YELLOWSTONE COUNTY
COMMUNITY WILDFIRE PROTECTION PLAN

Prepared for:
Yellowstone County
Department of
Emergency Services

Prepared by:
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July 11, 2025

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6/24/25
Date

Document Version History

Issue Date	Version	Comments
April 2025	Preliminary Draft	
May 2025	Final Draft	
July 2025	Final	
August 2025	Signed and Adopted	

Data Product Disclaimer

The Yellowstone County Community Wildfire Protection Plan (CWPP) is a living document that is regularly updated as new information becomes available. The CWPP and additional information can be found on the Yellowstone County Disaster and Emergency Services webpage accessible via the link below or by scanning the QR code with your smart phone or device.

Yellowstone County Disaster and Emergency Services

URL: https://www.yellowstonecountymt.gov/des/.

Acknowledgments

The Yellowstone County Community Wildfire Protection Plan Core Team members would like to thank all who contributed their time and expertise towards the development of this critical planning document, including individuals from Yellowstone County Department of Emergency Services and other Yellowstone County officials and personnel, city government, Laurel Fire Department, Lockwood Fire Department, Blue Creek Volunteer Fire Department, Shepherd Volunteer Fire Department, Montana Department of Natural Resources and Conservation, U.S. Forest Service, Bureau of Land Management, Bureau of Indian Affairs, and many other engaged stakeholders and members of the public. These contributions were invaluable throughout the process and have created a well-rounded and effective document that will serve Yellowstone County for years to come.

List of Acronyms

Acronym	Definition
BLM	Bureau of Land Management
cNVC	Conditional Net Value Change
CWPP	Community Wildfire Protection Plan
eNVC	Expected Net Value Change
EVT	Existing Vegetation Type
FLAME	Federal Land Assistance, Management, and Enhancement Act of 2009
GET	Ground Evacuation Time
GIS	Geographic Information System
HFRA	Healthy Forests Restoration Act of 2003
HIZ	Home Ignition Zone
HUC	Hydrologic Unit Code
HVRA	Highly Valued Resources and Assets
MT DNRC	Montana Department of Natural Resources and Conservation
MWRA	Montana Wildfire Risk Assessment
NEPA	National Environmental Policy Act
NFP	National Fire Plan
NWCG	National Wildfire Coordinating Group
PCL	Potential Control Location
ROS	Rate of Spread
SDI	Suppression Difficulty Index
USDA	United States Department of Agriculture
USFS SAB	U.S. Forest Service Strategic Analytics Branch
WUI	Wildland Urban Interface

Yellowstone County Community Wildfire Protection Plan

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Executive Summary

This document constitutes an updated version of the 2006 Community Wildfire Protection Plan (CWPP) for Yellowstone County (the County). The Healthy Forests Restoration Act of 2003 (HFRA) encourages the development of CWPPs to help communities plan for, respond to, and recover from wildfire events. Since 2006, the County has changed dramatically, with increased population, more development, and increasing wildfire risk associated with higher fuel hazard and human ignitions.

This CWPP is a community-based plan focused on identifying and addressing the local threat of wildfire. This living document is updated as needed to use the best available information to characterize current conditions, identify resources and assets susceptible to wildfire, and identify and interpret wildfire risk throughout the County. Information regarding the CWPP can be found online at:

https://www.yellowstonecountymt.gov/des/

The successful development of the CWPP is the result of collaborative effort by an interdisciplinary CWPP "Core Team," the public, and other stakeholders who submitted feedback during public meetings, public engagement opportunities, and a formal public comment process. This feedback has resulted in a comprehensive CWPP that encompasses a wide variety of perspectives and experience.

Notable components of this CWPP include: identification and clarification of the Wildland Urban Interface (WUI), prioritized areas for fuel reduction and other wildfire mitigations within the County, a detailed implementation plan and action table, and recommendations to reduce structural ignitability and wildfire risk.

These elements of the CWPP fulfill HFRA requirements and provide decision-makers and stakeholders with a useful and current tool to address the local risk of wildfire. This updated CWPP also facilitates access to funding that supports the implementation of eligible projects that reduce wildfire risk, increase wildfire response capacity, and provide public education regarding wildfires and associated risk.

The CWPP also summarizes the regulatory environment surrounding the development of a CWPP along with a characterization of the County including demographics, government structure, land use, and the fire environment.

The implementation plan developed for the CWPP consists of goals, objectives, strategies, and projects that align with federal, state, and local goals while also meeting the unique needs of the County. This implementation plan interfaces directly with a detailed action plan, consisting of individual projects collaboratively developed by the CWPP Core Team, the public, and stakeholders. The projects within the action plan are organized according to relative wildfire risk per fire district, which facilitates effective planning that aligns with resource allocation and existing planning frameworks.

The Yellowstone County CWPP is a comprehensive resource that characterizes current conditions and available resources, identifies and interprets wildfire risk, and provides next steps intended to mitigate that risk and provide the public with recommendations to reduce structural ignitability. The updated elements developed throughout this process also facilitate access to a variety of funding opportunities to implement the strategies and achieve the goals and objectives outlined within the CWPP.

How to Use This Plan

The CWPP is meant to be read and used by both technical and general audiences and is organized to allow intuitive navigation to sections of particular interest while also maintaining logical flow throughout the document. The following overview provides a brief summary of the three sections of the CWPP.

Section 1: Introduction and Background

This section provides relevant information characterizing Yellowstone County as it relates to topics addressed within Section 2 and Section 3 of the CWPP. Topics covered within this section relate to the purpose, need, and requirements of a CWPP document; the relationship of the CWPP to other active plans, policies, and regulations applicable to the County; and public engagement and collaboration.

Section 2: Wildland Urban Interface & Risk Assessment

Section 2 contains a summary of baseline information for Yellowstone County, including government, land use, and demographics. The fire environment is also characterized, including descriptions of topography, hydrology, climate, vegetation, fuels, and fire history. This section also reviews wildfire risk assessment data across the County and provides context for interpretation. At risk and underserved communities are also characterized with respect to federal definitions as they relate to the CWPP process.

Section 3: Implementation

This section explains how the CWPP integrates with the National Cohesive Strategy; outlines various resources for homeowners to reduce structural ignitability; characterizes the County's current capacity for wildfire response efforts; and provides a detailed action plan outlining applicable goals, objectives, strategies, and projects identified through the CWPP update process. This section also includes priority areas for wildfire risk reduction throughout the County.

Virtual CWPP Resources

Online Story Map & More Information

https://www.yellowstonecountymt.gov/des/

Section 1: Introduction and Background

Community Wildfire Protection Plans

Following decades of fire suppression, changing climate, and subsequently increasing frequency of catastrophic wildfire events, lawmakers identified the need to equip individual communities with tools and funding to address the growing risks posed by wildfire. HFRA was enacted in 2003, outlining a basic process for at risk communities to do this by creating a CWPP. A CWPP is a planning document that assists communities in preparing for, responding to, and recovering from wildfire. CWPPs can vary widely across communities based on unique local needs and priorities. HFRA further encourages hazardous fuel management and community participation to reduce the risk of large wildfires and directs federal land management agencies to prioritize authorized hazardous fuel reduction projects that provide for the protection of at risk and/or underserved communities that implement CWPPs. Communities are encouraged to create CWPPs to plan for wildfire mitigation activities and tailor the plans to their unique environment.

FIGURE 1 LAUREL FIRE & RESCUE FIREFIGHTERS AND AERIAL SUPPORT

This document constitutes Yellowstone County's updated CWPP, which will guide planners, fire departments, citizens, and other stakeholders in preventing, responding to, recovering from, and living with wildfire. The newly published CWWP is required for the County to be eligible for millions of dollars of federal funding to implement projects that mitigate wildfire risk.

CWPP Requirements

Though the content in CWPPs can vary based on the landscape, needs, and values of a given county, HFRA identifies four basic requirements for counties seeking federal funding. These requirements include:

- Collaboration,
- Prioritized fuel reduction,
- Recommendations to reduce structure ignitability, and
- Agreement on final CWPP contents by the local government, local fire departments, and the state entity responsible for forest management, such as the Montana Department of Natural Resources and Conservation (MT DNRC).

Collaboration

CWPPs must be developed through a collaborative process involving local and state representatives, federal agencies, and other interested parties. Ideally, this collaboration will engage a broad diversity of stakeholders to ensure the CWPP reflects the best local knowledge, receives broad community buy-in, and accounts for ongoing and planned future projects. The 2025 CWPP was developed collaboratively by an interdisciplinary "Core Team" of local county and city representatives, fire department representatives; wildfire response personnel; subject matter specialists; and state and federal agency representatives (Table 1).

The Core Team

The Yellowstone County Core Team consists of an interdisciplinary group of individuals representing County and local government, local fire departments and districts, the MT DNRC, the Bureau of Land Management (BLM), and the Bureau of Indian Affairs (BIA), with support from DJ&A, a local environmental consulting firm. Table 1 provides an overview of these members and their roles and affiliations. Throughout the development of the CWPP, the core team met regularly to discuss important components of the plan and provide local input via virtual meetings and an in-person focused workshop held in Lockwood, MT on November 19, 2024.

TABLE 1 CORE TEAM MEMBERS

Name	Role/Affiliation
Yellowstone County & Local Government	
Annemarie Overcast	DES Coordinator
Derek Yeager	DES Director, County Fire Chief, Fire Warden, Administrator (Rural Fire Protection Program)
Local Fire	
Branden Stevens	Fire Chief – Lockwood
Phil Ehlers	Fire Chief – Shepherd, Rural Fire Council President
JW Hopper	Fire Chief - Laurel
Munib Judas	Administrative Assistant to Laurel Fire Chief
Jackie Williams	Blue Creek Volunteer Fire Department
MT DNRC	
Carmen Borchelt	Community Preparedness & Fire Prevention Specialist
Federal	
David R. Day	BLM – Prescribed Fire Fuels Specialist
Isaac P. Wald	BLM – Prevention/CWPPs
Joe Morris	BIA – Fire Management Officer

Prioritized Fuel Reduction

CWPPs must include prioritization of fuel reduction projects by identifying priority areas and treatment methods to protect at risk communities and essential infrastructure. Often, CWPPs will consider recent, ongoing, and planned future projects and will serve as an implementation plan for years to come. The 2025 CWPP provides spatial priority mapping for fuels reduction projects as well as other mitigations across the County through the use of delineated priority areas (see Prioritization Process and Appendix C). Recommended treatment methods are incorporated into the CWPP via the inclusion of strategies (Appendix A) and proposed projects within the Action Table (Appendix B).

Reduce Structural Ignitability

CWPPs must recommend measures to reduce structural ignitability. Private citizens can implement these measures to prevent loss and damage to their property in the event of wildfire. The 2025 CWPP provides an overview of the concepts and recommendations useful for reducing structural ignitability in the Fire Adapted Communities and Living with Fire sections.

Final Approval & Signatures

The CWPP must be approved and signed by the Yellowstone County commissioners, a local fire representative, and a MT DNRC representative. To highlight the level and breadth of agreement for the 2025 CWPP, the updated Yellowstone County CWPP has been approved and signed by these signatories.

Timeline of the Community Wildfire Protection Plan Update Process

The update process was initiated in September of 2024 and concluded in July of 2025. The final CWPP was signed into effect by all signatories on August 5th of 2025 (Table 2).

TABLE 2 COMMUNITY WILDFIRE PROTECTION PLAN UPDATE TIMELINE

Milestone/Event	Date
CWPP Process Begins	9/3/2024
CWPP Core Team Workshop	11/19/2024
Community Meetings	Lockwood: 2/11/2025 Laurel: 2/26/2025
Preliminary Draft CWPP	3/26/2025
Draft CWPP for Public Review	4/9/2025
Virtual Public Meeting	4/16/2025
Public Comment Period (30 days)	4/16/2025 – 5/16/2025
Final Draft CWPP	5/29/2025
Final CWPP Completed	7/11/2025
CWPP Signed into Effect	8/5/2025

Relationship to Other Plans, Policies, and Regulations

Conformance with relevant plans, policies, and regulations at federal, state, and local levels are important components of an effective CWPP. The 2025 CWPP conforms with the following plans, laws, and policies to maintain consistency and standardization.

National

National Fire Plan

Established in 2000, the National Fire Plan (NFP) addresses five key points: firefighting, rehabilitation, hazardous fuel reduction, community assistance, and accountability. In order to implement actions related to these five key points, the NFP seeks to ensure sufficient firefighting resources for the future; rehabilitate and restore fire damaged ecosystems; reduce the amount of flammable fuels in forests, and established the Wildland Fire Leadership Council (DOI and USDA 2025). The National Fire Plan also encourages the creation of a CWPP. This 2025 CWPP aligns with the key points and actions of the NFP by enabling Yellowstone County to mitigate the risk of wildfire using resources available as a result of the NFP and in conformance with its key points.

Healthy Forests Restoration Act

The Healthy Forest Restoration Act of 2003 (P.L. 108-148) encourages hazardous fuel management and community participation to reduce the risk of large wildfires. HFRA directs federal land management agencies to prioritize authorized hazardous fuel reduction projects that provide for the protection of at risk communities that implement CWPPs and their watersheds. HFRA includes a definition for the WUI and provides standards or criteria for designating the WUI. It also provides flexibility for communities (and counties) to delineate the WUI based on their risk and needs. Communities are encouraged to create

CWPPs to plan for wildfire mitigation activities and tailor the plans to their unique environment. HFRA requires CWPPs to meet three requirements: collaboration, prioritized fuel reduction, and treatment of structural ignitability. Collaboratively developed CWPPs must also be approved by the local government, local fire department, and the state. This 2025 CWPP has been prepared in compliance with HFRA requirements and recommendations.

Federal Land Assistance, Management, and Enhancement Act and The National Cohesive Strategy

The Federal Land Assistance, Management, and Enhancement (FLAME) Act of 2009 (P.L. 111-88) establishes the need for hazardous fuel reduction funding and community wildfire risk assessments across the nation. The FLAME Act also created the National Cohesive Wildland Fire Management Strategy (National Cohesive Strategy) to manage wildland fire more effectively across the nation. The National Cohesive Strategy outlines three goals: to restore and maintain landscapes, create fire adapted communities, and improve wildfire response (Wildland Fire Leadership Council 2023; US DOI and USDA 2014; DOI and USDA 2014). This 2025 CWPP aligns with the three goals established by the National Cohesive Strategy (see Section 3: Implementation).

State

Montana Forest Action Plan

The Montana Forest Action Plan is a comprehensive plan for Montana's forests that is comprised of an assessment of forest conditions, priority areas for focused attention, and goals and strategies for improving forests. The plan also prioritizes the revision of CWPPs through the "Foster Fire-Adapted Communities" strategy (Montana Forest Action Advisory Council 2020).

Local

The CWPP is intended to supplement existing plans by providing focused information regarding wildfire risk and recommendations to reduce it. Local planning documents contain important information about the community that, when incorporated into the CWPP process, facilitates a document that accurately reflects the unique needs and priorities of the community.

Yellowstone County

- Yellowstone County Multi Hazard Mitigation Plan
- Yellowstone County Emergency Operations Plan
- Yellowstone County Disaster & Emergency Services Strategic Plan

Community & Neighborhood Plans

- Broadview Community Plans
- Shepherd Community Plan
- Billings Heights Neighborhood Plan
- Central Terry Park Neighborhood Plan
- Highland Neighborhood Plan
- North Elevation Neighborhood Plan
- North Park Neighborhood Plan
- Northwest Shiloh Plan
- Northwest Shiloh Infrastructure Map
- South Side Neighborhood Plan
- South Billings Blvd. Urban Renewal Plan
- South Billings Urban Renewal District Master Plan
- South Side Neighborhood Plan
- West Billings Plan
- West Billings Flood Mitigation & Groundwater Recharge Study

Development Policy

- 2008 Yellowstone County/City of Billings Growth Policy
- 2016 City of Billings Growth Policy
- 2016 Lockwood Growth Policy
- Infill Development Policy

Zoning & Building Regulations

- Billings Zoning Regulations
- Yellowstone County Zoning Regulations
- Yellowstone County Subdivision Regulations (Draft October 2024)

Agency

- NRCS Yellowstone County Long Range Plan
- BLM Billings Field Office RMP
- US DOI Bureau of Indian Affairs – Crow Agency Fire Management Plan

Public Engagement and Collaboration

The CWPP update process began in September 2024 and continued for approximately one year, consisting of public engagement efforts such as building a representative CWPP Core Team, developing a public ArcGIS Story Map, creating a central online location for CWPP information, soliciting stakeholder feedback, and providing CWPP information and opportunities for engagement through social media, press, and public meetings. Public engagement efforts provided multiple opportunities for public engagement, both virtually and in-person, to ensure the inclusion of all interested stakeholders (Table 2). Two in-person public meetings were held in Lockwood and Laurel on February 11th and 26th, respectively. A public survey form was posted to the CWPP Story Map to solicit any comments or suggestions from the public, and all submitted comments were reviewed and incorporated into the CWPP if substantive. The draft CWPP was made available to the public during a 30-day public comment period. Substantive public comments were incorporated into the final CWPP.

The core team also solicited feedback from local fire responders through a targeted survey. The purpose of this survey was to build upon local knowledge and identify key mitigation strategies to reduce wildfire risk within Yellowstone County, improve wildfire response, and promote fire-adapted communities. Responses to this survey also helped inform the delineation of spatial priority areas within the County (see Prioritization Process).

Summary of Updates to the CWPP

Core features of the Yellowstone County 2025 CWPP include an updated WUI boundary and delineation, consideration of new quantitative wildfire risk assessment data and current conditions throughout Yellowstone County, and spatial prioritization mapping. Yellowstone County looks very different today than it did 19 years ago when the previous plan was written. In that time, a plethora of tools and resources related to identifying, interpreting, and mitigating wildfire risk have become available. The 2025 CWPP accounts for these changes and opens new doors to access grant funding and implement risk reduction projects that protect lives, property, critical infrastructure, and other high-value resources not accounted for in the previous CWPP.

When updating the WUI and CWPP, the interdisciplinary team used newly available science to inform the decision-making process and prioritize future projects. In 2020, DNRC released the Montana Wildfire Risk Assessment (MWRA), which uses the best available science to evaluate current wildfire risk across the entire state (DNRC 2020). Importantly, it accounts for developments and changing conditions that occurred since the original CWPP was published, including increasing residential development within wildland areas and changing landscapes. The MWRA also provides information regarding potential wildfire risk for areas that may be developed in the future. The data generated by the MWRA are an invaluable resource for identifying and interpreting wildfire risk, the susceptibility of resources to fire damage, and more. This tool was integral to the development of a modern and effective CWPP that protects local communities by accurately characterizing wildfire risk throughout Yellowstone County.

Priority areas for fuels reduction and other mitigations were developed through meticulous review of available wildfire risk data and discussions with the core team. Spatial priority areas represent locations where specific fuels reduction treatments or other mitigations (i.e., public education campaigns, equipment purchases) could be implemented to have the greatest amount of impact. Proposed projects occurring within these areas and beyond are further prioritized according to project elements that contribute to the ultimate success of a given project, such as funding availability and efficacy of the treatment (see Prioritization Process). This prioritization framework helps unlock federal funding that is only available to counties with updated CWPPs and prioritized projects. Prioritization also facilitates effective decision-making. By integrating the best available science, evaluating current conditions, and prioritizing projects, the 2025 CWPP is a user-friendly, informative, and effective planning document for local decision-makers and County residents.

Section 2: Wildland Urban Interface & Risk Assessment

2.1. Wildland Fire and Yellowstone County

County Overview

Located in south central Montana, Yellowstone County is bordered by Musselshell County to the north, Rosebud and Treasure Counties to the east, Big Horn and Carbon counties to the south, and Stillwater and Golden Valley Counties to the west. The Yellowstone River roughly bisects the county flowing from southwest to northeast.

Totaling 2,666 square miles, Yellowstone County contains a mix of private and public land ownership, with a vast majority of the land across the county under private ownership (Table 3). About 9,600 acres of the Crow Reservation are located in Yellowstone County to the southwest, with BIA-administered lands present throughout. Areas of BLM-administered land are interspersed throughout the northern portion of the County with areas of state-owned and private lands.
Privately-owned lands represent 81.0% of the county's area with the remainder consisting mainly of federal and state lands, comprising 13.4%, and 4.5% of the County, respectively (Headwaters Economics 2025). Of the federal lands within Yellowstone County, the majority are administered by the BIA. (Figure 2).

TABLE 3 LAND OWNERSHIP IN YELLOWSTONE COUNTY

Surface Owner	Area (acres)	Percentage of Yellowstone County
Private	1,371,854	81.0%
BIA	149,148	8.8%
BLM	77,457	4.6%
State	76,847	4.5%
Undetermined (water)	12,790	0.8%
Local Government	4,748	0.3%
FWS	462	0.0%
USBR	528	0.0%
Total	**1,693,835**	**100.0%**

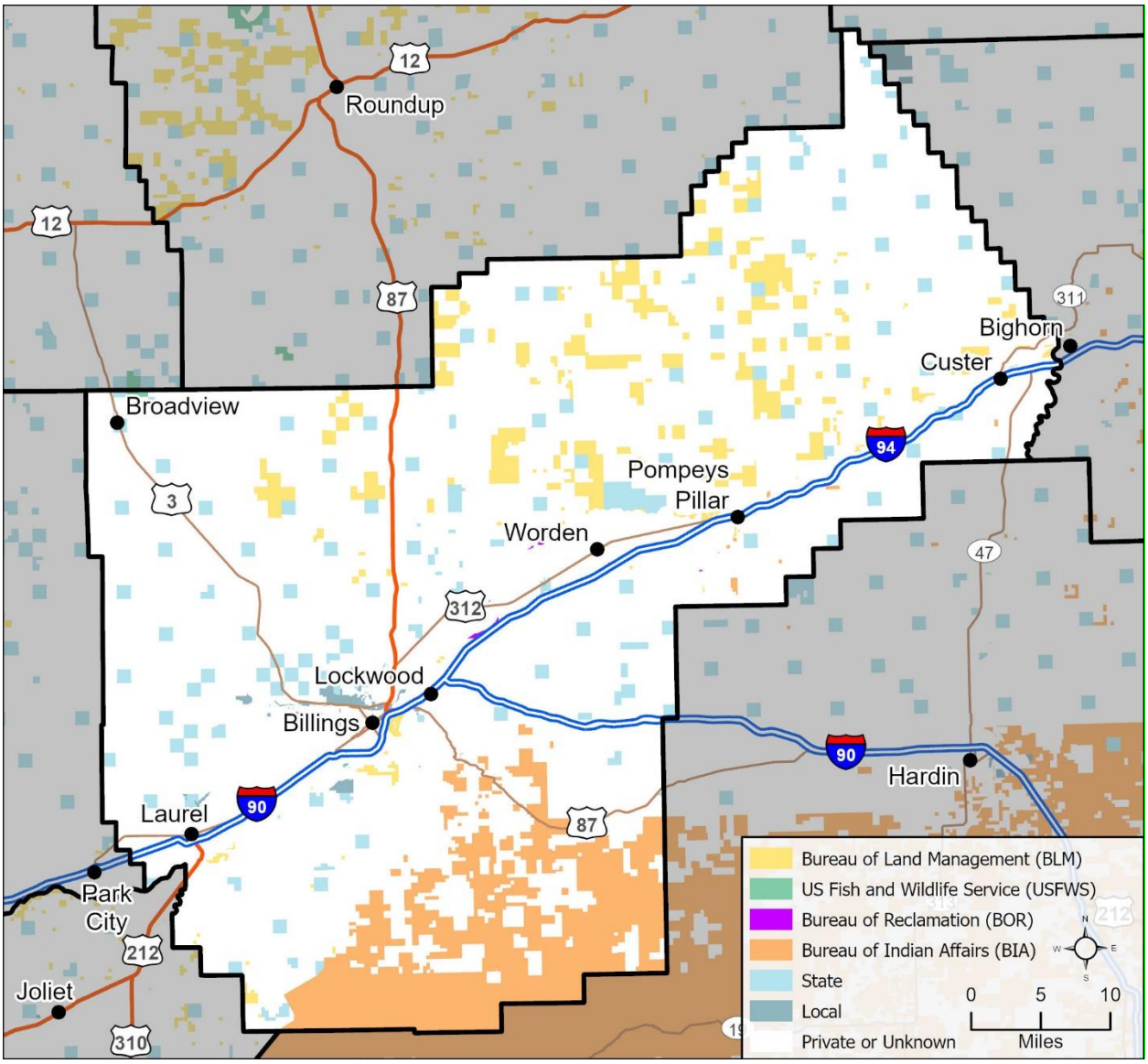


FIGURE 2 YELLOWSTONE COUNTY LAND OWNERSHIP

Land Use

Much of Yellowstone County is characterized by rolling plains, streams, and rivers, with a small portion of the Bull Mountains in the north, and urban areas located primarily within and around Billings. Transportation corridors intersect Yellowstone County, consisting of Interstate 90 (I-90), Interstate 94 (1-94), and state Highways including 87, 312, and 3. The CA road located northeast of Shepherd is a well-traveled county route that intersects large parcels of BLM-administered lands.

Rural areas support extensive agriculture such as cattle ranching, livestock production, and dryland farmed crops including wheat and legumes, as well as hay, sugar beets, barley and other crop production in lowland areas with access to irrigation water (Billings Chamber of Commerce 2025). Recreation opportunities abound in the Rimrocks near Billings, including rock climbing, and miles of mountain biking and hiking trails. Central to the county, the Yellowstone River offers canoeing, kayaking, and fishing as well as habitat for diverse wildlife species.

Critical Infrastructure

Within Yellowstone County, critical infrastructure was identified through the Homeland Infrastructure Foundation-Level Database (U.S. Department of Homeland Security 2023). Types of critical infrastructure within the County include:

- Airports
- Communications sites
- Major transportation routes and facilities
- Pipelines
- Railroad lines and yards
- Transmission lines and utility infrastructure
- Water/wastewater facilities
- Water distribution lines

Demographics

As of 2020, the total population of Yellowstone County was 164,731 (U.S. Census Bureau 2020) making it the most populous county in Montana. Most of this population is concentrated within the state's largest city of Billings, at 114,532 in 2020 (U.S. Census Bureau 2020). As the county seat, Billings is a major retail and wholesale trade, financial, energy, transportation, and medical center. Yellowstone County has experienced steady growth over the past decade, increasing by 11.3% from 2010 to 2020, attributable primarily to migration from outside the county (Headwaters Economics 2025). Many workers commute from outside the county, resulting in a net outflow of earnings. The poverty rate of Yellowstone County is slightly below the national average.

TABLE 4 SUMMARY OF SELECTED DEMOGRAPHIC METRICS FOR YELLOWSTONE COUNTY, MT

U.S. Census Bureau Metric	Value
Population	
Population estimates, July 1, 2023, (V2023)	170,843
Population estimates base, April 1, 2020, (V2023)	164,722
Population, percent change - April 1, 2020 (estimates base) to July 1, 2023, (V2023)	3.7%
Population, Census, April 1, 2020	164,731
Population, Census, April 1, 2010	147,972
Age and Sex	
Persons under 5 years, percent	5.5%
Persons under 18 years, percent	22.7%
Persons 65 years and over, percent	18.6%
Female persons, percent	50.4%
Race and Hispanic Origin	
White alone, percent	89.7%
White alone, not Hispanic or Latino, percent	84.6%
Hispanic or Latino, percent	6.8%

U.S. Census Bureau Metric	Value
Asian alone, percent	0.9%
Two or More Races, percent	3.3%
Black or African American alone, percent	0.7%
American Indian and Alaska Native alone, percent	5.4%
Native Hawaiian and Other Pacific Islander alone, percent	0.1%
Housing	
Housing Units, July 1, 2023, (V2023)	75,508
Owner-occupied housing unit rate, 2019-2023	69.3%
Median value of owner-occupied housing units, 2019-2023	$317,600
Median selected monthly owner costs -with a mortgage, 2019-2023	$1,770
Median selected monthly owner costs -without a mortgage, 2019-2023	$615
Median gross rent, 2019-2023	$1,084
Building Permits, 2023	290
Families & Living Arrangements	
Households, 2019-2023	69,272
Persons per household, 2019-2023	2.37
Living in same house 1 year ago, percent of persons age 1 year+, 2019-2023	84.4%
Language other than English spoken at home, percent of persons age 5 years+, 2019-2023	3.5%
Households with a computer, percent, 2019-2023	95.4%
Households with a broadband Internet subscription, percent, 2019-2023	90.9%
Health	
With a disability, under age 65 years, percent, 2019-2023	9.4%
Persons without health insurance, under age 65 years, percent	9.2%
Income & Poverty	
Median household income (in 2022 dollars), 2019-2023	$74,400
Per capita income in past 12 months (in 2022 dollars), 2019-2023	$42,894
Persons in poverty, percent	9.9%

Fire Environment

Evaluating factors that influence fire behavior and activity is a critical component of an effective CWPP and serves to provide a characterization of the fire environment within Yellowstone County. Fire behavior

is influenced by physical characteristics that vary across the landscape such as topography, hydrology, climate, and vegetation. These characteristics, combined with ignition sources, constitute the fire environment.

Topography & Hydrology

Physical characteristics such as elevation, topography, and slope angle influence fire behavior on the landscape. A thorough understanding of these components informs effective and proactive fire management and fire suppression.

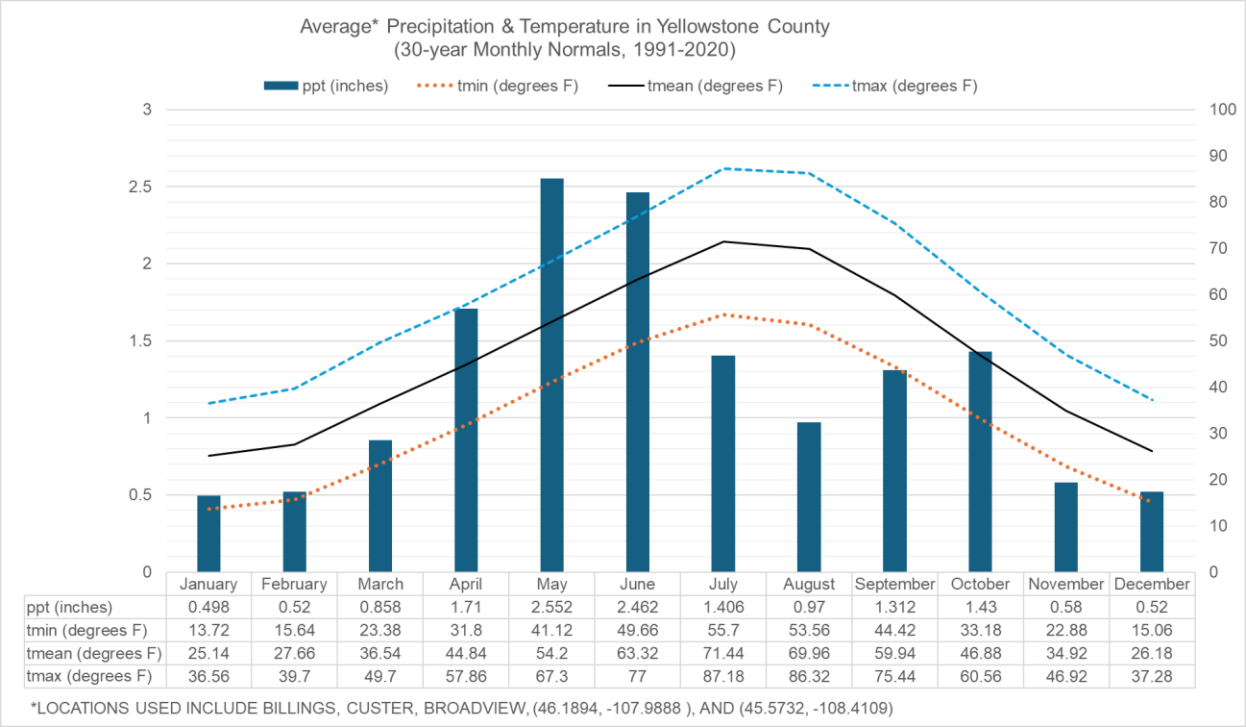
Slope angle is a topographic characteristic that influences fire behavior, with steeper slopes generally encouraging faster rates of spread by bridging the gap between fuels and flame. Research indicates that a slope of 25 degrees or steeper can significantly increase rates of fire spread (Butler, Anderson, and Catchpole 2007). Steeper slopes can also increase risk to firefighting personnel and reduce options for fuels treatments due to difficulty accessing and operating in rugged terrain. Ridgelines associated with steep slopes can also facilitate the spread of fire via wind-driven embers and firebrands (NWCG 2021). There are only small areas with this type of terrain in Yellowstone County (10%); most of the County's terrain (90%) has a slope angle below 25 degrees (USGS 2023). Elevations in most of Yellowstone County range moderately from around 3,000 feet along the Yellowstone River and Billings to 4,000 feet in the hillier part of the County. A portion of the Bull Mountains extends into the northern edge of Yellowstone County, contributing areas of more rugged terrain and reaching elevations of 4,700 feet.

Yellowstone County is characterized by the broad, flat Yellowstone River valley running from southwest to northeast. Many levels of flat-topped alluvial terraces are present from historic higher river levels, as well as evidence of historical river migration and braided channels. The largest streams in Yellowstone County include Pryor Creek and Fly Creek, and many smaller tributaries also flow into the Yellowstone River (USGS 2025). The majority of Yellowstone County is a part of the Upper Yellowstone sub-region (Hydrologic Unit Code [HUC] 1007) with a very small portion of the eastern side supplying the Lower Yellowstone sub-region (HUC 1010). The county contributes to the Pryor (HUC 10070008), and Upper Yellowstone-Pompeys Pillar (HUC 10070007) sub-basins (Seaber 1987).

Climate

The majority of Yellowstone County consists of the Köppen-Geiger Climate class "BSk" (cold semi-arid), with very small patches of "Dfb" (humid continental mild summer, wet all year) located to the south edge of the county (Beck et al. 2018). Average monthly temperatures between 1991-2020 across the County range from 25.14°F (January) to 71.44°F (July), with average minimum and maximum temperatures between 13.72°F (January) and 87.18°F (July) (PRISM Climate Group 2024). Precipitation is highest in May (2.552") and lowest in January (0.498") (Figure 3).

The prevailing winds in Yellowstone County primarily come from the southwest, driven by the Pacific westerlies that dominate much of Montana (WRCC 2025). Typical wind speeds throughout Yellowstone County range from 10 to 15 mph, though stronger gusts are common, with winter being the windiest season (NRIS 2004). Fire season in Yellowstone County is typically from May to September, with most fire activity occurring in the summer months when fuels are driest (Innes 2018).



	January	February	March	April	May	June	July	August	September	October	November	December
ppt (inches)	0.498	0.52	0.858	1.71	2.552	2.462	1.406	0.97	1.312	1.43	0.58	0.52
tmin (degrees F)	13.72	15.64	23.38	31.8	41.12	49.66	55.7	53.56	44.42	33.18	22.88	15.06
tmean (degrees F)	25.14	27.66	36.54	44.84	54.2	63.32	71.44	69.96	59.94	46.88	34.92	26.18
tmax (degrees F)	36.56	39.7	49.7	57.86	67.3	77	87.18	86.32	75.44	60.56	46.92	37.28

*LOCATIONS USED INCLUDE BILLINGS, CUSTER, BROADVIEW, (46.1894, -107.9888), AND (45.5732, -108.4109)

FIGURE 3 YELLOWSTONE COUNTY SEASONAL CLIMATE

Vegetation

In the context of fire management, characterizing the type and extent of varying vegetation communities within the planning area is essential to understand how fire interacts with the landscape. The species, structure, and coverage of different vegetation types directly influences fire behavior and resultant intensity and severity. Vegetation in Yellowstone County is described using the LANDFIRE Existing Vegetation Type (EVT) model, which describes groups of terrestrial plant community types that co-occur within landscapes with similar ecological processes, substrates, and/or environmental gradients (LANDFIRE 2023a). These models are developed through a combination of spatial data sources including field data, satellite imagery, topographic characteristics, and modelling.

