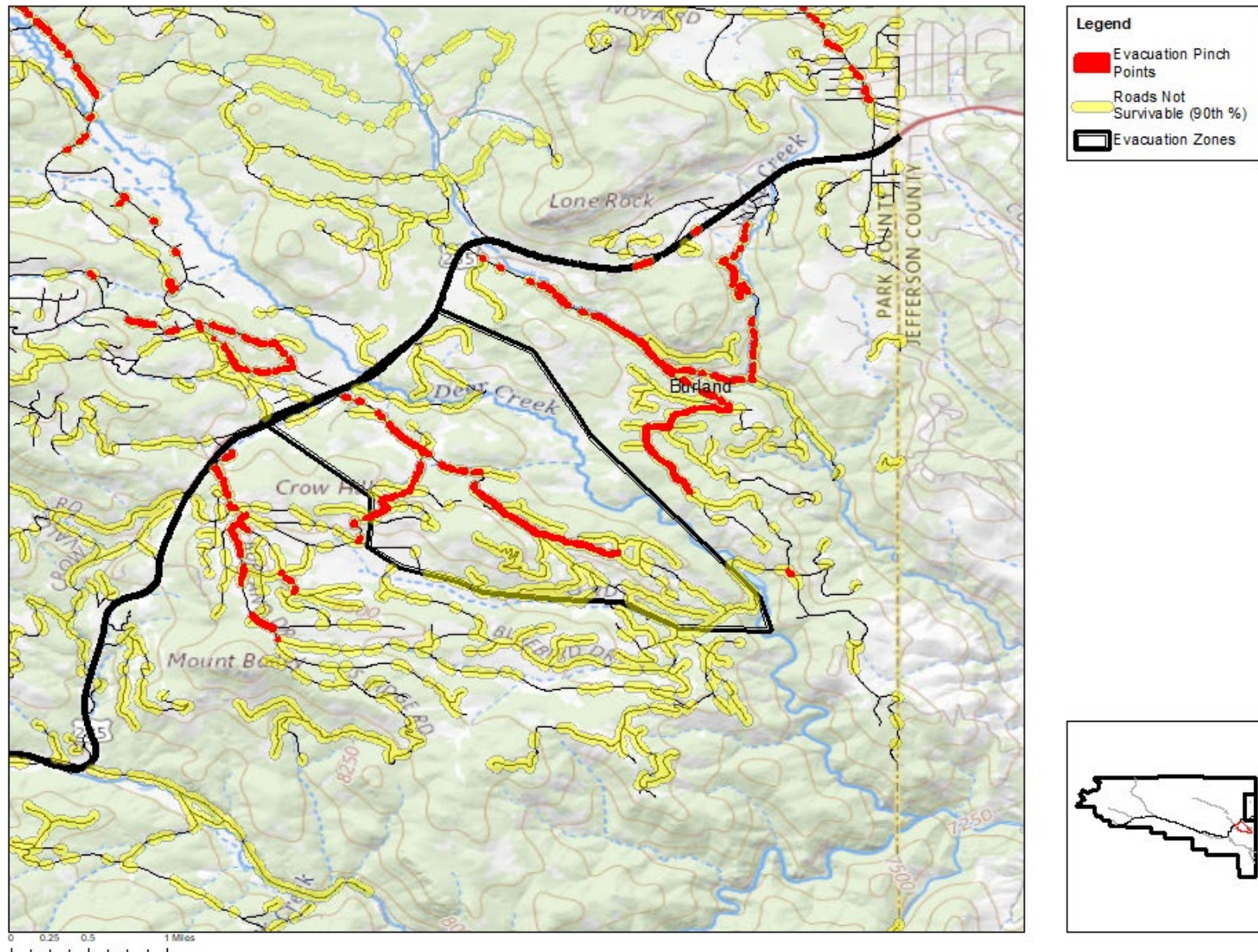


## Shelter-in-Place Proposed Location



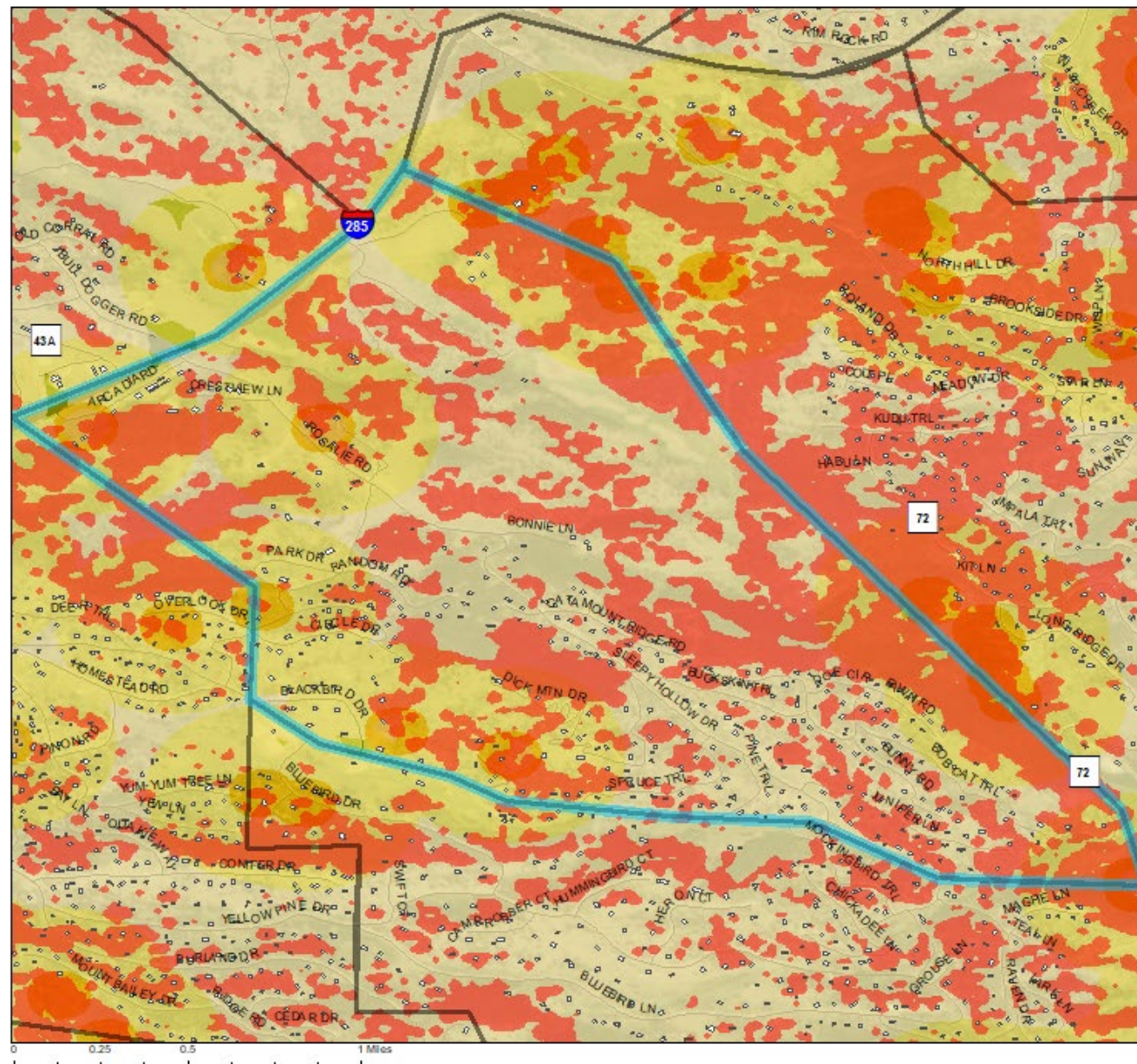


## Evacuation Zone: Burland - Rating: Extreme

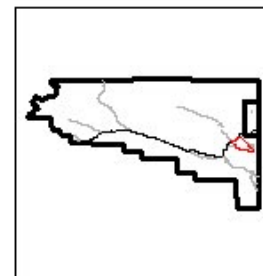




# Neighborhood: Burland - Rating: Extreme



Strx Density: 0.146589 strx / ac)  
 Percent of Roads Non-Survivable,  
 60th % Weather: 5.84%  
 Percent of Roads Non-Survivable,  
 90th % Weather: 47.95%  
 Historical Ignitions Per Acre: 0.006541  
 Structures at Risk:  
 From Radiant Heat: 92  
 From Short Range Spotting: 13  
 From Long Range Spotting: 381





