

# Custer County

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## Community Wildfire Preparedness Plan

For the Wildland – Urban Interface

**Custer County/Miles City/Ismay/Kinsey**



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5/7/2024

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## **Custer County Wildfire Preparedness Plan**

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# Custer County Wildfire Preparedness Plan

Declaration and Concurrence Page:

JASON STROUF Commissioner  
NAME AFFILIATION

SIGNATURE DATE

KEVIN KRAUSZ Commissioner  
NAME AFFILIATION

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Jeff Faycosh Commissioner  
NAME AFFILIATION

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Cory Cheguis Fire Warden  
NAME AFFILIATION

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SCOTT MCAVOY BLM  
NAME AFFILIATION

SIGNATURE DATE

Declaration and Concurrence Page, continued

# Custer County Wildfire Preparedness Plan

Chris Pileski	Montana DNRC
NAME	AFFILIATION

SIGNATURE	DATE
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BRANDON KELM	Sheriff
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Andy Miller	Montana DNRC Forestry
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# Custer County Wildfire Preparedness Plan

## INTRODUCTION

The Custer County Community Wildfire Protection Plan - hereafter known as “CWPP,” has been developed to assist Custer County, Custer County Fire Department and the federal and state wildland agencies in the identification of private and public lands at risk of severe wildland fires and to explore strategies for the prevention and suppression of such fires. The CWPP is intended to outline the Custer County’s plans and activities targeted at reducing the risk of a catastrophic wildland and/or wildland/urban interface (WUI) fire event in Custer County. The intent of this planning document will ensure that the health, safety and welfare of Custer County’s citizens remain secure from the threats of structural and wildland fires in the county.

### The purpose of wildfire preparedness planning is to...

- Motivate and empower local government, communities, and property owners to organize, plan, and take action on issues impacting the safety and resilience of values at risk
- Enhance levels of fire resilience and protection to the communities and infrastructure
- Identify the threat of wildland fires in the area
- Identify strategies to reduce the risks to structures, infrastructure and commerce in the community during a wildfire
- Identify wildfire hazards, education, and mitigation actions needed to reduce risk
- Transfer practical knowledge through collaboration between stakeholders toward common goals and objectives

### Outcomes of wildfire preparedness planning...

- Facilitate organization of sustainable efforts to guide planning and implementation of actions:  
**1. Fire adapted communities    2. Resilient landscapes    3. Safe and effective fire response**
- Improve community safety through:
  - ✓ Coordination and collaboration
  - ✓ Public awareness and education
  - ✓ Firefighter training
  - ✓ Fuel modification
  - ✓ Improved fire response capabilities
  - ✓ Fire prevention
  - ✓ Development of long-term strategies

## RESOURCES

- ✓ Custer County Fire
- ✓ Montana DNRC
- ✓ BLM
- ✓ Custer County Landowners
- ✓ Custer County Emergency Services
- ✓ Pine Hills HOA
- ✓ Miles City Fire
- ✓ Ismay Fire District
- ✓ Montana Dakota Utilities
- ✓ WAPA
- ✓ Tongue River Electric
- ✓ Custer County Conservation
- ✓ USDA
- ✓ NRCS

## STATEMENT OF LIABILITY

The activities suggested by this template, associated checklist and guidance document, the assessments and recommendations of fire officials, and the plans and projects outlined by the community wildfire council, are made in good faith according to information available at this time. Custer County assumes no liability and makes no guarantees regarding the level of success users of this plan will experience. Wildfire still occurs, despite efforts to prevent it or contain it; the intention of all decisions and actions made under this plan is to reduce the potential for, and the consequences of, wildfire.

This document provides the outline for and specifies the information recommended for inclusion in a wildfire preparedness plan.

## **Custer County Wildfire Preparedness Plan**

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# Custer County Wildfire Preparedness Plan

## PLANNING OVERVIEW

Custer County uses Geographic Information Systems (GIS) based analysis approach to development of the fire hazard assessment for Custer County. This enables Custer County personnel to look at specific areas of high risk in the county such as wildland-urban interface or subdivision areas and focus on issues that should be included in the wildland fire mitigation plan as recommended projects.

Personnel from Custer County and International Association of Fire Chiefs spent 2 days in Custer County and Miles City in July of 2023 gathering data and touring around the county gathering intelligence for the CWPP.

Custer County Stakeholders developed a rough draft of our approach to the Custer County CWPP between July 2023 and June of 2024. In June, the rough draft was reviewed with the senior staff of the Custer County Fire Department to determine if our approach to the project was consistent with the staff's direction. Additional information was gathered from the County during the June visitation to Custer County.

In March 2024 the comment draft was submitted to the collaborators for review and comment. Custer County FD met with the Board of County Commissioners and provided a comment draft for their input.

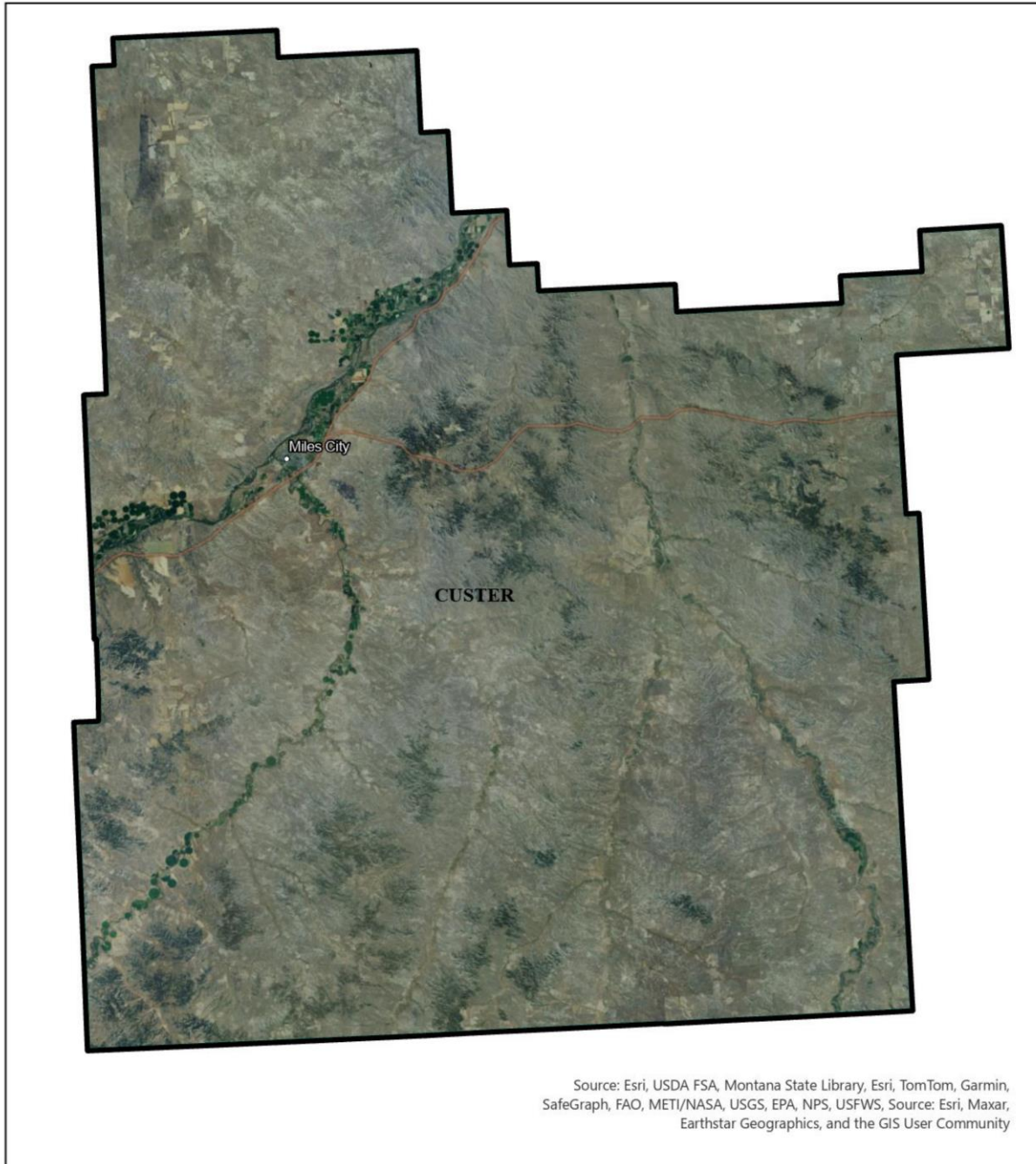
In early April 2024, comments from the responding collaborators where incorporated into the final version of the Custer County CWPP.

# Custer County Wildfire Preparedness Plan

## PLAN OVERVIEW MAP Area of Interest

Custer County

# CUSTER COUNTY MONTANA



Maureen Celandier CCGIS



0 5 10 20 Miles

County



# Custer County Wildfire Preparedness Plan

## PARTNERSHIPS AND COLLABORATION

The Custer County Community Wildfire Protection Plan -- hereafter known as "CWPP," has been developed to assist Custer County, Custer County Fire Department, Miles City Fire, Ismay Rural Fire District, and the federal and state wildland agencies in the identification of private and public lands at risk of severe wildland fires and to explore strategies for the prevention and suppression of such fires. The CWPP is intended to outline the Custer County's plans and activities targeted at reducing the risk of a catastrophic wildland-urban interface (WUI) fire event in Custer County. The intent of this planning document will ensure that the health, safety and welfare of Custer County citizens remains secure from the threats of structural and wildland fires in the county.

The CWPP will improve planning tools for identified emergency agencies, which will result in better building and development codes and regulations, as they relate to the development of the WUI and urban development. The CWPP fosters the preservation of the economy of Custer County by maintaining and improving the fire protection capability of the County.



