

SHADOW MOUNTAIN RANCH

FIREWISE COMMUNITY ASSESSMENT



1. Introduction:

The Firewise USA program is designed to provide an effective management approach for preserving wildland living aesthetics. The program can be tailored for adoption by any community and/or neighborhood association that is committed to ensuring its citizens maximum protection from wildland fire. The following community assessment is intended as a resource to be used by the Shadow Mountain Ranch residents for creating a wildfire safety action plan. The plan developed from the information in this assessment should be implemented in a collaborative manner, and updated and modified as needed.

Shadow Mountain Ranch – Property Owners Association (SMR-POA) participants included; Lynnae Boyd, Cam McNair, and Bob Hunnes. Grand Fire Protection District 1 (GFPD) participants included Schelly Olson and Brad White. Colorado State Forest Service (CSFSS) participant Matt Schiltz.

2. Definition of the Home Ignition Zone:

Shadow Mountain Ranch is located in a wildfire environment. Wildfires will happen--exclusion is not a choice. The variables in a fire scenario are when the fire will occur, and where. This assessment addresses the wildfire-related characteristics of Shadow Mountain Ranch. It examines the area's exposure to wildfire as it relates to ignition potential. The assessment does not focus on specific homes, but examines the community as a whole.

A house burns because of its interrelationship with everything in its surrounding home ignition zone---the house and its immediate surroundings. To avoid a home ignition, a homeowner must eliminate the wildfire's potential relationship with his/her house. This can be accomplished by interrupting the natural path a fire takes. Changing a fire's path by clearing a home ignition zone is an easy-to-accomplish task that can result in avoiding home loss. To accomplish this, flammable items such as dead vegetation must be removed from the area immediately around the structure to prevent flames from contacting it. Also, reducing the volume of live vegetation will affect the intensity of the wildfire as it enters the home ignition zone.

Included in this assessment are observations made while visiting Shadow Mountain Ranch. The assessment addresses the ease with which home ignitions can occur under severe

wildfire conditions and how these ignitions might be avoided within the home ignition zones of affected residents. Shadow Mountain Ranch residents can reduce their risk of destruction during a wildfire by taking actions within their home ignition zones. This zone principally determines the potential for home ignitions during a wildland fire; it includes a house and its immediate surroundings within 100 to 150 feet.

Shadow Mountain Ranch residents must be conscious of keeping high-intensity fire more than 100 feet from their homes. It is important for them to avoid fire contact with their structures. This includes firebrands. The assessment team recommends the establishment of a 'fire free zone', allowing no fire to burn within ten feet of a house by removing fuels located there. It is a bad idea for fire to touch a house during a wildfire. Remember that, while wildfire cannot be eliminated from a property, it can be reduced in intensity.

Weather is, of course, of great concern during wildfire season. At such time as fire weather is severe, homeowners should remember not to leave flammable items outside. This includes rattan doormats, flammable patio furniture, firewood stacked next to the house, or other flammables.

The result of the assessment is that wildfire behavior will be dominated by the residential characteristics of this area. The good news is that by addressing community vulnerabilities, residents will be able to substantially reduce their exposure to loss. Relatively small investments of time and effort will reap great rewards in wildfire safety.

3. Description of (size and nature) the severe case wildland fire characteristics that could threaten the area:

Fire intensity and spread rate depend on the fuel type and condition (live/dead), the weather conditions prior and during ignition, and the topography. Generally the following relationships hold between the fire behavior and the fuel, weather and topography.

- Fine fuels ignite more easily and spread faster with higher intensities than coarser fuels. For a given fuel, the more there is and the more continuous it is, the faster the fire spreads and the higher the intensities. Fine fuels take a shorter time to burn out than coarser fuels.
- The weather conditions affect the moisture content of the dead and live vegetative fuels. Dead fine fuel moisture content is highly dependent on the relative humidity and the degree of sun exposure. The lower the relative humidity and the greater the sun exposure, the lower will be the fuel moisture content. Lower fuel moistures produce higher spread rates and fire intensities.
- Wind speed significantly influences the rate of fire spread and fire intensity. The higher the wind speed, the greater the spread rate and intensity.
- Topography influences fire behavior principally by the steepness of the slope. However, the configuration of the terrain such as narrow draws, saddles and so forth can influence fire spread and intensity. In general, the steeper the slope, the higher the uphill fire spread and intensity.

