Mountain Ridge

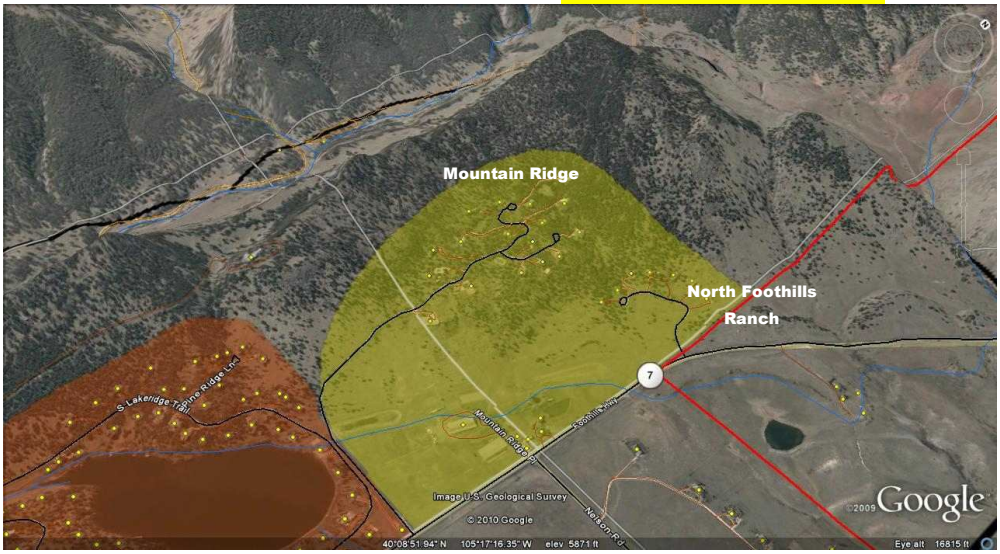
Mountain Ridge

Lower Lefthand Canyon Complex

Community Resource

Assessment · Mitigation Recommendations · Maps

Wildfire Hazard and Risk Rating **MODERATE**



Community Size-Up

The Mountain Ridge is one of several adjacent subdivisions situated at the mouth of Lefthand Canyon that that comprise the lower Lefthand Canyon assessment area. Subdivisions in this area are individually assessed but are also grouped into the Lower Lefthand Canyon Complex for landscape-scale strategic mitigation planning. Individual community assessments are utilized to generate a suite of recommendations that address the unique wildfire hazards that affect each subdivision. 17 residences are located on Mountain Ridge Road, a narrow single ingress/egress road on the east slope of the Dakota Hogback. This is a gated community with an active HOA and an active mitigation program that includes defensible space and strategic landscape treatments. The community is situated on a steep forested slope in the ecological transition zone between high prairie to the east and lower elevation conifers to the west. Grass, grass understory, and ponderosa pine are the primary wildland fuels. Many pine stands adjacent to community to the north and northwest are dense and overgrown. Road dead ends are constructed with turnarounds. North Foothills Ranch subdivision is adjacent to Mountain Ridge to the northwest and downslope. Approximately 70% of the 188 acres that comprise these two neighborhoods are undeveloped areas designated as common open space belonging to the residents. Boulder County manages adjacent land to the north and west and to the south of the subdivision and is collaborating with the fire department on mitigation planning and implementation to benefit the communities.