# Custer County Wildfire Preparedness Plan

## PART I COMMUNITY DESCRIPTION

Custer County is located in southeast Montana, and has a population of about 11,696 people. The county also crosses six distinct watersheds. Custer county encompassing 3793 square miles which the majority is used for production agriculture which is the county's largest industry. The county receives less than 10-16 inches of rainfall and the adapted ecosystems contain vegetative types and quantities commensurate with soil productivity and available moisture. The Census showed 5872 housing units with a density of 1.5 housing units per square mile with a population density of 3.1 per square mile. The Census did not identify other population areas like Moon Creek, Wolfe Creek or Pine Hills Ranchettes, which are a concern from a wildfire fire suppression perspective. Approximately 84.8% of the homes in Custer County were constructed prior to 1970. There has not been a new major subdivision in Custer County in a very long time. As with many counties in Montana, there have been numerous minor subdivisions completed annually.

A more significant change in the demographics of Custer County is the transition away from the family ranch to the corporate farm or ranch and the absentee ranch owner. This has caused a shift in fire protection from the ranch family members to Custer County Fire because of the absentee landowners.

Generally, northern aspects and drainage bottoms support a greater amount of plant life than southern aspects and other dry sites. The greater share of the land mass in Custer County is covered by grasses and shrubs. There are scattered areas of pine forest as well as some hardwood stands, especially along river bottoms. The portion of the county north of the Yellowstone River is much sparser than the area to the south. It does not experience the same lightning activity as the south end of the county and consequently has far fewer fire problems.

Population	
Approximate number of homes	5872
Approximate number of commercial entities	431
Approximate number of full-time residents	11969
<i>This data is based from the 2021 Census</i>	

## Topography, Slope, Aspect, Elevation

The main drainages are Yellowstone River flowing west to east, Tongue River, and Powder River flowing southwest to northeast. There are no perennial drainages north of the Yellowstone River. There are a few smaller perennial streams and numerous other intermittent streams scattered throughout Custer County. The northern portion of the county drains south into the Yellowstone River, while the southern half of the county drains to the north into the Yellowstone River. Custer County north of the Yellowstone River is best described as open arid grazing land with sparse grass, grease wood and sage fuels. Numerous escarpments resembling badland type topography break up the vegetative continuity. The area south of the Yellowstone River can be described as a mix of grazing land with scattered timbered ridges. The vegetation in the southern portion of the county is much heavier and the continuity of the fuels is more conducive to large wildland fire spread. This area north of the Yellowstone River contains rolling topography with some scattered steep slopes and knobs. These are most common in the vicinity of the Little Sheep Mountains. Overall, the elevation change north of the Yellowstone River is less than 500 feet. South of the Yellowstone River the terrain is more varied with drainages flowing into the Tongue and Powder River and Custer Creek from several different directions. Elevation changes are more pronounced and approach 1,000 feet toward the southern boundary of the county. Along the conifer covered ridges, the slopes fluctuate widely, with some steep pitches approaching 60% plus.

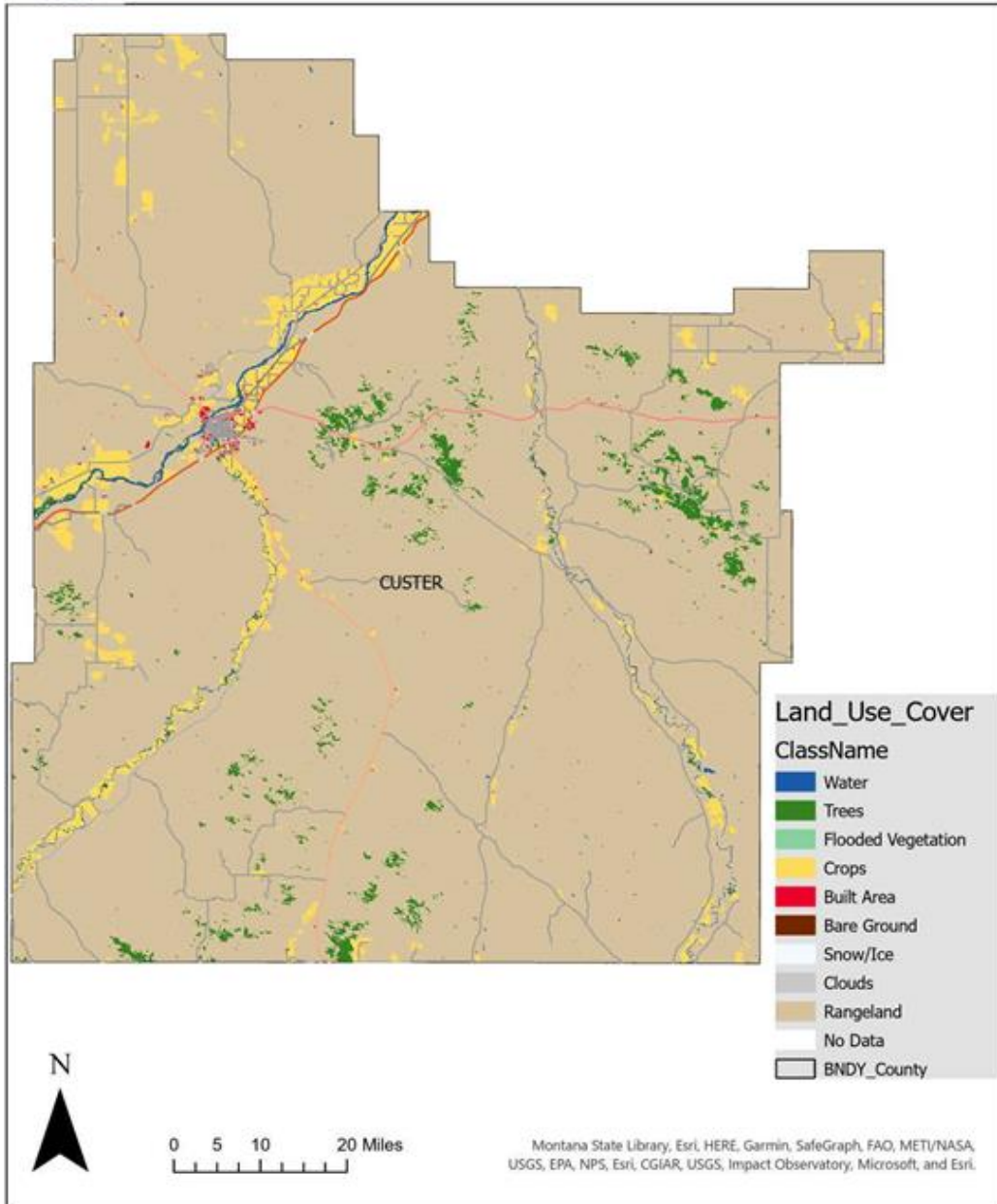
Aspect is the direction toward which a slope faces. Because of the topographic nature of Custer County, the area north of the Yellowstone River has a higher representation of southern aspects, whereas south of the Yellowstone River the terrain is more conducive to all aspects being more or less equally represented. The pine forest is generally located on higher ground in distinct bands where soil and moisture conditions are conducive to its survival. The ponderosa pine type is usually denser on north and east aspects where the soils can retain moisture somewhat longer then they can on south and west aspects. The tillable lands that can be irrigated are used for hay; grain and root crops while the remaining lands are left in a more natural state. These areas are either grazed by domestic stock or they remain unused except for wildlife.

# Custer County Wildfire Preparedness Plan

Land use map of Custer County



## CUSTER COUNTY MONTANA LAND USE TYPES



# Custer County Wildfire Preparedness Plan

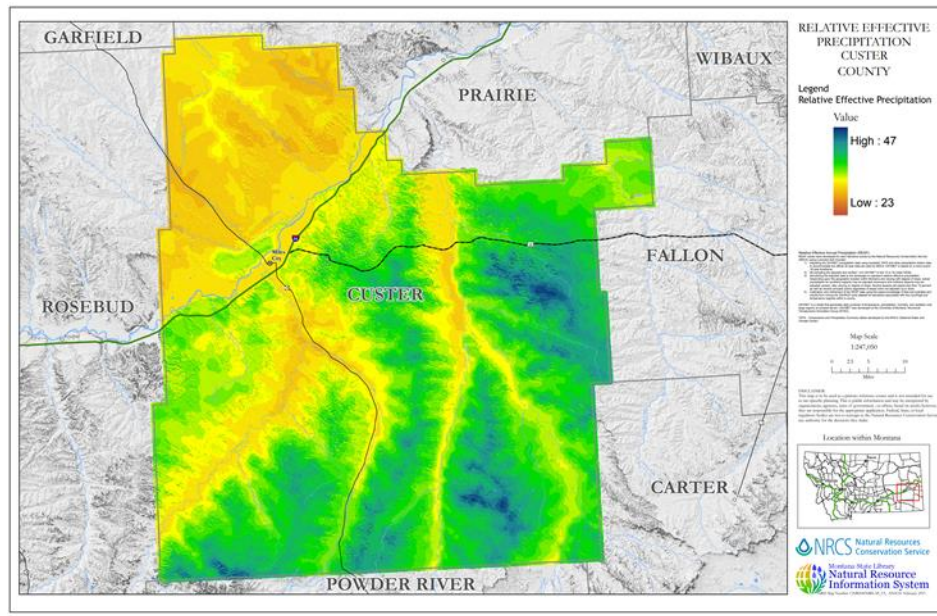
## Weather

Climate directly affects fire behavior, with wind being the major influencing factor. Generally, winds in this area prevail out of the North West, and are moderate to strong, depending on the elevation and aspect. Southwest and west facing slopes are more exposed to the prevailing wind, which relates to increased fire behavior activity. Fires generally spread from North West to southeast.

Because of the high frequency of thunderstorm activity in Custer County, it is not unusual to experience winds blowing from any quadrant of the compass. This wind anomaly challenges all wildland fire suppression efforts and leads to fire fighter safety concerns and the potential for large wildland fire growth. As the current and protracted drought continues, fire suppression personnel need to keep current on the fire weather, especially predicted wind direction, through spot weather forecasts from the National Weather Service in Billings.

During calm days, fire spread will be dictated by topographic configuration and local upslope-down slope winds. During strong wind events fire spread will be dictated by wind direction and the winds will override the effects of the topographic features.

