

## The Bar-K Complex

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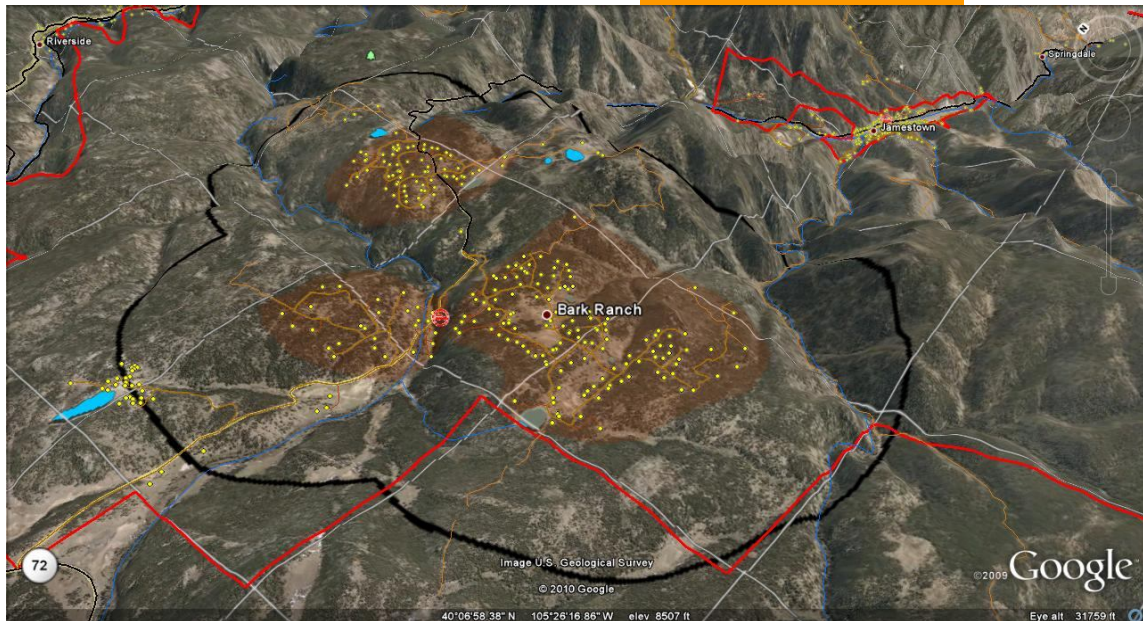
Bar-K Ranch · Mattoon Highlands · Sky Ranch Estates · Overland

*Community Resource*

Assessment · Mitigation Recommendations · Maps

Wildfire Hazard and Risk Rating

**HIGH**



### Community Size-Up

The Bar-K Ranch complex is comprised of three separate subdivisions/HOAs approximately three linear miles west of Jamestown, CO, and two linear miles east of HWY 72. The subdivisions, Bar-K Ranch, Mattoon's Highlands, and Sky View Estates/Overland, are in close proximity and share similar wildland urban interface factors, including fuels/vegetation, topography, fire weather, access, emergency resources, and predominant construction and defensible space characteristics. The area is characterized by a broad rolling plateau at an elevation of 8,500 feet that is dissected by the upper South Saint Vrain Creek and is bounded by steep terrain and deep canyons to the north, east, and south. Nearly 200 residences are located in the area. The Overland Road provides year-round access through the area, is paved to the east, groomed dirt to the west, and easily supports 2-way traffic flow. Primary subdivision roads are generally groomed dirt 2-lane. Secondary roads may be unimproved single lane. Bar-K Ranch and Mattoon's Highland area are both accessed via single ingress/egress. SkyView/Overland are accessed from open looped roads that intersect Overland Road within 1,000 feet of each other. Land ownership is checkerboard in nature with the USFS managing significant continuous holding south, east and north of the subdivision complex.

Wildfire Fire Risk and Hazard Severity Form NFPA 1144		
Bar-K Complex		
<b>Hazard Rating 105</b>		<b>HIGH</b>
<b>Means of Access</b>		
Ingress and Egress		
	2 or more roads in & out	0
	One road in & out	7
Road Width		
	> 24 ft	0
	> 20 ft < 24 ft	2
	< 20 ft	4
All-Season Road Condition		
	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		
	< 300 ft with turnaround	0
	> 300 ft with turnaround	2
	< 300 ft with no turnaround	4
	> 300 ft with no turnaround	5
Street Signs (predominant)		
	Present - reflective	0
	Not present	5
<b>Vegetation (fire behavior fuel models)</b>		
Characteristics of predominant veg w/in 300 ft		
	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		
	> 100 ft around structure	1
	> 70 ft < 100 ft around structure	3
	> 30 ft < 70 ft around structure	10
	< 30 ft around structure	25
<b>Topography Within 300 ft of Structures</b>		
Slope		
	< 9%	1
	10% to 20%	4
	21% to 30%	7
	31% to 40%	8
	> 41%	10
<b>Additional Rating Factors (rate all that apply)</b>		
Additional factors		
	Topographic features that adversely affect fire behavior (0 - 5)	4
	Areas with a history of high fire occurrence - ignition potential (0 - 5)	3
	Severe fire weather potential (0 - 5)	2
	Separation of adjacent structures contributing to fire spread (0 - 5)	2
<b>Roofing Assembly</b>		
Roofing		
	Class A	0
	Class B	3
	Class C	15
	Unrated	25
<b>Building construction</b>		
Materials (predominant)		
	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		
	> 30 ft to slope	1
	< 30 ft to slope	5
<b>Available Fire Protection</b>		
Water source availability		
	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		
	Station < 5 mi from structure	1
	Station > 5 mi from structure	3
Fixed fire protection		
	NFPA 13, 13R, 13D sprinkler system	0
	None	5
<b>Placement of gas and Electric Utilities</b>		
Utilities		
	Both underground	0
	One above, one below	3
	Both above ground	5
<b>Totals for home or subdivision</b>		
<b>Hazard Rating Scale</b>		<b>105</b>
< 40 LOW		
> 40 MODERATE		
> 70 HIGH		
> 112 EXTREME		