## Crooked Top Ranches

Neighborhood Risk Rating – Moderate

Evacuation Risk Rating – Moderate



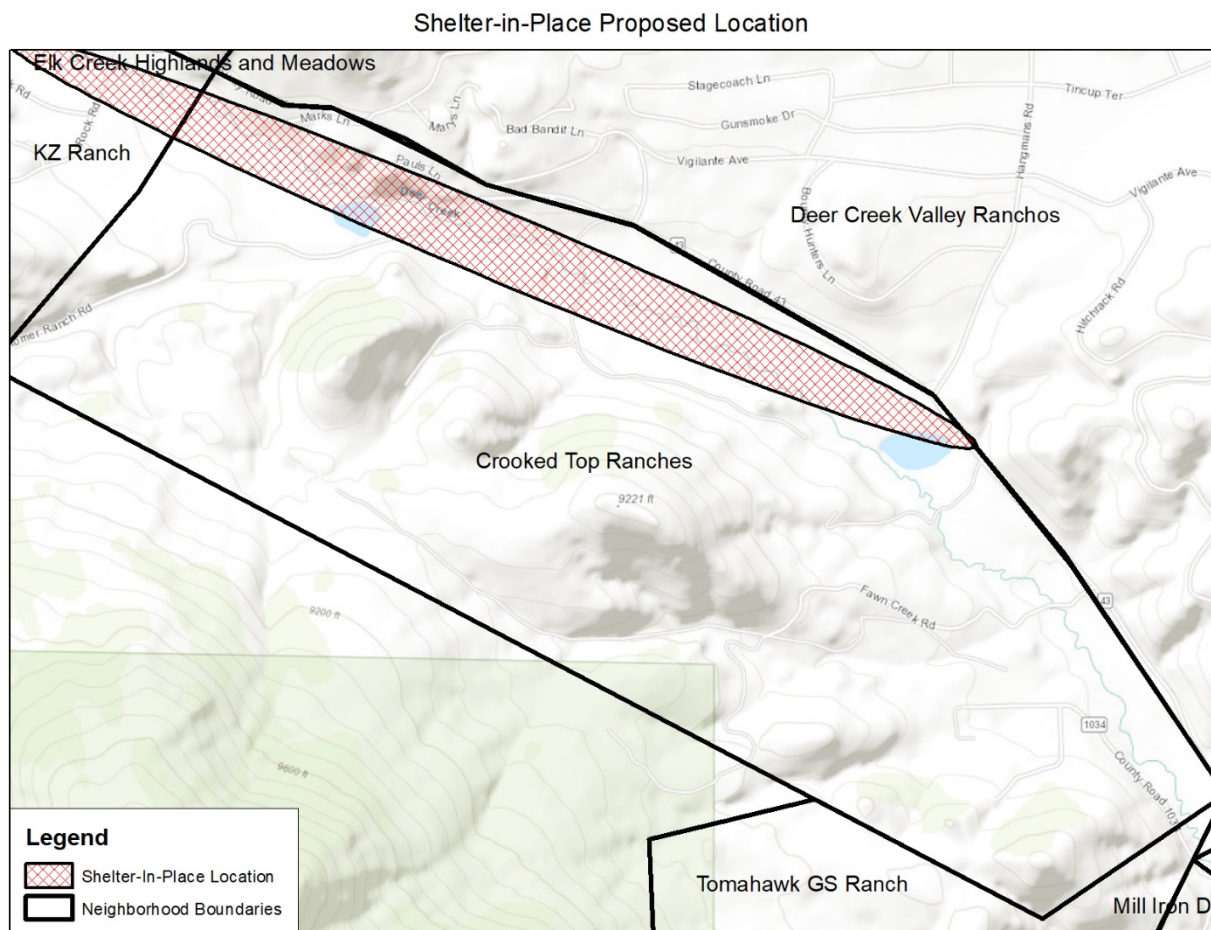
Many homes here are on slopes covered by dense vegetation with one exit point for evacuation. Being on the west side of County Road 43 and in the path of uninterrupted, dense Ponderosa stands, this community is at extreme risk of home loss. Vegetation should be changed in the home ignition zone, and home hardening practices will be required as ember cast in this area will be strong. Shelter-in-place is available in the meadow along County Road 43, making life safety less of a concern in this neighborhood if everyone evacuates. Fuel treatment is recommended as soon as possible to allow firefighters to defend the area safely,



as they are currently risky to defend. Dramatic forest stand alterations need to be made due to the adjacent forest service fuels. The Hazard Assessment value is 3.

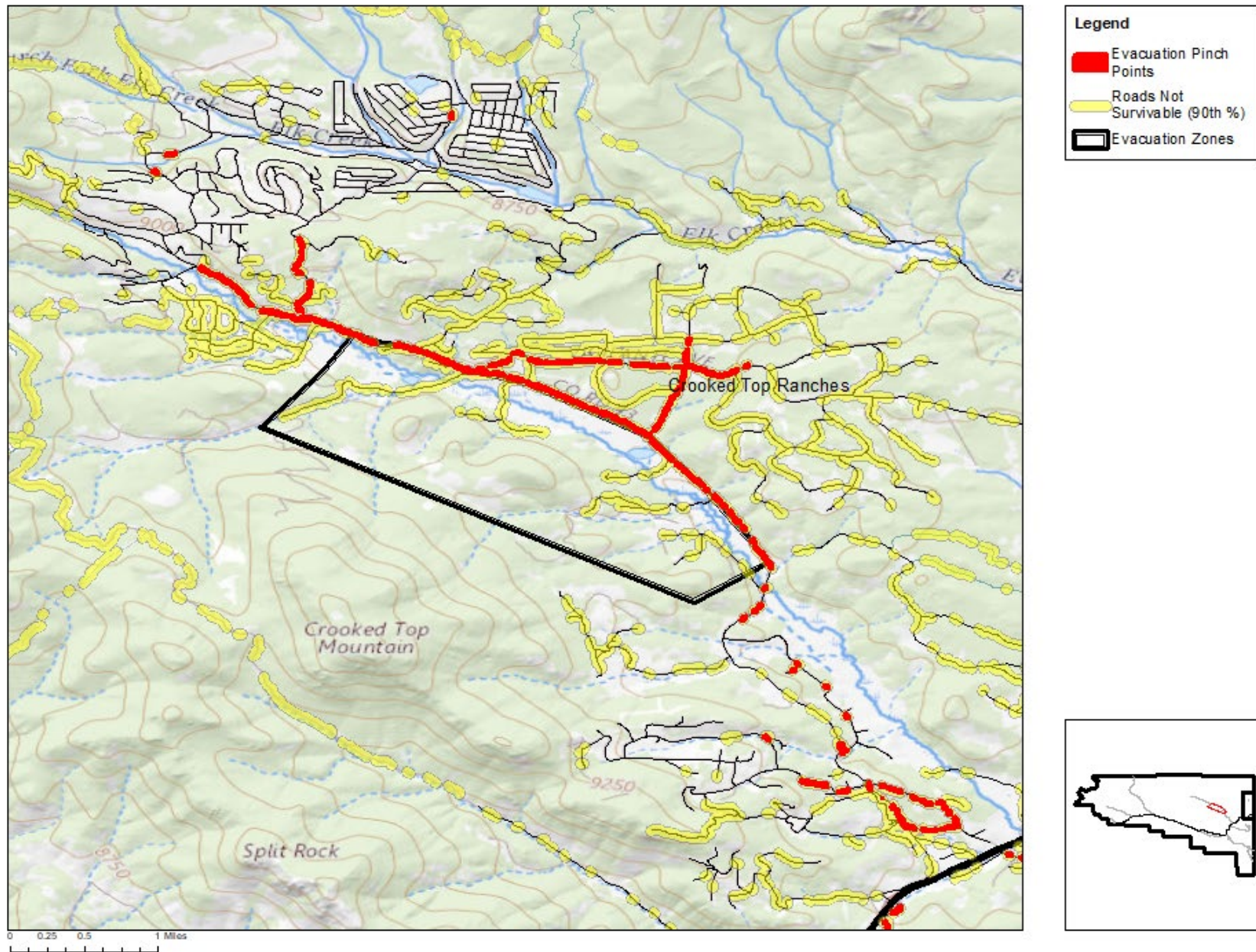
This neighborhood has 42 homes. Crooked Top Ranches does have good egress, but poor roadway survivability. Mid-slope homes and density of fuels is a real concern for this neighborhood. Evacuation along County Road 43 will be congested, however the meadow along the road here can be used for Shelter-in-Place in the worst-case scenario.

**High Priority Implementation Project:** Treatment to expand tactical options along County Road 43 in this area is recommended. With terrain and fuel loading, fuels treatment on the Eastern side of Crooked Top Ranches will assist wildfire response and enhance evacuation routes for residents of this neighborhood and others. Thinning treatment width should be dictated by slope and tree canopy spacing should be at least 15 feet.