Moisture regimes can be defined in terms of storm tracks, which generally move across the county from west to east. The storm track affecting the analysis area starts along the western edge of Custer County and tracks from west to east across the county. Typically, any significant moisture associated with these storm tracks has often been depleted prior to reaching the northern half of the county.



# Custer County Wildfire Preparedness Plan

## Climate

Climatic seasonal changes can influence fire behavior as well. Winter months of December through February are generally non-fire months, but snow pack accumulations can be a key factor in potential fire activity for any given fire season. In the last half of the 20th century, spring seasons (April through June) were generally moist months with low fire frequencies. The ignitions that did occur resulted in mostly low intensity fires. Since 1988, the weather patterns have been changing to a warmer and dryer cycle resulting in extended fire seasons; spring months no longer can be counted on as a low fire period of the year. Long-term drought conditions have increased the complexity in Custer County and it is not unusual for significant pre green up fire to occur. As the season turns to summer, grasses and shrubs begin to lose their live fuel moisture, down fuels begin to dry, and fire conditions normally peak by late August. As autumn approaches, conditions generally begin to cool, but the presence of dry cold frontal passages become common and can promote conditions of extreme fire behavior, similar to those experienced with the Sartin Draw Fire in 2017. Late fall conditions in November mark the transition into winter, but again, dry cold frontal passages at this time of year and the lack of snow pack can lead to conditions of rapid fire growth and high intensity fire behavior during wind events.

The normal summer weather pattern for Custer County can best be understood by looking at the larger weather pattern for the entire western United States. Vegetation in the Great Plains consists of grasses, cultivated lands, and timber in isolated regions. Fuels are generally too light and sparse to create a serious fire hazard except in the timbered areas. Temperatures in the Great Plains vary drastically from winter to summer months.

Precipitation in the Great Plains is generally light to moderate, increasing both from north to south and from west to east. Amounts range from 10 to 20 inches in the northwest to 20 to 40 inches in the southeast. The western portion of the Plains is in the Rocky Mountain rain shadow. This, in part, accounts for the low precipitation. Also, mT air is less frequent in the western than eastern portions, and fronts are more intense in the eastern portion. Winter precipitation is usually in the form of snow in the north and, frequently, also in the south.

The Bermuda High type, shown on this sea-level chart, is most important in the Southern States but can produce high fire danger in any region east of the Rockies. It is most frequent in spring, summer, and early fall and may persist for long periods of time. A westward extension of the semipermanent Bermuda High, often well into Texas, cuts off Gulf moisture. Subsidence and clear skies produce low humidities and usually high temperatures.

The western portion of the Great Plains is subject to chinook winds which blow down the east slopes of the Rockies and extend some distance into the Plains. The combination of extremely low humidity's and mild temperatures can create short periods of extreme fire danger in spring and fall, although chinook occurrence in the winter may be more frequent.

The fire season usually lasts from April through October, although the summer season, because of higher humidities, is less severe than spring or fall (except in the Black Hills).

Most critical fire-weather periods in this region are associated with the Pacific High synoptic type, the Bermuda High type, or the chinook type. Some periods occur with Highs from Hudson Bay or Northwest Canada, but these are more important to the regions farther east. The chinook type has been described above. The Pacific high type occurs when an mP air mass breaks off of the Pacific high-pressure cell and moves eastward across the mountains into the Great Plains following a Pacific cold front. The mP air loses much of its moisture in crossing the mountains, and arrives in the Plains as a comparatively dry and mild air mass. Highest fire danger is found on either the fore or rear sides of the High.

The Bermuda High type is most important in the southern portion of this region. In this type, the semi-permanent Bermuda High extends far westward across the Gulf States and into Texas. A ridge aloft is located over the middle of the continent. Warm, dry air from Mexico flows northward into the Plains, often causing a heat wave. The Bermuda High is a persistent summer pattern and sometimes causes long periods of drought. Non forest types account for most of the area burned.

This lower relative humidity begins to dry the fuels of all size classes (1 hour, 10 hour, 100 hour, and 1000 hour plus time lag fuels). The 1-100 hours' time lag fuels will show evidence of drying within 3-5 days. The 1000 hours fuels will take significantly longer to dry, usually in the 3-5 weeks range. Long-term drought poses another significant challenge because of its effect on current vegetative conditions i.e., reduction in live fuel moisture content. Fire records for Custer County indicate that the current wildland fire suppression actions are effective when the energy release component (ERC) is below the 97th percentile. When the ERC is above the 97th percentile, wildland fire suppression actions are historically not effective. Since 2000 Custer County area has experienced 5 significant fire seasons. The fire seasons of 2003, 2012, 2017, 2020, and 2021 are considered the benchmark years for the county.

## Air Quality

The State of Montana's air quality is managed by the Montana State Airshed Group through the Department of Environmental Quality. Generally, open burning is permitted from March 1 through November 30 when such burning is coordinated with the Montana State Airshed Group. Technically, open burning is prohibited from December 1 through February 28 except by special approval of DEQ. In most cases this approval can be obtained for any proposed open burning in eastern Montana because of good smoke dispersal and the lack of significant air quality issues such as the valley inversions experienced in western Montana.



# Custer County Wildfire Preparedness Plan

## Infrastructure: Roads, Driveways, Utilities, Communication, and Water Supply

Interstate 94 (I-94) traverses Custer County, east to west, following the Yellowstone River drainage. U.S. Highway 59 from Miles City traverses Custer County northwest and to the south. From U S 59 south of Miles City, County Road 332 also traverses south and eventually into Custer County. US Highway 12 traverses east towards Ismay and into Fallon County. Custer County has a number of graveled roads that can be utilized to provide access for fire suppression activities. Private ranches and subdivision developments have narrowed roadways, these may be accessible with a 4 wheel drive, however, occasionally they will be blocked or in accessible. There were no bridges, gates, or culverts that would prove to be a significant problem denying access for fire suppression activities. The most significant problem that fire suppression activities would face with access during the wildfire season is the gumbo road conditions following a rain or thunderstorm event and the subsequent heavy rains.

Burlington Northern Santa Fe Railroad follows the Yellowstone River and provides a significant amount of rail traffic. The Tongue River Railroad is proposed to run south through the county to the Otter Creek Coal Tracts. Large propane tanks are located throughout Custer County at every ranch house outside of the city of Miles City.

Electric transmission lines and distribution power lines along with telephone lines and railroad signal lines are concentrated along the Yellowstone River and local distribution lines to some populated areas. Montana Dakota Utilities and the Tongue River Electric Cooperative provide electrical power to the county. There are portions of the County without utility services. Century Link, Range Telephone Cooperative and Mid-Rivers Telephone Cooperative provide telephone service to Custer County. Cellular phone service is generally available; however, there are areas within the county that do not have cellular phone service. Cellular phone service is provided by T-Mobile, Verizon, Cellular One and AT&T.

There is a municipal water system serving the City of Miles City for fire protection purposes. In the County, there is no developed water supply and water tenders must transport fire protection water to the fire scene. Stock ponds and creeks are available at times for a water supply point, but during this extended drought, water is a premium to ranchers.

Radio communication for Custer County Fire Department and Ismay RFD can be improved. The southern portions of the county are not served adequately from existing fire repeater sites. Ismay RFD also needs a repeater to improve communications in the fire district and to be better able to page volunteer fire fighters to respond to incidents. Custer County Fire operates on case by case situations off from the Sheriff's office repeater or the DNRC Home creek Repeater in the south part of the county during emergencies.

### Land Use/Development Trends

The majority of land use in Custer County is agricultural based, generally new land development is at a slow pace. There are small pockets of new construction on existing platted lots in wildland areas causing additional concern from a wildfire perspective. Of significant concern to the fire agencies providing structural and wildland fire services are the significant parcels that have been platted and were developed without the benefit of subdivision review. There are more than 20 sections of existing platted parcels in an area northeast of Miles City known as The Knob and Green Mountain.

### Emergency Services

Emergency services within Custer County include fire protection, emergency medical services including ambulance transportation, law enforcement, and emergency preparedness. The Miles City Fire Department, the Ismay Rural Fire District, and the Custer County Fire Department provide community structural fire suppression and protection.

Wildland fire protection is provided by Custer County Fire Department under the direction of the county fire warden with various fire suppression resources throughout the County under the Custer County Co-Op plan. In addition, Ismay RFD provides wildland fire protection in the northeast portion of the county. The wildland fire apparatus is located strategically throughout the county. As a "Coop County," Custer County is required to make a significant commitment to a wildland fire before requesting assistance from the Montana DNRC. As part of the county equipment, Custer County furnishes dozers and motor graders from the County Road & Bridge Department for wildland fire suppression efforts in the county.

Custer County is within the Eastern Land Office of the Montana DNRC's geographic area. This provides additional resources such as air tankers from Billings, helicopters from Miles City or Ashland/Fort Howes, single engine air tankers from Miles City and crews and overhead through the Eastern Land Office. During the fire season these resources may be committed to other incidents and may not be available.