Fuels and Fire Behavior (215 CWPP):

Patchy fuels, large open areas of shrub and some dense lodgepole are the fuels in the community. There could be extreme fire behavior with the right weather conditions. Surface fire is more likely with individual tree torching and high rate of spread if wind is significant. Most of the lodgepoles are gray standing dead with no needles.

4. Site Description:

Include community size and age, bordering public lands (if any), vegetation types and condition, topography and any other pertinent information. Firewise Board and Fire Dept collaborate

SMR-POA is 25 years old most properties were built in the late 1990's. SMR-POA consists of 1,261.78 acres. There are 36 lots and 30 lot owners. There are 46 structures of which 30 are homes and 16 are garages/barns. This includes the Shadow Mountain Guest Ranch a commercial operation. 14 lots are 'valley' accessed via CO Hwy 125 or GCR 408. The SMR-POA maintains 2 private roads; 1.8 mile GCR 4081 on the east side off GRC408 which provides access to 9 lots including 4 homes and 3 out structures and 1 mile GCR 408W on the west side off CO Hwy 125 which provides access to 9 lots including 6 homes and 1 out structure. The east side of SMR-POA abuts BLM and USFS public lands. The west side of SMR-POA abuts BLM public land. Willow Creek, (a year round water course), passes through the 'Valley' properties between CO Hwy 125 and GCR 408. SMR-POA also has several adjacent private properties including C Lazy U Dude Ranch. SMR-POA and C Lazy U have a long standing cooperative relationship. See attached map.

5. Assessment Process:

The homeowners of SMR-POA contacted their Firewise liaison, which is the Granby District office of the Colorado State Forest Service, to set up a site visit with wildland/urban (WUI) specialist (CSFSS and GFPD) to assess the community. The site visit was conducted on August 10, 2016 with four community members, two fire department officials and a district forester. An Assessment and evaluation was completed for the Shadow Mountain Ranch Community Firewise Board to use to develop area-specific solutions to their WUI issues.

6. Important Considerations:

The Firewise USA program seeks to create a sustainable balance that will allow communities to live safely while maintaining environmental harmony in a WUI setting. Homeowners already balance their decisions about fire protection measures against their desire for certain flammable components on their properties. It is important for them to understand the implications of the choices they are making. These choices directly relate to the ignitability of their home ignition zones during a wildfire.

This community, with a “Moderate” Hazard Rating has 30 property owners, a total of 36 lots covering 1,260 acres, and 20 structures (homes). The SMR-POA is the homeowners association that supports the residents, enforces the covenants, and maintains common area properties (primarily two private roads). Responsibilities include road maintenance and repairs, snow plowing, and maintenance of the three security gates.

Recommendations:

- Enhance, maintain (and on steep slopes) increase defensible space around existing structures (remove junipers)
 - 70% or more of the homes had adequate d-space. This needs to be maintained. Other homes need some more work thinning vegetation and removing hazardous fuels downslopes from structures.
- Fuels reduction (remove slash piles, standing dead trees, and junipers)
 - Property owners have cut dead trees, but there are still some slash piles contributing to the fuel load. Remove hazard trees along the roadway.
 - Develop alternate water supplies for the community (cisterns)

7. Observations and Recommendations:

Itemize observations made during data-gathering phase. Explain and support with photographs. Firewise Board and Fire Dept collaborate

Recommendations	Timeline	Comments
<ul style="list-style-type: none"> • Enhance, maintain (and on steep slopes) increase defensible space around existing structures (remove junipers) 	Review with property owners Annually	<i>70% or more of the homes had adequate d-space. This needs to be maintained. Other homes need some more work thinning vegetation and removing hazardous fuels downslope from structures.</i>
<ul style="list-style-type: none"> • Fuels reduction (remove slash piles, standing dead trees, and junipers) 	Review with property owners Annually	<i>Property owners have cut dead trees, but there are still some slash piles contributing to the fuel load.</i>
<ul style="list-style-type: none"> • Evaluate HOA covenants to align with Community Wildfire Protection Plans 	Board will review and make recommendation on Policy September 2018	<i>Are there regulations regarding dead vegetation? Slash piles? Burning?</i>
<ul style="list-style-type: none"> • Develop additional water sources (install 30,000 gallon cistern or dry hydrants in at existing water sources) 	Explore coordination with C Lazy U. Explore SMR-POA investment in Willow Creek dry pump. July 2019	<i>Due to long turn around times from hydranted sources, alternate water fill sites for fire suppression should be investigated and developed. Sites can be in the subdivision or by agreement with neighboring ranches / properties.</i>