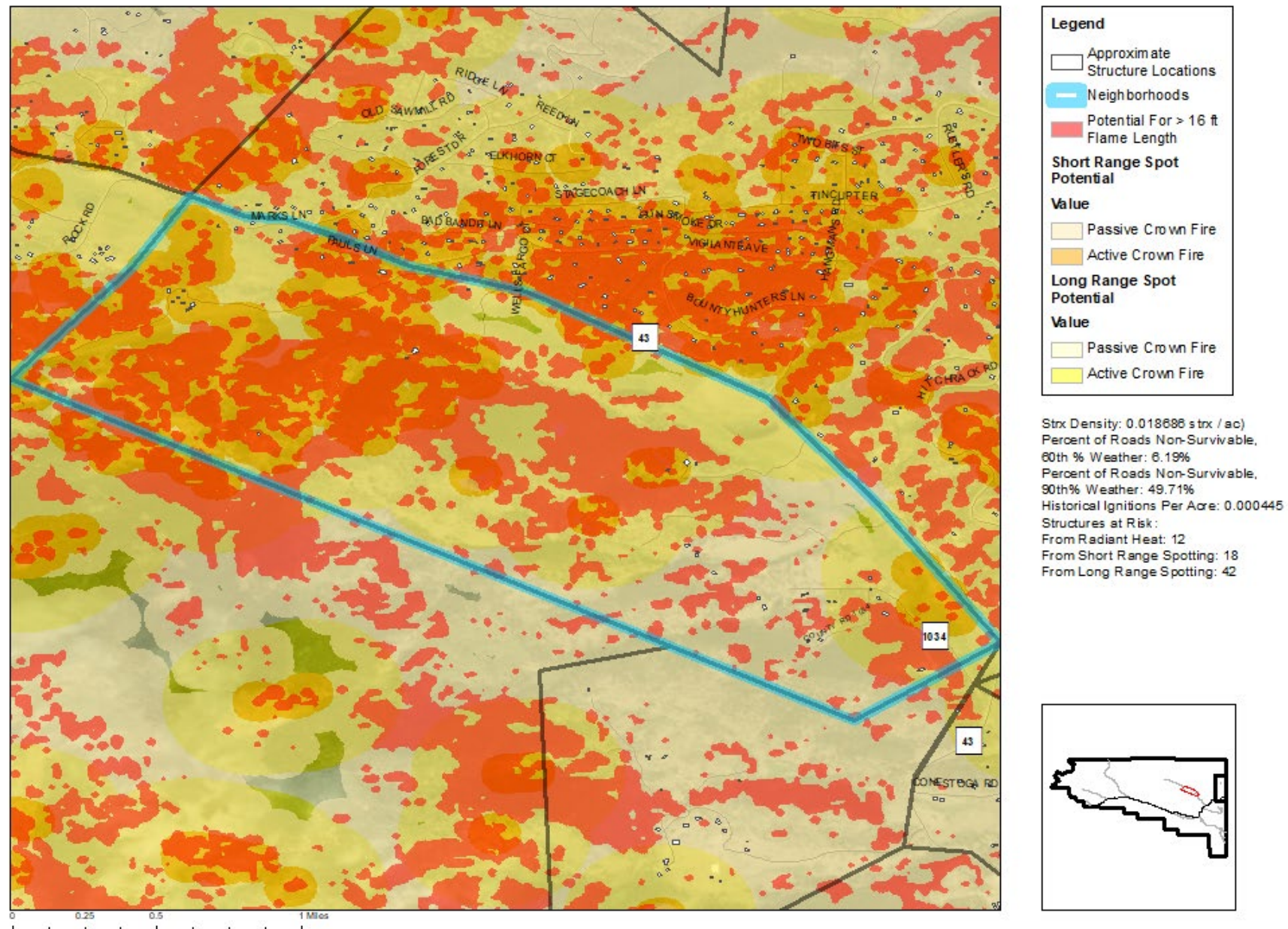


## Evacuation Zone: Crooked Top Ranches - Rating: Moderate





# Neighborhood: Crooked Top Ranches - Rating: Moderate





# Deer Creek Valley Ranchos

Neighborhood Risk Rating – Extreme

Evacuation Risk Rating – High to Extreme



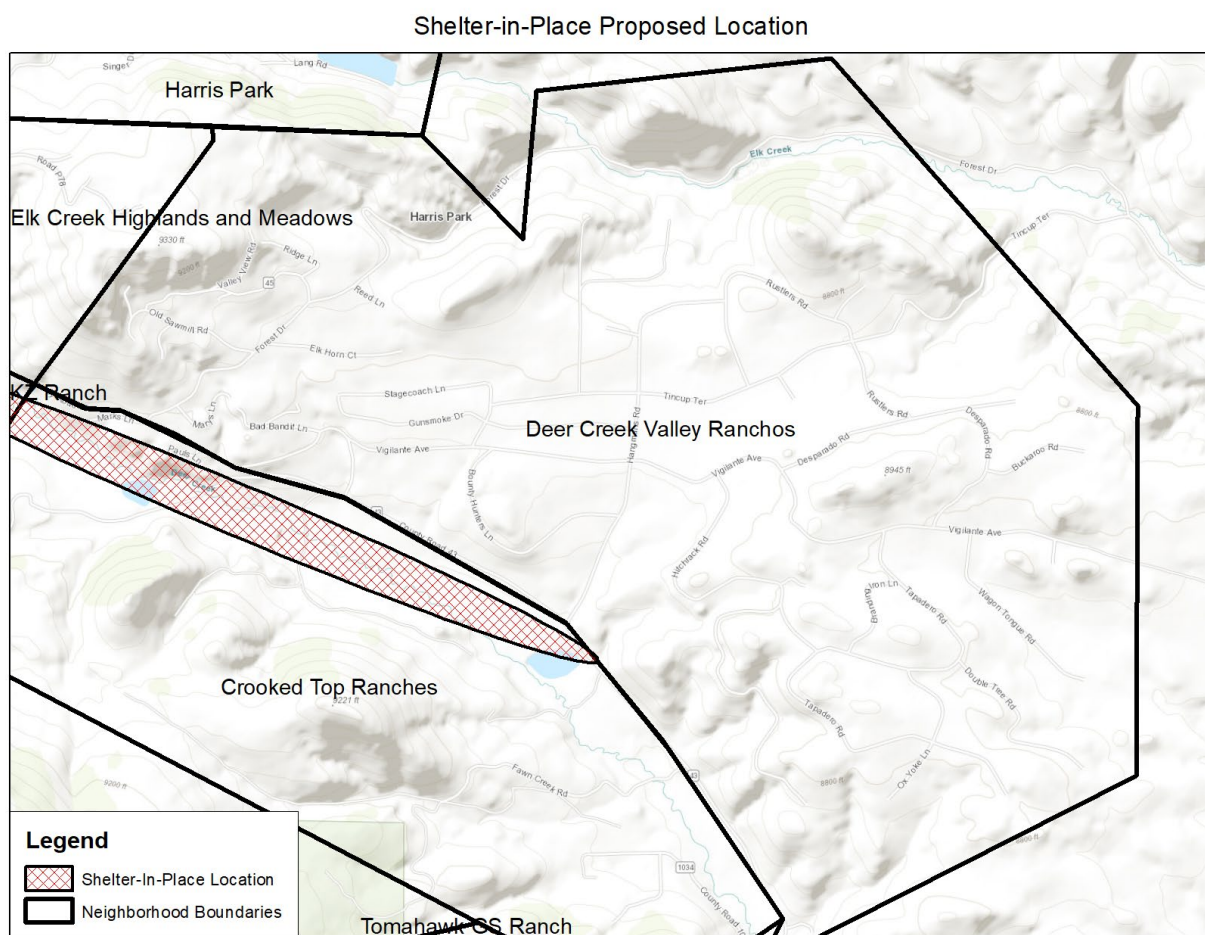
The Ranchos benefit from their roadways being sufficiently wide for the most part with favorable nearby locations for last-resort shelter-in-place. A few roads that are on slopes would benefit from some roadside mitigation. Fire access is good, but defensible space around homes could be improved. Overall, the neighborhood defensible space work is evident in places, but some homes are towered by dense timber that would be difficult to combat. Ponderosa Pine is dominant with areas of young growth. Homes are well built with Class A roofs, with some wood piles too close to the home. Work needs to focus on defensible space away from the home and roadway conditions, particularly in areas of high predicted congestion. This gives Deer Creek Valley Ranchos a Hazard Assessment value of 3.

Residents of this neighborhood could shelter-in-place along County Road 43 in the meadow along the road, though this is only a worst-case scenario if evacuation did not go as planned. This neighborhood, containing Deer Creek Valley Ranchos and Elkhorn acres has 488 structures.



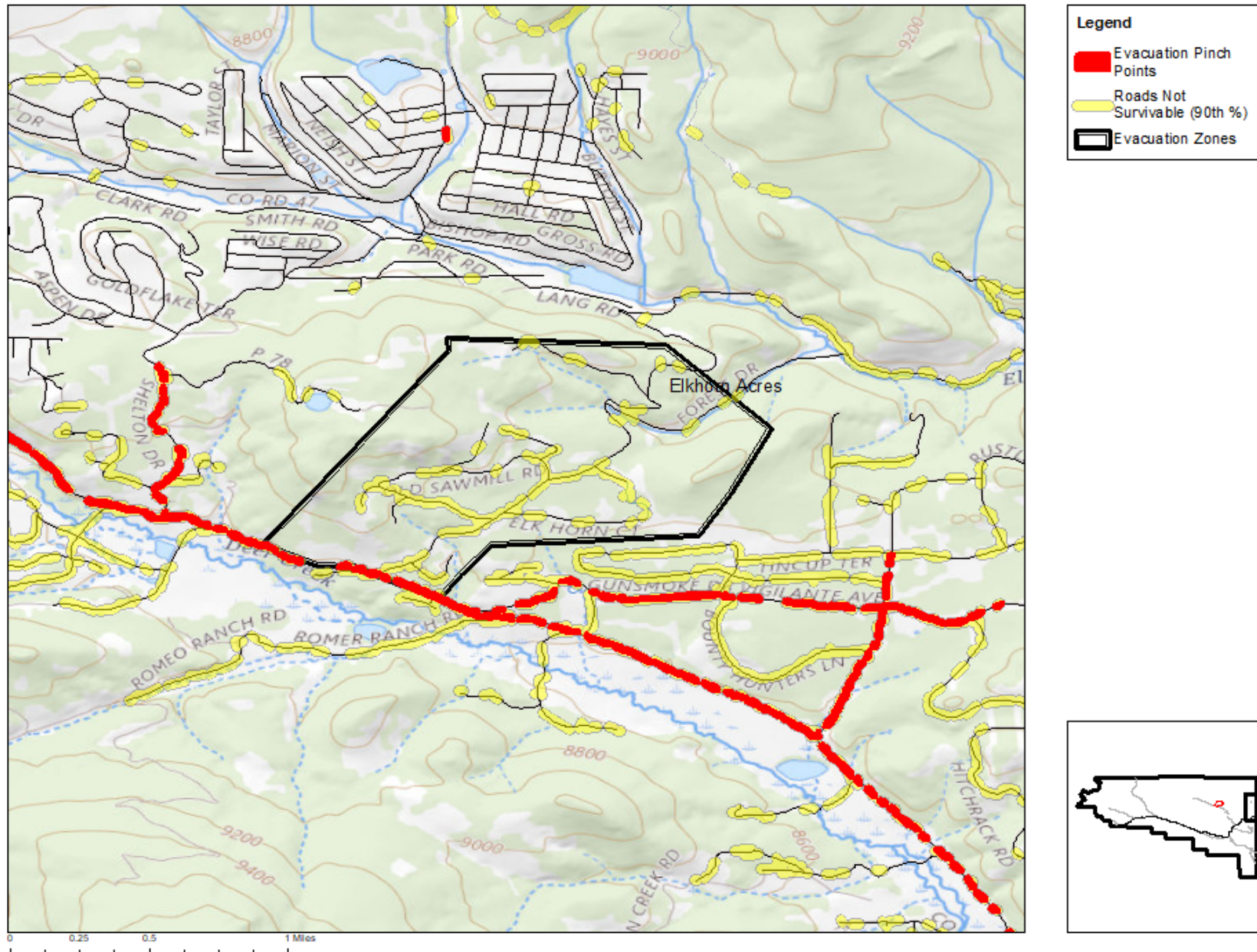
Evacuation Pinch Points along Hangman Road and Vigilante Avenue are a major concern for safe egress out of this neighborhood. Structure loss is also predicted to be extremely high in this neighborhood due to radiant heat and short-range ember exposure. In each evacuation zone in this neighborhood, residents absolutely need to improve the Home Ignition Zone as most structures are at extreme risk.

**High Priority Implementation Project:** Fuels mitigation treatments should be implemented along roadways first. Thinning treatment distance should relate to slope, but many of the roadways have flat enough terrain for a 300-foot treatment width to make a difference. This treatment, in coordination with the improvement of proposed tactical line B, will make residents of this neighborhood safer.