# Custer County Wildfire Preparedness Plan

## Fire Equipment

Custer County Fire Equipment		
Asset #	Item description (make and model)	Location
256	2022 FORD F350-COMMAND	CC FIRE
277	2003 CHEVY 2500 HD-COMMAND	CC FIRE
117	DODGE TYPE6	Foster Creek
116	FORD F350 TYPE 6	Diamond Ring
123	FORD F450 TYPE6	Moon Creek
119	FORD F350 TYPE 6	Liscomb Creek
121	FORD F450 TYPE6	KNOWELTON
120	FORD F550	KNOWELTON
122	FORD F550	SHEEP CREEK
126	FORD F550	CC FIRE
127	FORD F550	CC FIRE
128	FORD F550	CC FIRE
129	FORD F550	CC FIRE
144	FREIGHTLINER TYPE4	CC FIRE
151	STEWART AND STEVENS TYPE4	Moon Creek
152	STEWART AND STEVENS TYPE4	PowderVillie
125	FORD F450 TYPE6	Mizpah
R-1	Ford f250	
118	FORD F350 TYPE 6	KINSEY
209	KENWORTH 3500 GAL TENDER	CC FIRE
203	INTERNATIONAL 2500 GAL TENDER	CC FIRE
207	INTERNATIONAL 2500 GAL TENDER	CC FIRE
205	INTERNATIONAL 2000 GAL TENDER	KINSEY
2022	CAN-AM ( SLIP IN TANK)	CC FIRE
2022	CAN-AM ( SLIP IN TANK)	CC FIRE
E6	KME STRUCTURE TRUCK	CC FIRE
E4	FREIGHTLINER RESCUE/STRUCTURE	CC FIRE

DNRC County CO-OP Engine



### Law Enforcement

The Custer County Sheriff's Department and Miles City Police Department provide Law enforcement and evacuation services. Due to limited resources in the Sheriff's Department, a significant evacuation during a wildland-urban interface fire will be a challenge.

### Emergency Medical Services

Miles City Fire Department provides ambulance service to the entire county.

### Emergency Management

County emergency preparedness comes under the office of the Custer County Disaster and Emergency Services.



# Custer County Wildfire Preparedness Plan

## Insurance Ratings

The insurance premiums that residential and commercial customers pay are based on a rating system established by the Insurance Services Office (ISO). In its evaluation of a community, ISO considers the water system and the fire protection provided by the fire department. The relative weight of the components is:

Water Supply - 50

Fire Department - 40

Fire Dispatch - 10

The ISO rating system produces ten different Public Protection Classifications, with Class 1 receiving the most insurance rate recognition and Class 10 receiving no recognition.<sup>8</sup> **A split rating such as Class 6/9 & 10 means that a department is rated as a Class 6 within 1,000 feet of a fire hydrant or certified water point, a Class 9 when over a 1,000 feet from a hydrant and within 5 miles of a fire station, and a Class 10 rating applies when the insured is more than 5 road miles from a fire station.**

The majority of Custer County currently has an ISO rating of Class 5X<10 miles everything else is a 9X10. Miles City FD has a rating of Class 5. Many corrections have been made since the City of Miles City was last evaluated. Recent staffing changes will certainly affect the city's on-duty staffing strength and might have some impacts on the city's overall rating. Another factor that will eventually impact the ISO classification in the City of Miles City is that "All sections of the city with hydrant water supply protection should be within 1½ miles of a fully equipped engine company".<sup>9</sup> (See Figure 8 - 1.5 Mile Distance Map in Map Section 10.5).

In the extreme northeastern corner of Custer County, Ismay RFD provides primarily wildland fire protection to the fire district. Ismay Rural Fire District has an ISO rating of Class 10 and is in the process of being re-graded. According to Ismay Fire, the district is in the process of making up-grades to the department to achieve an ISO rating of Class 9. One mechanism might be what is called an ISO Engine, which is basically a beefed-up brush engine with ladders, breathing apparatus and some minor equipment. To qualify for Class 9 Fire Protection insurance rating, an apparatus needs to have a pump capable of delivering 50 gpm or more at 150 psi and a tank of at least 300 gallons. There should be training records, which indicate date and time, location of fires, number of members, meetings, training sessions, maintenance of apparatus, etc. A roster of fire department personnel should be kept.



(Basic wildland training class)



# Custer County Wildfire Preparedness Plan

## Expected Fire Behavior

Fire behavior describes the way fires ignite and spread. Topography, fuel conditions, and weather all influence fire behavior and how wildland fires burn in Custer County. Fuel is the only factor influencing fire behavior that we have the ability to manage. The following fire behavior assessment shows fire intensities and fire spread rates in different fuel types/models that are found in Custer County. It is important to understand this information to determine what areas contribute to the fire problem in the county.

<u>Weather</u>	<u>Average</u>	<u>Extreme</u>
High Temperature	80 degrees	90 degrees
Low Relative Humidity	20%	10%
Mid Flame Wind Speed	5 mph	15 mph

<u>Fuel Moistures</u>		
	<u>Average</u>	<u>Extreme</u>
Fine Fuels, 0-¼ in.	6%	3%
Small Fuels, ¼ - 1 in.	9%	4%
Medium Fuels, 1-3 in.	10%	5%
Large Fuels, >3in.	14%	8%
Shrubs, Live Fuel Moisture	80%	50%
Trees, Live Crown Moisture	100%	60%

The following table is the fire behavior interpretations that should be used for the fire behavior outputs.

### Fire Suppression Interpretations from Flame Length

<u>Flame Length</u>	<u>Fireline Intensity</u>	<u>Interpretations</u>
< 4 feet	< 100 BTU/ft/sec	Fires can generally be attacked at the head or flanks by fire fighters using hand tools. Handline should hold fire.
4 – 8 feet	100 – 500 BTU/ft/sec	Fires are too intense for direct attack on the head with hand tools. Handline cannot be relied upon to hold the fire. Bulldozers, engines, and retardant drops can be effective.
8 – 11 feet	500 – 1000 BTU/ft/sec	Fires may present serious control problems: torching crowning, and spotting. Control efforts at the head will probably be ineffective.



# Custer County Wildfire Preparedness Plan

## Part2: Current Fire Environment

Custer County does have areas of forested land. Almost all of these are the ponderosa pine ecosystems typical of eastern Montana. As will be discussed in the next section, this is a fire prone ecosystem that is subject to repeated wildland fires. The impacts of those frequent fires can be quite variable depending on the values at risk. The emergence of subdivisions within the large open blocks of range and forest lands raises the probability of material losses to man made improvements as well as possible threats to the occupants of those new developments.

Currently Custer County Fire is responsible for wildland protection through an inter-local agreement with Custer County for state and private lands within Custer County. The Bureau of Land Management – Custer County provides wildland fire protection to federal lands within the County. In the northeastern corner of the county, Ismay RFD provides wildland fire protection to the residents of the Ismay RFD.

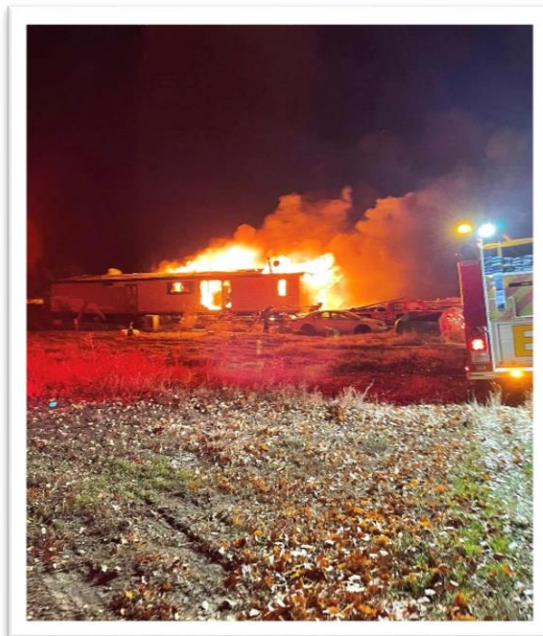
An analysis of the placement of wildland engines throughout Custer County indicates that there are wildland engines generally located throughout the areas of the county where fire occurrence is the highest and where there is a willing host (typically a rancher or resident) who will make a commitment to attending required training and respond to wildland fires in the areas and throughout the county.



### Wildland/Urban Interface

During the past several fire seasons between 2005 through 2023 it has become evident that wildland/urban interface fire losses have increased throughout the Western United States. The expectation under the Federal Fire Policy is “that losses will increase in the future.”

The wildland/urban interface is defined as the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Similar terms are wildland/residential interface and wildland/urban intermix.



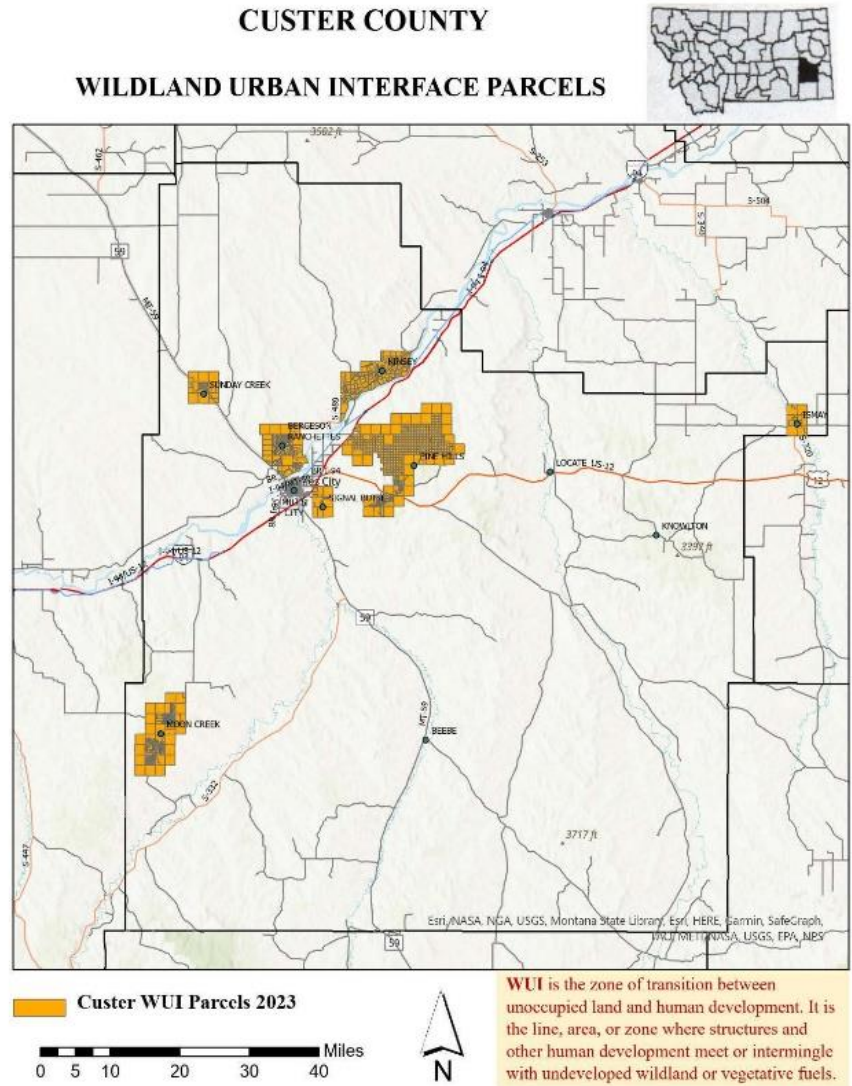
# Custer County Wildfire Preparedness Plan