Yellowstone County is represented by 54 EVT models, with six models representing the most land area (LANDFIRE 2023a). Existing Vegetation Type models that cover less than 5% land area, or represent non burnable areas such as rock, scree, and urban pavement are included as “Other.” The five most prevalent vegetation types in Yellowstone County are listed in Table 4 and described in detail below.

TABLE 4 EXISTING VEGETATION TYPE IN YELLOWSTONE COUNTY

LANDFIRE Existing Vegetation Type (EVT)	Area (acres)	Percentage of Yellowstone County
Inter-Mountain Basins Big Sagebrush Steppe	505,757	30%
Northwestern Great Plains Mixedgrass Prairie	454,001	27%
Western Cool Temperate Wheat	117,879	7%
Western Cool Temperate Close Grown Crop	96,455	6%
Northwestern Great Plains-Black Hills Ponderosa Pine Woodland and Savanna	85,810	5%
Other	433,933	26%
Total	1,693,835	100%

[1] Models representing less than 5% of the land area or non-burnable fuels are classified as 'Other'.

Inter-Mountain Basins Big Sagebrush Steppe

Inter-Mountain Basins Big Sagebrush Steppe is the most common EVT present in Yellowstone County, representing 30% of the total County area (Table 4). It is made up of mostly grasses, forbs and shrubs. Big sagebrush (*Artemisia tridentata* spp.) and western wheatgrass (*Pascopyrum smithii*) are dominant species (Kittel, Reid, and Schulz 2015). Thread-leaf sedge (*Carex filifolia*) and needleleaf sedge (*Carex duriuscula*) are also present (Kittel, Reid, and Schulz 2015). Only LANDFIRE models provide information on fire frequency in mountain big sagebrush communities in all 21 ecoregions. These models estimate mean fire intervals for mountain big sagebrush Biophysical Settings that range from 20 years in parts of the Columbia Plateau, Blue Mountains, Eastern Cascades Slopes and Foothills, and Northern Basin and Range to 80 years in the Wyoming Basin (Innes 2018). Most shrub species present in this EVT are vulnerable to fire and do not readily resprout, resulting in lengthy recovery times up to 100 years for some sagebrush species (Kittel, Reid, and Schulz 2015). Fire regimes across this EVT are highly variable due to its occurrence across a wide range of environmental settings. Periodic low intensity fire activity can result in positive impacts for herbaceous plant species by reducing overall sagebrush (*Artemisia* spp.) cover. Under natural conditions, this EVT maintains a mosaic of successional stages that support a high diversity of plant and wildlife species. The contemporary fire regime suggests that the overall frequency of fire is reduced, but the frequency of large, high severity fires has increased (Kittel, Reid, and Schulz 2015). Human activities such as grazing and land development, along with the prolific increase in invasive annual grasses such as cheatgrass (*Bromus tectorum*) have resulted in a shift from the historical fire regime. Woody encroachment is also a concern in Mountain Big sagebrush systems due to fire exclusion, as fire historically killed encroaching conifers (Kittel, Reid, and Schulz 2015). Woody encroachment increases the size, continuity, and abundance of surface fuels, contributing to larger, more severe wildfires.

Northwestern Great Plains Mixedgrass Prairie

Northwestern Great Plains Mixedgrass Prairie, in which grasses and forbs dominate, is the second largest EVT present in Yellowstone County, representing 27% of the total County area (Table 4). Western wheatgrass (*Pascopyrum smithii*), green needlegrass (*Nassella viridula*), needle-and-thread (*Hesperostipa comata*), blue grama (*Bouteloua gracilis*), and fescue (*Festuca* ssp.) are important species in this EVT (Menard and Kindscher 2015). This EVT has historically had low severity, patchy fires due to natural fire breaks in topography with a fire return interval of 8 –12 years. Fire, grazing, and drought are the primary drivers of dynamic processes in this system. However, human activities such as fire suppression and land development, along with the prolific increase in invasive species such as cheatgrass, have resulted in a shift from the historical fire regime. Woody encroachment due to fire suppression, such as an increase in sagebrush or ponderosa pine (*Pinus ponderosa*), increases the size, continuity, and abundance of surface fuels, contributing to larger wildfires in this EVT (Menard and Kindscher 2015).

Western Cool Temperate Wheat

Western Cool Temperate Wheat represents 7% of Yellowstone County, making it the third largest EVT in the County (Table 4). This EVT is comprised of agricultural lands cultivating temperate wheat crops. In Yellowstone County, wheat production primarily consists of winter wheat varieties, with a smaller amount of spring wheat. The dryland farming practices within Yellowstone County encompass temperate wheat production (NRCS 2021). Resulting crop yields create an abundant supply of continuous fuels with extremely low fuel moisture, increasing wildfire risk. Harvesting in late summer and early fall also poses a risk via increased ignition potential during the hottest and driest time of year.

Western Cool Temperate Close Grown Crop

Western Cool Temperate Close Grown Crop is the fourth most common EVT present in Yellowstone County, representing 6% of the total County area (Table 4).This EVT is made up of agricultural lands consisting of crops such as wheat, barley, and dry peas that are typically broadcast or drill-seeded (NRCS 2015). Most agricultural lands in Yellowstone County practice dryland farming without extensive irrigation (NRCS 2021). Resulting crop yields create an abundant supply of continuous fuels with extremely low fuel moisture, increasing wildfire risk. Harvesting in late summer and early fall also poses a risk via increased ignition potential during the hottest and driest time of year.

Northwestern Great Plains-Black Hills Ponderosa Pine Woodland and Savanna

Northwestern Great Plains-Black Hills Ponderosa Pine Woodland and Savanna represents 5% of Yellowstone County, as the fifth largest EVT in the County (Table 4). These are physiognomically variable woodlands, ranging from very sparse patches of trees on drier, rock outcrop sites to nearly closed-canopy forest stands on north slopes or in draws where available soil moisture is higher. This group is primarily dominated by *Pinus ponderosa* (Ponderosa pine) but may include a sparse to relatively dense subcanopy of *Juniperus scopulorum* (Rocky Mountain juniper) with just a few scattered trees. Grassy or shrubby understories may also be present in this group. Historical mean fire-return intervals (MFRIs) reported for low severity surface fires ranged from 5 to 33 years in Black Hills ponderosa pine communities (USFS 2017). Low- to moderate-severity surface fires occurred at approximately 11- to 27-year intervals, and infrequent high-severity fires occurred at intervals exceeding 100 years (USFS 2017). Fire type and severity have changed since Euro-American settlement due to fire exclusion and subsequent increased fuels and forest density. Researchers suggest that in ponderosa pine forests similar to those of the Mount Rushmore National Memorial, the dominant fire type has shifted from surface to crown fire during the period of fire exclusion from the late 19th to early 21st centuries (USFS 2017).

Fuels

In the context of fire, fuels are defined as any combustible vegetative material and are a primary driver of fire behavior. Fuel models are used to predict fire behavior based on specific fuelbed characteristics such as size, quantity, density, moisture content, and composition. United States Department of Agriculture (USDA) Standard Fire Behavior Fuel Models are a comprehensive set of models used to define and quantify fuel types, and their impacts on fire behavior fuel models correspond to predicted fire behavior and effects through variables such as spread rate or Rate of Spread (ROS) and flame length, which influence fire intensity (Scott and Burgan 2005).

Yellowstone County is represented by 22 total fuel models, though only five account for 94.14% of the County: GR2, GS2, NB3, NB1, and GS1 (Table 5) (LANDFIRE 2023a). A brief summary of each of these five fuel models is described below (Scott and Burgan 2005).

GR2 - Low Load, Dry Climate Grass (Dynamic)

GR2 fuels comprise 41.18% of the County and consist of moderately coarse, grassy fuels with moderate continuity. Shrubs may be present within this fuel model, but they do not contribute significantly to fire behavior. These fuels are highly influenced by precipitation and have a low moisture of extinction (15%), which is the fuel moisture content at which combustion cannot be sustained independently (Scott and Burgan 2005). The rate of spread for this fuel model is high with moderate flame lengths.

GS2 - Moderate Load, Dry Climate Grass-Shrub (Dynamic)

The GS2 fuel model comprises 30.50% of the County and consists of moderate grass loads and shrubs between one and three feet high. This fuel model has a high spread rate, moderate flame length, and low moisture of extinction (15%).

NB3 – Agricultural Field

This “nonburnable” fuel model consists of agricultural lands maintained in such a state that they are not conducive to the spread of wildfire. In the context of fire behavior and modeling, these fuel models are assumed to have no fire activity. Often, lands mapped as NB3 may be maintained in burnable conditions, in which case, a different fuel model may be assigned (see Nonburnable Fuels). This fuel model comprises 16.03% of the County.

NB1 – Urban/Suburban

This “nonburnable” fuel model comprises 3.45% of the Couty and consists of lands covered by human development. Areas classified as NB1 must not support any amount of wildfire spread through vegetation, though structure ignition from house to house or by firebrands could

GS1 - Low Load, Dry Climate Grass-Shrub

Smaller component fuel models in the country include the GS1 and NB3 models (LANDFIRE 2023a). The GS1 model is characterized as a “” system with a moderate spread rate and low flame length (Scott and Burgan 2005). GS1 fuels represent 3% of Yellowstone County.

Nonburnable Fuels

Four fuel models are characterized as “non-burnable (NB)” and comprise 20.81% of the County. Though identified as non-burnable, these fuel models can contain lands which become burnable given the presence of certain conditions. The fuel model NB3 represents agricultural lands and assumes that said lands are maintained in a non-burnable condition (i.e., irrigation, mowed or tilled orchards) (Scott 2005). In the County, NB3, makes up 16.03% of the total area and represents agricultural lands that are largely un-irrigated, such as hay pastures and wheat fields (see Land Use). Due to the lack of irrigation and dryland farming practices, these areas can readily conduct wildfire and should not be considered non-burnable (Cruz et al. 2020). Areas classified under NB1 are assumed to lack sufficient flammable

vegetation to conduct wildfire throughout the area, but if sufficient flammable vegetation is present, these areas are more accurately evaluated using a burnable fuel model that reflects the fuels present.

TABLE 5 FUEL MODEL ACREAGE IN YELLOWSTONE COUNTY

Fuel Model (Scott and Burgan 2005)	Area (acres)	Percentage of Yellowstone County
GR2 – Low Load, Dry Climate Grass	697,470	41.18%
GS2 – Moderate Load, Dry Climate Grass-Shrub	516,585	30.50%
NB3 – Agricultural Field (non-burnable condition)[2]	271,559	16.03%
NB1 – Urban/Suburban[2]	58,390	3.45%
GS1 – Low Load, Dry Climate Grass - Shrub	50,517	2.98%
Other	429,262	25.3%
Total	1,693,835	100%

[1] Models representing less than 2% of land area are classified as 'Other'.
[2] Fuel models characterized as "non-burnable" may include lands which become burnable under certain conditions. When such areas are shown to maintain conditions conducive to wildfire spread, a burnable fuel model should be assigned.

Fire History

Understanding fire history is an important component to interpreting current fire activity and preparing for future wildfires. There have been 1,051 recorded wildfires from 2014 to early 2025 in Yellowstone County (Table 6), burning a total of 54,206 acres. Of these wildfire ignition points, roughly 50% can be attributed to human causes, 41% remain undetermined/unknown, and 8% to natural causes such as lightning (Wildland Fire Interagency Geospatial Services Group 2023). Changing climatic conditions and fire suppression policies have interrupted the natural fire regime across the western United States, leading to longer fire seasons, more severe fires, and a build-up of fuels.

TABLE 6 YELLOWSTONE COUNTY WILDFIRE INCIDENTS AND CAUSE

Year	Human	Natural	Unknown[1]	Total
2014	5	0	10	15
2015	5	4	29	38
2016	6	6	30	42
2017	67	7	68	142
2018	10	9	8	27
2019	85	13	10	108
2020	18	9	83	110
2021	67	8	71	146
2022	62	11	49	122
2023	91	4	30	125
2024	105	15	48	168
2025[2]	6	0	2	8
Total	527	86	438	1051

[1] Includes fire cause "NULL" and "Undetermined"
[2] 01/01/2025– 03/17/2025

Between 1984 and 2024, over 335,475 acres burned in large wildfires within the County (Figure 4). Notable peaks in 1984, 2006, 2008, and 2021 far exceeded baseline levels of total annual acreage burned (Figure 4). Previously burned areas within the County are concentrated in the northeast, an area largely comprised of BLM-administered lands (Figure 5). Scattered, smaller wildfires have also occurred throughout central and southern portions of the County.

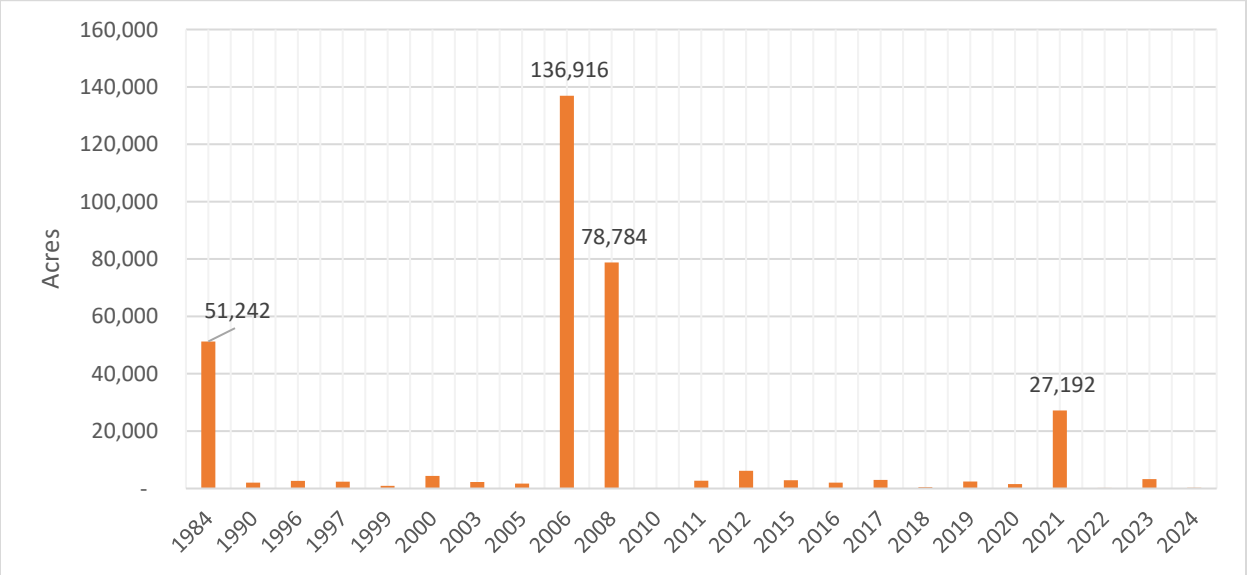


FIGURE 4 FIRE ACRES BURNED 1984 TO 2024

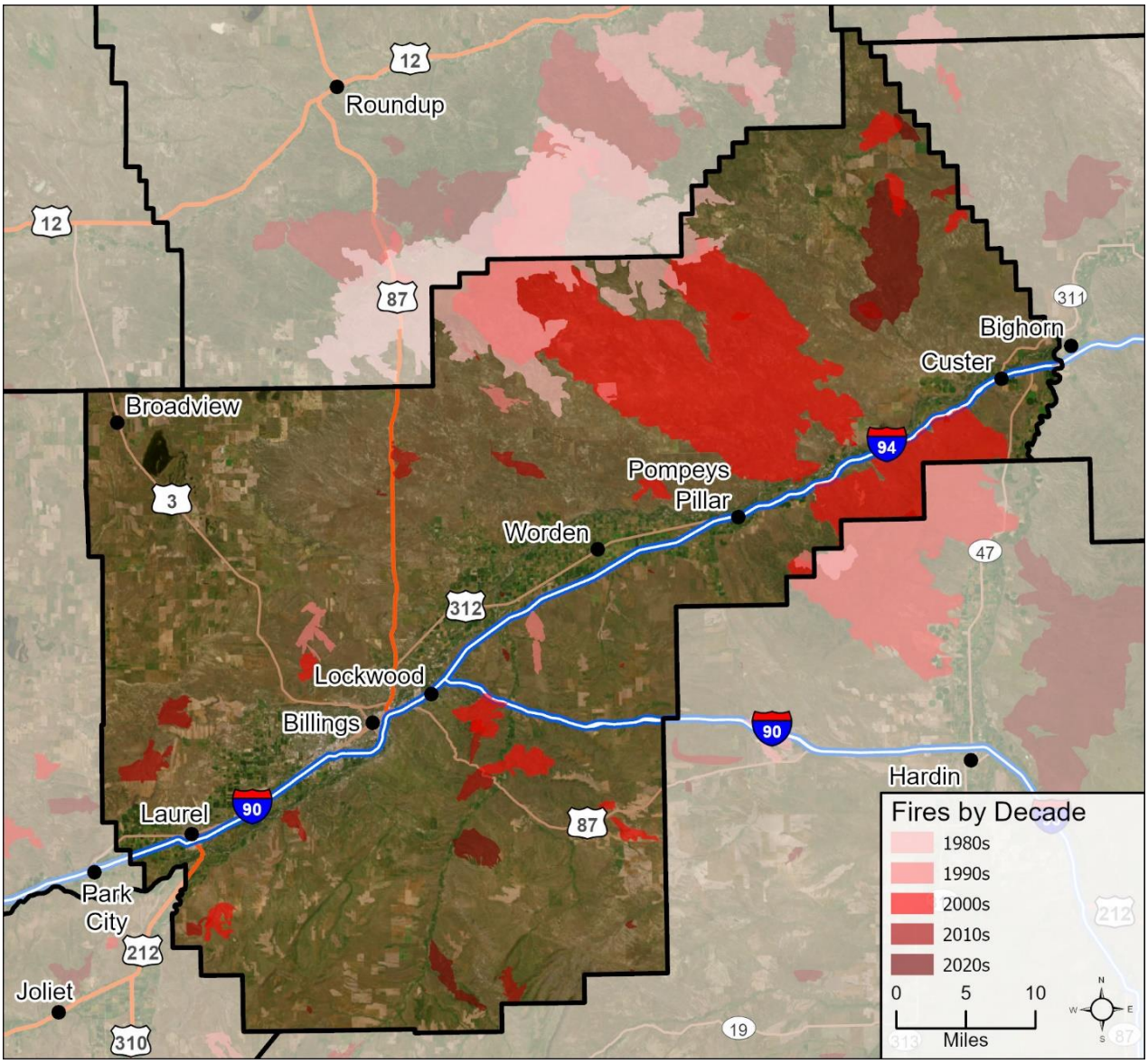


FIGURE 5 YELLOWSTONE COUNTY FIRES BY DECADE

2.2. The Wildland Urban Interface

WUI Overview

The concept of the WUI has a variety of definitions ranging widely in detail and extent according to federal, state, and local sources. At its simplest, the WUI has been described as the area where wildland fuels meet human development, representing an area of increased risk to life, property, and infrastructure. However, the definition of the WUI has evolved in various ways to encompass local community characteristics and values as well as the need for consistent, mappable criteria. The WUI is defined in HFRA as:

> "(A) an area within or adjacent to an at risk community that is identified in recommendations to the Secretary in a community wildfire protection plan; or
>
> (B) in the case of any area for which a community wildfire protection plan is not in effect—
>
> (i) an area extending 1/2-mile from the boundary of an at risk community;
>
> (ii) an area within 1 1/2 miles of the boundary of an at risk community, including any land that—
>
> (I) has a sustained steep slope that creates the potential for wildfire behavior endangering the at risk community;
>
> (II) has a geographic feature that aids in creating an effective fire break, such as a road or ridge top; or
>
> (III) is in condition class 3, as documented by the Secretary in the project-specific environmental analysis; and
>
> (iii) an area that is adjacent to an evacuation route for an at risk community that the Secretary determines, in cooperation with the at risk community, requires hazardous fuel reduction to provide safer evacuation from the at risk community."

In recent years, the definition of the WUI has been at the forefront of various legal challenges as it relates to federal agencies' use of streamlined National Environmental Policy Act (NEPA) processes or Categorical Exclusions permitted through HFRA and other legislation such as the 2014 Farm Bill and 2018 Omnibus Bill[1,2]. The precedent set by such cases suggests that communities define the WUI according to HFRA requirements, with deviations from this definition clearly justified within the CWPP. These cases have also acknowledged the right of a community to extend the boundaries of the WUI beyond the HFRA WUI requirements to meet their needs, though such deviations must be clearly justified.

Defining and delineating the WUI serves to ensure that areas with increased risk to life, property, and infrastructure are appropriately accounted for during decision-making processes. The delineation of the WUI also facilitates access to funding for projects intended to reduce that risk. Per HFRA recommendations, Yellowstone County has updated the WUI to encompass the unique needs of the community and meet the definition of the WUI as defined by HFRA.

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[1] The 2014 Farm Bill establishes an Insect and Disease Categorical Exclusion (CE) for projects within the WUI or in Condition Class 2 or Fire Regime Group I, II, or III outside of the WUI.

[2] The 2018 Omnibus Bill establishes a CE for hazardous fuels within the WUI or for areas with very high wildfire hazard potential that are Condition Class 2 or Fire Regime Group I, II, or III

WUI Components

The updated Yellowstone County WUI is comprised of the 'Functional WUI' data layer developed by MT DNRC and Pyrologix, LLC. and additional components determined by the Core Team during the CWPP update process (MT DNRC 2020). Appendix C displays the combined extent of the updated WUI in Yellowstone County. Components of the Yellowstone County WUI are described below and summarized in Appendix E.

MT DNRC Functional WUI

The MT DNRC Functional WUI is a 30-meter resolution raster dataset that maps the WUI where structures meet, or intermingle with, undeveloped wildland vegetation (i.e., burnable land cover greater than 200 meters from a building centroid). This data layer provides a starting point for WUI designation within a county. Per state statute MCA 76-13-145, the official WUI designation for each county is determined through the completion and/or update of a CWPP. This layer consists of data obtained from the "Structures & Addresses Framework" dataset from the Montana State Library Geographic Information System (GIS) Clearinghouse and fuels information from the calibrated LANDFIRE 2016 Remap (LF 2.0.0) FM40 layer. Land with structures within 200 meters of a building centroid was classified as Direct, Indirect, or Limited Exposure WUI.

- "**Direct Exposure**" WUI is burnable[3] wildland that contains or is near a structure located on or surrounded by burnable land cover. Directly exposed structures could benefit from both the hardening of the structure to resist ignition and the reduction of fuel in the home ignition zone to reduce the structure's exposure to heat and embers.
- "**Indirect**" Exposure WUI is nonburnable land that contains or is near a structure and is within 900 m of burnable land cover (Caggiano et al. 2020). Indirectly exposed structures could benefit from the hardening of the structure to resist ignition from embers and nearby structures.
- "**Limited Exposure**" WUI is nonburnable land that contains a structure but is greater than 900 m from burnable land cover.
- "**Critical Fireshed"** is the Burnable Land Area within about 1,500 m (1 mile) of a group of structures, dependent on structure density, but does not itself contain structures.
- "**Nonburnable Fireshed**" is the nonburnable land cover within 1,500 m (1 mile) of a group of structures but does not itself contain structures.
- "**Non-WUI**" is all land more than 1,500 m (1 mile) from a group of structures.
- "**Water**" is the portion of the landscape covered by open water.

The Functional WUI map provides a broad overview of where structures are located, what their relative level of exposure is, and the burnable lands around those structures.

[3] Nonburnable land cover as defined for the MT DNRC Function WUI data layer is where the mapped fire-behavior fuel model is 91-99; burnable is all other fuel models.

Yellowstone County Additions

Revisions, including additions and modifications, to the MT DNRC Functional WUI were identified by the Core Team and incorporated into the Yellowstone County if justified. Revisions were incorporated if they clearly aligned with the definition of WUI outlined in HFRA and/or their inclusion would directly facilitate implementation of mitigation measures that reduce wildfire risk for communities within the County. A detailed description and justification for these revisions can be found in Appendix E.

- Inclusion of ingress/egress routes to connect “islands” of WUI to the larger WUI polygon.
- Inclusion of portions of “holes” in the WUI with a Conditional Wildfire Risk value of Moderate or greater.
- Inclusion of lands directly adjacent to the WUI with a Conditional Wildfire Risk value of Moderate or greater.

These revisions account for rapid wildfire spread into the WUI in lands with elevated wildfire risk. By including these areas within the WUI, mitigations can be implemented to reduce wildfire risk to nearby communities. The inclusion of ingress and egress routes ensures that adequate consideration is given to roadways that provide one of few means of ingress or egress in the event of a wildfire.

At risk Communities

Per HFRA, all CWPPs must engage at risk communities throughout the planning process, prioritize fuel projects around these communities, and recommend measures to reduce structure ignitability in these communities. In HFRA (16 USC § 6511, Sec. 101(1)), the definition of “at risk communities is as follows:

> “(1) AT RISK COMMUNITY.—The term ‘‘at risk community’’ means an area—
>
> (A) that is comprised of—
>
> (i) an interface community as defined in the notice entitled ‘‘Wildland Urban Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire’’ issued by the Secretary of Agriculture and the Secretary of the Interior in accordance with title IV of the Department of the Interior and Related Agencies Appropriations Act, 2001 (114 Stat. 1009) (66 Fed. Reg. 753, January 4, 2001); or
>
> (ii) a group of homes and other structures with basic infrastructure and services (such as utilities and collectively maintained transportation routes) within or adjacent to Federal land;
>
> (B) in which conditions are conducive to a large-scale wildland fire disturbance event; and
>
> (C) for which a significant threat to human life or property exists as a result of a wildland fire disturbance event.”

In Yellowstone County, four communities are identified as “at risk” in 65 FR 751, ‘Urban Wildland Interface Communities Within the Vicinity of Federal Lands That Are At High Risk From Wildfire’:

- Billings
- Custer
- Laurel
- Shepherd

The list of at risk communities identified within 65 FR 751 is acknowledged as being incomplete at the time of publication, and many additional communities within Yellowstone County meet the criteria described above and may be considered to be “at risk” from wildfire. Since 2001, the criteria for identifying at risk communities has expanded to include a comprehensive range of potential characteristics that result in increased risk for a given community. The Community Wildfire Defense Grant

Program[4] (CWDG) considers communities to be "at risk" if the community area (i.e., County, neighborhood, state) has at least "moderate" wildfire risk. Moderate wildfire risk for this program is defined as having ≥40th percentile Wildfire Risk to Homes, as compared to the state or nation, or having ≥67th percentile Wildfire Hazard Potential as compared to the state or nation. Other data sources can also be used to satisfy this requirement, including local and state wildfire risk data, such as the Montana Wildfire Risk Assessment data used to support this CWPP. Yellowstone County is considered to be at risk according to the CWDG Data Tool (Wildfire Risk to Communities 2024)[5].

Underserved & Disadvantaged Communities

Low-income, minority, and rural communities have historically been excluded from wildfire planning processes and risk mitigation projects across the country and are often disproportionately affected by natural disaster events such as wildfire. Underserved communities are not explicitly defined within the HFRA, though federal and state guidance offers several metrics which can be implemented to determine if a community is underserved. The CWDG also considers "disadvantaged communities" to be underserved, defining these as Counties or communities which have at least one census tract identified as "disadvantaged" using the Climate and Economic Justice Screening Tool[6] or through meeting the low-income definition. The CWDG highlights areas of "low income" or areas with a social vulnerability score of 0.75 or higher as being qualified for "underserved community" status (Wildfire Risk to Communities Project 2022), with the definition of "low income" in Montana being a household income that is 80% of the state median household income. At the time of analysis, the state median household income was $50,331 and the median household income for Yellowstone County was $55,417 (Wildfire Risk to Communities Project 2025). Though these communities were considered, they were not explicitly included as a separate WUI component as they were already included in other resource buffers. Future updates of the CWPP will continue to consider these communities and incorporate, if necessary.

Vulnerable Populations

Together, at risk and underserved communities are also included in what is referred to as "vulnerable" communities, a term which is often used in place of at risk and underserved communities. The USFS Wildfire Risk to Communities website describes vulnerable communities as populations whose social and/or economic factors make it more difficult to prepare for, respond to, and recover from wildfire events (Wildfire Risk to Communities Project 2025). The capacity to cope with wildfire events and other natural disasters is largely rooted in social, economic, and political structures from which vulnerable populations may be marginalized or systematically excluded (Davies et al. 2018). The following U.S. Census Bureau variables are used to evaluate community vulnerability:

- Disabilities
- Limited English
- Mobile homes
- No car
- Over 65 years
- People of color
- Poverty
- Under 5 years

[4] https://wildfirerisk.org/cwdg-tool

[5] https://wildfirerisk.org/cwdg-tool/30111

[6] https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5

If a given census tract or community area has values equal to or greater than the community median for the aforementioned variables, it is considered to be vulnerable to wildfire events (Wildfire Risk to Communities Project 2025).

TABLE 7 VULNERABLE POPULATIONS IN YELLOWSTONE COUNTY, MT

Indicator	Number	Number MOE[1]	Percent[2]	Percent MOE[1,2]
Families in poverty	3,117	*±438*	7.5%	*±1.1%*
People with disabilities	21,554	*±1,279*	13.2%	*±0.8%*
People over 65 years	29,043	*±1,294*	17.5%	*±0.9%*
People under 5 years	9,605	*±870*	5.8%	*±0.5%*
People of color	25,801	*±5,397*	15.6%	*±3.3%*
Black	1,378	*±525*	0.8%	*±0.3%*
Native American	6,388	*±928*	3.9%	*±0.6%*
Hispanic	10,268	*±1,335*	6.2%	*±0.8%*
Difficulty with English	416	*±389*	0.3%	*±0.3%*
Households with no car	3,112	*±530*	4.6%	*±0.8%*

[1]MOE = Margin of Error
[2]Each measure on this page comes from a different subset of the overall population. For example, "poverty status" is not determined for all families. "Households with no car" is determined only for occupied households. "People with disabilities" includes only those people in civilian, noninstitutionalized settings. "Language barriers" is determined only for people five years or older.
Source: (Wildfire Risk to Communities Project 2025)

Severe Disaster Impacts

The CWDG application process also prioritizes communities with documented "severe" natural disasters within the prior 10 years. If the disaster increased wildfire risk and of sufficient scale and scope to create landscape impacts, additional priority is awarded. Typically, these disasters are documented through the Federal Emergency Management Agency's (FEMA) Disaster Declarations Summaries dataset[7], though other events may be eligible if they are demonstrated to fit the criteria. Examples of severe natural disasters that may fit these criteria include: previous wildfire, drought, floods, storms, and wind (Wildfire Risk to Communities Project 2025). FEMA has recognized six severe disasters occurring in Yellowstone County between 2020 to 2022, including three wildfires (Table 8).

[7] https://www.fema.gov/openfema-data-page/disaster-declarations-summaries-v2

TABLE 8 SEVERE DISASTERS IN YELLOWSTONE COUNTY (FEMA)

Declaration Title	Location	Year	Incident Type	FEMA Identification
Severe Storm And Flooding	Yellowstone (County)	2022	Flood	DR-4655-MT
Buffalo Wildfire	Yellowstone (County)	2021	Fire	FM-5399-MT
Covid-19	Yellowstone (County)	2020	Biological	EM-3476-MT
Covid-19 Pandemic	Yellowstone (County)	2020	Biological	DR-4508-MT
Bobcat Fire	Yellowstone (County)	2020	Fire	FM-5344-MT
Falling Star Fire	Yellowstone (County)	2020	Fire	FM-5324-MT

2.3. Wildfire Risk

Wildfire risk is made up of several components that together characterize the total risk posed to a structure, community, or resource. According to MT DNRC, wildfire risk is "the combination of likelihood and intensity (together called "hazard") and exposure and susceptibility (together called "vulnerability")" (MT DNRC 2025). The relationships of these interrelated concepts are illustrated by Figure 6 below.

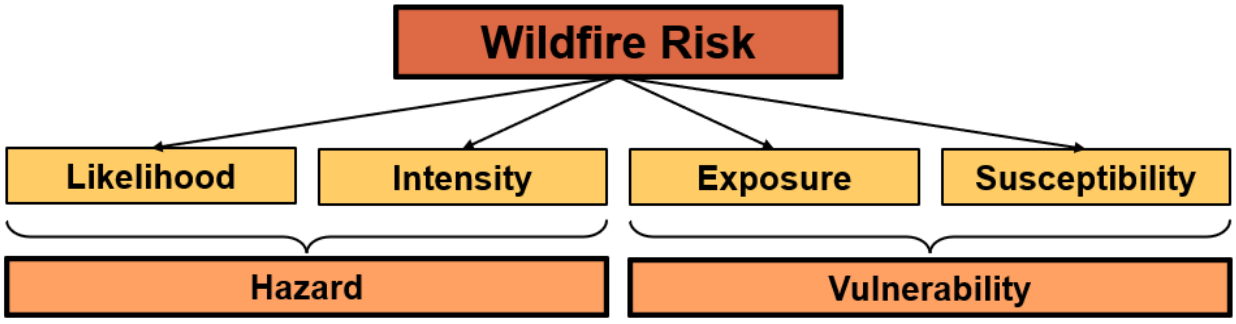

FIGURE 6 COMPONENTS OF WILDFIRE RISK

The concept of wildfire hazard is focused on wildlands themselves. Wildfire likelihood is driven by factors such as topography, weather conditions, and potential ignition sources. Wildfire intensity is a measure of the energy expected from a wildfire and is predicted based on total fuel types, fuel load, and topography. Together, likelihood and intensity represent wildfire hazard.

The concept of wildfire vulnerability, meanwhile, is focused on the communities and structures located within or adjacent to wildlands. Homes and structures located in areas where direct or indirect wildfire impacts may occur are considered to be exposed to wildfire. The characteristics and materials of the structures determine the likelihood of damage when exposed to wildfire, known as wildfire susceptibility. Together, wildfire exposure and susceptibility characterize the total vulnerability of communities and associated life and property when a wildfire occurs (MT DNRC 2025).

As a composite of several discrete but interrelated concepts, wildfire risk provides a single key metric for understanding the real-world threat of wildfire to homes, communities, and resources. The Montana Wildfire Risk Assessment (MT DNRC 2020) used recent LANDFIRE data, historical wildfire occurrence and weather patterns, and wildfire simulations to provide an updated picture of wildfire risk across the

state (MT DNRC 2020). Since its completion, this assessment has been instrumental for counties updating their CWPPs.

Risk Assessment & Community Base Map

Using the best available data and local knowledge and input, the CWPP Core Team developed a community base map including the boundaries of Yellowstone County representing the total area to which the CWPP applies (Appendix C). Wildfire risk within the Community Base Map was evaluated using data and findings from the Montana Wildfire Risk Assessment (MT DNRC 2020).

Risk Assessment

Montana Wildfire Risk Assessment

The Montana Wildfire Risk Assessment was completed in 2020 by Pyrologix for the MT DNRC (MT DNRC 2020). This detailed quantitative analysis of wildfire risk across the state of Montana serves as an integral resource for understanding and interpreting wildfire risk throughout Yellowstone County. The MWRA considers various components that contribute to wildfire risk including likelihood of a fire burning, the intensity of a fire if one should occur, exposure of assets and resources based on their locations, and the susceptibility of those assets and resources to wildfire. Data outputs related to the MWRA consist of spatially explicit maps and data layers including risk to homes, wildfire threat, wildfire risk, wildfire potential impacts, and fire model inputs and fuelscape along with numerous supporting data layers. More information regarding the MWRA along with online maps and resources can be found at the MT DNRC website.[8]

For the purposes of the 2025 CWPP, the CWPP Core Team identified the following data sources from the MWRA most relevant and appropriate for characterizing and interpreting wildfire risk within Yellowstone County:

- Overall Wildfire Risk (ieNVC)
- Overall Conditional Wildfire Risk (icNVC)
- Risk to Potential Structures/Risk to Homes

Overall Wildfire Risk (Integrated Expected Net Value Change)

Net value change (NVC) is used to demonstrate the consequence of fire on a given asset or resource, if the consequence is adverse, the net value change results in negative values, and if the consequence is beneficial, the net value change results in positive values. Neutral net value change is represented by zero. These metrics can then be applied to individual highly valued resources or assets (HVRAs) (i.e., non-integrated), or they can be compared to all of the known HVRAs within a given area (i.e., integrated). Integrated expected net value (ieNVC) change is calculated as the product of burn probability and conditional net value change (cNVC).