Wildfire Fire Risk and Hazard Severity Form NFPA 1144	
Mountain Ridge	
Hazard Rating 64	MODERATE
Means of Access	
Ingress and Egress	7
2 or more roads in & out	0
One road in & out	7
Road Width	4
> 24 ft	0
> 20 ft < 24 ft	2
< 20 ft	4
All-Season Road Condition	2
Surfaced Road, grade <5%	0
Surfaced Road, grade >5%	2
Non-surfaced Road, grade <5%	2
Non-surfaced Road, grade >5%	5
Other than all season	7
Fire Service Access	2
< 300 ft with turnaround	0
> 300 ft with turnaround	2
< 300 ft with no turnaround	4
> 300 ft with no turnaround	5
Street Signs (predominent)	0
Present - reflective	0
Not present	5
Vegetation (fire behavior fuel models)	
Characteristics of predominent veg w/in 300 ft	10
Light - 1, 2, 3	5
Medium - 5, 6, 7, 8, 9	10
Heavy - 4, 10	20
Slash - 11, 12, 13	25
Defensible Space - vegetation treatment around structure	12
> 100 ft around structure	1
> 70 ft < 100 ft around structure	3
> 30 ft < 70 ft around structure	10
< 30 ft around structure	25
Topography Within 300 ft of Structures	
Slope	4
< 9%	1
10% to 20%	4
21% to 30%	7
31% to 40%	8
> 41%	10
Additional Rating Factors (rate all that apply)	
Additional factors	13
Topographic feaures that adversely affect fire behavior (0 - 5)	3
Areas with a history of high fire occurance - ignition potential (0 - 5)	5
Severe fire weather potential (0 - 5)	3
Separation of adjacent structures contributing to fire spread (0 - 5)	2
Roofing Assembly	
Roofing	1
Class A	0
Class B	3
Class C	15
Unrated	25
Building construction	
Materials (predominent)	5
Non-combustible fire-resistive siding, eaves and deck	0
Non-combustible siding, eaves and combustible deck	5
Combustible siding and deck	15
Building set-back relative to slope of 30% or more	3
> 30 ft to slope	1
< 30 ft to slope	5
Available Fire Protection	
Water source availability	1
Hydrants 500 gpm < 1000 ft apart	0
Hydrants 250 gpm < 1000 ft apart	1
Non-pressurized water source > 250 gpm for 2 hours	3
Non-pressurized water source < 250 gpm for 2 hours	5
Water unavailable	10
Organized response resources	1
Station < 5 mi from structure	1
Station > 5 mi from structure	3
Fixed fire protection	0
NFPA 13, 13R, 13D sprinkler system	0
None	5
Placement of gas and Electric Utilities	
Utilities	0
Both underground	0
One above, one below	3
Both above ground	5
Totals for home or subdivision	**65**
Hazard Rating Scale	
< 40 LOW	
> 40 MODERATE	
> 70 HIGH	
> 112 EXTREME	

Topography

The area is characterized by a broad east facing slope that rises from the plains forming the Dakota Hogback. This is a prominent topographic feature that extends north/south through much of the state along the base of the Rocky Mountain foothills. The continuity of the hogback feature extends north and south out of the immediate assessment area. A prominent ridge and steep forested west facing slope borders the community to the west.

Vegetation/Fuels

Vegetation and fuels within the assessment are characteristic of the ecotone between mixed grass prairie and montane woodland. Vegetation communities include mixed grass prairie (FBFM 1), ponderosa pine savanna (FBFM 2), ponderosa pine forest (FBFM 8), and riparian shrubland (FBFM 6). Grass, grass understory and ponderosa pine overstory are the dominant fuel types found in the subdivision. Ponderosa pine stem count/acre is very high adjacent to the north end of the subdivision and in smaller stands to the west. Larger dense stands are located on the west side of the ridge on open space land. With the exception of the northern – most parcels, stem count is moderate to low around the residences and south and southwest of the subdivision. To the east lie the irrigated meadows of Autumn Hill Farm and surrounding plains. These vegetation and ecological conditions are characteristic of areas with frequent ignitions, high rates of spread, and low to moderate fire intensity in natural historic conditions. Conifer density in the area deviates from these historic conditions and would support intense, localized crown fire activity in extreme weather conditions.