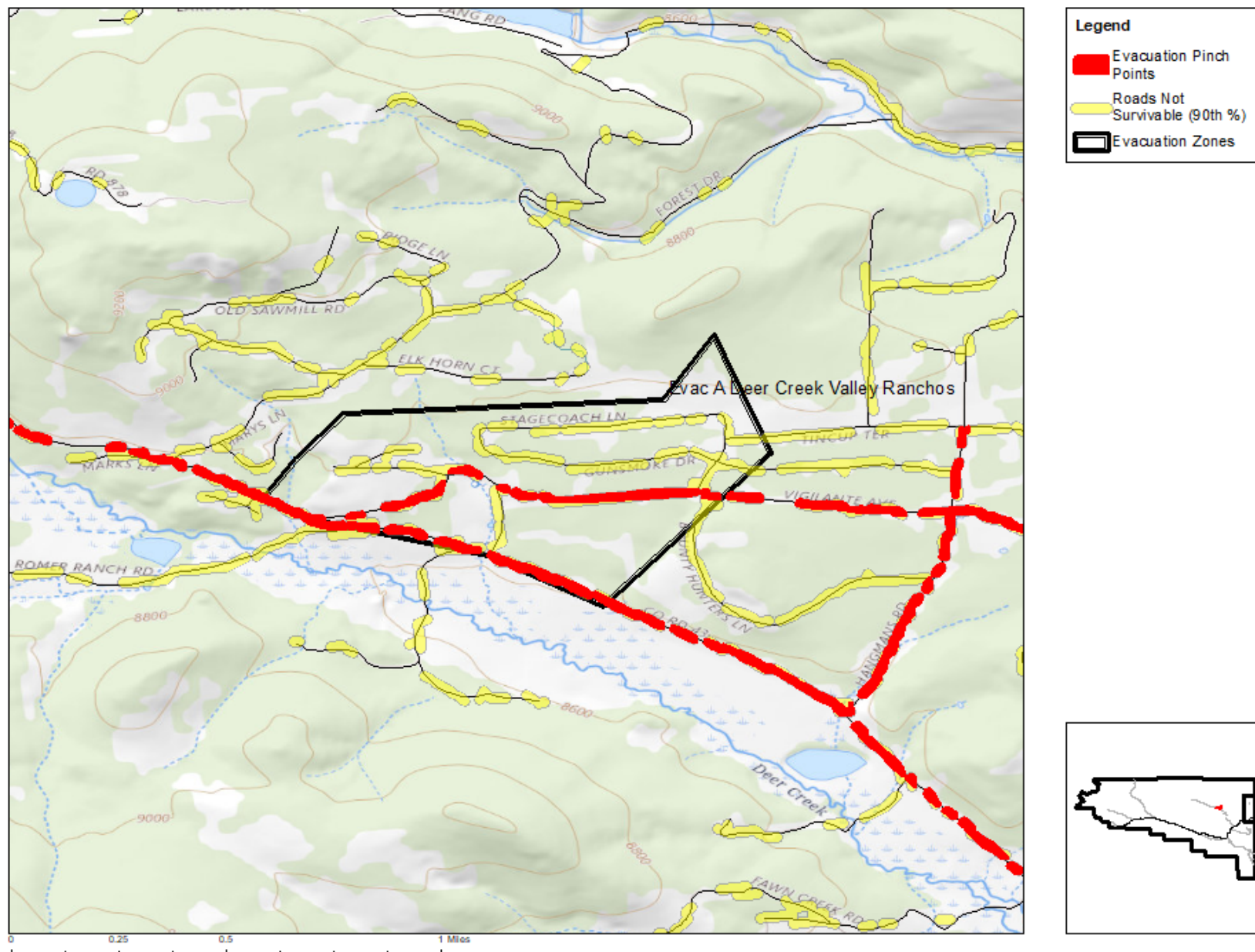
## 28





# Evacuation Zone: Evac A Deer Creek Valley Ranchos - Rating: Extreme

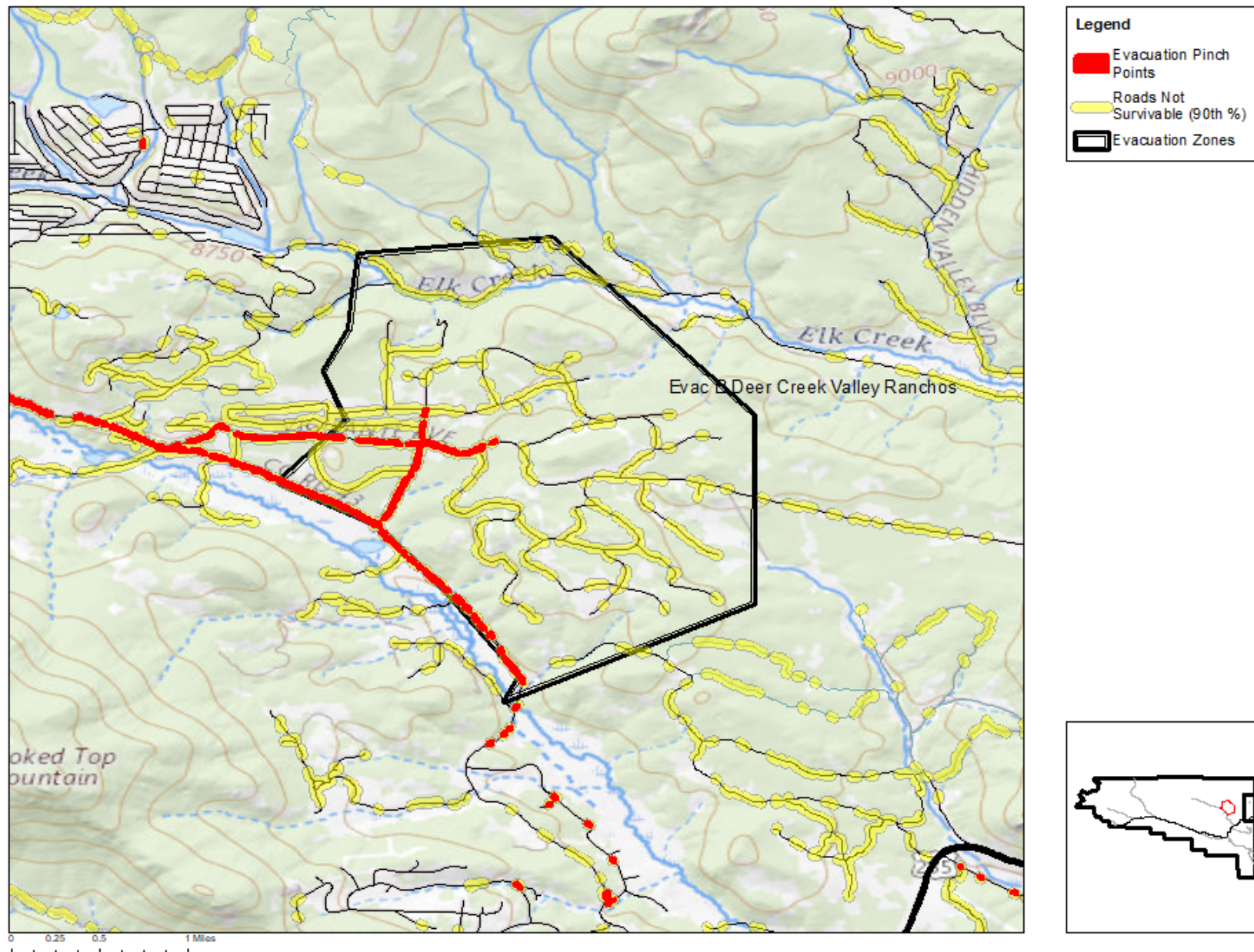
29





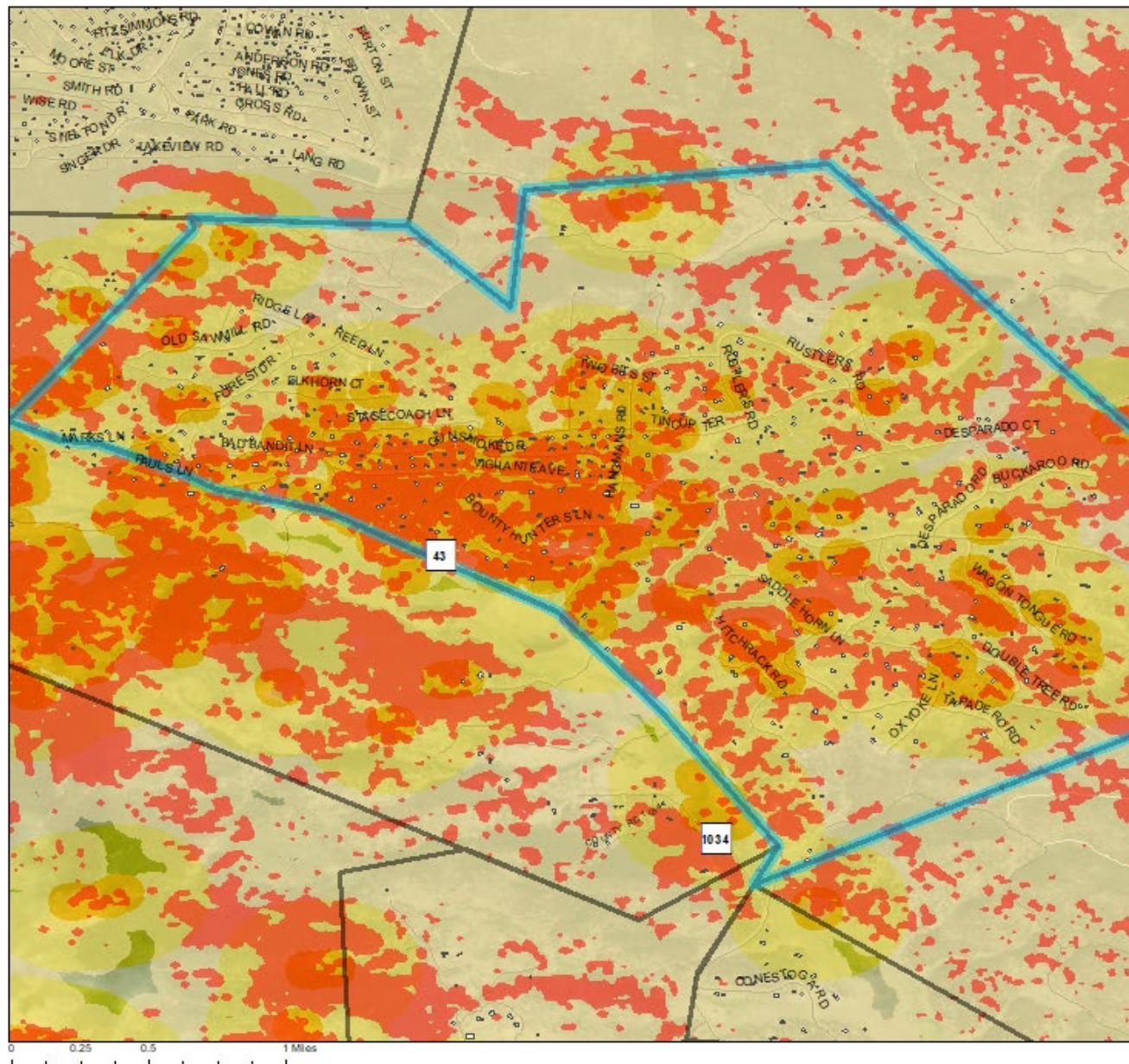
# Evacuation Zone: Evac B Deer Creek Valley Ranchos - Rating: Extreme

