

State of Utah

Community Wildfire Preparedness Plan

For the Wildland – Urban Interface
Grand County and Moab City



2026



Department of Natural Resources
Division of Forestry, Fire and State Lands
1594 W North Temple, PO Box 145703, Salt Lake City, UT 84114-5703

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Declaration and Concurrence Page

*This list needs to be customized to the individual plan. Provide the names and affiliations of all cooperators. Minimum allowable signatories include **one** each from **a state entity**, **a local fire department**.*

*and a **local government representative**. Additional signatories are highly recommended to exhibit diverse collaboration. This page will then be signed by FFSL authorities after all cooperators have reviewed the plan and concur with its contents. If needed, an additional blank signature page is provided at the end of this template and should be included here.*

Melodie McCandless

Grand County Commission

NAME

AFFILIATION

SIGNATURE

DATE

Joette Langianese

City of Moab

NAME

AFFILIATION

SIGNATURE

DATE

TJ Brewer

Moab Valley Fire Department

NAME

AFFILIATION

SIGNATURE

DATE

Matt McEttrick

DNR Forestry, Fire and State Lands

NAME

AFFILIATION

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SIGNATURE

DATE

Approved as to form. Tony Clinger, Assistant Attorney General. August 2023.

INTRODUCTION

Over 600 of Utah's communities have been classified as "at risk" of wildfire. The safety of the citizens of any community and the protection of private property and community infrastructure is a shared responsibility between the citizens; the owner, developer, or association; and the local, county, state and federal governments. **The primary responsibility, however, remains with the local government and the citizen/property owner.**

The purpose of wildfire protection planning is to...

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

Outcomes of wildfire protection planning...

- Achieve the National Cohesive Wildfire Strategy Goals:

1. Resilient Landscaped 2. Fire Adapted Communities 3. Safe and Effective Wildfire Response

- Improve community safety through:

✓ Coordination and collaboration ✓ Public awareness and education	✓ Fuel modification ✓ Improved fire response capabilities	✓ Fire prevention ✓ Development of long-term strategies
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RESOURCES

To complete a wildfire protection plan for your community, consider involving the following:

✓ Local / Primary fire protection provider ✓ Local Resource, Conservation and Development Districts ✓ Utah Division of Forestry, Fire and State Lands ✓ Utah State Fire Marshal (Dept. of Public Safety) ✓ Utah Division of Emergency Management ✓ Local fire agencies	✓ Local emergency management services ✓ USDA Forest Service ✓ U.S. Department of Interior Agencies ✓ Utah Resource Conservation Districts ✓ Utah Soil Conservation Districts ✓ Local health departments
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✓ Utah Division of Air Quality	
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STATEMENT OF LIABILITY

This template provides the outline for, and specifies the information recommended, to be included in a Community Wildfire Protection Plan (CWPP) based on information currently available.

Any associated checklists, guidance documents, assessments, activities and recommendations of fire officials, including the plans and projects outlined by the community wildfire council, are made in good faith. The Utah Division of Forestry, Fire and State Lands assumes no liability and makes no guarantee regarding the level of wildfire or smoke protection resulting from completion and implementation of this plan. Wildfire may still occur despite efforts to prevent it or contain it. The intention of all decisions and actions made under this plan is to reduce the potential for, and the consequences of, wildfire.

Last revised November 2022

Completed Community Wildfire Protection Plans should be submitted to the local Area Manager or Fire Management Officer with the Utah Division of Forestry, Fire and State Lands for final concurrence.

The Community Wildfire Protection Plan should be updated regularly as it is meant to be a living document.

INSTRUCTIONS TO PREPARERS

Italicized text throughout this template indicates suggestions or instructions intended to aid the preparer. The italicized text throughout the template is intended as a guide but is not an exhaustive list of considerations. To enter your community name in the header section, double click over the header section to enter the edit mode of the header. Then click on the community field and enter your community name. When finished either click on the Close Header button in the ribbon toolbar or just double click in the middle of the page. This will update all the pages.

PLANNING OVERVIEW

Briefly describe the overall planning process that took place to complete this plan. Be sure to include:

- *A timeline of the events/meetings*
 - September 2025: Grand County Emergency Management initiated CWPP draft
 - September 23, 2025: Meeting between Moab Valley Fire Department, Utah FFSL, Moab City, and Grand County Emergency Management to review draft, provide input, and plan future work
 - October 20, 2025: Meeting between Grand County Emergency Management and Rim to Rim Restoration for City/County collaboration
 - October 21, 2025: Meeting between Grand County Emergency Management, Moab Valley Fire Department, and Rim to Rim Restoration to collaborate on CWPP goals section
 - November 10, 2025: Collaborative meeting between Grand County Emergency Management and Rim to Rim Restoration
- *The organizations and partners that participated*
 - Grand County Emergency Management
 - Moab Valley Fire Department
 - Utah FFSL

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- Rim to Rim Restoration
- Grand County Road Department
- Grand County Noxious Weeds Department
- Grand County GIS Specialist
- Grand County Building Department
- City of Moab – Community Development Department
- City of Moab – City Management
- *A description of why this planning process was initiated and the overall outcome of the process*
 - Stakeholders met in person and collaborated virtually through the fall of 2025 to update the CWPP. Planning initially encompassed only Grand County, however, given the fire risks associated with creek corridors that run through Grand County as well as Moab City it made sense for the City and County to engage in a joint planning process. Planners engaged stakeholders from the Moab Valley Fire Department, Utah FFSL, various City and County departments, and nonprofit partners including Rim to Rim Restoration. Stakeholders used a combination of the CWPP template, UWRAP data, and historical and local knowledge to identify hazard areas and set goals for the community. This process produced an integrated City-County plan that captures the work done in the community over the past 5 years as well as updates goals moving forward.
- *If desired, please acknowledge any individuals or organizations that were essential to accomplishing the final plan.*

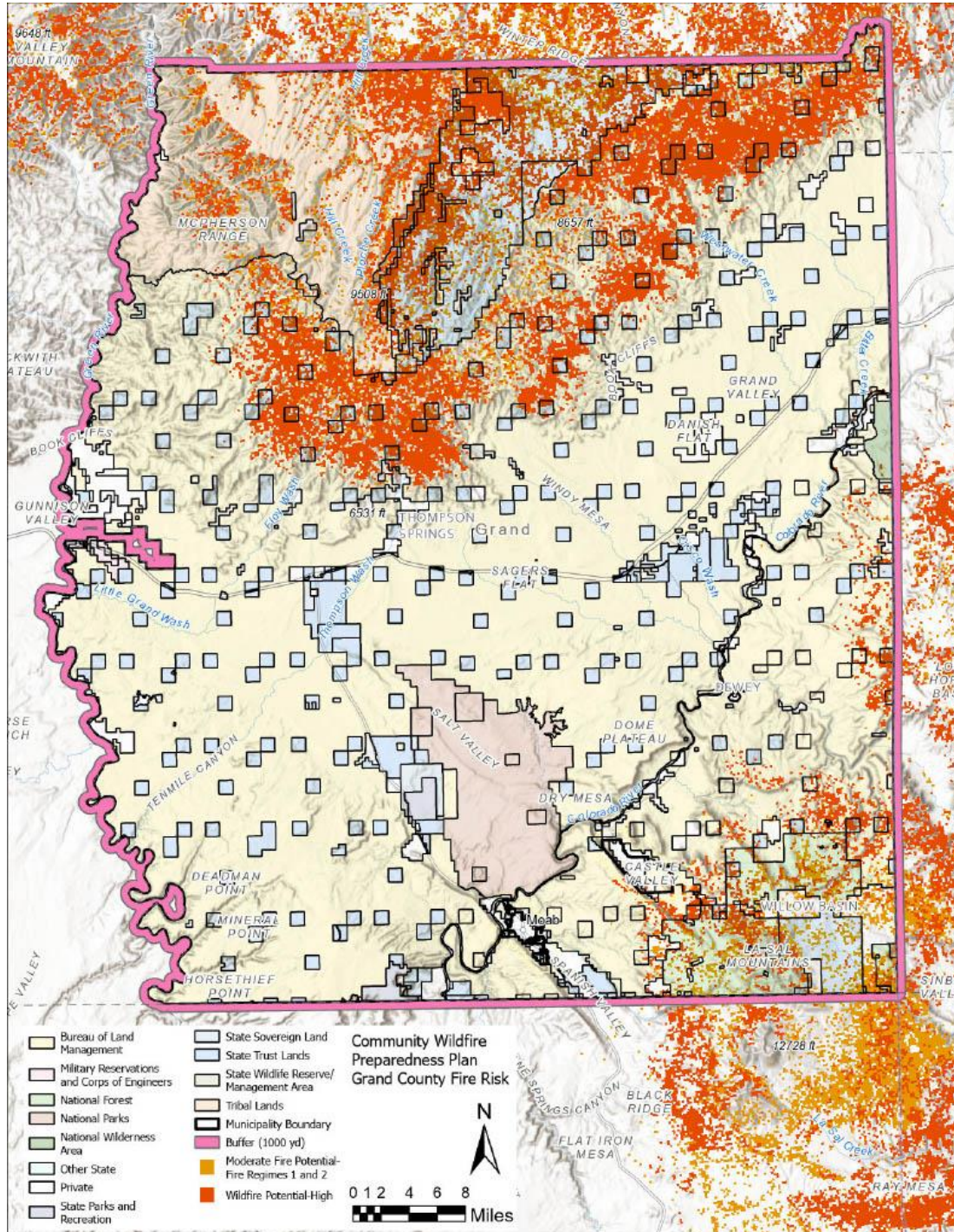
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PLAN OVERVIEW MAP

Area of Interest

Insert an overview map of the area of interest/community/municipality/county including a buffer of greater than 1,000 yards. Identify adjoining landowners: Federal, State or Private. Show defined WUI boundaries.



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PART I COMMUNITY DESCRIPTION

Community Attributes
Location of Community
Grand County, Utah is bordered by Mesa County, Colorado, Garfield County, Colorado, and Montrose County, Colorado to the east, San Juan County, Utah and Wayne County, Utah to the south and southwest, Emery County, Utah to the east, and Uintah County, Utah to the north. Grand County is a patchwork of private, tribal, and state/federal public land, including land managed by the Bureau of Land Management, Utah Trust Lands Administration, Utah Department of Natural Resources, the United States Forest Service, and the National Park Service.
Roads, Bridges, Gates, and Culvert Conditions
List problem areas and consider labeling them on an attached map. • <i>Are there at least two separate ways out of the community? Are roads properly marked with signs and are those signs metal and reflective? Are roads only seasonally accessible? Are there dead ends? Is there space available to turn emergency equipment around? Also examine the condition of the vegetation along the roads to improve evacuation needs.</i> • Most areas of unincorporated Grand County have at least 2 ways in or out. • Main roads used for access and egress are marked with metal reflective signage. • Many mountain roads are only accessible during the spring, summer, and fall. The Forest Service locks gates during the winter season. • There are many dead ends in steeper areas of the mountains. Bear Creek, Beaver Creek, Warner Lake, Oowah Lake, and Miners Basin are a few areas that are complete dead ends and could become entrapment areas. • Most areas where people would get to in case of emergency have adequate space to turn emergency vehicles. • The Grand County Roads Department mows roadways annually and masticates bigger brush along mountainous roadways where needed. • <i>City of Moab: Most roads within the city have multiple exit points with notable exceptions for the neighborhoods bordering the wetlands. The roads are signed and maintained through all seasons. One historical neighborhood (100 North) has undersized streets with significant vegetation encroachment and limited emergency access. The land containing the road is privately owned across several owners.</i> • <i>Are bridges rated to support emergency equipment?</i> • County Bridges are posted with weights and can handle most of the emergency equipment. • All City bridges are rated to support emergency equipment. • <i>Do gates provide easy access? What gates do you need to open with a key and at what times of the year is the gate locked?</i> • Warner and Oowah are closed in the winter, and the Forest Service has the keys. Most other areas are accessible at your own risk for dry, snowy, and muddy conditions. • <i>Can culverts be easily crossed by emergency equipment?</i> • Culvert road crossings are easily able to be navigated by emergency equipment.
Structural Ignitability Concerns

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Provide a comprehensive description of existing conditions that contribute to home ignition due to wildfire:

- *Defensible space is the buffer area established between structures and the grass, trees, shrubs, and the surrounding wildland area.*
- *Defensible space slows or stops the spread of wildfire and helps protect homes from catching fire—either from embers, direct flame contact or radiant heat.*
- *Proper defensible space provides firefighters a safe area to work in, to defend your home. Defensible space, coupled with home hardening, is essential to improving structure survivability due to wildfire.*

Article 6.9.7 of the Grand County Land Use Code defines defensible space as consistent with State WUI code and details of allowable use, vegetation, and debris by distance from structures. City of Moab Municipal Code does not have an analogous section, however a resolution to adopt state WUI code or similar is outlined in the goals of this plan. Current fire inspector approves spatial components upon Certificate of Occupancy for residential or commercial properties.

City of Moab will be adopting land use code in alignment with HB 48 and the subsequent identification of effected properties. Inspection and compliance of the effected properties will be conducted as determined by the State of Utah in the 2026 calendar year or deferred as directed.

Communities at risk in Grand County include:

- Moab/Spanish Valley
- Castle Valley
- Dewey
- Thompson Springs
- Willow Basin

According to the UWRAP report, many of these communities (Moab/Spanish Valley, Castle Valley, Dewey, Thompson Springs) are located in low-to-moderate areas of damage potential. The Willow Basin community is located in a moderate-to-high area of damage potential. Similarly, Moab/Spanish Valley, Castle Valley, and Dewey are in areas with moderate conditional risk to potential structures, whereas Willow Basin is in an area of higher conditional risk to potential structures. Areas in Moab and Spanish Valley that are adjacent to Mill and Pack Creeks and the wetlands are also at higher risk due to proximity to hazardous fuels.

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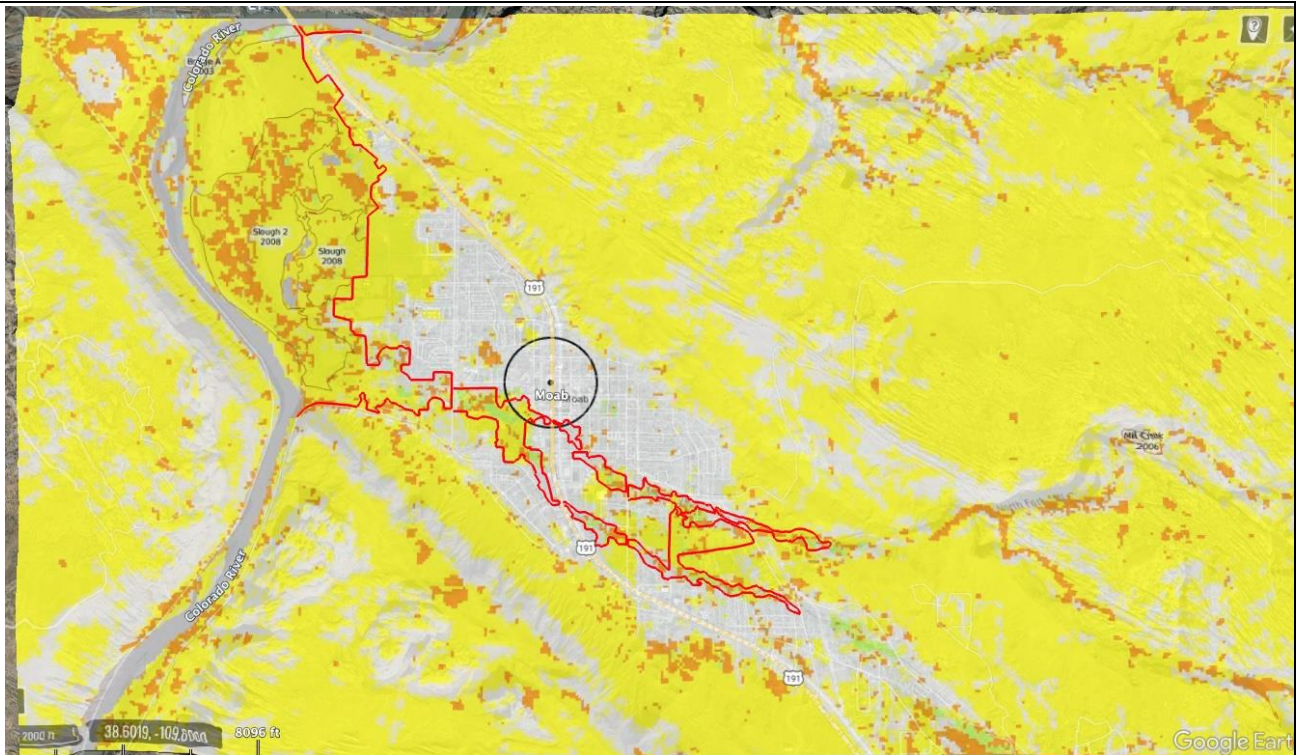
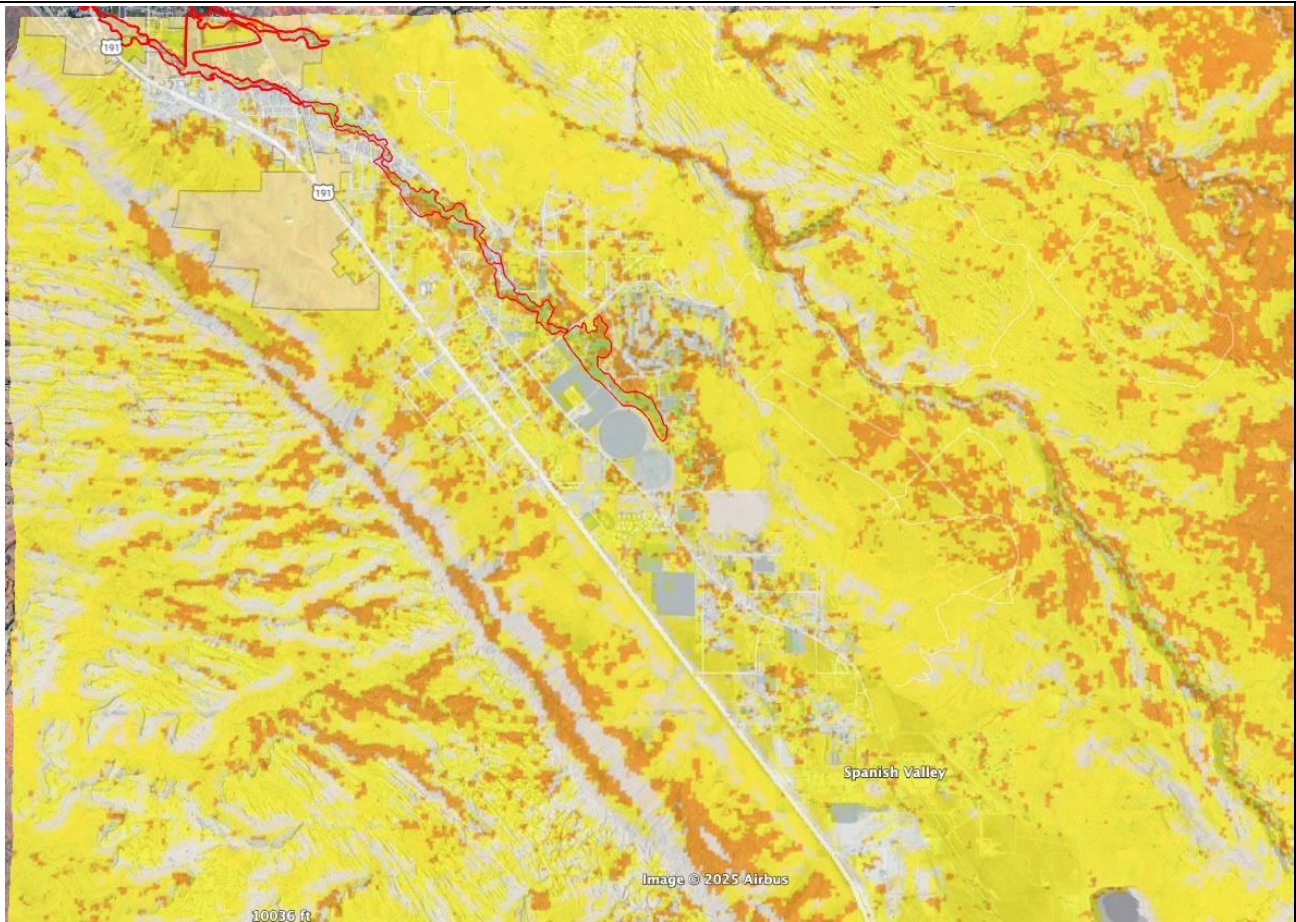


Figure 1: (above) The red line illustrates the boundary of the vegetated corridors for Mill and Pack Creeks and well as the Matheson Wetlands with respect to the urban and agriculture properties of Moab. This boundary is restricted to the properties with City of Moab limits. This boundary was independently mapped based on vegetation density and local historical knowledge of the area. The boundary is overlaid on the Wildfire risk assessment tool provided by UWRAP.

Figure 2: (below). The red line illustrates the vegetated boundary of Pack Creek with the urban and agricultural properties adjacent to the creek. This boundary was independently mapped based on vegetation density and local historical knowledge of the area. The boundary is overlaid on the Wildfire risk assessment tool provided by UWRAP.

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Future work includes using LiDAR and vegetation proxies overlayed with building footprints and cross compared with areas of highest population density to establish areas of increased fire risk.

[*Wildland Urban Interface Mitigation Desk Guide*](#)

Community Demographics	
Approximate number of homes	5,192 total housing units*
Approximate number of lots	7,576 total parcels. Includes residential, commercial, public, and undeveloped lots**
Approximate number of commercial entities	537 total employer establishments*

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Approximate number of full-time residents	9,669 total population*
Approximated number of part-time residents	2,226 seasonal workers in 2021***
<i>Notes/comments:</i> These figures reflect Grand County and incorporated communities within, such as Moab and Castle Valley. Sources: *United States Census Bureau. **Utah State Geographic Information Datasource *** 2023 Moab Area Affordable Housing Plan	

Population Concerns

Potentially vulnerable populations may experience difficulty preparing for and responding to wildfire.

