

- Harriman HeightsFire District 10Harriman Retreat

 - Remount Pines
 - Seahorse Estates
 - Willadsen Estates



View of Harriman Heights from the west with pond

Community Description: The 22-home Harriman Heights community is located in a forest and grassland ecosystem. Fuel Models are GR2-Dry Climate Grass, TL4-Small Downed Logs, and TL8-Long-Needle Litter. There are 22 lots in the 197-acre community and lot sizes range from 2.5 to 20.4 acres, with the mean size being 6.7 acres. The subdivision is split by the Colorado/Wyoming state line. Eighteen of the residences are in Laramie County and four residences are in Larimer County, Colorado. Vegetation in the area consists of ponderosa pine, mountain shrubs and grass. The homes have been built within the past 25 years.

Siding on the homes is wood, log, or wood product with a few brick façades. Roofing material is asphalt or metal; there were no cedar shakes observed.

Roads and Access: Roads in the community are single-lane to 1.5 lanes, no turnouts, and native surface. The roads are county roads, but the level of county maintenance is unknown. Grades as steep as 10% were found, with fair to poor alignment for large trucks or semi-trailers. There is only one access point to Harriman Road (CR 102).

The North Branch of Boxelder Creek is a large open grassland area with two ponds located in the southern part of the subdivision, and could serve as a safety area.

Wildfire Risk: The most likely fire starts would come from a house fire, lightning, or wildfire moving into the subdivision. Spread of the fire would be governed primarily by topography, followed by wind speed and direction. Grass would the primary carrier of wildfire in most of the subdivision, therefore wildfires would likely be fast-moving, moderate to high intensity with relatively short duration. Fire



Home at top of hill with surrounding trees

behavior is further complicated by complex topography.

Although a number of homeowners have taken steps to reduce wildfire risk around their properties, some homes have continuous fuels, primarily trees and shrubs, within 30 feet of the structure (Defensible Space Zones 1 and 2), where fire could be problematic due to radiant heat.

Fire Suppression Challenges: Good access is key to any sort of safe and effective emergency response. In the case of Harriman Heights, the location, width, alignment and grade of some of the roads all provide challenges for firefighters but also threaten the safety of homeowners. In addition, there were several other factors noted including:

- Not all homes have reflective address signs (lot #'s)
- A large component of standing dead and downed woody fuels on some lots
- The live conifers have a low crown base height
- There are home located at the tops of chutes
- No hydrants
- Long response times and minimal resources for initial attack, and
- Split jurisdiction between Wyoming and Colorado

Several ponds in and adjoining the subdivision could serve as a water sources for firefighters.

Plan of Action: There are several actions that address the concerns listed above that could be turned into action items including:

- Work with County Emergency Management and the local Fire District to maintain and enhance the community Firewise program.
- Continue the program to install reflective lot number signs at all residences to help firefighters and emergency responders locate them.
- Sign the loop road routes and the no-outlet roads to assist first responders and residents moving into or out of the subdivision in an emergency situation.
- On roads with less than 20 foot-wide running surfaces, develop turnouts at 1000 foot intervals to allow emergency or evacuating vehicles to pass safely.
- Develop 90-foot diameter turnarounds on the ends of no-outlet roads.
- Develop shaded fuelbreaks around the forested portions of the subdivision boundaries.
- Thin overstocked stands to a crown spacing of 10 to 12 feet and remove large (3 inch + diameter) downed dead wood within forested areas.
- Prune conifers up 8-10 feet in Zones 1 and 2 around structures and replace flammable vegetation within 5 feet of structures with fire-resistant vegetation and/or non-flammable mulches.
- Mow 100 feet wide or to lot boundary around homes in grassland areas.

Community Description: The 236-acre Harriman Retreat is located in a forest and grassland ecosystem south of Interstate 80. It is accessed from County Road 102. There are four structures and a chapel located on the retreat compound. Vegetation in the area consists of ponderosa pine, mountain shrubs and grass with aspen and willows in the moist bottoms. Fuel Models are GR2 — Dry Climate Grass, GS2 — Dry Climate Moderate Load Grass-Shrub, and TL8 — Long-Needle Litter. Structure siding consists of logs or wood, except



for the chapel which is stucco and rock. Roofing materials are metal.