Hazard and Risk Factors

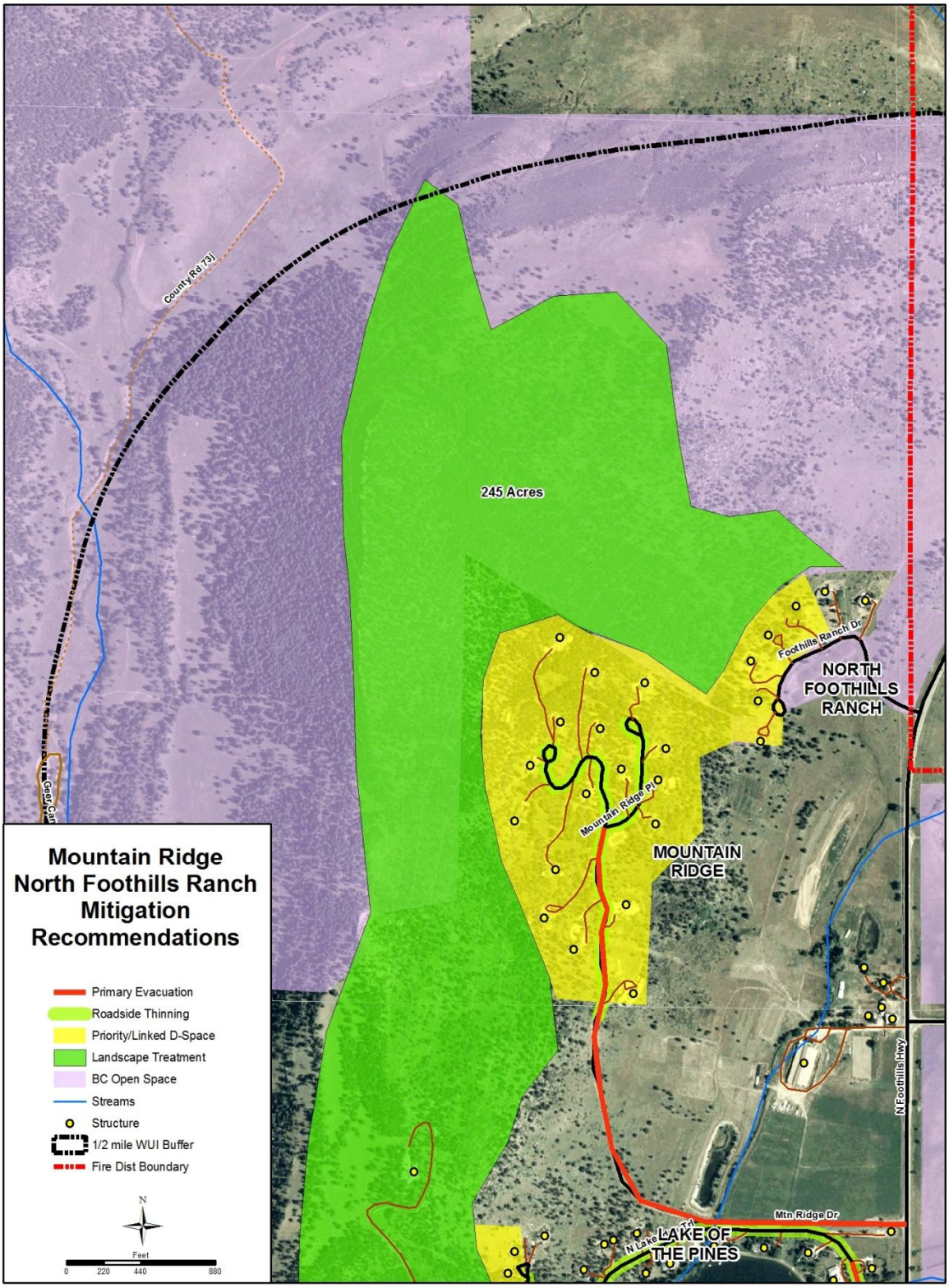
Primary hazard and risk factors affecting Mountain Ridge are the condition of the surrounding forest,