Overall Conditional Wildfire Risk (Integrated Conditional Net Value Change)

Integrated conditional net value change (icNVC) is calculated as the sum-product of flame-length probability and net value change to an HVRA over a range of wildfire intensity classes. Burn probability is not included in icNVC.

[8] https://mwra-mtdnrc.hub.arcgis.com/

Risk to Potential Structures

Risk to potential structures is also referred to as 'Hazard in Context' within the MWRA and represents an integration of wildfire likelihood and intensity with generalized consequences or responses to a home anywhere on the landscape should a fire occur. This metric is useful as it can "predict" the risk of both future and current homes by evaluating the wildfire risk if a home were to occur at any point across the landscape. Response of these hypothetical homes to wildfire is assumed to be negative with the degree of damage correlated with increasing wildfire intensity. This metric does not incorporate existing structures present at a given location, nor the importance of those structures. It also does not account for the presence of home-hardening measures that would reduce the susceptibility of a structure to wildfire.

USFS Strategic Analytics Branch - Risk Management Assistance

The CWPP Core Team employed recent data released by the U.S. Forest Service Strategic Analytics Branch (SAB) to further inform Yellowstone County of risks to aid in wildfire mitigation planning. These data were developed to empower the wildland fire community in analytics, strategic planning, and risk-informed decision support to improve firefighter safety and management efficiency and effectiveness. More information along with online maps and resources can be found at the Risk Management Assistance (RMA) website.[9] Though these analytics have been developed as tools for wildland firefighters, risk information can be extended further to the larger community and help to inform decisions in wildfire mitigation and planning. For this purpose, three key analytics were used by the CWPP Core Team to inform maps including the boundaries of Yellowstone County and the WUI (Appendix E) and spatial priority areas.

Firefighter Estimated Ground Evacuation Time (GET)

Wildland firefighters and outdoor recreationists are often in remote settings with multiple hazards that can cause life-threatening injuries. Prompt access to medical care is key to reducing injury consequences. Originally developed in 2013, the firefighter estimated ground evacuation time (GET) model is a spatially explicit quantification of ground evacuation time to the nearest relevant medical facility, which is designed to help evaluate potential firefighter safety risks and inform safe and effective fire response strategies (Campbell et al. 2024). This spatial model of wildland firefighter estimated GET has been used when developing operational response strategies in the contiguous United States.

Potential Control Location Suitability (PCL)

During active fire incidents, decisions regarding where and how to safely and effectively deploy resources to meet management objectives are often made under rapidly evolving conditions, with limited time to assess management strategies or for development of backup plans if initial efforts prove unsuccessful. Topography and fuels are significant factors affecting potential fire spread and burn severity. The Potential Control Location Suitability (PCL) uses these relationships to quantify the effects of topography, fuel characteristics, road networks, and fire suppression effort to develop a predictive model of potential fire control locations spanning a range of fuel types, topographic features, and natural and anthropogenic barriers to fire spread (O'Connor, Calkin, and Thompson 2017). This spatial model of PCL has been used to reduce unnecessary exposure for fire responders, coordinate pre-fire planning for operational fire response, and as a network of locations to incorporate into spatial fire planning to better align fire operations with land management objectives in the contiguous United States.

Wildfire Suppression Difficulty Index (SDI)

The Wildfire Suppression Difficulty Index (SDI) model integrates potential fire behavior, vegetation cover types, topography, road and trail networks, existing fuel breaks, and fireline production potential to map the operational effort necessary for fire suppression. SDI models have been used to assess the effects of fuel breaks and other landscape treatments on the future operating environment and as an aid for identifying safer control opportunities (Rodriguez y Silva et al. 2020). In summary, the aim of this model is

[9] RMA Dashboard | Strategic Analytics Branch

to reduce the uncertainty and increase the efficiency of suppression operations through assessment of landscape conditions and incorporation of expert knowledge into planning in the contiguous United States.

Community Wildfire Risk Reduction Zones (CWiRRZ)

Another metric that can be used to characterize wildfire exposure is the Community Wildfire Risk Reduction Zones (CWiRRZ). These zones represent areas where mitigation activities can be the most effective at reducing the risk of structure losses from wildfire (Dillon et al. 2024). There are four Risk Reduction Zones in total, consisting of Minimal Exposure Zones, Indirect Exposure Zone, Direct Exposure Zones, and Wildfire Transmission Zone. The Wildfire Transmission Zone can be broken out into more specific fuel types including Tree, Shrub, Grass, Agriculture, Non-Vegetated, Water, and Outlying Wildlands (i.e., area beyond 2.4 km from buildings). Appendix C includes a map of CWiRRZ within the County.

Section 3: Implementation

3.1. Integrating the National Cohesive Strategy

The Federal Land Assistance, Management, and Enhancement Act of 2009 (FLAME) aims to provide improved resources and funding opportunities for wildfire suppression on federal lands (43 USC § 1748). As part of this effort, Congress required the development of a cohesive strategy to ensure nationwide consistency of wildfire management on federal, state, local, and tribal lands. Known simply as the National Strategy, it was developed cooperatively by a wide variety of governments and land management agencies, wildfire experts, and public stakeholders. The National Strategy guides wildfire planning efforts by establishing core guidelines to be used when developing CWPPs and emergency responses, prioritizing projects, and educating and equipping the public to protect their property from wildfire.

The National Cohesive Strategy focuses on three goals:

- Restoring and maintaining resilient landscapes,
- Fire adapted communities, and
- Safe and effective wildfire response.

The interdisciplinary team incorporated each of these national priorities when preparing the CWPP, thereby ensuring consistency with the National Strategy. The result is a CWPP which prioritizes healthy and functional ecosystems through treatment activities, equips property owners with the knowledge and resources to protect their homes against wildfire, and identifies wildfire response capacity and needs.

Restore and Maintain Resilient Landscapes

Though a natural and essential component of the ecosystem, the role of wildland fire has been altered through fire suppression, changing climatic conditions, declining forest health, increasing human activity, and human development and alteration of the landscape. These changes have resulted in conditions that reduce landscape resiliency and increase the potential for increased wildfire activity and severity. Landscape restoration through proactive management reinstates resiliency and promotes natural fire activity across the landscape to maintain the beneficial ecological impacts of wildfire while mitigating risk. Once restored, ongoing maintenance through management is essential to perpetuate healthy, resilient landscapes.

Restoration and maintenance on the landscape can be achieved through various management actions related to vegetation and fuels, including prescribed fire; managing wildfire for resource objectives; and mechanical, biological, and chemical fuels treatments. Mechanical, biological, and chemical fuels treatments include thinning, commercial harvest, slash and underburning, slash and pile burning, herbicide application, reseeding, replanting, and more. Given the scale of fuels treatments needed to restore resilient landscapes, prioritization is critical to allocate resources effectively. These various treatment types can be implemented in priority areas where feasible and sustainable to reduce wildfire risk, improve ecological conditions, and achieve fire adapted and resilient landscapes.

Fire Adapted Communities

Yellowstone County, like many other Montana counties, is working towards becoming a fire adapted community. The National Wildfire Coordinating Group (NWCG) defines a fire adapted community as a community that “takes mitigation actions so they can live with wildfire without harm and without extensive wildfire suppression efforts” (USFS 2025). Promoting fire adapted communities focuses on adaptation through fire mitigation strategies, public education, and applicable policies and regulations. Fire mitigation strategies may include using fuel treatments and individual homeowner action to help protect life and property before, during, and after a wildfire event. Public education and outreach about wildfire preparedness can help the public understand their role in promoting fire adapted communities and

protecting private property. Updating policies and regulations like building and subdivision codes can ensure fire resilience for future development.

Living with Fire

Building fire adapted communities is a constantly evolving process that includes taking actions to reduce the risk of wildfire, educating residents about becoming fire-adapted, and designing tools that support the community. Fire is a natural part of the ecosystem, but communities at risk can take steps to reduce negative impacts to property when wildfires occur.

Wildfire Preparedness

Recommendations to Reduce Structural Ignitibility

Resource managers reduce the risk of wildfire damage to private property through fuel reduction projects on state and federal lands, establishing fuel breaks and buffers, and wildfire suppression. However, property owners are responsible for helping create fire adapted communities by reducing the structural ignitability of their own property. In many cases, these efforts incorporate the same techniques used by local, state, and federal resource managers. Measures to reduce structural ignitability vary from property to property depending on parcel size; the location of structures within the parcel; building age, construction, and materials; existing vegetation and fuel loads; access to water; and more. Despite property-level variation, the same basic concepts apply in all cases.

Home Ignition Zone

Homeowners are encouraged to become familiar with the concept of the Home Ignition Zone (HIZ), which is a buffer up to 200 feet surrounding a home or structure. This area is a space in which proactive wildfire mitigation measures can be implemented in order to slow or stop wildfire spread, defend the structure from fire and embers, and protect firefighters and other emergency responders working to protect the home. The HIZ is divided into three sections: the immediate, intermediate, and extended zones (Figure 7). Table 9 provides a description of each zones and applicable wildfire mitigations for each (MT Fire Info 2025).

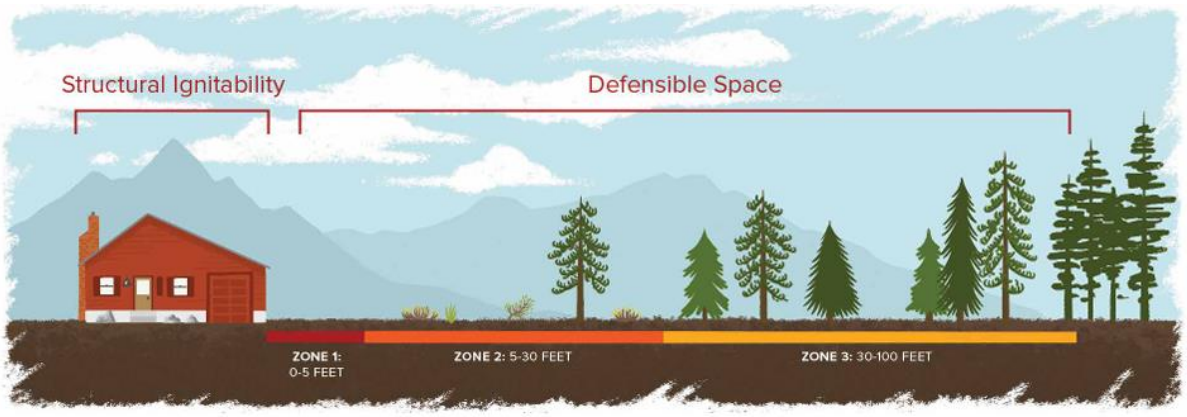

FIGURE 7 ILLUSTRATION OF THE HOME IGNITION ZONE BY BONNIE PALMATORY OF COLORADO STATE UNIVERSITY (COLORADO STATE FOREST SERVICE 2025)

TABLE 9 HOME IGNITION ZONE (HIZ) DESCRIPTION AND APPLICABLE WILDFIRE MITIGATIONS

HIZ Zone	Description	Applicable Mitigations
Immediate	**0-5 feet** from furthest attached exterior point of the home	Cover all vents with 1/8-in mesh screening
		Fill any gaps in your home's siding and trim materials with quality caulk.
		Fill any openings between the roof covering and the roof deck with a nonflammable material.
		Use only nonflammable fencing materials in this zone.
		Create a 3- to 5-foot clean and non-combustible perimeter using concrete or rock mulch.
		Remove all vegetation in this zone.
		Remove tree limbs that extend into this zone.
		Relocate all combustible materials, including garbage, lumber, and lawn/patio accessories, to outside this zone.
		Clean all fallen leaves and needles from this zone - don't forget about your gutters and roof valleys.
		Locate propane tanks at least 30 feet from any structures.
Intermediate	**5-30 feet** from furthest attached exterior point of the home	Remove all dead grasses, weeds, plants, and foliage.
		Keep lawns and native grasses mowed and water all vegetation regularly.
		Grow non-woody, low height, herbaceous plants.
		Provide at least 18 feet of space between remaining shrubs and trees. Increase spacing on steep slopes.
		Store firewood or other combustible materials at least 30 feet away from your home.
		Remove limbs 6' to 10' from the ground.
		Remove branches that overhang or touch the roof, making sure there is at least 10ft between the structure and the nearest branch.
		Clear vegetation around fences, sheds, outdoor furniture, and play structures.
		Create fuel breaks with non-flammable walkways, paths, and driveways.
Extended	**30-100+ feet** from furthest attached exterior point of the home	Thin trees to a minimum of 12 feet between tops of trees to break up continuous fuels.
		Remove small conifers growing between mature trees to create a separation between ground vegetation and mature trees.
		Remove leaf and needle debris from your yard.
		Keep grasses and wildflowers under 8" in height.
		Clear vegetation from under large stationary propane tanks.
		Remove vegetation adjacent to storage sheds or other outbuildings.
		Maintain space clear of vegetation on either side of your driveway and access roads so that emergency vehicles can reach your home.

Fire propagation requires fuel. Reducing the ignition potential within the HIZ, with priority given to Immediate Zone, is the most effective way for structures to withstand a wildfire. One of the most common ways that homes catch fire is by wind-driven embers which can travel up to a mile away from active wildfires and ignite buildings by landing on flammable exterior materials, or indirectly by igniting flammable vegetation or materials located close to the home, resulting in direct flame contact or radiant heat exposure to the home (Restiano et al. 2020). As such, property owners can reduce structural ignitibility by preventing flames and embers from accessing fuels within the building itself, a technique known as “hardening.”

Within the Intermediate and Extended Zones, mitigations that alter the type and configuration of burnable vegetation are critical to stop or reduce the spread of wildfire as it approaches a structure. Landscaping can also be leveraged to reduce wildfire risk through simple measures such as: using fire-resistant plant species; selecting deciduous trees over conifers when possible; using fire-resistant materials for structures such as retaining walls, fencing, and open areas; and incorporating fuel breaks via driveways, walkways and sidewalks, and parking areas.

Evacuation Preparedness

Many residents of Yellowstone County live in areas with high wildfire risk, and it is certain that wildfire events will occur in the future. A small amount of preparation for such events can be critical to facilitate safe and efficient response to an ongoing wildfire event. Specific resources available to Yellowstone County residents are described in Homeowner Resources.

Wildfire Smoke

Wildfire smoke can pose a serious health risk to many members of the public, particularly those with sensitivities to airborne particulate matter. Children (ages 0-17), pregnant individuals, senior citizens, people with existing heart and/or lung conditions, and people spending more time outdoors are considered to be more sensitive to wildfire smoke (Montana Department of Health and Human Services 2025). Wildfire smoke contains particulate matter ($PM_{2.5}$) and chemicals that have the potential to cause harmful effects such as irritation of the eyes and respiratory system as well as worsening of conditions related to the heart and lungs such as asthma, diabetes, chronic obstructive pulmonary disease (COPD), and lung cancer (Montana Department of Health and Human Services 2025). Specific resources available to help residents prepare for wildfire smoke impacts are described below.

Wildfire Prevention

The majority of wildfire in Yellowstone County is caused by humans, making the reduction of ignition potential an important component of wildfire prevention. Wildfire prevention actions include public education campaigns that promote awareness of activities that commonly cause wildfire as well as best practices to avoid igniting a wildfire. Key considerations relate to campfires, target shooting, debris burning, lawn and farm equipment operation, and vehicle and trailer use. Wildfire restrictions and burn bans are another tool that can be used to prevent wildfires during extreme and/or dangerous conditions.

Grants and Funding

There are several opportunities for grants and funding available to communities and organizations to promote fire adapted communities. The MT DNRC Stewardship Program provides Resources for Landowners[10] to connect private forest landowners with potential funding sources in order to support active forest management, enhance public benefits from private forests, and provide important jobs in the forest products sector. Other MT DNRC Stewardship grants are available for community partners[11].

Although there is not currently a grant program available to assist individual homeowners with home hardening, local governments can use grant funds to support the development of programs that serve this purpose in addition to providing funding for projects that mitigate wildfire risk on adjacent federal and state lands. Having an updated CWPP allows Yellowstone County to access more funding sources, including the federal Community Wildfire Defense Grant, to increase wildfire preparedness and mitigate wildfire risk (MT DNRC 2023a).

Education and Outreach

Wildfire mitigation strategies are most effective when there is robust participation from all stakeholders. It is important to engage the community through education and outreach to mitigate the human hazards of wildfire. Public education campaigns such as Ready, Set, Go! and Firewise/USA bring communities together to prepare for wildfire. Becoming a Firewise/USA community gives residents access to resources, funding, and community support (Firewise USA 2022). There are currently no Firewise/USA communities in Yellowstone County, but residents can take action to organize a Firewise community at any time (Firewise USA 2022).

Homeowner Resources

There are many resources available to the public that can help residents better plan for, respond to, and recover from wildfire events. This section provides an overview of a subset of resources that promote the creation of fire adapted communities but is not a comprehensive list of all resources that may be available to serve this purpose.

Community Resources

Yellowstone County's Disaster and Emergency Services department provides a variety of resources for local residents looking to become better prepared for wildfire. These measures include:

- Yellowstone County Informed – Emergency Alerting and Warning System[12]
- Creating a Family Disaster Plan[13]
- Pets, Livestock, & Wildlife Disaster Plans[14]
- Preparation Tips for Wildland Fires[15]
- Map Your Neighborhood[16]

[10] https://dnrc.mt.gov/Forestry/Resources/resources-for-landowners

[11] https://dnrc.mt.gov/Forestry/Resources/stewardship-partners

[12] https://www.yellowstonecountymt.gov/des/eas.asp

[13] https://www.yellowstonecountymt.gov/des/disasterplan.asp

[14] https://www.yellowstonecountymt.gov/des/petplan.asp

[15] https://www.yellowstonecountymt.gov/des/firetips.asp

[16] https://www.yellowstonecountymt.gov/des/HelpNeighbors.asp

- Rural Fire Protection – Post-fire Tax Relief[17]
- County Fire Map[18]

In addition to these resources, Yellowstone County has developed guides to help residents proactively plan for disasters, such as emergency supply lists, information for pet owners during a disaster, guide to basic evacuation procedures, family communication plan cards, and more. The Ready Yellowstone[19] emergency preparedness portal has compiled these resources into one central location to better equip County residents in the event of an emergency such as a wildfire.

Several groups and organizations offer support for Montana residents looking to become fire adapted. These include:

- MT Fire Info[20]
- MT DNRC
- Fire Adapted Montana Learning Network[21]
- Keep Montana Green[22]
- Firewise/USA[23]
- Ready, Set, Go![24]

MT DNRC

The MT DNRC provides free wildfire risk home assessments to all Montana homeowners that include a wildfire risk rating as well as recommendations for specific actions homeowners can take to reduce their vulnerability to wildfire. The MT DNRC also provides guidance for homeowners interested in mitigating wildfire risk within their communities including suggestions for home hardening, evacuation planning, and reducing ignition potential. More information can be found on MT DNRC webpages.[25,26]

Safe and Effective Wildfire Response

One of the most important roles of a CWPP is to identify wildfire response capacity and processes. The interdisciplinary team that developed the CWPP included members of the Yellowstone County Office of Emergency Management, community preparedness and wildfire prevention specialists, and both federal and local fire department representatives. As a result, the CWPP has identified specific strategies to increase wildfire response capacity and improve communication across various resource groups (see Appendix B).

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[17] https://www.yellowstonecountymt.gov/des/ruralfire/index.asp

[18] https://gis.yellowstonecountymt.gov/portal/apps/sites/#/yellowstone-county-mapping/apps/f54315791c244cfb9ef6123a5d06b155/explore

[19] http://www.readyyellowstone.org/

[20] https://www.mtfireinfo.org/

[21] https://fireadaptedmontana.org/

[22] https://www.keepmontanagreen.com/

[23] https://www.nfpa.org/Public-Education/Fire-causes-and-risks/Wildfire/Firewise-USA

[24] https://www.wildlandfirersg.org/s/?language=en_US

[25] https://dnrc.mt.gov/Forestry/Wildfire/fire-prevention-and-preparedness

[26] https://www.mtfireinfo.org/pages/prevention

Resources & Capacity

Fire protection in Yellowstone County (outside the incorporated cities of Billings, Laurel, and Broadview) is divided into two parts - structural protection and wildland protection. Structural protection is associated with legally created fire districts or fire service areas (FSAs). Once created, the trustees of a given district provide fire protection or contact with an existing volunteer fire department within the area. Rural wildland fire protection falls to the County by Montana Law (7-33-2201 through 7-33-2211, MCA). Yellowstone County funds this rural wildland fire protection through a rural fire levy from the county general fund to contract with existing volunteer fire departments. All areas of the County are protected to some degree, with the minimum level being that of a rural volunteer fire department. Appendix C contains maps outlining the administrative fire boundaries for fire districts, service areas, and volunteer fire departments.

Local firefighting responders are skilled, trained, and equipped to respond to WUI wildfire incidents and often work closely with federal wildland firefighting resources supplied by the USFS, BLM, and MT DNRC. Mutual aid agreements are also in place among local fire departments and federal agencies throughout the County as well as adjacent counties. As the County's population grows and development within the WUI increases, it is essential to support local fire resources through facilitating increased capacity, additional personnel, training opportunities, and equipment. The CWPP promotes these efforts through targeted actions that ensure fire responders can safely and effectively manage wildfire incidents (Appendix B).

Mobilization

When a wildfire occurs in the County, a response crew is mobilized as defined in the Yellowstone County Emergency Operations Plan (Yellowstone County DES 2019). Response crews are mobilized based on several factors, including the location of the fire and availability of resources. A combination of local fire departments and volunteer fire departments are mobilized through the Yellowstone County Department of Emergency Services.

Emergency Management

The Yellowstone County Multi-Hazard Mitigation Plan (Tetra Tech 2019) provides a detailed overview of how the region has planned to respond to emergencies ranging from flood to wildfire. Coordination of firefighting, emergency medical services, and technical rescue activities in the event of an emergency such as a wildfire is also outlined within the plan. The Disaster and Emergency Service's website also provides extensive resources to help individuals throughout the County learn more about available resources and proactively plan for emergency events.[27]

Post-Fire

Recovering from a wildfire is a difficult task for the community. Homes, businesses, and other community assets may have been lost or damaged during the fire. Residents returning to their homes may face significant property damage, even if the home did not burn. Soil in burned areas is unstable, potentially resulting in flash flooding and landslides. Post-fire recovery planning helps mitigate safety hazards to the community and identifies resources to help residents recover from wildfire. Although the County does not currently have a post-fire recovery plan, it does offer tax relief to qualified property/landowners whose home, outbuildings, or forest land are partially or totally destroyed by a fire or other natural disaster[28]. In addition, the CWPP promotes the development of such a plan, along with other public education and wildfire response strategies. To aid communities following a disaster, Montana Disaster and Emergency

[27] https://jbcountymt.gov/disaster-emergency-services

[28] https://www.yellowstonecountymt.gov/des/ruralfire/index.asp

Services has compiled a list of resources to assist individuals dealing with the aftermath of a disaster event.[29]

3.2. Implementation

Goals, Objectives, & Strategies

The CWPP implementation plan (Appendix A) and associated action table (Appendix B) were developed to clearly outline roles, responsibilities, and timelines for various projects that will facilitate the implementation and achievement of the goals, objectives, and strategies outlined within the CWPP. The CWPP defines goals, objectives, and strategies as follows:

Goal: A broad, long-term desired result.

> **Objective**: A measurable, specific plan that serves to achieve a **Goal.**
>
> > **Strategy**: A method to achieve a specific **Objective.** Multiple **Projects** can relate to a given Strategy.

Action Plan

The action plan consists of various projects with assigned types, responsibilities, and timeframes. Using the National Strategy priorities (Restoring and Maintaining Landscapes, Fire-Adapted Communities, and Response to Wildfires) as overarching goals, the Core Team, with public input, developed each objective to further specify the goal. These objectives are then narrowed down further into a method that can be planned and implemented, called strategies. Each strategy involves at least one stakeholder but often requires the collaborative efforts of multiple interested stakeholders from the County, federal and state agencies, local fire departments, and other entities. Other stakeholder groups may be integrated into the action plan (Appendix B) as new strategies are developed in the coming years and roles are further defined. Wherever possible, timelines to complete each strategy are included within the action table to best capture the overarching timeline to facilitate achievement of larger goals and objectives defined for the CWPP.

Priority Areas & Projects

Spatial Priority Areas

Spatial priority areas are mapped locations in the County identified through discussion with core team members. These locations represent neighborhoods, recreation areas, roads, and project areas where applied mitigation measures would have significant impacts. Appropriate mitigation measures per spatial priority area vary according to the rationale used to select that location. These areas are intended to be used for planning purposes and do not represent clear-cut boundaries for which a proposed project could be applied. A 1.5 mi buffer was assigned to roads and neighborhoods to account for wildfire spread and ember cast. The following spatial priority locations are mapped in Appendix C:

- Acton Planning Area
- Acton Recreation Area
- Ah-Nei East/West Recreation Area
- Antelope Creek
- Buffalo Trail Subdivision
- CA Road
- Cedar Canyon Subdivision Area

[29] https://des.mt.gov/Recovery/Recovery-Program

- Clapper Flat Community Area & Road
- Emeral Hills Subdivision Area
- Pine Hills Community Area
- Pine Ridge Area
- Pompeys Pillar National Monument
- Red and King Gulch Road
- River Road
- Sagehill Community Area & Road
- Shepherd Ah-Nei
- Steamboat Butte
- Sundance Lodge Recreation Area
- Yellowstone Trail Community Area & Road

Priority areas delineated by MT DNRC for fuels reduction projects have also been incorporated into this CWPP and are shown in detail in Appendix C (see page C-17). These areas represent lands within the County that are a top priority to receive MT DNRC State-funded grants intended to reduce the risk of wildfire through fuels treatments. MT DNRC's priority areas consist of three "tiers", with "Tier 1" representing the highest priority, and "Tier 3", the lowest priority. These priority areas do not include federal lands, which are not eligible for applicable MT DNRC grants. Additional information regarding these priority areas can be found through the MT DNRC website, once the dataset has been made publicly available.

To be considered a priority area, lands must meet the following criteria per each of the three "Tiers":

Tier 1 (Highest Priority)

- ✓ Proximity to MT Forest Action Plan Priority Areas: Within a HUC12 watershed that touches a Montana Forest Action Plan Priority Area.
- ✓ Tree Cover: LANDFIRE "Existing Vegetation" 'Tree' layer excluding riparian areas
- ✓ Within the MT DNRC Functional WUI: Exclude: Non-burnable, Non-WUI, Water
- ✓ Presence of Expected Wildfire Risk to People and Property

Tier 2

- ✓ Proximity to MT Forest Action Plan Priority Areas: Within a HUC12 watershed that touches a Montana Forest Action Plan Priority Area.
- ✓ Tree Cover: LANDFIRE "Existing Vegetation" 'Tree' layer excluding riparian areas
- ✓ Within the MT DNRC Functional WUI: Exclude: Non-burnable, Non-WUI, Water

Tier 3 (Lower Priority)

- ✓ Proximity to MT Forest Action Plan Priority Areas: Within a HUC12 watershed that touches a Montana Forest Action Plan Priority Area.
- ✓ Tree Cover: LANDFIRE "Existing Vegetation" 'Tree' layer excluding riparian areas

Project Prioritization

Each project shown in the Action Plan is assigned a priority value. The prioritization process consists of evaluating the 'impact' and 'feasibility' and assigning the highest priority to projects with high impact and high feasibility; this helps to effectively guide the allocation of limited resources.

Impact

High impact projects result in significant improvements to a community's wildfire resilience and ability to prepare for, respond to, or recover from wildfire events. These projects may increase wildfire response capacity, available resources, public knowledge, or actively reduce wildfire risk as a result of fuels treatments.

Feasibility

High feasibility projects are those that can be readily carried out using available resources and capacity within the community. Feasibility is contingent upon elements such as cost and funding availability, capacity to carry out the project, and the extent of project development.

Priority Elements

- Impact
  - People & Property
  - Effectiveness
- Feasibility
  - Cost
  - Implementation/Maintenance
  - Funding Availability
  - Project Readiness

Prioritization Process

Each priority element is assigned a value from 1 – 3 according to the categorical definitions described in Table 10. A perfect score of 18 would result in the highest priority value possible. After all priority element values are assigned, decision-makers can use the concepts of impact and feasibility to determine the best course of action per each project (Figure 8). This process allows decision-makers to review and discuss low-scoring projects to determine if additional action is needed to increase the impact and feasibility of the project. If no reasonable actions can improve a project, it is not a suitable candidate for the CWPP. By prioritizing projects with the greatest impact and feasibility, the County can efficiently allocate limited resources. By illustrating areas for improvement, projects with lower scores are highlighted for discussion. Once evaluated, the final priority score is included in the Action Table to facilitate intuitive review of proposed actions (Appendix B).

TABLE 10 PRIORITY ELEMENTS VALUE RUBRIC

	Priority Element	Definition		
		1	2	3
Impact	**People & Property**	The project will not benefit people and property.	The project may benefit people and property.	The project will benefit people and property.
	Effectiveness	The project is unlikely to be effective.	The project may be effective.	The project will be effective.
Feasibility	**Cost**	The cost of the project has not been estimated and is unknown.	The cost of the project has been estimated but has not been finalized.	The cost of the project has been estimated and finalized.
	Implementation /Maintenance	No short- or long-term capacity to implement the project.	Partial short- and long-term capacity to implement the project.	Complete short- and long-term capacity to implement the project.
	Funding Availability	No funding available.	There is funding available for the project, but it has not been secured.	Funding for the project has been secured.
	Project Readiness	The project has had no planning and is not ready to be implemented.	The project is in preliminary planning stages and is not ready to be implemented.	The project has been fully planned and is ready to be implemented.

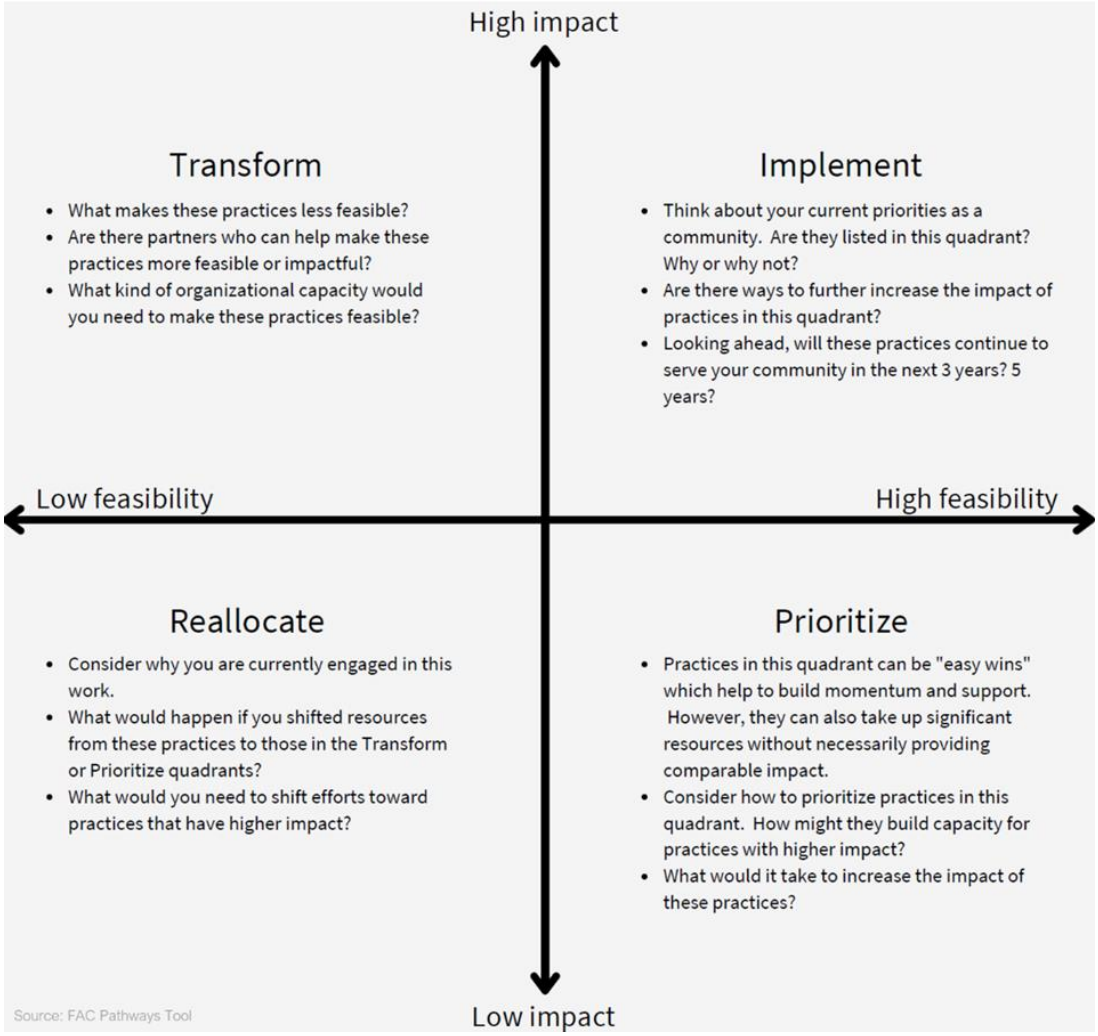

FIGURE 8 IMPACT AND FEASIBILITY SCORING FRAMEWORK ADOPTED FROM THE FIRE ADAPTED COMMUNITIES TOOL

3.3. Future Actions

The 2025 CWPP is designed to function as a living document with updates occurring as needed. It is anticipated that additional goals, objectives, and strategies will be added as conditions and needs change for Yellowstone County, and that the format of the action plan will facilitate easy integration of these elements.

Monitoring

To accurately and consistently monitor progress towards the goals, objectives, and strategies outlined within the CWPP, an annual review of the action plan will be conducted during which any completed strategies will be updated, and any pending additions or revisions to the CWPP document or the associated CWPP story map will be implemented. The annual review will also consider substantive changes to other plans, policies, and regulations identified in Section 1.2 (e.g., updates to the Montana Forest Action Plan) and/or substantive changes to data used to develop the WUI and/or the MWRA as described in Section 2 of this CWPP. In order to remain relevant and useful, CWPPs should be fully updated every five years; the next CWPP update should occur in 2030 (MT DNRC 2022).

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Appendix A: Implementation – Goals, Objectives, and Strategies

Goal: A broad, long-term desired result

Objective: A measurable, specific plan that serves to achieve a **Goal**

Strategy: A method to achieve specific **Objectives.** Multiple **Projects** can relate to a given **Strategy**.

