

# Friendship

Neighborhood Risk Rating – Extreme

Evacuation Risk Rating – Extreme

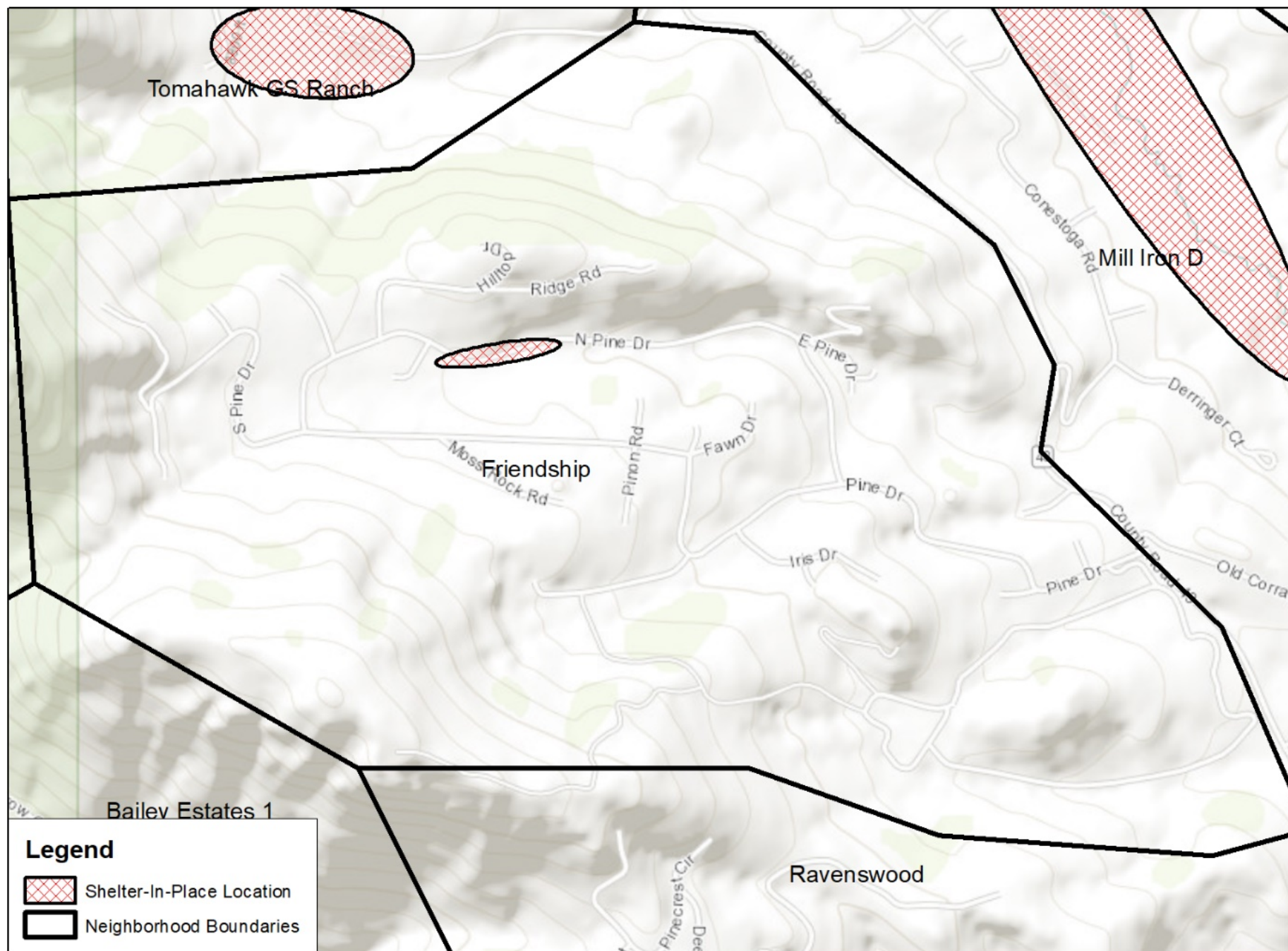


This neighborhood is surrounded by very heavy fuels and many of the homes on the western side are tucked into denser fuels. It would be beneficial to all of Friendship to cut down on the dense fuels surrounding their neighborhood to reduce overall risk to their homes from ember cast. Housing stock is 1970s with aging asphalt roofs and wooden decks. Road quality is very good, and first responder access will be relatively easy. There is a place to shelter-in-place in the neighborhood, but it will only work with annual mowing. Effective fuels treatments coupled with defensible space could dramatically change the risk to this neighborhood, as topography is less steep. This gives Friendship a Hazard Assessment value of 3.

Friendship has some evacuation congestion getting onto County Road 43 and plenty of non-survivable roadway. This needs to be mitigated along with a Shelter-in-Place location – the location pictures for Friendship is small and needs to be mowed to be viable. Homes on the edges of the neighborhood are at greatest exposure to radiant heat. There are structures in Friendship and all are exposed to long-range embers.

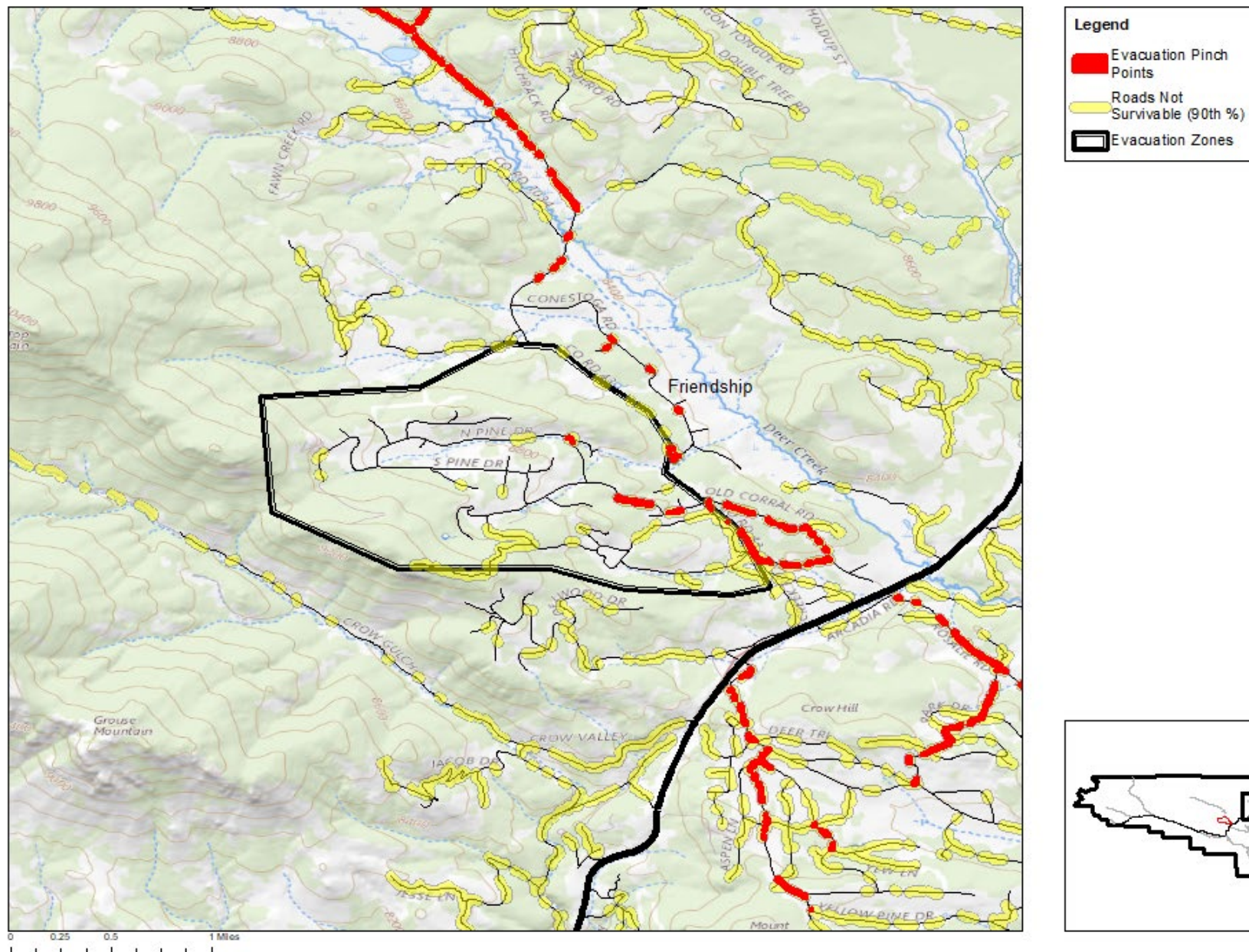
**High Priority Implementation Project:** An improved Shelter-in-Place location, accounting for slope, is necessary in Friendship. With predicted congestion along County Road 43, residents of this neighborhood need to have an emergency plan if evacuation does not go as planned.

## Shelter-in-Place Proposed Location



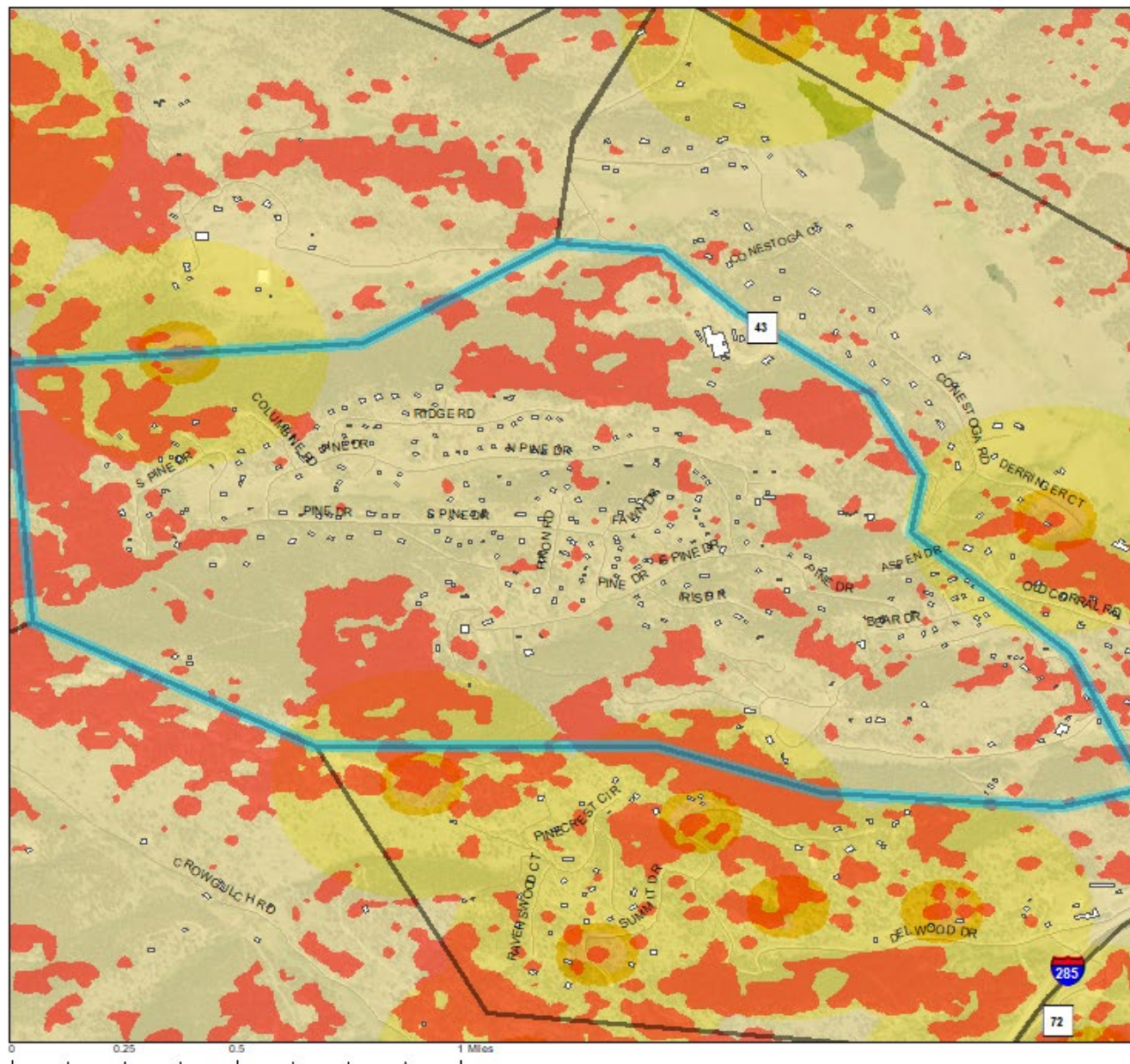


## Evacuation Zone: Friendship - Rating: Extreme

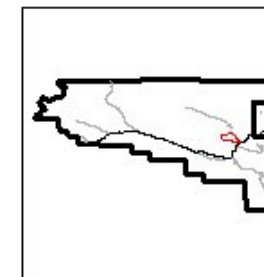




# Neighborhood: Friendship - Rating: Extreme



Strx Density: 0.178803 strx / ac)  
 Percent of Roads Non-Survivable,  
 60th % Weather: 9.6%  
 Percent of Roads Non-Survivable,  
 90th % Weather: 17.42%  
 Historical Ignitions Per Acre: 0.005382  
 Structures at Risk:  
 From Radiant Heat: 14  
 From Short Range Spotting: 0  
 From Long Range Spotting: 299





## Grant

Neighborhood Risk Rating – Moderate

Evacuation Risk Rating – High



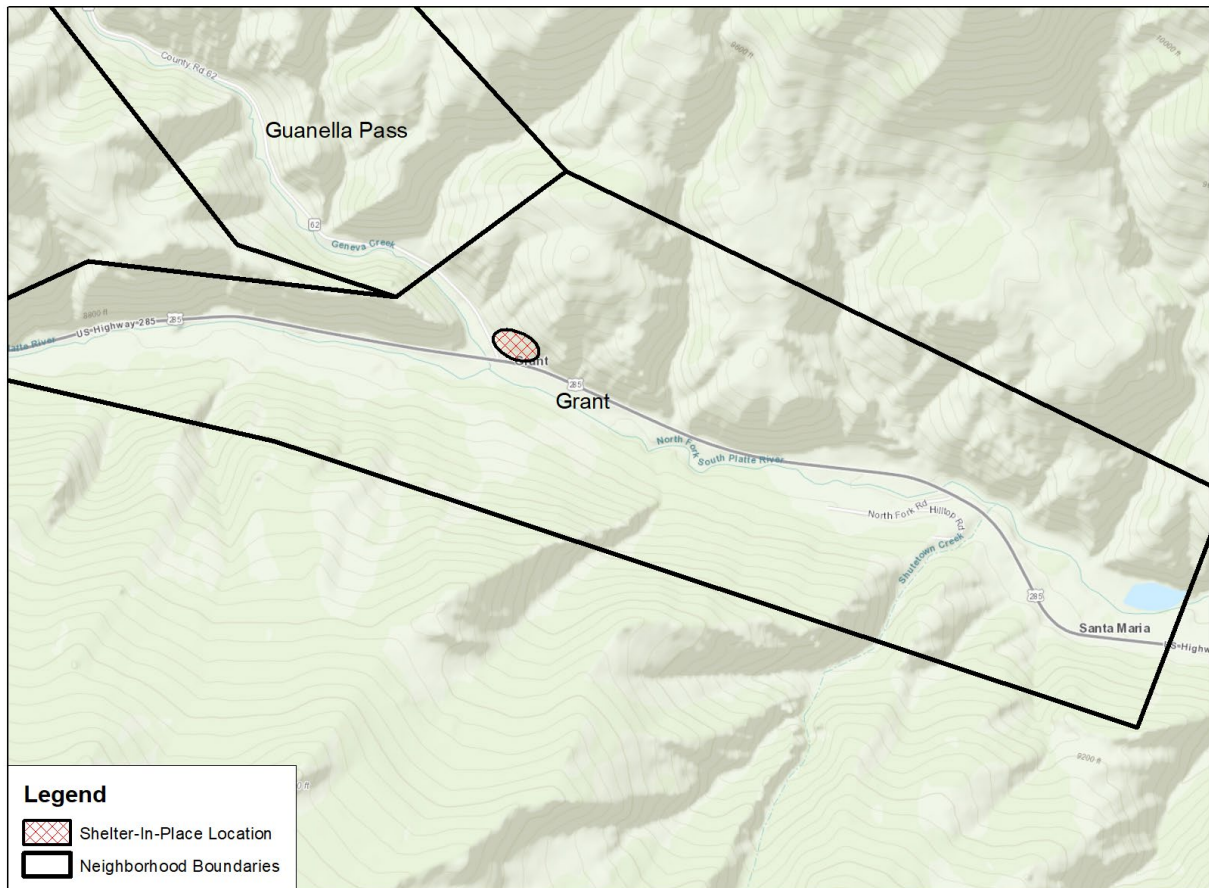
Grant is in similar condition to Shawnee as many homes are in the valley and close to 285. Vegetation is a bit denser in Grant and should be mitigated to improve home survivability. Slopes surrounding US 285 should be considered for mitigation as fire would easily spot across the roadway. Homes need defensible space here and some easy projects like moving wood piles and utilizing less flammable materials would make an incredible difference. Housing material and current risk to structures gives this neighborhood a Hazard Assessment value of 2.