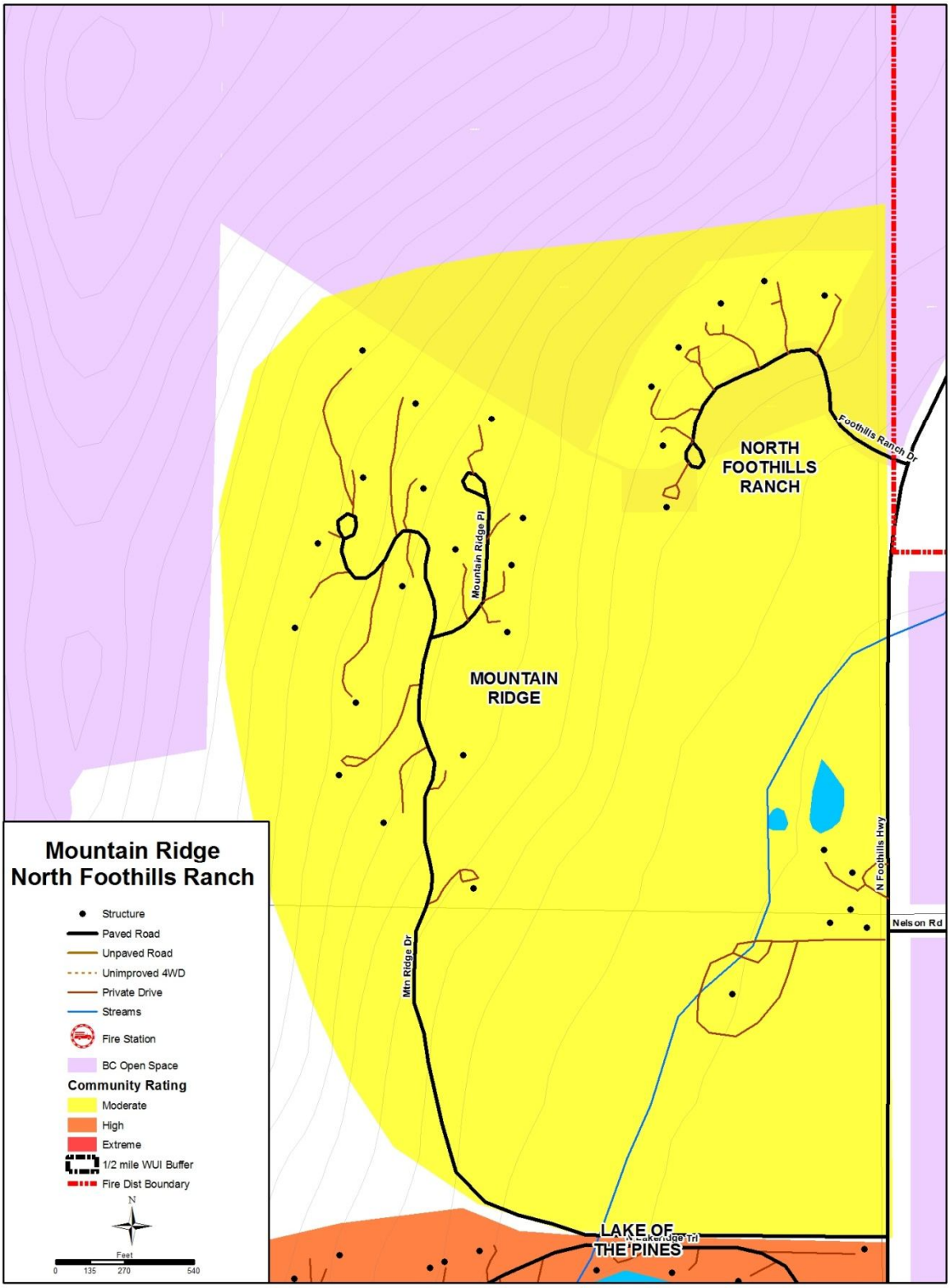
homes that have not implemented defensible space, restricted 2-way traffic flow on a single ingress/egress evacuation route, and wildfire frequency. The hydrant grid is a valuable community emergency resource. However as a closed system gravity-supplied by a single 40,000 gallon cistern, water flow rates and available supply are dependent upon cistern fill level, limiting system effectiveness for extended use. Current mitigation activities west of the homes on community land has greatly improved forest conditions and significantly hazardous fuel loads in the area of the fuel break. Despite extensive landscaping, many residents within the subdivision have not created effective fuel free zones or broken canopy conditions around homes to affect structure ignition potential. Ignition risk is also high in the off-road recreational complex on national forest lands to the west. In high-wind fire weather conditions wind-blown embers from these public lands are likely to ignite spot fires to the east. Fire behavior is strongly affect by topography and exhibits higher intensity on slopes than flat ground. All of the homes in Mountain Ridge are situated on slopes of 10° to 20° which increases potential wildfire rates of spread. Predominance of grass and grass understory flanking high density timber supports a rapidly moving wildfire into zones prone to crown fire.