According to the *Wildfire Risk to Communities Portal*, Grand County is rated as very high risk due to several potentially vulnerable populations that may experience difficulty preparing for and responding to wildfire.

First, 14.1% of the population lives in mobile homes. Mobile homes are more likely to be damaged in a fire, and owners are less likely to own the land where their residence sits. This lack of landownership can create barriers to making defensible space as well as recovering from disasters.

Next, 22% of the population is over 65 years of age. Older populations are more likely to have mobility issues or pre-existing medical conditions, which can decrease their ability to respond to disaster. They are also more at risk for smoke-related health issues.

Last people with disabilities make up 16% of the Grand County population. This population may experience mobility issues and ongoing medical needs that serve as barriers to evacuation during fires. Further, people with health complications are disproportionately impacted by evacuations and relocations that disrupt access to health care. They are also most at risk of smoke-related health issues.

[Wildfire Risk to Communities Portal](#) - click on Explore - Enter community name - click on Vulnerable Population Tab

Community Evacuation Plan should be attached as Appendix A

Community Legal Structure

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List the government entities associated with the community – city, town, unincorporated community, special service district, homeowner association(s), others.

Organization	Contact Person	Phone Number	E-mail
Grand County Commission Administration	Commission Office	435-259-1342	commadmin@grandcountyutah.gov
Moab Valley Fire Protection District	Administration	435-259-5557	admin@moabfiredepartment.org
City of Moab	Administration	435-259-5121	Info@moabcity.gov
Castle Valley Fire Protection District	Administration	435-259-3655	castlevalleyfpa@gmail.com

Restricting Covenants, Ordinances etc. (Attach as Appendix C)

For example, home association bylaws may have requirements regarding building construction materials or vegetation removal, or regarding access in a gated community.

Source	Details
2006 Utah Wildland Urban Interface Code	Establishes requirements for ignition-resistant construction, defensible space, and fuel modifications to mitigate wildfire risk.
2023 City of Moab Municipal Code – Title 17.10	Landscape Ordinance would potentially increase the biomass and canopy within the city limits and would need to be considered as HB 48 level inspections will ramp up.

PART II:

RISK ASSESSMENT

Community Values at Risk

Define community values that would be threatened by wildfire, (infrastructure, watershed, forest, wildlife, and other values) and the conditions of the infrastructure/homes at a broad scale. It is highly encouraged that you consult a local, federal, or state entity and/or a wildfire mitigation specialist to assist you. [Forestry, Fire and State Lands contact information](#)

Watersheds and Drinking Water

There are approximately 26,000 acres in Grand County that are rated as High, Very High, or Extreme risk to drinking watersheds and population. This represents around 1% of the total acreage in the County. The majority of acreage in the County is Very, Very Low risk (1.8 million acres, or 75% of the County's total

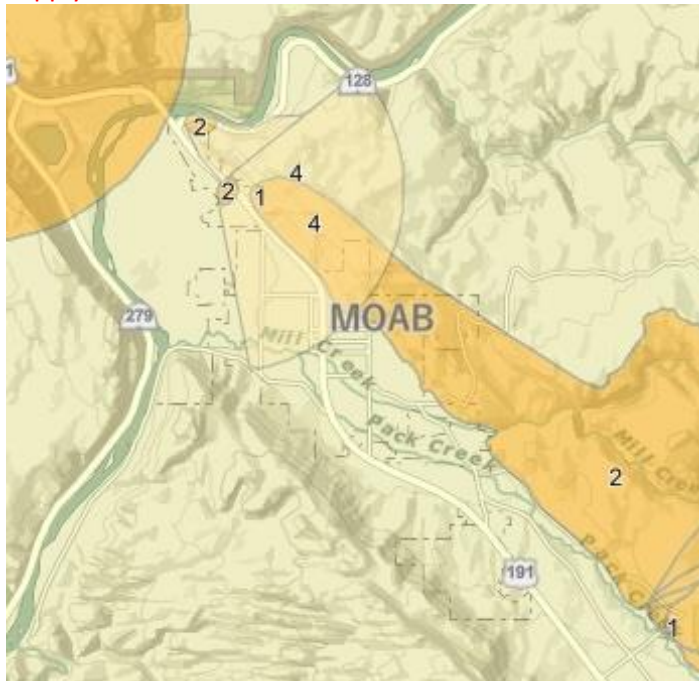
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acreage). The acres at risk are concentrated in the southeast corner of the County in the La Sal Mountains (see UWRAP report in Appendix D). However, it should be noted that much of the county's drinking water is sourced from the upper watersheds, which over-represented in higher-risk categories.

Further, Grand County's riparian areas serve a variety of functions, including trapping sediment, filtering pathogens and nutrient pollution, and maintaining biological diversity. The population also benefits from recreation opportunities in riparian areas. The County's riparian areas generally include moderate-to-high wildfire hazard potential (See UWRAP report in Appendix D).

There are two source water assessment zones located within the northern extent of city limits that provide a large portion of the City's culinary water. Additionally, the city is bounded by the Groundwater Protection Zone (Level 2) for the Glenn Canyon aquifer on the eastern side of the city. Level 2 protections include surface contamination requirements and increased standards for onsite wastewater systems located within the zone. Wildfire over this zone would increase the risk of surface contamination to municipal water supply.



The image (left) illustrates the surface water protection zones (dark orange) and the groundwater protection zones (light orange) within the city limits.

Wildlife

Grand County has several Wildlife and Waterfowl Management Areas (WMAs). They include:

- Willow Creek WMA (Uintah and Grand Counties), established to benefit big game winter range
- Little Creek WMA, established to benefit big game winter range
- Nash Wash WMA, established to benefit big game winter range, upland game
- Scott and Norma Matheson Wetlands Preserve WMA, established to benefit wetland

preserve

Wilderness Study Areas

Grand County is also home to several Bureau of Land Management Wilderness Study Areas. They are:

- Mill Creek Canyon
- Grandstaff Canyon
- Behind the Rocks
- Westwater Canyon
- Flume Canyon
- Spruce Canyon

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- Coal Canyon
- Floy Canyon
- Desolation Canyon
- Lost Spring Canyon
- A portion of the Black Ridge Canyons Wilderness

Damage Potential and Structures

There are approximately 248,000 acres, or 10% of the County's total acreage, rated as High or Very High for Damage Potential. This acreage is concentrated in the La Sal Mountains in the southeast portion of the County and in the Book Cliffs to the northwest (see UWRAP report in Appendix D).

There are approximately 6,200 acres rated as High, Very High, or Extreme risk of ember load to buildings. These areas are concentrated primarily in the Spanish Valley and Castle Valley areas (see UWRAP report in Appendix D).

Estimated Values at Risk

Provide an approximation of the estimated current values of residential and commercial property in the area. The County Assessor should be able to assist with this information.

Estimated values at risk of commercial and residential property

Grand County: \$1,015,533,175 (taxable value of commercial and residential buildings)

City of Moab: \$1,516,980,485 (taxable value of commercial and residential buildings within city limits)

Year

2024

Insurance Rating

Protection Capabilities: Insurance Services Organization (ISO) rating for the community will serve as an overall indicator of its fire protection capabilities:

1 - Moderate - ISO Rating of 6 or lower. 2 - High - ISO Rating of 7-9. 3 - Extreme - ISO Rating of 10

You can contact your local fire department to find your ISO rating

ISO Fire Insurance Rating:

Grand County: 4X

Moab City: 4

The Communities at Risk (CARs) list and relative wildfire risk score was developed cooperatively at the local and state level to assist land management agencies and other stakeholders in determining the scope of the WUI

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challenge and to monitor progress in mitigating the hazards in these areas. The CARs list and score is updated through the interagency fuel groups. Input the fields that are reflected on the state list found on our website.

Communities at Risk Score

Communities At Risk Score (CARS)								
Score:				2.8 (See below)				
Community	Overall Rating	Fire Occurrences	Structure Hazard	Fuel Hazard	Values Protected	Protection Capacity	Overall Score	Overall Rating
Castle Valley	High	2	2	2	2	2	10	3
Dewey	Moderate	1	0	1	0	3	5	2
Moab/Spanish Valley	High	2	2	2	2	1	9	3
Thompson Springs	High	2	2	1	3	2	10	3
Willow Basin	High	2	2	2	1	3	10	3
County Average		1.8	1.6	1.6	1.6	2.2	8.8	2.8

Area Fire History			
Fire Name	Month/Year of fire	Ignition point/ source	Structure Damage Loss/ Acres burned
Power House	6/2016	Moab City/ Human	0/ .39
Cinema Court	6/2018	Moab City/ Human	9/ 9.13
Spanish Valley	6/2019	Moab City/ Human	0/.25
Arbor	6/2019	Moab City/ Human	1/ .69
Atomic	6/2019	Moab City/ Human	0/ .1
Seward	7/2019	Moab City/ Human	0/1
Spanish Valley	7/2017	Spanish Valley/ Human	0/1.3
Sinbad	8/2017	Willow Basin/ Natural	0/2.1

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Hwy 191 MM 156	6/2018	Crescent Junction/ Human	0/.1
Bitter Creek	7/2018	West Water/ Human	0/.1
Amigo	7/2018	Willow Basin/ Natural	0/.1
Thompson Road Shed	6/2019	Thompson Springs/ Human	0/.1
Plateau	7/2019	Spanish Valley/ Human	0/.1
6 c 1 MM145	9/2019	Airport/ Human	0/.1
TJ	5/2020	West Water/ Human	10.3
279	5/2020	County/ Human	0/.1
West Thompson	7/2020	Thompson Springs/ Human	0/.1
Matheson	4/2021	County/ Human	0/.4
Castle Valley	6/2021	County/ Human	0/8.1
Ida Gulch	6/2021	County/ Human	0/.1
Beaver Creek	6/2022	Willow Basin/ Natural	0/.1
Murphy	6/2022	County/ Undetermined	4/6 1
HWY191 MM129	6/2023	County/ Human	0/.1
Cisco	6/2023	Cisco/ Human	0/3.7
San Jose	6/2023	County/ Human	0/.1
Rim Village	7/2023	County/ Human	0/.1
Budweiser Lane	7/2023	County/ Human	0/.1
HWY191 MM144	7/2023	Crescent Junction/ Human	0/.1
Starbuck Lane	7/2023	County/ Human	0/.1
Brendal	9/2023	Crescent Junction/ Human	0/.1
Shumway	9/2023	County/ Human	0/2.2
Red Cliffs	2/2024	County/ Human	0/.1
Guardrail	2/2024	County/ Human	0/.1
Thompson #1	5/2024	Thompson Springs/ Railroad	0/.2
Thompson #2	5/2024	Thompson Springs/ Railroad	0/.4
Thompson #3	5/2024	Thompson Springs/ Railroad	0/3.7
Shumway Lane	6/2024	County/ Human	0/.1
Stewart Lane	6/2024	County/ Human	0/.1
Kane Creek	7/2024	County/ Human	0/.2
Roberts	6/2025	County/ Human	0/.1
Westwater Canyon	8/2025	Westwater/ Natural	0/.1

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Wildfire Risk

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Wildfire Risk is a combined assessment of the likelihood of a fire occurring (Threat) and the values of most concern potentially adversely impacted by fire (Fire Effects). Fire Effects consist of the Impacts on Values and Suppression Difficulty.

The Wildfire Threat Index is derived from historical fire occurrence, landscape characteristics including surface fuels and canopy fuels, percentile weather derived from historical weather observations and terrain conditions. [Utah Wildfire Risk Assessment Portal \(UWRAP\)](#)

*The UWRAP provides a consistent, comparable set of scientific results to be used as a foundation for wildfire mitigation and prevention planning in Utah. **Including maps from the UWRAP report may also be beneficial in this section and can be attached as Appendix D. Consider using the following as an example.***

• Location Specific Ignitions	• Fire Occurrence Density
• Water Impacts	• Rate of Spread
• Suppression Difficulty	• Fire Effects

The UWRAP Area of Interest Report can be generated using the Advanced Viewer which you will need a registered account to be able to access.

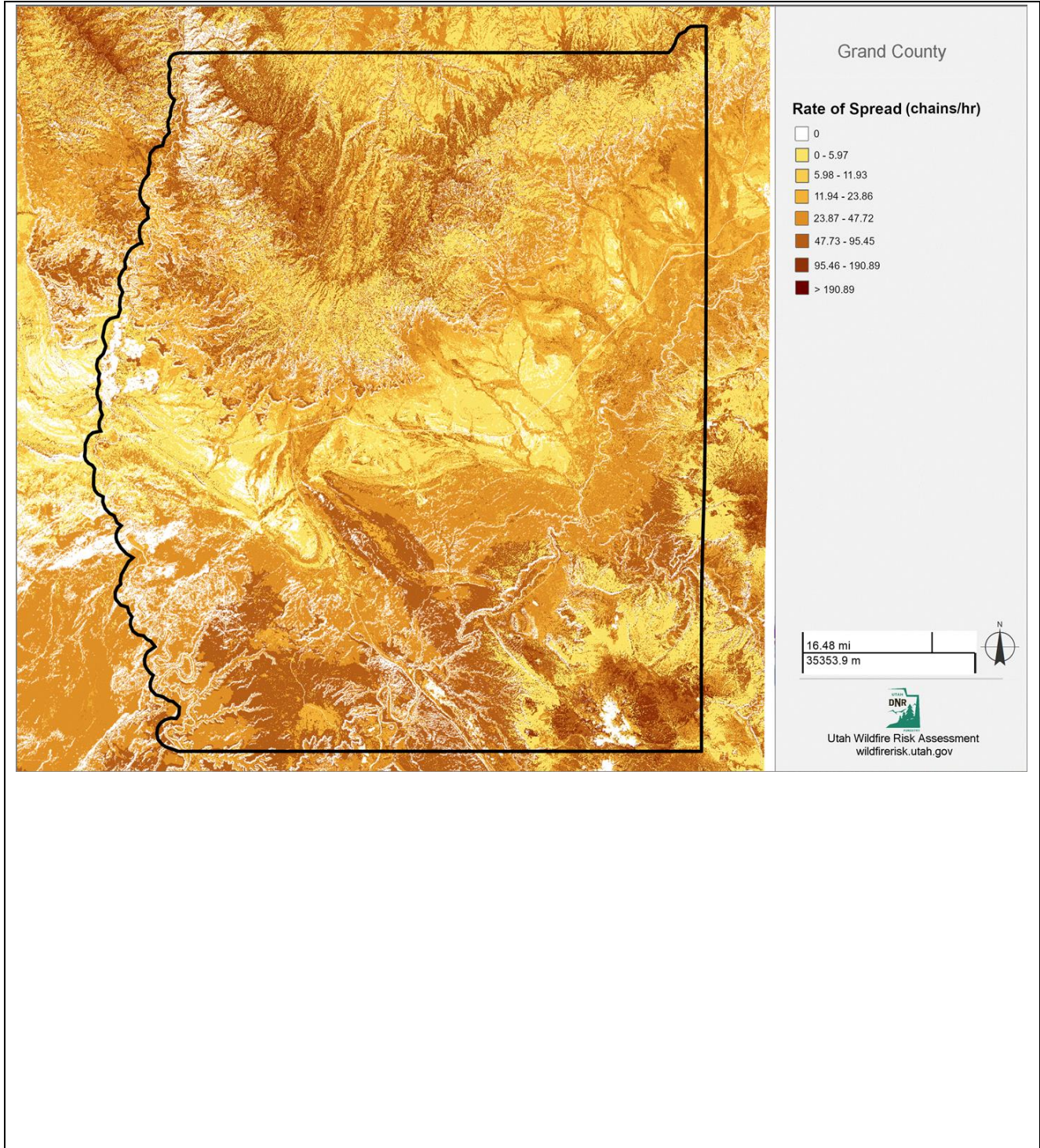
[UWRAP Basic Viewer](#) Basic Viewer

[UWRAP User Manuals](#)

The UWRAP report shows several areas of heightened fire risk. For example, the Willow Basin area of the La Sal Mountains shows a very high rate of spread, high-to-very-high fire suppression difficulty, and high-to-very-high wildfire hazard potential. Likewise, the northwestern part of the county in the Book Cliffs area shows a high rate of spread, very-high-to-extreme fire suppression difficulty, and very high wildfire hazard potential. Finally, according to UWRAP data shows, the Spanish Valley area shows high rate of spread, high suppression difficulty, and moderate wildfire hazard potential.

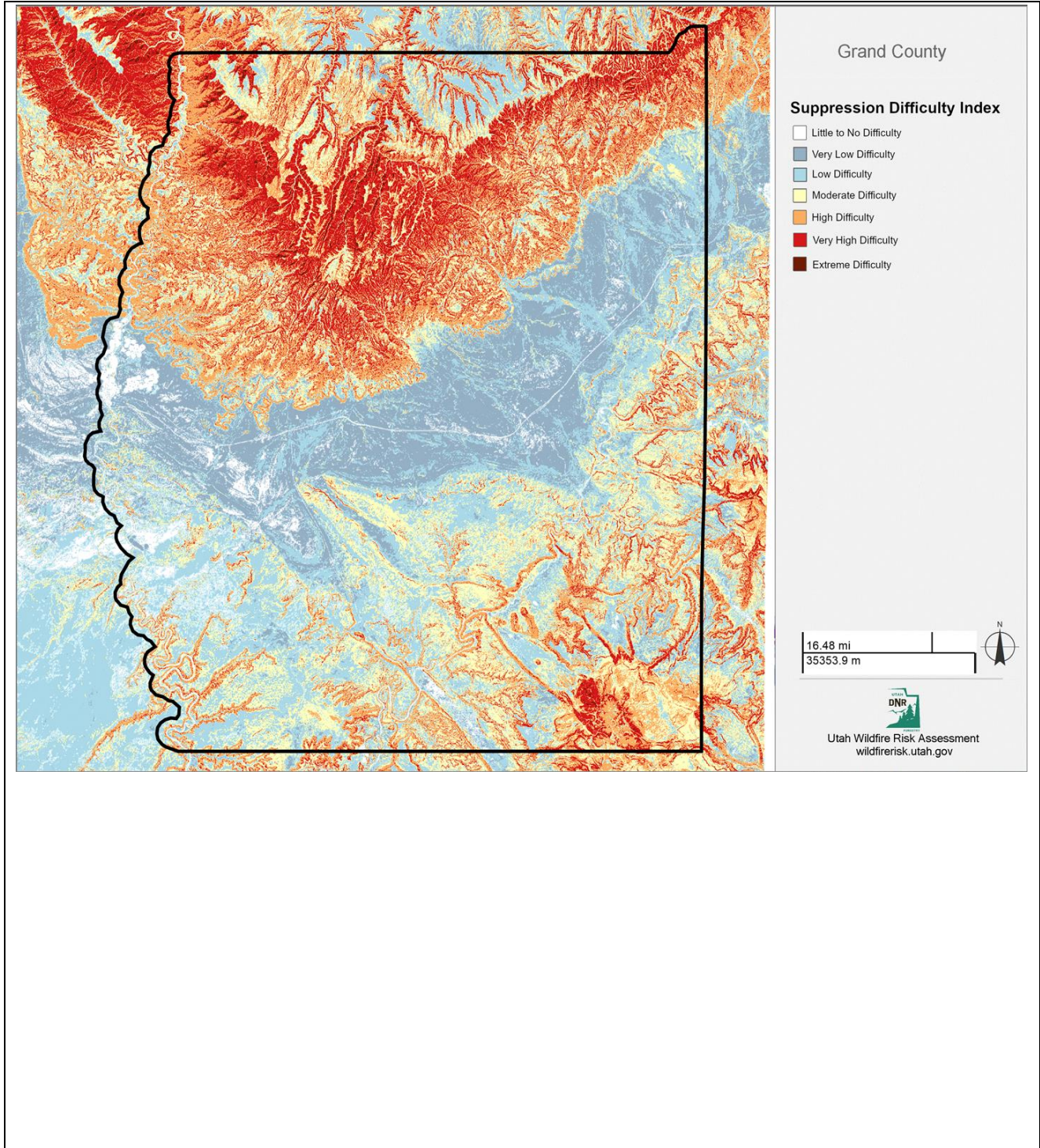
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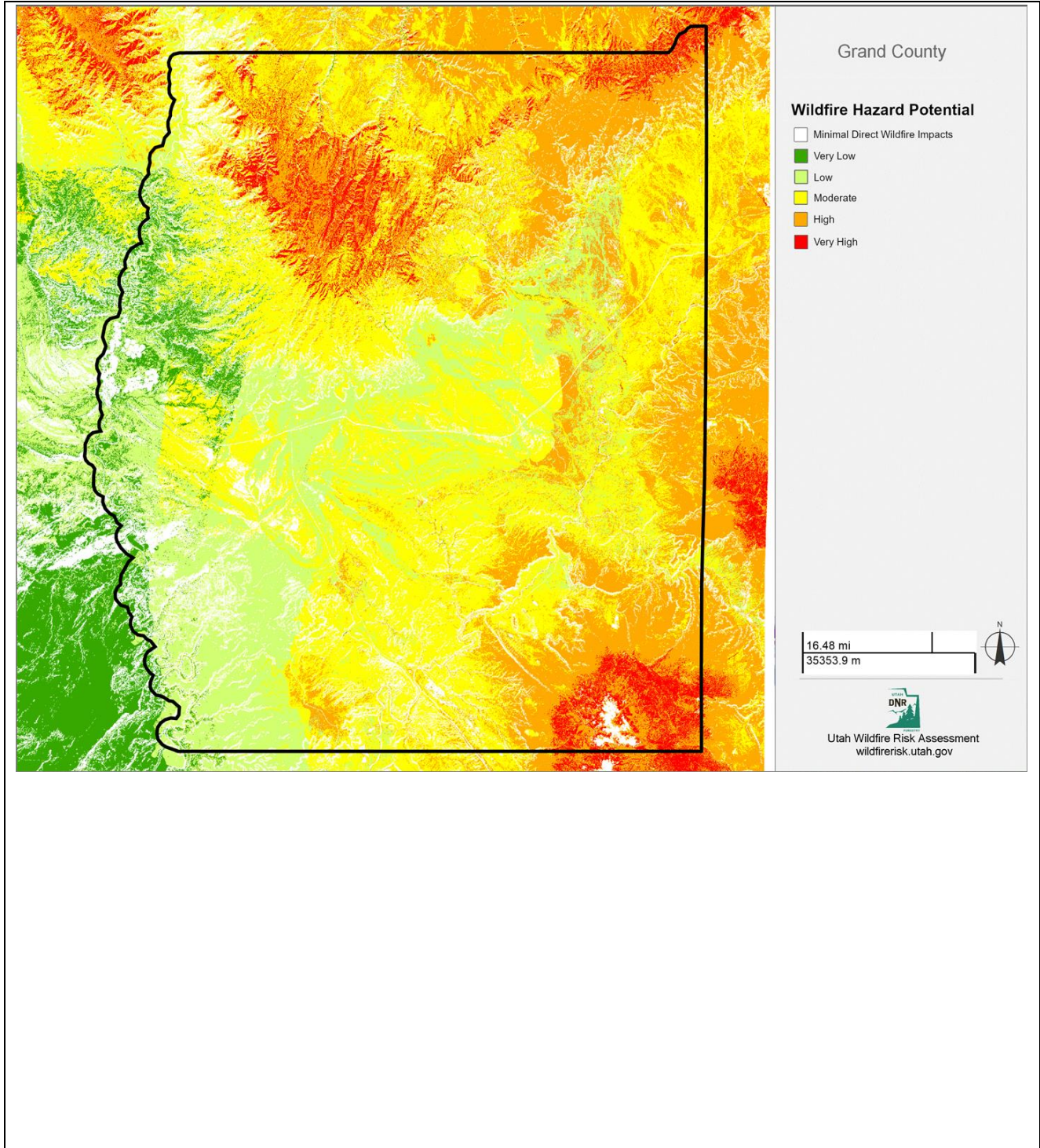
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PARTNERSHIPS AND COLLABORATION

In detail, what are the wildfire mitigation priorities for your community? Describe how the community is coordinating with partners and adjoining agencies identified in this document. (This section can be added to as new projects and partners are developed. Community buy-in, and desires to support and move these projects forward, is critical to overall success.)