<ul style="list-style-type: none"> Engage in communications with C Lazy U Ranch and Homesteads, as well as BLM and USFS 	<p>Explore coordination with C Lazy U. BLM conducted logging operation on west side in 2016. September 2018</p>	<p><i>Regarding hazardous trees along roadways, slash piles, water sources, emergency egress, road maintenance and development, cooperative efforts, etc.</i></p>
<ul style="list-style-type: none"> Motivate and educate home and property owners (GFPD to provide materials) 	<p>Conduct annual update and education at SMR-POA Annual meeting. Ongoing</p>	<p><i>This is an ongoing process. Maintain a Firewise Day annually (this can be the annual POA meeting) to track progress of Firewise Plan.</i></p>
<ul style="list-style-type: none"> Troubleshoot gate access that includes the “siren-operated sensor” that allows emergency vehicles to sound sirens to open gates in emergencies 	<p>Conduct Annual testing. Coordinate with GFPD.</p>	<p><i>This will assist responding agencies when accessing the area.</i></p>
<ul style="list-style-type: none"> Add “9-1-1” emergency gate code or Knox Box to all private gates as well 	<p>#0911 emergency code added in Aug 2017</p>	<p><i>This will assist responding agencies when accessing the area.</i></p>
<ul style="list-style-type: none"> Coordinate with residents and adjacent landowners to remove standing and downed beetle kill trees 	<p>Contacting owners individually reference CO Forest Service Grant Program July 2018</p>	<p><i>Stands of beetle kill trees can contribute to heavy fuel loads, hinder fire suppression efforts and falling trees can create safety hazards.</i></p>

Adjacent properties conducted Fire Mitigation Winter of 2018 in coordination with the CSFSS Fire Mitigation Grant



SMR-POA is currently in communications with CSFSS to explore participation in the Fire Mitigation Grant Program encouraging SMR-POA property owners to participate.

8. Successful Firewise Modifications:

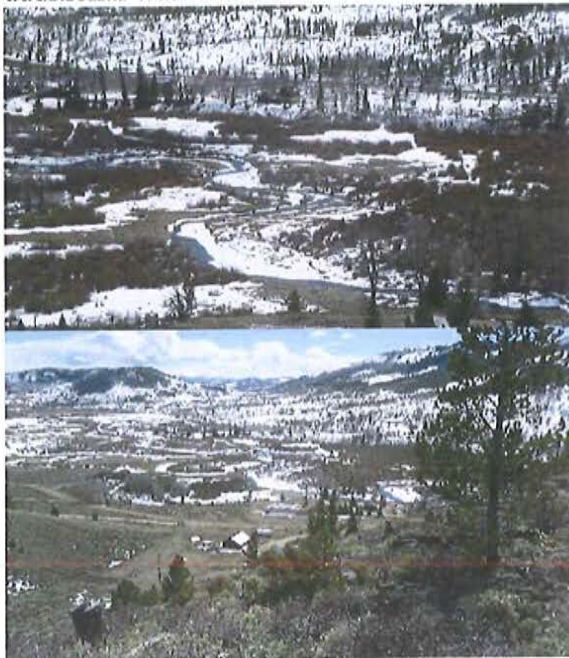
When adequately prepared, a house can likely withstand a wildfire without the intervention of the fire service. Further, a house and its surrounding community can be both Firewise and compatible with the area's ecosystem. The Firewise USA program is designed to enable communities to achieve a high level of protection against WUI fire loss even as a sustainable ecosystem balance is maintained.

A homeowner/community must focus attention on the home ignition zone and eliminate the fire's potential relationship with the house. This can be accomplished by disconnecting the house from high and/or low-intensity fire that could occur around it. The following photographs were taken in Shadow Mountain Ranch and are examples of good Firewise practices.

SMR-POA property owners have installed both property address signs in addition to signs identifying the SMR-POA private roads. SMR-POA property owners are encouraged to register and participate in the CodeRED Program.

Valley SMR-POA – Accessed via CO Hwy 125 and Grand County Road (GCR) 408

Valley SMR-POA owners have conducted fire mitigation and are exploring possible additional water sources.



East SMR-POA Privat Road – GCR 4081

East SMR-POA have installed road and address signs as well as a siren-operated sensor and a “9-1-1” emergency gate code. Property owners who own their own gate are encouraged to add ‘9-1-1’ emergency gate codes.