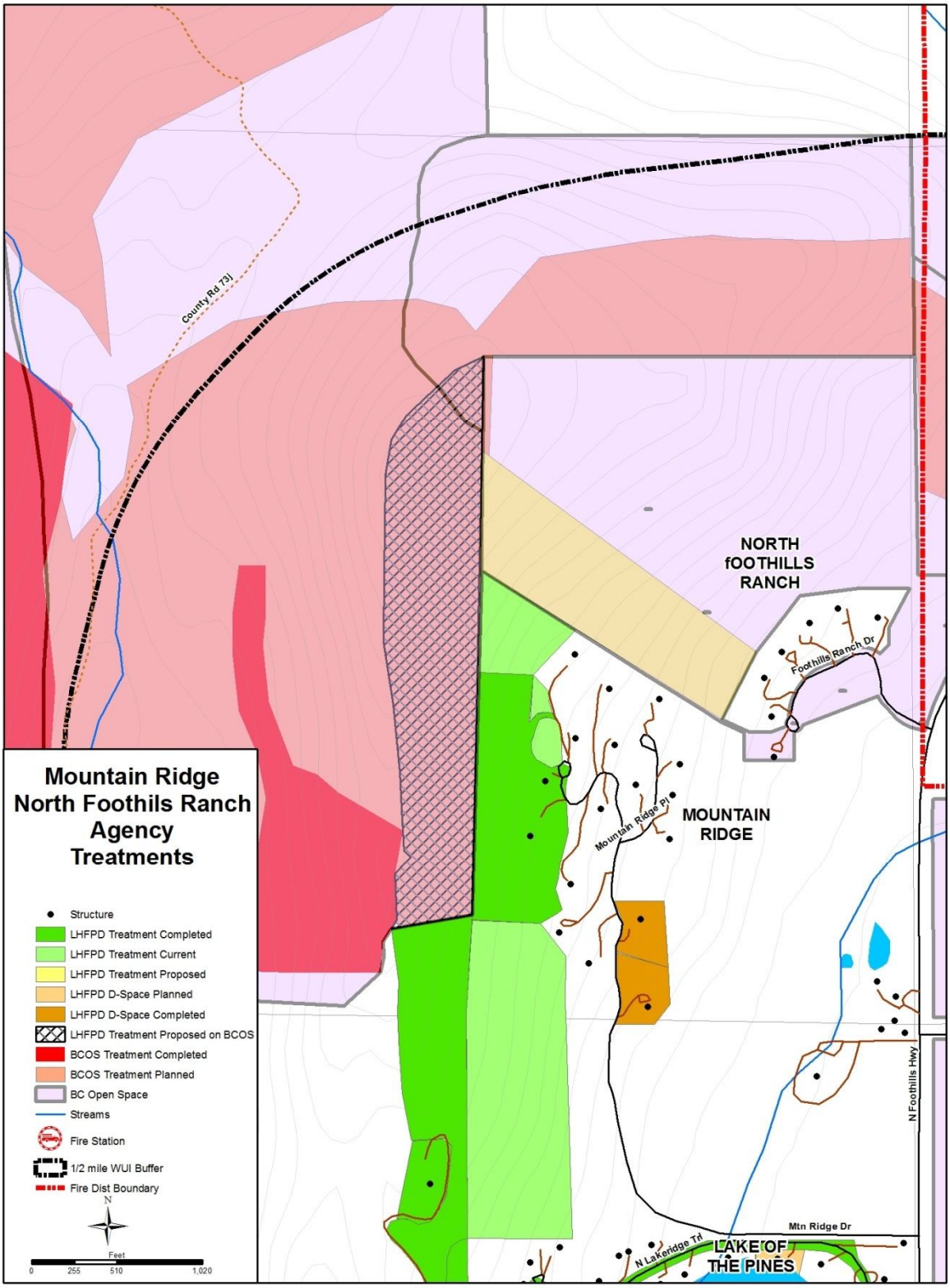
Mitigation Recommendations

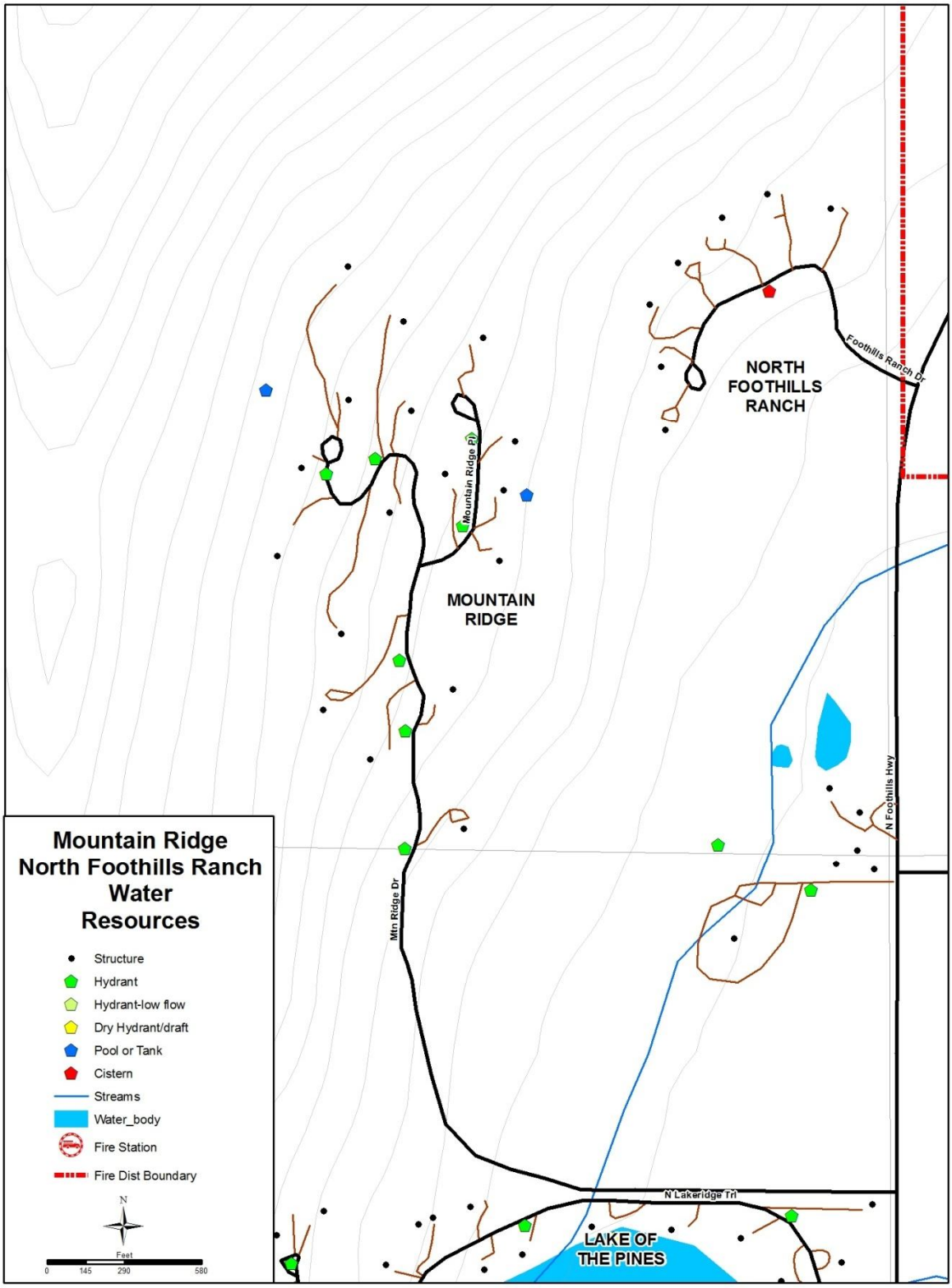
- Engage residents through outreach and continuing education regarding wildfire hazards and risks, structure ignitability factors, defensible space improvements, landscape mitigation, pine beetle options, emergency planning, evacuation, and involvement with the fire department.
- Reduce structural ignitability through construction upgrades, site improvement, defensible space, and seasonal maintenance.
- Improve and maintain adequate and effective defensible space around all residences. Adequate treatment eliminates the possibility of all flames within 10 feet of the structure and large flames within 100 feet of the structure. Seasonal mowing is an effective mitigation treatment in areas where grass and grassy understory dominate the landscape. Coordinated mitigation between lots and landscape treatments to create an effective community-wide fuel break.
- Road side fall mowing/thinning is recommended along all roadside margins in the subdivision. Width of downhill treatment increases with slope. Minimum recommended fuelbreak width is 300 feet (150 feet on either side of the road) with a minimum of 10 feet crown separation on flat ground
- Additional treatment is recommended for timber stands west and northwest of the subdivision, expanding the scope of the existing fuel break, incorporating lands managed by Boulder County.
- Thinning treatment is recommended for timber stands adjacent to the northern lots extending across the broad chimney to the North Foothills ranch fire perimeter.
- Treatment is recommended on all adjacent lands managed Boulder County.
- Improve access to existing hydrant cistern and expand current capacity.
- Private gate should be upgraded with siren activation and clearly marked.