At the intersection of US 285 and CO 62, there is some shelter-in-place potential that could be improved by treatments to the slopes above. Roadways in Grant are not a large concern for treatment as they are currently in good shape and few homes are exposed to radiant heat or short-range embers. There are 83 structures in this neighborhood and all are exposed to long-range embers.



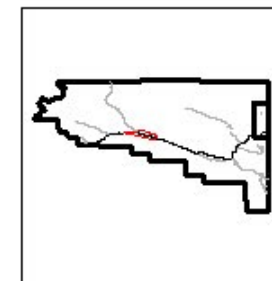
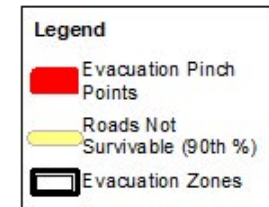
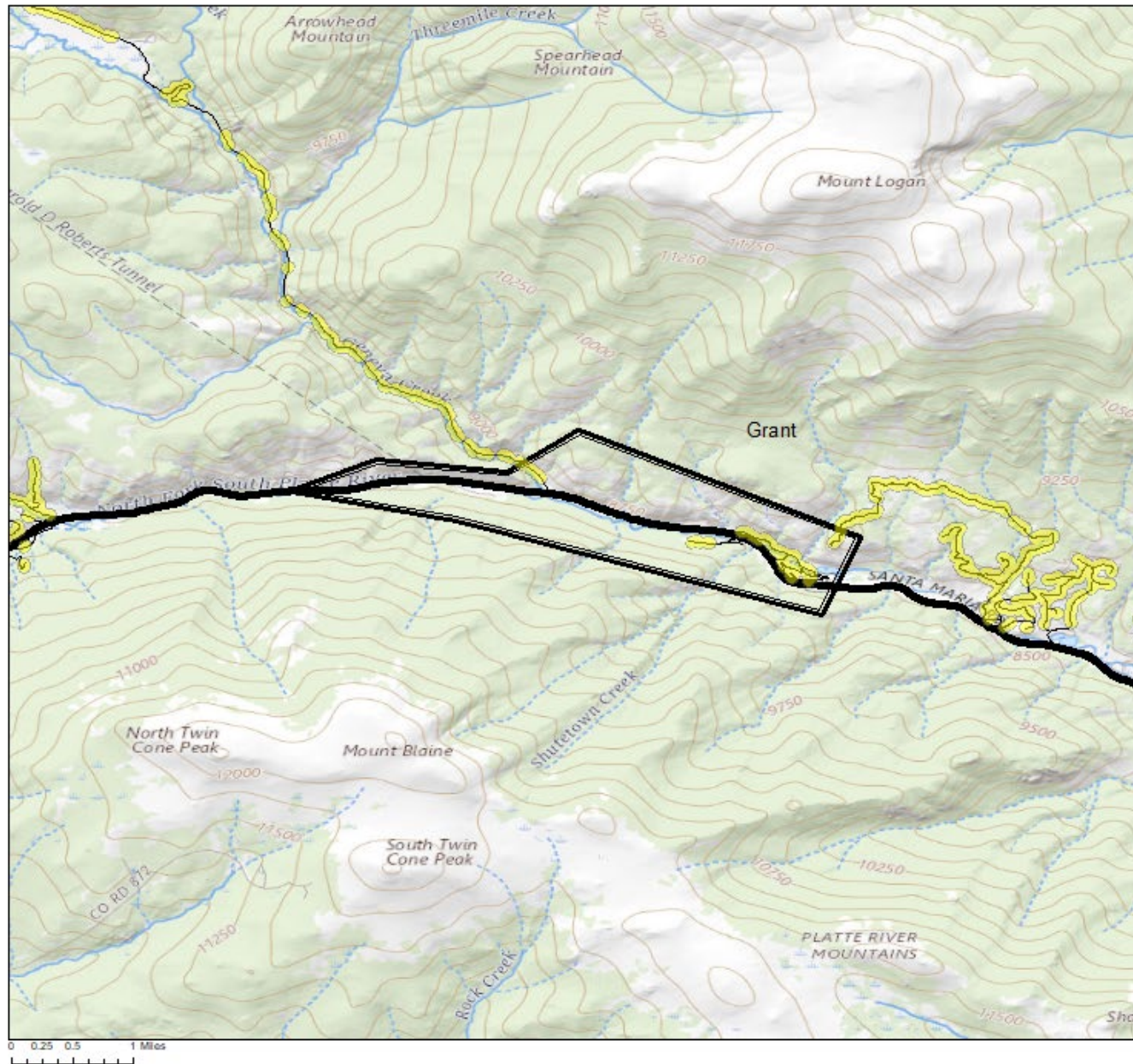
**High Priority Implementation Project:** Thinning treatment to the North facing slope that overlooks 285 would be a large-scale project that would have a great impact in this area. The design of this treatment should improve tactical options for backing a fire down the slope and preventing its spread further East. In Ponderosa and Mixed-Conifer pockets, the stand should be thinned to 15-foot tree spacing. In Spruce-Fir or Lodgepole pockets of forest, the treatment should be thinned by the guidelines in Appendix 9.

Shelter-in-Place Proposed Location



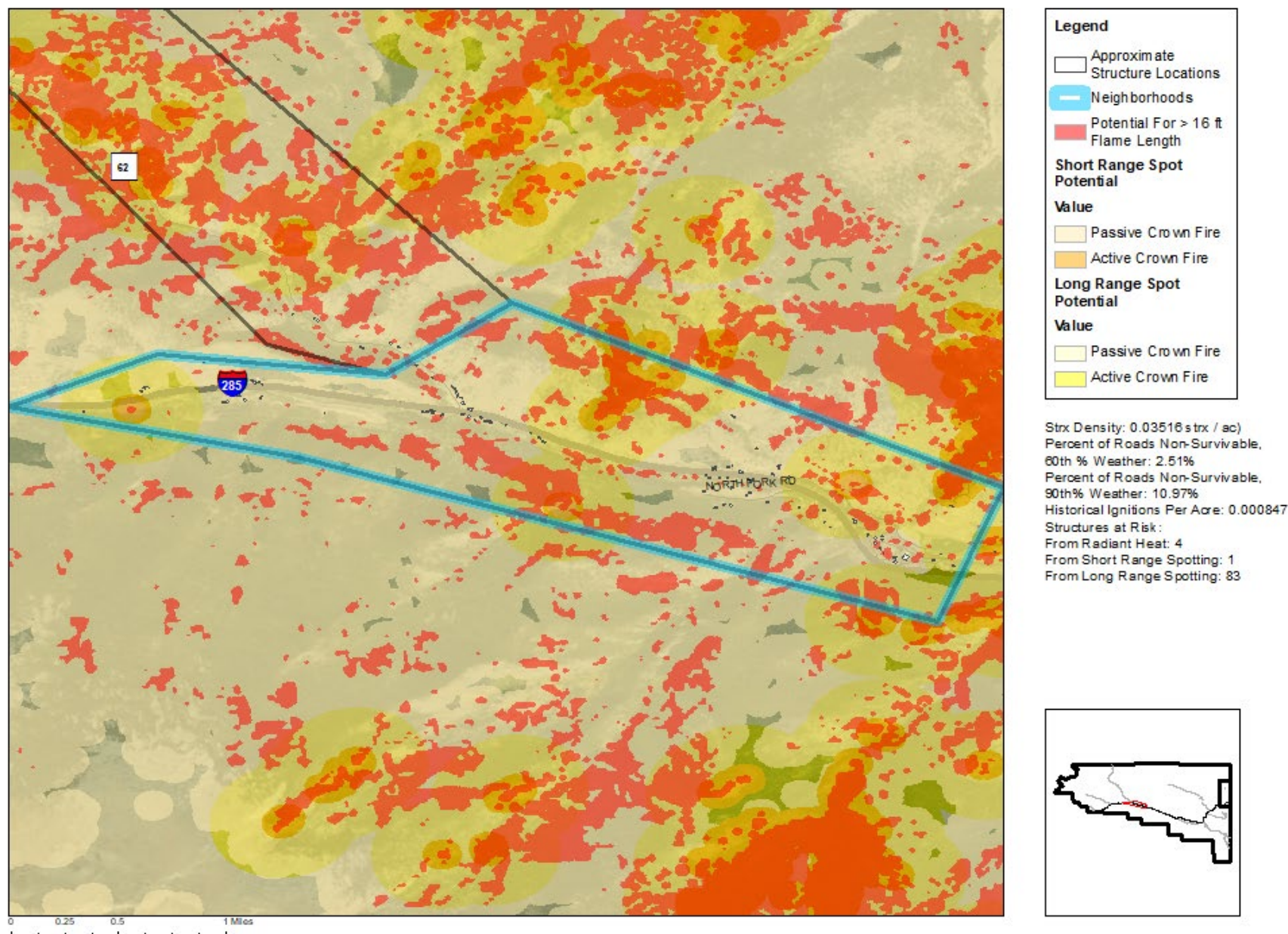


## Evacuation Zone: Grant - Rating: High





## Neighborhood: Grant - Rating: Moderate





## Guanella Pass

Neighborhood Risk Rating – Moderate

Evacuation Risk Rating – High



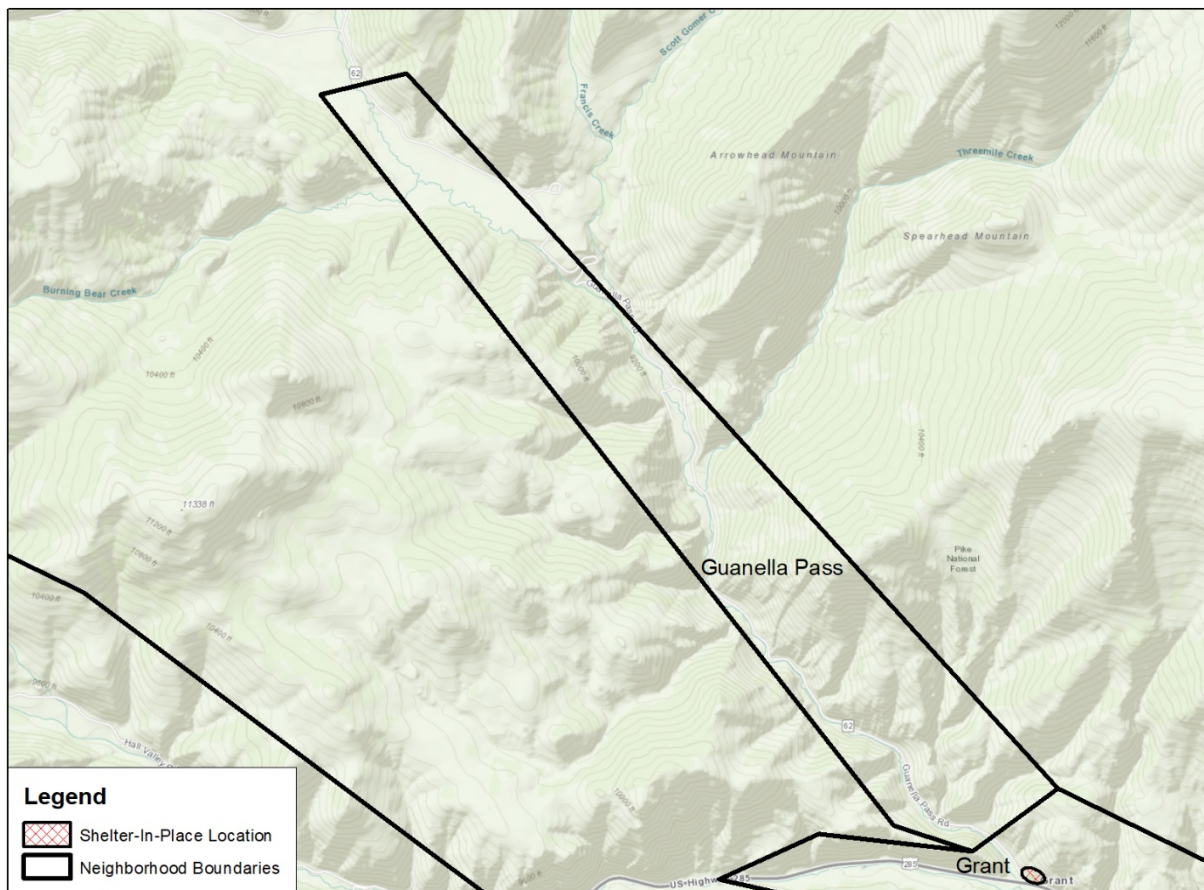
Mixed-Conifer and Spruce-Fir forest types cover this neighborhood, which have stand replacing fire on 100-year intervals. When a wildfire happens here, it will be catastrophic, so it is crucial to be prepared to leave immediately on red-flag days. The pass is a pretty narrow canyon with high potential for spotting across and nowhere to shelter-in-place other than around Grant. Some equestrian operations in the pass could make evacuation a challenge depending on visitation and should be noted by the residents to plan for their animals. Roadways are good quality and width, but many of the building materials for homes are flammable and need be improved to survive a wildfire. Risk to current structures and home construction gives this neighborhood a Hazard Assessment Value of 3.

There is no current place to recommend a shelter-in-place location, but with a proximity to US 285, residents or visitors could travel away from an approaching wildfire. Few homes are at risk

during 90<sup>th</sup> percentile fire weather days, but during a stand replacing wildfire, this risk would change. There are 25 structures mapped in Guanella Pass. The most important work in this neighborhood is to improve roadway survivability and the home ignition zone. Residents here can work to improve the condition around and of their home in coordination with improvements to egress.

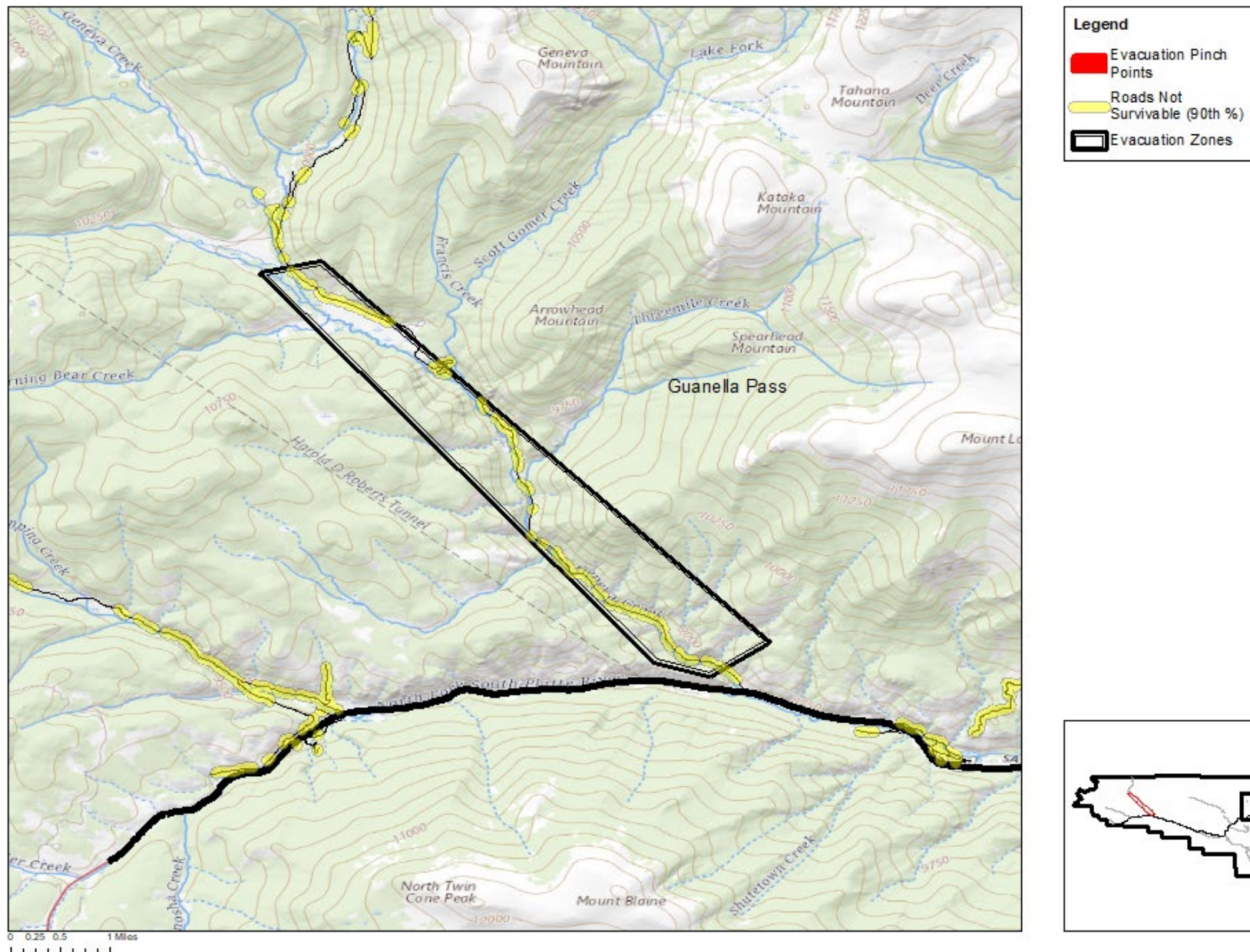
**High Priority Implementation Project:** Roadway Thinning treatment along County Road 62 to facilitate egress. Treatment distance from road should consider the extreme slope at points in the pass. Locations of 30% slope or greater must be treated first with 320 feet of thinning treatment. This treatment is only intended to facilitate egress and would not prevent a wildfire from quickly jumping across the canyon and moving East. To use Guanella Pass as a linear topographic feature to improve tactical options, fuel thinning should occur at the ridgetop to the West.