West SMR-POA Private Road -GCR 408W



9. Next Steps:

After reviewing the contents of this assessment and its recommendations, the Shadow Mountain Ranch Firewise Board in cooperation with Grand Fire Protection District No. 1 will determine whether or not it wishes to continue seeking Firewise USA recognition. The Firewise USA representative will contact the Firewise Board representative by September 15, 2018 to receive its decision.

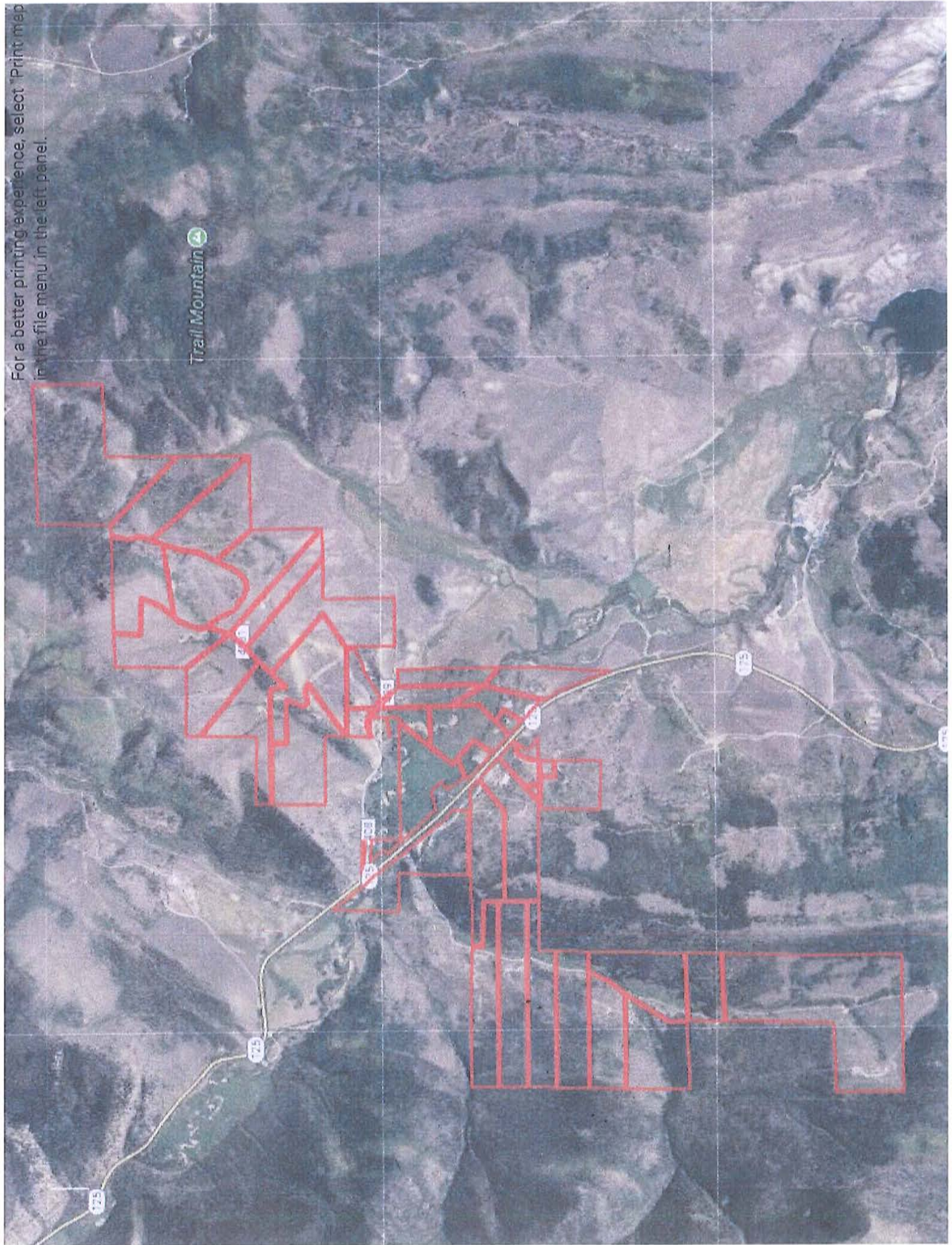
If the site assessment and recommendations are accepted and recognition will be sought, the Shadow Mountain Ranch Firewise Board will create agreed-upon, area-specific solutions to the Firewise recommendations and create an action plan in cooperation with Grand Fire Protection District No. 1.