Example:

County Priorities – Willow Basin, Mill and Pack Creek

City Priorities – Mill and Pack Creek

A partnership of local agencies including Moab Valley Fire Department, Rim to Rim Restoration, Grand County, and Moab City was awarded the Community Wildfire Defense Grant (CWDG) in 2024. This grant is a five-year, \$5.2 million award that focuses on reducing fire fuels along Moab’s Mill and Pack creek corridors and the Matheson Wetlands. The project is helmed by the nonprofit Rim to Rim Restoration and the Moab Valley Fire Department, which together coordinate a coalition of state, local, and federal partners. Focus areas for CWDG work are properties considered “high-hazard” within a mile of Mill or Pack Creek in Grand County — with emphasis on high-density or underserved areas — and the eastern side of the Matheson Wetlands. The overall objective of the work is to increase the community “hardening” of wildfire defense. MAWP as an informal forum and meeting space that can highlight large and small scale issues that overlap with the vegetated corridors.

The Grand County Local Emergency Planning Committee (LEPC) meets quarterly to develop, maintain, and review emergency response plans and priorities. The Grand County LEPC invite list includes representatives from County and City government, first responder agencies, the private sector, healthcare, the state of Utah, elected officials, and the community at large.

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Describe how you have coordinated with partners/adjoining agencies on past projects and fuels treatments (What you have accomplished and who performed the work.)

Past Accomplishments	
Prevention- Activities directed at reducing unplanned, human caused, fire ignitions, including public education, law enforcement, and personal contact.	MVFD has a very active fire prevention division and averages 90 hours of fire prevention work with the community each year. Work includes public education in schools and at community events, coordination with law enforcement during fire restriction periods, Social Media posts throughout the year, and property defensible space inspections
Preparedness- Activities that lead to a state of response readiness to contain the effects of wildfire to minimize loss of life, injury, and damage to property. Including access to home/community, combustibility of homes/structures and creating survivable space.	Wildfire response is an interagency effort within Grand County. MVFD works as a Cooperator with FFSL and is part of the SE Utah interagency group which includes BLM, USFS, NPS. Response to wildfires is aggressive with a common desire to keep fires small and reduce the risk to life and property. Mitigation and Prevention activities are designed to support our preparedness activities. In 2025, Moab Valley Fire Department purchased a Type 1/3 Urban Interface Engine for \$599,460. This engine can be used for structures, wildfire, or both and will be used on fire response and fuels work throughout the County.
Mitigation- Actions that are implemented to reduce or eliminate risks to persons, property or natural resources including fuel treatments and reduction.	Since 2009 Rim to Rim Restoration has worked with over 75 landowners, The Nature Conservancy, the City of Moab, Grand County and MVFD to remove hazardous fire fuels in high hazard areas along the creek corridors in both the city and county. Work has been done in a patchwork manner to reduce impacts on wildlife habitat while shifting the creek corridors from a dense thicket that could act like a wick that could pull fire from the wetlands out into residential areas 4 miles away in Spanish Valley. With over 350 land owners along the creeks in the Moab Valley it is impossible to implement this work without collaboration with land owners and various government entities. As a non profit RRR has been able to facilitate needed collaboration over time. Much of this work has been funded by the Utah Watershed Restoration Initiative (see project numbers 1157,1419,1645, 1982, 2225, 2568, 3436, 4037, 4588, 4787, 5260, 5525, 5860, 5938, 6518, 6969, and 7352 for more details). Over 200 acres of Russian olive has been removed from the creek corridors over the last 17 years, coupled with active native plant revegetation during that time. The WRI projects funded work throughout the Mill Creek Watershed including significant fire mitigation work in the La Sals as well as post fire rehabilitation in Upper Pack Creek after the Pack Creek Fire.

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From 2009 through 2013 RRR and FFSL partnered in this work and focused on Mill Creek with a notable location on Pack Creek at the Cinema Court apartments completed in 2012/13. Work slowed between 2013 and 2017 to allow for cleared areas to recover and active revegetation to be implemented in areas that were revegetating with primarily fine fuels. Work during this period was driven in part by willing land owners with the intention of creating periodic fuel breaks along the creeks.

The 2018 Cinema Court Fire, with suppression aided by the fire break provided by the downstream end of the fire, prompted a more robust collaborative approach and RRR worked closely with MVFD to identify key locations for fire breaks along both creeks based on proximity to fire hydrants that could be used to help wet areas to halt fire spread in the creeks. During that time Pack Creek became the focus of removal work and Team Rubicon became an active project partner through their use of Moab as an ideal training area for disaster response sawyers.

The extreme flood in Mill Creek in August 2022 illustrated the benefit of hazardous fuels removal in ensuring more predictable flood conveyance and more project partners including the City of Moab and Grand County Office of Emergency Management became engaged. This increased engagement came in part through funding from the City to establish the Creek Stewardship Working Group (CSWG) in 2023 to improve project planning and communication related to the creek corridors through the valley. In late 2023 MVFD was prompted by FFSL to apply for a Community Wildfire Defense Grant and the CSWG led by RRR submitted a proposal that fall.

The CWDG project was funded in 2024 and work in 2025 has focused on building the tools needed to increase the hazardous fuels removal in the creek corridors and other key areas in the valley as well as expand to fine fuels reduction work and a robust outreach program coordinated by RRR but in collaboration with all project partners (MVFD, GCSOEM, City of Moab, Grand County and several non profits). Through this funding work started by RRR has been expanded to with MVFD building a fire fuels crew, and RRR has been able to shift to working with private landowners to assess fire hazards and develop mitigation plans with them. In addition, the Grand County Weed Department now has an Urban and Fire Fuels Weed Division and the City of Moab will be hiring a public works employee to focus on fire fuels – especially fine fuels – throughout the City. For a more detailed description of community wide mitigation efforts through the life of the CWDG project, see Appendix D.

In addition, The Nature Conservancy, under the management of Michael Hauge, has stepped up hazardous fuels removal work in the wetlands in preparation for regular bullrush burns to reduce the hazard posed by decadent bullrush stands in that area.

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	FFSL actions: Willow Basin – 32 acres treated (Cut/Pile/Burn) East Slope LaSals - 2167 acres treated (Cut/Burn/Mastication) Moab Valley FFSL – 1434 acres treated (Cut/Chip/Spray) Professor Valley – 40 acres treated (Cut/Pile/Burn)
Maintenance- The process of preserving actions that have occurred including fuel treatments and reduction.	Moving forward the CSWG, through CWDG funding has developed the FireBREAK campaign to provide consistent outreach messaging and materials. RRR and MVFD, in collaboration with Grand County Weed Department, are actively working to maintain the fire breaks developed over the past 17 years as well as expand them. The goal is for the creek corridors to be a maintainable shaded fire break where engaged landowners maintain the fire break through mowing fine fuels and maintaining areas free of ladder fuels. RRR works with each landowner to develop a hazardous fuels removal plan, and then works with MVFD and others to do the heavy lift often required to remove large olives, olive groves and tamarisk thickets. After the large scale removal is completed RRR works with the landowner, MVFD and Grand County Weed Department to provide the landowners with complete information about what to expect as the area regrows and how to manage that regrowth to ensure the fire break remains. This is particularly important for the first 3-5 years post removal to ensure resprouts and saplings do not just fill the area back in . In addition, information is provided to landowners about how to manage fine fuels and most importantly how to facilitate native plants in the area with proper spacing to reduce the need for mowing or herbicide as the area stabilizes. Initially, especially in large or complex areas with springs, GCWD, MVFD or RRR will assist landowners with some of this work while they learn how to perform this maintenance work themselves. RRR is currently developing a suite of information sheets to help landowners understand weed control and native plant regeneration techniques so that landowners have the tools they need to aid in this work moving forward. In 2026 RRR will start hosting Creek Walks in neighborhoods to bring this information to landowners on the ground and help build community efforts to better maintain a shaded fire break in the creek corridor that will also aid with flood flow conveyance.

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PART III: RISK REDUCTION GOALS/PROPOSED ACTIONS

Goals of Plan: *Provide a brief statement under the Prevention, Preparedness, Mitigation and Maintenance goals. These should align with the pillars of the National Cohesive Strategy and the Utah Catastrophic Wildfire Reduction Strategy (1. Resilient Landscapes 2. Fire Adapted Communities 3. Safe and Effective Wildfire Response).*

Identification of Actions: *Provide detailed project information. These projects/actions should be listed in order of priority, can be mapped/tracked in the Utah Wildfire Risk Assessment (UWRAP) portal <https://wildfirerisk.utah.gov/> and should be consistent with a Cooperative Agreement in compliance with the Wildfire Policy if applicable.*

PREVENTION <i>Activities directed at reducing unplanned, human caused, fire ignitions, including public education, law enforcement, personal contact.</i>			
Action(s):	Timeline:	Entity or Community Lead:	Completion Date:
Manage recreation (trails, campsites, etc) to prevent wildfire ignitions and reduce fuel loading	Ongoing	Grand County, Moab City, Moab Valley Fire Department	
Conduct public outreach and education regarding actions avoid human-caused fire ignitions	Ongoing	Grand County, Moab City, Moab Valley Fire Department	
Adopting the WUI code into the municipal code anticipation of HB 48	January 1, 2026	City of Moab	
Possible update of the Landscape ordinance (Title 17.10) to address defensible space or ignition zone overlaps	2027	City of Moab	

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Notes, updates, measured outcomes, and monitoring

PREPAREDNESS

Activities that lead to a state of response readiness to contain the effects of wildfire to minimize loss of life, injury, and damage to property. Including access to home/community, combustibility of homes/structures and creating survivable space.

Action(s):	Timeline:	Entity or Community Lead:	Completion Date:
Conduct outreach to encourage individual lot cleanup and creation of defensible space	Ongoing	Grand County, Moab City, Moab Valley Fire Department, Rim to Rim Restoration	
Designate landfill voucher and/or chipping days to assist residents in removal of fuels from their properties	Ongoing	Grand County	
Work with community leaders to evaluate community wildfire preparedness and identify deficiencies (e.g. manpower, equipment, infrastructure, etc). Work with stakeholders to revive the CERT program.	Ongoing	Grand County, Moab City, Moab Valley Fire Department	
Identify existing fuel breaks and propose other strategic fuel break locations	Ongoing	Grand County, Moab City, Moab Valley Fire Department, Rim to Rim Restoration	
Develop an evacuation plan, including zones, routes, and identification of and planning for groups needing additional assistance for emergency evacuation	2027	Grand County, Moab City, Emergency Response Entities	

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<i>Notes, updates, measured outcomes, and monitoring</i>			

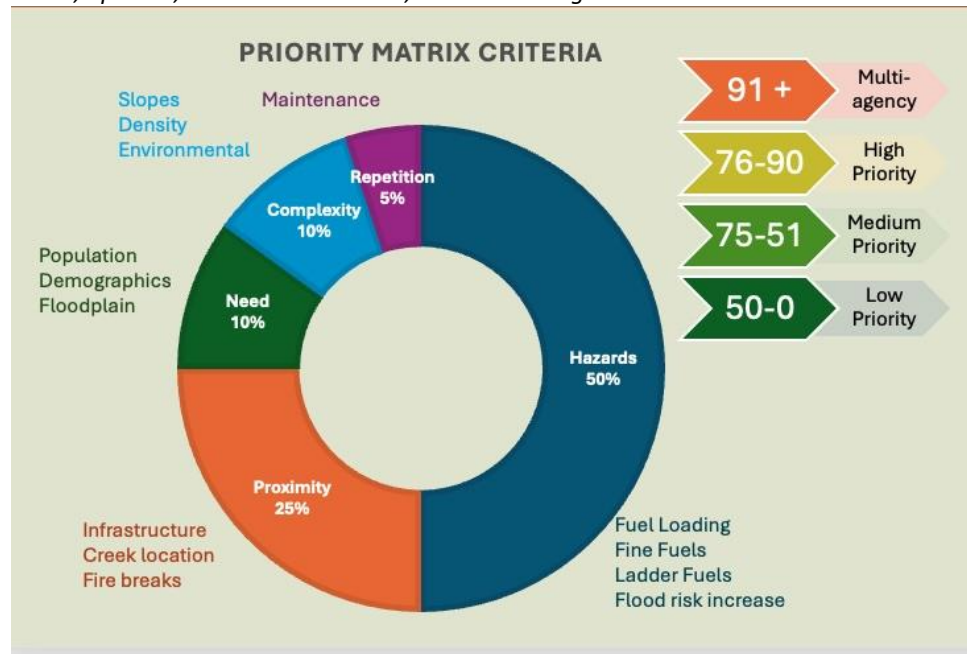
MITIGATION			
<i>Actions that are implemented to reduce or eliminate risks to persons, property or natural resources including fuel treatments and reduction.</i>			
Action(s):	Timeline:	Entity or Community Lead:	Completion Date:
Evaluate fuel loading around communities and identify priority areas for fuel reduction treatments using the matrix and weighted algorithm shown the notes section. Conduct fuel reduction treatments in identified priority areas. Thirty-seven properties have been identified through community engagement from October 2024 through December 2025, with an anticipated yearly increase of 30 properties per year through 2029. The goal of this effort is to mitigate 1000 acres of land over a 5 year period. Details of this action can be found in Appendix D.	Ongoing through 2029	Grand County, Moab City, Moab Valley Fire Department, Rim to Rim Restoration	
Prevent noxious/invasive weed proliferation through management, control, and reduction.	Ongoing	Grand County	

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Support agencies in post-fire rehabilitation/watershed restoration projects to reduce adverse impacts after fires.	Ongoing	Grand County, Moab City, Moab Valley Fire Department, Rim to Rim Restoration	
Develop an implementation plan for HB 48, Wildland Urban Interface Modifications. Implement the plan.	2026	Grand County, City of Moab	
The Nature Conservancy is actively addressing their hazardous fuels in the Matheson Wetlands. They plan to expand those efforts over the next few years. It is anticipated that at least 300 acres of ladder fuels will be removed by the end of the project term, and at least one bulrush burn (conditions permitting) will be done to reduce overall hazard in this crucial area.	Ongoing	TNC, Moab Valley Fire	
Provide education to City/County leadership and the general public on treatment strategies for hazardous fuels.	Ongoing	Grand County, Moab Valley Fire Department, Rim to Rim Restoration	

Notes, updates, measured outcomes, and monitoring



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MAINTENANCE <i>The process of preserving actions that have occurred including fuel treatments and reduction.</i>			
Action(s):	Timeline:	Entity or Community Lead:	Completion Date:
Continue to implement roadside mowing/reseeding projects	Ongoing	Grand County, Moab City	
Continue to work with agencies to evaluate priority areas for fuel reduction treatments	Ongoing	Grand County, Moab City, Moab Valley Fire Department, Rim to Rim Restoration	
Maintain existing fuel breaks	Ongoing	Grand County, Moab City, Moab Valley Fire Department, Rim to Rim Restoration	
Continue fine fuels reduction	Ongoing	Grand County, Moab City, Moab Valley Fire Department, Rim to Rim Restoration	
Conduct an annual review of progress on CWPP goals in alignment with City budgeting cycle	Ongoing/annually	Moab City	
Conduct an annual review of progress on CWPP goals in alignment with County budgeting cycle	Ongoing/annually	Grand County	
<i>Notes, updates, measured outcomes, and monitoring</i>			

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PART IV: CONTACTS

Community Planning Committee - Member List			
The contacts in this part identify community resources that can be used to complete the goals of the plan.			
Name	Affiliation	Phone Number	E-mail
Clark Maughan	Moab Valley Fire Department	435-260-2830	cmaughan@moabfiredepartment.org
Bruce Jenkins	Grand County Fire Warden	435-220-0179	Bjenkins@utah.gov
Michael Black and Alexi Lamm	City of Moab	435-259-5121	Mblack@moabcity.gov Alamm@moabcity.gov
Kate Finley	Grand County Emergency Manager	435-260-8711	Kfinley@grandcountyutah.gov
Kara Dohrenwend and Bryce Rogers	Rim to Rim Restoration	435-259-6670	Kara@revegetation.org Bryce@revegetation.org
Izzi Weimholt and Maria Rago	Grand County Weeds Department	435-259-1369	Eweimholt@grandcountyutah.gov Mrago@grandcountyutah.gov
Michael Hauge	The Nature Conservancy	404-213-8009	Mhaug@tnc.org
Cody McKinney	Grand County Road Department	435-259-5308	Cmkinney@grandcountyutah.gov
Lisa Cenicerros	Grand County Building Department	435-259-4134	Lcenicerros@grandcountyutah.gov

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Key Stakeholder Contacts				
Individuals who live/work in the community, tribe(s), entities that manage infrastructure, schools and other public facilities, those who provide emergency response (fire/police, etc.), land managers (federal, such as U.S. Forest Service (USFS) and U.S. Department of the Interior (DOI), and state and local representatives, etc.), 4-H groups, faith-based groups, resource conservation districts, media and anyone who is interested/or would be affected by a wildfire emergency.				
Organization	Title	Contact Person	Phone Number	E-mail
Grand County Sheriff's Office	Grand County Sheriff	Jamison Wiggins	435-259-4321	jwiggins@grandcountyutah.gov
Moab Valley Fire Department	Fire Chief	TJ Brewer	435-259-5557	tbrewer@moabfiredepartment.org
Moab City Police	Chief	Lex Bell	435-259-8938	abell@moabcity.gov
Grand County Emergency Management	Emergency Management Director	Kate Finley	435-260-8711	kfinley@grandcountyutah.gov
Grand County Road Department	Supervisor	Cody McKinney	435-259-5308	cmckinney@grandcountyutah.gov
City of Moab Public Works	Director	Levi Jones	435-259-7485	ljones@moabcity.gov
Grand County EMS	Director	Andy Smith	435-259-1301	asmith@grandcountyems.net
Old Spanish Trail Arena	Director	Angie Book	435-259-6226	abook@grandcountyutah.gov
Grand County School District	Superintendent	Matthew Keyes	435-259-5317	keyesm@grandschools.org
Moab Charter School	Assistant Administrator	Yuli George	435-259-2277	yuli@moabcharterschool.org
US Forest Service	Moab and Monticello District Ranger, Manti-La Sal National Forest	Michael Englehart	435-636-3561	Michael.Englehart@usda.gov
Bureau of Land Management	Canyon Country District Manager	Nicollee Gaddis-Wyatt	435-259-2100	Blm_ut_mb_mail@blm.gov
Utah Forestry, Fire and State Lands	Southeast Area Manager	Matt McEttrick	435-210-4578	Mmcettrick@utah.gov
Utah Department of Transportation	Southeast Area Supervisor	Chet Johnson	435-459-4422	Cjohnson@utah.gov
Utah Highway Patrol	Section 13 Commander	Charlie Taylor	435-259-5441	Chtaylor@utah.gov
Moab Regional Hospital	Main switchboard		435-719-3500	

Utilities

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Those who manage utilities: power, gas and phone services (cell towers).				
Organization	Title	Contact Person	Phone Number	E-mail
Rocky Mountain Power	Local representative	Dan Vink		Dan.vink@rockymountainpower.net
Enbridge Gas	Local representative	Callie Whitney	435-719-2491	Whitney@enbridge.com
GWSSA	Agency Manager	Ben Musselman	435-259-8121	Ben@grandwater.org
Public Works- Sewer	Public Utilities Director	Obe Tejada	435-260-7009	Otejada@moabcity.gov
Emery Telcom	Local Representative		435-259-8521	Ggreen@emerytelcom.com

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APPENDIX

Appendix A: Community Wildfire Evacuation Plan

Narrative: This plan will be used by the community as a framework for a safe, coordinated effort to evacuate members in the event of a wildfire. The strategies can include but are not limited to 1) A coordination structure to determine who will be in charge, and who the key contacts are, 2) An emergency communications strategy to inform officials and the community, 3) Traffic control measures, (be sure to think about utilizing all modes of transportation including existing transit, walking, biking, e-scooters), and 4) A plan to ensure disadvantaged and vulnerable populations have the resources to evacuate.