Both Ismay and Miles City are listed in the Federal Register as “Communities at Risk” from wildland fire. The Bureau of Land Management assessed the wildland-urban interface areas within the Miles City District in the early 1980’s in Custer County. The Moon Creek area and the Pine Hills were identified as wildland-urban interface areas. There are several additional areas of wildland-urban interface within the county, which have been identified during this planning process. Specific areas of wildland-urban interface in Custer County include:

- Miles City (portions)
- Ismay
- Moon Creek Subdivision
- Pine Hills Ranchettes Subdivision
- Wolf Creek/Evergreen Estates
- Squirrel Ridge Subdivision
- Sun Dial Subdivision
- Bergerson Ranchettes
- Sunday Creek Ranchettes
- Kinsey

The development of portions of Custer County into residential lots of varying sizes is contributing to the wildland/urban interface fire problem for the fire protection agencies in the county. Development occurring in areas of Custer County that has no structural fire suppression department compounds the wildland-urban interface problem. This leads to several complex problems, which need to be addressed in the CWPP:

- Access
- Asset Protection Zones
- Water Supply
- Building Construction Requirements
- Fuel Reduction On All Ownerships
- High costs of wildland fires when the structure protection resources need to be acquired from other areas of the state.
- Kinds And Types of Fire Apparatus Required for Fire Protection
- Structural Fire Protection for Structures outside Organized Fire Protection Jurisdictions





# Custer County Wildfire Preparedness Plan

## Hazardous Fuels

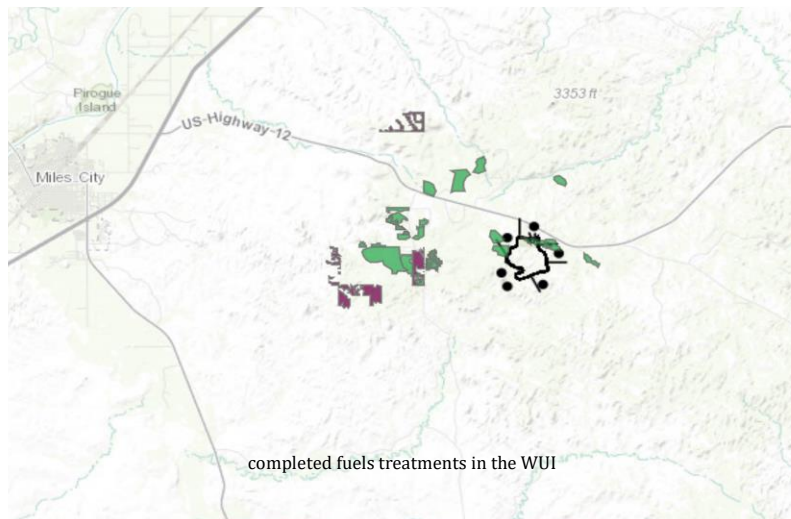
The continuity of heavy fuels, i.e. ponderosa pine, is relatively scattered in Custer County. There are areas of continuous pine type covering several thousand acres in size and these are the areas that have the greatest potential for supporting large intense fires. Fires may be terrain driven, plume dominated, or wind driven in this fuel type. This is also the ecosystem type most attractive to developers for the placement of subdivisions. Areas of sage and brush species also have potential for large intense fires but they are less likely except under wind driven conditions. There are many thousands of acres of this fuel type in the county. The most common fuel type is grassland. Fires will normally be of a lower intensity level in this type and will be easier to control. In addition, fires are less likely to start from lightning in this ecosystem.



No Treatment



Treated



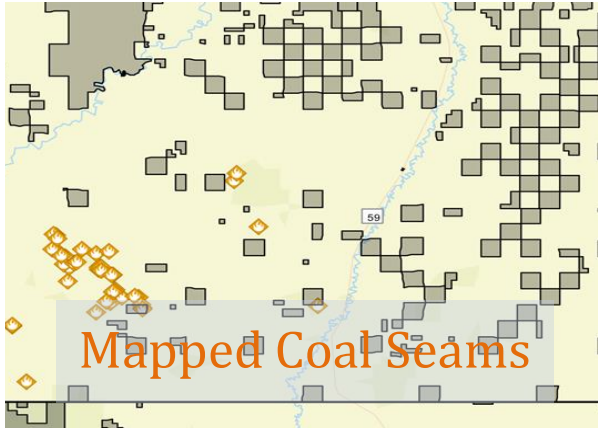
# Custer County Wildfire Preparedness Plan

## Coal Seam Issues

In 2021 it was noted that naturally occurring wildfires were happening frequently due to active burning coal seams throughout Eastern Montana. Custer County Disaster and Emergency Services has teamed up with Rosebud, Powder River, Big Horn, and the Northern Cheyenne Tribe in mapping coal seam fires and identifying a way to mitigate a coal seam fire. What is a coal seam fire several people have asked. A coal seam fire is an underground coal vein that has been ignited from a wildfire that burns underground and surfaces eventually and causes grasses around it to catch fire and then it's off to the races. Here are some stats to show the damage they cause, summer of 2021 in Eastern Montana we burned a total of 261,000 acres, 201,000 of those acres burned were caused by an burning coal seam. In the last 10 years almost 500,000 acres have burned from coal seam fires in just the Four Counties, 369,000 being private lands. This causes such a significant economical loss to the main contributing business in Eastern Montana Agriculture producers, local fire departments, private land owners, counties, state, federal and tribes. This is just one of many problems coal seam fires produce. They also produce a large amount of Green House Gases. Identifying the emissions these coal seams produce can help identifying a way to reduce Global Warming. Mapping these burning coal seams using a plane outfitted with a FLIR camera has proven effective with a 86% accuracy. The first part of a long term mitigation plane has been broken into phases. Identify all burning coal seams in Eastern Montana and inventorying them into ArcGis with a list of attributes that can show priority for each given coal seam, such as location near infrastructure, common occurrence wildfires from specific coal seams. Overlaying previous fire perimeter maps can show the heel of the fire from these locations being the origin of fire. Once all these locations are proofed we will look at mitigation ideas for each location based on the priority from the data we've collected. There are many ways to mitigate a coal seam. 1. Using heavy equipment such as excavation, digging out the burning coal. 2. Create a fire break around the coal seam fires such as digging handline, or using a dozer and building a good solid fire line and removing fuels indirectly. 3. Utilizing ground sterilant go and spray a perimeter around these burning coal seams and remove all surface fuel from around the burning coal seam. This project could save millions of dollars in the long run if you look at the amount of money has been spent fighting these wildland fires in the past, along with the burden is has put on federal, state, local, and tribal governments along with the private economical losses in the hundreds of millions already lost over the past ten years.



## Custer County Wildfire Preparedness Plan



### ACTIVE BURNING COAL SEAM

Custer County is plagued with burning coal seams. This poses another significant danger to the lives, property, and natural resources of Eastern Montana. Historically speaking these have been the biggest attribute to acres burned in Custer County, along with being the most expensive wildfires to fight. Custer County is working on a mitigation practice with local landowners to try and mitigate these problems. Landowners on a case by case will build a fire line around the coal seam to prevent a wildfire. It has proven to work.