Shelter-in-Place Proposed Location





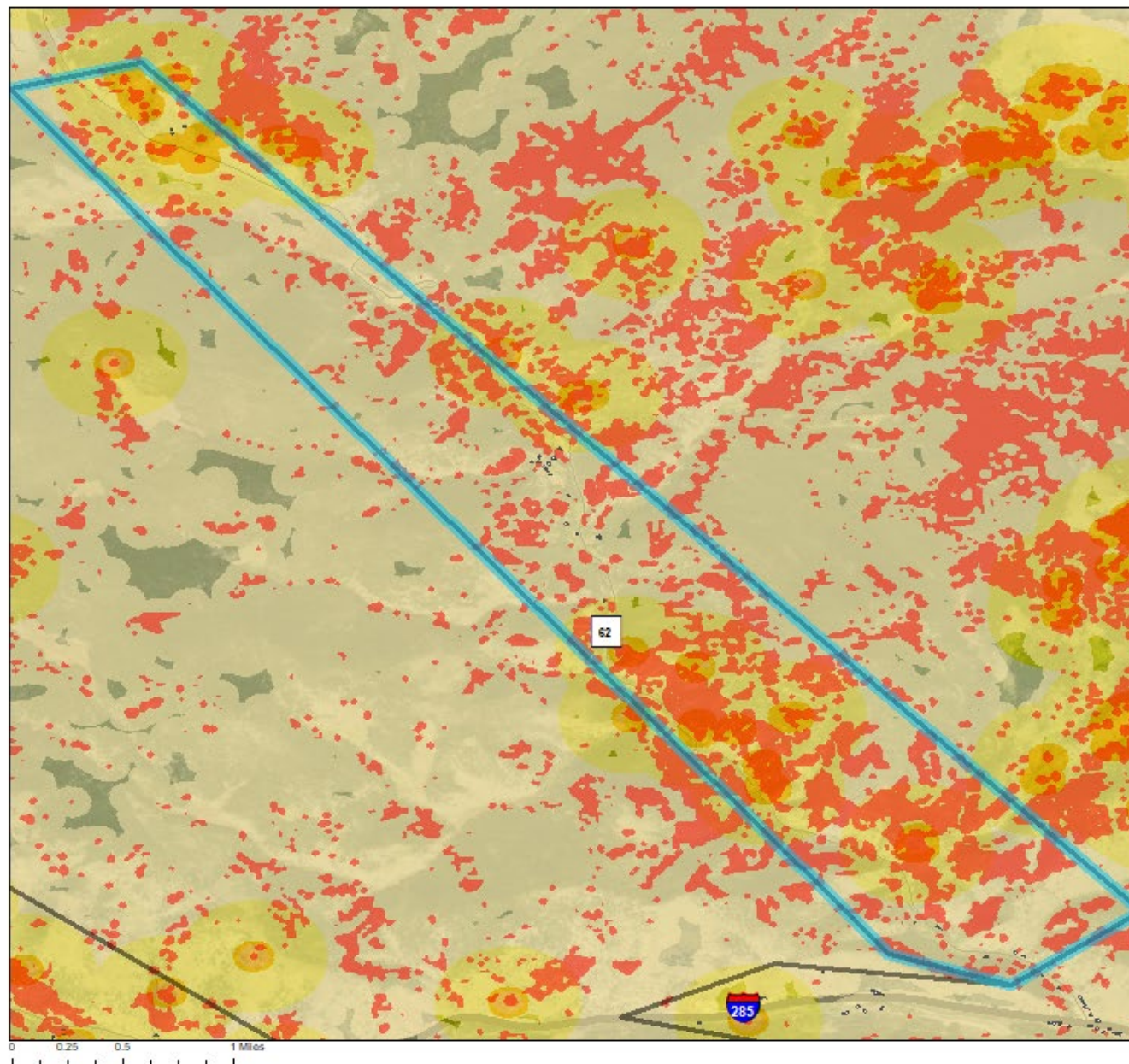
## Evacuation Zone: Guanella Pass - Rating: High



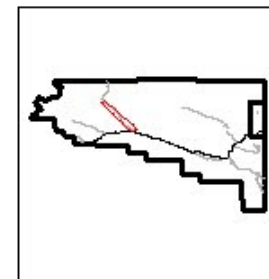


# Neighborhood: Guanella Pass - Rating: High

57



Strx Density: 0.007219 strx / ac)  
Percent of Roads Non-Survivable, 60th % Weather: 8.88%  
Percent of Roads Non-Survivable, 90th % Weather: 31.13%  
Historical Ignitions Per Acre: 0.001155  
Structures at Risk:  
From Radiant Heat: 2  
From Short Range Spotting: 0  
From Long Range Spotting: 25





# Hall Valley

Neighborhood Risk Rating – Moderate

Evacuation Risk Rating – High



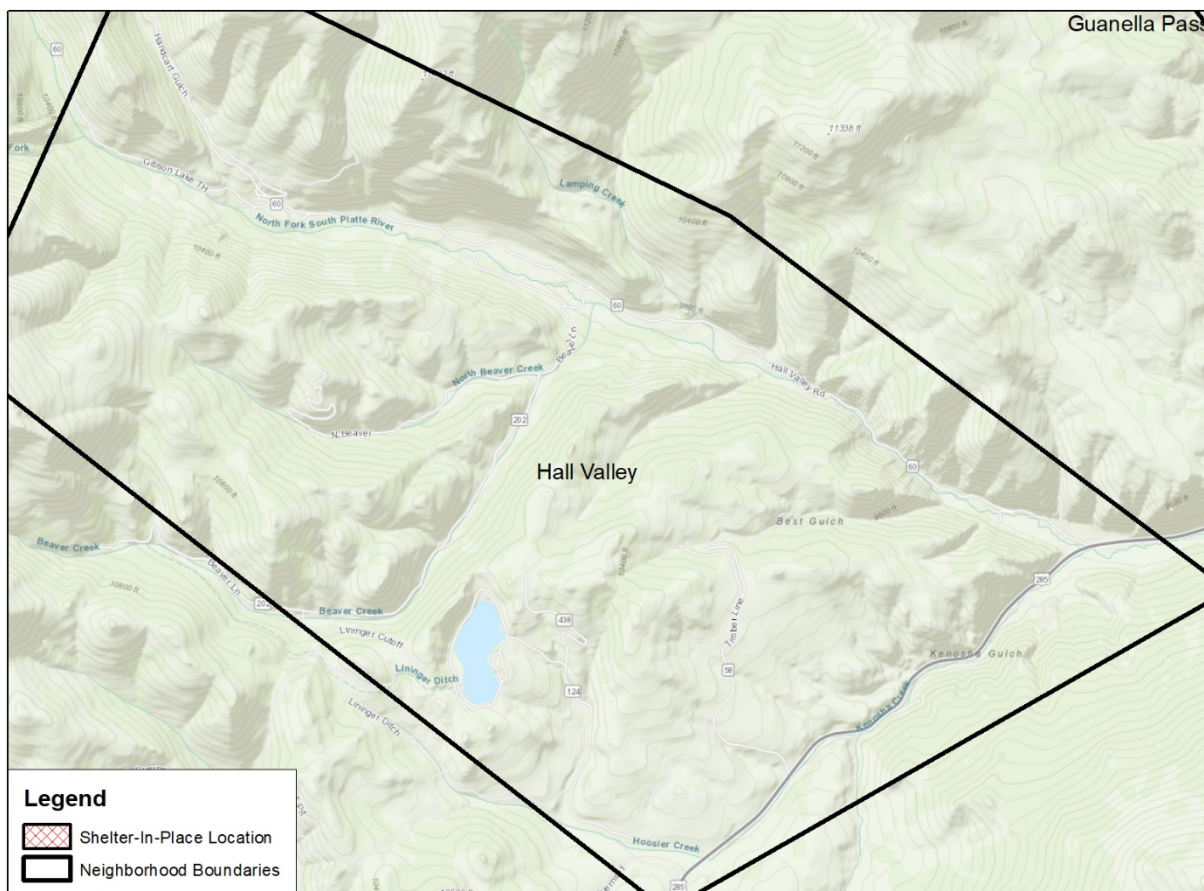
This neighborhood is situated in mixed conifer fuels moving into denser lodgepole stands. This is incredibly important when considering risk, as most days the fire risk is low, but on red flag days and drought conditions, this risk quickly changes to extreme. Stand-replacing wildfire occurs in these vegetation types. Roadways narrow gravel roads that should be improved for easier fire apparatus access. There are 93 structures in Hall Valley. Homes are consistent with the majority of Platte Canyon with Class A roofs and variable siding with many utilizing wood. There is not obvious defensible space which would make home defensibility a challenge, but it would not be a difficult project to accomplish. Risk to current structures and home construction gives this neighborhood a Hazard Assessment Value of 3.

There is no current place to recommend a shelter-in-place location, but with a proximity to US 285, residents or visitors could travel away from an approaching wildfire. Few homes are at risk

during 90<sup>th</sup> percentile fire weather days, but during a stand replacing wildfire, this risk would change. The most important work in this neighborhood is to improve roadway survivability and the home ignition zone. Residents here can work to improve the condition around and of their home in coordination with improvements to egress.

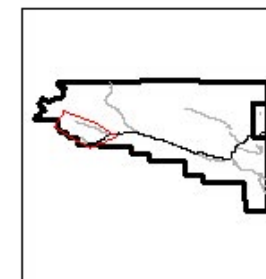
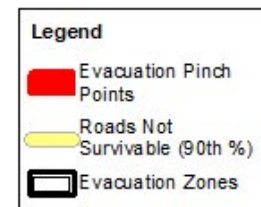
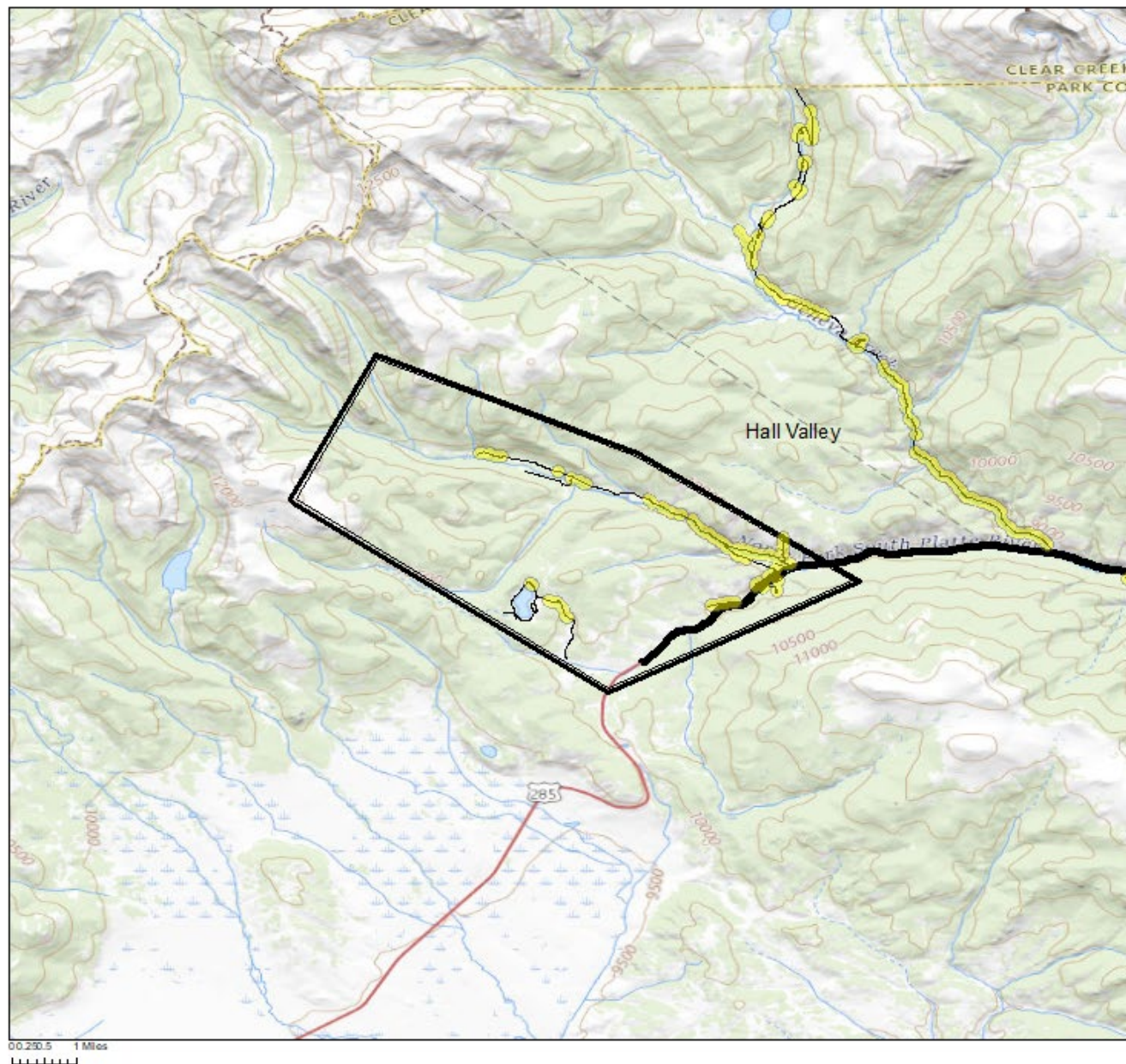
**High Priority Implementation Project:** Roadway Thinning treatment along County Road 60 to facilitate egress. Treatment distance from road could be  $\frac{1}{4}$  mile for this fuel type. Recommendations come from Appendix 9, Lodgepole Management Guidelines for Land Managers in the Wildland-Urban Interface. This treatment is intended to improve egress. To develop tactical lines of engagement in this fuel type, the treatment should be more aggressive to mimic stand replacement.

Shelter-in-Place Proposed Location





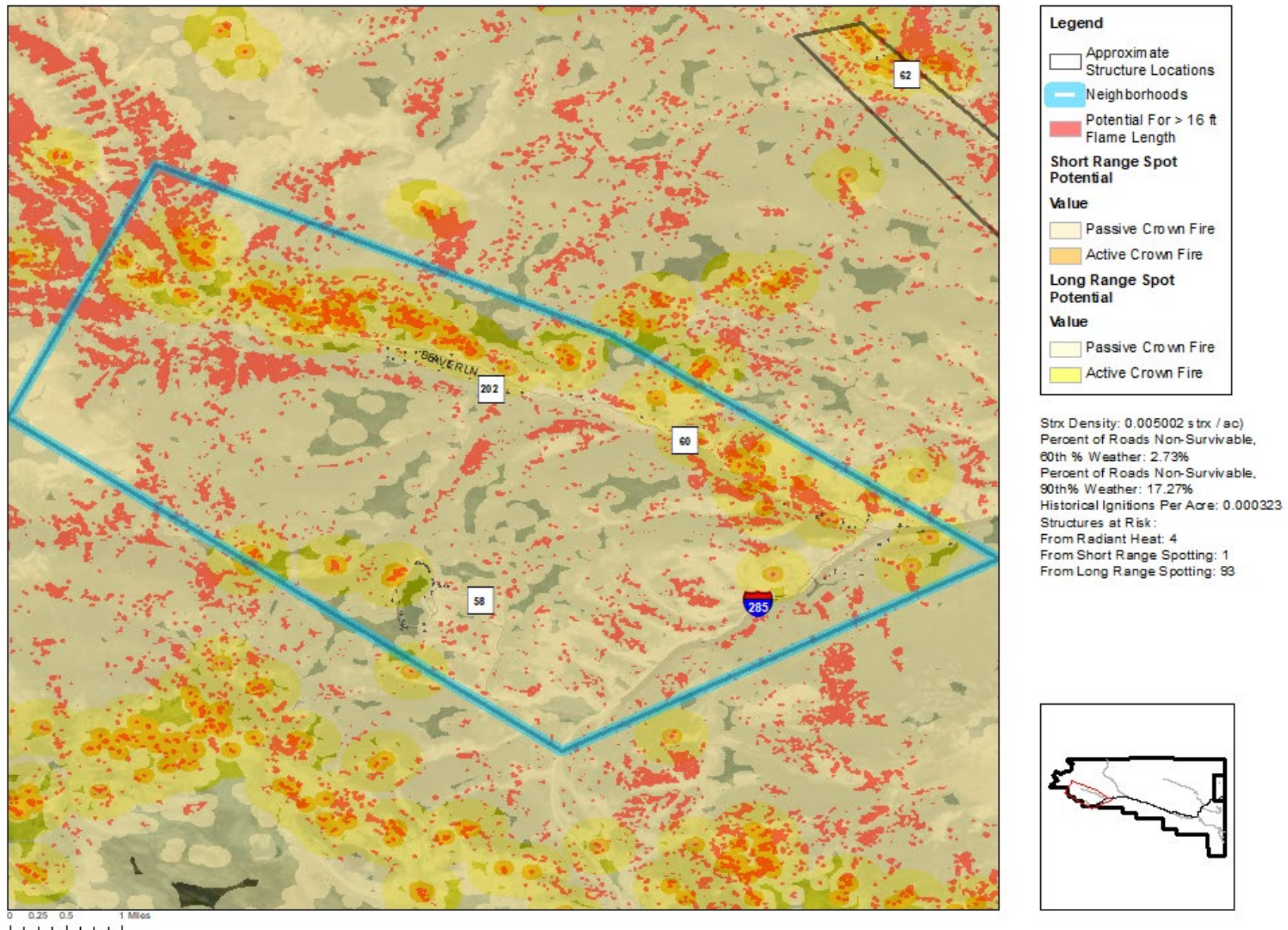
## Evacuation Zone: Hall Valley - Rating: High