Evacuation areas and routes will be identified by the incident command structure working on the fire and carried out with the assistance of local law enforcement. Grand County Emergency Management will assist with public education and outreach around the Ready, Set, Go! program. Emergency management will also communicate evacuation and re-entry status to the public through a variety of means, including IPAWS, AlertSense, and social media.

Requests for evacuation assistance, such as means of transportation or specific vehicles/equipment for individuals with access or functional needs, will be coordinated through the Grand County EOC. If resource requests cannot be filled locally, the Grand County EOC will reach out to mutual aid partners or the state for additional support.

Appendix B: (*Optional) Community Smoke Mitigation Plan

Narrative: This plan will be used by the community to address what strategies can be followed to keep the community safe in the event the air quality downgrades to unhealthy levels due to smoke caused by wildfires. The strategies can include but are not limited to 1) Understanding the vulnerable demographics within the community, 2) Strategy on how to inform community members of wildland fire smoke risks. 3) Strategy on how communities/community members can prepare for low air quality days e.g.: Designing a clean room in the house where air is filtered, having an air filtration plan for the whole building/house, creating a clean air space in the community, addressing air filtration in schools, or attaining a cache of air filters to loan out to vulnerable populations etc. Smoke Ready Resources can be found here, [Community Fire Planning](#).

Click or tap here to enter text.

Appendix C: Restricting Covenants and Ordinances

Narrative:

The 2006 Utah Wildland-Urban Interface Code, which has been adopted in Grand County, can be found on the County website at this [link](#).

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In 2024, City of Moab adopted a new Landscape Ordinance ([link](#)) that requires waterwise and encourages the planting of trees adjacent to the Right of Way.

Appendix D: Community Wildfire Risk Assessment and Mitigation

In October of 2024 a group of partnering agencies in the Moab Valley was granted \$5.2 million over 5 years to assess and mitigate 1000 acres of land in and near the Mill and Pack Creek corridors. Rim to Rim Restoration and Moab Valley Fire Department are leading this collaborative effort involving the City, County and GCSOEM. In the past year, over 37 properties have been assessed with fire fuel reduction work facilitated at 17 of the identified properties. The risk was assessed via a weighted algorithm described by the graphic below. Now that the assessment process is in place, using the prioritization matrix illustrated in the section above, project work will expand in the next three years. This work has set a precedent to not only involve individual property owners in identifying hazardous fuels on their property, but with a robust education and outreach program designed to increase homeowner awareness of fire fuels it places the responsibility of maintenance on property owners to maintain defensible space on their properties. This process will continue through the life of the CWDG funding, set to expire in 2029. The final phase of the CWDG project will include an assessment of the work completed as well as what form future fire mitigation efforts will take in the Valley.

Areas needing Fire mitigation work needs in the city and county over the next five years are being identified through a LiDAR based overall analysis of the valley coupled with locating significant infrastructure and proximity to dense development. In addition, residents can submit locations of concern via our assessment portal, which aids in identifying critical areas of dense fuels with landowners willing to get involved in mitigation work. Once sites of concern, or sites submitted to us are identified, a site assessment including a site visit by MVFD, RRR and sometimes GCDW is done. RRR then develops a mitigation plan including follow treatment and revegetation needs and MVFD and RR determine if a resource funded through the FireBREAK program is eligible for removal work based on how the location ranks via the priority matrix. In all cases, landowners will receive mitigation planning documents and information to aid in implementing this work. If MVFD, RRR and GCWD perform the initial removal work, follow up maintenance information is also provided to the landowners. Below is a table of in progress and completed work in Grand County as of December 2025.

Project Number	Approximate Acreage	Matrix Score	Status
PROJ-001	3.23	96.5	Completed
PROJ-002	1.19	88	High Priority
PROJ-003	4.23	84	High Priority - Schedule for Spring 2026
PROJ-004	5.86	75	Completed
PROJ-005	3	59	Completed
PROJ-006	6.45	63	High Priority
PROJ-007	1.72	65	Medium Priority

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PROJ-008	0.56		Request for Site Visit
PROJ-009	1	71.5	Completed
PROJ-010	140	54	Low Priority - scheduled for fall 2025
PROJ-011	14.6	50	Low Priority
PROJ-012	109	59	Medium Priority
PROJ-013	3.1		Request for Site Visit
PROJ-014	4.49	39	Low Priority - scheduled for Spring 2026
PROJ-015	3.6	71	In process
PROJ-016	2.5	85	Completed
PROJ-017	1.56	28.5	Completed
PROJ-018	0.36		Request for Site Visit
PROJ-019	1	50	Low Priority
PROJ-020	1.12		Request for Site Visit
PROJ-021	0.5	42.5	Low Priority
PROJ-022	0.62	50	Completed
PROJ-023	12.28	72.5	Medium Priority
PROJ-024	8.46	87.5	High Priority
PROJ-025	33.95	76.5	High Priority - In Process
PROJ-026	1	30	Completed
PROJ-027	0.92	55	Low Priority - In process

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Appendix E: UWRAP Report

See below:

Utah Area of Interest Summary Report

Grand County



Report was generated using <https://wildfirerisk.utah.gov>
Report generated: 8/28/2025

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To navigate to a specific section of the report, press the Ctrl key and click on the section title.

Citation:

Utah Division of Forestry, Fire, and State Land. 2025. Utah Area of Interest Summary Report [Computer Application]. Retrieved from <https://wildfirerisk.utah.gov>.

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Introduction

Utah Area of Interest Summary Report

The Area of Interest tool allows users of the Advanced Viewer application to define a specific location to further explore its wildfire risks. This information can then be exported, providing a detailed summary using attributes selected by the Utah Division of Forestry, Fire, and State Land. The data layers for many of these map products were created with publicly available data and information submitted by volunteer fire departments. These map products have been summarized explicitly for the active Area of Interest. To access all data layers as a GIS file, users must “export data as a .zip file” after creating an area of interest.



This report was designed so that information can be copied and pasted into other plans, reports, or documents depending on user needs.

Examples include, but are not limited to, Community Wildfire Protection Plans, Local Fire Plans, Fuels Mitigation Plans, Hazard Mitigation Plans, Homeowner Risk Assessments, and Forest Management or Stewardship Plans.

The Utah Wildfire Risk Assessment provides a consistent, comparable set of scientific results to be used as a foundation for wildfire mitigation and prevention planning in Utah.

Results of an assessment can be used to help prioritize areas in the state where mitigation treatments, community interaction, and education or tactical analyses might be necessary to reduce risk from wildfires.

The Utah Wildfire Risk Explorer’s map products and descriptions included in this summary report are designed to provide the information needed in support of the following key priorities:

- Identify areas that are most prone to wildfire.
- Plan and prioritize fuel treatment within programs.
- Allow agencies to work together to better define priorities and improve emergency response,

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particularly across jurisdictional boundaries.

- Increase communication with local residents and the public to address community priorities and needs.
- Identify areas where additional tactical planning may be desirable, specifically related to mitigation projects and Community Wildfire Protection Planning.
- Provide the information necessary to support resource, budget, and funding requests.
- Plan for response and wildfire suppression resource needs.

Map Products and Descriptions

Each map product in this Summary Report is accompanied by a general description, table, chart, or map. Please see the table below for a list of data layers available in the Summary Report.

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Utah WRAP Layer	Description
Fire History Statistics	Fire history statistics provide insight as to the number of fires, acres burned, and cause of fires, and are useful for fire prevention and mitigation planning.
Wildfire Hazard Potential	The wildfire hazard potential (WHP) dataset represents an index that quantifies the relative potential for wildfire that may be difficult to control.
Risk to Drinking Watersheds and Population	The Risk to Drinking Watersheds and Population layer was created by multiplying wildfire threat (in the form of the Structure Exposure Score) by potential impacts (in a metric incorporating three factors: the Suppression Difficulty Index, estimated surface drinking water importance, and population density).
Burn Probability	This dataset is a 30-m cell size raster representing annual burn probability (BP) across the analysis area.
Damage Potential	Damage Potential (DP) represents the potential consequences of fire to a home at a given location if a fire were to occur and if a home were located there.
Structure Exposure Score	Structure Exposure Score (SES) combines wildfire likelihood (burn probability) and consequence (represented by Damage Potential) assuming a home is present on every pixel.
Conditional Risk to Potential Structures	The conditional risk to potential structures (cRPS) dataset represents the potential consequences of fire to a home at a given location, if a fire occurs there and if a home were located there.
Risk to Potential Structures	The expected risk to potential structures (RPS) dataset represents a measure that integrates wildfire likelihood and intensity with generalized consequences to a home on every pixel.
Probability of Exceeding Manual Control	This dataset represents the probability of heading flame lengths exceeding 4 feet, which is generally considered the threshold for exceeding the possibility of manual control during fire operations.
Probability of Exceeding Mechanical Control	This dataset represents the probability of heading flame lengths exceeding 8 feet, which is generally considered the threshold for exceeding the possibility of mechanical control during fire operations.
Probability of Extreme Fire Behavior	This dataset represents the probability of heading flame lengths exceeding 11 feet, which is generally considered the threshold for extreme fire behavior during fire operations.
Suppression Difficulty Index	Wildfire Suppression Difficulty Index is a quantitative rating of relative difficulty in performing fire control work.
Flame Length	This dataset represents the weighted-average flame length (FL) in feet for a given pixel in the fuelscape (including any contribution of crown fuel).
Rate of Spread (chains/hr)	This dataset represents the weighted-average rate of spread (ROS) in chains per hour for a given pixel in the fuelscape (including any contribution of crown fire spread rate).

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Heat per Unit Area	This dataset represents the weighted-average heat per unit area (HPA) in kilojoules per square meter for a given pixel in the fuelscape (including any contribution of crown fuel).
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Utah WRAP Layer	Description
Conditional Ember Production	This dataset indicates where embers are originating when fires occur (so they could be targeted for treatment).
Conditional Sources of Ember Load to Buildings	This dataset indicates where embers might land near buildings.
Housing-Unit Density (HUDEN)	This layer displays housing-unit density.

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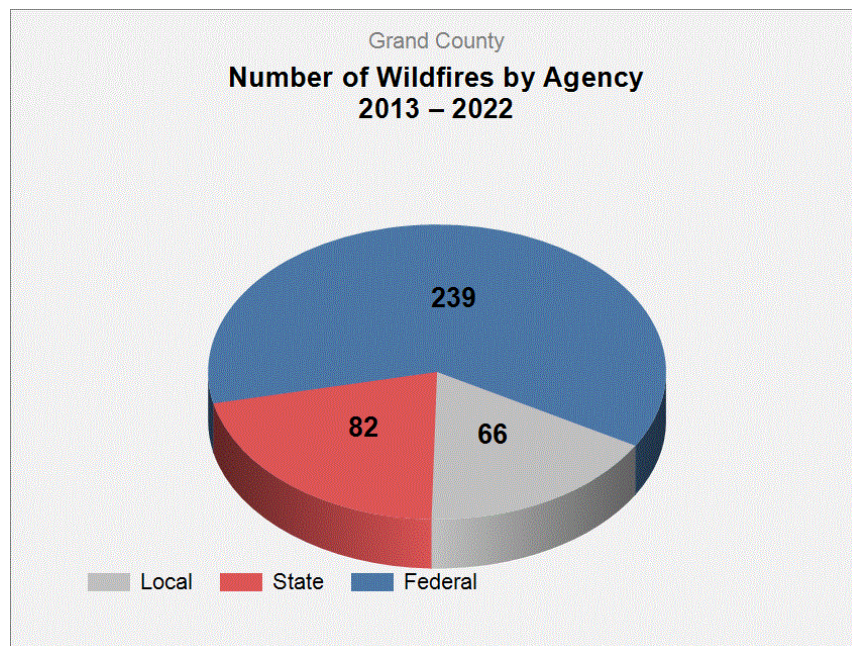
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Fire History Statistics

Description

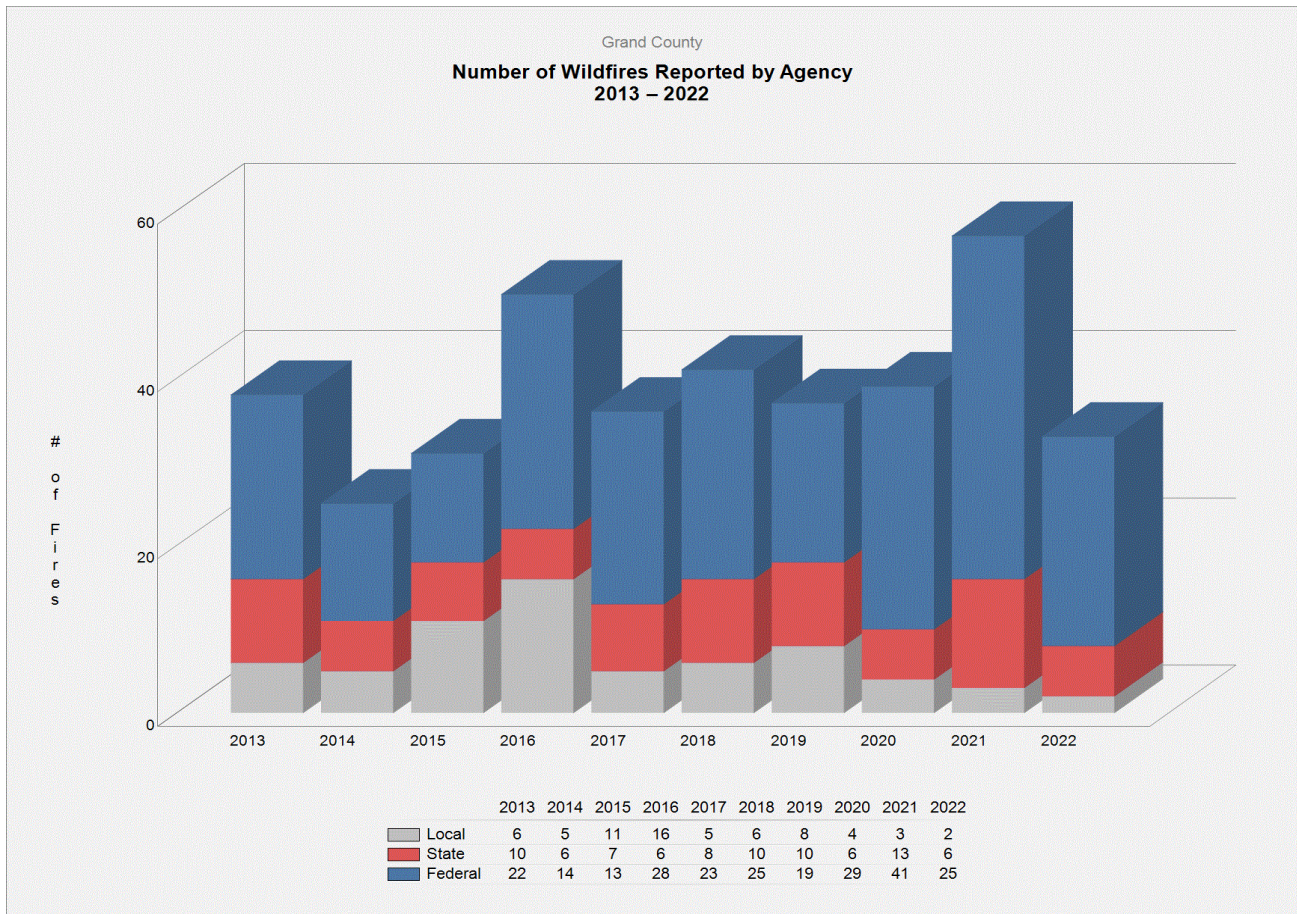
Fire history statistics provide insight into data related to reported wildfires in Utah. These statistics are useful for fire prevention and mitigation planning. They can be used to quantify the level of fire business, determine the time of year most fires typically occur and develop a fire prevention program aimed at reducing the fire occurrence rate based on specific fire cause information.

Ten years of historic fire report data where fires had a specific defined location were used to create the fire occurrence summary charts. Wildfire Ignition data was compiled from federal and state sources for the years 2013 through 2022.



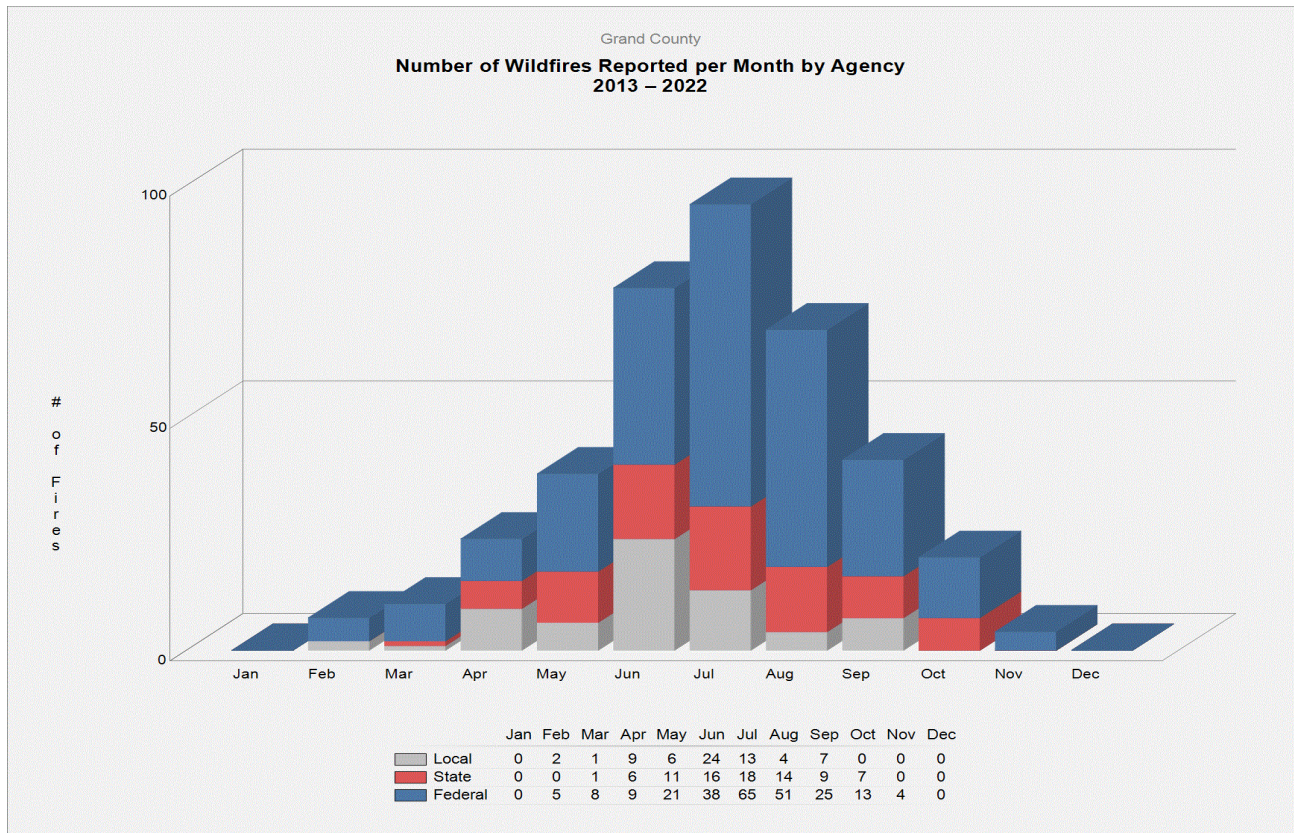
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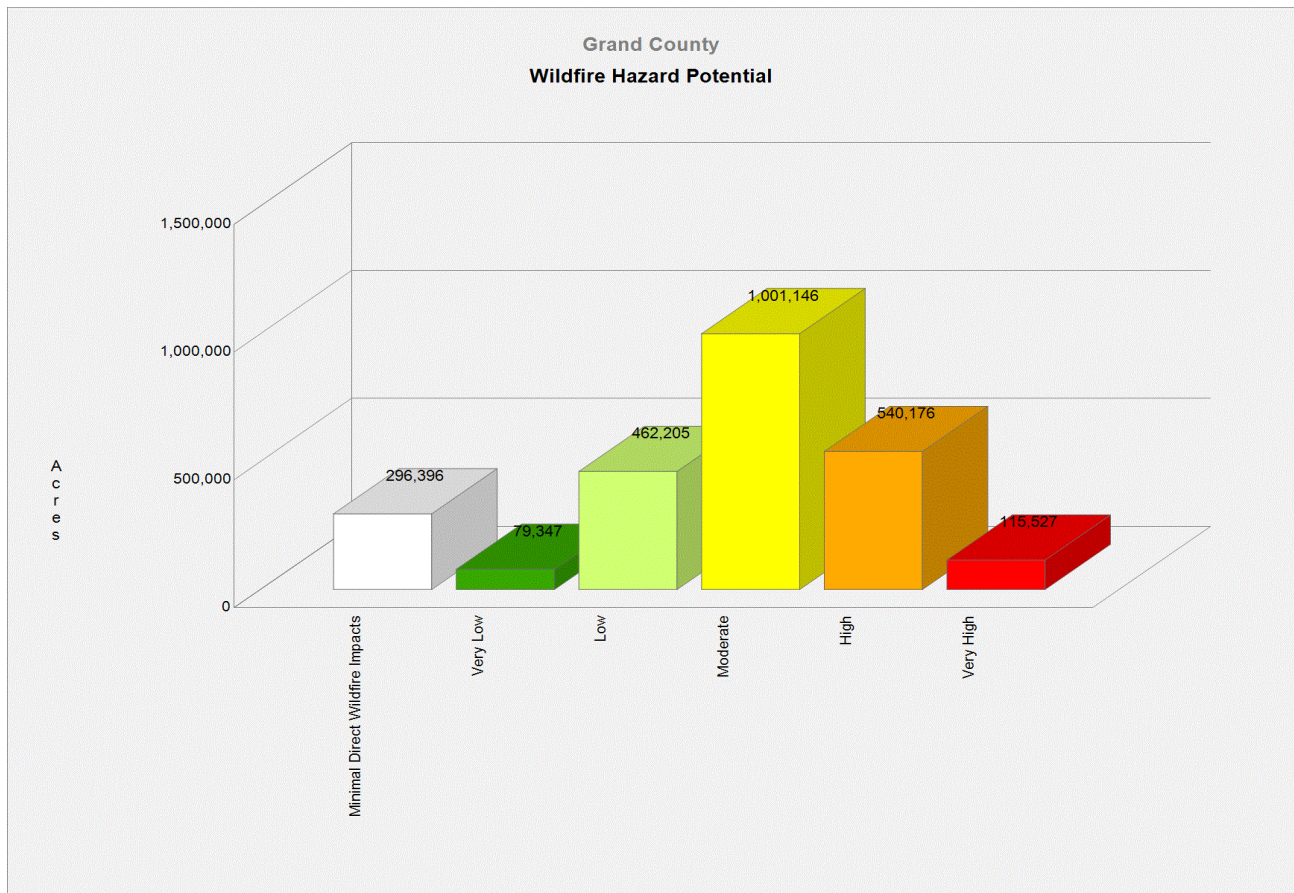
Wildfire Hazard Potential

The wildfire hazard potential (WHP) dataset represents an index that quantifies the relative potential for wildfire that may be difficult to control. WHP can be used as a measure to help prioritize where fuel treatments may be needed.