30

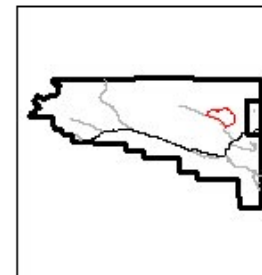




# Neighborhood: Deer Creek Valley Ranchos - Rating: Extreme



Strx Density: 0.099036 strx / ac)  
 Percent of Roads Non-Survivable,  
 60th % Weather: 3.74%  
 Percent of Roads Non-Survivable,  
 90th % Weather: 48.44%  
 Historical Ignitions Per Acre: 0.003653  
 Structures at Risk:  
 From Radiant Heat: 174  
 From Short Range Spotting: 223  
 From Long Range Spotting: 488





## Elk Creek Highlands and Meadows

Neighborhood Risk Rating – High

Evacuation Risk Rating – Extreme



This neighborhood has variable topography, with homes in dense vegetation mid-slope and at the tops of ridges. Livestock in this area could complicate evacuation, with only one way out of this area. Housing stock is mostly older, with many wooden decks and fences right up to the house. Elk Creek Meadows is heavily vegetated with no obvious defensible space. Elk Creek Highlands has flatter topography and more sparse vegetation, but still is concerning with variable road condition and close home density. Upper 43 follows a gulch West with heavy vegetation and very narrow roadways. There was absolutely no visible defensible space work. With poor road conditions, older and flammable home construction, and inability for firefighters to work on many of these properties, this neighborhood is given a Hazard Assessment value of 4.





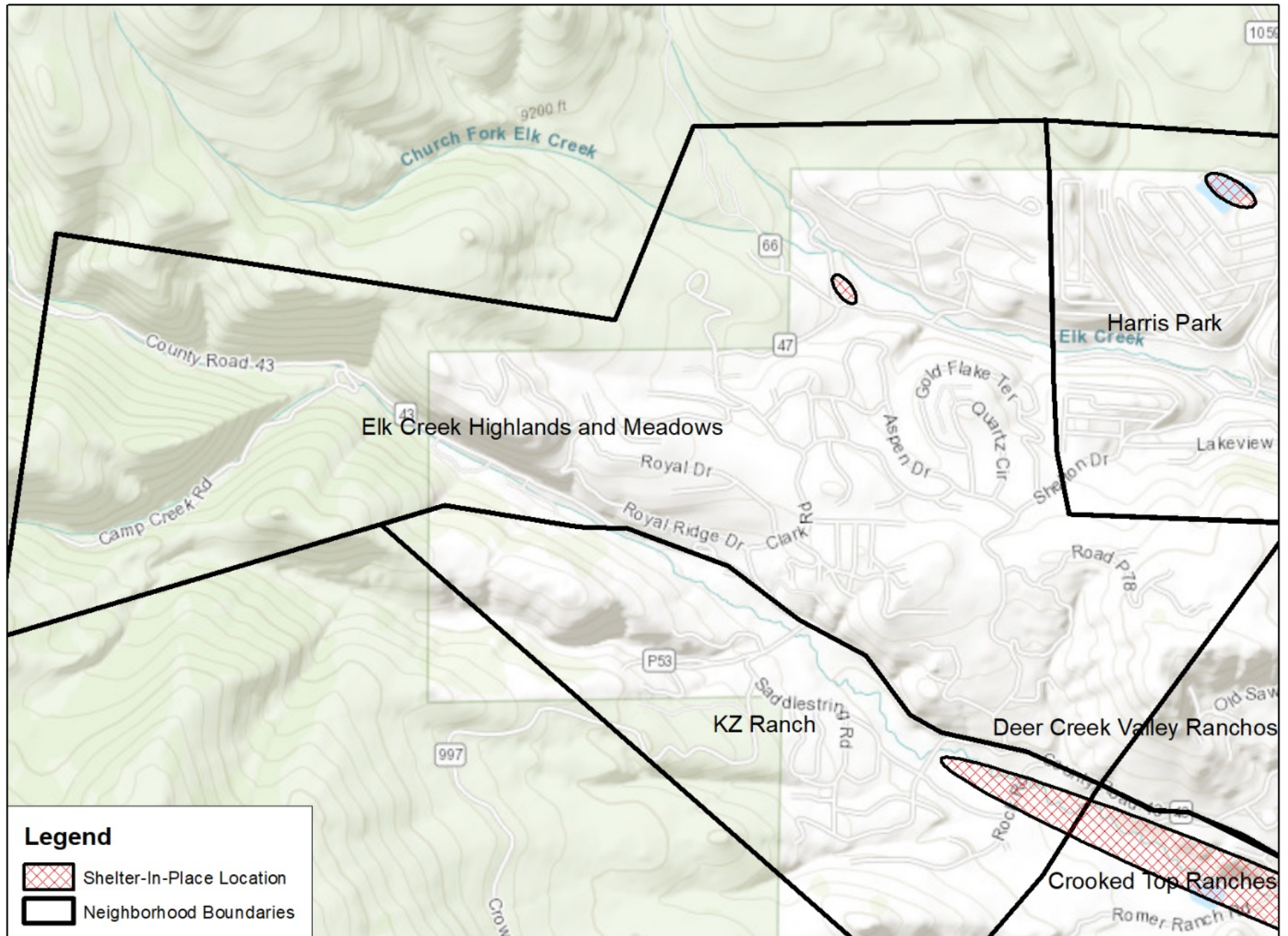
Evacuation modeling shows a lot of Evacuation Pinch Points along Shelton Dr. and County Road 43, with lots of non-survivable roadway in Upper 43. Evacuation congestion in this area will be high as it funnels all traffic from Harris Park, KZ Ranch, and the Elk Creek Meadows and Highlands (including Upper 43). This neighborhood in total has 507 structures.

To the West this neighborhood has incredibly high potential for radiant heat exposure, improving moving East where vegetation is less dense. Much of the neighborhood is exposed to short range spotting. A combination of Home Ignition Zone improvements and fuels treatments where vegetation is dense will change the risk to this neighborhood. Evacuation Time is still very long, so it makes improvements to roadway survivability more important.

**High Priority Implementation Project:** The most important recommendation for this neighborhood is to create a better Shelter-in-Place option for residents here. Appendix 8 should be used to determine the prescription for treatment size. Currently, no location is large enough to house this population if an evacuation goes wrong and a new treatment needs to consider population size during seasons where fire is most likely.