## Neighborhood: Hall Valley - Rating: Moderate

61





# Harris Park

Neighborhood Risk Rating – High

Evacuation Risk Rating – Extreme

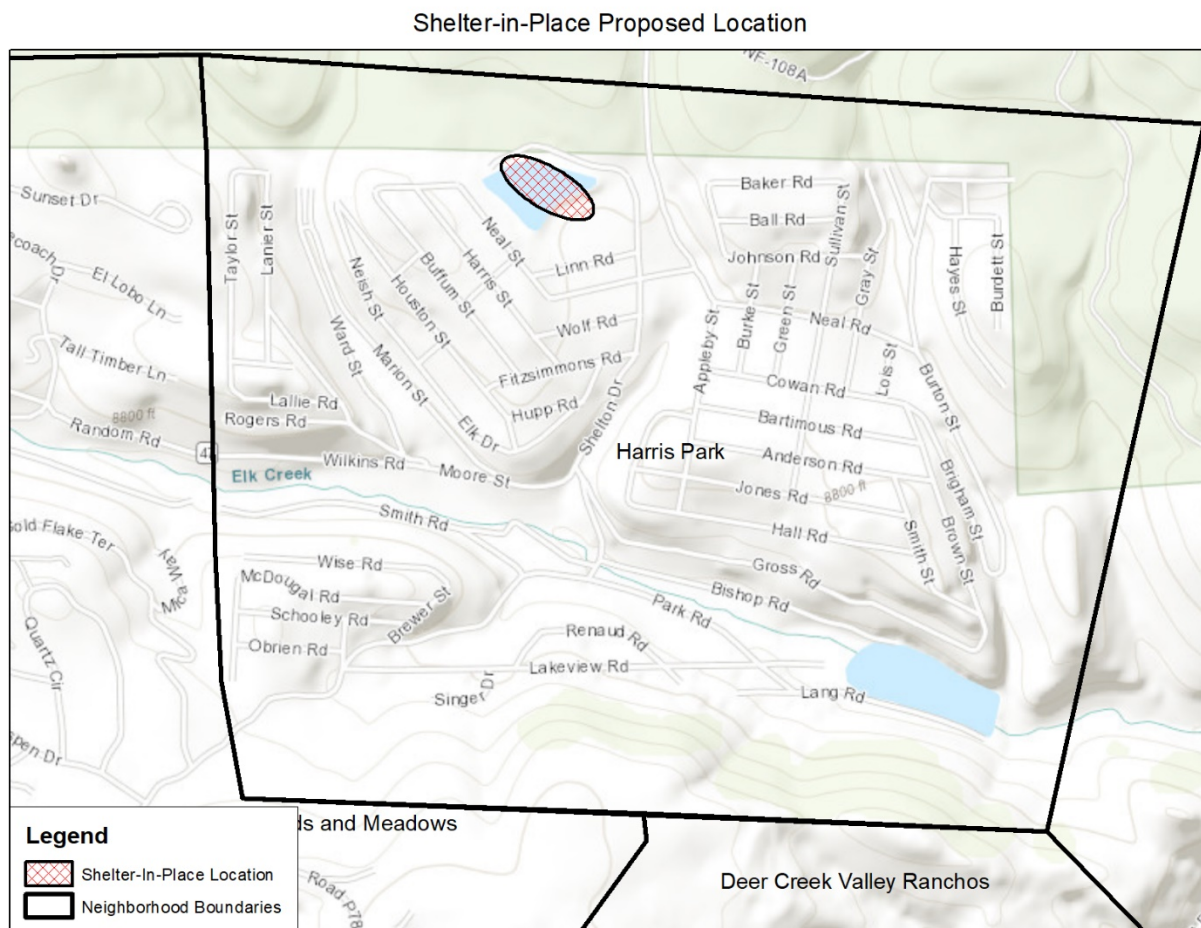


Harris Park, on the Northeast side of the district, was originally laid out like a city with tightly spaced homes and roads. Topography makes this layout a challenge and fuel loading is high surrounding the residential area. We will consider Harris Park to have one ingress and egress out of the neighborhood. Roads are quite narrow in key places, making roadway capacity low. It is especially pinched with steep grade in certain key places for evacuation. Certain portions of the neighborhood have no turnarounds for fire service access. Near Station 4, there is better roadway capacity and better turnaround options, but at individual houses, driveways are short without turnarounds. Reflective street signs are present.

Homes are very dense in most of Harris Park with flammable construction materials. Home to home ignition in Harris Park is expected without defensible space and home hardening improvements. Quite a few homes have combustible siding or wood decks/features against their home. Many homes are also on steep slopes with no mitigation and dense timber below them. Due to parcel size being small, many residents have wood piles touching or too close to the home. Roofs were variable in condition as well, but the majority were Class A roofs. These factors give Harris Park a Hazard Assessment value of 4.

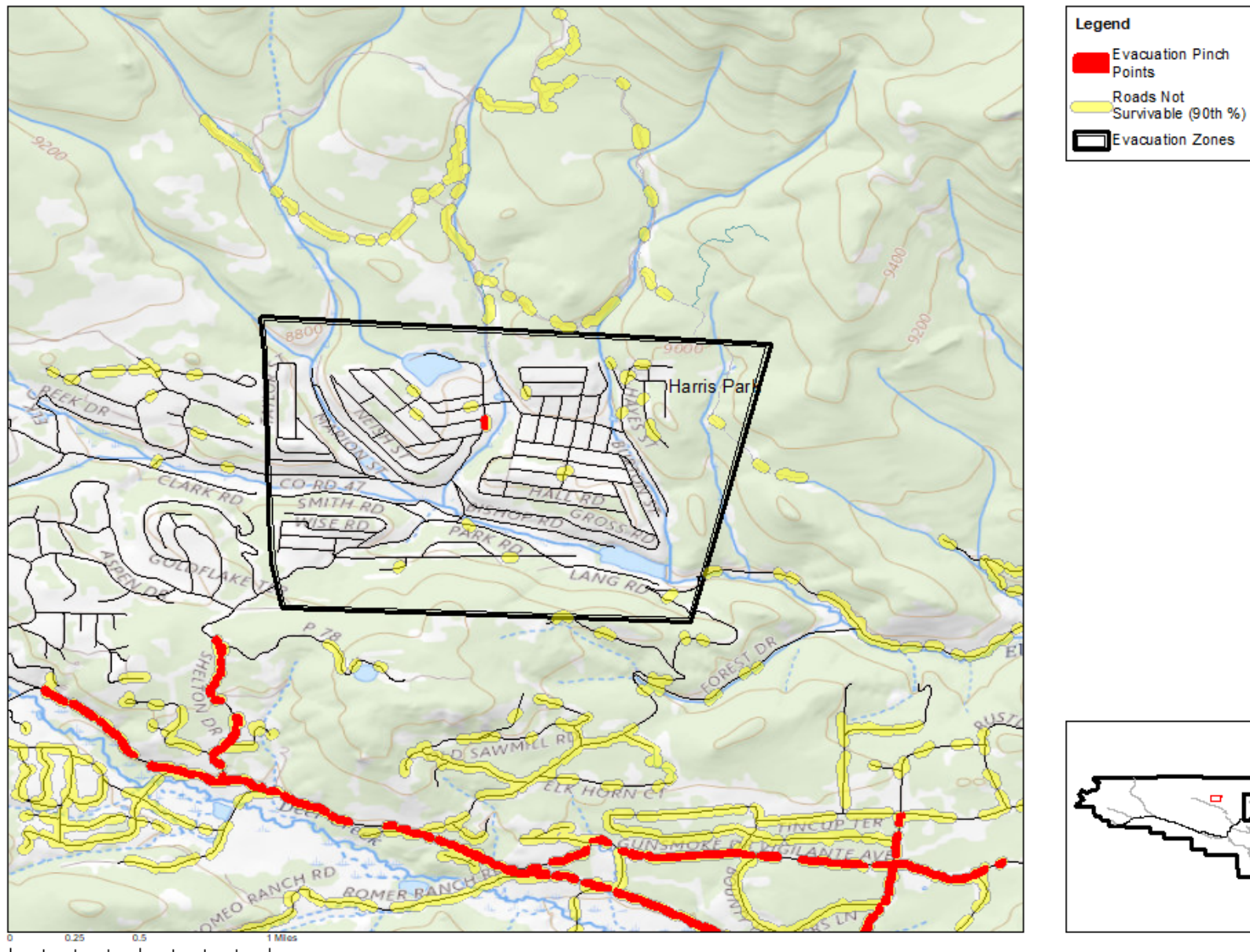
This area has lower radiant heat exposure due to structure density but will be showered with embers during a wildfire due to nearby fuels. There are 459 structures in Harris Park. This data again indicates the benefit Harris Park will see from home hardening work. Thinning treatments are recommended to lessen fire behavior in the neighborhood and along roadways, but home hardening and defensible space here will be the most important work. Roadway widths could be improved as well for firefighter access.

**High Priority Implementation Project:** Harris Park has areas of high evacuation congestion along Shelton Dr and one area on the road that is in an area of Non-Survivable Roadway. Many of the roadways are currently survivable under 90<sup>th</sup> percentile fire weather conditions, though Lakeview Rd. needs considerable work to be survivable during evacuation. These two sections of roadway should be prioritized for improvement.





## Evacuation Zone: Harris Park - Rating: Extreme



# Neighborhood: Harris Park - Rating: High





# Hidden Valley Estates

Neighborhood Risk Rating – High

Evacuation Risk Rating – Moderate



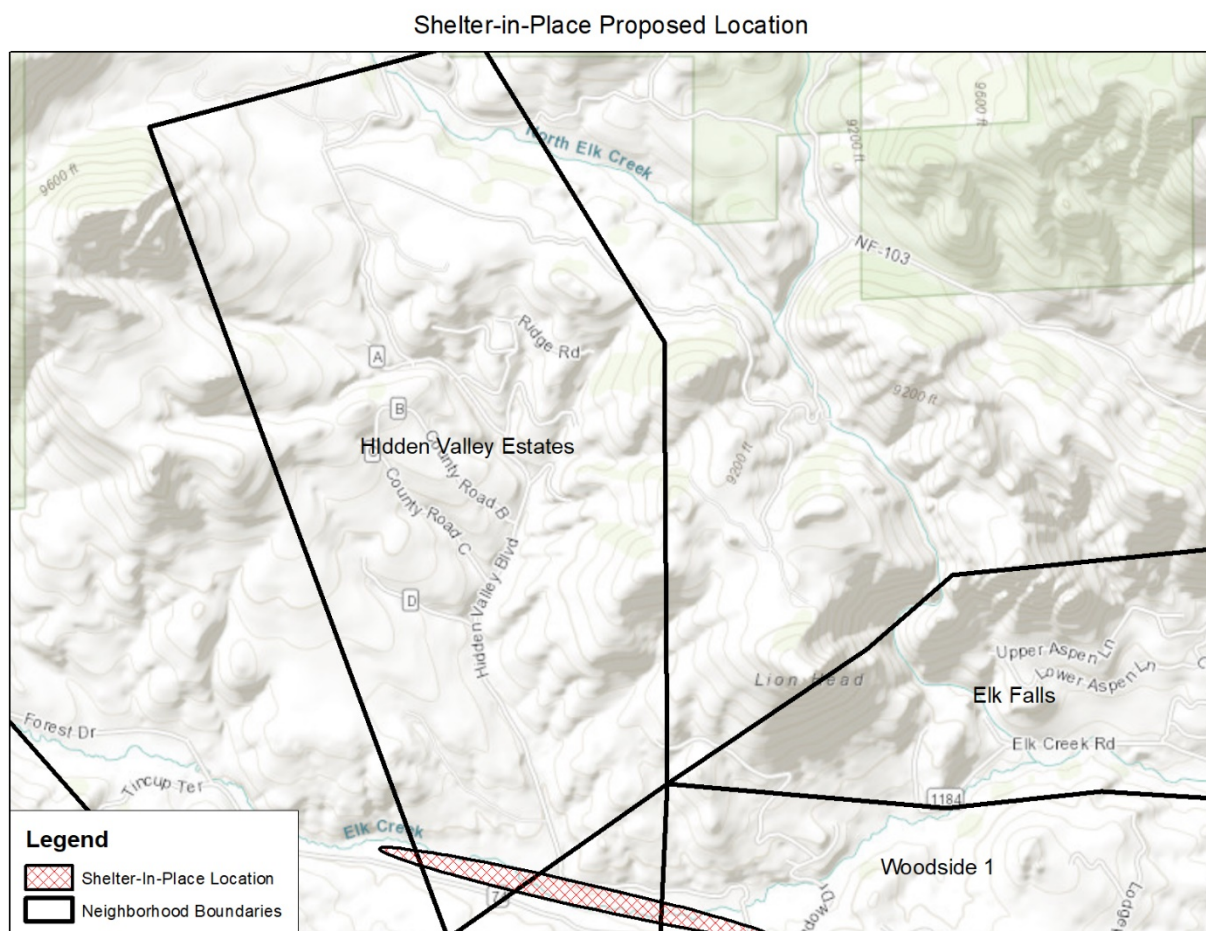
Entering the area before this neighborhood and driving through the valley and ranch, a great shelter-in-place location is immediately evident, though sheltering here is a worst-case scenario. This and the green address numbers are positive features in the Hidden Valley Estates. The terrain very steep, and roadways are in terrible condition that could only support a Type 6 engine. This neighborhood sits in a drainage which will always make roadway maintenance and fire intensity a major risk for wildfire response. Many homes are tucked into dense fuels with no obvious mitigation work accomplished, making home access by driveway for firefighters difficult. Home construction was not obvious from the road, but the density of fuel requires that homes be completely hardened to not catch fire. This neighborhood needs to begin thinning the fuels in the home ignition zone if any homes are to survive the wildfire, and roads need to be repaired. These conditions give Hidden Valley a Hazard Assessment value of 4.



The roadway data for Hidden Valley Estates is poor. We amended it to run our models of evacuation, roadway survivability, ember cast and radiant heat exposure, but there are some gaps in our roadway data. For what we were able to run, there are many roadways not survivable during a wildfire, but no evacuation pinch points. Thinning along roadways and improved road condition itself will improve evacuation outcomes.