	Wildfire Hazard Potential Category	Acres	Percent
	Minimal Direct Wildfire Impacts	296,396	12 %
	Very Low	79,347	3 %
	Low	462,206	19 %
	Moderate	1,001,146	40 %
	High	540,176	22 %
	Very High	115,527	5 %
	Total	2,494,797	100 %

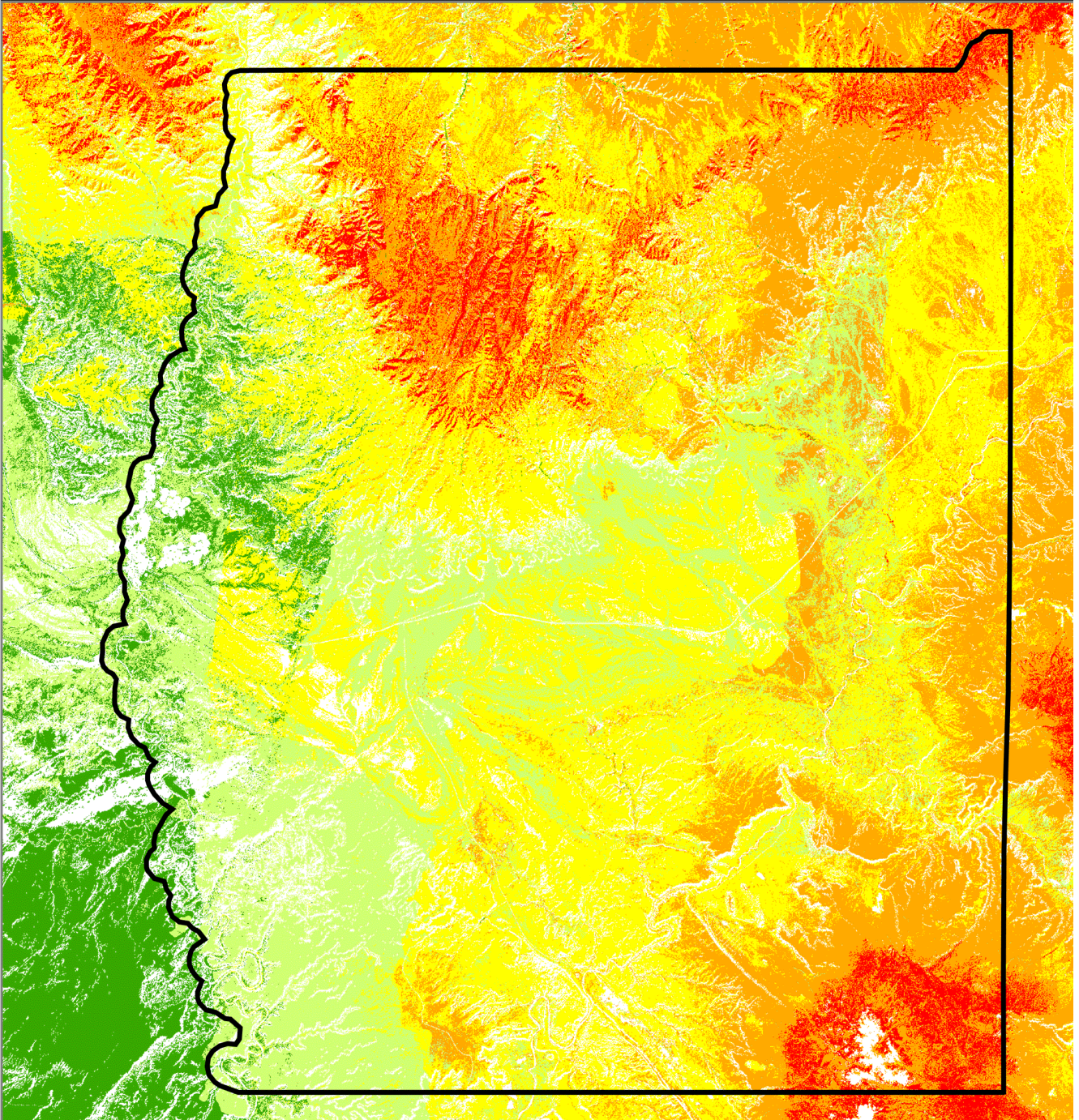
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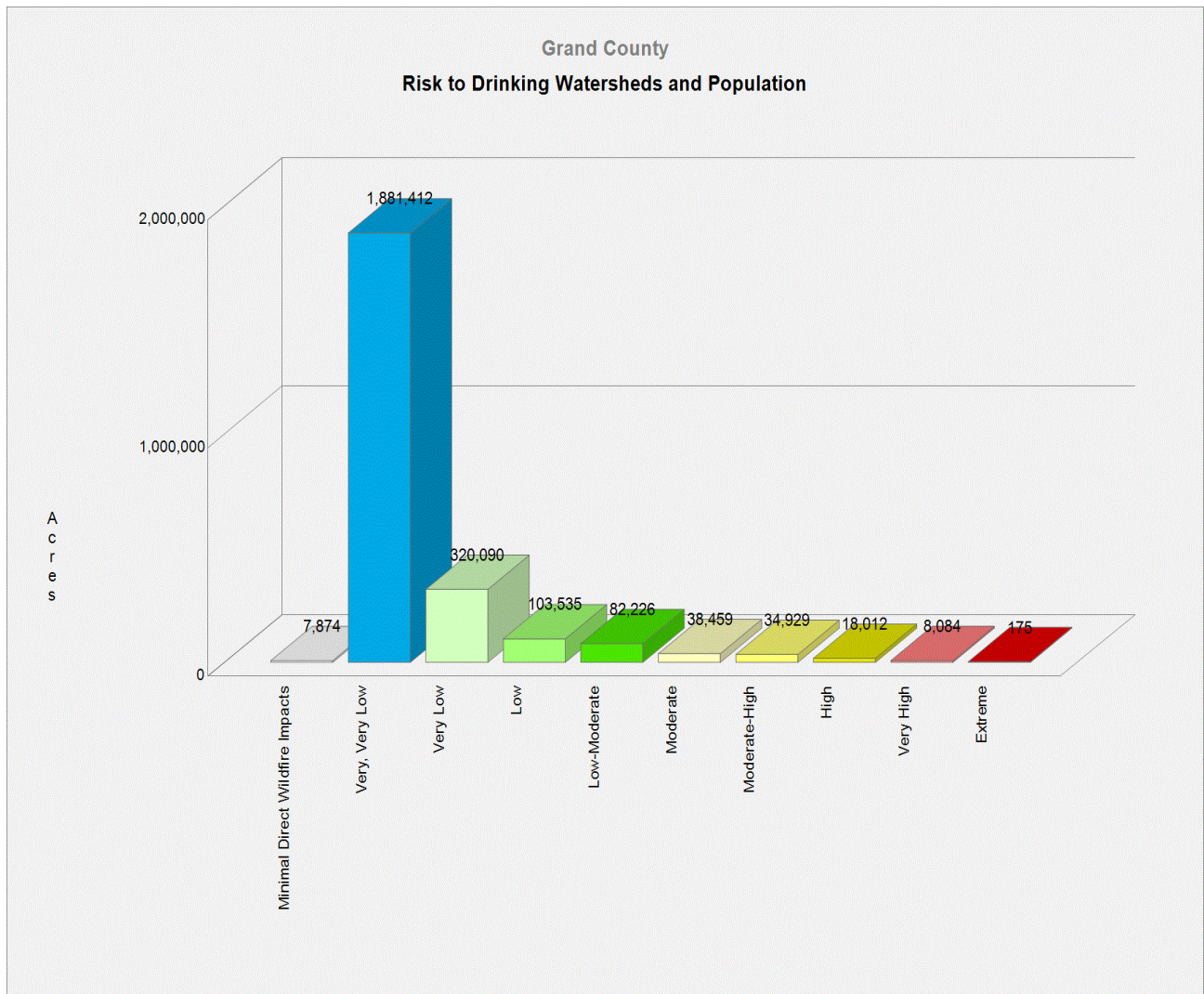
Risk to Drinking Watersheds and Population

The Risk to Drinking Watersheds and Population layer was created by multiplying wildfire threat (in the form of the Structure Exposure Score) by potential impacts (in a metric incorporating three factors: the Suppression Difficulty Index, estimated surface drinking water importance, and population density).

	Risk to Drinking Watersheds and Population Category	Acres	Percent
	Minimal Direct Wildfire Impacts	7,874	0 %
	Very, Very Low	1,881,412	75 %
	Very Low	320,090	13 %
	Low	103,535	4 %
	Low-Moderate	82,227	3 %
	Moderate	38,459	2 %
	Moderate-High	34,929	1 %
	High	18,012	1 %
	Very High	8,084	0 %
	Extreme	175	0 %
	Total	2,494,797	100 %

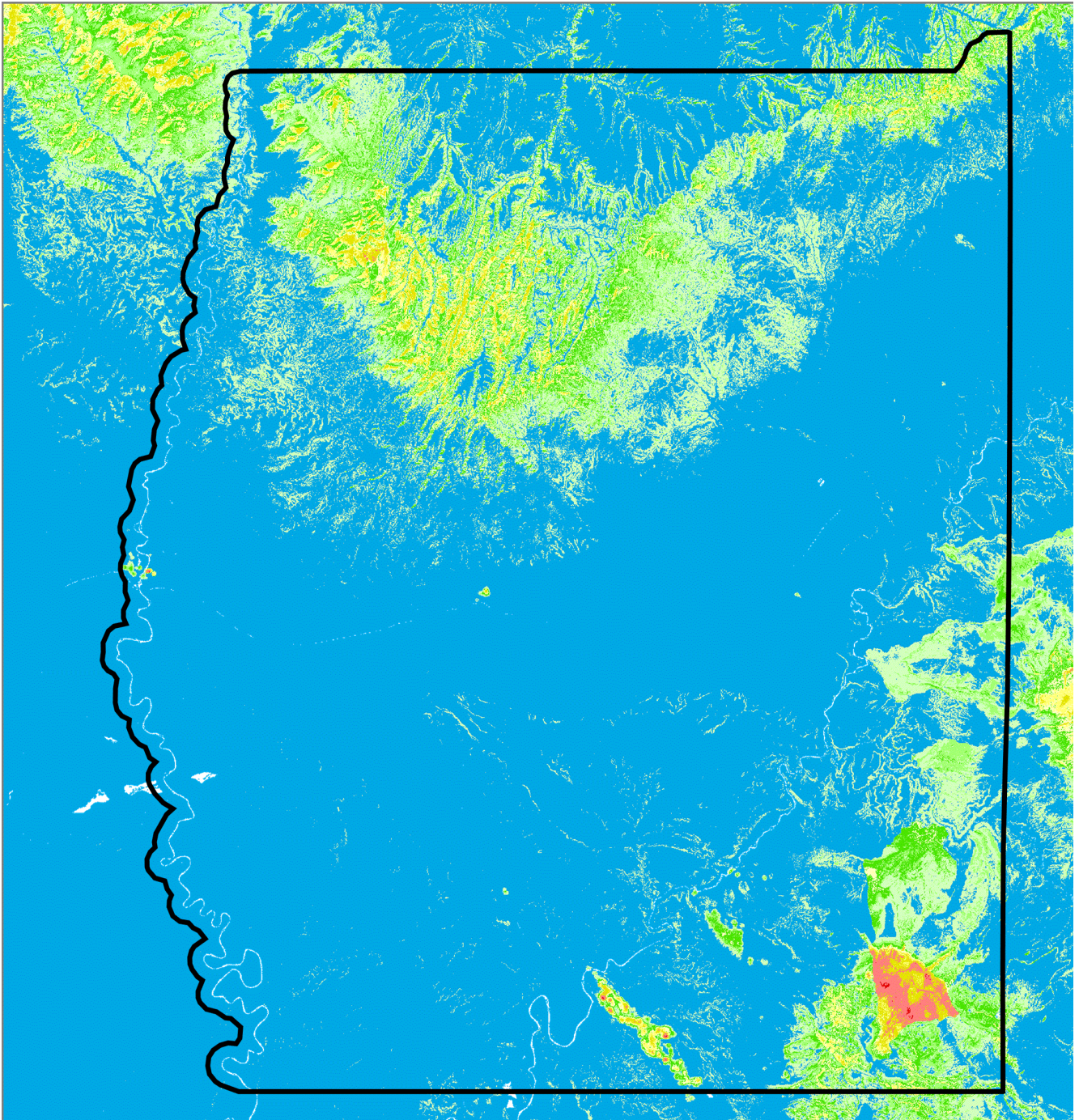
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Burn Probability

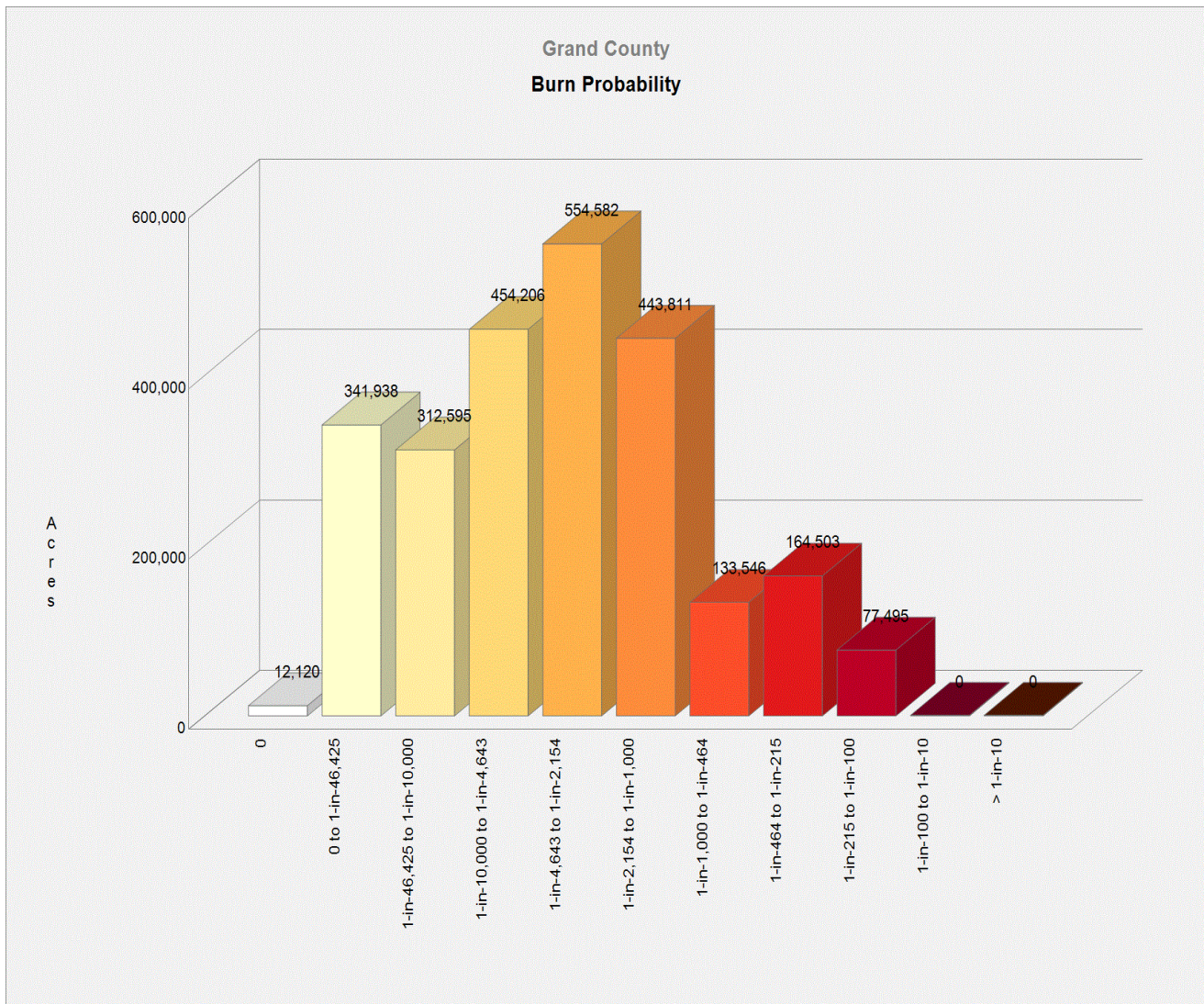
Burn probability is the annual probability of wildfire burning in a specific location. At the community level, burn probability or wildfire likelihood is averaged where housing units occur. Burn Probability is based on fire behavior modeling across thousands of simulations of possible fire seasons. In each simulation, factors contributing to the probability of a fire occurring, including weather, topography, and ignitions are varied based on patterns derived from observations in recent decades.

Burn Probability is not predictive and does not reflect any currently forecasted weather or fire danger conditions. Burn Probability is simply a probability that any specific location (pixel) may experience wildfire in any given year. It does not say anything about the intensity of fire if it occurs.

	Burn Probability Category	Acres	Percent
	Minimal Direct Wildfire Impacts	12,120	0 %
	0 to 1-in-46,425	341,938	14 %
	1-in-46,425 to 1-in-10,000	312,595	13 %
	1-in-10,000 to 1-in-4,643	454,206	18 %
	1-in-4,643 to 1-in-2,154	554,582	22 %
	1-in-2,154 to 1-in-1,000	443,811	18 %
	1-in-1,000 to 1-in-464	133,546	5 %
	1-in-464 to 1-in-215	164,503	7 %
	1-in-215 to 1-in-100	77,495	3 %
	1-in-100 to 1-in-10	0	0 %
	> 1-in-10	0	0 %
	Total	2,494,797	100 %