Goal 1: Restore and Maintain Landscapes

Objective 1.1 Reduce fuel loading by supporting and implementing fuels treatments

Strategy 1.1.1 Implement the following fuels treatments to accomplish resource objectives: thinning, prescribed fire, commercial harvest, slashing, underburning, pile burning, chipping, thinning, prescribed/targeted grazing on both publicly and privately owned land

Objective 1.2 Promote characteristic wildfire activity appropriate to natural fire regimes and resource objectives

Strategy 1.2.1 Identify strategic locations for new fuel breaks and buffers

Strategy 1.2.2 Improve and maintain existing fuel breaks and buffers

Strategy 1.2.3 Identify, improve, and maintain road buffers

Strategy 1.2.4 Facilitate and maintain cross-boundary collaboration to implement fuels reduction projects across multiple jurisdictions including privately held lands

Strategy 1.2.5 Implement treatments that promote characteristic wildfire activity on the landscape

Objective 1.3 Implement post-fire recovery activities

Strategy 1.3.1 Support the implementation of recovery and restoration activities such as reseeding and replanting following wildfire events

Strategy 1.3.2 Support the development and implementation of a Yellowstone County Post-Fire Recovery Plan that provides a framework for efficient and effective allocation of resources after a wildfire event

Strategy 1.3.3 Increase local capacity for post-fire response personnel and resources

Objective 1.4 Reduce insect and disease outbreaks and spread

Strategy 1.4.1 Support and implement projects that use approved methods to control insect and disease such as micronutrients, pesticides, attractants, aggregants, anti-aggregants, and pheromones

Strategy 1.4.2 Fuels thinning to prevent the spread of insects and disease outbreaks

Strategy 1.4.3 Monitor aerial surveys to detect trends in outbreaks

Objective 1.5 Use the best available science to inform CWPP goals, objectives, and strategies

Strategy 1.5.1 Facilitate the collection and/or analysis of updated data such as aerial imagery, surveys, etc. that would improve the implementation of projects associated with this CWPP

Goal 2: Fire Adapted Communities

Objective 2.1 Improve and maintain public education to reduce wildfire risk and structural ignitability

Strategy 2.1.1 Improve public access to existing educational resources

Strategy 2.1.2 Develop new educational opportunities/programs for residents

Strategy 2.1.3 Support and implement efforts to increase capacity for additional personnel, groups, or programs to implement and coordinate services that support fire adapted communities within Yellowstone County

Strategy 2.1.4 Provide a platform for public access to CWPP resources that integrates with existing resources

Strategy 2.1.5 Establish a CWPP Monitoring Committee to ensure that the CWPP remains updated, relevant, and is communicated effectively among stakeholders

Objective 2.2 Support and implement mitigation treatments within priority areas within the County

Strategy 2.2.1 Continue to develop projects within the WUI and priority areas within Yellowstone County

Objective 2.3 Reduce human-caused ignitions

Strategy 2.3.1 Work with utility companies to reduce ignition risk and identify opportunities for mitigation

Strategy 2.3.2 Improve and maintain public communication to reduce human-caused ignitions

Strategy 2.3.3 Provide training and resources for using prescribed fire on private lands

Goal 3: Wildfire Response

Objective 3.1 Increase/improve water supply for fire suppression

Strategy 3.1.1 Identify additional water resources

Strategy 3.1.2 Support the implementation of design alternatives that improve fire suppression and response capabilities within subdivision planning documents

Strategy 3.1.3 Construct additional water resources for fire suppression

Objective 3.2 Improve emergency notification and information communications

Strategy 3.2.1 Identify methods to increase communication efficacy and accessibility in the event of a wildfire

Strategy 3.2.2 Ensure communication and notification methods are inclusive of all communities.

Strategy 3.2.3 Support the development of mitigation actions and planning related to wildfire smoke public health issues

Strategy 3.2.4 Consider wildfire smoke responses in future planning efforts

Strategy 3.2.5 Support the procurement and designation of funding to mitigate public health risks and issues related to wildfire smoke

Objective 3.3 Facilitate and maintain cross-boundary collaboration to improve wildfire response efforts

Strategy 3.3.1 Coordinate with neighboring agencies and landowners to identify potential opportunities for collaboration

Strategy 3.3.2 Establish a Yellowstone County Wildfire Response Working Group to improve communications and collaborative response efforts across groups and jurisdictions

Objective 3.4 Improve emergency response and mobilization efforts

Strategy 3.4.1 Develop an evacuation plan that identifies evacuation routes, reception/distribution areas, shelter locations, staging areas, and access control points

Objective 3.5 Increase response capacity

Strategy 3.5.1 Obtain funding for additional personnel, training, and equipment to improve wildfire response capacity and efficacy

Appendix B: Implementation – Action Plan

YELLOWSTONE COUNTY CWPP ACTION PLAN

The action plan consists of various projects with assigned types, responsibilities, and timeframes. Each action involves at least one stakeholder but often requires the collaborative efforts of multiple interested stakeholders from the County, federal and state agencies, local fire departments, and other entities. Other stakeholder groups may be integrated into the action plan as new strategies are developed in the coming years and roles are further defined. Wherever possible, timelines to complete each strategy are included within the action plan in order to best capture the overarching timeline to facilitate achievement of larger goals and objectives defined for the CWPP. Actions with Priority Rankings of "High", "Medium", or "Low" were assigned in the 2006 CWPP according to different criteria than established by the 2025 CWPP. Numerical priority ranking scores assigned in this table represent preliminary, high-level evaluations subject to refinement through the prioritization process identified in the 2025 CWPP.

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
2025-LF-0001	**All**	**Mitigation of Priority Areas**	Implementation of mitigations to reduce wildfire risk within priority areas with elevated wildfire risk identified within this CWPP and/or by local fire personnel.	Priority Areas	1.1.1	Local Fire	MT DNRC	TBD	Ongoing	11
2006-0001	**Landscape Treatments**	**Roadside Fuels Treatment: Buffalo Trails Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed	Buffalo Trails	2.2.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	High

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			below, plus recreation areas, and others identified in assessment. • Target 100' extending from each side of the roadway.							
2006-0002	**Landscape Treatments**	**Roadside Fuels Treatment: Cedar Ridge Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others identified in assessment. • Target 100' extending from each side of the roadway.	Cedar Ridge	1.1.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	Medium
2006-0003	**Landscape Treatments**	**Roadside Fuels Treatment: Clapper Flats Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment	Clapper Flats	2.2.1		YC DES, BLM, USFS,	TBD	Incomplete	High

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others identified in assessment. • Target 100' extending from each side of the roadway.				BIA, MT DNRC			
2006-0004	**Landscape Treatments**	**Roadside Fuels Treatment: Emerald Hills Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation	Emerald Hills	1.1.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	High

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			areas, and others identified in assessment. • Target 100' extending from each side of the roadway.							
2006-0005	**Landscape Treatments**	**Roadside Fuels Treatment: High Trails Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others identified in assessment. • Target 100' extending from each side of the roadway.	High Trails	2.2.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	Medium
2006-0006	**Landscape Treatments**	**Roadside Fuels Treatment: Hills Estates Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels.	Hills Estates	1.1.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	Medium

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			• Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others identified in assessment. • Target 100' extending from each side of the roadway.							
2006-0007	**Landscape Treatments**	**Roadside Fuels Treatment: Indian Cliffs Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others	Indian Cliffs	2.2.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	High

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			identified in assessment. Target 100' extending from each side of the roadway.							
2006-0008	**Landscape Treatments**	**Roadside Fuels Treatment: Pleasant Hollow Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others identified in assessment. • Target 100' extending from each side of the roadway.	Pleasant Hollow	1.1.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	High
2006-0009	**Landscape Treatments**	**Roadside Fuels Treatment: Rehberg Ranch Estates Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads	Rehberg Ranch Estates	2.2.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	High

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others identified in assessment. • Target 100' extending from each side of the roadway.							
2006-0010	**Landscape Treatments**	**Roadside Fuels Treatment: Shadow Canyon Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others identified in assessment.	Shadow Canyon	1.1.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	Medium

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			• Target 100' extending from each side of the roadway.							
2006-0011	**Landscape Treatments**	**Roadside Fuels Treatment: White Buffalo Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others identified in assessment. • Target 100' extending from each side of the roadway.	White Buffalo	2.2.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	Medium
LT-2025-BLM-0002	**Landscape Treatments**	**BiFO Ponderosa Juniper Fuels Reduction**	The BLM proposes to incorporate fuels treatments of BLM and adjacent lands within the analysis area to return to natural historic fire regime while bringing restoration and resiliency and creating fire adapted communities. These fuel treatments in the past have been	Steamboat, Shepherd Ah Nei, Four Dances	1.1.1	BLM	-	TBD	Ongoing	18

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			shown to reduced fuel loads that enhance fire suppression capabilities and produce a landscape that is resilient to natural disturbances. • Priority BLM project in Yellowstone County. • Planned fuels treatment locations within Yellowstone County include Steamboat, Shepherd Ah Nei and Four Dances. • Future treatments will include cutting, masticating/mulching, piling, pile burning and broadcast burning. • Treatments are planned to begin in 2025 at Steamboat and Shepherd.							
LT-2025-BLM-0003	**Landscape Treatments**	**BLM-Lockwood FD Fuels Mitigation Agreement**	Develop BLM agreement with Lockwood FD for fuels mitigation throughout Yellowstone County	Emerald Hills Priority Area, Lockwood area	1.2.4	BLM	Lockwood FD	TBD	Ongoing	11

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
LT-2025-BLM-0003	**Landscape Treatments**	**Pompey's Pillar and Russian Olive Projects**	Russian Olive removal projects have been ongoing at Pompey's Pillar, Four Dances and Sundance. These are invasives removal projects along the Yellowstone River with less of a hazardous fuels component.	Pompey's Pillar National Monument, Four Dances, Sundance	1.1.1	BLM	-	TBD	Ongoing	15
LT-2025-BCVFD-0001	**Landscape Treatments**	**Hillcrest Fuels Reduction Project: Phase 1**	Primary focus is to work with homeowners in the defined project area to reduce the wildfire risk through selective thinning using mastication and hand crews. The project also seeks to improve forest health and preserve wildlife habitat. Contractors hired with heavy equipment to masticate woody fuels. • Funding secured. • 75/25 Grant Cost Share Program • Approximately 100 acres to be treated. • 2025 Project Implementation	Hillcrest community	1.1.1	Blue Creek VFD	MT DNRC	TBD	Ongoing	18
LT-2025-BCVFD-0002	**Landscape Treatments**	**Hillcrest Fuels Reduction Project: Phase 2**	Secure funding for the continuation of Hillcrest Fuels Reduction Project with a focus on Brockway Coulee	Hillcrest community	1.1.1	Blue Creek VFD	MT DNRC	TBD	Proposed	11

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			and surrounding subdivisions/communities and agricultural lands.							
LT-2025-BCVFD-0003	**Landscape Treatments**	**Hillcrest Fuels Reduction Project: Phase 3**	Secure funding for the continuation of Hillcrest Fuels Reduction Project.	Hillcrest community	1.1.1	Blue Creek VFD	MT DNRC	TBD	Proposed	11
LT-2025-HBVFD-0001	**Landscape Treatments**	**Targeted and Prescribed Grazing for Fuels Reduction**	Implement targeted and prescribed grazing treatments to reduce wildfire risk.	Haley Bench VFD	1.1.1	Haley Bench VFD	-	TBD	Proposed	11
LT-2025-LAFD-0002	**Landscape Treatments**	**Fuels Mitigation Crew – Laurel FD**	Dedicated fuels mitigation crews to implement fuels reduction treatments.	Laurel FD	1.1.1	Laurel FD	-	TBD	Proposed	11
LT-2025-LAFD-0001	**Landscape Treatments**	**Private Land Mitigation**	Support mitigations on private lands within the WUI.	Laurel	1.1.1	Laurel FD	MT DNRC	TBD	Proposed	11
2006-0012	**Landscape Treatments**	**Community Defensible Zone WUI Treatments**	Treat high-risk wildland fuels adjacent to home site defensible space treatments. Treatments should focus on high-risk concentrations of fuels and not 100% of the area identified. To be completed only after or during the creation of home defensible spaces have been implemented. Plan and implement an ongoing fuels reduction plan on Conservation Reserve Program lands	Yellowstone County	1.1.1	Local Fire	MT DNRC	TBD	Incomplete	High

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			surrounding communities							
LT-2025-LF-0002	**Landscape Treatments**	**Defensible Space for At-Risk Communities**	Develop defensible space for at-risk communities within the WUI.	Yellowstone County	1.1.1	Local Fire	MT DNRC, BLM	TBD	Proposed	11
2006-0013	**Landscape Treatments**	**Defensible Space Project: Alkali Creek Defensible Space Treatment Area**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. • Continue to work with landowners to implement agreed upon project plans.	Alkali Creek	1.1.1	Local Fire	MT DNRC	TBD	Incomplete	High
2006-0014	**Landscape Treatments**	**Defensible Space Project: Buffalo Trails Defensible Space Treatment Area**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities.	Buffalo Trails	2.2.1	Local Fire	MT DNRC	TBD	Incomplete	Medium

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			• Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. Continue to work with landowners to implement agreed upon project plans.							
2006-0015	**Landscape Treatments**	**Defensible Space Project: Cedar Ridge Defensible Space Treatment Area**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. Continue to work with landowners to implement agreed upon project plans.	Cedar Ridge	1.1.1	Local Fire	MT DNRC	TBD	Incomplete	Medium
2006-0016	**Landscape Treatments**	**Defensible Space Project: Clapper Flats Defensible Space Treatment Area**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel	Clapper Flats	2.2.1	Local Fire	MT DNRC	TBD	Incomplete	Medium

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. Continue to work with landowners to implement agreed upon project plans.							
2006-0017	**Landscape Treatments**	**Defensible Space Project: Emerald Hills Defensible Space Treatment Area**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. Continue to work with landowners to implement agreed upon project plans.	Emerald Hills	1.1.1	Local Fire	MT DNRC	TBD	Incomplete	High
2006-0018	**Landscape Treatments**	**Defensible Space Project: High Trails Defensible**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed	High Trails	2.2.1	Local Fire	MT DNRC	TBD	Incomplete	Medium

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
		Space Treatment Area	eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. Continue to work with landowners to implement agreed upon project plans.							
2006-0019	**Landscape Treatments**	**Defensible Space Project: Hills Estates Defensible Space Treatment Area**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. Continue to work with landowners to implement agreed upon project plans.	Hills Estates	1.1.1	Local Fire	MT DNRC	TBD	Incomplete	Medium
2006-0020	**Landscape Treatments**	**Defensible Space Project:**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of	Indian Cliffs	2.2.1	Local Fire	MT DNRC	TBD	Incomplete	High

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
		Indian Cliffs Defensible Space Treatment Area	brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. Continue to work with landowners to implement agreed upon project plans.							
2006-0021	**Landscape Treatments**	**Defensible Space Project: Pleasant Hollow Defensible Space Treatment Area**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. Continue to work with landowners to implement agreed upon project plans.	Pleasant Hollow	1.1.1	Local Fire	MT DNRC	TBD	Incomplete	Medium

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
2006-0022	**Landscape Treatments**	**Defensible Space Project: Rehberg Ranch Estates Defensible Space Treatment Area**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. Continue to work with landowners to implement agreed upon project plans.	Rehberg Ranch Estates	1.1.1	Local Fire	MT DNRC	TBD	Incomplete	High
2006-0023	**Landscape Treatments**	**Defensible Space Project: Shadow Canyon Defensible Space Treatment Area**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners.	Shadow Canyon	2.2.1	Local Fire	MT DNRC	TBD	Incomplete	Medium

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			Continue to work with landowners to implement agreed upon project plans.							
2006-0024	**Landscape Treatments**	**Defensible Space Project: White Buffalo Defensible Space Treatment Area**	Fuels reduction treatments in areas surrounding at-risk communities which may consist of brush clearing, selective tree removal, pruning, weed eradication, and slash removal in order to reduce hazardous fuel loads, ladder fuels, and tree densities. • Locate funding source and conduct home site evaluations for structures in project areas. Develop project plans for individual landowners. Continue to work with landowners to implement agreed upon project plans.	White Buffalo	1.1.1	Local Fire	MT DNRC	TBD	Incomplete	Medium
LT-2025-LF-0003	**Landscape Treatments**	**Demonstration Projects**	Identify local landowners and/or homeowners to provide examples of successful implementation of wildfire risk mitigations.	Yellowstone County	1.1.1	Local Fire	YC DES	TBD	Proposed	11
LT-2025-LF-0004	**Landscape Treatments**	**Fuels Mitigation Methods Training for Local Fire Personnel**	Provide trainings for effective fuels treatments to reduce wildfire risk.	Yellowstone County	1.1.1	Local Fire	MT DNRC	TBD	Proposed	11

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
2006-0025	**Landscape Treatments**	**Home Site WUI Treatments & Maintenance**	Home site treatments can begin after securing funding for the treatments and immediate implementation in Plan and implement an ongoing fuels reduction plan on Conservation Reserve Program lands surrounding home sites. Home site defensibility treatments must be maintained periodically to sustain benefits of the initial treatments. Each site should be assessed 5 years following initial treatment. Follow-up inspection reports with treatments as recommended years 5 through 10.	Yellowstone County	2.2.1	Local Fire	MT DNRC	TBD	Incomplete	High
2006-0026	**Landscape Treatments**	**Re-entry of Home Site WUI Treatments**	Re-entry treatments will be needed periodically to maintain the benefits of the initial WUI home treatments. Each re-entry schedule should be based on the initial inspection report recommendations, observations, and changes in local conditions. • Generally occurs every 5-10 years.	Yellowstone County	2.2.1	Local Fire	MT DNRC	TBD	Ongoing	High
2006-0027	**Landscape Treatments**	**Roadside Fuels Treatment: Alkali Creek Project Area**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels.	Alkali Creek	1.1.1	Local Fire	YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	High

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
			• Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others identified in assessment. • Target 100' extending from each side of the roadway.							
LT-2025-LOFD-0001	**Landscape Treatments**	**Fuels Mitigation Crew – Lockwood FD**	Dedicated fuels mitigation crews to implement fuels reduction treatments.	Lockwood FD	1.1.1	Lockwood FD	-	TBD	Proposed	11
LT-2025-LOFD-0002	**Landscape Treatments**	**Fuels Mitigation Program – Lockwood FD**	Dedicated fuels mitigation program with supporting resources to implement fuels reduction treatments.	Lockwood FD	1.1.1	Lockwood FD	-	TBD	Proposed	11
LT-2025-MTDNRC-0001	**Landscape Treatments**	**Billings Logan International Airport**	Primary focus is reducing wildfire risk while improving forest health.	Billings Logan International Airport	1.1.1	MT DNRC	-	TBD	Ongoing	14
LT-2025-MTDNRC-0002	**Landscape Treatments**	**Billings Logan International Airport State Section**	Primary focus is reducing wildfire risk while improving forest health on state parcel S24 T01N R25E.	State parcel S24 T01N R25E.	1.1.1	MT DNRC	-	TBD	Ongoing	14

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
LT-2025-MTDNRC-0003	**Landscape Treatments**	**City of Billings and Gun & Rod Club Fuels Mitigation**	Primary focus is reducing wildfire risk while improving forest health.	Billings, Gun & Rod Club	1.1.1	MT DNRC	City of Billings	TBD	Ongoing	14
LT-2025-MTDNRC-0004	**Landscape Treatments**	**Emerald Hills Project**	Primary focus is reducing wildfire risk while improving forest health.	Emerald Hills Priority Area	1.1.1	MT DNRC	-	TBD	Ongoing	14
LT-2025-MTDNRC-0005	**Landscape Treatments**	**State Section S22 T01N R25E Fuels Reduction**	This State section borders the neighborhood Rehberg Ranch. The primary focus is reducing wildfire risk while improving forest health on the Eastern border of state parcel S22 T01N R25E.	State parcel S22 T01N R25E	1.1.1	MT DNRC	-	TBD	Ongoing	14
LT-2025-MTDNRC-0006	**Landscape Treatments**	**Two Moon Park Fuels Reduction Project**	Primary focus is reducing wildfire risk while improving forest health.	Two Moon Park	1.1.1	MT DNRC	City of Billings	TBD	Ongoing	14
LT-2025-YRPA-0001	**Landscape Treatments**	**Fuels Reduction on YRPA-owned and/or managed lands.**	Fuels reduction targeting understory growth of Russian Olive and buckthorn	YRP-owned/managed lands (John H. Dover Memorial Park, Joel's Pond, Blue Creek FAS, Two Moon Park, Earl Guss Park, Mystic Park, NE Bypass Rd ROW)	1.1.1	YRPA	-	TBD	Proposed	14

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
PCE-2025-LF-0006	**Partnerships & Community Engagement**	**Public Outreach**	Support the planning and implementation of public outreach methods to provide residents with resources to mitigate wildfire risk. Outreach events could include: • Smoke filters for public and business usage • Update local zoning, sub. regs., growth policy, or adopt IWUIC code • Identify specific fuels reduction projects • Emergency notification systems • Home hardening workshops • Table at farmers markets • Attend city council meetings • Fire adapted working groups • Public invites to Rx/ fuel reduction projects • Mailing campaigns and billboards	Yellowstone County	2.1.1 2.1.2	Local Fire	MT DNRC	TBD	Pending	11
PCE-2025-LF-0005	**Partnerships & Community Engagement**	**Strategic Public Education for Priority Areas**	Target public education efforts in priority areas defined by this CWPP or local fire personnel.	Yellowstone County	2.1.1 2.1.2 2.3.2	Local Fire	YC DES, MT DNRC	TBD	Proposed	11

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
P-2025-LAFD-0003	**Prevention**	**Ignition Prevention - Laurel**	Reduce ignition potential through fuels reduction projects and/or public education campaigns.	Clappers Flat, Yellowstone and Clark Fork River corridors, Moser Dome, radio towers, Molt, Broadview	2.3.2	Laurel FD	YC DES, MT DNRC	TBD	Proposed	11
P-2025-LF-0006	**Prevention**	**Ignition Prevention – Agricultural Lands**	Reduce ignitions on private agricultural lands with burnable fuels (i.e., dryland farming).	Yellowstone County	2.3.2	Local Fire	YC DES	TBD	Proposed	11
P-2025-LOFD-0003	**Prevention**	**Ignition Prevention – Lockwood**	Reduce ignition potential south of Lockwood (primarily lightning). Potential strategies include public education regarding best practices, watch-out situations.	Lockwood FD	2.3.2	Lockwood FD	YC DES	TBD	Proposed	11
P-2025-MTDNRC-0007	**Prevention**	**Fire Prevention Planning**	Create a Yellowstone County fire adapted working group for prevention education campaigns, seasonal prevention messages, support new residents, fuels reduction project and coordination, smoke preparedness, monitor 2025 CWPP, home hardening workshops, etc.	Yellowstone County	2.1.1 2.1.2 2.1.3 2.3.2 2.3.3	MT DNRC	YC DES, Local Fire	TBD	Proposed	11
P-2025-YCDES-0001	**Prevention**	**Ignition Prevention**	Reduce ignitions associated with: • Railroad lines, yards • I-90 • Fireworks • Campfires	Yellowstone County	2.3.2	YC DES	Local Fire, MT DNRC	TBD	Proposed	11

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			• trailer chains, vehicles, improper cigarette disposal, downed utility lines, farming equipment, and fireworks.							
P-2025-YCDES-0002	**Prevention**	**Rural Residents & Fire Protection Information**	Improve public communications regarding the type and degree of fire protection depending upon property location. Develop maps that facilitate clear communication for landowners.	Yellowstone County	2.1.1 2.1.2	YC DES	Local Fire, MT DNRC	TBD	Proposed	11
P-2025-YRPA-0002	**Prevention**	**Ignition Prevention – NE Bypass Rd.**	Reduce ignitions along NE Bypass Rd.	John H. Dover Memorial Park	2.3.2	YRPA	Local Fire, MT DNRC	TBD	Proposed	11
P-2025-YRPA-0003	**Prevention**	**Ignition Prevention – YRPA Lands**	Reduce ignitions from unauthorized fireworks and/or campfires within park areas.	YRP-owned/managed lands (John H. Dover Memorial Park, Joel's Pond, Blue Creek FAS, Two Moon Park, Earl Guss Park, Mystic Park, NE Bypass Rd ROW)	2.3.2	YRPA	Local Fire, MT DNRC	TBD	Proposed	11
2006-0028	**Public Engagement**	**Youth and Adult Wildfire Educational Programs**	Youth and Adult Wildfire Educational Programs and Professional Development Training.	Yellowstone County	2.2.1		Local Fire, MT DNRC, BIA,	TBD	Incomplete	High

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
							USFS, BLM			
2006-0029	**Regulations, Law, & Policy**	**Adoption and enforcement of International Building Codes**	Adoption and enforcement of International Building Codes and/or more stringent hazard-related building code provisions.	Yellowstone County	2.2.1		YC DES	TBD	Ongoing	High
2006-0030	**Regulations, Law, & Policy**	**Develop a county policy to support grant applications**	Develop a county policy to support grant applications for projects resulting from this CWPP. Support grant applications as requested in a manner consistent with applications from residents and organizations in Yellowstone County.	Yellowstone County	1.1.1		YC DES	TBD	Ongoing	High
2006-0031	**Regulations, Law, & Policy**	**Develop a policy to enforce "No Burning" restrictions**	Develop a policy to enforce "No Burning" restrictions in specified at-risk communities. Consider and develop policy to address burning regulations for subdivisions and population clusters located in high wildfire risk areas. Specifically, a County policy concerning a "No Burning" restriction where subdivisions are juxtaposed near areas of high wildfire hazard.	Yellowstone County	2.2.1		YC DES	TBD	Ongoing	High
RPP-2025-LF-0007	**Regulations, Policy, & Plans**	**Dry Hydrant Connection Standards**	Develop county standards for dry hydrant connection types.	Yellowstone County	3.1.2 3.1.3	Local Fire	YC DES	TBD	Proposed	11

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
RM-2025-BCVFD-0004	**Resident Mitigation**	**Home Wildfire Risk Assessments – Blue Creek VFD**	Provide wildfire risk assessments for homeowners.	Blue Creek VFD	2.1.1	Blue Creek VFD	MT DNRC	TBD	Proposed	11
RM-2025-BCVFD-0005	**Resident Mitigation**	**Public Education – Fire Protection & Jurisdiction**	Clarify protection jurisdiction for local residents. Support public education events that communicate this information.	Briarwood community	2.1.1 2.1.2	Blue Creek VFD	MT DNRC	TBD	Proposed	11
RM-2025-BCVFD-0006	**Resident Mitigation**	**Training for Home Wildfire Risk Assessments – Blue Creek VFD**	Host trainings for personnel to conduct wildfire risk assessments.	Blue Creek	2.1.1	Blue Creek VFD	MT DNRC	TBD	Proposed	11
RM-2025-LF-0008	**Resident Mitigation**	**Prescribed Burn Training**	Landowner training for prescribed burning.	Yellowstone County	2.3.3	Local Fire	MT DNRC, YC DES	TBD	Proposed	11
RM-2025-LOFD-0004	**Resident Mitigation**	**Community Chipper Day**	Host a community chipper day for at-risk communities to facilitate proactive land mitigation.	Lockwood FD	2.2.1	Lockwood FD	MT DNRC	TBD	Proposed	11
RM-2025-LOFD-0005	**Resident Mitigation**	**Slash Drop-off**	Provide opportunities for landowners to drop off slash materials to the landfill or designated drop-off zone. Consider specific periods of time/events to increase public education and promote engagement.	Lockwood FD	2.2.1	Lockwood FD	MT DNRC	TBD	Proposed	11

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
RM-2025-LOFD-0017	**Resident Mitigation**	**Wildfire Risk Assessment Training – Lockwood FD**	Provide trainings for local fire personnel to conduct wildfire risk assessments for homeowners.	Lockwood FD	2.1.1	Lockwood FD	MT DNRC	TBD	Ongoing	11
RM-2025-LOFD-0018	**Resident Mitigation**	**Wildfire Risk Assessments for Homeowners – Lockwood FD**	Increase the availability of home wildfire risk assessments for homeowners.	Lockwood FD	2.1.1	Lockwood FD	MT DNRC	TBD	Proposed	11
RM-2025-MTDNRC-0008	**Resident Mitigation**	**Home Wildfire Risk Assessment Training**	Provide trainings for local fire personnel to conduct wildfire risk assessments for homeowners.	Yellowstone County	2.1.1	MT DNRC	Local Fire	TBD	Proposed	11
2006-0032	**Safety & Evacuation**	**Fuel mitigation of "Emergency Evacuation Routes"**	Fuels mitigation of the "Emergency Evacuation Routes" in the County to ensure these routes can be maintained in the case of an emergency.	Yellowstone County	1.1.1		YC DES, Local Fire	TBD	Incomplete	High
2006-0033	**Safety & Evacuation**	**Post "Emergency Evacuation Route" signs**	Post "Emergency Evacuation Route" signs along the identified Primary and Secondary access routes in the County. • Purchase of signs. • Posting roads and making information available to residents about the importance of Emergency Routes.	Yellowstone County	1.1.1		YC DES, Local Fire	TBD	Incomplete	High
SE-2025-LAFD-0005	**Safety & Evacuation**	**Evacuation Route Maintenance**	Coordinate improved road maintenance through acquisition of ROW and/or coordination with	Clapper Flat Priority Area	3.4.1	Laurel FD	YC DES	TBD	Proposed	11

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			landowners who own private roads to ensure safe ingress/egress during emergency events.							
SE-2025-LAFD-0004	**Safety & Evacuation**	**Ingress/Egress – Clapper Flat**	Develop additional ingress/egress routes or enhance existing roads to facilitate evacuation traffic and improve emergency response. Consider right-of-way access through both public and private lands.	Clapper Flat Priority Area	3.4.1	Laurel FD	YC DES	TBD	Proposed	11
SE-2025-LF-0009	**Safety & Evacuation**	**Evacuation Practice**	Develop a county-wide evacuation program to host mock evacuation practices to familiarize responders and residents with key evacuation routes and at-risk communities.	Yellowstone County	3.4.1	Local Fire	YC DES	TBD	Proposed	11
SE-2025-LOFD-0006	**Safety & Evacuation**	**Ingress/Egress – Emerald Hills**	Develop additional ingress/egress routes or enhance existing roads to facilitate evacuation traffic and improve emergency response.	Emerald Hills Priority Area	3.4.1	Lockwood FD	YC DES	TBD	Proposed	11
SE-2025-LOFD-0007	**Safety & Evacuation**	**Two-color Evacuation System – Emerald Hills**	Implement a two-color evacuation system to identify alternate/backup evacuation routes.	Emerald Hills Priority Area	3.4.1	Lockwood FD	YC DES	TBD	Proposed	11
SE-2025-YCDES-0003	**Safety & Evacuation**	**Emergency Communications**	Improve public outreach regarding county-wide emergency communications sign-up.	Yellowstone County	3.2.1 3.2.2 3.4.1	YC DES	Local Fire	TBD	Proposed	11

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
SE-2025-YCDES-0004	**Safety & Evacuation**	**Emergency Signage & Communications**	Improve public education regarding evacuations and emergency events through signage.	YRPA	3.2.1 3.2.2 3.4.1	YC DES	YRPA, Local Fire	TBD	Proposed	11
SE-2025-YCDES-0005	**Safety & Evacuation**	**Evacuation Planning**	Improve public outreach and resources that prepare homeowners for evacuation.	Yellowstone County	3.2.1 3.2.2 3.4.1	YC DES	Local Fire	TBD	Proposed	11
SE-2025-YCDES-0006	**Safety & Evacuation**	**Ready, Set, Go! Program**	Support the implementation of the Ready, Set, Go! Program within Yellowstone County. Adapt program resources to fit the needs of the County.	Yellowstone County	2.1.1 2.1.2	YC DES	Local Fire	TBD	Proposed	11
SE-2025-YCDES-0007	**Safety & Evacuation**	**Safety zones**	Support the identification and/or development of safety zones within at-risk communities.	Yellowstone County	3.2.1 3.4.1	YC DES	Local Fire	TBD	Proposed	11
2006-0034	**Wildfire Response**	**Access improvements of bridges, cattle guards, and road surfaces**	Access improvements of bridges, cattle guards, and limiting road surfaces. • Update existing assessment of travel surfaces, bridges, and cattle guards in Yellowstone County as to location. • Secure funding for implementation of this project. • Conduct engineering assessment of limiting	Yellowstone County	2.2.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	High

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			weight restrictions for all surfaces (e.g., bridge weight load maximums). • Consider cost-share between County, BLM, BIA, State, and private based on landownership associated with road locations. • Post weight restriction signs on all crossings, copy information to rural fire departments and wildland fire protection agencies in affected areas. • Identify limiting road surfaces in need of improvements to support wildland firefighting vehicles and other emergency equipment. • Develop plan for improving limiting surfaces including budgets, timing, and resources to be protected for prioritization of projects (benefit/cost ratio analysis).							