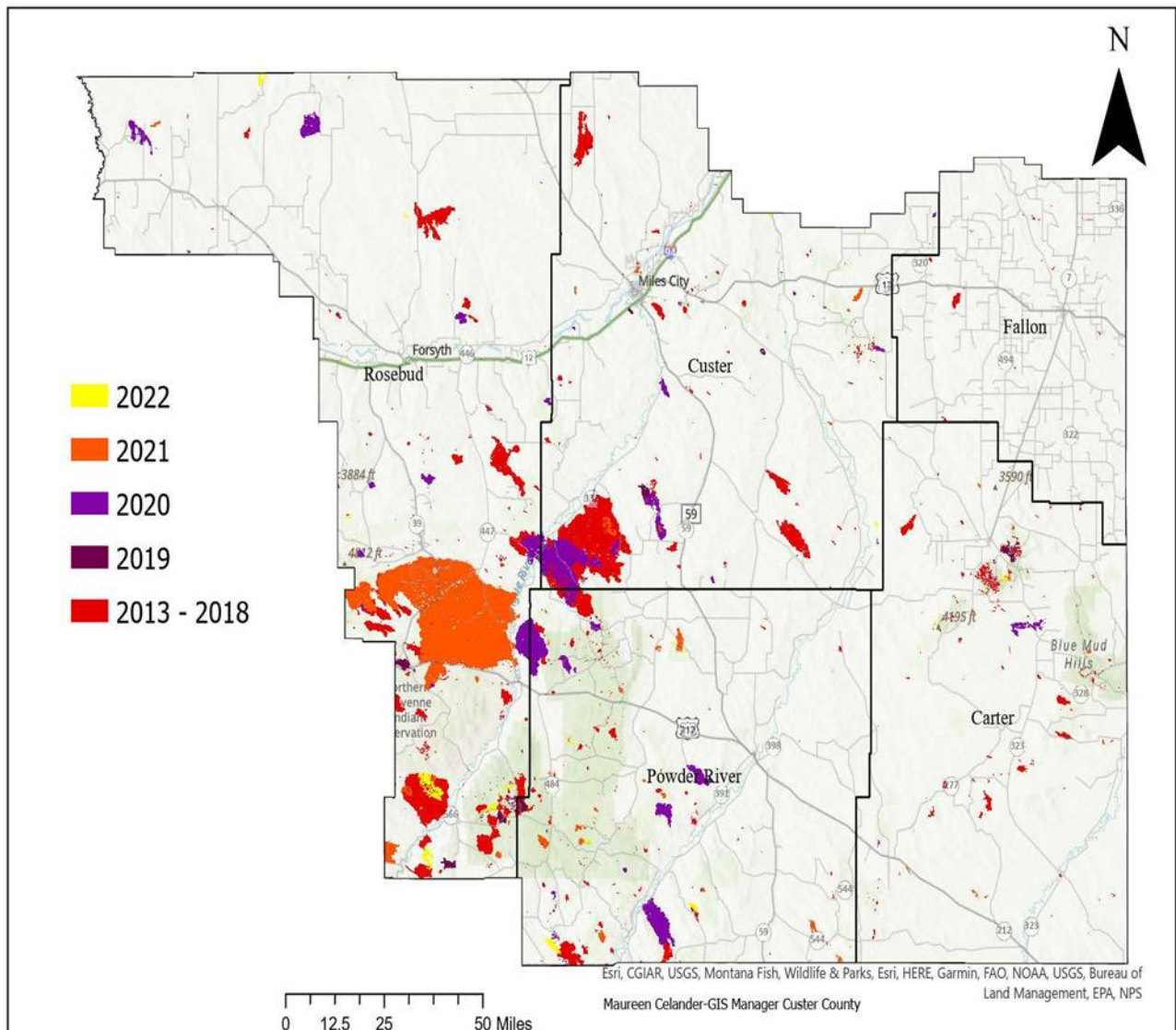


# Custer County Wildfire Preparedness Plan

## Fire History

Almost all fires experienced in Custer County are the result of lightning fires resulting from thunderstorms. These starts occur in the ponderosa pine forested areas and are relatively fast spreading in the grass and needle cast understory. They are also relatively easy to control unless they are located in an area where the topographic or fuel conditions are conducive to the fire getting into the crowns of the trees or when high winds move the fire rapidly through the prevalent fuel type. The current long-term drought has made control more difficult in recent years.

## SE MONTANA FIRE DISTURBANCE AREAS 2013 - 2022



# Custer County Wildfire Preparedness Plan

## Structure Fire Problem Definition

Currently, Miles City Fire Department (MCFD) has fire protection responsibilities for all structure protection within the incorporated city limits and provides structure protection for other structures within the county if they have a contract for fire protection with Private owners. Custer County Fire has responsibility for all structures outside City limits, and responds to structure fires outside the city limits. There are a few businesses, outside the city limits, that contract with MCFD. It is possible that both of these entities could be taking suppression action on the same fire outside the city limits. Coordination between the two entities is limited in these situations and should be governed by some kind of operating agreement. In the northeastern corner of the county, Ismay RFD provides structure fire protection to the residents of the Ismay RFD.

The best way to quantify the structure fire problem in the Custer County outside of the city limits is to conduct an occupancy risk assessment, which evaluates the severity of a specific structure in relation to the fire districts ability to handle the types and severity of emergencies with that structure. Risk categories used in the Self-Assessment Manual developed by the International Commission on Fire Accreditation are:

Category	Description
Maximum/Worst Risk	Occupancies classified as maximum risk will be of substantial size and contain a concentration of properties, which present a very high risk of life loss, loss of economic value to the community or large loss damage to property in the event of a fire. These risks impact the need for the fire department to have multiple alarm capability and have an adequate assessment of their ability to concentrate resources.
High Hazard/Key Risk	Built-up areas of substantial size with a concentration of property presenting a substantial risk of life loss, severe financial impact on the community or unusual potential damage to property in the event of fire.
Moderate/Typical Risk	Built up areas of average size, where the risk of life loss or damage to the property in the event of a fire in a single occupancy is usually limited to the occupants. In certain areas, such as small apartment complexes, the risk of death or injury may be relatively high. The moderate/typical risks are often the greatest factor in determining fire station locations and staffing due to the frequency of emergencies in this category. To assure an equitable response and to provide adequate initial attack/rescue capability to the majority of incidents, the typical risk is often used in determining needed resources.
<b>Home Assessments in the WUI</b>	
Custer County Fire has been conducting home assessments and uploading them into situation analysis Montana. This has proven to be a useful tool.	



# Custer County Wildfire Preparedness Plan

## Part 3: Risk Assessment

A fundamental part of any fire plan is identifying what you might lose in a wildland fire, known as assets or values at risk.

### Values at Risk

The primary intent of fire protection is to protect the values at risk and maintain healthy forest and grassland ecosystems. The purpose of a successful fire management program is to reduce the risks associated with values that are important to the county, its citizens, and natural resources. Values at risk will be used to assist fire protection agencies in prioritizing mitigation projects.

Some of the values at risk in Custer County are:

- Health & Safety – Public & Firefighters
- Property, Improvements & Facilities – Private & Public
- Recreation/Community Impacts – Economic & Social
- Forest/Ecosystem Health
- Timber and Grazing

### Health and Safety

Fire fighter safety should never be compromised.

Custer County needs to maintain the safety of their firefighters. Thorough situational awareness on the part of the firefighter and strong incident management by the fire department leadership is critical to the safety of personnel.

Wildland fires are capable of moving over significant distances in a short period of time. It is possible that firefighting resources could become trapped during one of these events if they do not maintain a constant situational awareness.

Custer County has the potential to have a series of multiple wildland fire situations during any fire season. A fire season of this nature could conceivably last for several months. CCFD should work toward expanding its leadership capability so the department can deal with simultaneous complex ignitions.

### Property, Improvements & Facilities

Few wildland fires burn where there is not some threat to homes, ranch out buildings or other structures, fences, power lines, communication sites, or some other type of infrastructure. Fuel treatments (asset protection zones) in the immediate area around structures, designed to reduce wildland fire intensity, can dramatically improve their probability of survival. However, restricting treatments to these areas does little to protect other values-at-risk, some of which may be equally or more important from a neighborhood and/or a community standpoint.

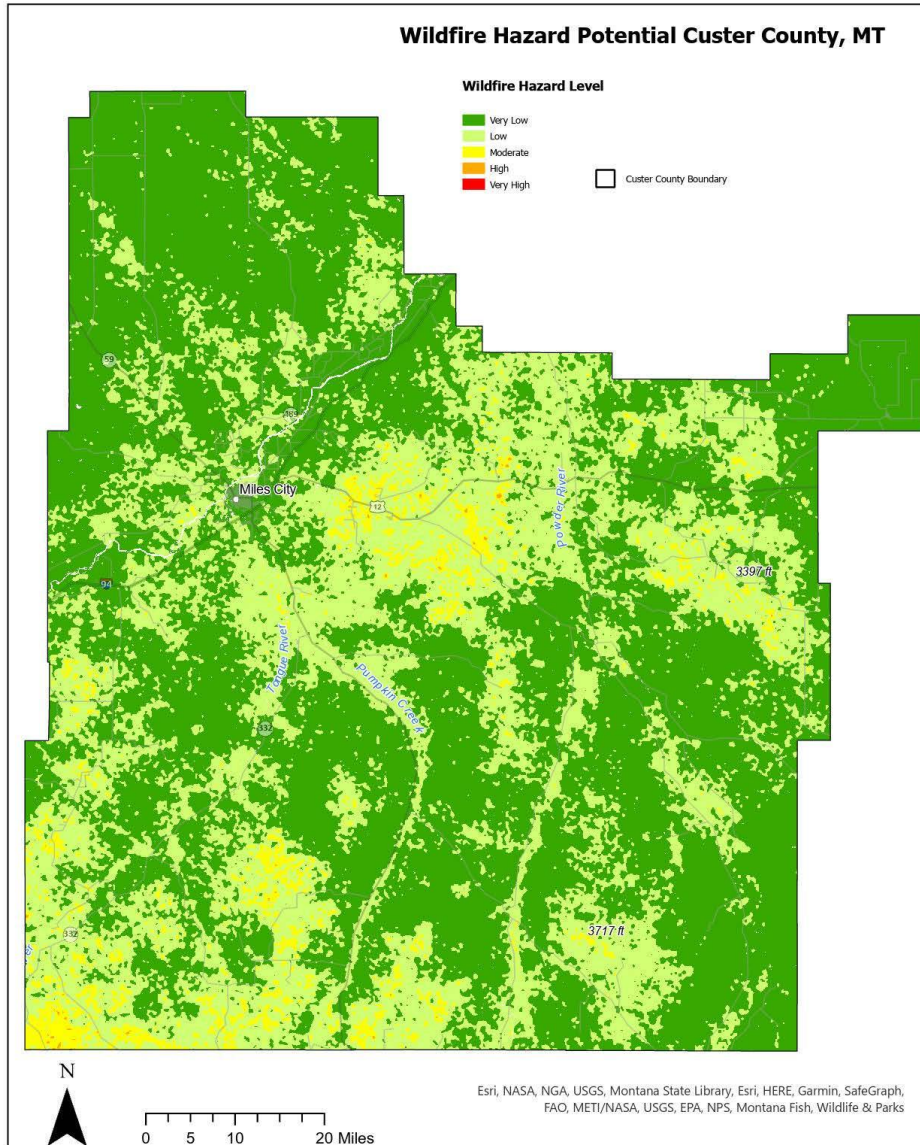
One of the largest problems facing wildland protection agencies in Custer County is the unwillingness of subdivision occupants to realistically look at the fire environment they are building their homes in and their failure to correct hazardous fuel situations around those homes. In lieu of homeowners undertaking any kind of hazard abatement actions that would mitigate fire behavior potential, the protection organizations have no choice but to take only such actions that will facilitate orderly evacuation of occupants and will insure the safety of their firefighters. This will mean writing off some structures where the Incident Commander cannot reasonably expect the apparatus or the fire fighters to safely withstand an oncoming fire front.