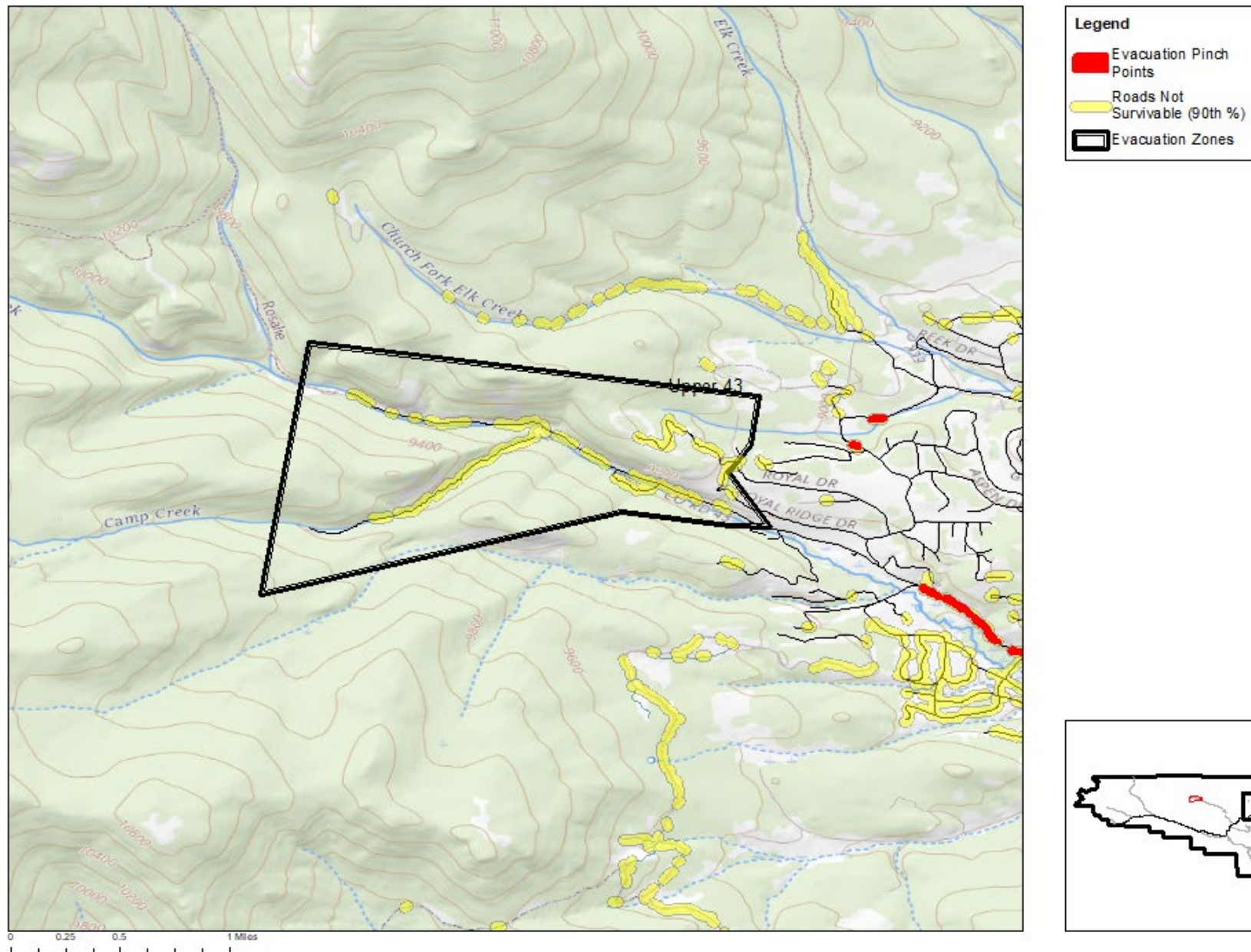


## Shelter-in-Place Proposed Location



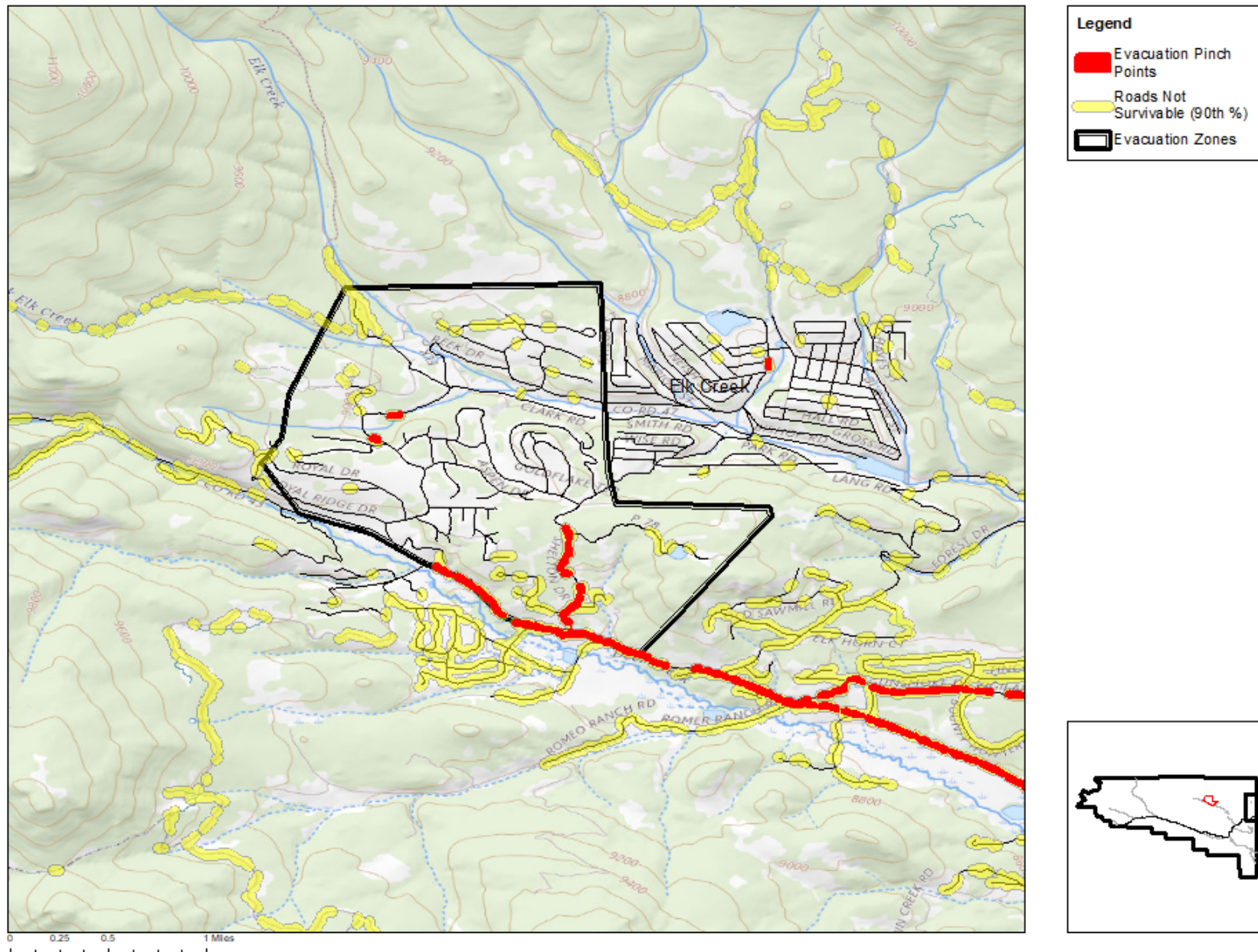


## Evacuation Zone: Upper 43 - Rating: High



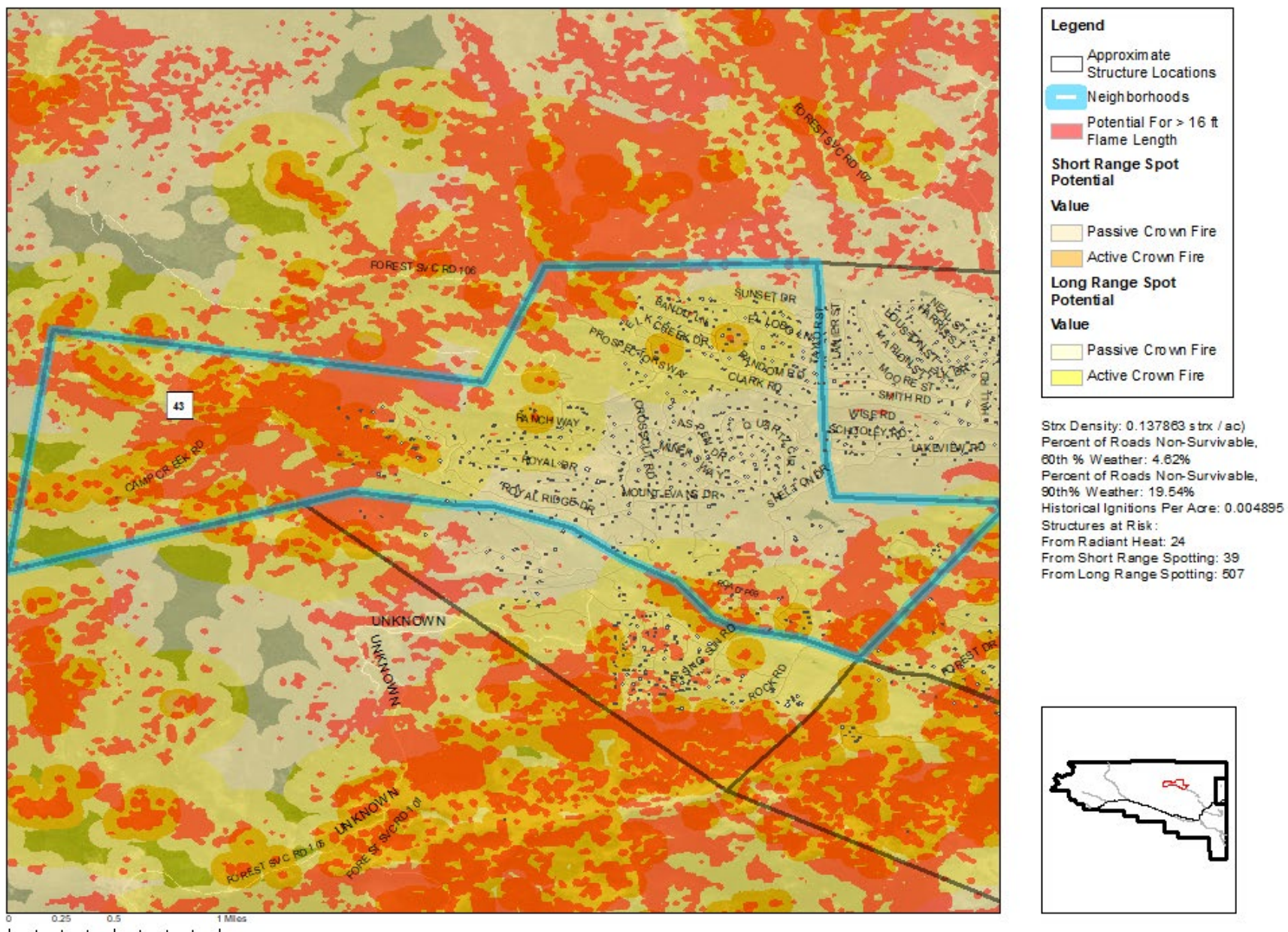


## Evacuation Zone: Elk Creek - Rating: Extreme





Neighborhood: Elk Creek Highlands and Meadows - Rating: High





## Elk Falls

Neighborhood Risk Rating – High

Evacuation Risk Rating – High



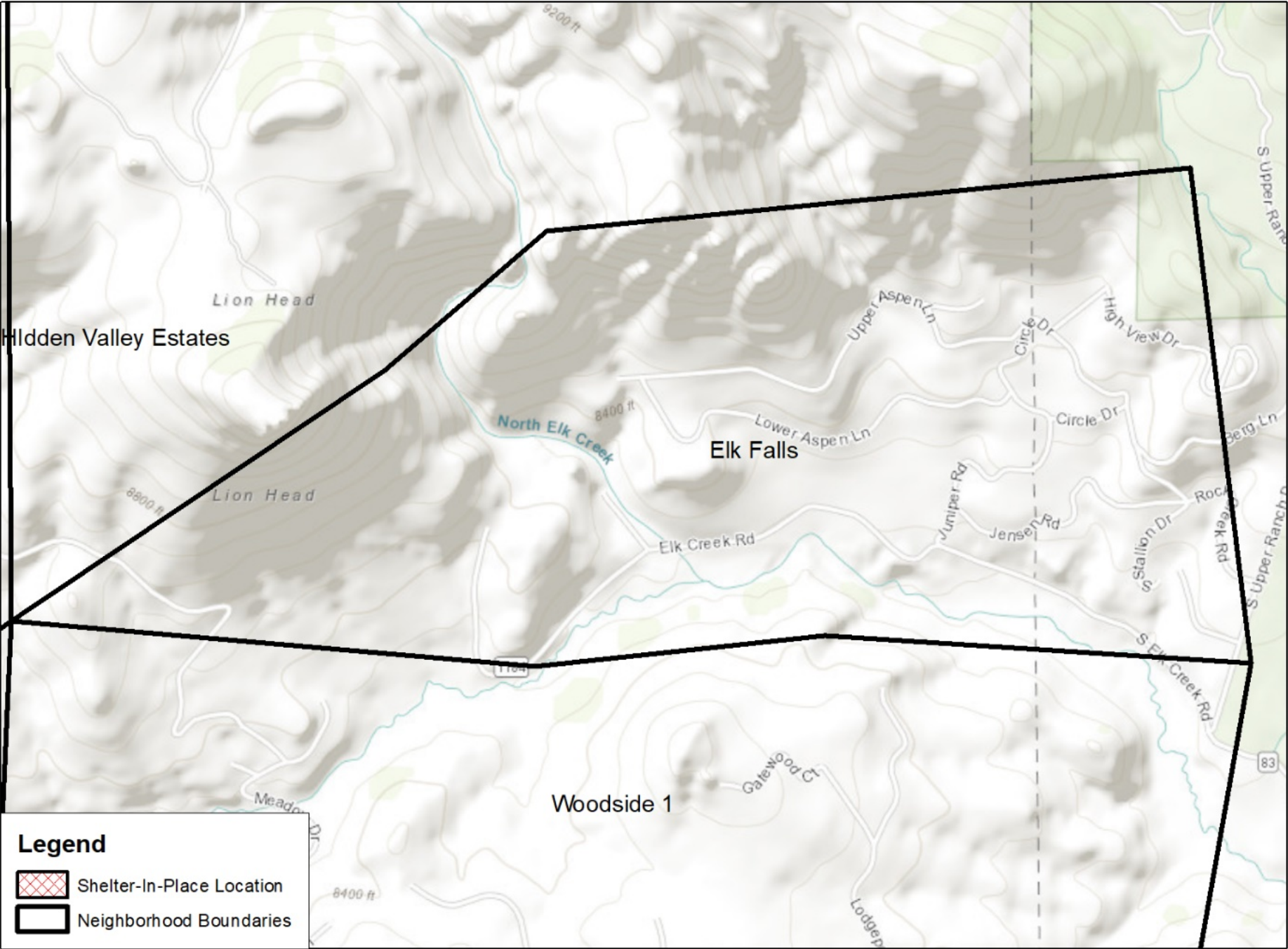
Elk Falls has more south facing slopes and has more of a grass component to the wildland fuels. This will increase rates of fire spread with too-dense trees and wooden home construction materials. Steeper slopes and homes with lots of vegetation downslope will make this neighborhood difficult to defend. Road conditions are good and some Home Ignition Zone improvement would make a huge difference in tactical options. This neighborhood's Hazard Assessment value is 3 due to high fuel loading, flammable home construction, and slope.

Evacuation is a major concern in this neighborhood with the distance to any major road, though there are some shelter-in-place options nearby. About 30 homes are vulnerable to radiant heat, let alone ember exposure, so fuels treatments should be a priority here, in coordination with robust evacuation plans. Elk Falls has 75 structures in total.