Roads and Access: Roads in the community are native surface. Grades were five percent or less, with good alignment for large trucks. Road width is generally single lane with drained prisms. There is one signed access point to County Road 102 for the retreat.

Wildfire Risk: The most likely fire starts would come from a structure fire, lightning, or wildfire moving into the area. Spread of the fire would be governed primarily by topography, followed by wind speed and direction. Grass would the primary carrier of wildfire in most of the Retreat; therefore, wildfires would likely be fast moving, moderate to high intensity with relatively short duration.

The Retreat has several wells for domestic water use and has a specific-purpose fire suppression water source and hose shed.



There is a private pond in the south part of the retreat property, which could serve as a water source for firefighters.

Trees within 30 feet of the retreat structures have been pruned and thinning has been done in some of the ponderosa pine stands surrounding the retreat and chapel compound. Slash piles

from the thinning were still there in the summer of 2015, compromising the effectiveness of the thinning work.

The large meadows surrounding the retreat could serve as safety areas if needed. Mowing the meadows during fire seasons would increase their utility as safety zones.

Fire Suppression Challenges:

- A component of standing dead and down woody fuels
- The live conifers in the retreat compound have low crown base heights
- Long response times for volunteer firefighters and minimal resources for initial attack



Shed for Fire Hose

Plan of Action: There are several actions that address the concerns listed above that could be turned into action items including:

- Remove remaining slash piles by chipping or burning.
- Develop access and a drafting pad at pond for fire apparatus.

Community Description: The Remount Pines community is located in a forest and grassland ecosystem south of Interstate 80. It is accessed from County Roads 103 and 206. There are five lots in the community and lot sizes range from 1.1 – 106.4 acres, with the mean size being 24.5 acres. There are two residences currently. Vegetation in the area consists of ponderosa pine, mountain shrubs and grass with aspen and willows in the moist bottoms. Fuel Models are GR2 – Dry Climate Grass, GS2 – Dry Climate Moderate Load Grass-



Shrub, TL4 – Small Downed Logs, and TL8 – Long-Needle Litter. Residential siding consists of logs or wood product. Roofing materials are asphalt shingles or metal.

Roads and Access: Roads in the community are native surface. Grades were five percent or less, with poor alignment for large trucks or semi-trailers. Road width varies, with 1.5 lane roads with drained prisms originally constructed, but most roads have received limited maintenance over the past few years. Cul d' sacs have limited to no turnaround area. There are two access

points to County Road 206 from the community as well as access from the Remount Ranch Lodge. One of the County Road 206 access points (accessing Pine Road) has a wire fence gate which is usually closed.

Wildfire Risk: The most likely fire starts would come from a house fire, lightning, or wildfire moving into the subdivision. Spread of the fire would be governed primarily by topography, followed by wind speed and direction. Grass would the primary carrier of wildfire in most of the subdivision; therefore, wildfires would likely be fast moving, moderate to high intensity with relatively short



Remount Pines Landscape

duration. Fire behavior would be further complicated by steep and complex topography.

One home has a wood deck and continuous fuels, primarily trees and shrubs, within 30 feet of the structure (Defensible Space Zones 1 and 2), where fire could be problematic due to ember showers and radiant heat.

Several large meadow areas are scattered throughout the subdivision, some of which could serve as safety areas if needed.

Fire Suppression Challenges: Good access is key to any sort of safe and effective emergency response. In the case of Remount Pines, the location, width, alignment and grade of the roads all provide challenges for firefighters and also threaten the safety of homeowners. In addition, there were several other factors noted including:

- No reflective address signs (lot #'s)
- A component of standing dead and down woody fuels
- The live conifers have a low crown base height
- No hydrants or additional water storage, and
- Long response times and minimal resources for initial attack

There is a private pond in the north part of the subdivision that could serve as a water source for firefighters.