The Moon Creek settlement recently had a close encounter with a large wildland fire. This event should have made clear the potential benefits of fuel reduction and other mitigation projects designed to enhance the protection of these wildland-urban interface subdivisions, another close example was the Pine Hills Ranchettes. Since then they have been more open to fuels reduction work.

# Custer County Wildfire Preparedness Plan

## Risk Estimation

As with the federal agencies, the county's first priority is protection of human life and secondly, personal property. This map below shows the potential risk, but any given day under the right elements, Custer County is prone to large wildfires under certain weather conditions.



# Custer County Wildfire Preparedness Plan

## Part 4 :: Putting the CWPP Into Action

### Overview:

Part 4 focuses on putting the CWPP into action. The first section provides an overview of Stakeholder's associated with this CWPP to promote understanding of plan. The second section provides an action plan to guide stakeholder implementation activities. This Ensures the CWPP process moves forward in tangible ways. Finally, additional guidance on plan Maintenance outlines key considerations to ensure this plan stays timely and relevant in the Future.

The success of this CWPP requires the participation of all stakeholders to engage in understanding their role and taking appropriate actions. The following table shares roles that community members at local, state, and federal levels play in Custer County's wildfire resilience and risk reduction.

Stakeholder Group	Overview of Roles
City, County, and Local Partners	
Elected Officials	Board of County Commissioners (BCC) has jurisdiction and power to represent the county and has care of the county property, management, and business concerns. <ul style="list-style-type: none"> <li>• Custer County Sheriff is an elected position that has responsibility for the enforcement of state and county laws and statutes.</li> <li>• The Miles City Council and Mayor of Miles City are elected to represent citizens of Miles City.</li> </ul>
Fire Departments and Fire Districts	Responsible for community fire response and protection services for areas across Custer County
Custer County Emergency Management	Coordinates emergency response components in Custer County and the City of Miles City
County and City Residents, Private Landowners, and Community Councils	Responsible for personal property and engaging in community projects. <ul style="list-style-type: none"> <li>• Includes private landowners, such as citizens and entities with large landholdings.</li> </ul>
Montana Department of Natural Resources	State agency providing fire resources and information, including WUI maps, air quality updates, current fire restrictions, and historical fire information
Bureau of Land Management	Manages Public Lands in Custer County , FIRE Resources
Non-Government stakeholders	Telecommunication companies, MDU, Tongue River Electric, South East Montana electric.
HOA	Sets HOA policy for building in the HOA
Sheriff's office	Assists with evacuations, traffic control
MT DOT	Assists with road closures
Custer County Road	Heavy equipment for fire lines
SE MT DISPATCH	911 CALL CENTER- MASS EVACUATIONS
BLM INTERAGENCY DISPATCH	COMMUNICATIONS

# Custer County Wildfire Preparedness Plan

## RISK REDUCTION GOALS/ ACTIONS

Goals of Plan: This Part provides the steps that are being taken or should be taken in Custer County to reduce the wildland and structure fire threats to public, fire fighters and other values at risk.

Action(s):	Timeline:	Community Lead:	Priority:
4.1-Complete fuels reduction in the WUI	ONGOING	FIRE WARDEN	HIGH
4.2-Utilize prescribed fire more at the local government level	ONGOING	FIRE WARDEN	HIGH
4.3 - Mitigate coal seam fire hazard in Custer County	ONGOING	FIRE WARDEN	HIGH
4.4-Collect Home assessments for pre planning wildfire events	ONGOING	FIRE WARDEN	HIGH
4.5-Discourage development in hazardous areas	ongoing	Custer County	HIGH
4.6-Support efforts of public and private sectors to restore and maintain healthy forests, including harvesting timber, while meeting other natural resources management goals	ongoing	DNRC,BLM, CUSTER COUNTY,PRIVATE	HIGH
4.7-Provide mapping and other information to the public about local Hazardous in a easily accessible format	ONGOING	DES,FIRE WARDEN, GIS	HIGH
4.8-Explore zoning regulation and building code in the County	3-5 YEARS	CUSTER COUNTY	HIGH
4.9-Evaluate, upgrade and maintain community wildland and structural fire preparation and response facilities, training and equipment to deal with multiple ignitions.	ONGOING	CUSTER COUNTY	MED.
4.10-Custer County will prevent threats to and destruction of property from wildland fire by adopting subdivision regulations, which include access, water supply, communications and fire stations.	3-5 YEARS	CUSTER COUNTY	MED.
4.11-Custer County will help educate community members to prepare for and respond to wildland fire and to mitigate wildland fire damage.	ONGOING	FIRE WARDEN	HIGH
4.12-Custer County will improve training and qualifications of their personnel to more effectively interface with incoming Incident Management Teams deployed in the county.	ONGOING	FIRE WARDEN	HIGH
4.13-Custer County will work as a partner to identify and implement fuels reduction projects between private landowners, DNRC and the Miles City Field Office of the Bureau of Land Management.	ONGOING	FIRE WARDEN	HIGH
4.14-Custer County will develop and maintain regulations to ensure asset protection zones are created and maintained around structures and improvements in the county.	ONGOING	FIRE,DES,PRIVATE , COUNTY COMMISSIONERS	HIGH
4.15-Custer County will cross train agencies on the mass notification system.	ONGOING	FIRE,LAW,DES,911 CENTER	MED.
4.16-Will conduct wildfire preparedness drills in the WUI	ONGOING	FIRE, DES	LOW

# Custer County Wildfire Preparedness Plan

## Risk Reduction Goals

**4.1- Reduce the vegetation** in those areas within the subdivisions where the continued presence of the fuels represents a clear potential to generate high fire intensities. Wildland fires burning under high intensities will pose the greatest threat to structures, their inhabitants or firefighters. The county could start in those areas where fuel modification projects would have the most potential to positively impact the greatest number of people or structures. Normally, these areas would be on the western or southern edges of the subdivisions or down slope from improvements. Changing crown density and interrupting the ladder fuel continuity should be highest priority. Fuel modification areas need to be a minimum of 50 feet wide and closer to 100 feet whenever possible. Look for areas of active tree or shrub encroachment where the absence of periodic natural fires has allowed vegetation, like juniper or heavy ponderosa pine regeneration, to survive. Eliminating these plants while they are young are relatively inexpensive and over time it will significantly reduce the resistance to control factor for firefighters when fighting a fire in that area. This is a treatment that can be especially effective upwind from subdivisions.

**Project Coordinator – Custer County Fire Warden, BLM, Montana DNRC, NRCS, USDA**

Proposed Project 4.1.2 – Once the fuels in an area have been reduced to an acceptable level it is critical that they not be allowed to return to the condition they were in prior to treatment. Treated areas should be inspected at 5-10 year intervals to determine if they would still be effective during a wildland fire. Most likely they will need some type of follow up maintenance, at that point in time, but this work should require less effort and at a reduced cost from the original treatment. If it is not accomplished periodically the full treatment costs will be required again in 20-30 years.

**4.3- Prescribed burning**—or controlled burning—is a relatively quick and inexpensive way to reduce fuel loads. However, in many situations, especially where there are structures nearby, preparatory work needs to be done to reduce the overall flammability of the site. The county may wish to explore the opportunities for using prescribed fire on private lands within the county. There are some tangible benefits to local ranchers and when they use low to moderate intensity prescribed fire to increase the quantity and palatability of grass on pastures, especially on those now occupied by sagebrush or other brushy hardwood species. It will also set back the encroachment of ponderosa pine onto grasslands where this is a problem. Forage levels have been increased two to four times the pre-burn levels on many sites in Montana and sage has been reduced to about 10 percent of pre-burn levels. One drawback to prescribed fire is that the area to be burned should not be grazed for one season prior to burning and one season after burning. The reasons are to insure enough fine fuels are present on the site to adequately carry the fire during burning and to allow the new and/or rejuvenated grass plants adequate time to develop healthy root systems the following growing season. Several research publications completed by the Intermountain Research Station discuss the types of results that can be expected.

One of the greatest benefits to prescribed burning is the training opportunity it provides for the firefighters. On a wildfire they are often forced to be reactive rather than to plan and execute actions in a more orderly fashion. When conducting a prescribed burn they will be able to observe fire behavior in a non-emergency setting. They will also learn how to effectively ignite the area to be burned and how to deploy the holding forces to make the best use of available skills and equipment. All of this can be accomplished while functioning in the serious but more controlled environment of a prescribed fire. Opportunities may arise from planning efforts to jointly conduct prescribed fire projects. Custer County fire agencies should participate in these burns when practical to improve their training, qualifications and experience in wildland fire management. Efforts such as these promote better interagency cooperation and working relationships.

**Project Coordinator – Custer County Fire Warden and BLM**

**4.3- Coal Seam Mitigation**-Once all these coal seam locations are proofed we will look at mitigation ideas for each location based on the priority from the data we've collected. There are many ways to mitigate a coal seam. 1. Using heavy equipment such as excavation, digging out the burning coal. 2. Create a fire break around the coal seam fires such as digging hand line, or using a dozer and building a good solid fire line and removing fuels indirectly. 3. Utilizing ground sterilant go and spray a perimeter around these burning coal seams and remove all surface fuel from around the burning coal seam. This is will be a long term project to create a resilient fire community.

**Project Coordinator – Custer County Fire Warden and BLM**

## Custer County Wildfire Preparedness Plan

**4.4-Collect Home assessments for pre planning wildfire events-** Location of safety zones within some of the subdivisions is probably the best approach to protecting human life during a fast moving fire, especially when residents are faced with the alternative of trying to navigate narrow roads under smoky conditions. Any required clearance work on these identified areas should be accomplished prior to fire season as labor and equipment become available. One important point is to insure that the development of procedures, such as when to occupy them and what should and should not be taken into them, are clearly understood by anyone who may need to use them.

**Project Coordinator – Custer County Fire Warden, BLM, DNRC, HOA, PRIVATE HOMEOWNERS**

**4.5-Discourage development in hazardous areas-** Community outreach and planning with the Custer County Commissioners on reducing the ability to build in a high fire prone area without doing fuels work and creating a fire adaptive home.