Assuming the Shadow Mountain Ranch seeks to achieve national Firewise USA recognition status, it will integrate the following standards into its plan of action:

- Invest the equivalent of one volunteer hour per dwelling unit (30 dwellings x \$24.69 = \$740.70)
- Observe a Firewise USA Day each spring that is dedicated to a local Firewise project.
- Create a local Firewise board, task force, committee, or representative that maintains the Firewise Community program and status.
- Submit an annual report to Firewise USA. This report documents continuing participation in the program.

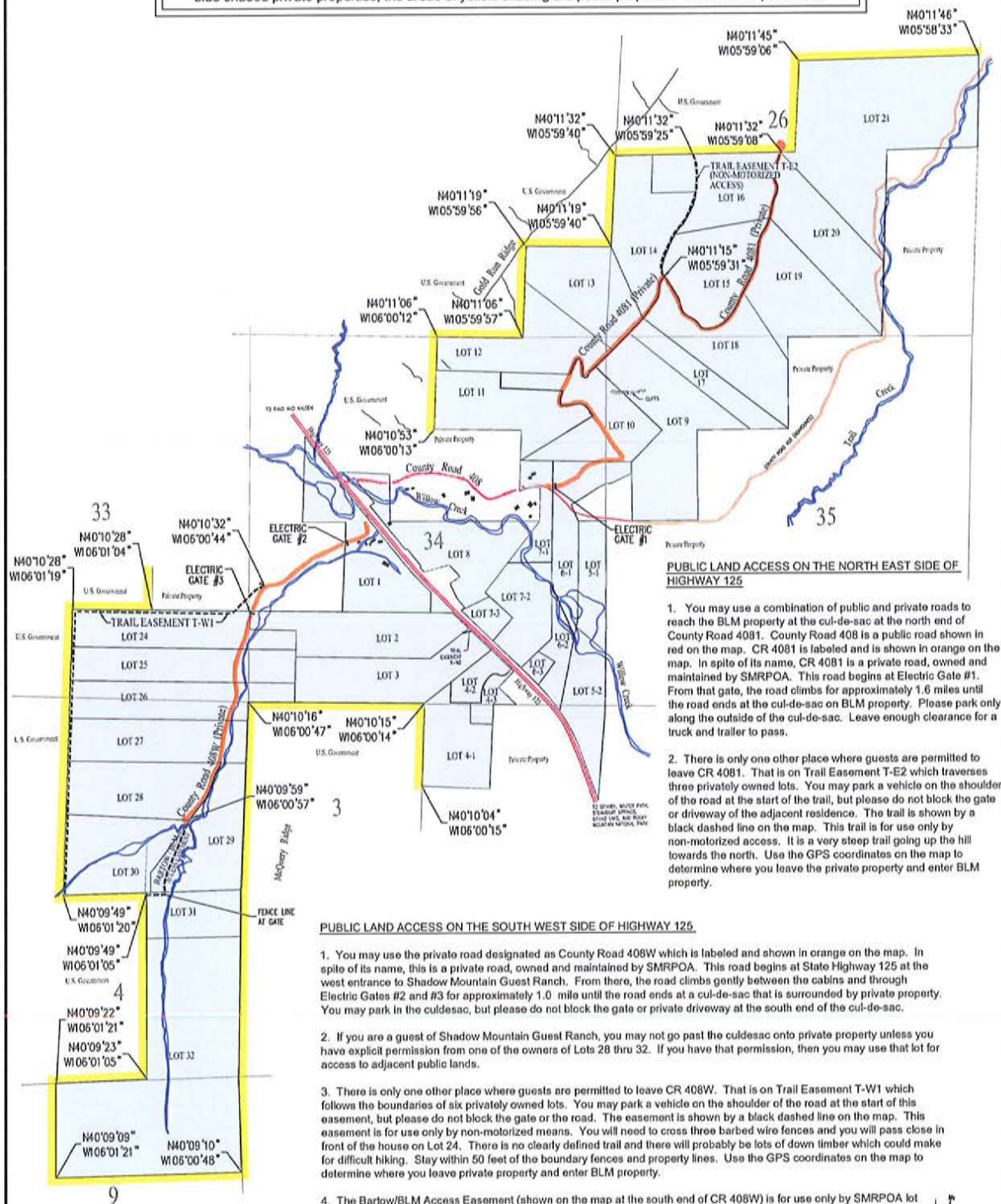
For a better printing experience, select 'Print map' in the file menu in the left panel.