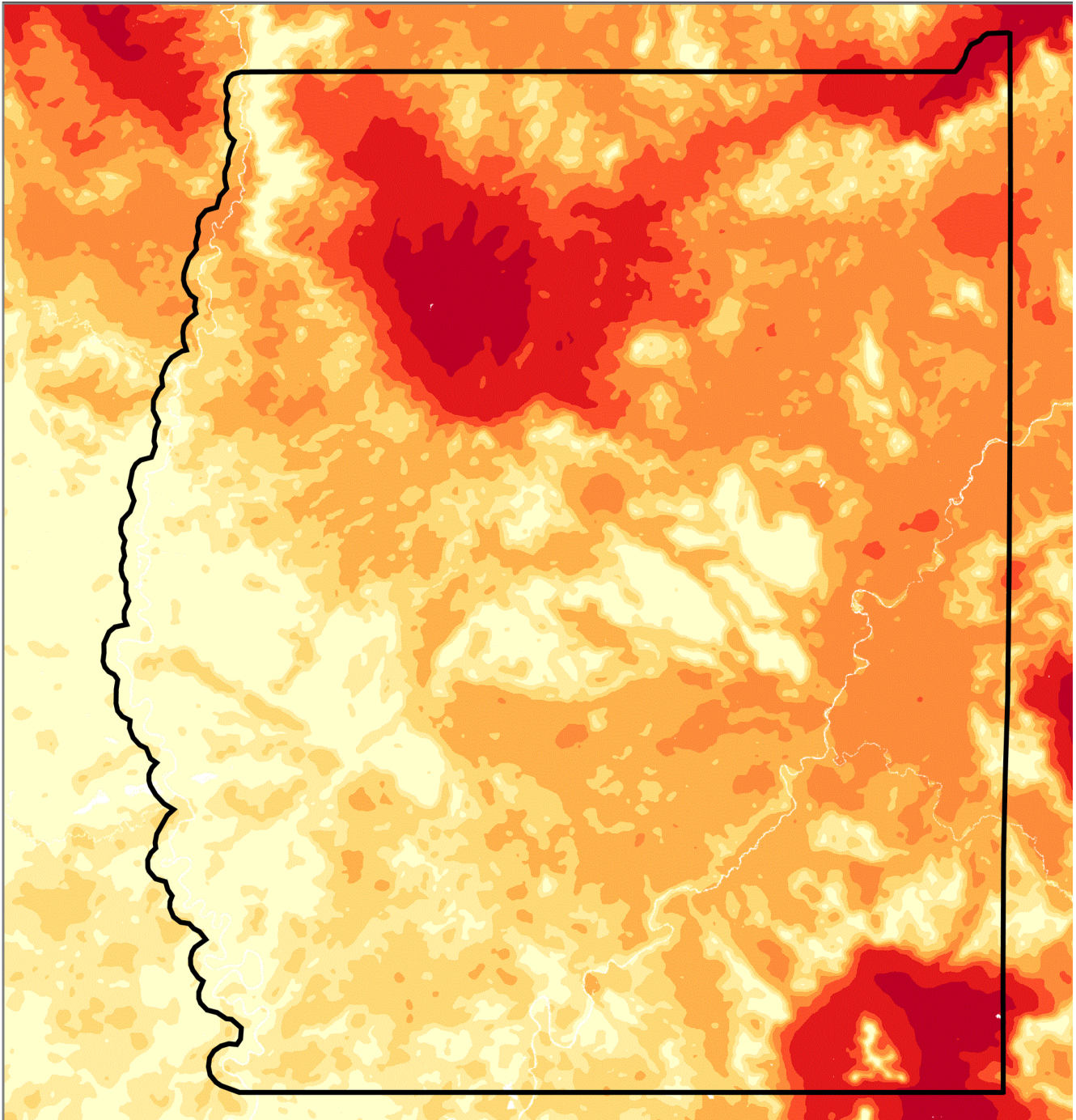
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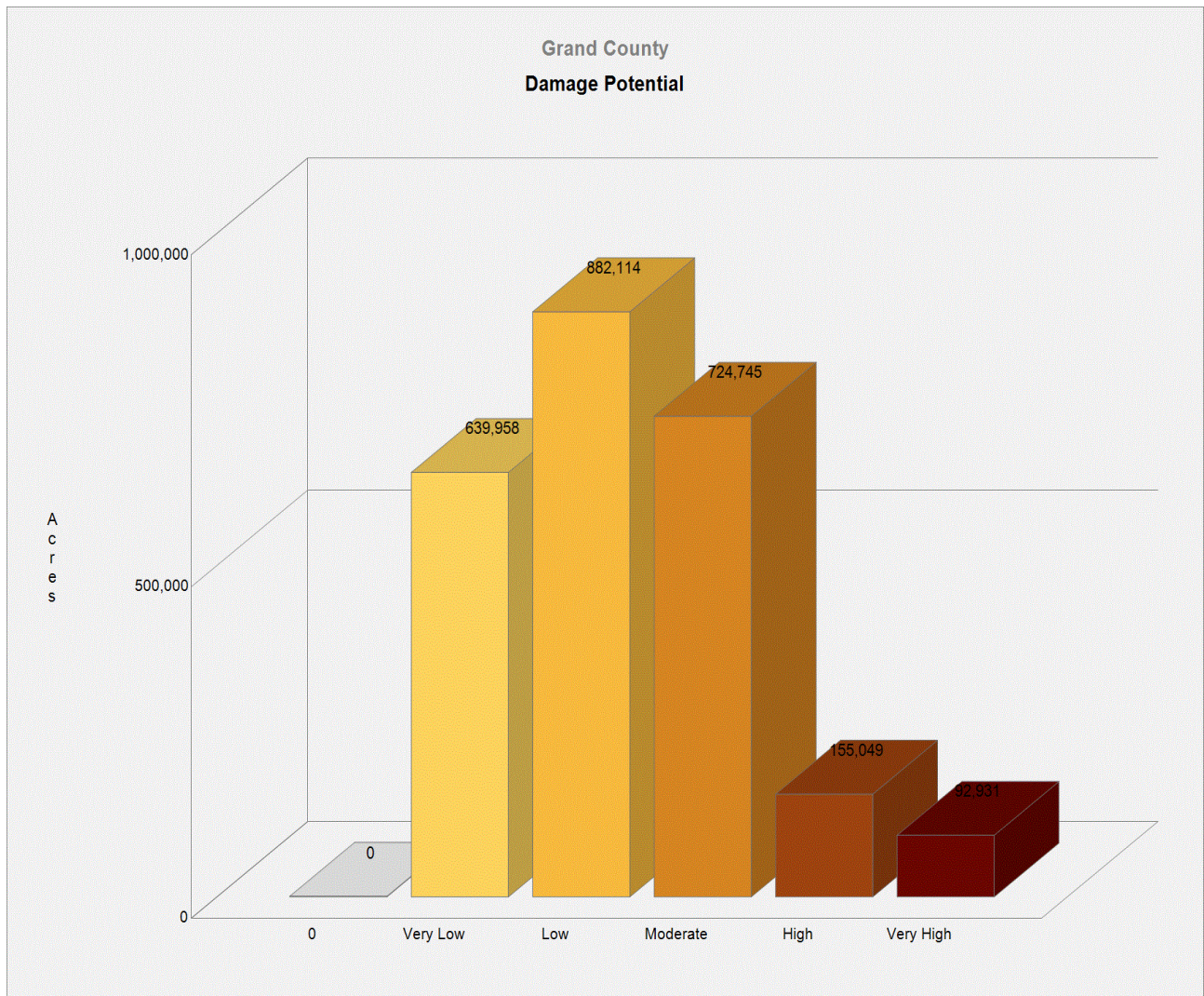
Damage Potential

Damage Potential (DP) represents the potential consequences of fire to a home at a given location if a fire were to occur and if a home were located there. DP incorporates ember load and conditional risk to potential structures as a generalized measure of potential loss to homes.

	Damage Potential Category	Acres	Percent
	Minimal Direct Wildfire Impacts	0	0 %
	Very Low	639,959	26 %
	Low	882,114	35 %
	Moderate	724,745	29 %
	High	155,049	6 %
	Very High	92,931	4 %
	Total	2,494,797	100 %

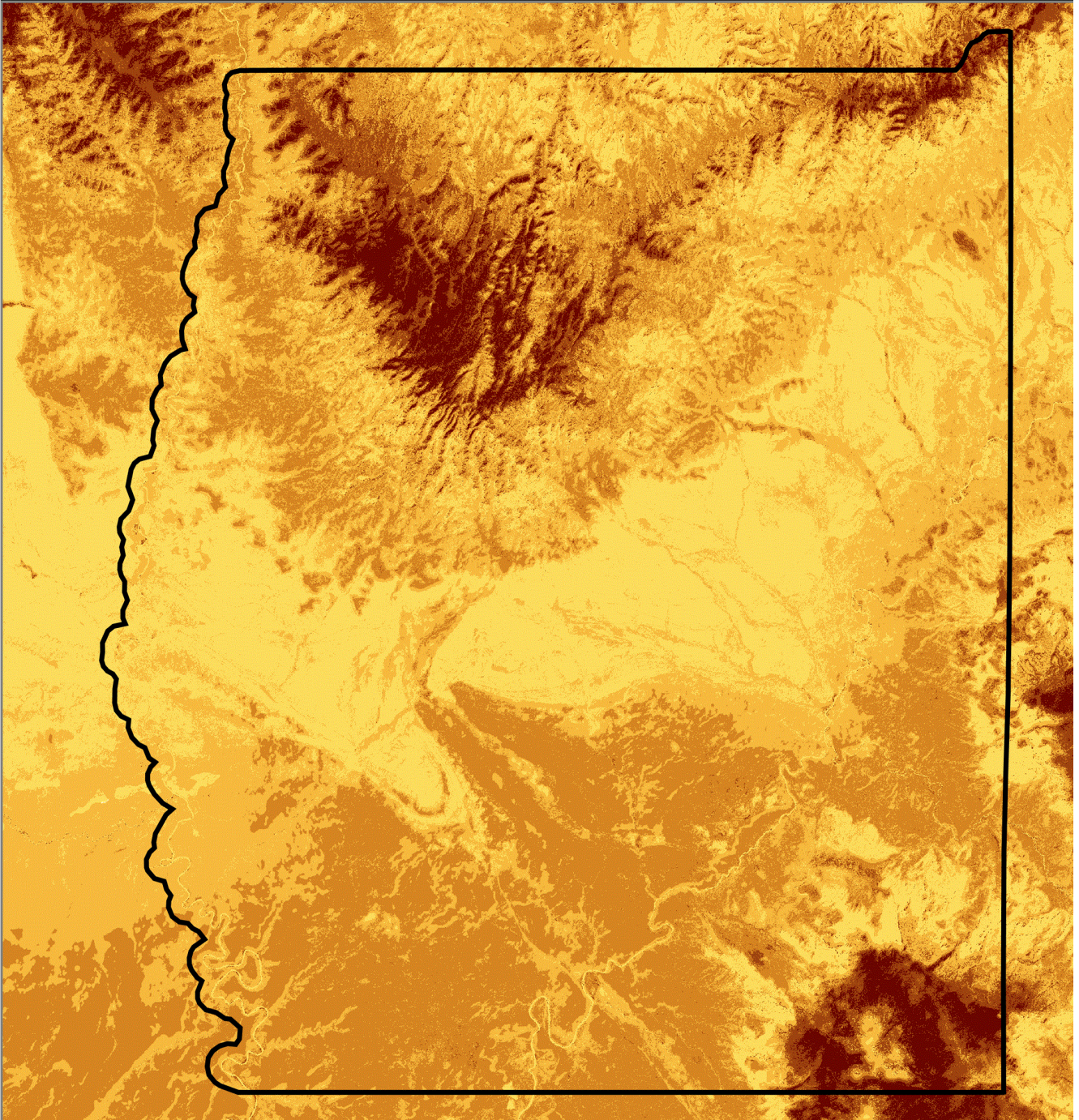
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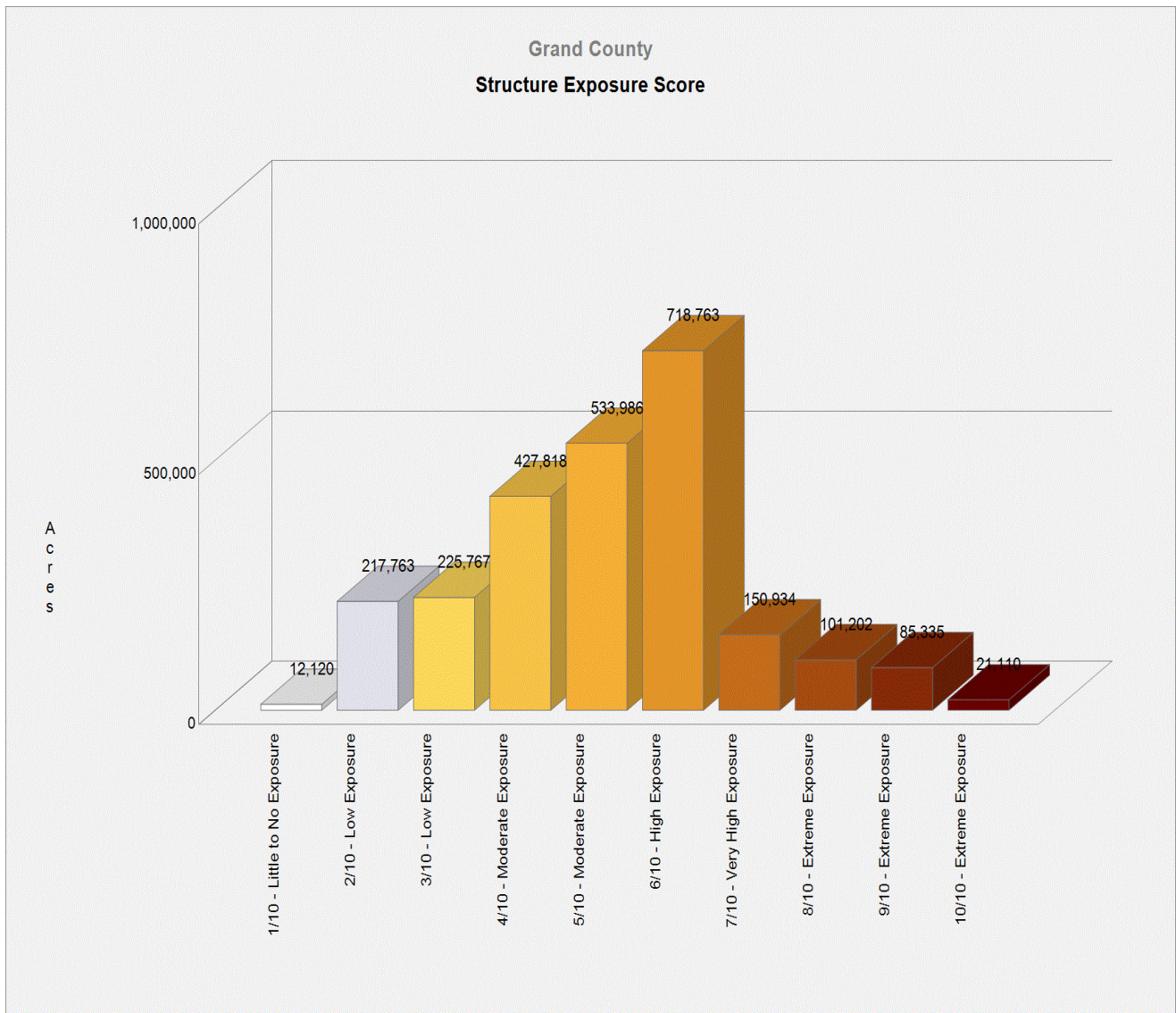
Structure Exposure Score

Structure Exposure Score (SES) combines wildfire likelihood (burn probability) and consequence (represented by Damage Potential) assuming a home is present on every pixel. SES is analogous to the Risk to Potential Structures dataset but includes ember load.

	Structure Exposure Score Category	Acres	Percent
	1/10 - Little to No Exposure	12,120	0 %
	2/10 - Low Exposure	217,763	9 %
	3/10 - Low Exposure	225,767	9 %
	4/10 - Moderate Exposure	427,818	17 %
	5/10 - Moderate Exposure	533,986	21 %
	6/10 - High Exposure	718,763	29 %
	7/10 - Very High Exposure	150,934	6 %
	8/10 - Extreme Exposure	101,202	4 %
	9/10 - Extreme Exposure	85,335	3 %
	10/10 - Extreme Exposure	21,110	1 %
	Total	2,494,797	100 %

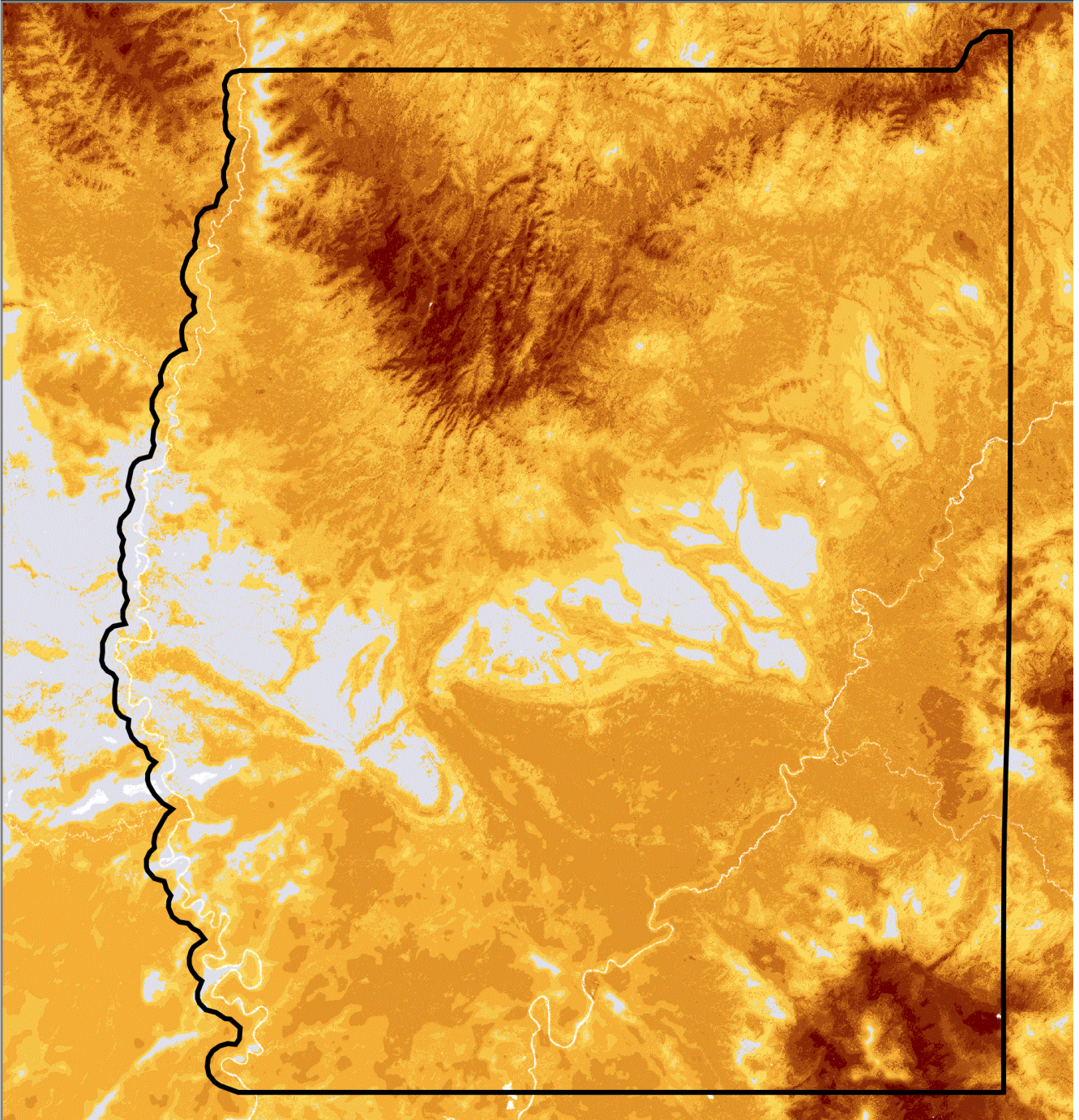
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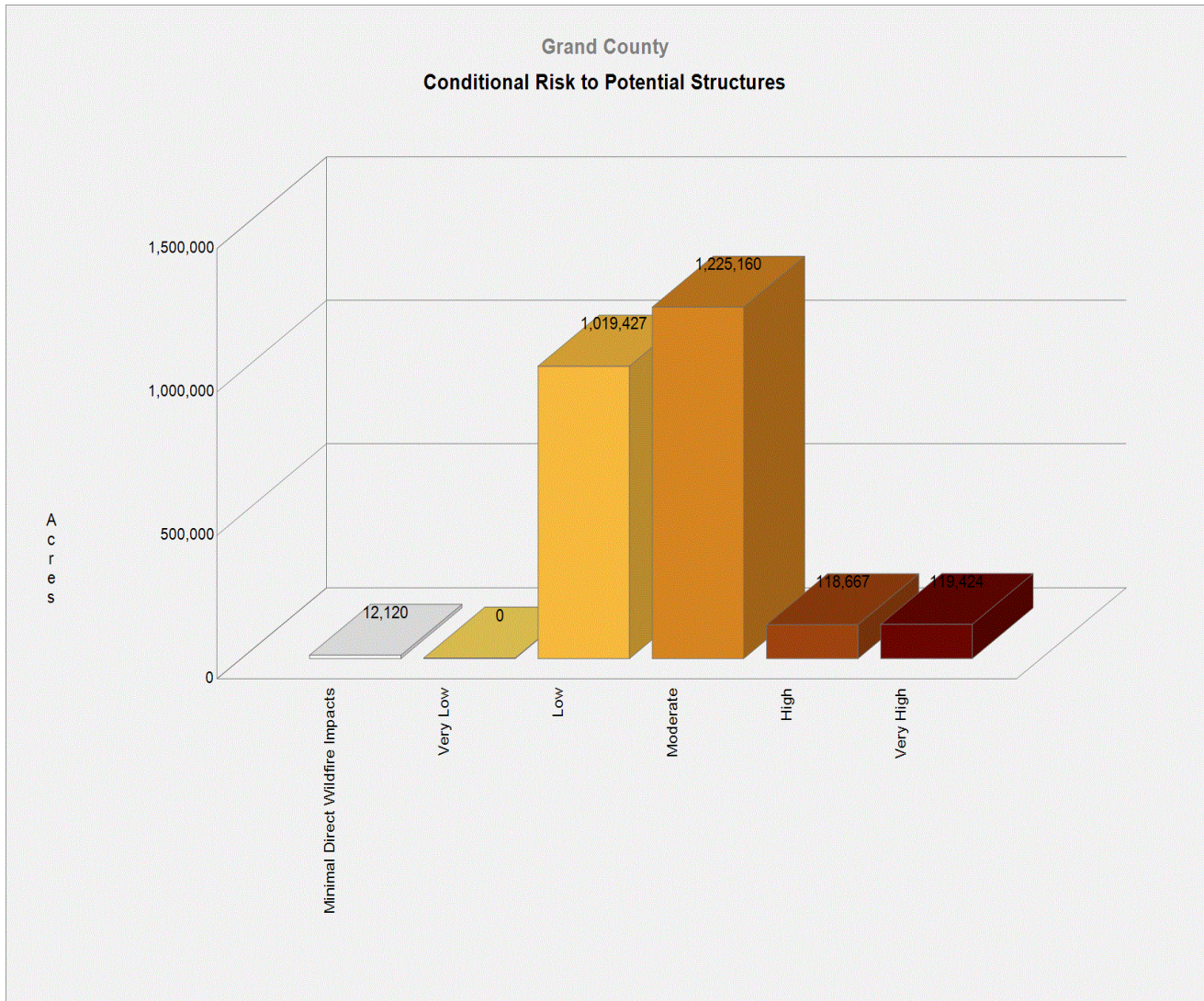
Conditional Risk to Potential Structures

The conditional risk to potential structures (cRPS) dataset or “Risk to Homes” represents the potential consequences of fire to a home at a given location, if a fire occurs there and if a home were located there. It is a measure that integrates wildfire intensity with generalized consequences to a home on every pixel, but does not account for the actual probability of fire occurrence.