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			• Create budget based on full assessment.							
2006-0035	**Wildfire Response**	**Access improvements through roadside fuels management**	Fuels reduction treatments within 100' on either side of identified roadway. Treatment will typically consist of mowing grass-dominated fuels. • Update existing assessment of roads in Yellowstone County as to location. • Secure funding for implementation of this project. • Specifically address access issues listed below, plus recreation areas, and others identified in assessment. • Target 100' extending from each side of the roadway.	Yellowstone County	1.1.1		YC DES, BLM, USFS, BIA, MT DNRC	TBD	Incomplete	See Projects
2006-0036	**Wildfire Response**	**Acquire sites and install dry hydrants**	Acquire sites and install dry hydrants on Pine Hills Road, High Trails Road, Coburn Hill Road, Yellowstone Trail Road, and Box Canyon Spring Road.	Pine Hills Rd, High Trails Rd, Coburn Hill Rd, Yellowstone Trail Rd, Box Canyon Spring Rd	1.1.1		Local Fire	TBD	Unknown	High
2006-0037	**Wildfire Response**	**Additional heated**	Additional heated equipment storage facility for the Broadview Fire Department #3.	Broadview FD	1.1.1		Local Fire	TBD	Unknown	Medium

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
		equipment storage facility								
2006-0038	**Wildfire Response**	**Construction of Shepherd Volunteer Fire Department satellite station**	Construction of a Shepherd Volunteer Fire Department satellite station in the Hidden Lake area.	Shepherd VFD	2.2.1		Local Fire	TBD	Unknown	High
2006-0039	**Wildfire Response**	**Equip Laurel Emergency Operations Center**	Equip Laurel Emergency Operations Center with radios and phone lines.	Laurel FD	2.2.1		Local Fire	TBD	Incomplete	High
2006-0040	**Wildfire Response**	**Erect a repeater tower**	Erect a repeater tower on the site donated by the Conover Ranch near Broadview.	Broadview FD	2.2.1		Local Fire	TBD	Incomplete	Medium
2006-0041	**Wildfire Response**	**Erect a repeater tower system**	Erect a repeater tower system to support the Shepherd Volunteer Fire Department and Shepherd community.	Shepherd VFD	1.1.1		Local Fire	TBD	Incomplete	High
2006-0042	**Wildfire Response**	**Establish higher capacity municipal well and storage tank**	Establish a site and install a higher capacity municipal well and pump and a 100,000 gallon storage tank for the town of Broadview. • Identify populated areas lacking sufficient water supplies and develop project plans to develop fill or helicopter dipping sites.	Broadview FD	1.1.1		Local Fire	TBD	Unknown	Medium

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
2006-0043	**Wildfire Response**	**Establish non-potable water well and storage system**	Establish a non-potable water well and storage system to supply fire hydrants, dry hydrants, and fire suppression systems in public buildings in the town of Broadview. • Conduct feasibility study and identify non-potable water source. • Establish well and storage system and install water lines throughout the community to handle non-potable water. • On-going: Update public facilities with fire suppression systems using the non-potable water source.	Broadview FD	2.2.1		Local Fire	TBD	Unknown	Medium
2006-0044	**Wildfire Response**	**Increased training and capabilities of firefighters**	Develop a multi-county training schedule that extends 2 or 3 years in advance (continuously).	Yellowstone County	1.1.1		Local Fire	TBD	Incomplete	High
2006-0045	**Wildfire Response**	**Obtain a 4x4 pumper truck and water tender**	Obtain a 4x4 pumper truck and a 1,500-2,000 gallon water tender for the Laurel Fire Department.	Laurel FD	1.1.1		Local Fire	TBD	Unknown	Low

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
2006-0046	**Wildfire Response**	**Obtain a Type 3 WUI pumper truck**	Obtain a Type 3 WUI pumper truck for the Laurel Urban Fire Service Area.	Laurel FD	2.2.1		Local Fire	TBD	Incomplete	High
2006-0047	**Wildfire Response**	**Obtain a Type 6 wildland engine and wood chipper**	Obtain a Type 6 wildland engine and a wood chipper for Lockwood Fire District #8.	Lockwood FD	2.2.1		Local Fire	TBD	Unknown	Medium
2006-0048	**Wildfire Response**	**Obtain funding for Broadview Fire District #3 Structural Capabilities**	Obtain funding to add structural fire responsibilities to Broadview Fire District #3, which would include personnel incentives, additional rolling stock equipped with structural firefighting capabilities, structural turnout gear, and a larger equipment storage facility.	Broadview FD	1.1.1		Local Fire	TBD	Unknown	Low
2006-0049	**Wildfire Response**	**Obtain structural engine and Type 3 engines**	Obtain one structural engine, 3 Type 3 engines (to replace old 6x6's), and one Type 2 water tender for the Shepherd Volunteer Fire Department.	Shepherd VFD	2.2.1		Local Fire	TBD	Unknown	Medium
2006-0050	**Wildfire Response**	**Obtain Type 6 engine, pumper trucks, and storage facility**	Obtain a Type 6 engine, two 1,000 gallon pumper trucks, and a heated truck storage facility for the Worden Volunteer Fire Department.	Worden VFD	2.2.1		Local Fire	TBD	Unknown	Medium
2006-0051	**Wildfire Response**	**Obtain Type 6 wildland fire truck and equipment**	Obtain a Type 6 wildland fire truck, a ProPAC foam kit, a floater pump, and additional personal protective equipment	Broadview FD	1.1.1		Local Fire	TBD	Unknown	Medium

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
			for the Broadview Fire District #3.							
2006-0052	**Wildfire Response**	**Retention of Volunteer Fire Fighters**	5 Year Planning Horizon, extended planning timeframe. Target an increased recruitment (+10%) and retention (+20% longevity) of volunteers. Apply for S.A.F.E.R. grants. • Develop incentives program and implement it.	Yellowstone County	2.2.1		Local Fire	TBD	Incomplete	High
WR-2025-BCVFD-0007	**Wildfire Response**	**Alternative Funding Mechanisms**	Identify alternative funding mechanisms to support Blue Creek Fire operations.	Blue Creek VFD	3.5.1	Blue Creek VFD	-	TBD	Proposed	11
WR-2025-BCVFD-0008	**Wildfire Response**	**Equipment Purchase – Replace Expired PPE, Gear, and Equipment**	Update expired gear per the NFPA requirements. Expires after 10 years.	Blue Creek VFD	3.5.1	Blue Creek VFD	-	TBD	Proposed	11
WR-2025-BCVFD-0009	**Wildfire Response**	**Equipment Purchase – Structural Fire PPE**	Purchase structure PPE.	Blue Creek VFD	3.5.1	Blue Creek VFD	-	TBD	Proposed	11
WR-2025-BCVFD-0010	**Wildfire Response**	**Equipment Purchase – Structure Engine, Pumper Truck**	Purchase a structure engine/pumper truck.	Blue Creek VFD	3.5.1	Blue Creek VFD	-	TBD	Proposed	11

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
WR-2025-BCVFD-0011	**Wildfire Response**	**Improved Mutual Aid Agreement - Briarwood**	Develop clear and effective mutual aid agreements.	Briarwood community	3.3.1	Blue Creek VFD	Local Fire, MT DNRC, BLM	TBD	Proposed	11
WR-2025-BCVFD-0012	**Wildfire Response**	**Volunteer Incentives**	Provide stipends for volunteer personnel attending trainings, responding to calls.	Blue Creek VFD	3.5.1	Blue Creek VFD	-	TBD	Proposed	11
WR-2025-HBVFD-0002	**Wildfire Response**	**Equipment Purchase – Fire Truck(s)**	Purchase two trucks to respond to incidents county-wide and assist with incident command, access, suppression and landowner coordination, evacuations, etc.	Haley Bench VFD	3.5.1	Haley Bench VFD	-	TBD	Proposed	11
WR-2025-LAFD-0006	**Wildfire Response**	**Clapper Flats Repeater Site**	Construct repeater site near Clapper Flats to improve radio communications.	Laurel FD	3.5.1	Laurel FD	-	TBD	Proposed	11
WR-2025-LAFD-0007	**Wildfire Response**	**Develop Dry Hydrants**	Develop additional dry hydrants.	Laurel FD	3.5.1	Laurel FD	-	TBD	Proposed	11
WR-2025-LAFD-0008	**Wildfire Response**	**Equipment Purchase – Tactical Water Tender**	Purchase tactical water tender.	Laurel FD	3.5.1	Laurel FD	-	TBD	Proposed	11
WR-2025-LAFD-0009	**Wildfire Response**	**Equipment Purchase – Type IV Engines**	Purchase Type IV engines.	Laurel FD	3.5.1	Laurel FD	-	TBD	Proposed	11
WR-2025-LAFD-0010	**Wildfire Response**	**WUI Firefighting Training**	Provide trainings on WUI firefighting strategy and tactics, rapid property triage	Laurel FD	3.5.1	Laurel FD	-	TBD	Proposed	11

Action ID	*Mitigation Type*	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
WR-2025-LF-0010	**Wildfire Response**	**Cross-Boundary Collaboration**	Promote consistent coordination between fire jurisdictions to ensure effective cross-boundary collaboration during wildfire incidents.	Yellowstone County	3.3.1	Local Fire	YC DES	TBD	Proposed	11
WR-2025-LF-0011	**Wildfire Response**	**Develop Incident Protocols**	Develop clear and actionable protocol for responders to implement during wildfire incidents.	Yellowstone County	3.3.1	Local Fire	YC DES	TBD	Proposed	11
WR-2025-LF-0013	**Wildfire Response**	**Improved Mutual Aid Agreements**	Develop mutual aid agreements that promote response support from surrounding jurisdictions. Review and revise agreements as-needed to reflect changing conditions and host joint training exercises to ensure functionality of agreement protocols.	Yellowstone County	3.3.1	Local Fire	MT DNRC, BLM, BIA, USFS, YC DES	TBD	Proposed	11
WR-2025-LF-0012	**Wildfire Response**	**Joint Trainings with Local Fire and the Yellowstone County Sheriff's Office**	Host regular joint trainings with the Yellowstone County Sheriff's Office focused on incident response, management, and evacuations.	Lockwood FD	3.5.1	Local Fire	YCSO	TBD	Proposed	11
WR-2025-LF-0014	**Wildfire Response**	**Workforce Capacity**	Increase local fire station staffing through additional funding for part- and full-time positions, particularly during wildland fire season.	Yellowstone County	3.5.1	Local Fire	MT DNRC	TBD	Proposed	11
WR-2025-LOFD-0008	**Wildfire Response**	**Aerial Drone Reconnaissance Program**	Develop drone program to provide aerial reconnaissance during incidents.	Lockwood FD	3.5.1	Lockwood FD	-	TBD	Proposed	11

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
WR-2025-LOFD-0009	**Wildfire Response**	**Communications Mapping**	Communications mapping to review where comms coverage should be improved/augmented	Lockwood FD	3.5.1	Lockwood FD	-	TBD	Proposed	11
WR-2025-LOFD-0010	**Wildfire Response**	**Construction of Additional Fire Station near Emerald Hills**	Construct additional fire station near Emerald Hills with supporting resources and staffing.	Emerald Hills Priority Area	3.5.1	Lockwood FD	-	TBD	Proposed	11
WR-2025-LOFD-0011	**Wildfire Response**	**Dry Hydrant Installation**	Install additional dry hydrants. Consider coordinating with landowners to facilitate development and community support.	Lockwood FD	3.5.1	Lockwood FD	-	TBD	Proposed	11
WR-2025-LOFD-0012	**Wildfire Response**	**Dry Hydrant Training**	Training for proper and effective use of dry hydrants (Taig O'Donnell)	Lockwood FD	3.5.1	Lockwood FD	MT DNRC	TBD	Proposed	11
WR-2025-LOFD-0013	**Wildfire Response**	**Enhance or Retrofit Infrastructure for Wildfire Response – Emerald Hills**	Enhance/retrofit existing roadways and infrastructure to accommodate larger firefighting apparatus.	Emerald Hills Priority Area	3.5.1	Lockwood FD	YC DES	TBD	Proposed	11
WR-2025-LOFD-0014	**Wildfire Response**	**Equipment Purchase – Adaptive Equipment for Dry Hydrants**	Purchase adaptive equipment to facilitate connection to various types of dry hydrants.	Lockwood FD	3.5.1	Lockwood FD	-	TBD	Proposed	11
WR-2025-LOFD-0015	**Wildfire Response**	**Equipment Purchase – Type**	Purchase Type IV engines and additional water tender to augment	Lockwood FD	3.5.1	Lockwood FD	-	TBD	Proposed	11

Action ID	Mitigation Type	Project Name	Description	Location(s)	Strategies	Lead	Support	Estimated Cost	Status	Priority Ranking Score[1]
		IV Engines, Water Tender	current fire station and potential additional station.							
WR-2025-LOFD-0016	**Wildfire Response**	**Radio Tower Upgrade – Lockwood**	Radio tower upgrade to improve communications in Lockwood area	Lockwood FD	3.5.1	Lockwood FD	-	TBD	Proposed	11
WR-2025-MTDNRC-0009	**Wildfire Response**	**MT DNRC Staffing**	MT DNRC station staffing with patrols during fire season.	Yellowstone County	3.5.1	MT DNRC	Local Fire	TBD	Proposed	11
WR-2025-YCDES-0006	**Wildfire Response**	**Strategic Grader Staging**	Stage graders throughout the County to facilitate expedited response.	Yellowstone County	3.5.1	YC DES	Local Fire	TBD	Proposed	11

[1] Actions with Priority Rankings of "High", "Medium", or "Low" were assigned in the 2006 CWPP according to different criteria than established by the 2025 CWPP. Numerical priority ranking scores assigned in this table represent preliminary, high-level evaluations subject to refinement through the prioritization process identified in the 2025 CWPP.

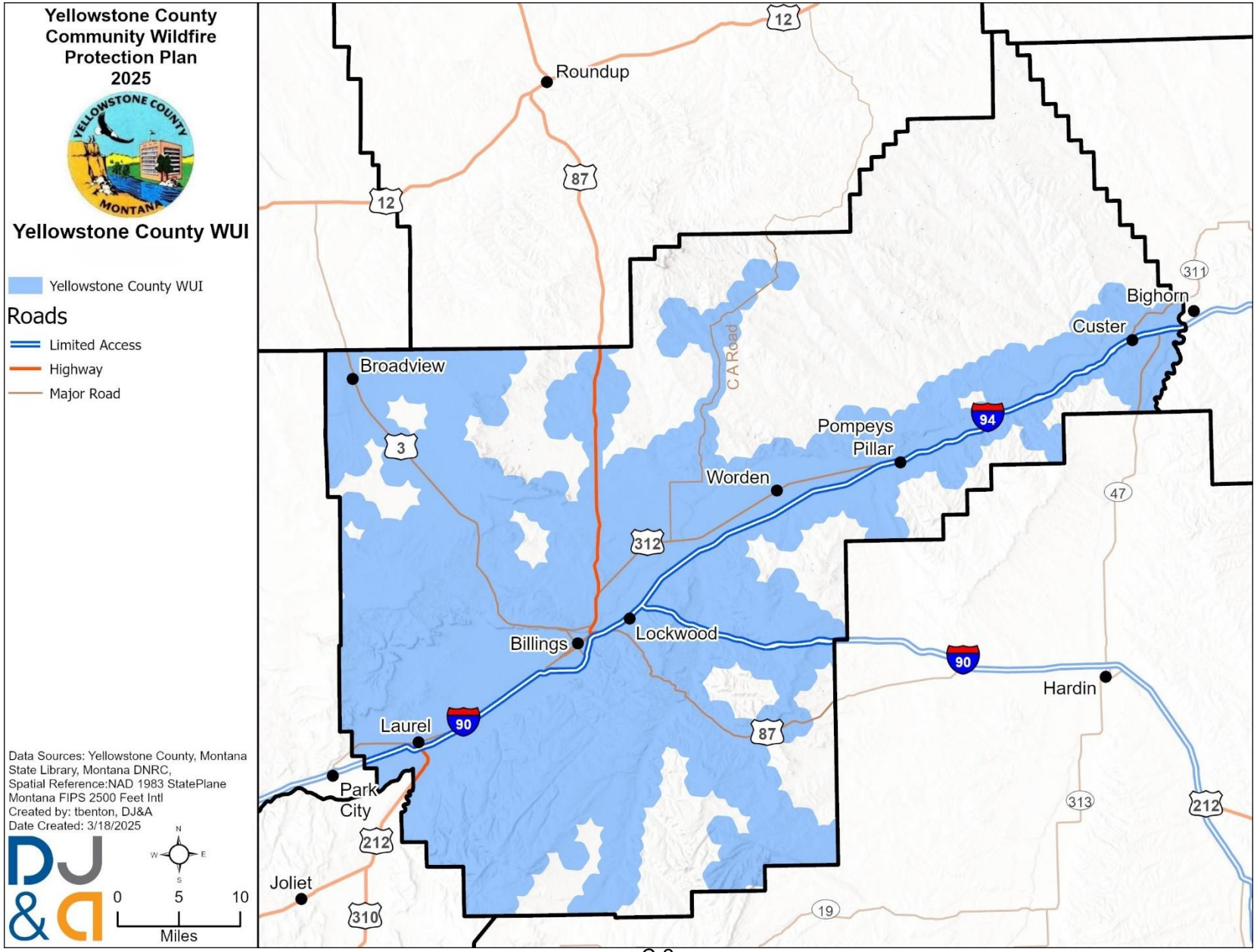
Completed Actions

Action ID	***Mitigation Type***	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
2006-0053	**Regulations, Law, & Policy**	**Develop County policy requiring dry hydrants**	Develop County policy requiring the installation of dry hydrants in subdivisions with 5 or more dwellings. Consider and develop policy to address the need for additional water resources for homes and businesses located in high wildfire risk areas. Specifically, a County policy requiring the installation of dry hydrants in subdivisions with 5 or more dwellings, especially where adjacent to heavy wildland fuels.	Yellowstone County	1.1.1	Local Fire	YC DES	NA	Complete	High
2006-0054	**Regulations, Law, & Policy**	**Develop county policy concerning access in WUI areas**	Develop county policy concerning access in moderate to high-risk WUI areas where subdivisions are built to ensure adequate ingress and egress during wildfire emergencies. Consider and develop policy to address access language for homes and businesses located in moderate to high wildfire risk areas. Specifically, a County policy concerning road widths, turning radii, and number of access points.	Yellowstone County	2.2.1	YC DES	Local Fire	NA	Complete	High

Action ID	***Mitigation Type***	*Project Name*	*Description*	*Location(s)*	*Strategies*	*Lead*	*Support*	*Estimated Cost*	*Status*	*Priority Ranking Score*[1]
2006-0055	**Wildfire Response**	**Improve communications**	Improve communications throughout the County by installing additional repeater towers and obtaining portable repeaters for emergency response personnel.	Yellowstone County	2.2.1	YC DES	Local Fire	NA	Complete	High
2006-0056	**Wildfire Response**	**Establish onsite water sources**	Establish onsite water sources such as dry hydrants or underground storage tanks for rural housing developments. • Identify populated areas lacking sufficient water supplies and develop project plans to develop fill or helicopter dipping sites.	Yellowstone County	1.1.1	YC DES	Local Fire, MT DNRC	NA	Complete	High
2006-0057	**Wildfire Response**	**Support construction of new Fire Station/Clinic/Pharmacy/Community Center**	Support the construction of the new Fire Station/Clinic/Pharmacy/Community Center proposed in Lockwood.	Lockwood FD	2.2.1	Local Fire	-	NA	Complete	High
LT-2025-BLM-0001	**Landscape Treatments**	**Antelope Creek Hazardous Fuels Reduction**	Treatment of hazardous fuels/conifers mechanically and with prescribed fire. • Project is completed.	Antelope Creek	1.1.1	BLM	-	NA	Complete	NA

[1]Actions with Priority Rankings of "High", "Medium", or "Low" were assigned in the 2006 CWPP according to different criteria than established by the 2025 CWPP. Numerical priority ranking scores assigned in this table represent preliminary, high-level evaluations subject to refinement through the prioritization process identified in the 2025 CWPP.

Appendix C: Maps


Yellowstone County Community Wildfire Protection Plan 2025
Yellowstone County WUI
Yellowstone County WUI
Roads
Limited Access
Highway
Major Road
Data Sources: Yellowstone County, Montana State Library, Montana DNRC,
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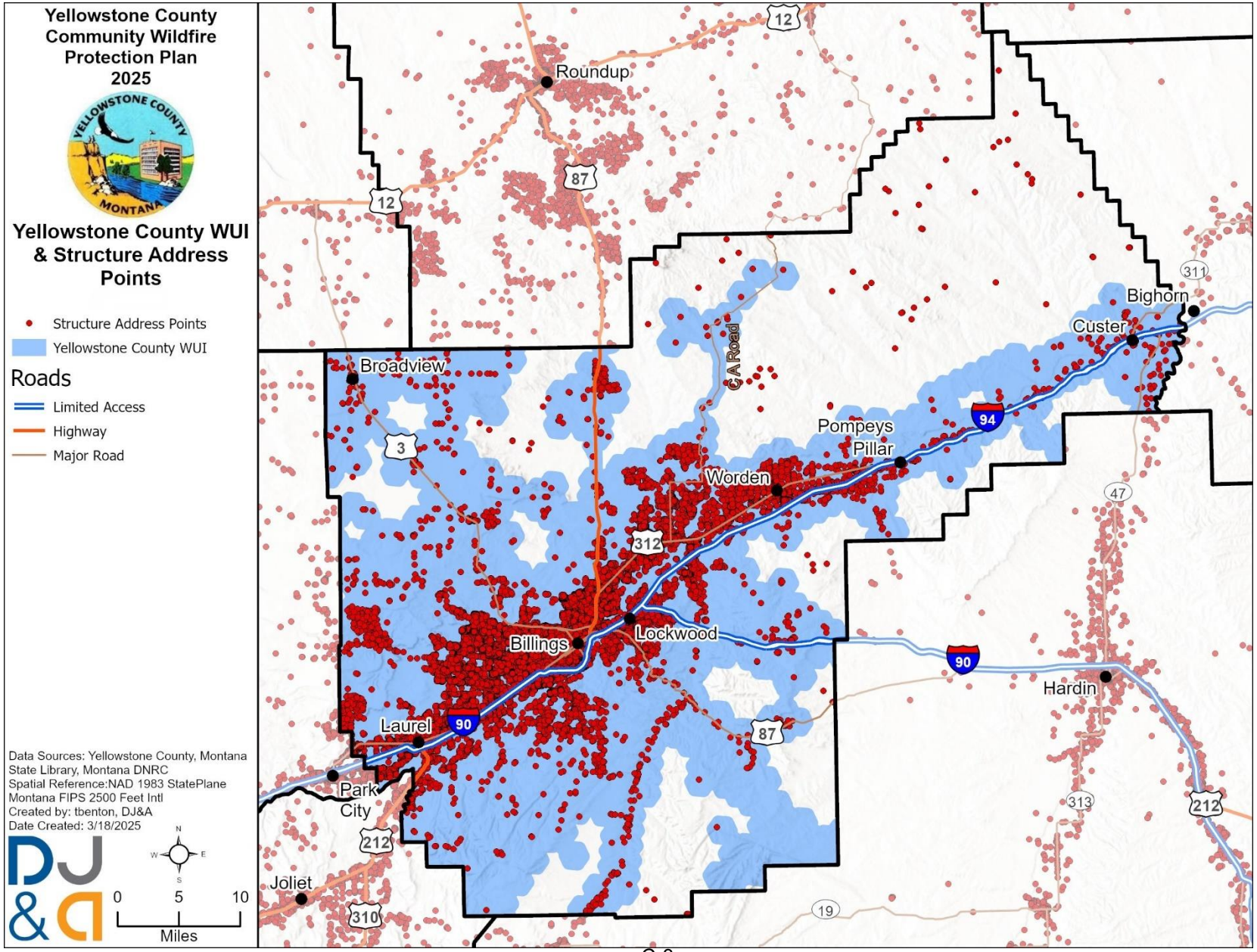
Yellowstone County Community Wildfire Protection Plan 2025
Yellowstone County WUI & Structure Address Points
Structure Address Points
Yellowstone County WUI
Roads
Limited Access
Highway
Major Road
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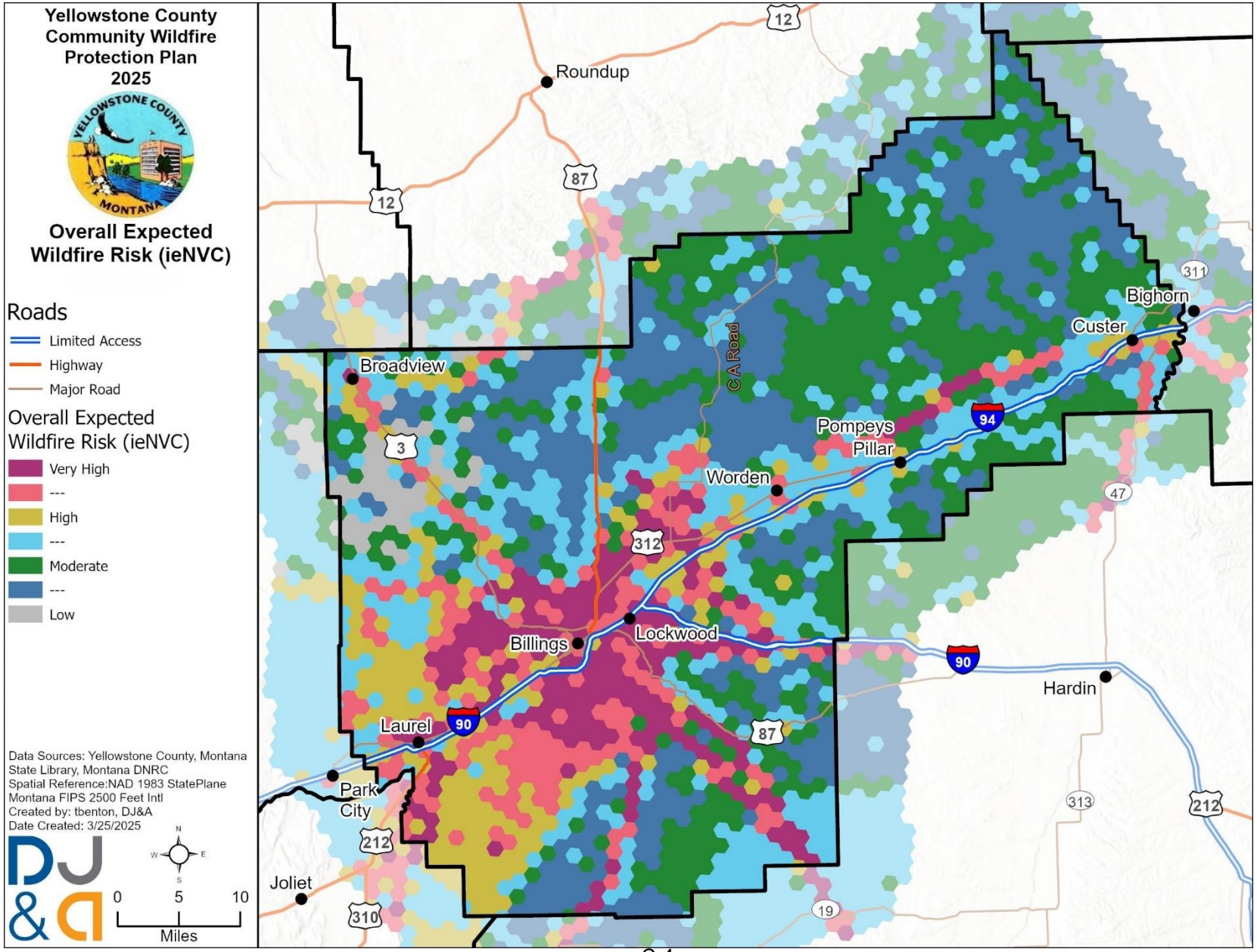
Yellowstone County Community Wildfire Protection Plan 2025
Overall Expected Wildfire Risk (ieNVC)
Roads
Limited Access
Highway
Major Road
Overall Expected Wildfire Risk (ieNVC)
Very High

High

Moderate

Low
Data Sources: Yellowstone County, Montana State Library, Montana DNRC
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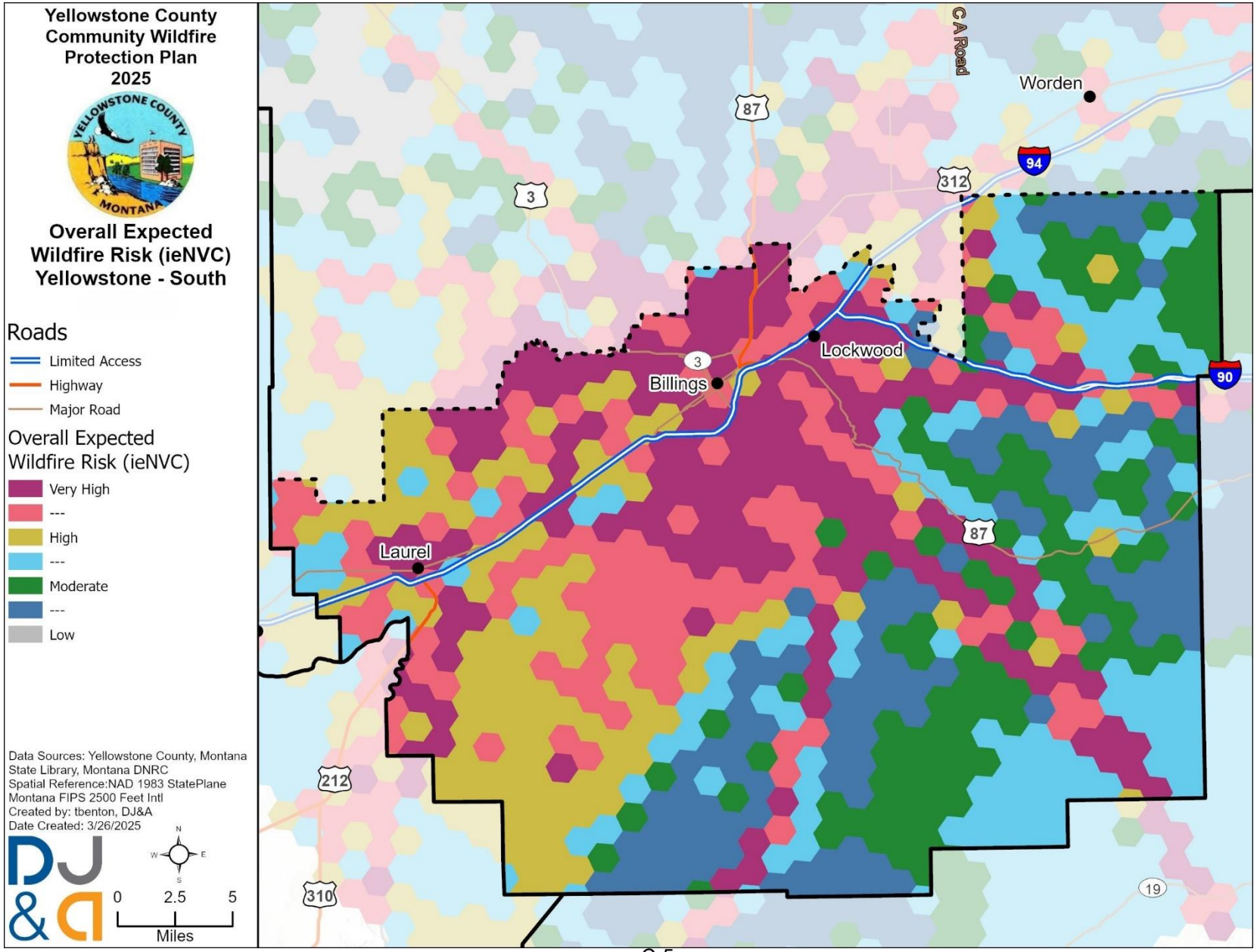
Yellowstone County Community Wildfire Protection Plan 2025
Overall Expected Wildfire Risk (ieNVC) Yellowstone - South
Roads
Limited Access
Highway
Major Road
Overall Expected Wildfire Risk (ieNVC)
Very High

High

Moderate

Low
Data Sources: Yellowstone County, Montana State Library, Montana DNRC
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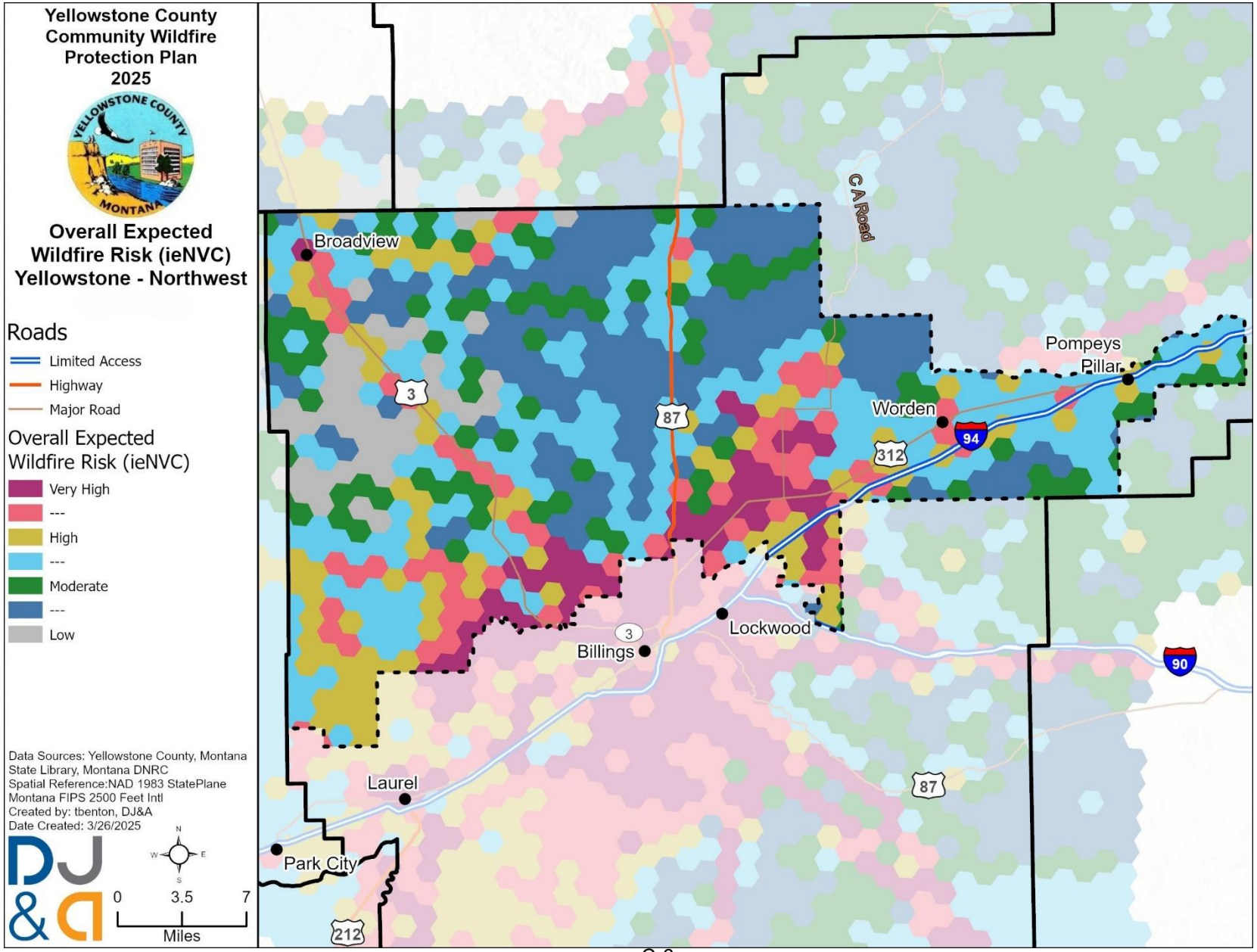
Yellowstone County Community Wildfire Protection Plan 2025
Overall Expected Wildfire Risk (ieNVC) Yellowstone - Northwest
Roads
Limited Access
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Major Road
Overall Expected Wildfire Risk (ieNVC)
Very High

High

Moderate

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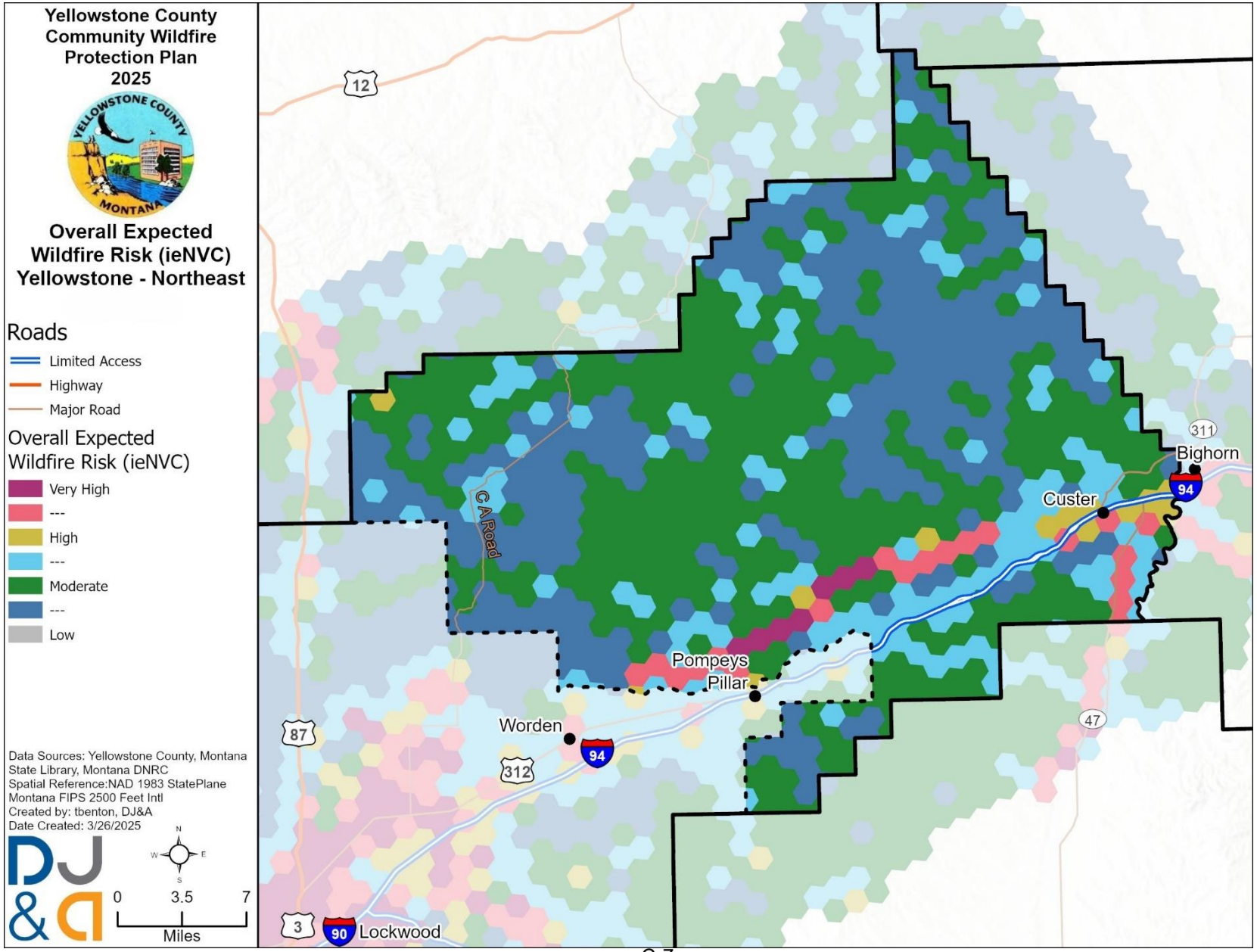
Yellowstone County Community Wildfire Protection Plan 2025
Overall Expected Wildfire Risk (ieNVC) Yellowstone - Northeast
Roads
Limited Access
Highway
Major Road
Overall Expected Wildfire Risk (ieNVC)
Very High