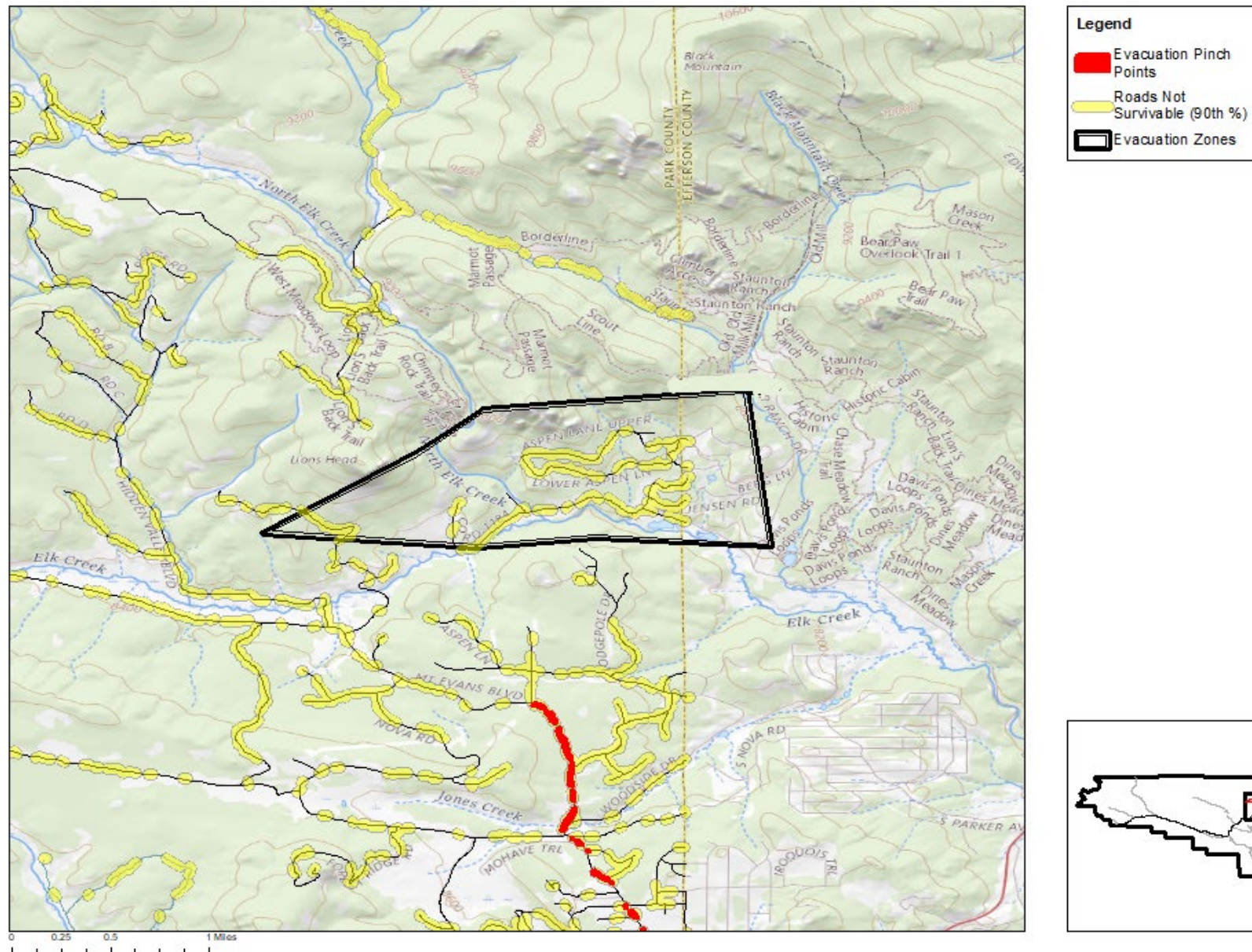
**High Priority Implementation Project:** Neighborhood-scale thinning projects need to occur between Upper Aspen Lane and Elk Creek Road. No location is currently suitable for shelter-in-place and the first step to making that location possible is to reduce the fuel loading throughout this neighborhood. Tree canopy spacing should be 15-feet at minimum, increasing with slope. Utilize Appendix 7 to determine proper thinning requirements.



Shelter-in-Place Proposed Location

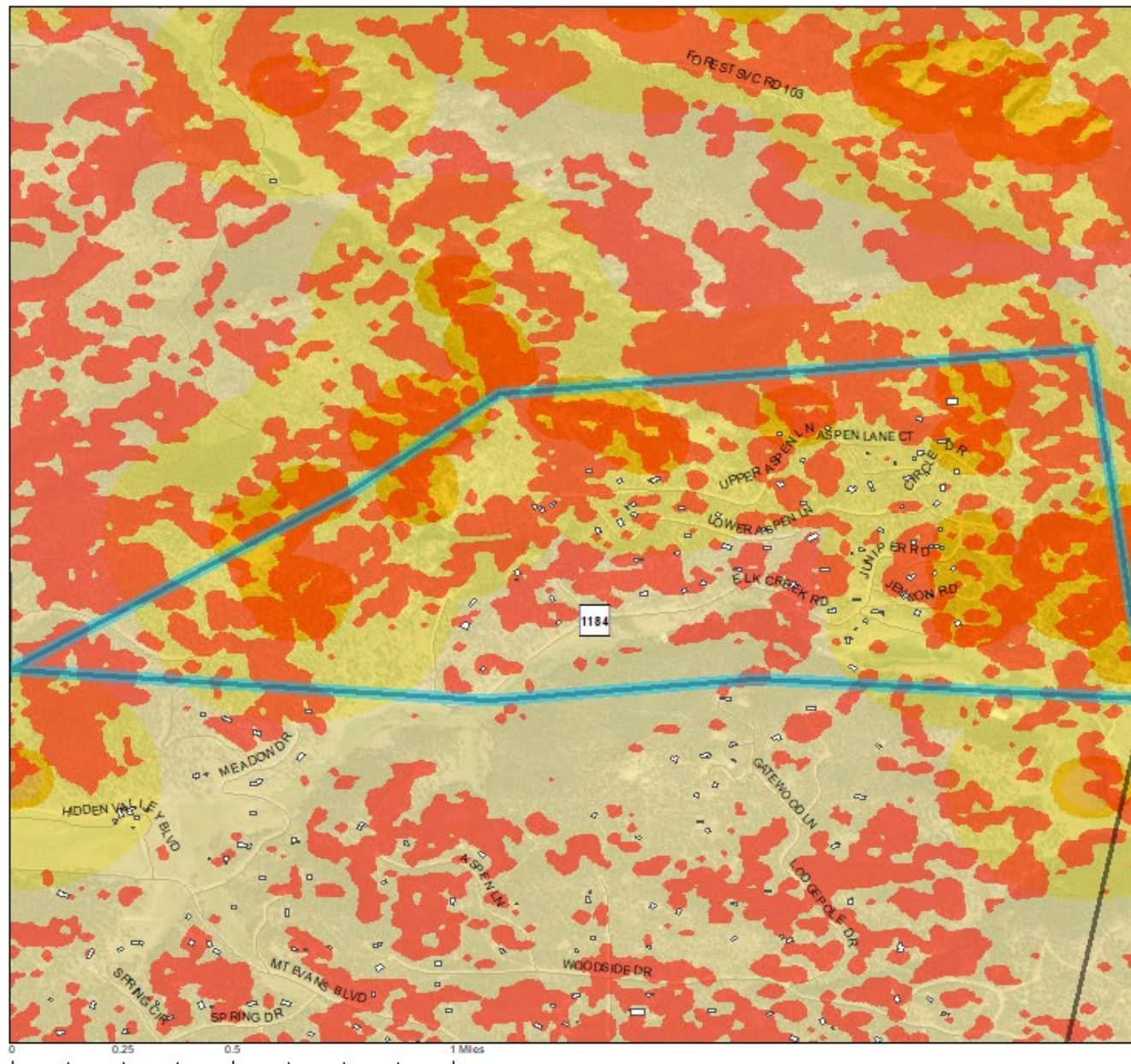


## Evacuation Zone: Elk Falls - Rating: High

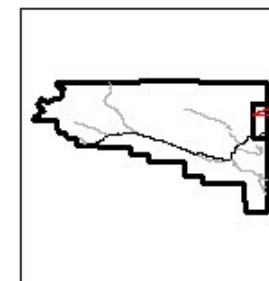




# Neighborhood: Elk Falls - Rating: High



Strx Density: 0.085133 strx / ac)  
 Percent of Roads Non-Survivable,  
 60th % Weather: 6.2%  
 Percent of Roads Non-Survivable,  
 90th% Weather: 53.01%  
 Historical Ignitions Per Acre: 0.002605  
 Structures at Risk:  
 From Radiant Heat: 30  
 From Short Range Spotting: 12  
 From Long Range Spotting: 75