**4.6-Support efforts of public and private sectors to restore and maintain healthy forests, including harvesting timber, while meeting other natural resources management goals-** Support efforts such as cost sharing to help landowners reduce fuels and take measures to make their properties more resilient to hazards. Completing a home assessment with landowners and showing them mitigation strategies to help create their property safe in the event of a wildfire.

**4.7-Provide mapping and other information to the public about local Hazardous in a easily accessible format –** Provide information to landowners regarding development in hazardous areas (evacuation plans, Firewise development practices, etc.). Explore the possibility of providing risk disclosure statements.

**4.8-Explore zoning regulation and building code in the County-** Adopt development regulations that require the best possible hazardous mitigation techniques, including Firewise construction, multiple accesses, etc. The county fire warden needs to ensure that wildland fire concerns are addressed in the subdivision review process for any future planned subdivision. The purpose for his input is to avoid creation or perpetuation of any untenable situations, from a fire protection standpoint. Issues such as road systems, water supply, building materials, asset protection zone and covenants covering vegetation management are all of concern to the fire warden and they can directly affect his ability to be effective.

**4.9-Evaluate, upgrade and maintain community wildland and structural fire preparation and response facilities, training and equipment to deal with multiple ignitions-** Emergency response to wildland, wildland-urban interface and structure fires includes the placement of stations, apparatus and personnel to meet the needs of the community. Develop a capital improvement plan to up-grade fire apparatus and equipment, within Custer County Fire Department.

**4.10-Custer County will prevent threats to and destruction of property from wildland fire by adopting subdivision regulations, which include access, water supply, communications and fire stations-** Develop a mechanism to track new development and structures, which are in the wildland-urban interface areas of the county to enable structure fire agencies and Custer County Fire to pre-plan evacuations and fire attack. Adopt appropriate subdivision regulations which address the wildland-urban interface.

**4.11-Custer County will help educate community members to prepare for and respond to wildland fire and to mitigate wildland fire damage-** Continue to sponsor a Firewise Community Program locally within the county for the public and conduct it biannually. Integrate weed and fire management into any public education that is conducted during the Firewise Community Program. Educating residents about wildland fire issues is one of the most effective ways to reduce fire hazards, whether that be in K-12 schools, or programs designed for adults.

**4.12-Custer County will improve training and qualifications of their personnel to more effectively interface with incoming Incident Management Teams deployed in the county-** Develop a training program which encompasses County Fire Wardens, County Sheriff's, Disaster and Emergency Service officials, Mayors, City Councils and Fire Chiefs, and other government officials, to maintain currency with their fire program to include their roles and responsibilities as government officials. This training would provide the skill level to determine the appropriate level of Incident Management Team (IMT) and the ability to write a delegation of authority to the IMT, which would include the management objectives of the local government for the emergency incident.

## Custer County Wildfire Preparedness Plan

**4.13-Custer County will work as a partner to identify and implement fuels reduction projects between private landowners, DNRC and the Miles City Field Office of the Bureau of Land Management-** One of the single most important mitigating factors to increase the chances for the home's survival during a wildland-urban interface fire is the creation and maintenance of an asset protection zone (defensible space). An asset protection zone refers to an area around the home where the native vegetation has been modified to reduce the wildland/urban interface fire threat to the home and provides a safe area for fire fighters to work effectively and safely.

Slope and fuels affect the size of the asset protection zone. Homes near steep slopes and in heavy fuels will need to clear additional vegetation to mitigate the effects of the radiant and convective heat currents and flame lengths. The slopes should be planted to native vegetation that is fire resistant. Seek match funding to hire contractors to remove hazardous fuels in the WUI.

**4.14-Custer County will develop and maintain regulations to ensure asset protection zones are created and maintained around structures and improvements in the county-** The National Fire Plan also mandates that local governments develop and adopt local land use plans and ordinances that provide for the maintenance of defensible space and fuel management on municipal and private property. The Custer County Commissioners should develop land use plans and ordinances that provide for asset protection zone (defensible space) and fuel management.

**4.15-Custer County will cross train agencies on the mass notification system-** Custer County DES will cross train all emergency services agencies to utilize the mass notification system for Custer County.

**4.16- Conduct wildfire preparedness drills in the WUI-** Custer County DES will try and host a public interfacing wildland fire drill with private, local, state and federal agencies of high risk areas.







# Custer County Wildfire Preparedness Plan

## Part 6: Previous accomplishments

Past Accomplishments	
<b>Prevention</b>	<ul style="list-style-type: none"> <li>• <i>Formed an active CWPP committee that meets once a month, composed of residents, Commissioners and Fire Dept. (2005).</i></li> <li>• <i>Posts prevention tips frequently on social media, newspaper, and radio</i></li> <li>• <i>Hosted fire prevention with school</i></li> <li>• </li> </ul>
<b>Preparedness</b>	<ul style="list-style-type: none"> <li>• <i>Completed a community wildfire protection plan (CWPP) in 2005.</i></li> <li>• <i>Completed a Pre disaster mitigation plan 2023</i></li> <li>• <i>FEPP acquisition for fire department including 2 five ton trucks to be converted to a wildland fire engine.</i></li> <li>• <i>Training in wildland firefighting including S-190, S-130 and chainsaw training.</i></li> <li>• <i>Cadet program to bring younger prospects into the program</i></li> <li>• <i>Purchased a mass notification system</i></li> </ul>
<b>Mitigation</b>	<ul style="list-style-type: none"> <li>• <i>Secured a BLM Community assistance grant and completed 400 acres of hazardous fuels mitigation in the WUI.</i></li> <li>• <i>Secured funding fire prescribed fire activities</i></li> <li>• <i>Completed most of the Pine Hills subdivision for fuels reduction</i></li> <li>• <i>Secured a federal grant to map all coal seams in Eastern Montana</i></li> <li>• <i>Started fuels mitigation in Moon Creek and Knowleton</i></li> </ul>

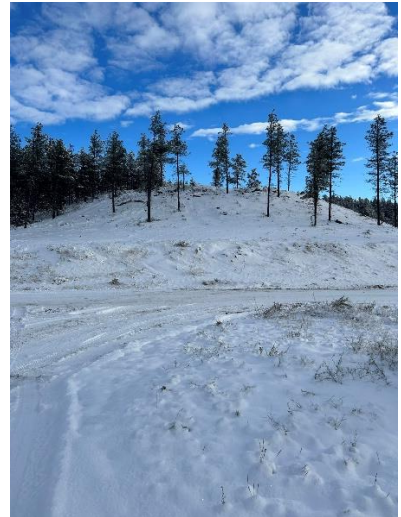
# Custer County Wildfire Preparedness Plan

## Past Mitigation Projects

Before: Hill Canyon Mizpah



After: Hill Canyon Mizpah



### Prescribed Fire



### Woodruff Park



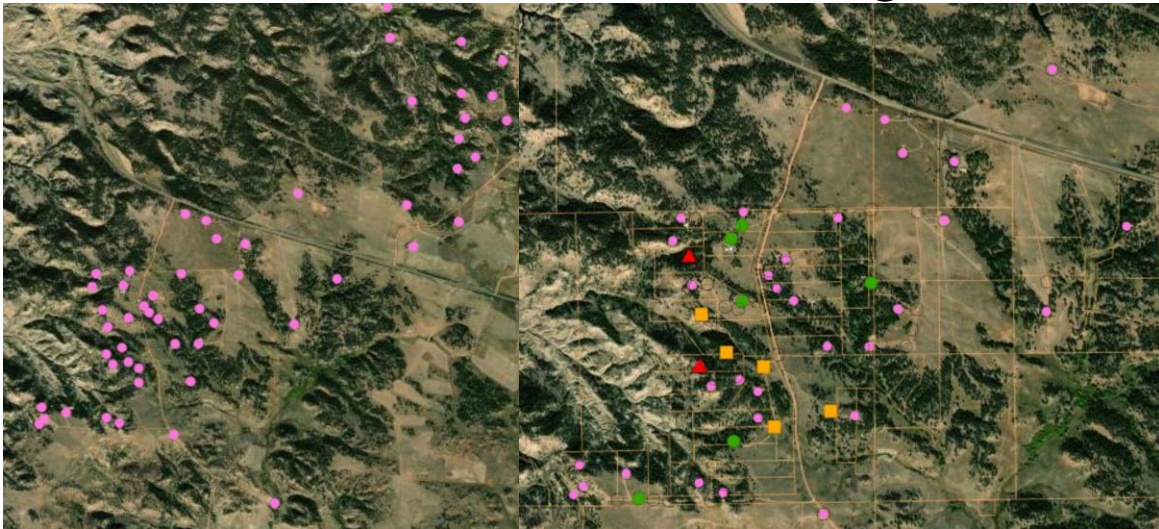


# Custer County Wildfire Preparedness Plan

## Pine Hills WUI



### Home Assesments showing risk



# Custer County Wildfire Preparedness Plan

## Part 7: Sources

1. [Montana Forest Action Plan \(mt.gov\)](#)
2. [Census.gov](#)
3. [Geographic Information Home \(mt.gov\)](#)
4. [ArcGIS Online | Cloud-Based GIS Mapping Software Solution \(esri.com\)](#)
5. [Intterra \(intterragroup.com\)](#)
6. Custer County 2005 Previous CWPP FIRE LOGISTICS
7. [IAFC | International Association of Fire Chiefs](#)
8. [Climate Prediction Center \(noaa.gov\)](#)
9. [Fuels Management | Bureau of Land Management \(blm.gov\)](#)
10. [Home \(mt.gov\)](#)
11. [Creating a Community Wildfire Protection Plan \(fema.gov\)](#)
12. [Healthy Forests Initiative and Healthy Forests Restoration Act, Interim Field Guide \(usda.gov\)](#)
13. [implem\\_plan \(usda.gov\)](#)
14. Custer County GIS
15. DNRC EASTERN LAND OFFICE- MAPS

<b>Appendix A: Pine Hills Wildland fire pre-suppression plan to be completed by 2025</b>
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