	Conditional Risk to Potential Structures Category	Acres	Percent
	Minimal Direct Wildfire Impacts	12,120	0 %
	Very Low	0	0 %
	Low	1,019,427	41 %
	Moderate	1,225,160	49 %
	High	118,667	5 %
	Very High	119,424	5 %
	Total	2,494,797	100 %

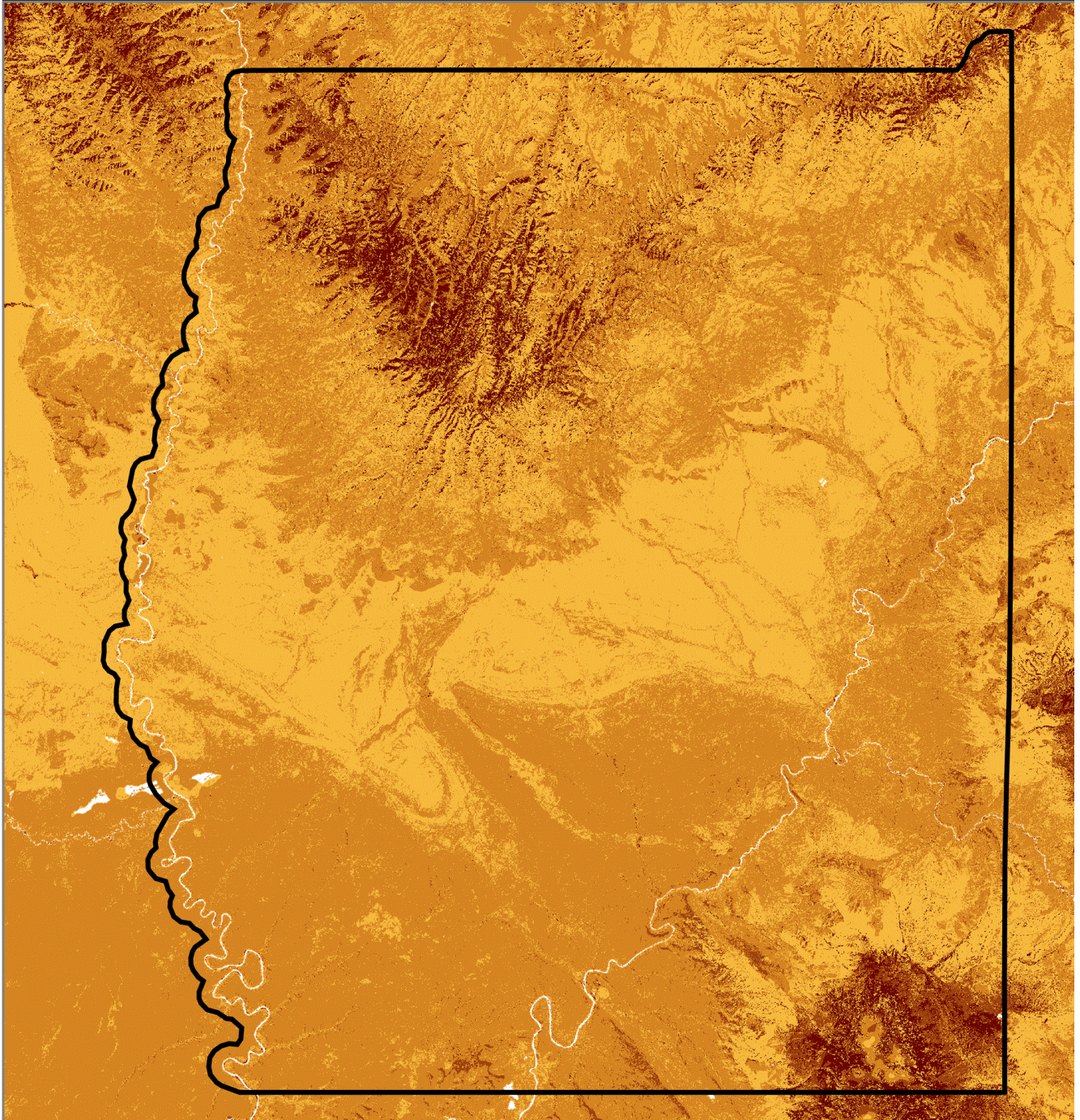
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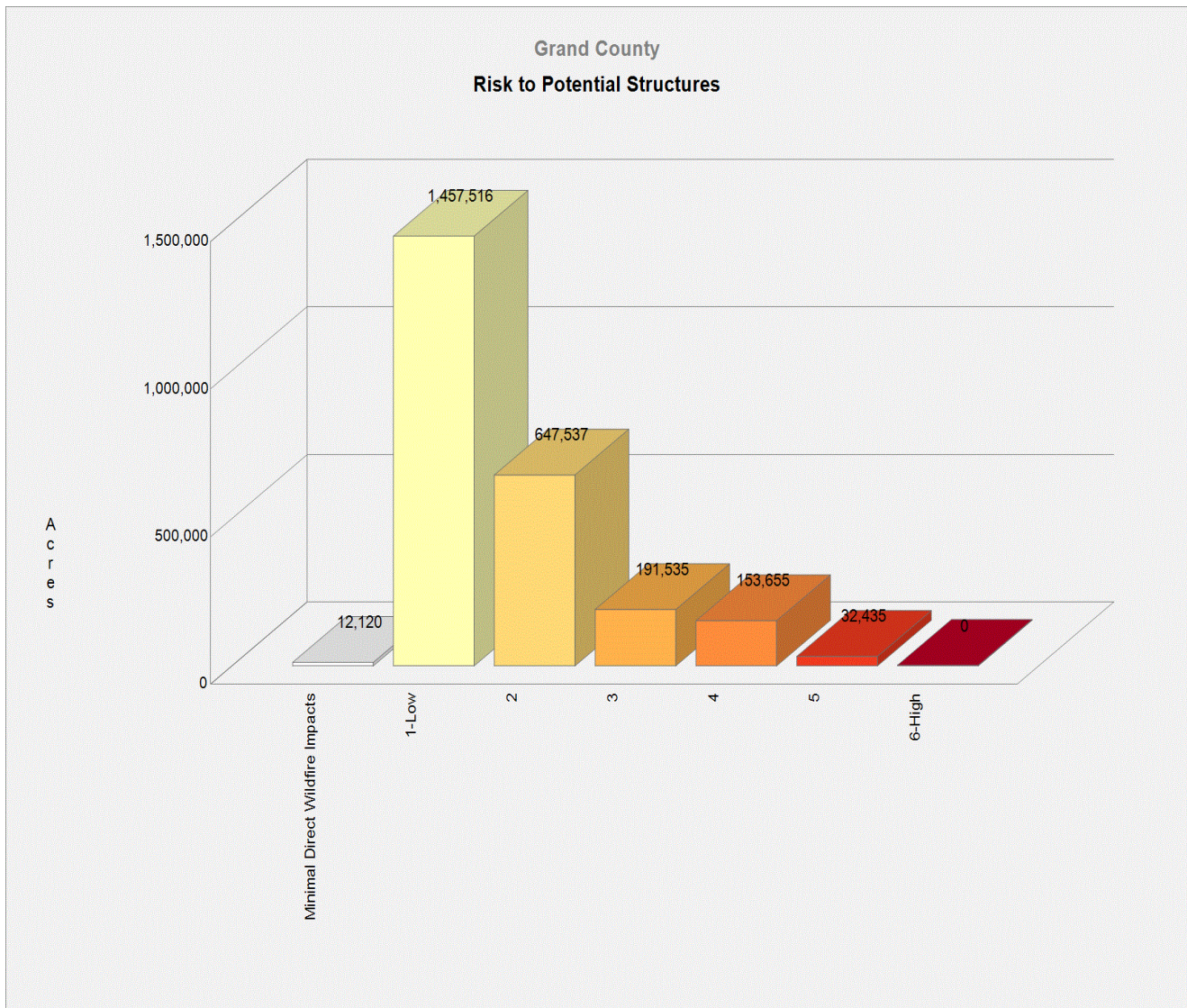
Risk to Potential Structures

The expected risk to potential structures (RPS) dataset represents a measure that integrates wildfire likelihood and intensity with generalized consequences to a home on every pixel. For every place on the landscape, it poses the hypothetical question, "What would be the relative risk to a house if one existed here?" This allows comparison of wildfire risk in places where homes already exist to places where new construction may be proposed.

	Risk to Potential Structures Category	Acres	Percent
	Minimal Direct Wildfire Impacts	12,120	0 %
	1-Low	1,457,516	58 %
	2	647,537	26 %
	3	191,535	8 %
	4	153,655	6 %
	5	32,435	1 %
	6-High	0	0 %
	Total	2,494,797	100 %

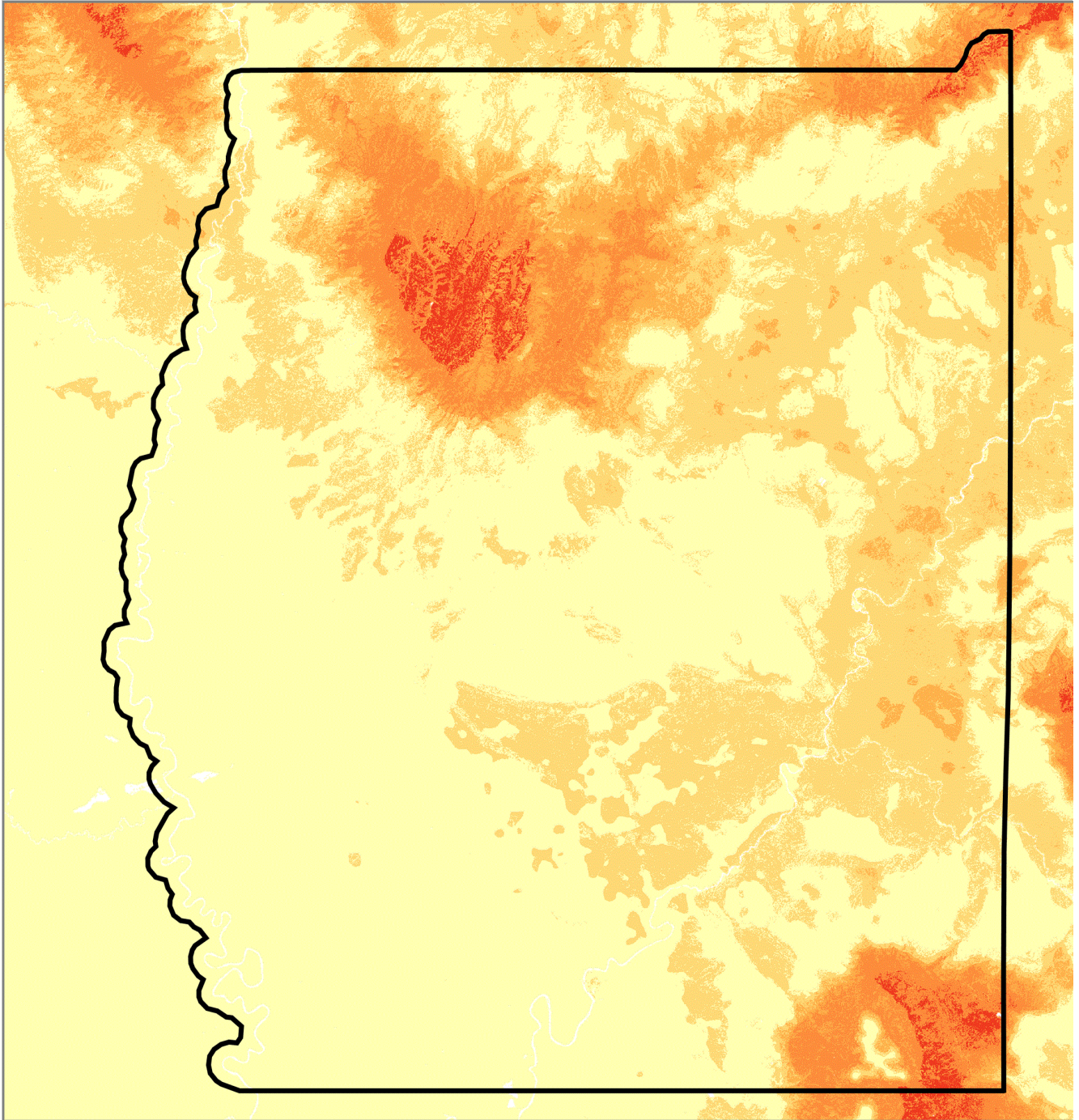
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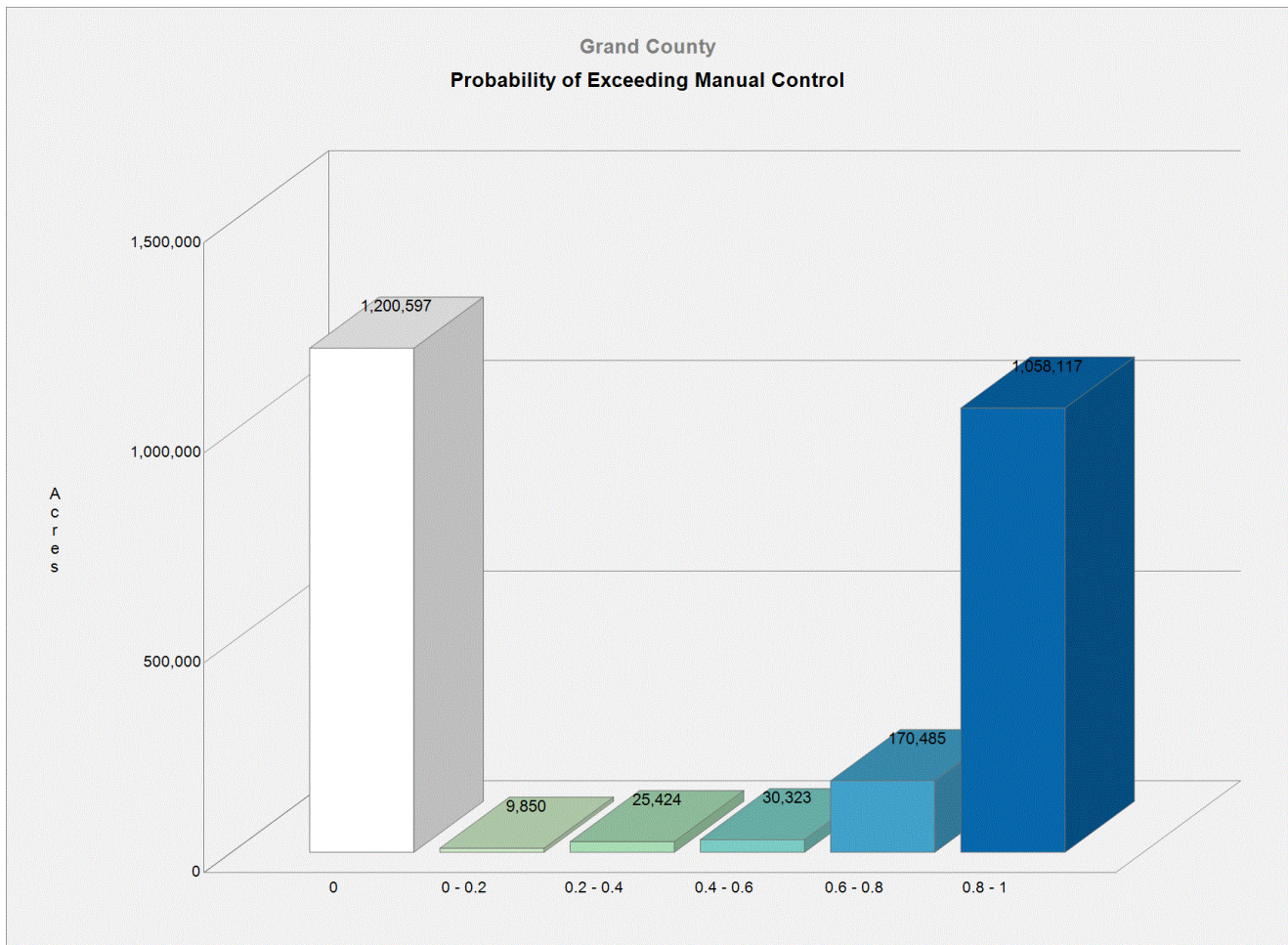
Probability of Exceeding Manual Control

This dataset represents the probability of heading flame lengths exceeding 4 feet, which is generally considered the threshold for exceeding the possibility of manual control during fire operations.

	Probability of Exceeding Manual Control Category	Acres	Percent
	0	1,200,597	48 %
	0 - 0.2	9,850	0 %
	0.2 - 0.4	25,424	1 %
	0.4 - 0.6	30,323	1 %
	0.6 - 0.8	170,485	7 %
	0.8 - 1	1,058,117	42 %
	Total	2,494,797	100 %

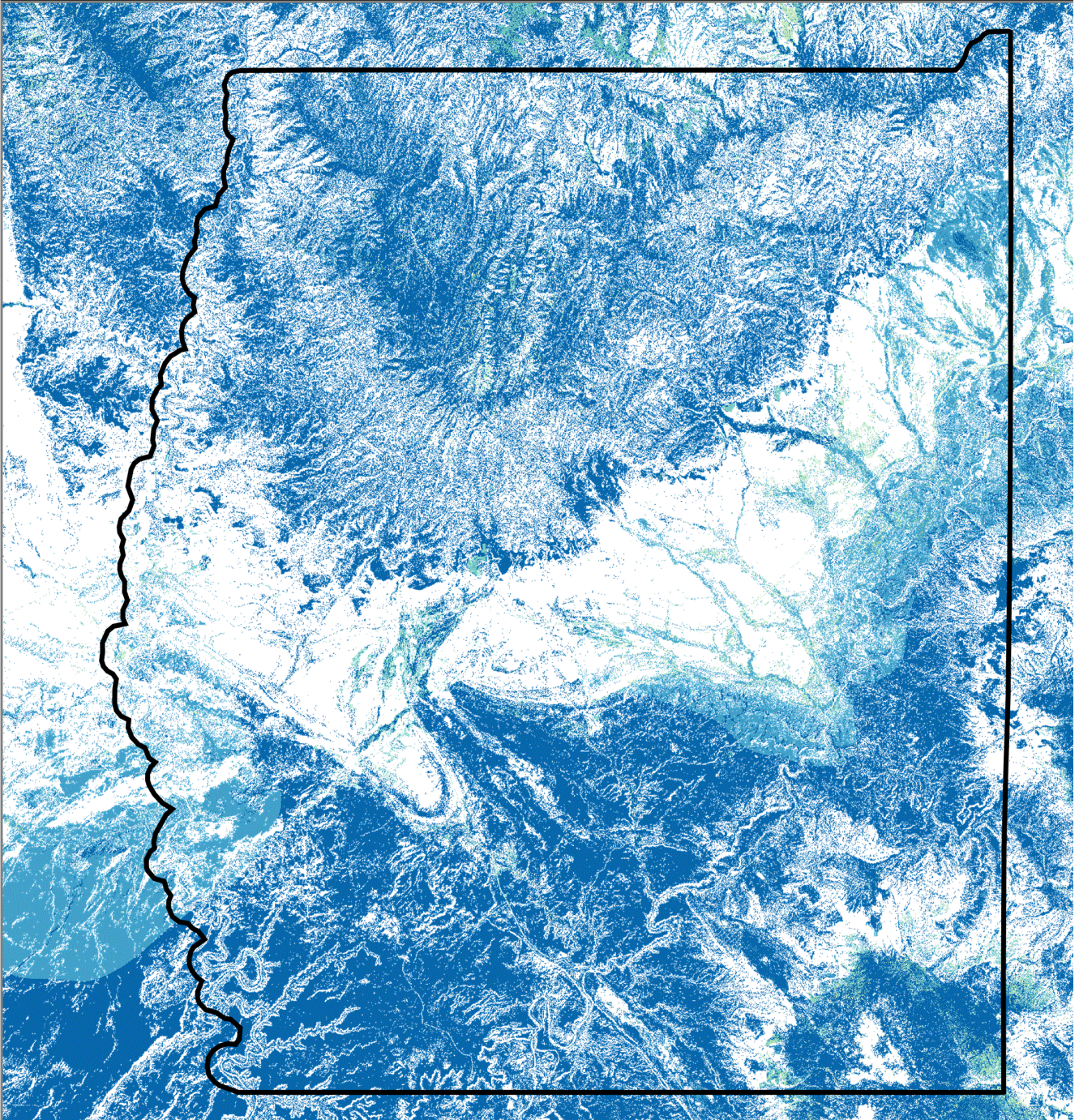
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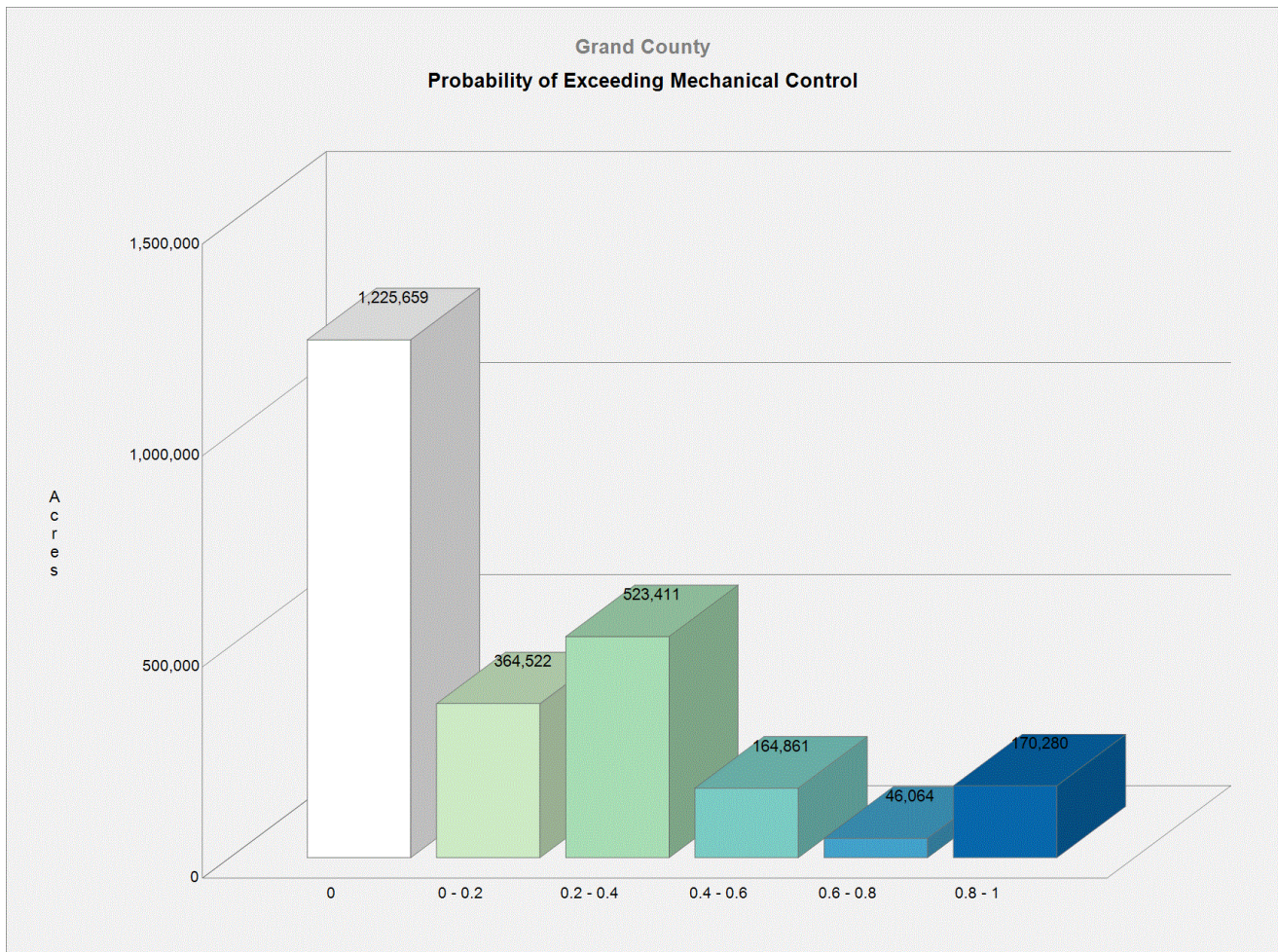
Probability of Exceeding Mechanical Control

This dataset represents the probability of heading flame lengths exceeding 8 feet, which is generally considered the threshold for exceeding the possibility of mechanical control during fire operations.