Current/Planned Projects: Extensive thinning treatment was conducted in the summer of ’09 on community owned open space west of the residences. Current treatment is extending a contiguous fuel break to the north and south along the slope. Collaborative mitigation is planned for adjacent lands managed by Boulder County. Two parcels have been improved to exceed minimum standards for defensible space.


Mountain Ridge
North Foothills Ranch
Mitigation
Recommendations
Primary Evacuation
Roadside Thinning
Priority/Linked D-Space
Landscape Treatment
BC Open Space
Streams
Structure
1/2 mile WUI Buffer
Fire Dist Boundary
N
Feet
0
220
440
880
245 Acres
County Rd 73J
Foothills Ranch Dr
NORTH
FOOTHILLS
RANCH
Mountain Ridge Pl
MOUNTAIN
RIDGE
N Foothills Hwy
Mtn Ridge Dr
N Lake Dr
LAKE OF
THE PINES


Mountain Ridge
North Foothills Ranch
Structure
Paved Road
Unpaved Road
Unimproved 4WD
Private Drive
Streams
Fire Station
BC Open Space
Community Rating
Moderate
High
Extreme
1/2 mile WUI Buffer
Fire Dist Boundary
N
Feet
0 135 270 540
NORTH FOOTHILLS RANCH
MOUNTAIN RIDGE
LAKE OF THE PINES
Foothills Ranch Dr
Mountain Ridge Pl
Mtn Ridge Dr
N Foothills Hwy
Nelson Rd


Mountain Ridge
North Foothils Ranch
Agency
Treatments
Structure
LHFPD Treatment Completed
LHFPD Treatment Current
LHFPD Treatment Proposed
LHFPD D-Space Planned
LHFPD D-Space Completed
LHFPD Treatment Proposed on BCOS
BCOS Treatment Completed
BCOS Treatment Planned
BC Open Space
Streams
Fire Station
1/2 mile WUI Buffer
Fire Dist Boundary
N
Feet
0
255
510
1,020
County Rd 73j
NORTH
fOOTHILLS
RANCH
Foothills Ranch Dr
Mountain Ridge Pl
MOUNTAIN
RIDGE
N Foothills Hwy
Mtn Ridge Dr
N LaKeridge Trl
LAKE OF
THE PINES


Mountain Ridge
North Foothills Ranch
Water
Resources
Structure
Hydrant
Hydrant-low flow
Dry Hydrant/draft
Pool or Tank
Cistern
Streams
Water_body
Fire Station
Fire Dist Boundary
N
Feet
0
145
290
580
NORTH
FOOTHILLS
RANCH
MOUNTAIN
RIDGE
LAKE OF
THE PINES
Foothills Ranch Dr
Mountain Ridge Pl
Mtn Ridge Dr
N Foothills Hwy
N Lakeridge Trl