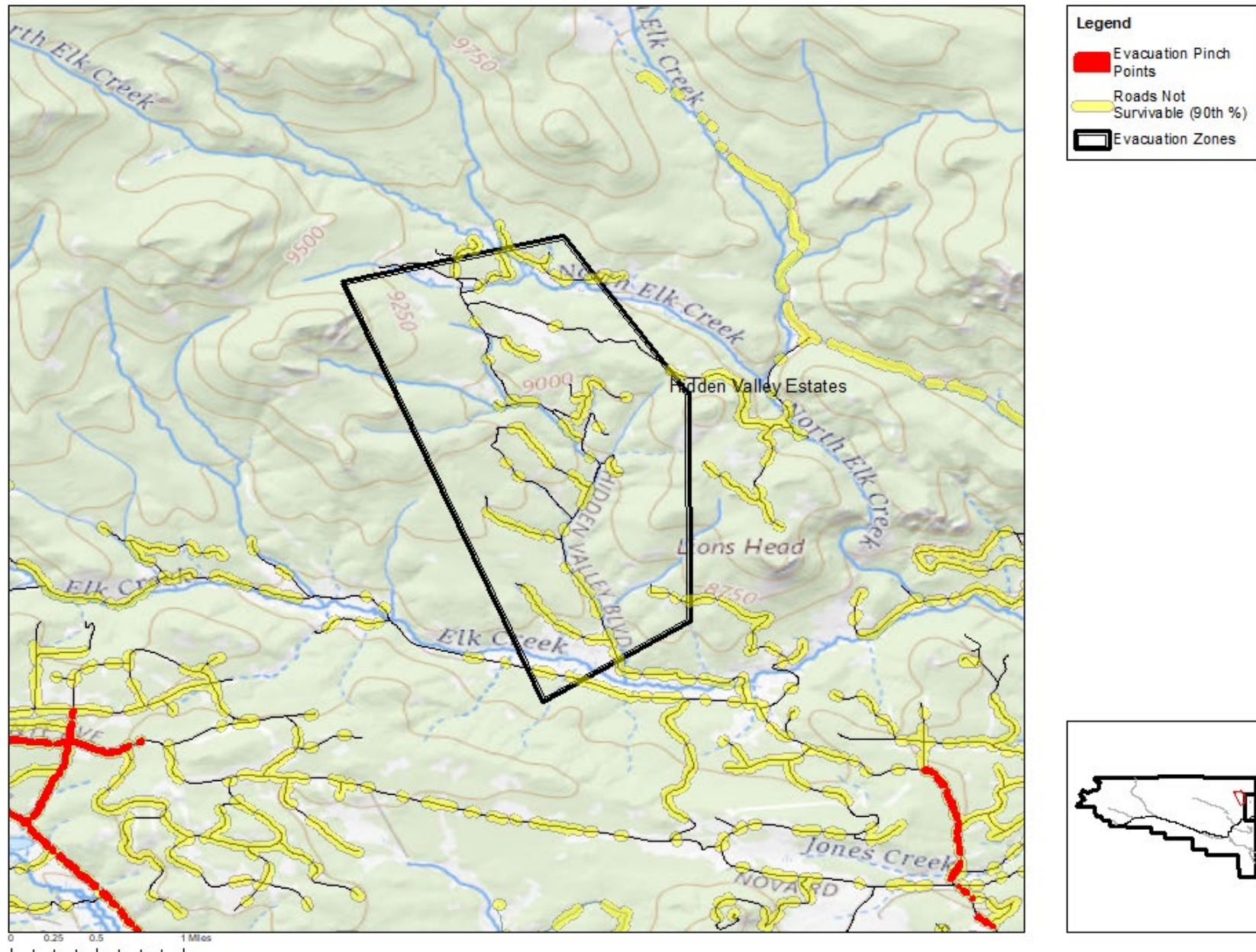
Radiant Heat exposure models low, but short-range ember exposure in this neighborhood is high. There are 51 structures in this neighborhood and all are exposed to long-range embers. Home Hardening and Defensible Space work in this neighborhood will have a large impact on the entire neighborhood. It would be possible to tie wildland fuel treatments into this neighborhood to make it much easier to defend for firefighters.

**High Priority Implementation Project:** Road condition is poor in this neighborhood which will complicate evacuation no matter what the roadway treatment quality is. Recommended project is to contribute to and connect to Proposed Landscape-scale treatment D. Following terrain features and improving tactical options in this area will lessen ember wash into Hidden Valley Estates and provide tactical options to prevent fire from spreading Northeast.



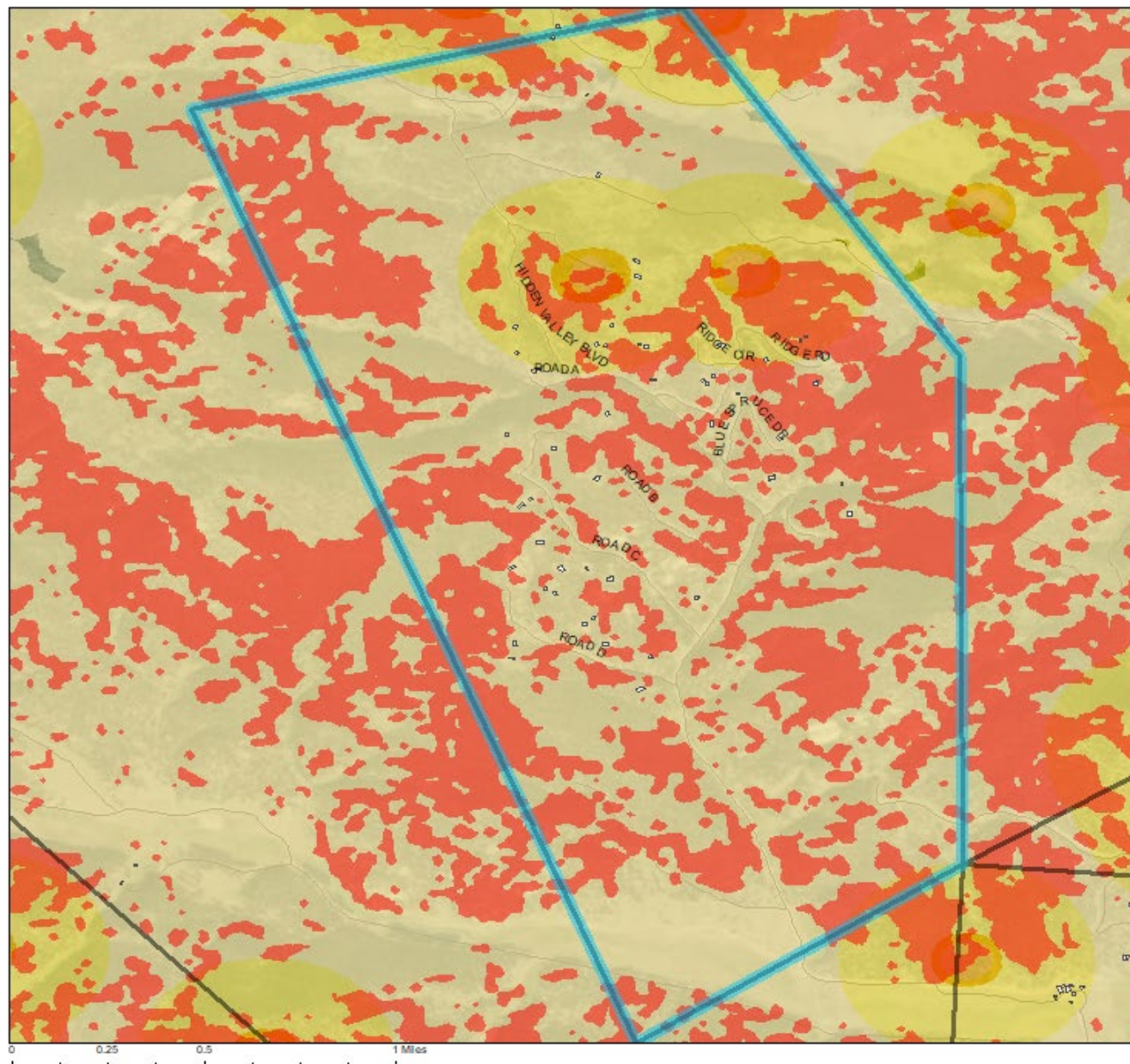


## Evacuation Zone: Hidden Valley Estates - Rating: Moderate

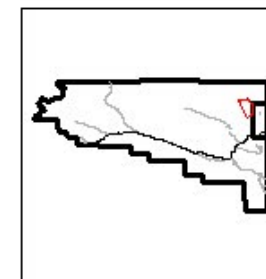




## Neighborhood: Hlidden Valley Estates - Rating: High



Strx Density: 0.018555 strx / ac)  
 Percent of Roads Non-Survivable,  
 60th % Weather: 6.02%  
 Percent of Roads Non-Survivable,  
 90th % Weather: 21.24%  
 Historical Ignitions Per Acre: 0.000728  
 Structures at Risk:  
 From Radiant Heat: 4  
 From Short Range Spotting: 0  
 From Long Range Spotting: 51





## Insmont

Neighborhood Risk Rating – High

Evacuation Risk Rating – High

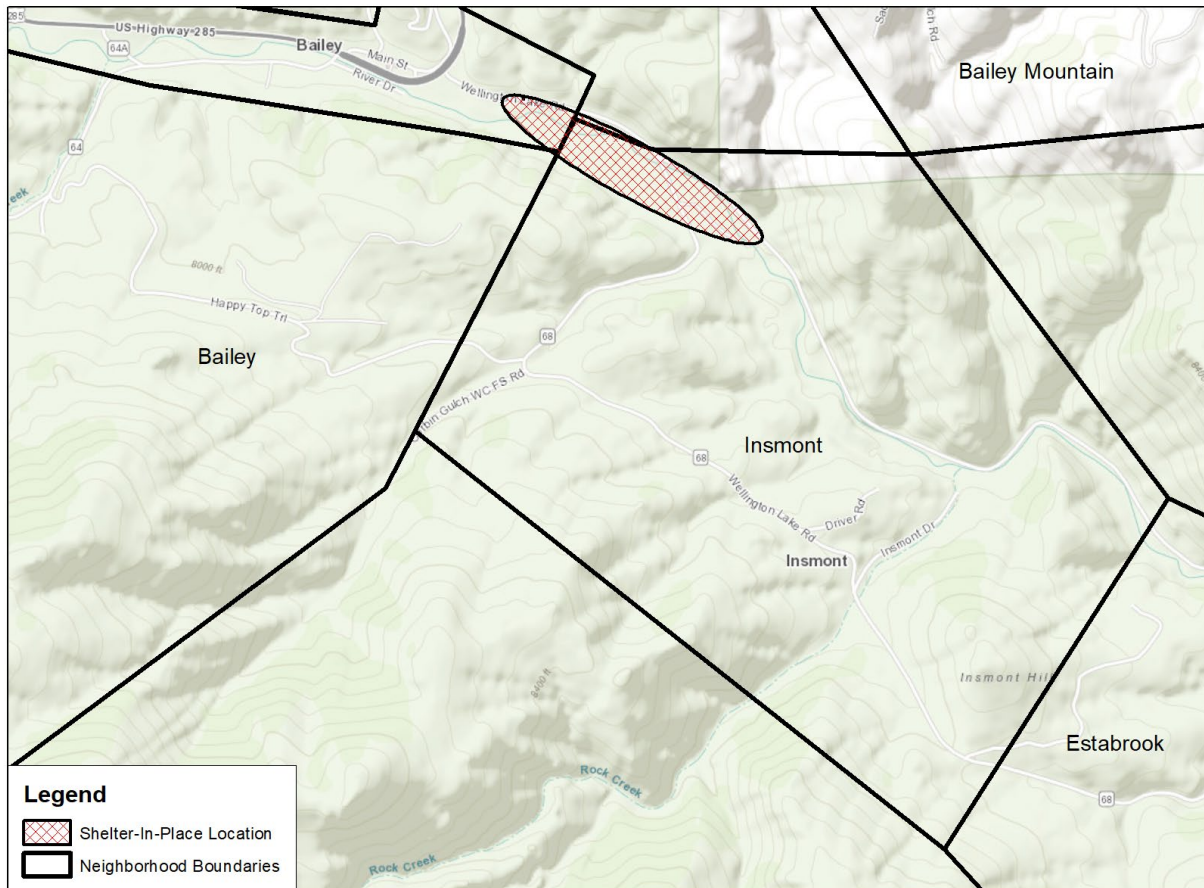


Between Downtown Bailey and the Insmont Neighborhood, there is dense fuel along the roadway that should be mitigated. Defensible space is not present around homes, and homes in the middle of steep, vegetated slopes and at ridge tops are in danger. Housing stock is 1960s-19070s with wooden decks and Class A roofs. There is a meadow following County Road 68 that could house some of the population for shelter-in-place here and but with the potential congestion around Bailey, residents here could be faced with a difficult evacuation situation. Neighborhood wide mitigation is necessary for collective home survival and safe defense by the fire department. The Hazard Assessment value for Insmont is 3.

Insmont has no Evacuation Pinch Points but lots of roadway is non-survivable during 90<sup>th</sup> percentile fire weather conditions. With shorter evacuation times, Insmont is in better shape than other neighborhoods South of Bailey. Most structures are currently exposed to short-range spotting potential. All 31 structures are exposed to long-range embers.

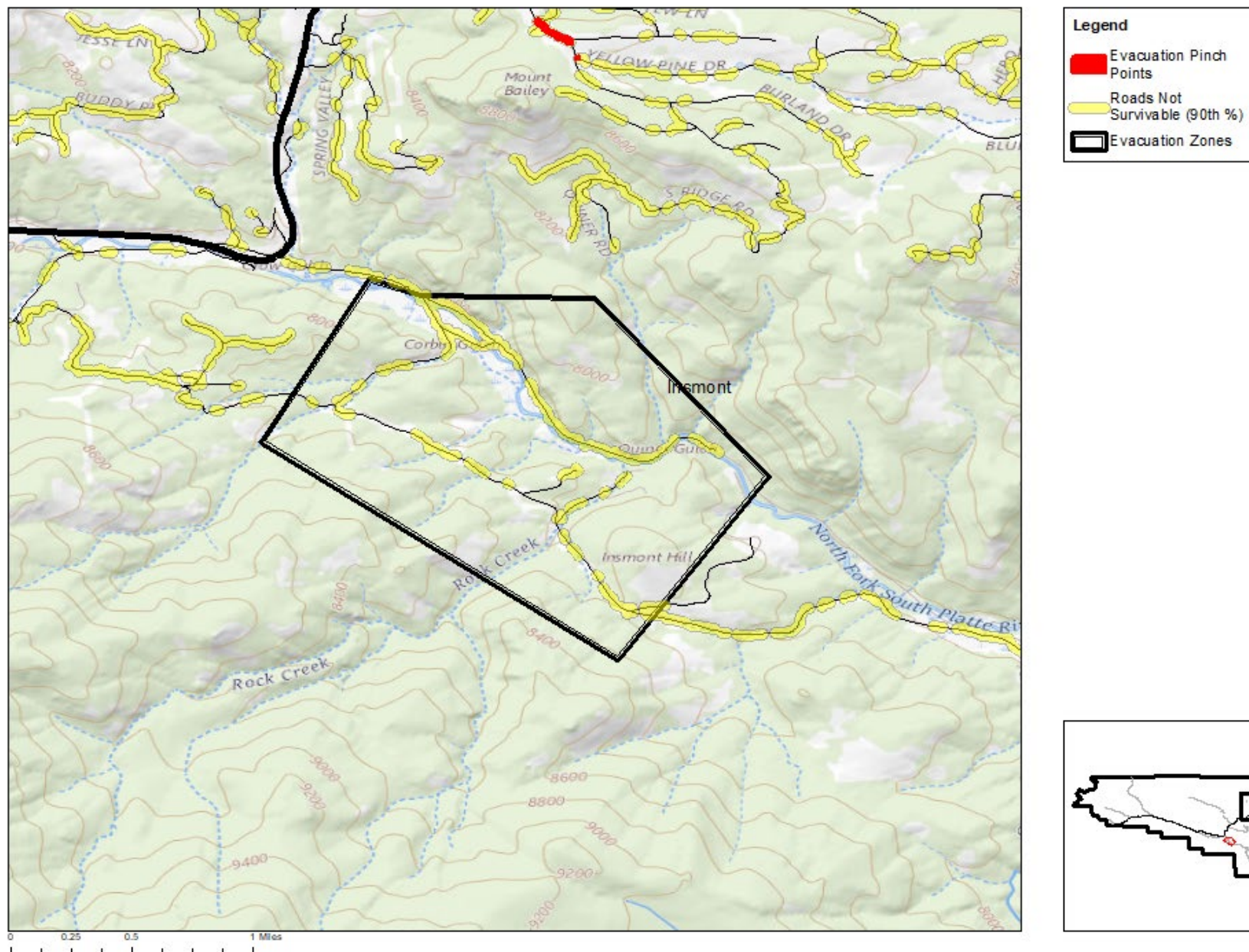
**High Priority Implementation Project:** The area around Farmers Union has a great meadow to anchor from. Improvements to this area along County Road 68 should be a thinning treatment that spans from the roadway, to improve roadway survivability conditions, into fuels surrounding to improve risk to structures and shelter-in-place condition. This treatment would improve conditions to Bailey and the Commercial District as well. This should connect with Proposed Landscape-scale treatment B and span wide of at least 350-feet.