# Estabrook

Neighborhood Risk Rating – Moderate

Evacuation Risk Rating – High



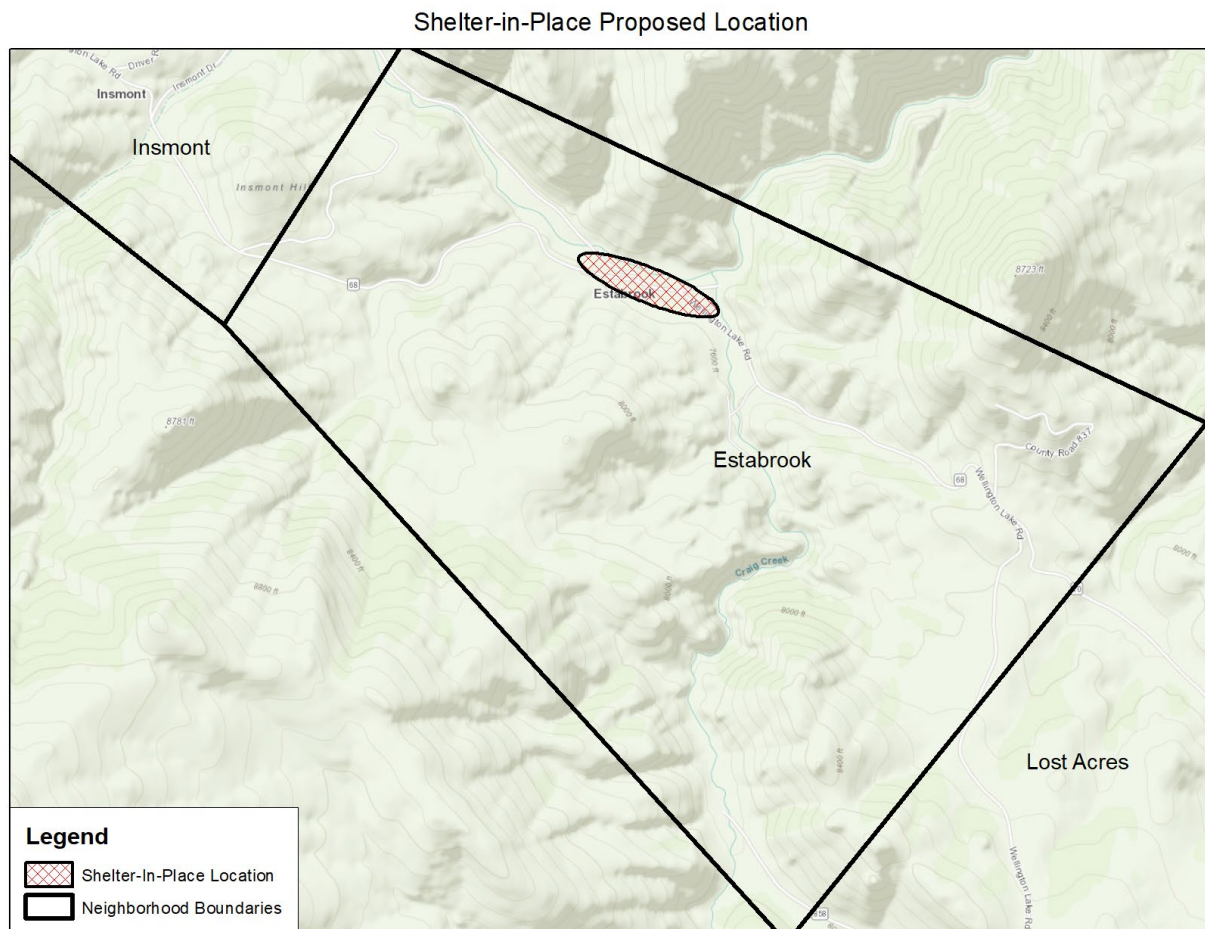
On the way to Estabrook there is a lot of concerning fuel around the road, but where most homes are is much more defensible and safer. The road is in good condition here and the meadow is hayed which would provide good refuge during parts of the year. Home Construction, other than historical buildings, is slightly newer and will be more fire resistant. Many homes have defensible space around them, this could be improved and expanded, particularly to the West. Home Ignition Zone improvements are very important in this neighborhood due to the adjacent fuel loads that will create high ember wash to the area in a wildfire. The Hazard Assessment value for this neighborhood is 2.

Residents can shelter along County Road 68, but the area should be expanded to accommodate more vehicles. Terrain surrounding Estabrook is complex and will create intense wildfire behavior. Much of the roadway along CO 68 is not currently survivable, so some of the



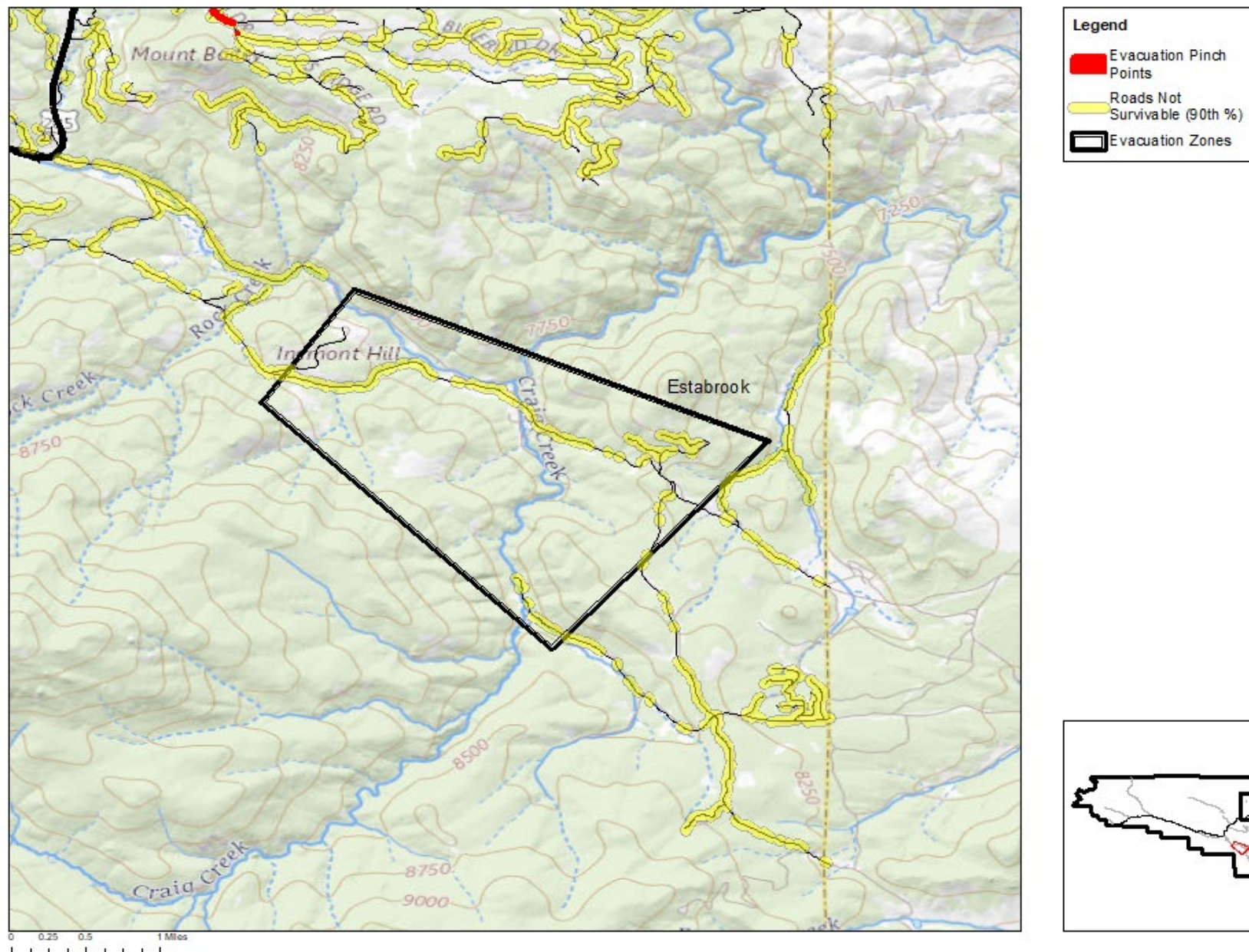
mitigation work in the area should be expanded. If possible, a thinning project West of CO 68 that follows natural topographic ridge tops should be implemented to increase tactical options in this crucial area. There are 27 structures in this neighborhood.

**High Priority Implementation Project:** Improving shelter-in-place locations for this neighborhood is top priority due to the surrounding fuel loading and likelihood of ignition in this general area of Platte Canyon Fire Protection District. Appendix 8 will guide land managers to identify area required for shelter due to the slope of this area.





## Evacuation Zone: Estabrook - Rating: High





## Neighborhood: Estabrook - Rating: Moderate