High

Moderate

Low
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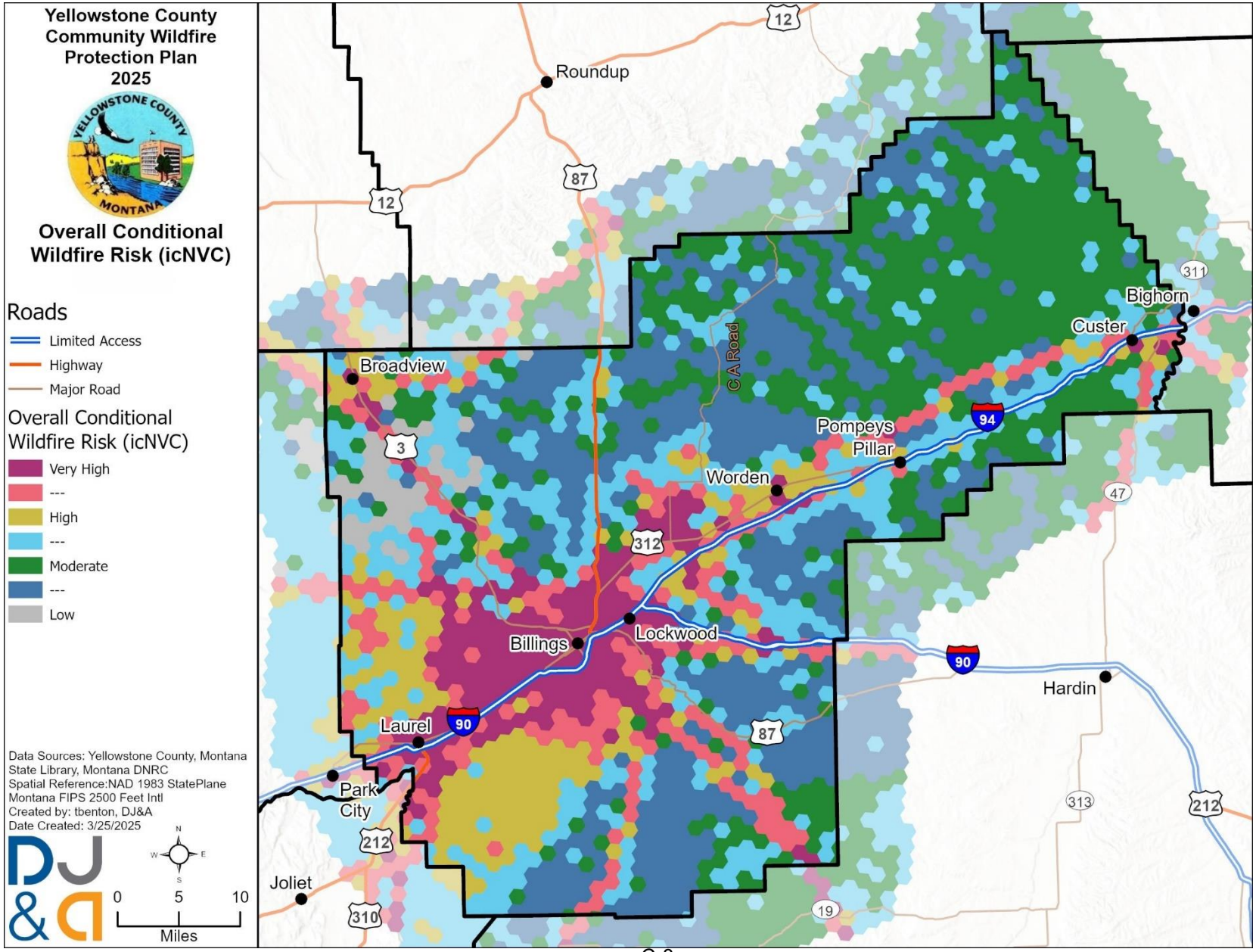
Yellowstone County Community Wildfire Protection Plan 2025
Overall Conditional Wildfire Risk (icNVC)
Roads
Limited Access
Highway
Major Road
Overall Conditional Wildfire Risk (icNVC)
Very High

High

Moderate

Low
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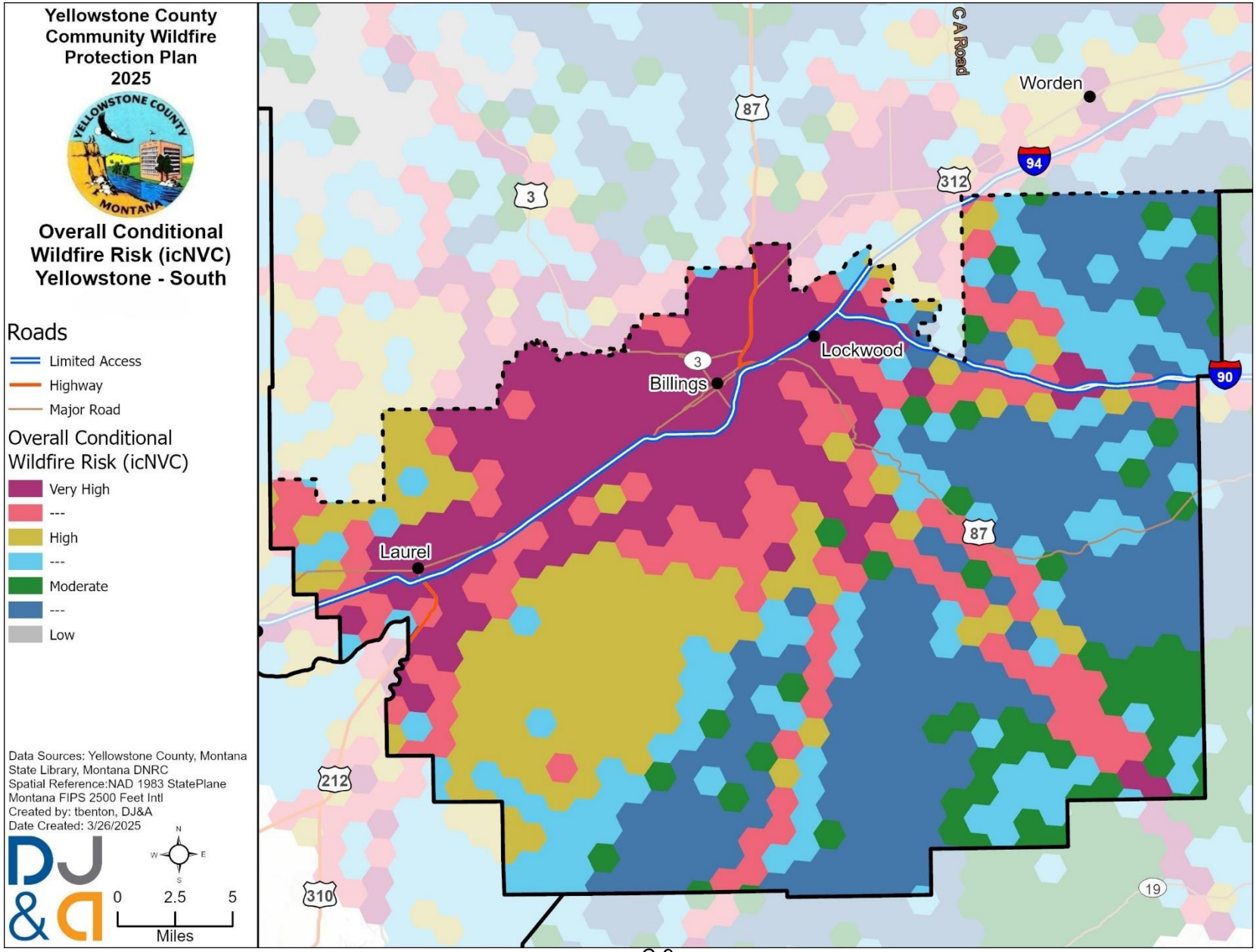
Yellowstone County Community Wildfire Protection Plan 2025
Overall Conditional Wildfire Risk (icNVC) Yellowstone - South
Roads
Limited Access
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Major Road
Overall Conditional Wildfire Risk (icNVC)
Very High

High

Moderate

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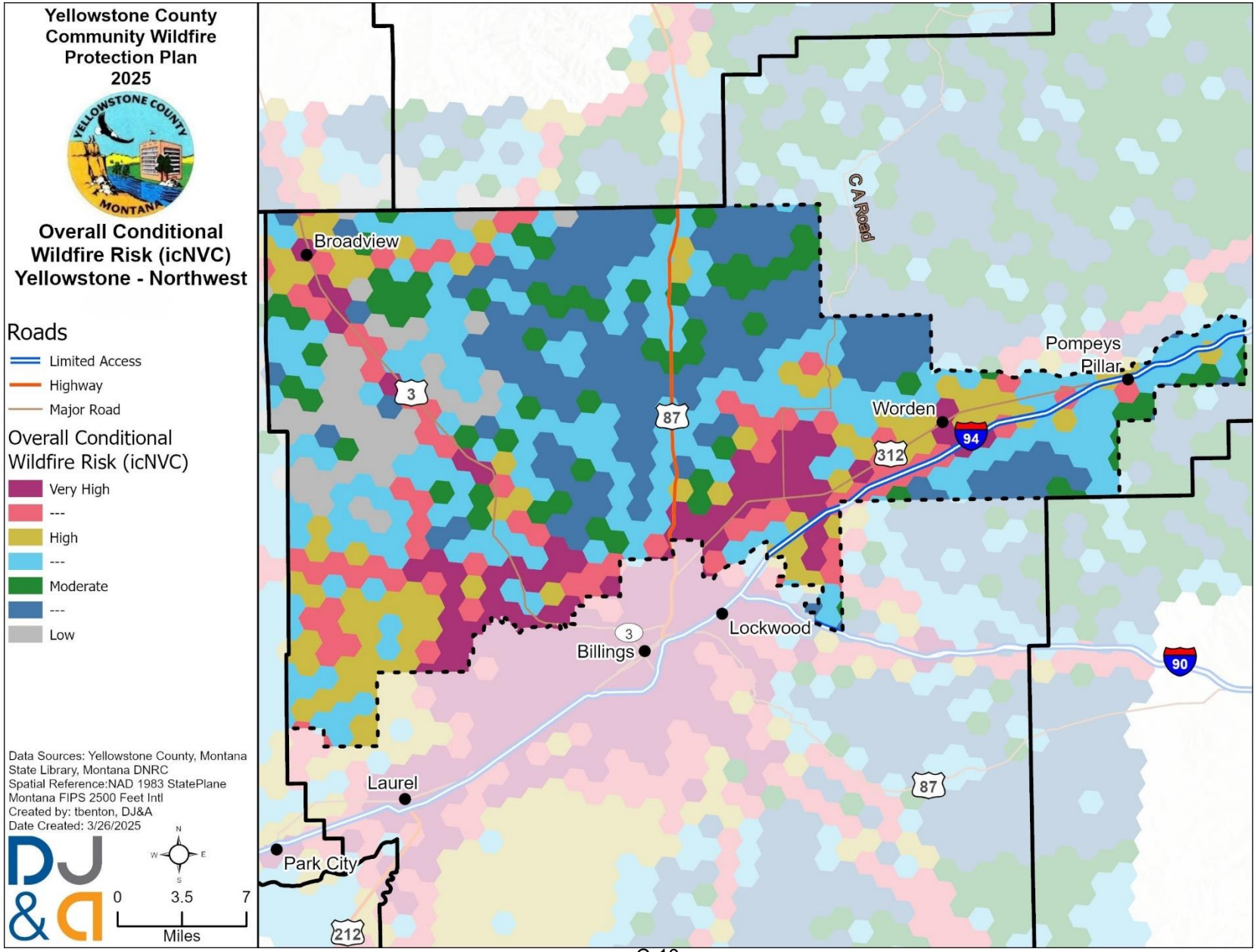
Yellowstone County Community Wildfire Protection Plan 2025
Overall Conditional Wildfire Risk (icNVC) Yellowstone - Northwest
Roads
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Major Road
Overall Conditional Wildfire Risk (icNVC)
Very High

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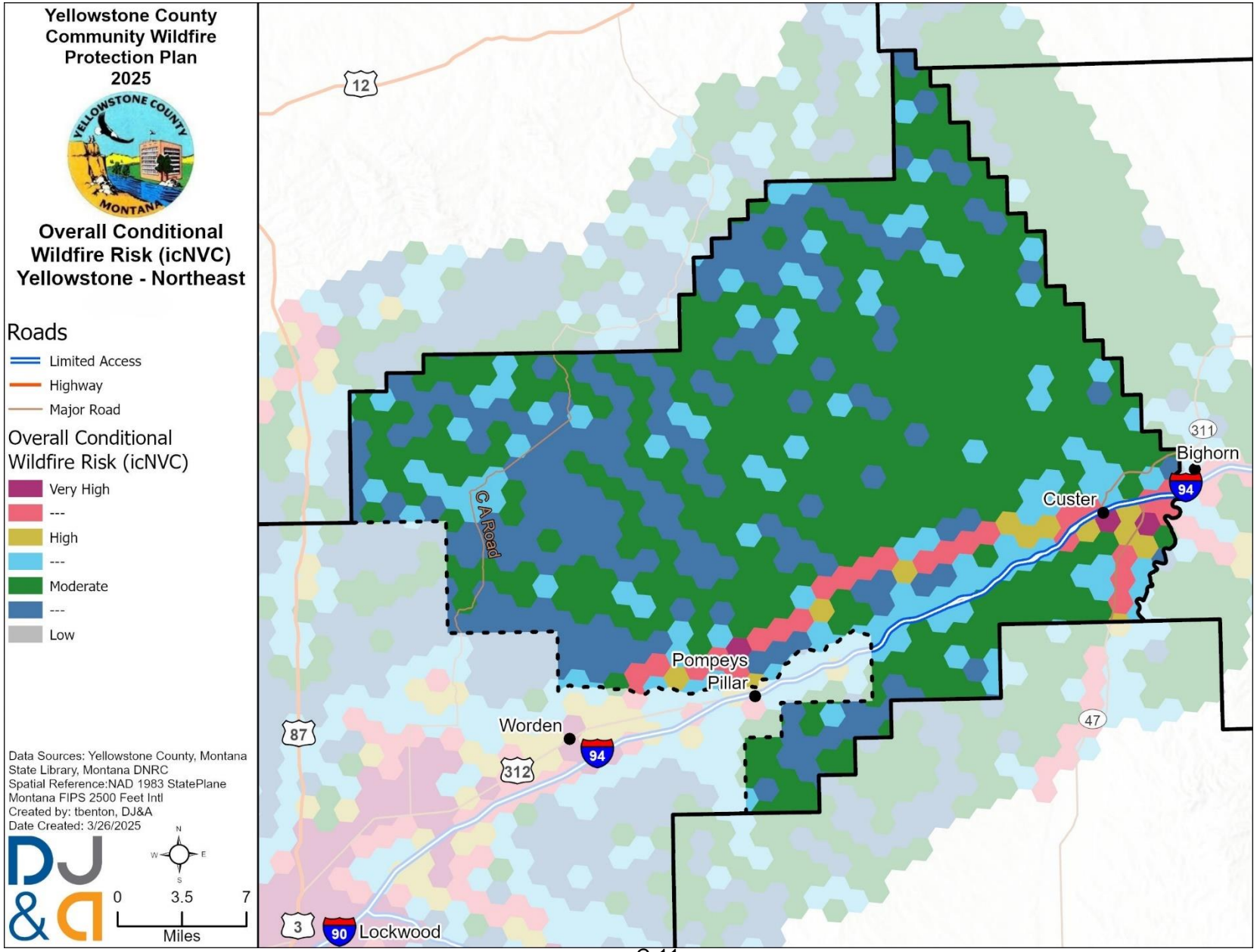
Yellowstone County Community Wildfire Protection Plan 2025
Overall Conditional Wildfire Risk (icNVC) Yellowstone - Northeast
Roads
Limited Access
Highway
Major Road
Overall Conditional Wildfire Risk (icNVC)
Very High

High

Moderate

Low
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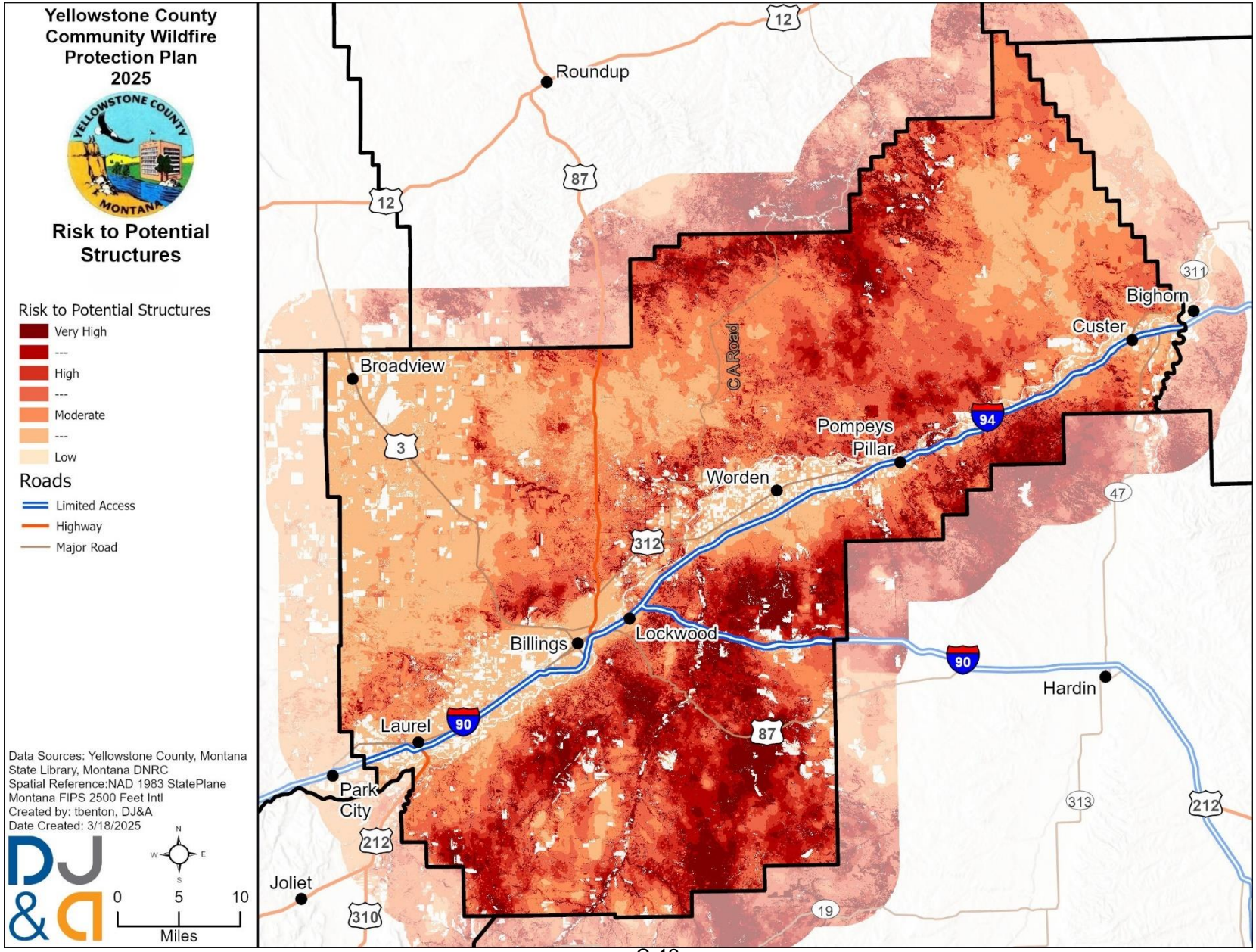
Yellowstone County Community Wildfire Protection Plan 2025
Risk to Potential Structures
Risk to Potential Structures
Very High

High

Moderate

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Roads
Limited Access
Highway
Major Road
Data Sources: Yellowstone County, Montana State Library, Montana DNRC
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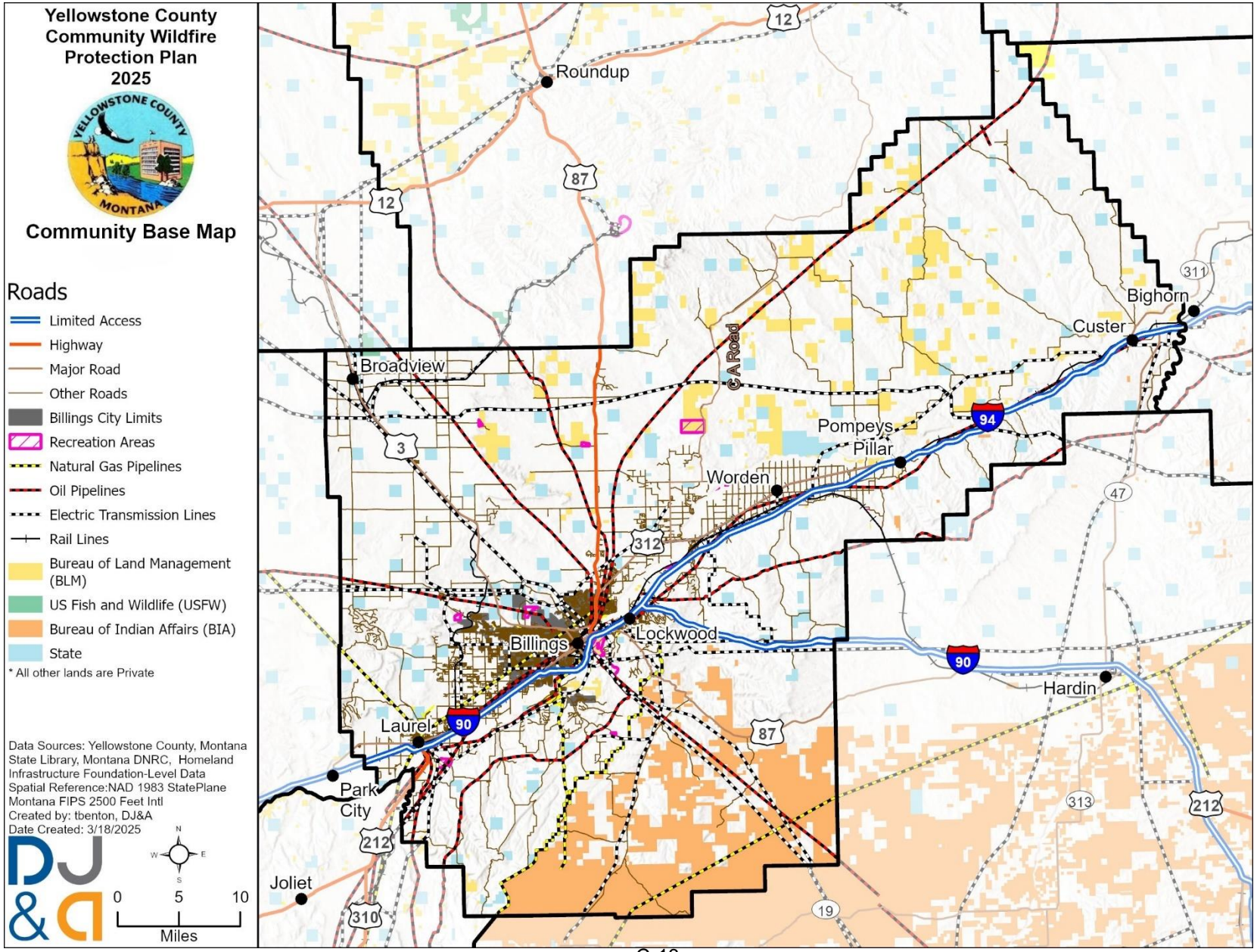
Yellowstone County Community Wildfire Protection Plan 2025
Community Base Map
Roads
Limited Access
Highway
Major Road
Other Roads
Billings City Limits
Recreation Areas
Natural Gas Pipelines
Oil Pipelines
Electric Transmission Lines
Rail Lines
Bureau of Land Management (BLM)
US Fish and Wildlife (USFW)
Bureau of Indian Affairs (BIA)
State
* All other lands are Private
Data Sources: Yellowstone County, Montana State Library, Montana DNRC, Homeland Infrastructure Foundation-Level Data
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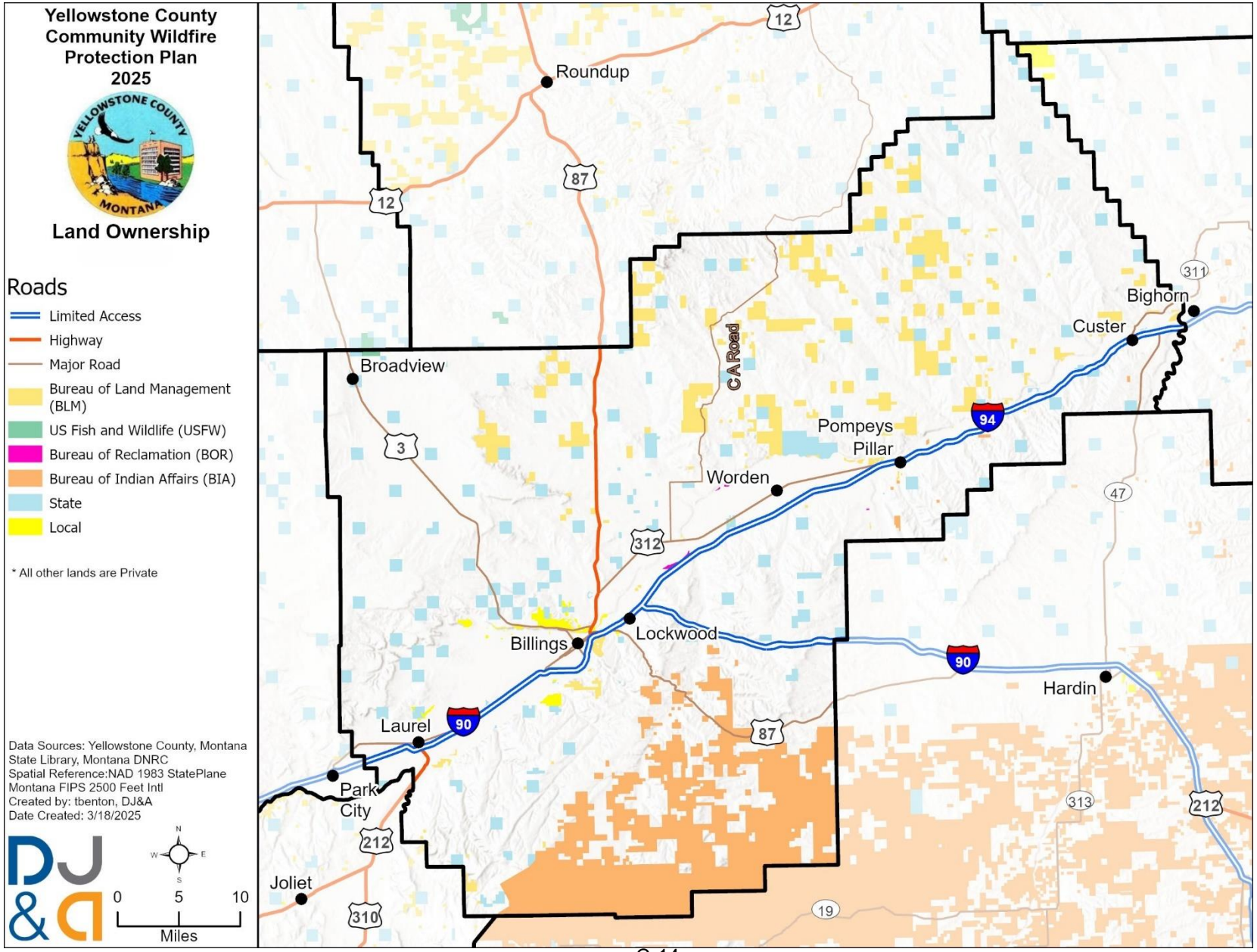
Yellowstone County Community Wildfire Protection Plan 2025
Land Ownership
Roads
Limited Access
Highway
Major Road
Bureau of Land Management (BLM)
US Fish and Wildlife (USFW)
Bureau of Reclamation (BOR)
Bureau of Indian Affairs (BIA)
State
Local
* All other lands are Private
Data Sources: Yellowstone County, Montana State Library, Montana DNRC
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/18/2025
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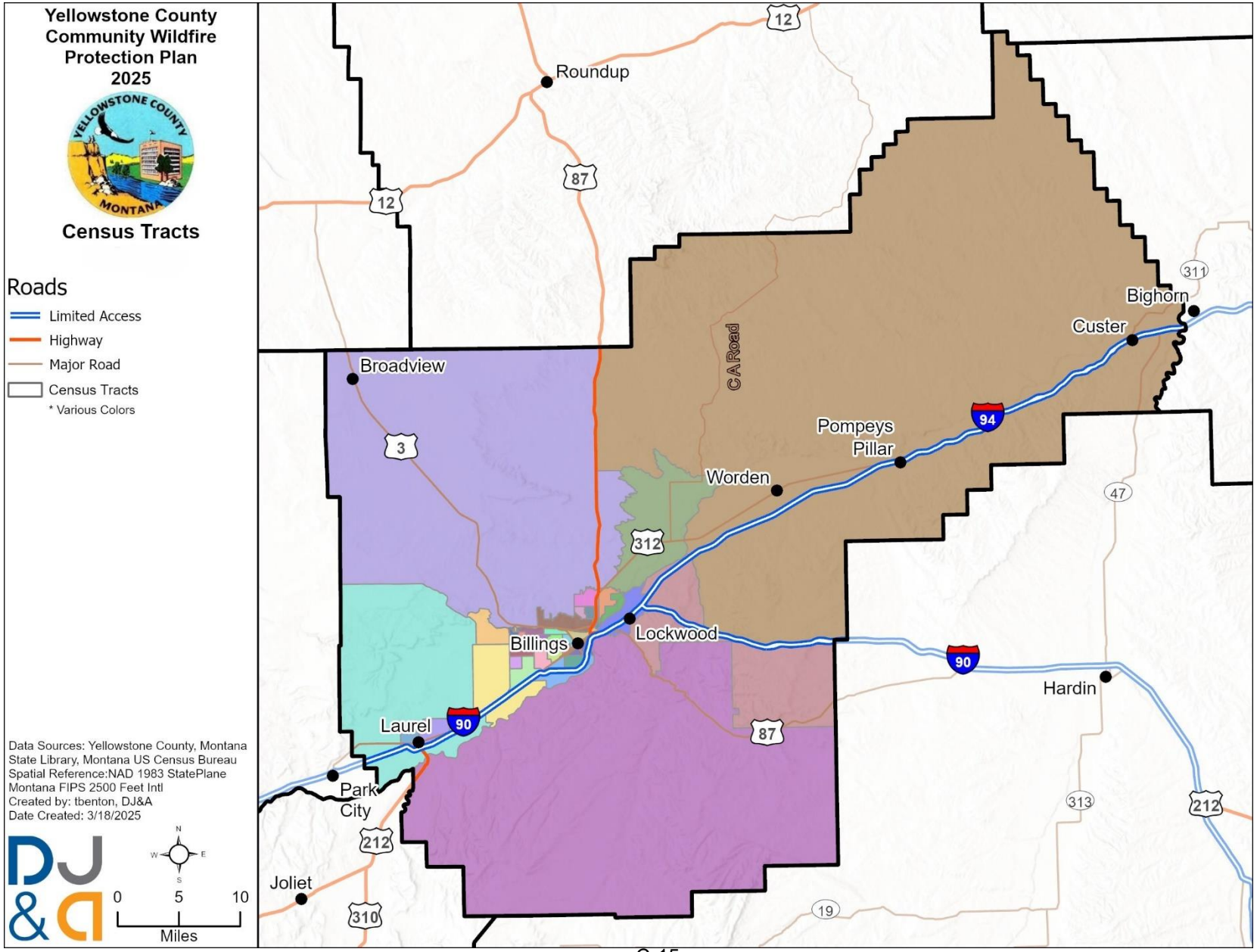
Yellowstone County Community Wildfire Protection Plan 2025
Census Tracts
Roads
Limited Access
Highway
Major Road
Census Tracts
* Various Colors
Data Sources: Yellowstone County, Montana State Library, Montana US Census Bureau
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
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Date Created: 3/18/2025
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Billings
Laurel
Park City
Joliet
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Pompeys Pillar
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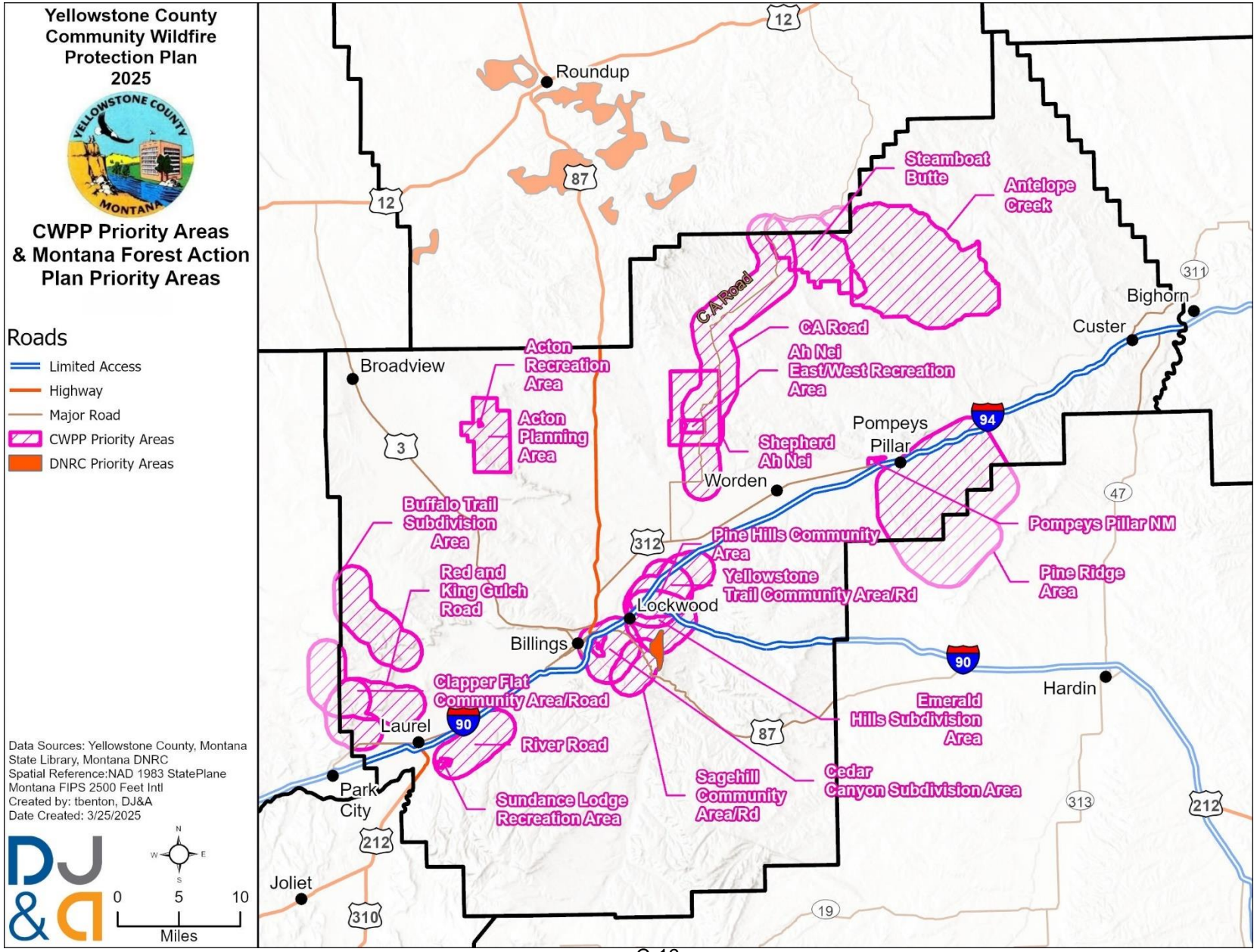
Yellowstone County Community Wildfire Protection Plan 2025
CWPP Priority Areas & Montana Forest Action Plan Priority Areas
Roads
Limited Access
Highway
Major Road
CWPP Priority Areas
DNRC Priority Areas
Data Sources: Yellowstone County, Montana State Library, Montana DNRC
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/25/2025
0 5 10
Miles
Roundup
Broadview
Worden
Pompeys Pillar
Billings
Lockwood
Laurel
Park City
Joliet
Bighorn
Custer
Hardin
Steamboat Butte
Antelope Creek
CA Road
Ah Nei East/West Recreation Area
Shepherd Ah Nei
Acton Recreation Area
Acton Planning Area
Buffalo Trail Subdivision Area
Red and King Gulch Road
Pine Hills Community Area
Yellowstone Trail Community Area/Rd
Pompeys Pillar NM
Pine Ridge Area
Clapper Flat Community Area/Road
River Road
Sundance Lodge Recreation Area
Sagehill Community Area/Rd
Cedar Canyon Subdivision Area
Emerald Hills Subdivision Area
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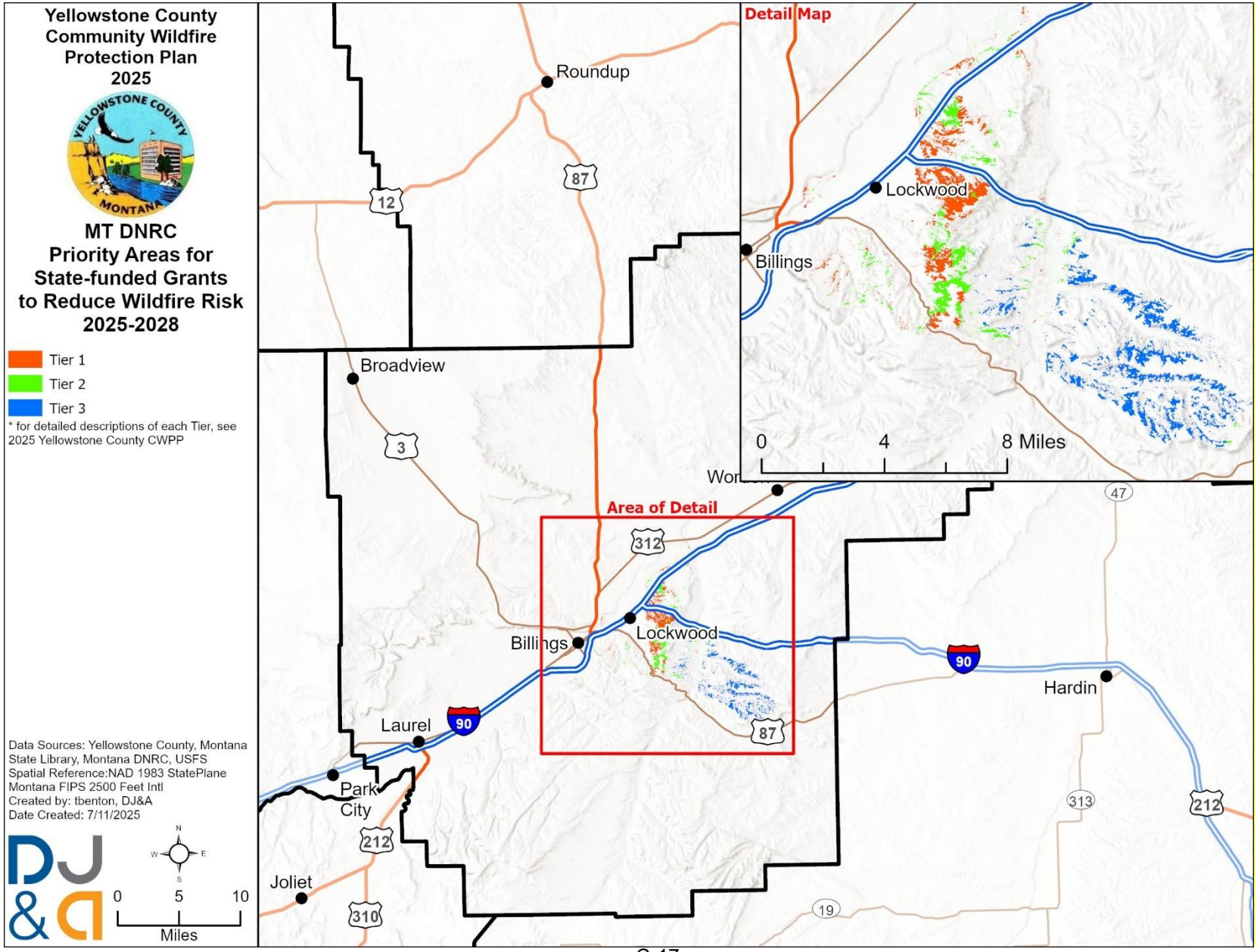
Yellowstone County Community Wildfire Protection Plan 2025
MT DNRC Priority Areas for State-funded Grants to Reduce Wildfire Risk 2025-2028
Tier 1
Tier 2
Tier 3
* for detailed descriptions of each Tier, see 2025 Yellowstone County CWPP
Data Sources: Yellowstone County, Montana State Library, Montana DNRC, USFS
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 7/11/2025
0 5 10
Miles
Detail Map
0 4 8 Miles
Area of Detail
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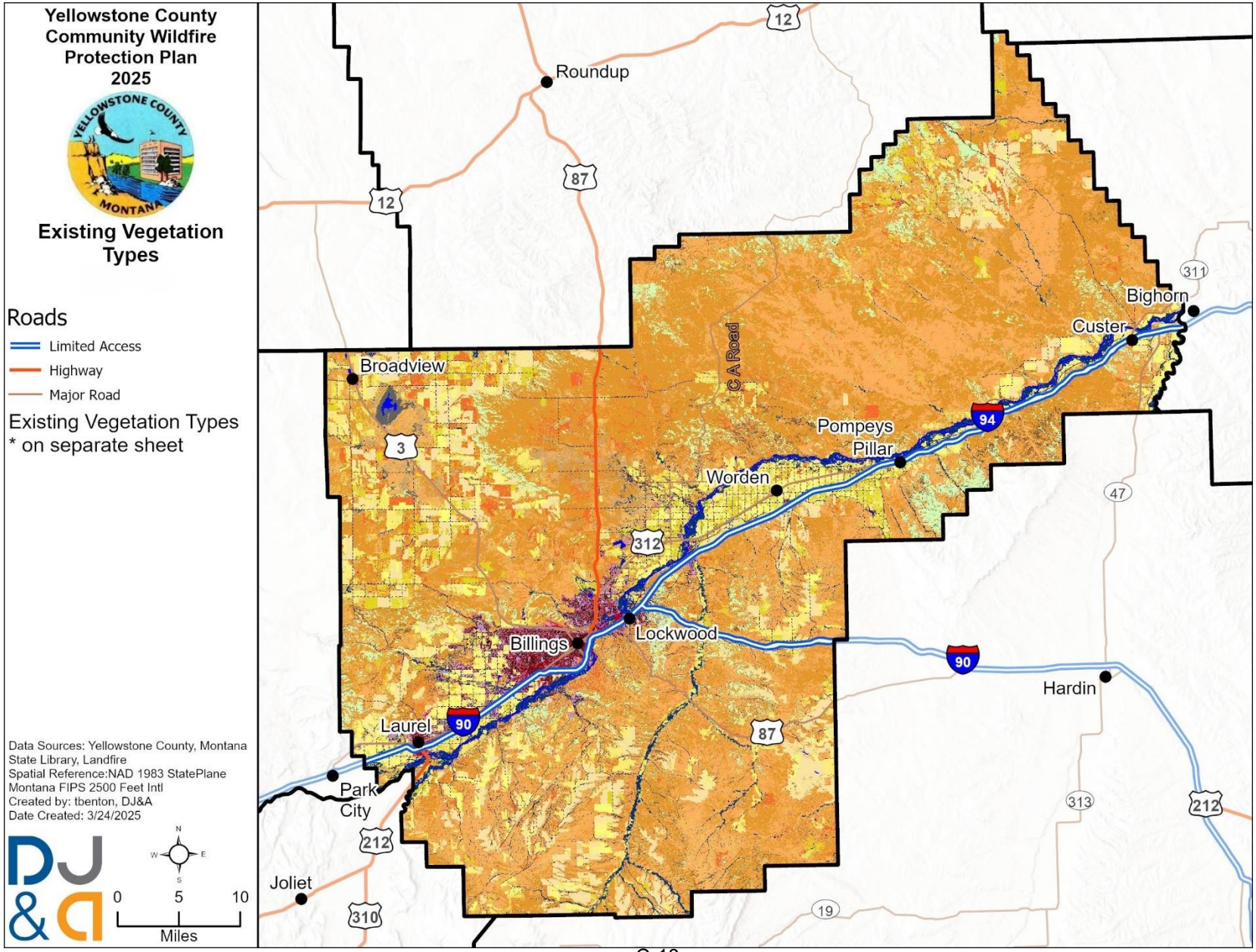
Yellowstone County Community Wildfire Protection Plan 2025
Existing Vegetation Types
Roads
Limited Access
Highway
Major Road
Existing Vegetation Types
* on separate sheet
Data Sources: Yellowstone County, Montana State Library, Landfire
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/24/2025
0 5 10
Miles
Roundup
Broadview
Billings
Laurel
Park City
Joliet
Worden
Pompeys Pillar
Lockwood
Bighorn
Custer
Hardin
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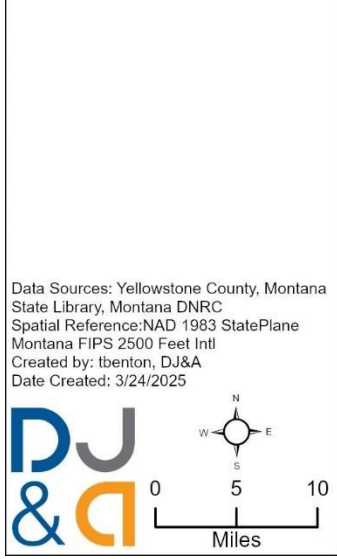
Yellowstone County Community Wildfire Protection Plan 2025