Shelter-in-Place Proposed Location



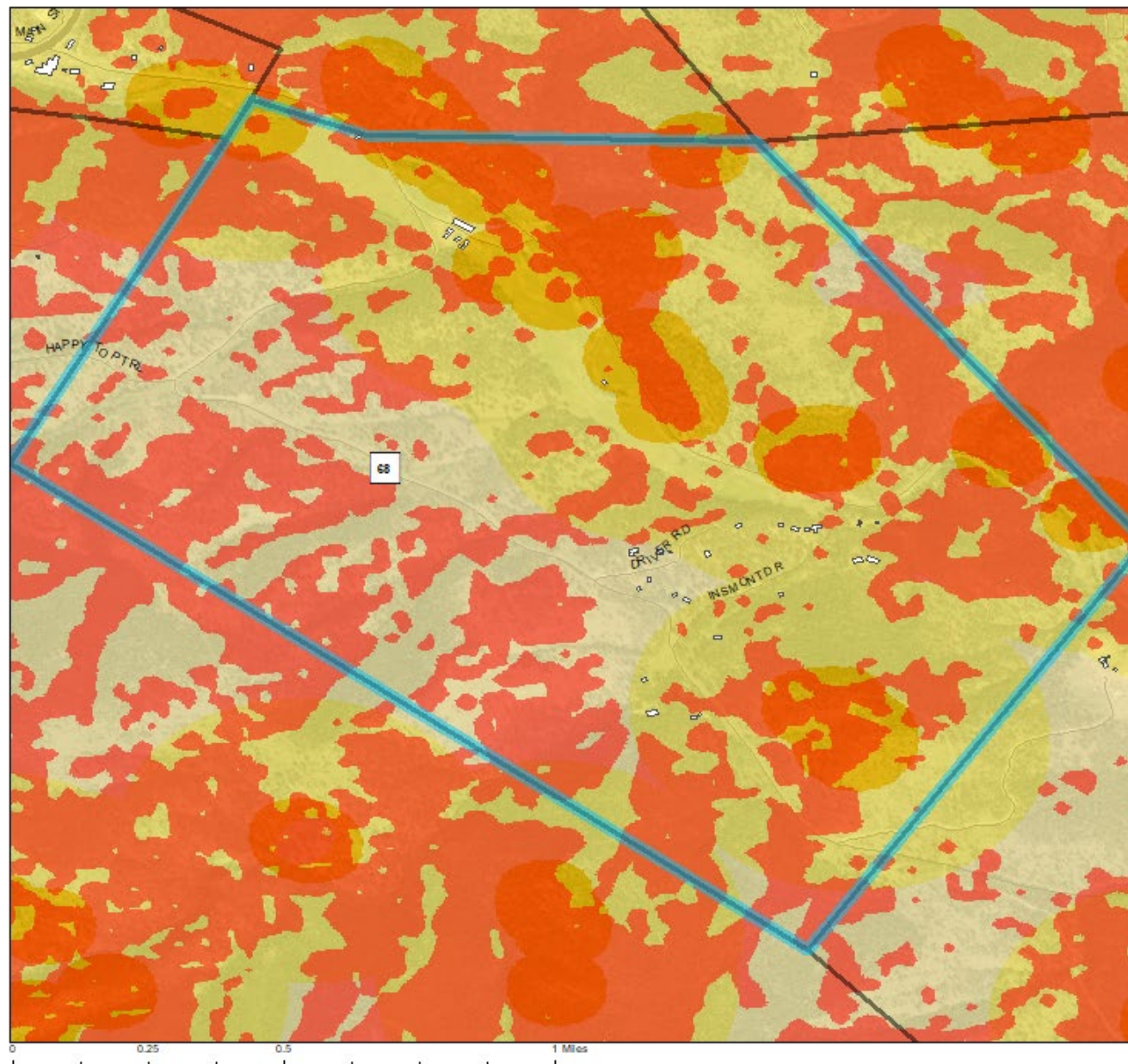


## Evacuation Zone: Insmont - Rating: High

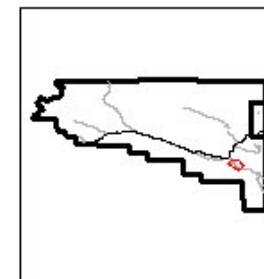




# Neighborhood: Insmont - Rating: High



Strx Density: 0.020094 strx / ac)  
 Percent of Roads Non-Survivable,  
 60th % Weather: 11.87%  
 Percent of Roads Non-Survivable,  
 90th % Weather: 43.03%  
 Historical Ignitions Per Acre: 0.001296  
 Structures at Risk:  
 From Radiant Heat: 1  
 From Short Range Spotting: 4  
 From Long Range Spotting: 31





## KZ Ranch

Neighborhood Risk Rating – High

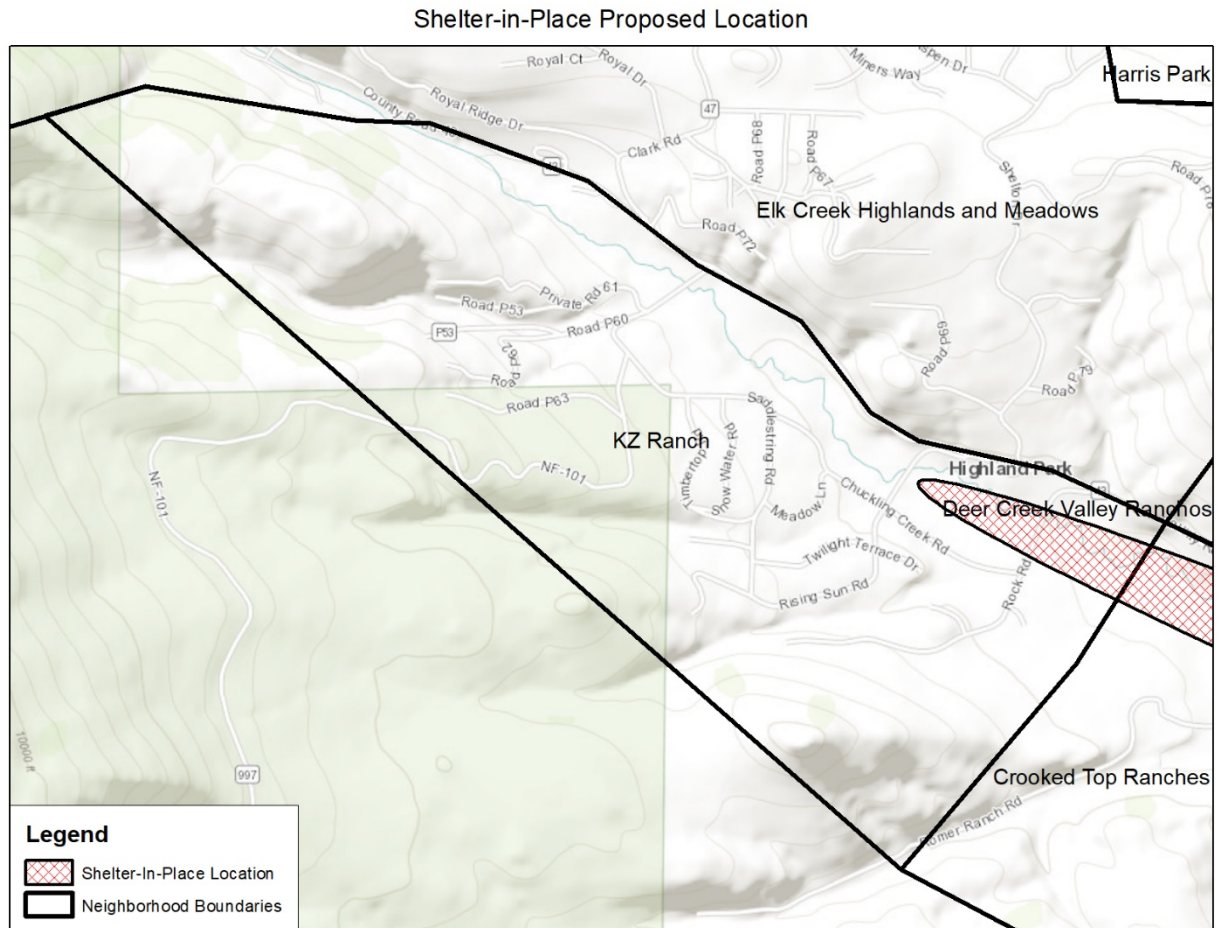
Evacuation Risk Rating – High



This neighborhood is in good shape for shelter-in-place and home survivability. Lots of defensible space is present and roadways are in good shape. A few homes to the West are situated in denser fuels, but overall this is a very favorable neighborhood. Some human behaviors could be changed like moving woodpiles away from homes and mitigating trees roof-adjacent. Overall, these homes have a likelihood of survival and firefighters would be safe responding to wildfire. There are 155 total structures in KZ Ranch. The Hazard Assessment value is 1 due to high defensibility of these homes, but risk to structures on the Western edge of this neighborhood is higher.

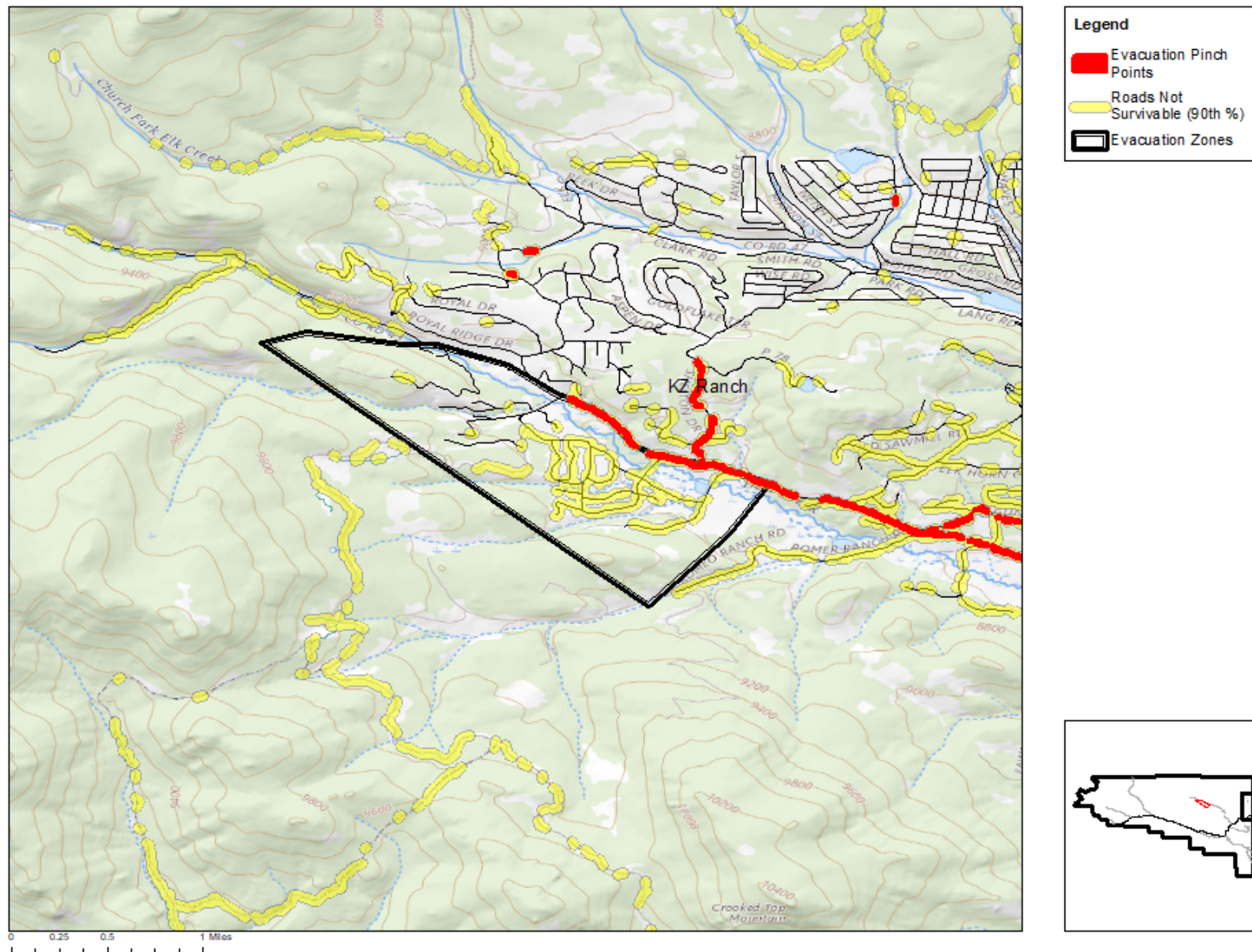
Shelter-in-place is possible in the meadow that follows County Road 43, but evacuation remains a concern for KZ Ranch due to distance out to US 285. Roadway survivability improvements become a priority for this neighborhood and would have huge impact in coordination with the defensible space that exists. Homes at greatest risk of ignition are on the Western edge need major Home Ignition Zone improvements to match the risk of the rest of the neighborhood.

**High Priority Implementation Project:** Thinning treatments along the Western border of this neighborhood, considering slope, should be a minimum distance of 300-feet wide. This treatment can connect to private lands treatments in the vicinity to protect KZ Ranch as well as the neighborhoods to the East.