Trail Mountain



GENERAL ACCESS INFORMATION

This map is to assist Shadow Mountain Ranch property owners and guests to gain recreational access to adjacent public lands (BLM and Arapaho National Forest). Property Owners and guests are welcome to use the SMRPOA private roads (CR 4081 and CR 408W) for vehicular access; and to use the Trail Easements (T-E2 and T-W1) for hiking, bicycling, horseback riding, cross-country skiing, hunting access, fishing access, and other recreational purposes. Properties in blue shading are private properties owned by members of the Shadow Mountain Ranch Property Owners Association (SMRPOA). Trespassing or shooting onto or across any of those blue properties is strictly prohibited unless you have specific permission from the property owner. Outside of the blue shaded private properties, the areas of yellow shading are public properties available for public use.



PUBLIC LAND ACCESS ON THE NORTH EAST SIDE OF HIGHWAY 125

1. You may use a combination of public and private roads to reach the BLM property at the cul-de-sac at the north end of County Road 4081. County Road 4081 is a public road shown in red on the map. CR 4081 is labeled and is shown in orange on the map. In spite of its name, CR 4081 is a private road, owned and maintained by SMRPOA. This road begins at Electric Gate #1. From that gate, the road climbs for approximately 1.6 miles until the road ends at the cul-de-sac on BLM property. Please park only along the outside of the cul-de-sac. Leave enough clearance for a truck and trailer to pass.
2. There is only one other place where guests are permitted to leave CR 4081. That is on Trail Easement T-E2 which traverses three privately owned lots. You may park a vehicle on the shoulder of the road at the start of the trail, but please do not block the gate or driveway of the adjacent residence. The trail is shown by a black dashed line on the map. This trail is for use only by non-motorized access. It is a very steep trail going up the hill towards the north. Use the GPS coordinates on the map to determine where you leave the private property and enter BLM property.

PUBLIC LAND ACCESS ON THE SOUTH WEST SIDE OF HIGHWAY 125

1. You may use the private road designated as County Road 408W which is labeled and shown in orange on the map. In spite of its name, this is a private road, owned and maintained by SMRPOA. This road begins at State Highway 125 at the west entrance to Shadow Mountain Guest Ranch. From there, the road climbs gently between the cabins and through Electric Gates #2 and #3 for approximately 1.0 mile until the road ends at a cul-de-sac that is surrounded by private property. You may park in the culdesac, but please do not block the gate or private driveway at the south end of the cul-de-sac.
2. If you are a guest of Shadow Mountain Guest Ranch, you may not go past the culdesac onto private property unless you have explicit permission from one of the owners of Lots 28 thru 32. If you have that permission, then you may use that lot for access to adjacent public lands.
3. There is only one other place where guests are permitted to leave CR 408W. That is on Trail Easement T-W1 which follows the boundaries of six privately owned lots. You may park a vehicle on the shoulder of the road at the start of this easement, but please do not block the gate or the road. The easement is shown by a black dashed line on the map. This easement is for use only by non-motorized means. You will need to cross three barbed wire fences and you will pass close in front of the house on Lot 24. There is no clearly defined trail and there will probably be lots of down timber which could make for difficult hiking. Stay within 50 feet of the boundary fences and property lines. Use the GPS coordinates on the map to determine where you leave private property and enter BLM property.
4. The Barlow/BLM Access Easement (shown on the map at the south end of CR 408W) is for use only by SMRPOA lot owners and their family members or private guests who are accompanied by the lot owner. This easement is not for commercial use or use by paying guests.

Prepared by:



REPRESENTATIONAL MAP

The features indicated on this representational map are based on aerial photographs, blueprints, U.S.G.S. topographical maps, and xerographically reduced or enlarged documents. The location of property lines, roads, trails, and waterways are subject to these limitations and are therefore approximate.

This map is not a legal survey and is intended for representational purposes only. Verification of the physical features indicated on this map shall be the responsibility of each user of this map. For additional copies of this map, contact the SMRPOA at the address to the right.

PUBLIC LAND ACCESS THROUGH LAND IN SHADOW MOUNTAIN RANCH PROPERTY OWNERS ASSOCIATION, INC.

P.O. Box 437
GRAND, CO. 80446