## Topography

The area is characterized by a broad rolling plateau at an elevation of 8,500 feet. The upper South Saint Vrain Creek cuts through the complex from west to north creating a canyon that separates Mattoon's Highlands from Bar-K and Sky View Ranch subdivisions. The drainage broadens into wide meadow in the central western section of the assessment area. Steep terrain drops off and deep canyons border the complex to the north, east, and south. Several topographic chimneys dissect the plateau's eastern perimeter.

## Vegetation/Fuels

The Bar-K complex is situated in a transitional zone between the upper montane the lower subalpine ecosystems. Ponderosa pine (FBFM 8) that dominates the dryer lower elevations begins to give way to more continuous stands of lodgepole pine (FBFM 9), aspen (FBFM 8), and Subalpine fir (FBFM 9) at these higher elevations. Dominant timber species is highly dependent on slope aspect and available soil moisture. Ponderosa pine is more common on south and east facing aspects and flat terrain. Lodgepole pine stands and Douglas-fir are more common on north and west aspects, and areas that maintain high soil moisture. Timber canopy continuity is disrupted only in meadows (FBFM 1) and the open dryer grassy slopes (FBFM 1 & 2) on the eastern margin of the assessment area.

## Hazard and Risk Factors

Continuity of hazardous from surrounding wildlands into residential areas, many designed with a single ingress/egress, represents a significant hazard for area residents. This scenario provides little opportunity for suppressing an advancing wildfire while greatly increasing the likelihood of entrapment if the only means of evacuation is blocked. While open meadows scattered throughout the area most structures are

located in forested zones. Mitigation along sections of several primary access routes was noted. Defensible space was observed around a number of structures but most perimeter parcels were found to have an unmanaged forest interface with surrounding wildlands. Predominant construction and roofing materials are flammable. Flammable debris was noted in many gutters. Recreational camping is common along much of the base of the steep terrain that surrounds the subdivisions. Together with overgrown power distribution line right of ways that supply area utilities, and frequent lightening strikes, local ignition risk is high. The South Saint Vrain Creek and several standing water bodies provide local drafting sources. Dry hydrants are installed at Rock Lake (now seasonal) and at the Overland Rd/Saint Vrain bridge.

## **Mitigation Recommendations**

- Engage residents through outreach and continuing education regarding wildfire hazards and risks, structure ignitability factors, defensible space, landscape mitigation, pine beetle options, emergency planning, evacuation, and involvement with the fire department.
- Reduce structural ignitability through construction and site upgrades, defensible space improvements, and seasonal maintenance.
- Improve and maintain adequate and effective defensible space around all residences. Coordinate mitigation efforts between adjacent parcels, especially on perimeter lots, to create greater fuel break continuity. Coordinate any mitigation on private land with current and planned mitigation on adjacent USFS property. Adequate space eliminates the possibility of all flames within 10 feet of the structure and large flames within 100 feet of the structure.
- Road side thinning is recommended along all primary subdivision evacuation routes, secondary emergency access routes, and the access road leading to LHFPD Station 2. Seasonally maintain and improve existing roadside treatment areas. 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. Downhill width increases with slope.
- Recommended landscape scale treatments extend thinning from perimeter lots into the surrounding forested areas, incorporating current or planned USFS treatments where possible.
- Improve access for emergency apparatus with upgrades and maintenance of existing turnarounds and construction of new turnarounds along the lower Ridge Road extension and the Tilgham Road Extension (near the new large cistern).
- Increase water storage capacity at Station 2. Recommend buried gravity feed cistern at intersection of Overland road and station access road with expanded parking and thinning. Seasonal maintenance to drafting source at St. Vrain Creek and Overland Rd. Improve/construct drafting access to ponds in the Sky View Ranch/Overland community.
- Improve/construct emergency access route from Cody Trail or Hickok Trail to High Lake Drive and the Overland subdivision serve as a secondary evacuation route for the Bar-K Ranch.
- Improve/construct emergency access route from Rock Lake Road to Gates Camp and CO Rd 100 to serve as a secondary evacuation route for the Bar-K Ranch

**Current/Planned Projects:** - The Bar-K assessment area has been the focus of ongoing mitigation efforts from both the USFS and LHFPD for several years. USFS is treating several thousand acres in the area as a part of the ongoing James Creek and Sugarloaf fuel reduction projects. Several treatment units are adjacent to private land in the Bar-K complex. From recommendations in the 2005 LHFPD CWPP/Hazard and Risk Assessment, cooperative land owners have utilized mitigation services offered through the fire department, including defensible space, hazardous stand treatment, and road margin thinning projects.