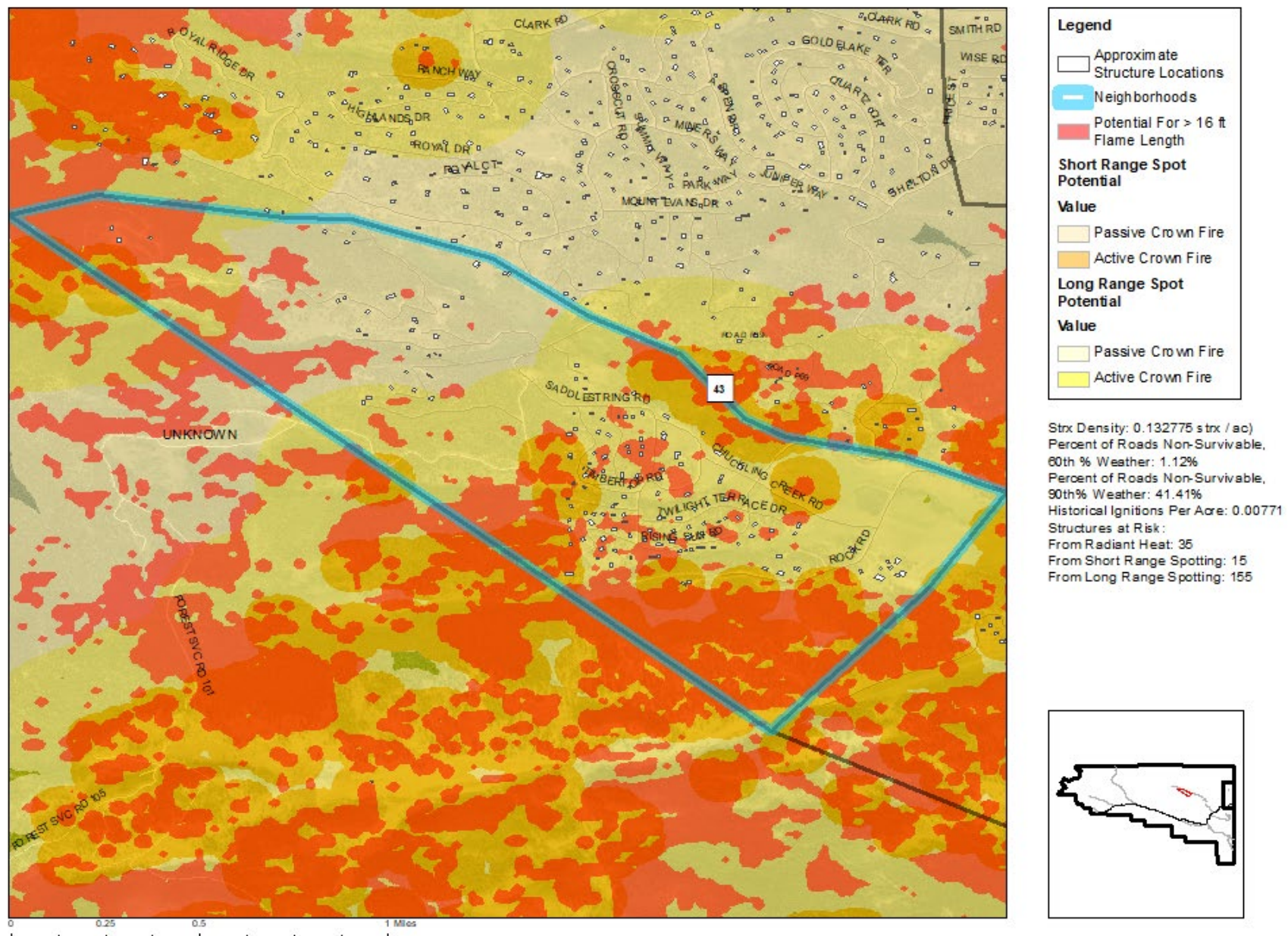


## Evacuation Zone: KZ Ranch - Rating: High





# Neighborhood: KZ Ranch - Rating: High





## Lost Acres

Neighborhood Risk Rating – High

Evacuation Risk Rating – Extreme



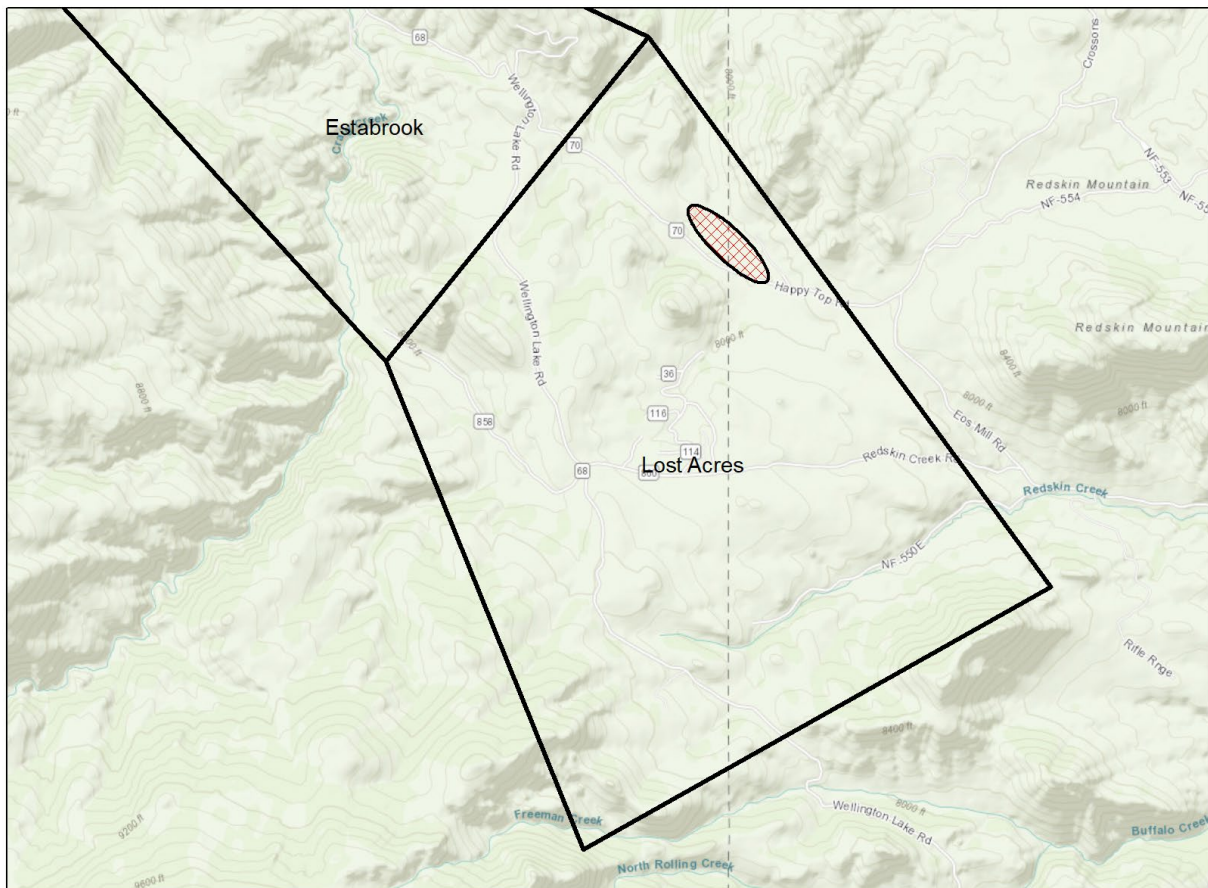
This neighborhood is smaller, on the furthest south edge of Platte Canyon Fire Protection District, with 27 total structures mapped. Homes are tucked into the forest with no obvious Home Ignition Zone improvements. The nearest shelter for these residents is the meadow near Happy Top Road, but this is only viable in a worst-case scenario and would not house the neighborhood. Evacuation out of this neighborhood entirely is preferred. There are not a lot of bright spots in this neighborhood for home survival as most housing material is quite flammable. Roads are extremely narrow, winding, and uneven. Within the neighborhood, streets and addresses are not marked well, and homes are stacked close together with no defensible space among the heavier timber. Evacuation will be difficult due to roadway condition, even though population and congestion is lower. The above photo is the best area with the least ladder fuel. Between Estabrook and Lost Acres is a roadway covered by heavy fuel that would not be survivable during a wildfire. The vegetation is an intermix of Ponderosa and Lodgepole pine. Major work needs to be done in this area if homes or trees are to survive a wildfire.

There is also a considerable concern for the livestock that is kept in the area and residents are encouraged to make strong evacuation plans that they enact on every red flag day. These factors give Lost Acres a Hazard Assessment value of 4.

Lost Acres has no areas of high evacuation congestion in an area of Non-Survivable Roadway. Most of the roadways, however, are not currently survivable under 90<sup>th</sup> percentile fire weather conditions. This area has extremely high radiant heat exposure and will be showered with embers during a wildfire. A robust combination of Home Ignition Zone improvement and wildland fuels reduction treatments are necessary to change the statistical risk of this neighborhood.

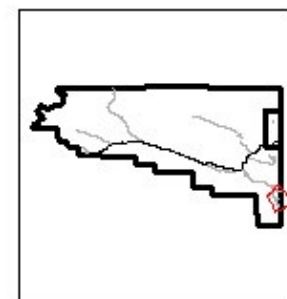
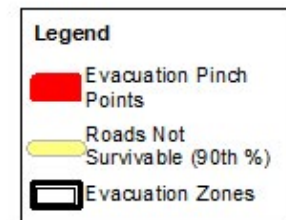
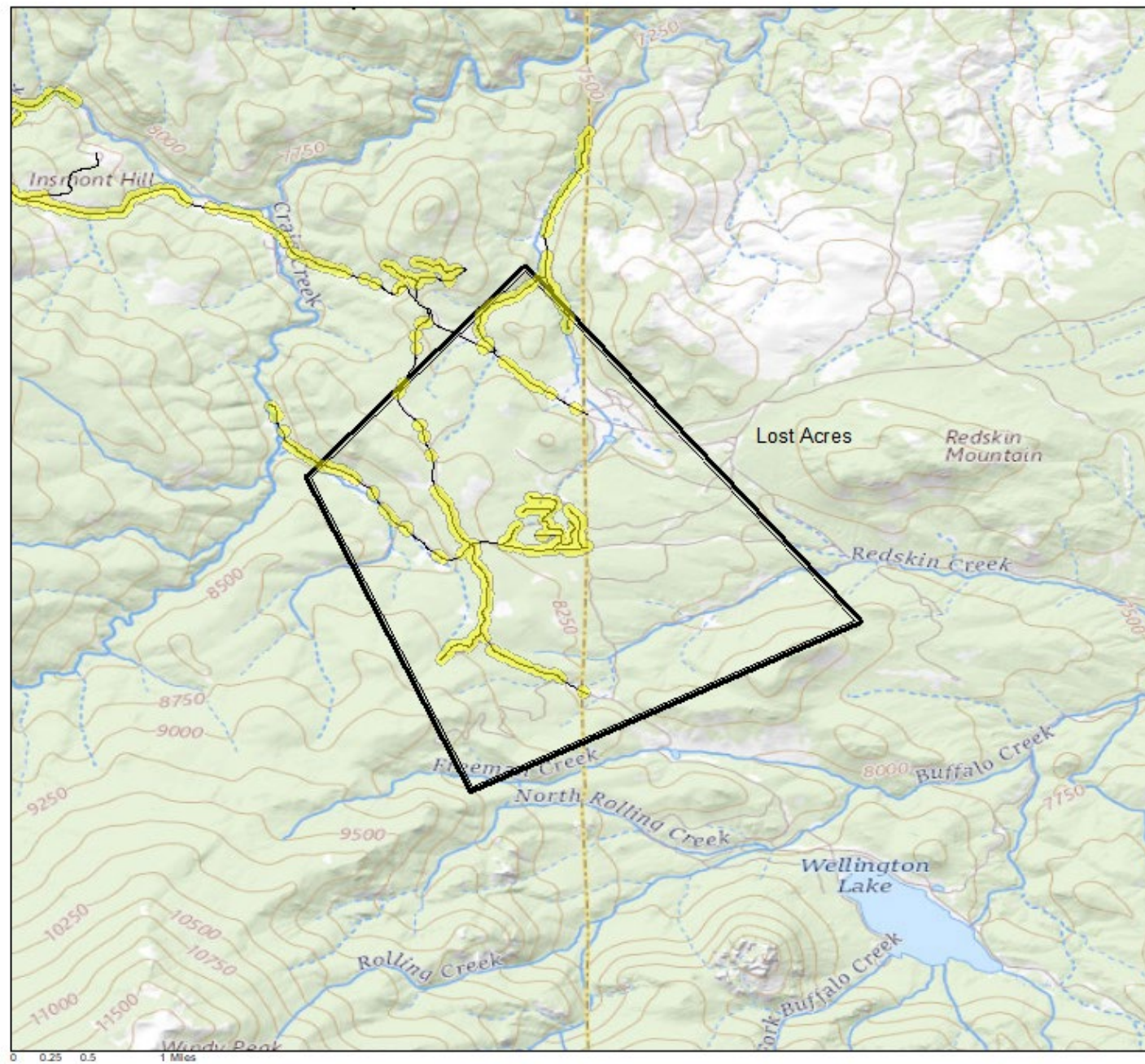
**High Priority Implementation Project:** Use Appendix 8 to improve Shelter-in-Place locations. Fuel loading in this neighborhood is extremely high and a shelter location needs to reflect this with sufficient size. Currently there is a meadow that could be anchored to and expanded, but an additional area close to population centers in Lost Acres would work too. Whatever the location, slope needs to be adequately considered for resident's protection.

Shelter-in-Place Proposed Location



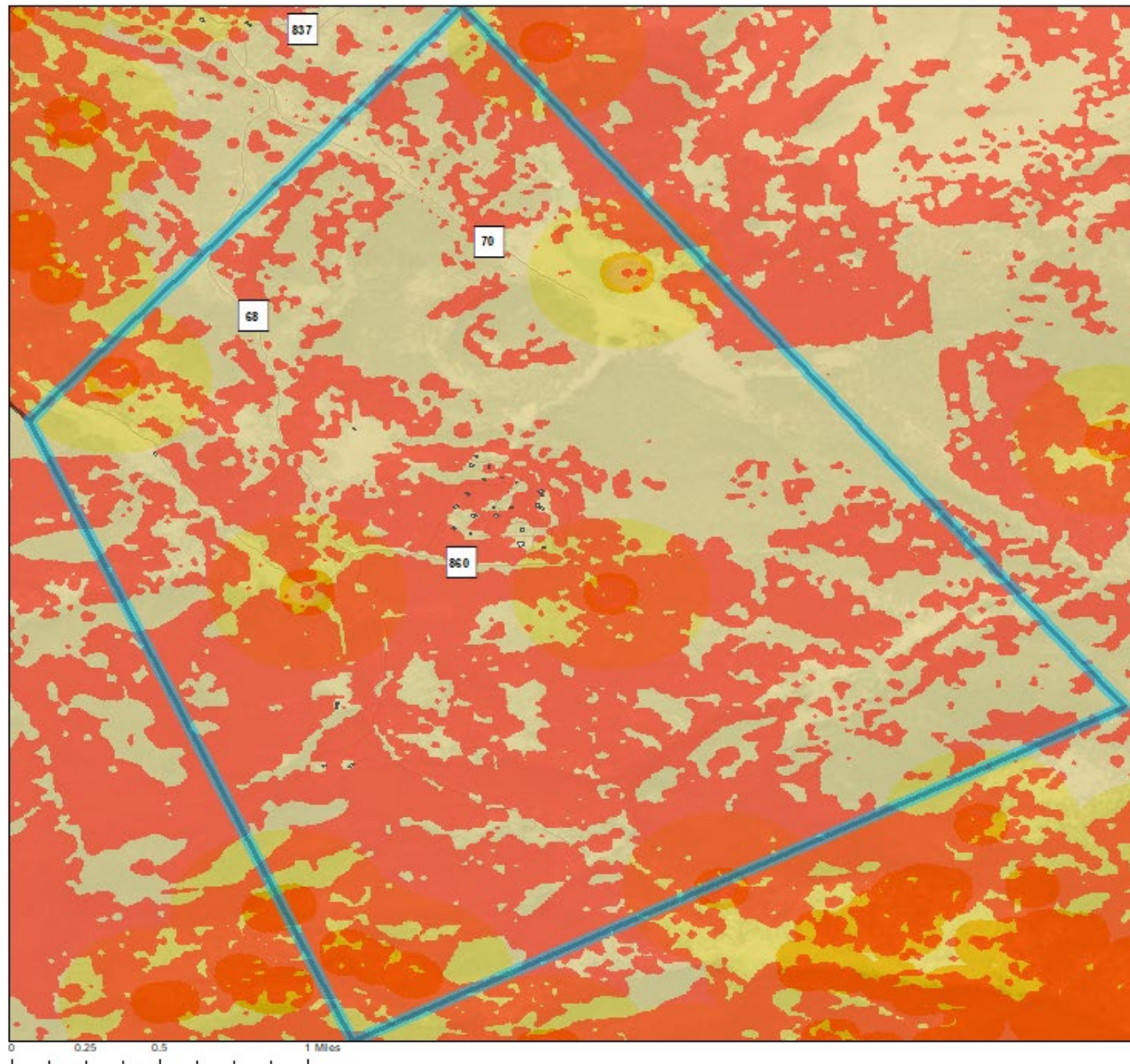


## Evacuation Zone: Lost Acres - Rating: Extreme

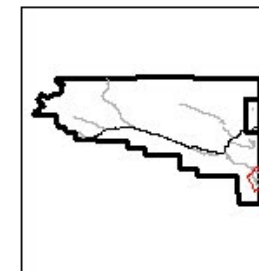




## Neighborhood: Lost Acres - Rating: High



Strx Density: 0.004914 strx / ac)  
Percent of Roads Non-Survivable,  
60th % Weather: 22.57%  
Percent of Roads Non-Survivable,  
90th % Weather: 44.77%  
Historical Ignitions Per Acre: 0.000364  
Structures at Risk:  
From Radiant Heat: 11  
From Short Range Spotting: 0  
From Long Range Spotting: 27