Existing Vegetation Types



Data Sources: Yellowstone County, Montana State Library, Montana DNRC
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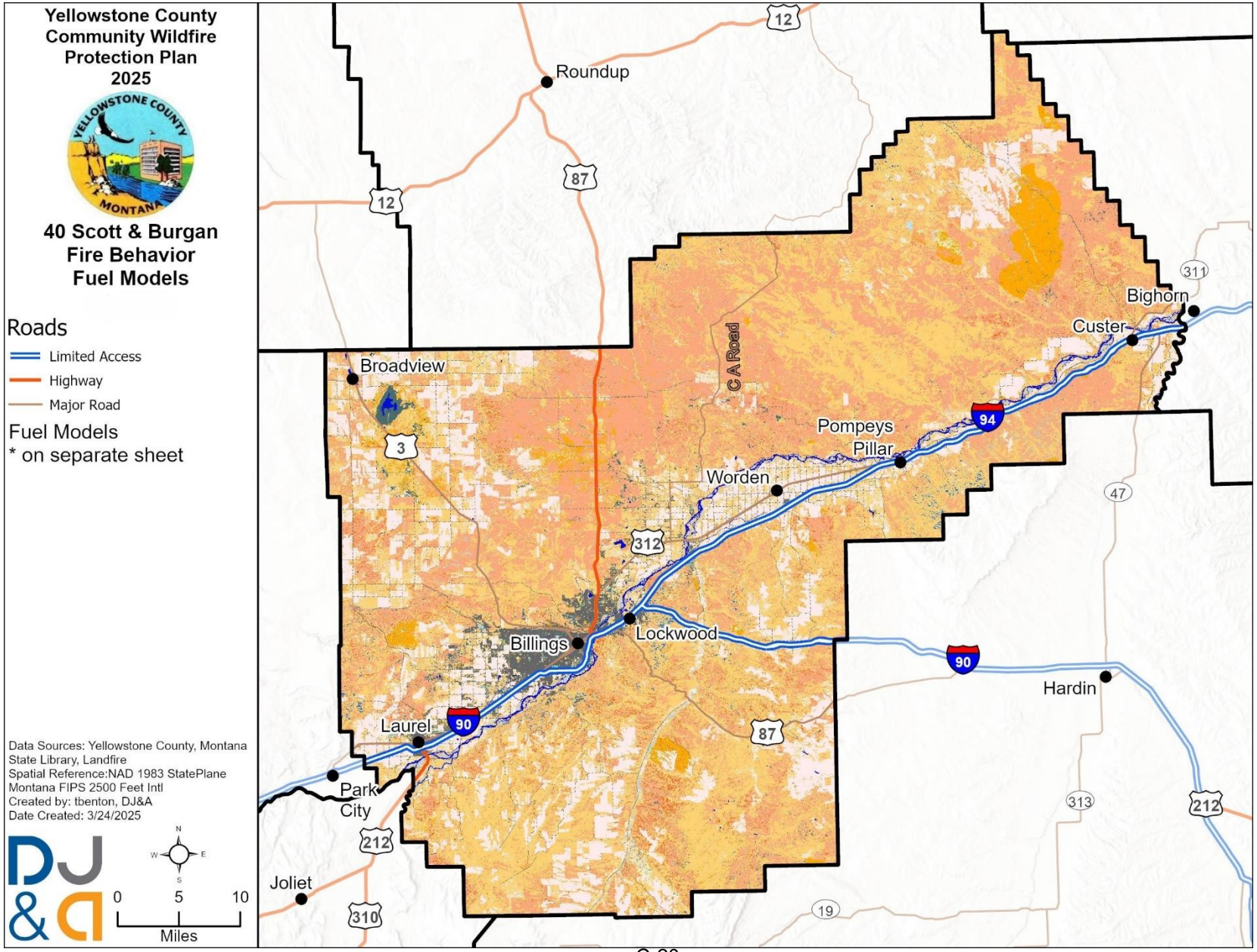
Created by: tbenton, DJ&A
Date Created: 3/24/2025


Yellowstone County Community Wildfire Protection Plan 2025
40 Scott & Burgan Fire Behavior Fuel Models
Roads
Limited Access
Highway
Major Road
Fuel Models
* on separate sheet
Data Sources: Yellowstone County, Montana State Library, Landfire
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
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Date Created: 3/24/2025
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Broadview
Billings
Laurel
Park City
Joliet
Worden
Pompeys Pillar
Lockwood
Bighorn
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Hardin
C A Road
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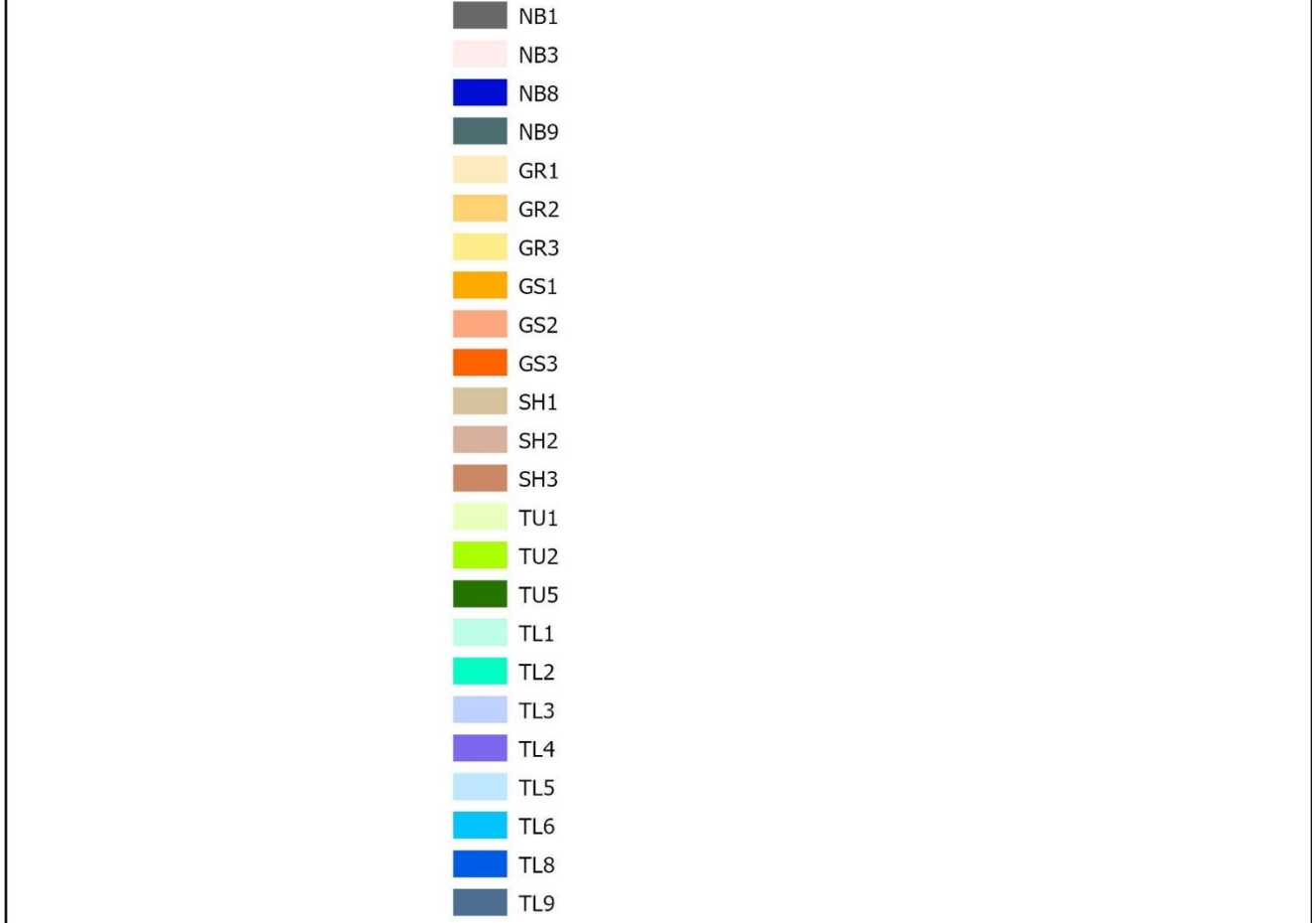
Yellowstone County Community Wildfire Protection Plan 2025

40 Scott & Burgan Fire Behavior Fuel Models



Data Sources: Yellowstone County, Montana State Library, Landfire
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Created by: tbenton, DJ&A
Date Created: 3/24/2025

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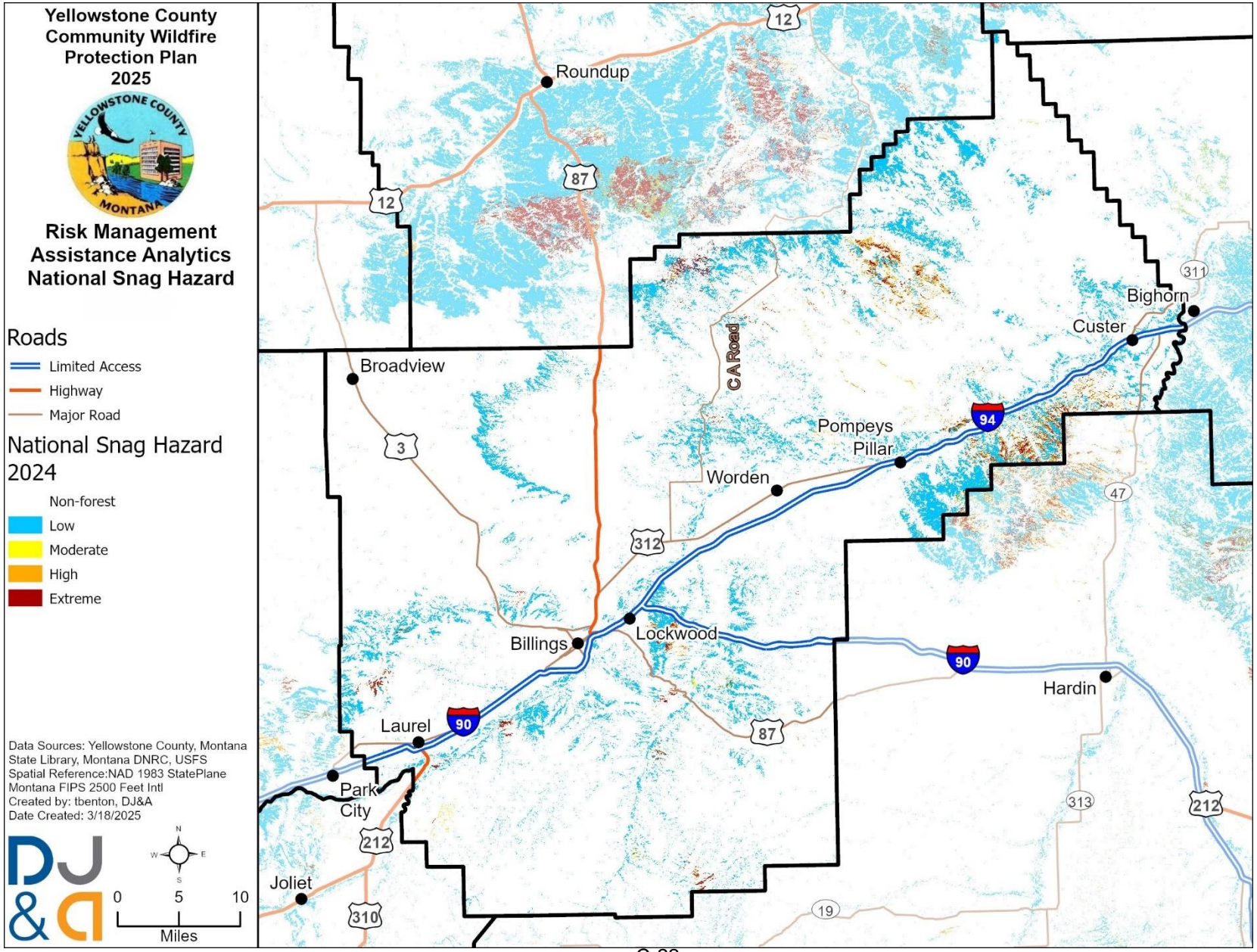
Yellowstone County Community Wildfire Protection Plan 2025
Risk Management Assistance Analytics National Snag Hazard
Roads
Limited Access
Highway
Major Road
National Snag Hazard 2024
Non-forest
Low
Moderate
High
Extreme
Data Sources: Yellowstone County, Montana State Library, Montana DNRC, USFS
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/18/2025
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Broadview
Bighorn
Custer
Pompeys Pillar
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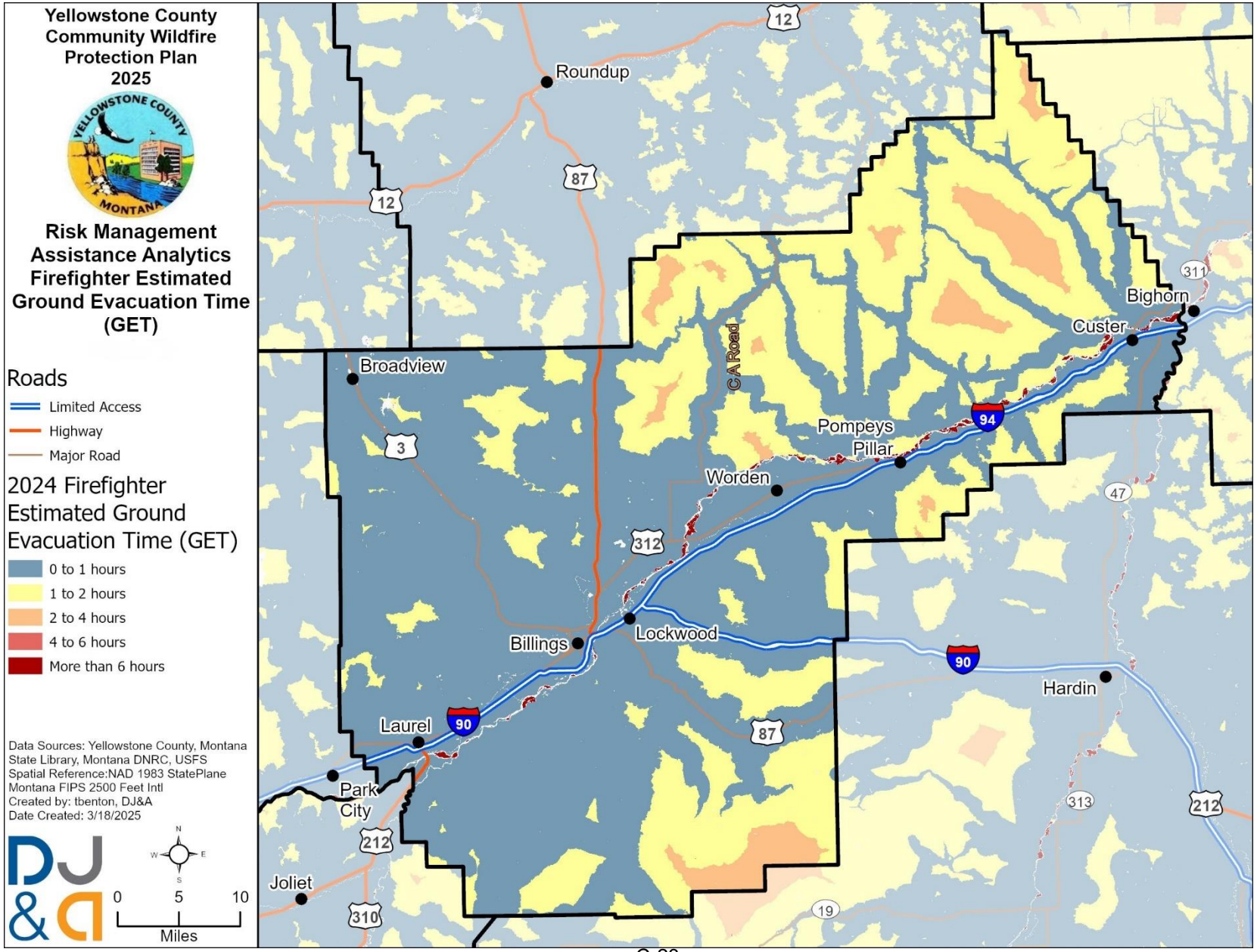
Yellowstone County Community Wildfire Protection Plan 2025
Risk Management Assistance Analytics Firefighter Estimated Ground Evacuation Time (GET)
Roads
Limited Access
Highway
Major Road
2024 Firefighter Estimated Ground Evacuation Time (GET)
0 to 1 hours
1 to 2 hours
2 to 4 hours
4 to 6 hours
More than 6 hours
Data Sources: Yellowstone County, Montana State Library, Montana DNRC, USFS
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/18/2025
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Broadview
Billings
Laurel
Park City
Joliet
Bighorn
Custer
Pompeys Pillar
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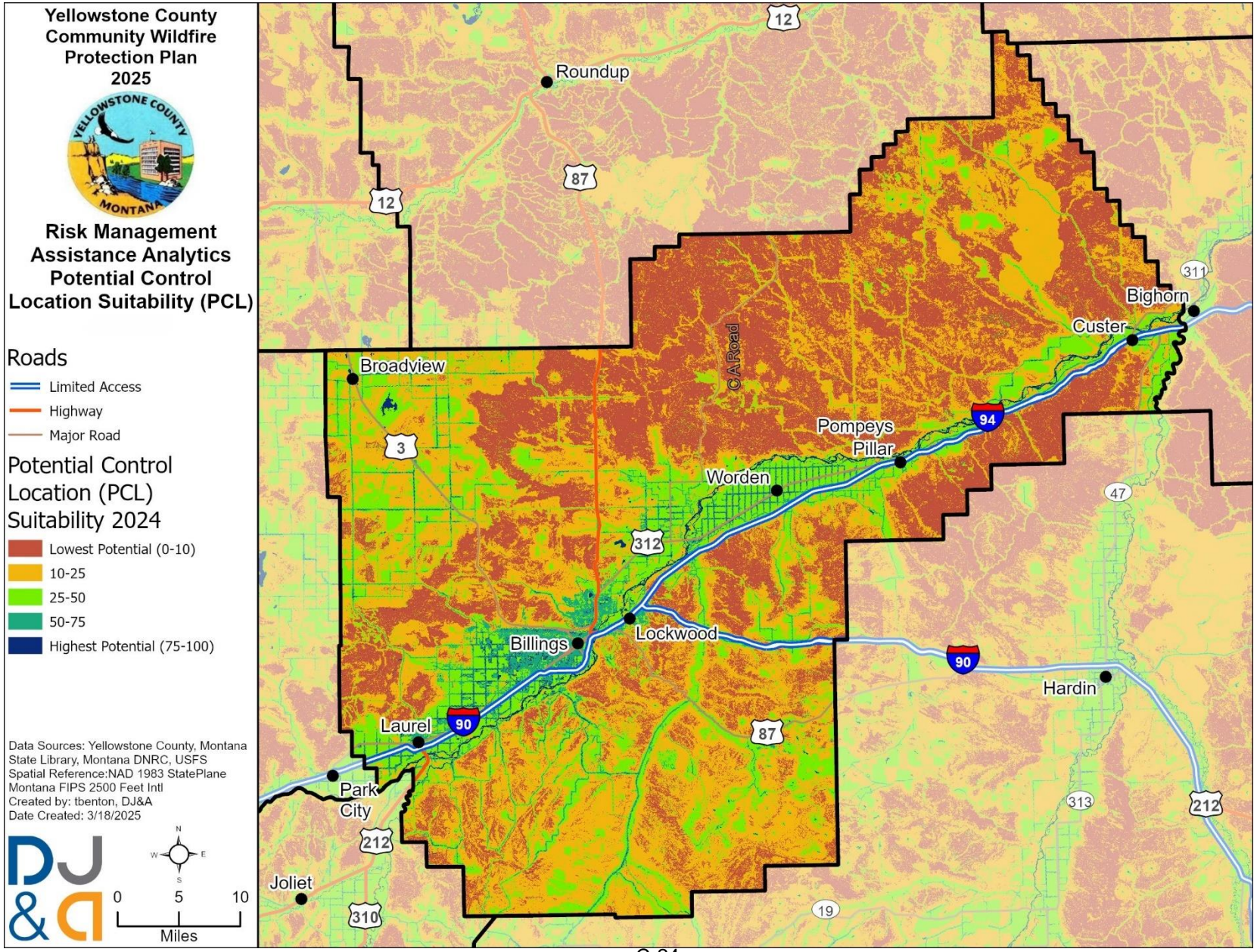
Yellowstone County Community Wildfire Protection Plan 2025
Risk Management Assistance Analytics Potential Control Location Suitability (PCL)
Roads
Limited Access
Highway
Major Road
Potential Control Location (PCL) Suitability 2024
Lowest Potential (0-10)
10-25
25-50
50-75
Highest Potential (75-100)
Data Sources: Yellowstone County, Montana State Library, Montana DNRC, USFS
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/18/2025
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Roundup
Broadview
Bighorn
Custer
C A Road
Pompeys Pillar
Worden
Billings
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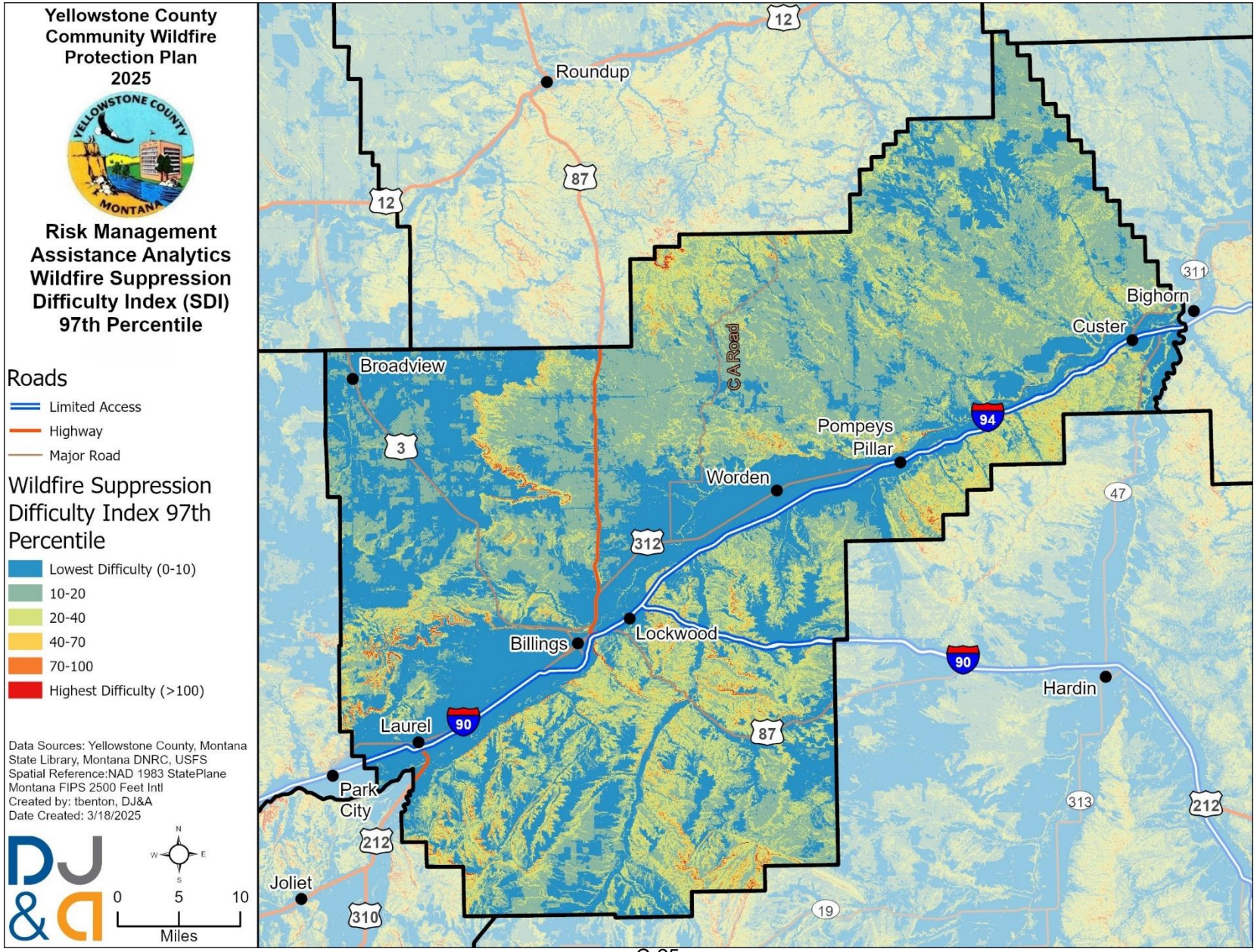
Yellowstone County Community Wildfire Protection Plan 2025
Risk Management Assistance Analytics Wildfire Suppression Difficulty Index (SDI) 97th Percentile
Roads
Limited Access
Highway
Major Road
Wildfire Suppression Difficulty Index 97th Percentile
Lowest Difficulty (0-10)
10-20
20-40
40-70
70-100
Highest Difficulty (>100)
Data Sources: Yellowstone County, Montana State Library, Montana DNRC, USFS
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/18/2025
0 5 10
Miles
Roundup
Broadview
Billings
Laurel
Park City
Joliet
Worden
Pompeys Pillar
Lockwood
Bighorn
Custer
Hardin
C A Road
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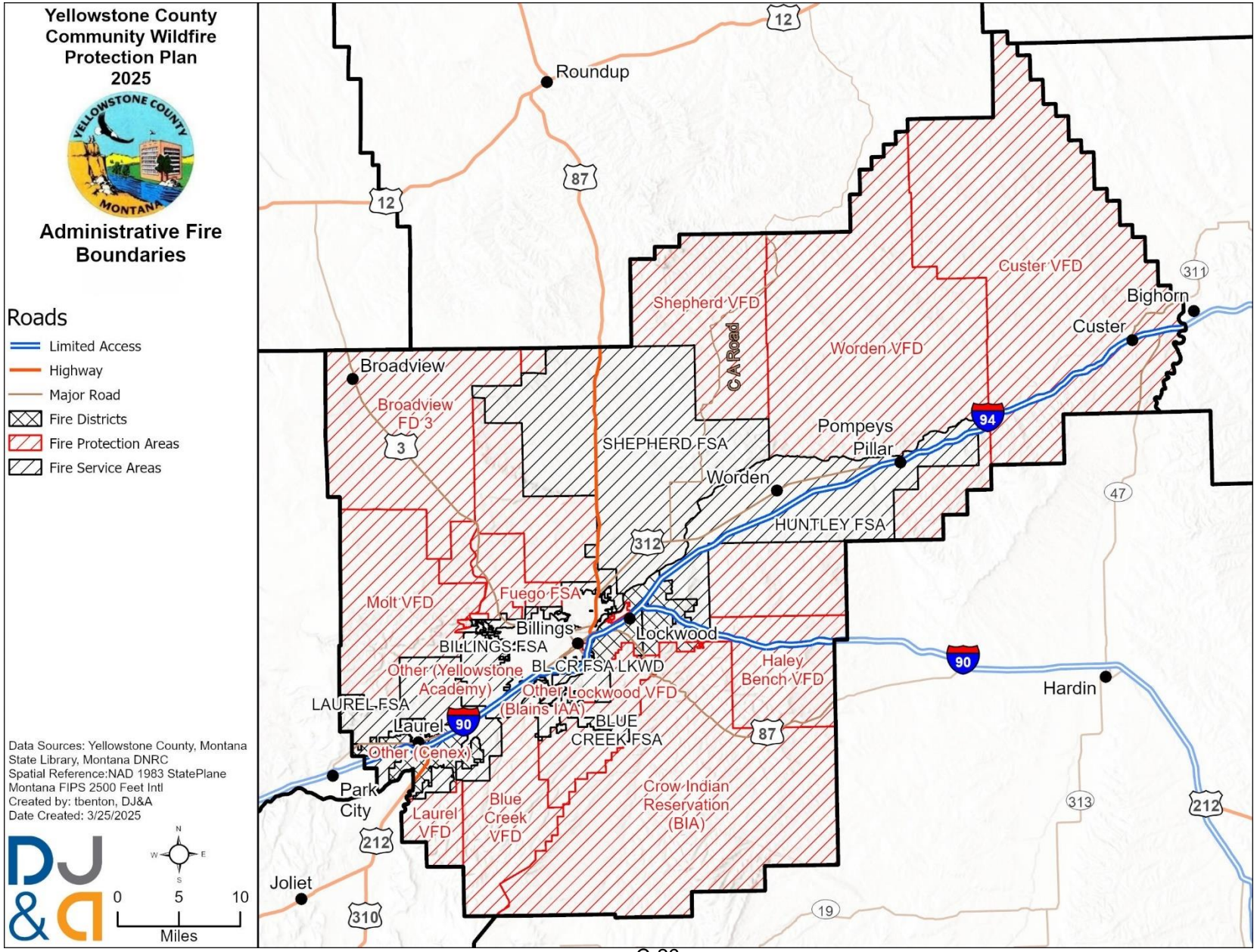
Yellowstone County Community Wildfire Protection Plan 2025
Administrative Fire Boundaries
Roads
Limited Access
Highway
Major Road
Fire Districts
Fire Protection Areas
Fire Service Areas
Data Sources: Yellowstone County, Montana State Library, Montana DNRC
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/25/2025
0 5 10
Miles
Roundup
Broadview
Broadview FD 3
Shepherd VFD
C A Road
SHEPHERD FSA
Custer VFD
Worden VFD
Bighorn
Custer
Pompeys Pillar
Worden
HUNTLEY FSA
Molt VFD
Fuego FSA
Billings
Lockwood
BILLINGS FSA
BL CR FSA LKWD
Other (Yellowstone Academy)
Other (Blains IAA)
Other Lockwood VFD
Haley Bench VFD
LAUREL FSA
Laurel
Other (Cenex)
BLUE CREEK FSA
Hardin
Park City
Laurel VFD
Blue Creek VFD
Crow Indian Reservation (BIA)
Joliet
12
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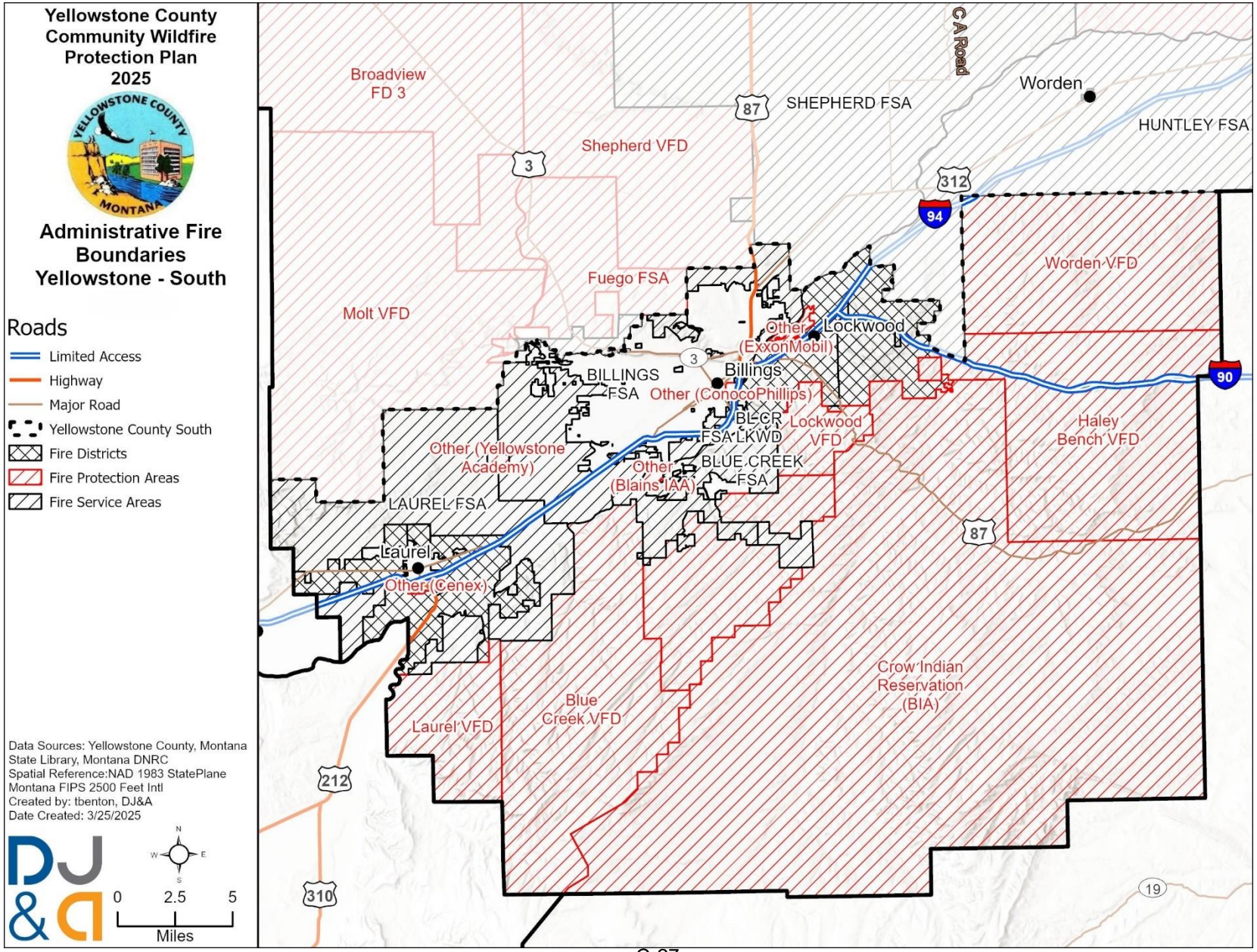
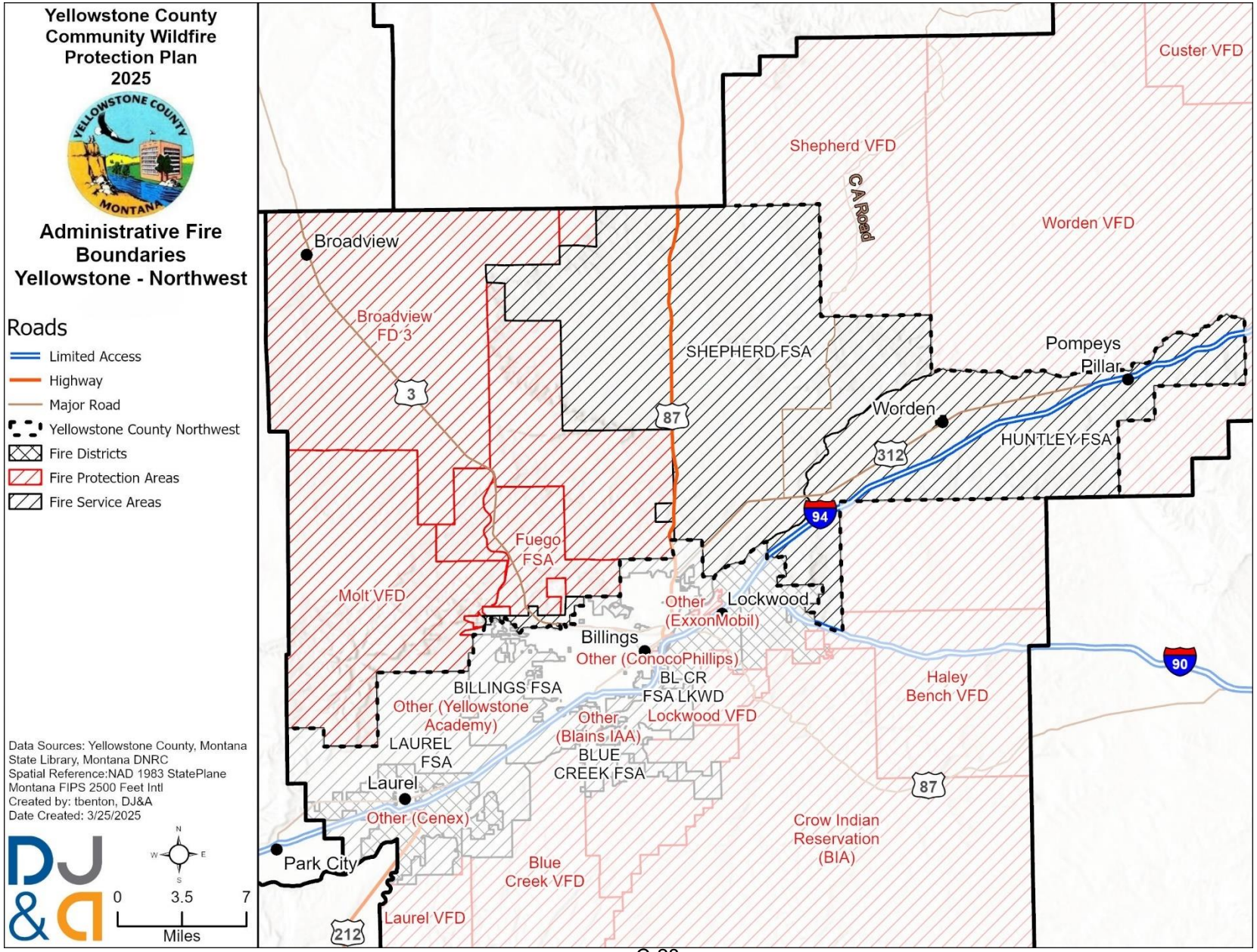