Plan of Action: There are several actions that address the concerns listed above that could be turned into action items including:

- Develop shaded fuelbreaks around the forested portions of the subdivision boundaries.
- Encourage residents to install reflective lot number signs at driveways to help emergency responders and firefighters locate them.
- Thin overstocked stands to no more than 75 trees per acre with 10-12 foot crown spacing; prune conifers up 8 to 10 feet in zones 1 and 2 around residences.
- Mow 100 feet wide around homes in grassland areas.
- Develop water storage/use capabilities in several locations in subdivision.
- Sign the loop roads and evacuation routes to assist first responders and residents with moving into or out of the subdivision in an emergency situation.
- Develop 90-foot diameter turnarounds on the ends of no-outlet roads and cul d' sacs.

Community Description: The Seahorse Estate community is located within a grassland ecosystem. Fuel Types are GR2 and GR4 – Declarates There is only one home in

the subdivision, built within the past 10 years. Lot size is 26.1 acres. The home is wood-sided with a concrete gardenlevel basement and an asphalt shingle roof. There is a mowed lawn to the south side of the residence. Alpacas graze the pasture adjoining the northern side of the residence. There outbuildings are two of wood construction to the west side of the access driveway. A communications tower is located in the southeast corner of the property. Duck Creek flows across the northern corner of the property.



Roads and Access: The subdivision has

one access point from Harriman Road (CR 102) and the access drive is a single-lane graveled driveway up to the residence. Grades are 0 to 5%. All roads are accessible by a Type 3 engine.

Wildfire Risk: Due to the lack of tree and shrub vegetation in the area, a house or chimney fire is the most likely ignition source. There is also the possibility of a grassland fire moving into the subdivision.

With the home being newer, roofs and siding construction materials are fairly fire resistant. There was only minimal vegetation within Zone 1.

Keeping grasses mowed or grazed, especially as they dry out, can help provide fuel breaks around the home. The home will provide a safe structure to shelter in place should there be a fast-moving grass fire in the area.

Fire Suppression Challenges: There are several challenges to fighting a fire in this community including:

- Response time from the closest fire station
- Lack of hydrants or central water supply
- Grass fires generally move very rapidly
- Lack of reflective address signage

Plan of Action:

- Encourage residents to put up reflective address signing to help firefighters or emergency responders locate them.
- Mow 100 feet space around residence and outbuildings during fire season.
- Develop water supply for firefighting use (cistern, dedicated well, draft pond on Duck Creek, etc.).
- Work with the communications tower lessee to maintain a mowed 100-foot wide area around the tower site.



Community Description: The Willadsen Estates community is located within a grassland ecosystem with mountain shrubs adjoining the subdivision on the northwest side. Fuel Model is GR2-Dry Climate Grass. There are homes on 17 of its 38 lots, all of which have been built within the past 10 years. Lots range in size from 3.8 - 15.4 acres with a mean size of 9.5 acres. Homes are wood-sided with brick facades and all roofs have asphalt shingles. Most homes have irrigated and mowed lawns. There were no livestock present.

Roads and Access: The subdivision has two access points from County Road 102 and the roads within the subdivision are all 2-lane with good alignment. Road shoulders have been mowed out 10 feet from road surface. All roads are accessible by a Type 1 engine.

Wildfire Risk: Due to the lack of sizeable vegetation in the area, a house or chimney fire is the most likely ignition source. There is also the possibility of a grassland fire moving into the subdivision.



With homes being newer, roofs and siding construction materials are fire resistant. There was only minimal vegetation within Zone 1, though some homes did have flammable materials stored within Zone 1.

Keeping grasses mowed, especially as they dry out, can help provide fuel breaks around the homes. Individual homes will provide safe structures to shelter in place should there be a fast-moving grass fire in the area.

Fire Suppression Challenges: There are several challenges to fighting a fire in this community including:

- Response time from the closest fire station,
- Lack of hydrants or central water supply,
- Grass fires generally move very rapidly,
- A gas pipeline that runs north-south through the subdivision,
- Lack of reflective address signage (lot numbers)

Plan of Action:

- Encourage residents to post reflective address signs to help firefighters or emergency responders locate them.
- Provide training to all firefighters about working around gas pipelines.
- Mow 100 feet space around residences and 50 feet either side of roads during fire seasons.
- Develop water supply for firefighting use (cistern, dedicated well, etc.)