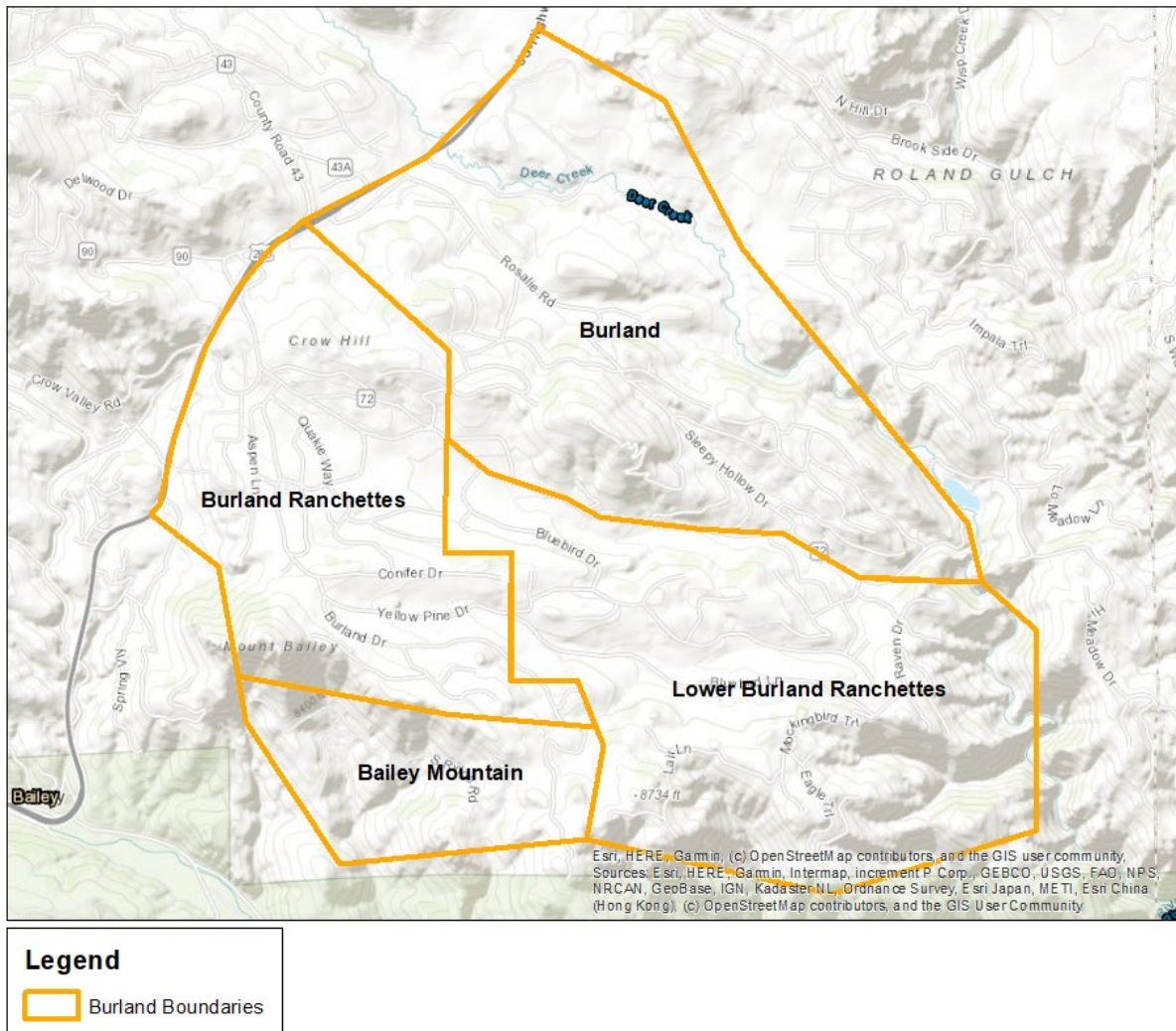


# Lower Burland Ranchettes

Neighborhood Risk Rating – Extreme

Evacuation Risk Rating – High

Overview of Burland



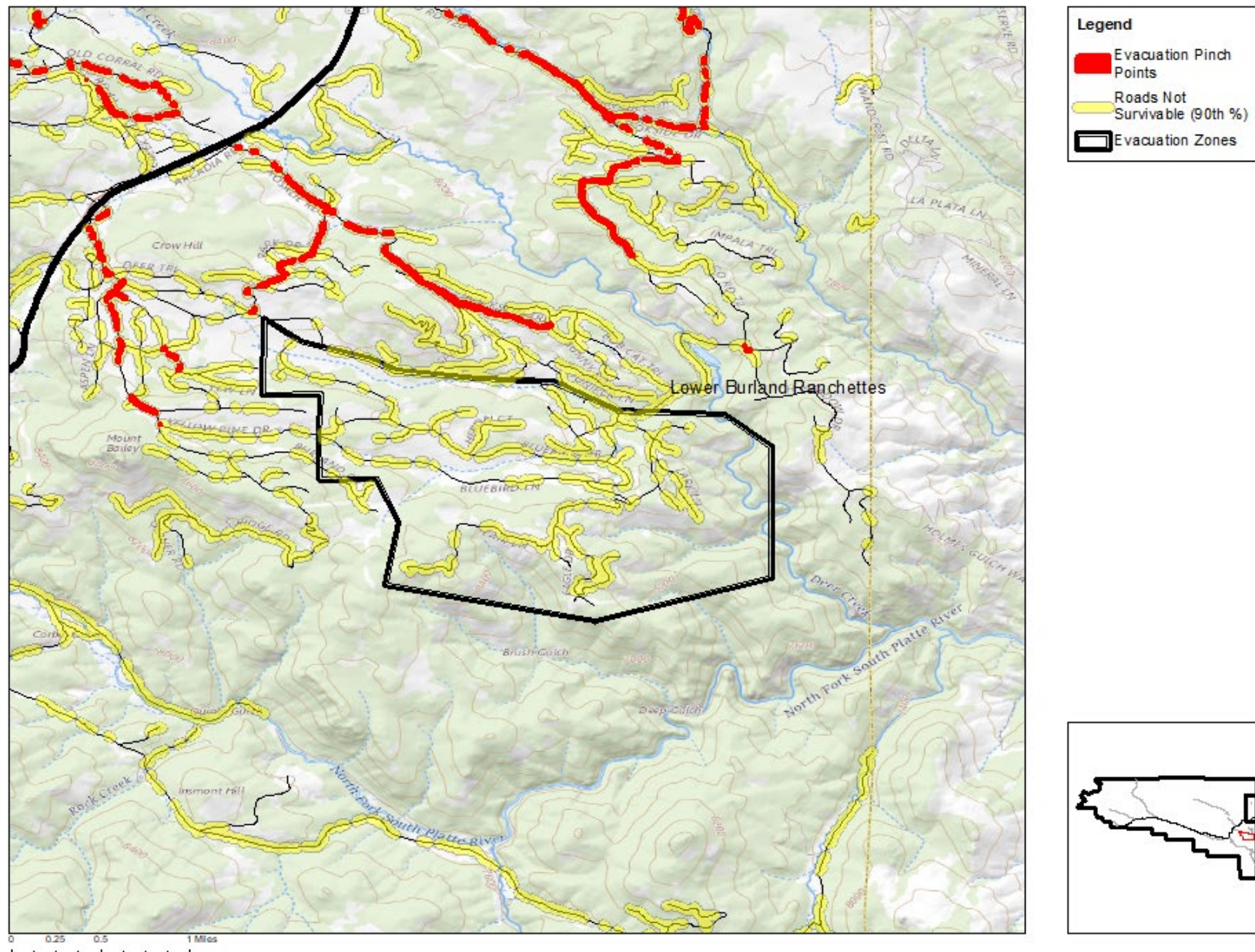
This community is just south of Burland, below County Road 72, with much steeper slopes and older housing stock. The only short, evacuation route out is through Rosalie Road with good road quality. Very few homes have obvious defensible space work and could improve visibility of addresses and street signs. Roofs appear in newer condition, but wooden fences, decks, and siding are apparent. Terrain is a major factor in this neighborhood and will make fire behavior and suppression quite difficult. Housing materials and distance to US 285 make this neighborhood's Hazard Assessment value a 4.

**High Priority Implementation Project:** Roadways and Home Ignition Zones need considerable work, but in the meantime, a Shelter-in-Place Treatment for this neighborhood alone is crucial. Appendix 8 will help land managers determine proper size accounting for slope and fuel load. The Southern portion of Lower Burland Ranchettes will take a long time to evacuate, and they need an emergency plan if evacuation does not go as planned.



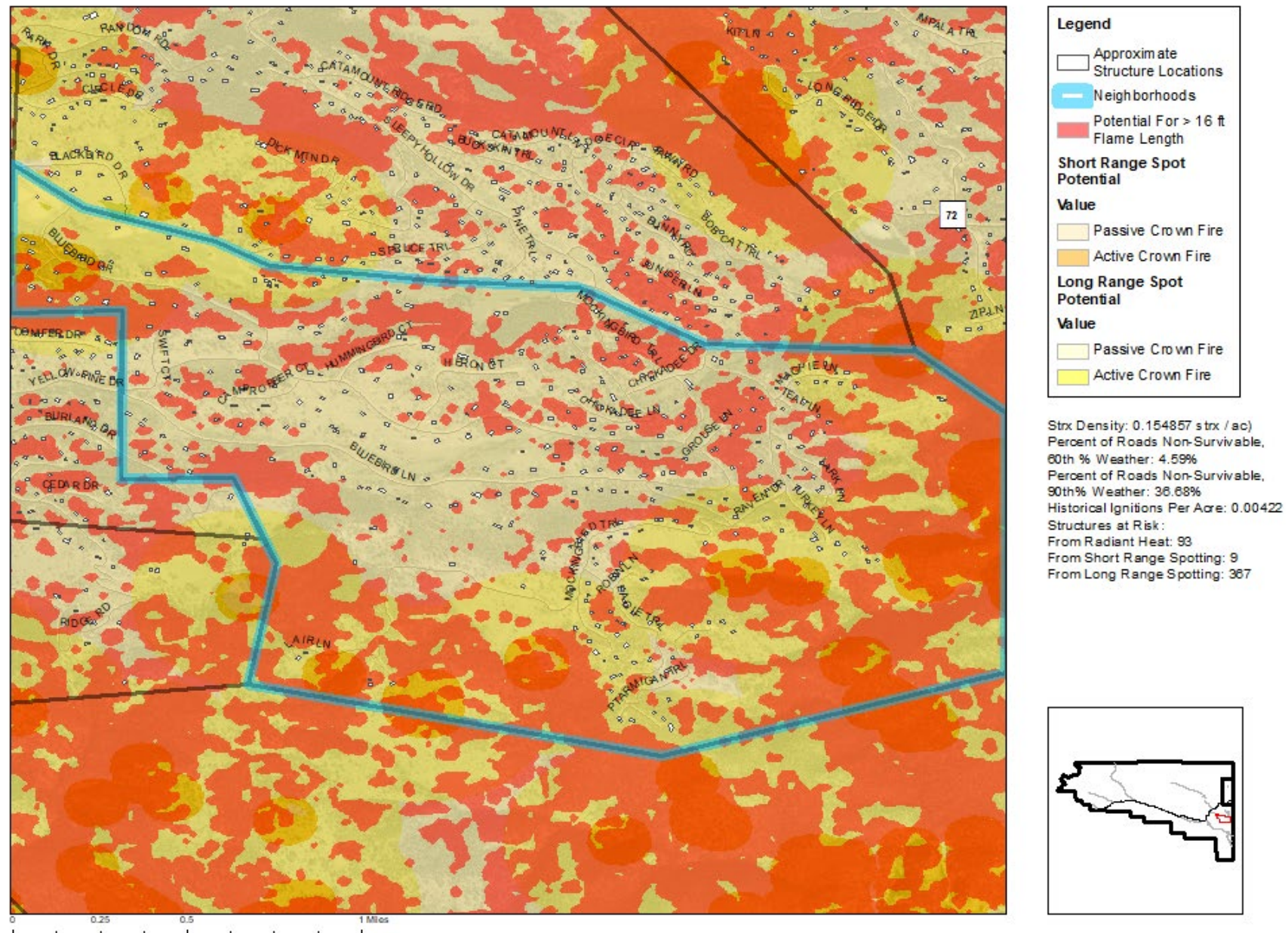


## Evacuation Zone: Lower Burland Ranchettes - Rating: High





# Neighborhood: Lower Burland Ranchettes - Rating: Extreme





# McKinley

Neighborhood Risk Rating – Moderate

Evacuation Risk Rating – Moderate

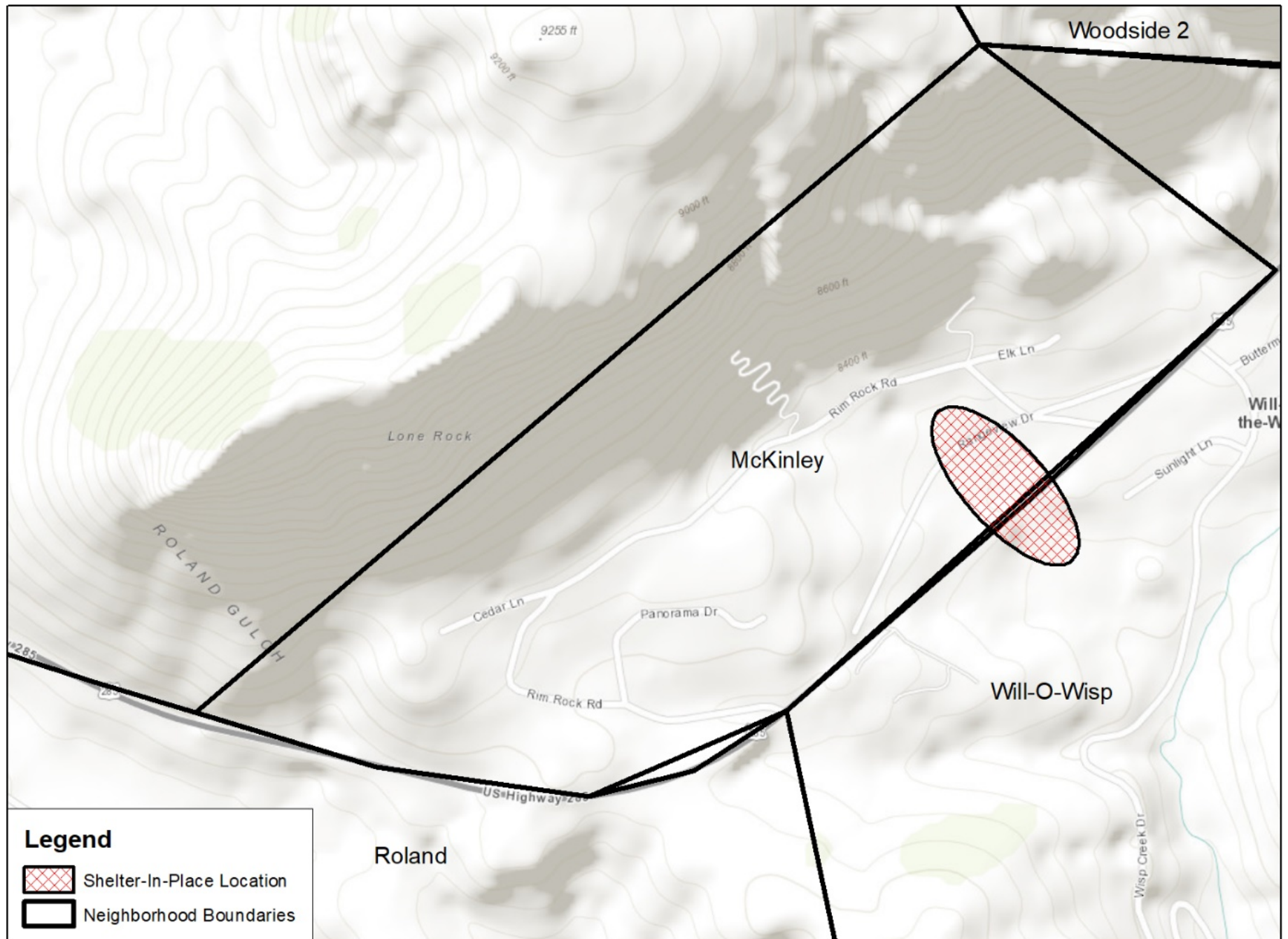


McKinley sits along 285 near the entrance to Platte Canyon Fire Protection District. Vegetation is less dense and with a little bit of thinning to create more space between trees, this community is sitting in a great place. Housing stock is from around 1970s and has decent conditions Class A roofs with some wooden outbuildings, fencing, and decks on or near homes. Egress in this community is great with multiple exit points. The Hazard Assessment value for this neighborhood is 1 as most homes here are in good condition.

There are 77 structures in McKinley. So few structures and roadways are at risk of intense fire behavior in this neighborhood, the main evacuation concern would be related to any traffic backup on US 285. Rates of spread in this grass dominated fuel type would be the main fire behavior factor to be aware of. Home Hardening practices will be very successful in this neighborhood, as Defensible Space is already present.

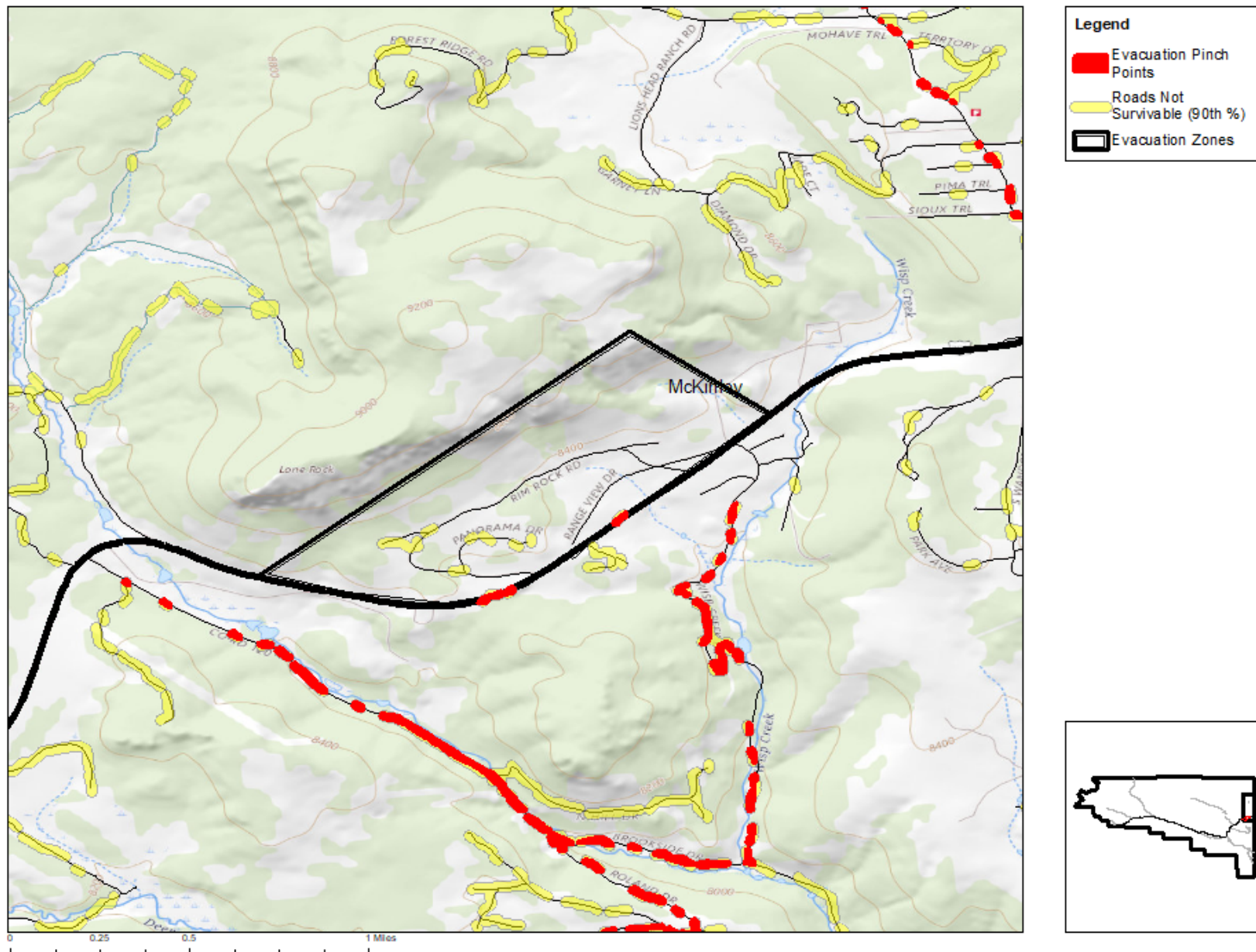
**High Priority Implementation Project:** The best treatment for McKinley would be to improve Shelter-In-Place locations so that residents from other communities could also shelter there. Any modifications should be made to specifications outlined in Appendix 8 and should account for slope.

## Shelter-in-Place Proposed Location





## Evacuation Zone: McKinley - Rating: Moderate



# Neighborhood: McKinley - Rating: Moderate