Yellowstone County Community Wildfire Protection Plan 2025
Administrative Fire Boundaries Yellowstone - South
Roads
Limited Access
Highway
Major Road
Yellowstone County South
Fire Districts
Fire Protection Areas
Fire Service Areas
Data Sources: Yellowstone County, Montana State Library, Montana DNRC
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/25/2025
0 2.5 5
Miles
Broadview FD 3
Shepherd VFD
SHEPHERD FSA
C A Road
Worden
HUNTLEY FSA
Fuego FSA
Molt VFD
Worden VFD
Other (ExxonMobil)
Lockwood
BILLINGS FSA
Billings
Other (ConocoPhillips)
BLCR FSA LKWD
Lockwood VFD
Haley Bench VFD
Other (Yellowstone Academy)
Other (Blains IAA)
BLUE CREEK FSA
LAUREL FSA
Laurel
Other (Cenex)
Crow Indian Reservation (BIA)
Blue Creek VFD
Laurel VFD
3
87
312
94
90
212
310
19


Yellowstone County Community Wildfire Protection Plan 2025
Administrative Fire Boundaries Yellowstone - Northwest
Roads
Limited Access
Highway
Major Road
Yellowstone County Northwest
Fire Districts
Fire Protection Areas
Fire Service Areas
Data Sources: Yellowstone County, Montana State Library, Montana DNRC
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
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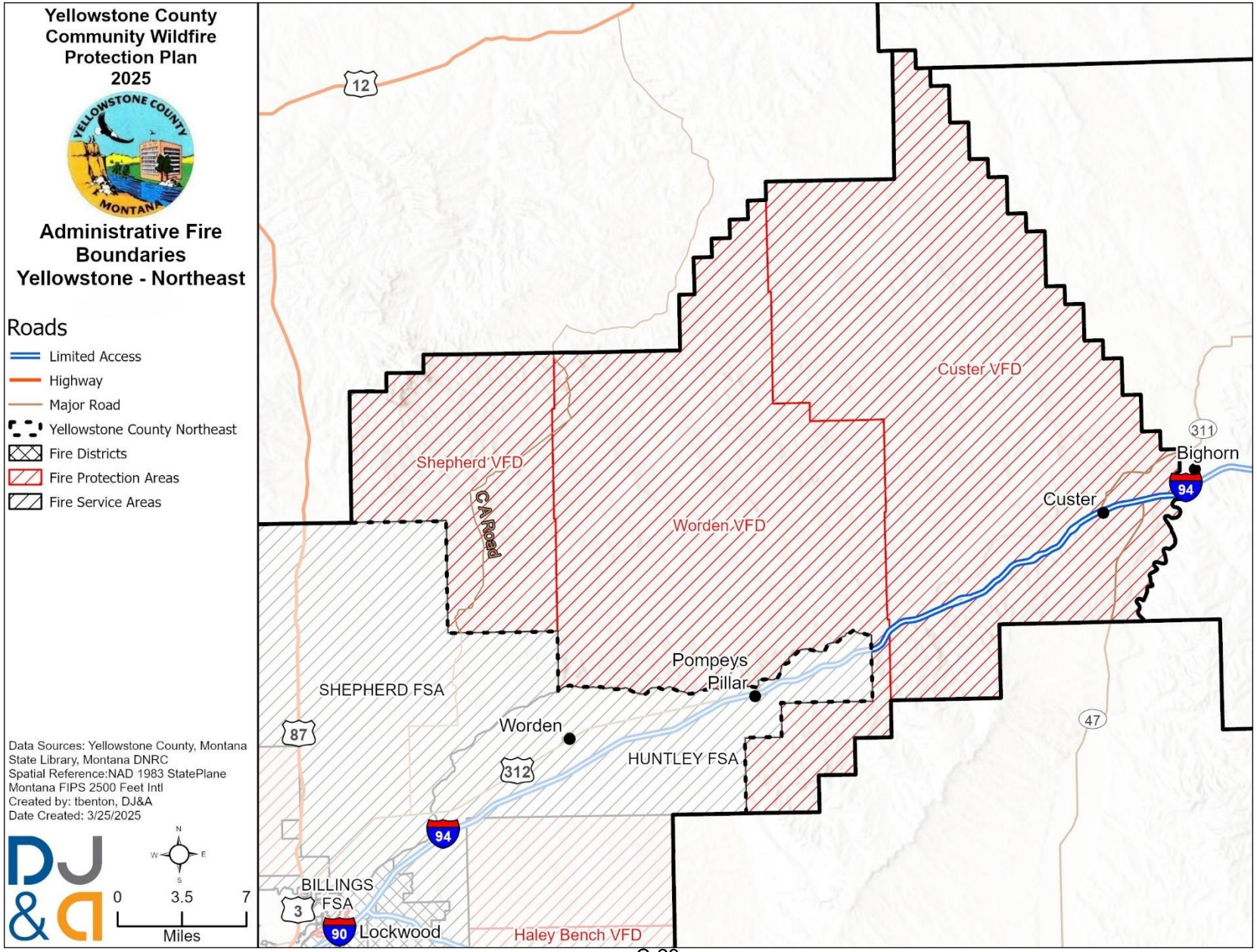
0 3.5 7
Miles
Custer VFD
Shepherd VFD
C A Road
Worden VFD
Broadview
Broadview FD 3
SHEPHERD FSA
Pompeys Pillar
Worden
HUNTLEY FSA
Fuego FSA
Molt VFD
Other (ExxonMobil)
Lockwood
Billings
Other (ConocoPhillips)
BL CR FSA LKWD
Haley Bench VFD
BILLINGS FSA
Other (Yellowstone Academy)
Other (Blains IAA)
Lockwood VFD
LAUREL FSA
BLUE CREEK FSA
Laurel
Other (Cenex)
Crow Indian Reservation (BIA)
Park City
Blue Creek VFD
Laurel VFD
3
87
312
94
90
212


Yellowstone County Community Wildfire Protection Plan 2025
Administrative Fire Boundaries Yellowstone - Northeast
Roads
Limited Access
Highway
Major Road
Yellowstone County Northeast
Fire Districts
Fire Protection Areas
Fire Service Areas
Data Sources: Yellowstone County, Montana State Library, Montana DNRC
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
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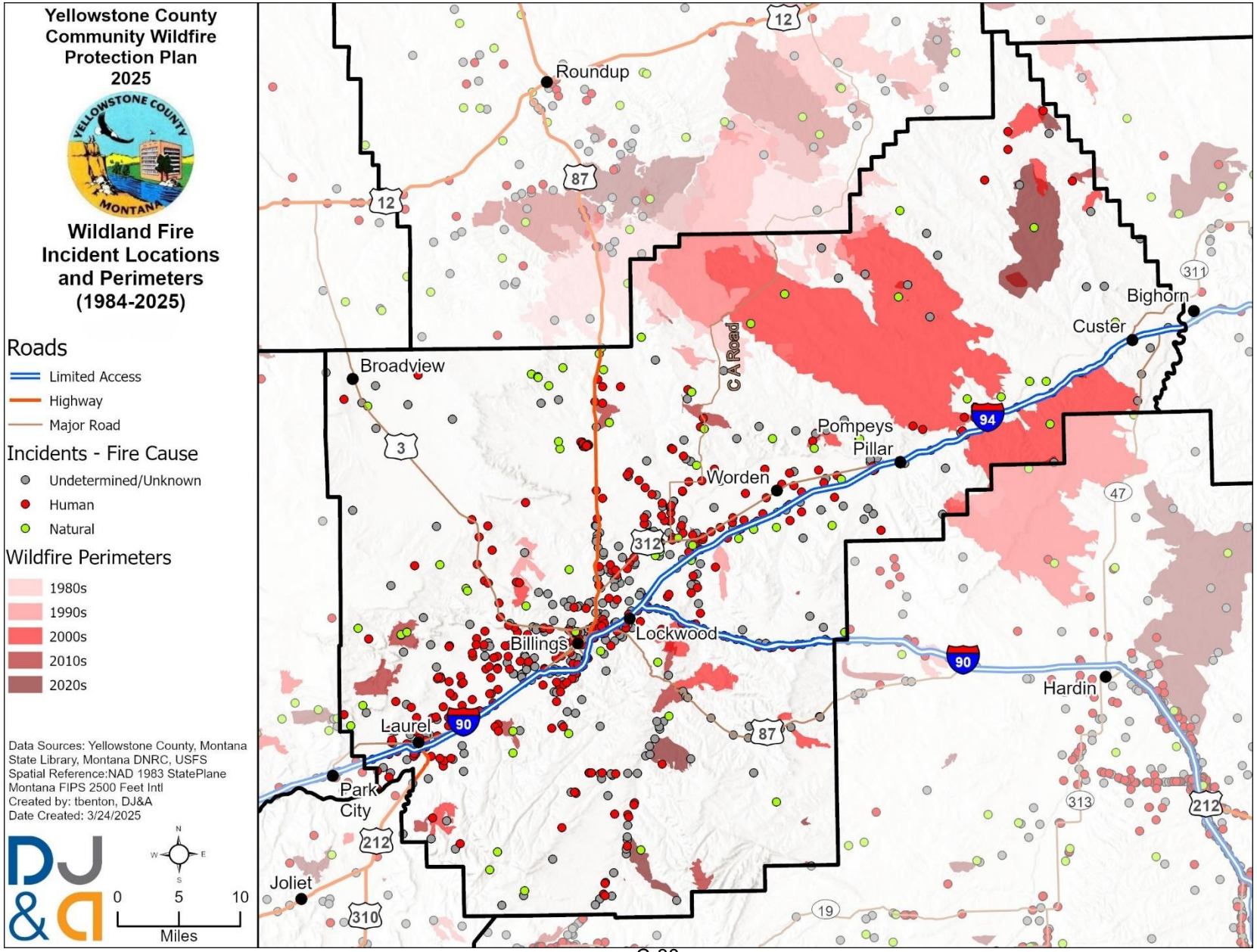
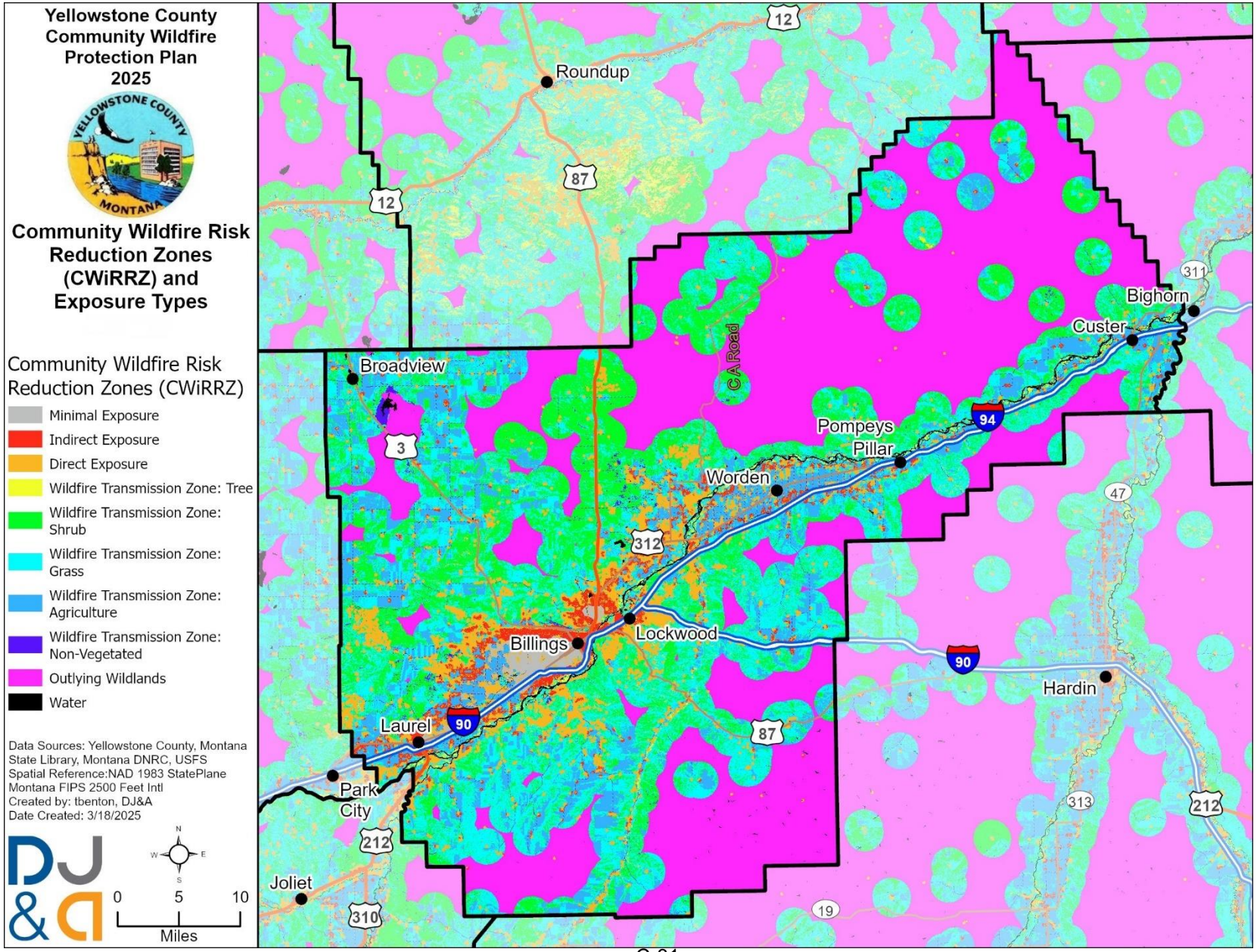
Miles
12
Custer VFD
Shepherd VFD
C A Road
Worden VFD
311
Bighorn
94
Custer
Pompeys Pillar
SHEPHERD FSA
87
Worden
312
HUNTLEY FSA
47
94
BILLINGS FSA
3
90
Lockwood
Haley Bench VFD


Yellowstone County Community Wildfire Protection Plan 2025
Wildland Fire Incident Locations and Perimeters (1984-2025)
Roads
Limited Access
Highway
Major Road
Incidents - Fire Cause
Undetermined/Unknown
Human
Natural
Wildfire Perimeters
1980s
1990s
2000s
2010s
2020s
Data Sources: Yellowstone County, Montana State Library, Montana DNRC, USFS
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/24/2025
0 5 10
Miles
Roundup
Broadview
Bighorn
Custer
Pompeys Pillar
Worden
Billings
Lockwood
Hardin
Laurel
Park City
Joliet
C A Road


Yellowstone County Community Wildfire Protection Plan 2025
Community Wildfire Risk Reduction Zones (CWiRRZ) and Exposure Types
Community Wildfire Risk Reduction Zones (CWiRRZ)
Minimal Exposure
Indirect Exposure
Direct Exposure
Wildfire Transmission Zone: Tree
Wildfire Transmission Zone: Shrub
Wildfire Transmission Zone: Grass
Wildfire Transmission Zone: Agriculture
Wildfire Transmission Zone: Non-Vegetated
Outlying Wildlands
Water
Data Sources: Yellowstone County, Montana State Library, Montana DNRC, USFS
Spatial Reference:NAD 1983 StatePlane Montana FIPS 2500 Feet Intl
Created by: tbenton, DJ&A
Date Created: 3/18/2025
0 5 10
Miles
Roundup
Broadview
Billings
Laurel
Park City
Joliet
Lockwood
Worden
Pompeys Pillar
Bighorn
Custer
Hardin
CA Road
12
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212
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Appendix D: Glossary of Terms

Term	Definition	Source
Asset (Wildfire)	Human-made features, such as commercial structures, critical facilities, housing, etc., that have a specific importance or value	(Gilbertson-Day et al. 2020)
At risk community	The term ‘‘at risk community’’ means an area— (A) that is comprised of— (i) an interface community as defined in the notice entitled ‘‘Wildland Urban Interface Communities Within the Vicinity of Federal Lands That Are at High Risk From Wildfire’’ issued by the Secretary of Agriculture and the Secretary of the Interior in accordance with title IV of the Department of the Interior and Related Agencies Appropriations Act, 2001 (114 Stat. 1009) (66 Fed. Reg. 753, January 4, 2001); or (ii) a group of homes and other structures with basic infrastructure and services (such as utilities and collectively maintained transportation routes) within or adjacent to Federal land; (B) in which conditions are conducive to a large-scale wildland fire disturbance event; and (C) for which a significant threat to human life or property exists as a result of a wildland fire disturbance event.	Healthy Forest Restoration Act of 2003 (P.L. 108-148)
Community Wildfire Protection Plan	(3) COMMUNITY WILDFIRE PROTECTION PLAN.—The term ‘‘community wildfire protection plan’’ means a plan for an at risk community that— (A) is developed within the context of the collaborative agreements and the guidance established by the Wildland Fire Leadership Council and agreed to by the applicable local government, local fire department, and State agency responsible for forest management, in consultation with interested parties and the Federal land management agencies managing land in the vicinity of the at risk community; (B) identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment on Federal and non-Federal land that will protect 1 or more at risk communities and essential infrastructure; and (C) recommends measures to reduce structural ignitability throughout the at risk community.	Healthy Forest Restoration Act of 2003 (P.L. 108-148)
Condition Class (Vegetation)	Depiction of the degree of departure from historical fire regimes, possibly resulting in alterations of key ecosystem components. These classes categorize and describe vegetation composition and structure conditions that currently exist inside the Fire Regime Groups. Based on the coarse-scale national data, they serve as generalized wildfire rankings. The risk of loss of key ecosystem components from wildfires increases from Condition Class 1 (lowest risk) to Condition Class 3 (highest risk).	(NWCG 2023a)

Term	Definition	Source
Exposure (Wildfire)	The placement or coincidental location of an asset or resource within a hazardous environment.	(Gilbertson-Day et al. 2020)
Fire Behavior	The manner in which a fire reacts to the influences of fuel, weather, and topography.	(NWCG 2023b)
Fire Intensity	A general term relating to the heat energy released in a fire.	(USDA 2023)
Fire Management	All activities related to the management of wildland fires, including fire prevention, fire suppression, and use of prescribed fire.	(NWCG 2023b)
Fire Regime	Fire regimes describe and categorize patterns of fire ignition, seasonality, frequency, type (crown, surface, or ground fire), severity, intensity, and spatial continuity (pattern and size) that occur in a particular area or ecosystem.	(USDA 2023)
Fire Return Interval	Number of years between two successive fires in a specified area. Often used to designate an average of intervals (i.e., mean fire interval).	(USDA 2023)
Fire Severity	Degree to which a site has been altered or disrupted by fire; loosely, a product of fire intensity and residence time.	(NWCG 2024)
Flame Length	The length of flames in a fire front measured along the slant of a flame, from the midpoint of its base to its tip. Flame length is mathematically related to fireline intensity and tree crown scorch height.	(USDA 2023)
Fuel	Any combustible material, especially petroleum-based products and wildland fuels.	(NWCG 2024)
Fuel Class	A set of fuels with similar traits. Fuels are categorized as herbaceous or woody and live or dead. Dead fuels are classed as 1-, 10-, 100-, or 1,000-hour timelag fuels, based on the time needed for fuel moisture to come into equilibrium with the environment: • 1-hour timelag fuels: Dead fuels comprised of herbaceous plants or woody plants less than about 0.25 inch (6.4 mm) in diameter and the surface layer of litter on the forest floor. • 10-hour timelag fuels: Dead fuels comprised of wood from 0.25 to 1 inch (0.6-2.5 cm) in diameter and the litter from just beneath the surface to around 0.75 inch (1.9 cm) below ground. • 100-hour timelag fuels: Dead fuels comprised of wood from 1 to 3 inches (2.5-7.6 cm) in diameter and litter from around 0.75 to about 4 inches (1.9-10 cm) below ground. • 1,000-hour timelag fuels: Dead fuels comprised of wood from 3 to 8 inches (7.6-20.3) in diameter and the forest floor layer >4 inches (10 cm) below ground.	(USDA 2023)

Term	Definition	Source
Fuel Continuity	A qualitative description of the distribution of fuels both horizontally and vertically. Continuous fuels readily support fire spread. The larger the fuel discontinuity, the greater the fire intensity required for fire spread.	(USDA 2023)
Fuel Loading	The amount of fuel present expressed quantitatively in terms of weight of fuel per unit area. This may be available fuel (consumable fuel) or total fuel and is usually dry weight.	(NWCG 2024)
Fuel Model	Simulated fuel complex for which all fuel descriptors required for the solution of a mathematical rate of spread model have been specified.	(NWCG 2024)
Fuel Moisture	Expressed as a percent or fraction of oven-dry fuel weight. It is the most important fuel property controlling flammability. In living plants, fuel moisture fluctuates and can vary considerably by species but is usually above 80% to 100%. As plants mature, moisture content decreases. When herbaceous plants cure, their moisture content responds as dead fuel moisture content, which fluctuates according to changes in temperature, humidity, and precipitation.	(USDA 2023)
Fuel Reduction	Manipulation, including combustion, or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control.	(NWCG 2024)
Prescribed Fire	Any fire intentionally ignited by management in accordance with applicable laws, policies, and regulations to meet specific objectives. Also called a controlled burn or prescribed burn.	(USDA 2023)
Probability (Wildfire)	Likelihood that a wildfire will burn a given point or area during a specified period of time.	(MT DNRC 2023b)
Rate of Spread (ROS)	The rate of spread is in chains per hour (ch/h) and is defined as the speed with which the fire is moving away from the site of origin. Wind, moisture, and slope drive the fire. The flaming zone, or fire head, moves away from the origin quickly with great intensity.	(NWCG 2023a)
Resource (Wildfire)	Resources are natural features, such as wildlife habitat, vegetation type, or water, with specific importance or value.	(Gilbertson-Day et al. 2020)
Susceptibility (Wildfire)	Propensity of an asset or resource to be damaged if a wildfire occurs.	(Gilbertson-Day et al. 2020)
Vulnerability (Wildfire)	A function of exposure and susceptibility.	(Gilbertson-Day et al. 2020)
Wildfire Hazard	A physical situation with potential for causing damage to vulnerable resources or assets. Quantitatively, wildfire hazard is measured by two main factors: 1) burn probability (or likelihood of burning), and 2) fire intensity (measured as flame length, fireline intensity, or other similar measure).	(Gilbertson-Day et al. 2020)
Wildfire Risk	A function of wildfire hazard (probability and intensity) and vulnerability (exposure and susceptibility) of assets and resources.	(MT DNRC 2023b)

Appendix E: Wildland Urban Interface Summary Table

WUI Component	Definition
MT DNRC Functional WUI Components	
Direct Exposure	Burnable[30] wildland that contains or is near a structure located on or surrounded by burnable land cover. Directly exposed structures could benefit from both the hardening of the structure to resist ignition and the reduction of fuel in the home ignition zone to reduce the structure's exposure to heat and embers.
Indirect Exposure	Nonburnable land that contains or is near a structure and is within 900 m (0.56 mi) of burnable land cover (Caggiano et al. 2020). Indirectly exposed structures could benefit from the hardening of the structure to resist ignition from embers and nearby structures.
Limited Exposure	Nonburnable land that contains a structure but is greater than 900 m (0.56 mi) from burnable land cover.
Critical Fireshed	The Burnable Land Area within about 1,500 m (1 mile) of a group of structures, dependent on structure density, but does not itself contain structures. **Justification**: A buffer of 1,500 m (1 mile) accounts for potential ember cast and rapid rate of spread.
Non-WUI	Land more than 1,500 m (1 mile) from a group of structures. **Justification**: A buffer of 1,500 m (1 mile) accounts for potential ember cast and rapid rate of spread.
Water	The portion of the landscape covered by open water.
Yellowstone County WUI Revisions to the MT DNRC Functional WUI	
Holes	**Description**: "Holes" consist of lands not included within the MT DNRC Functional WUI layer but surrounded on all sides by said layer. The Yellowstone County WUI absorbs portions of holes if they are ≥ Moderate Overall Conditional Wildfire Risk (icNVC). **Justification**: Portions of holes added to the Yellowstone County WUI are included to accurately account for rapid wildfire spread into adjacent areas of WUI lands.

[30] Nonburnable land cover as defined for the MT DNRC Function WUI data layer is where the mapped fire-behavior fuel model is 91-99; burnable is all other fuel models.

WUI Component	Definition
Islands	**Description**: "Islands" consist of small areas of land delineated as MT DNRC Functional WUI that do not connect to the larger, contiguous WUI polygon. All islands are included within the Yellowstone County WUI, regardless of size. **Justification:** The Yellowstone County WUI does not differ from the MT DNRC Functional WUI layer with respect to island WUI areas and no further justification is required.
Ingress/Egress Roads	**Description**: Where larger islands of WUI existed without connection to the larger, contiguous WUI polygon, appropriate ingress/egress routes were identified using the best available data and core team feedback. These roads were then buffered by 900 m (0.56 mi) to retain consistency with the methods reflected in the MT DNRC Functional WUI. **Justification**: Ingress/Egress roads represent the most likely route in the event of evacuation or access for fire suppression resources. The Core Team identified these additional road segments to be crucial to maintaining ingress and egress to areas delineated as WUI in order to effectively respond to wildfire events.
Adjacent lands with ≥ Moderate Overall Conditional Wildfire Risk (icNVC)	**Description**: Portions of lands delineated as ≥ Moderate Overall Conditional Wildfire Risk (icNVC) which were directly adjacent to the WUI were added to the Yellowstone County WUI. No additional buffer was added to these lands. **Justification**: These areas were included to accurately account for rapid wildfire spread into adjacent areas of WUI lands.