	Probability of Exceeding Mechanical Control Category	Acres	Percent
	0	1,225,659	49 %
	0 - 0.2	364,522	15 %
	0.2 - 0.4	523,411	21 %
	0.4 - 0.6	164,861	7 %
	0.6 - 0.8	46,064	2 %
	0.8 - 1	170,280	7 %
	Total	2,494,797	100 %

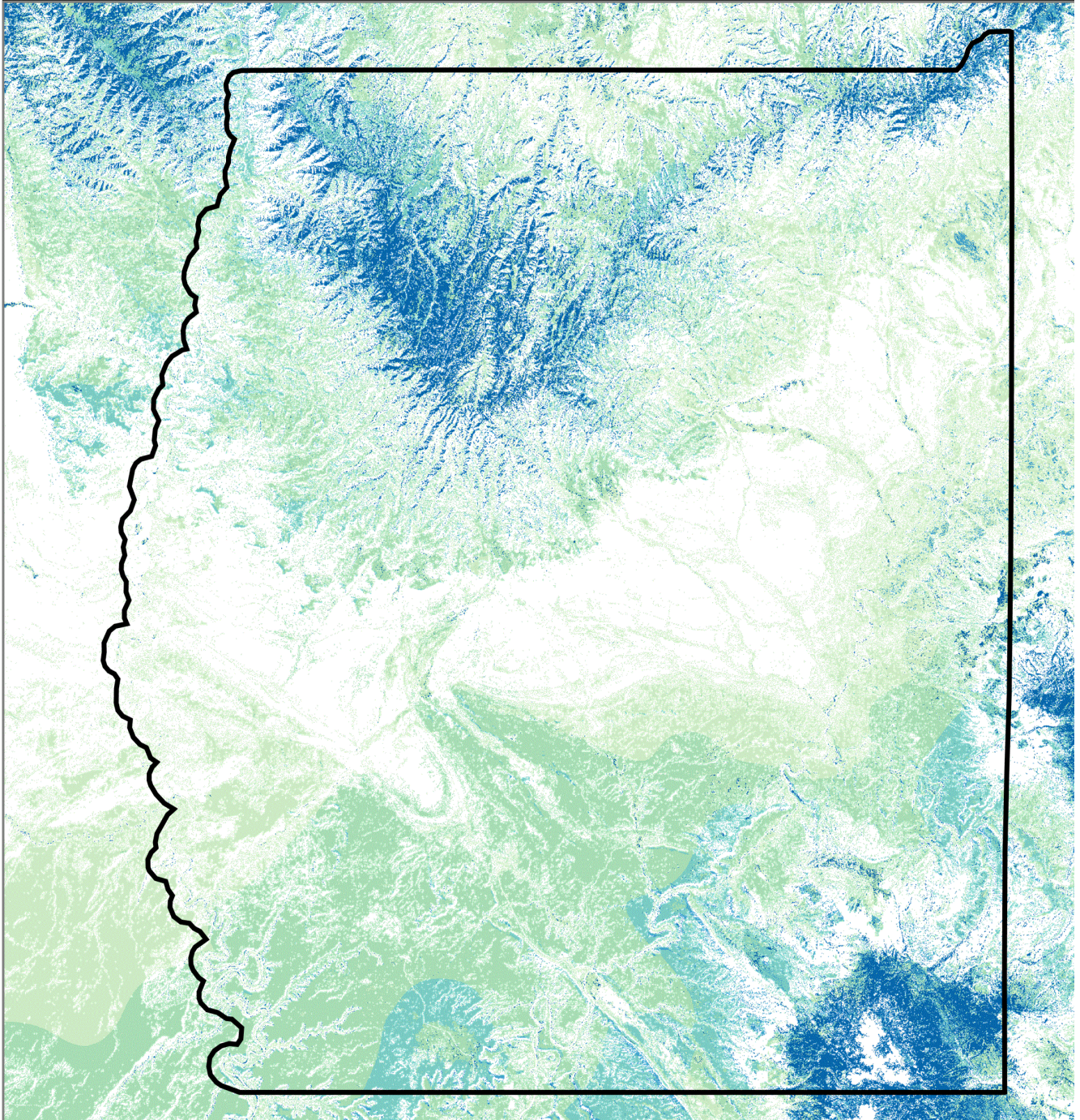
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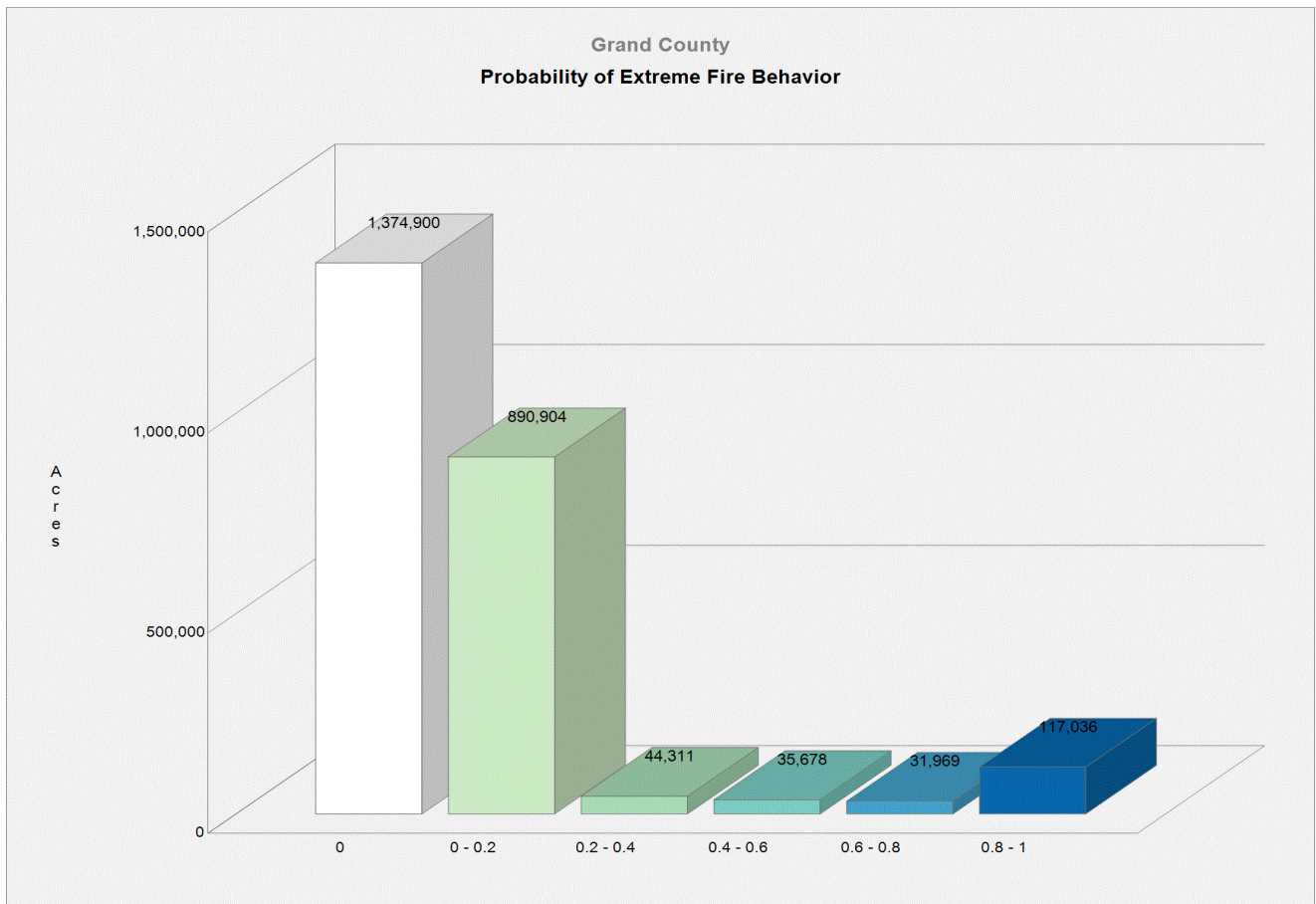
Probability of Extreme Fire Behavior

This dataset represents the probability of heading flame lengths exceeding 11 feet, which is generally considered the threshold for exceeding extreme fire behavior during fire operations.

	Probability of Extreme Fire Behavior Category	Acres	Percent
	0	1,374,900	55 %
	0 - 0.2	890,904	36 %
	0.2 - 0.4	44,311	2 %
	0.4 - 0.6	35,679	1 %
	0.6 - 0.8	31,969	1 %
	0.8 - 1	117,036	5 %
	Total	2,494,797	100 %

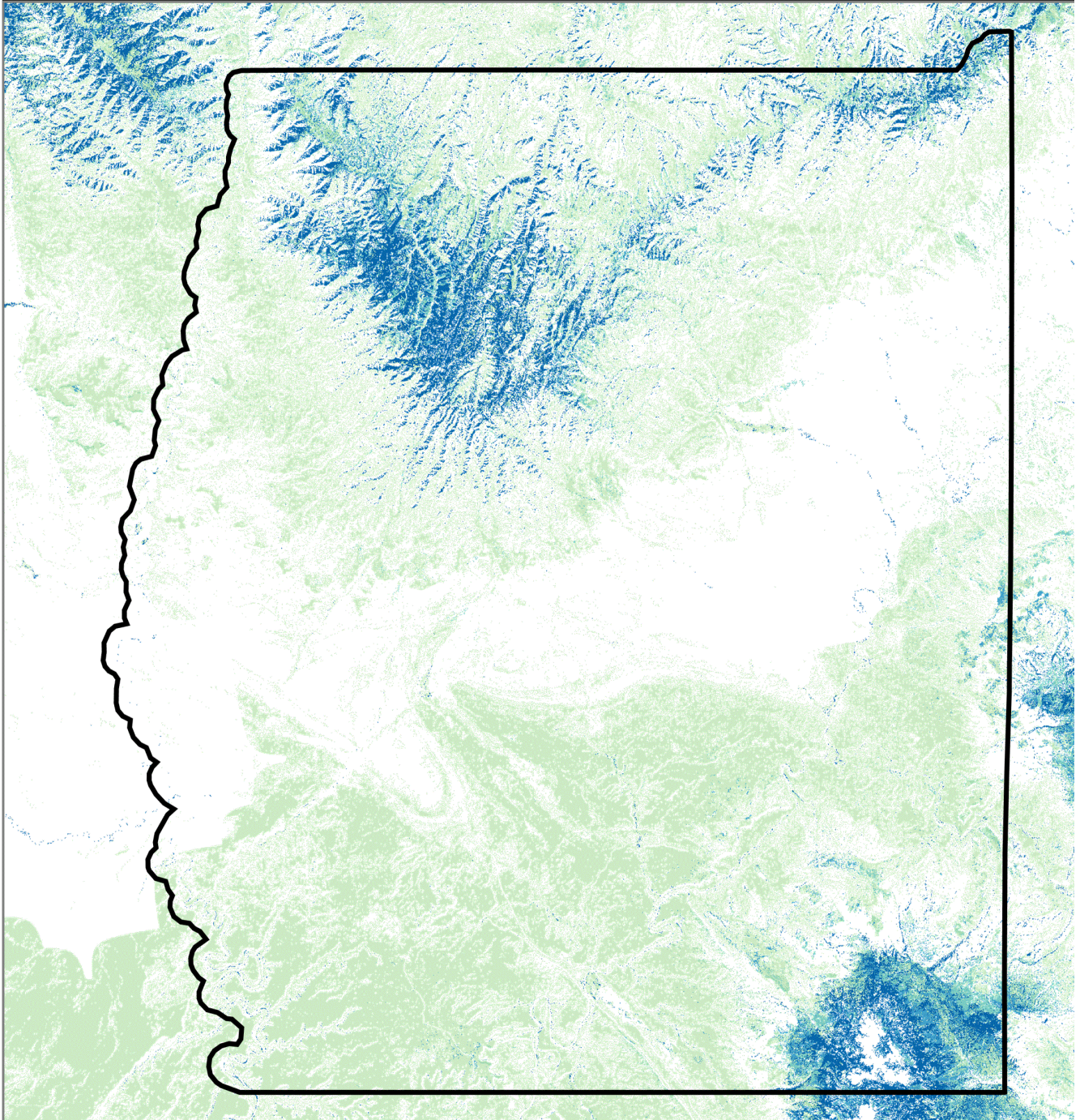
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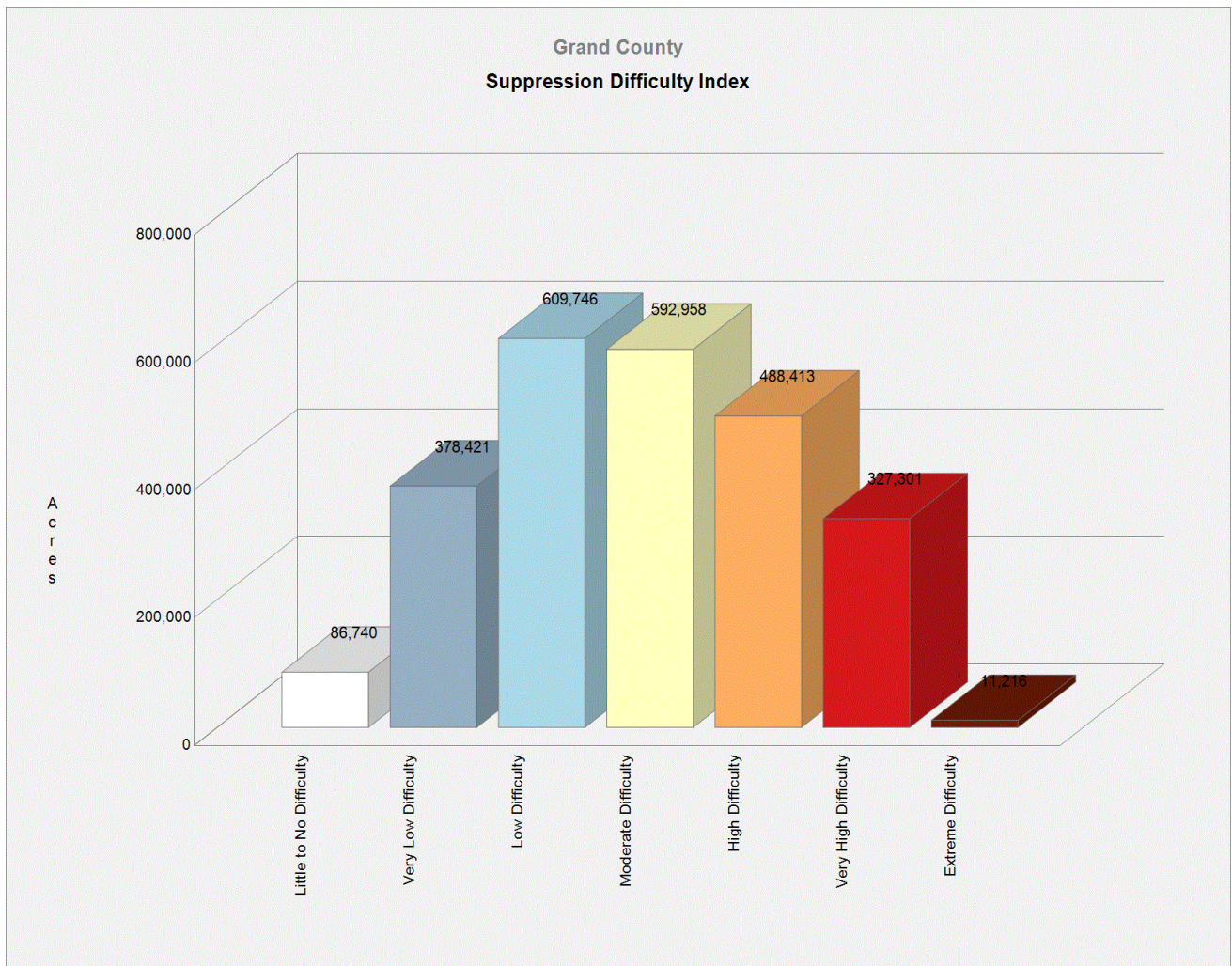
Suppression Difficulty Index

Wildfire Suppression Difficulty Index (SDI) is a quantitative rating of relative difficulty in performing fire control work. SDI factors in topography, fuels, expected fire behavior under severe fire weather conditions, firefighter line production rates in various fuel types, and accessibility (distance from roads/trails) to assess relative suppression difficulty.

	Suppression Difficulty Index Category	Acres	Percent
	Little to No Difficulty	86,741	3 %
	Very Low Difficulty	378,421	15 %
	Low Difficulty	609,746	24 %
	Moderate Difficulty	592,958	24 %
	High Difficulty	488,413	20 %
	Very High Difficulty	327,301	13 %
	Extreme Difficulty	11,216	0 %
	Total	2,494,797	100 %

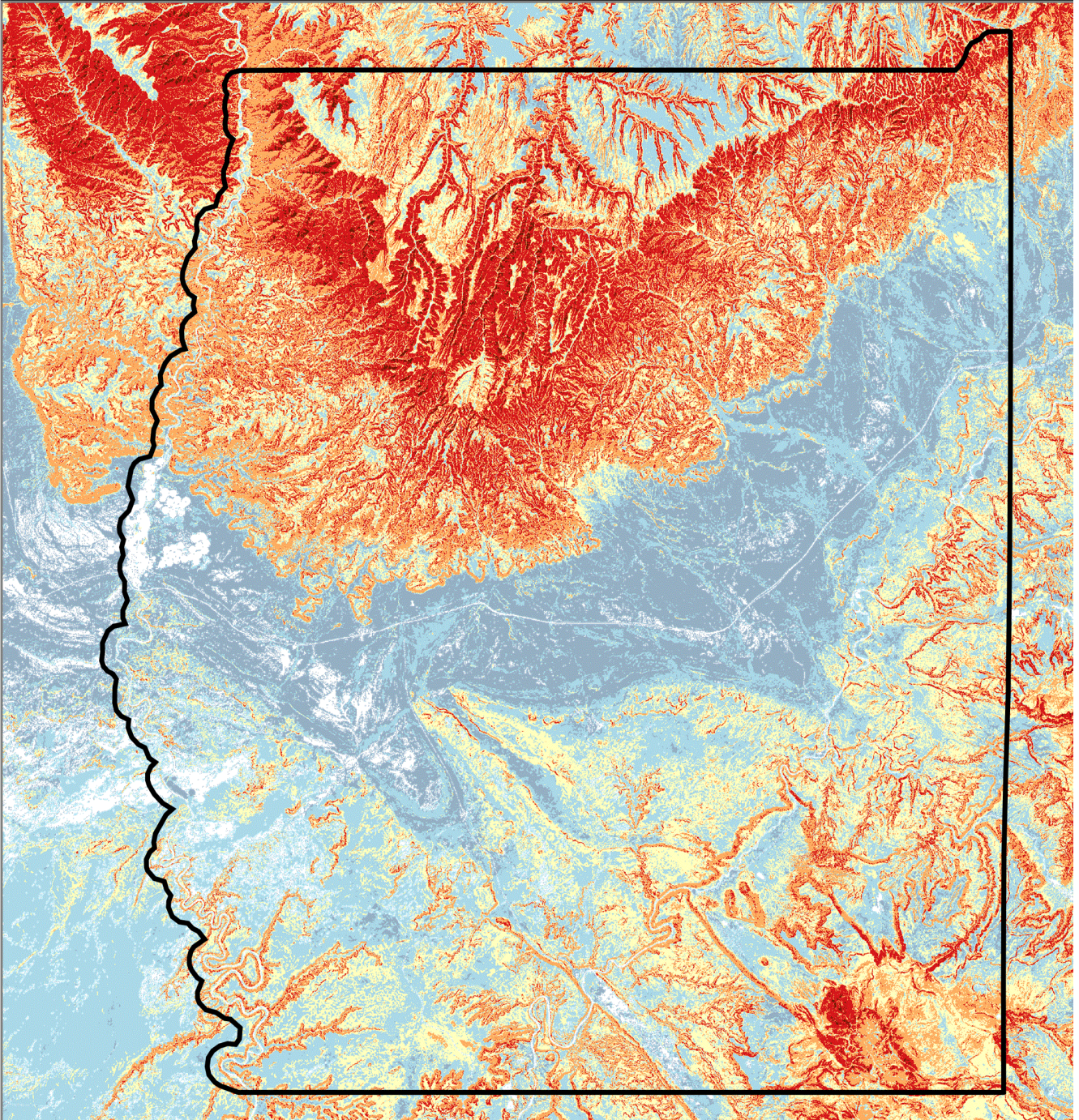
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Flame Length

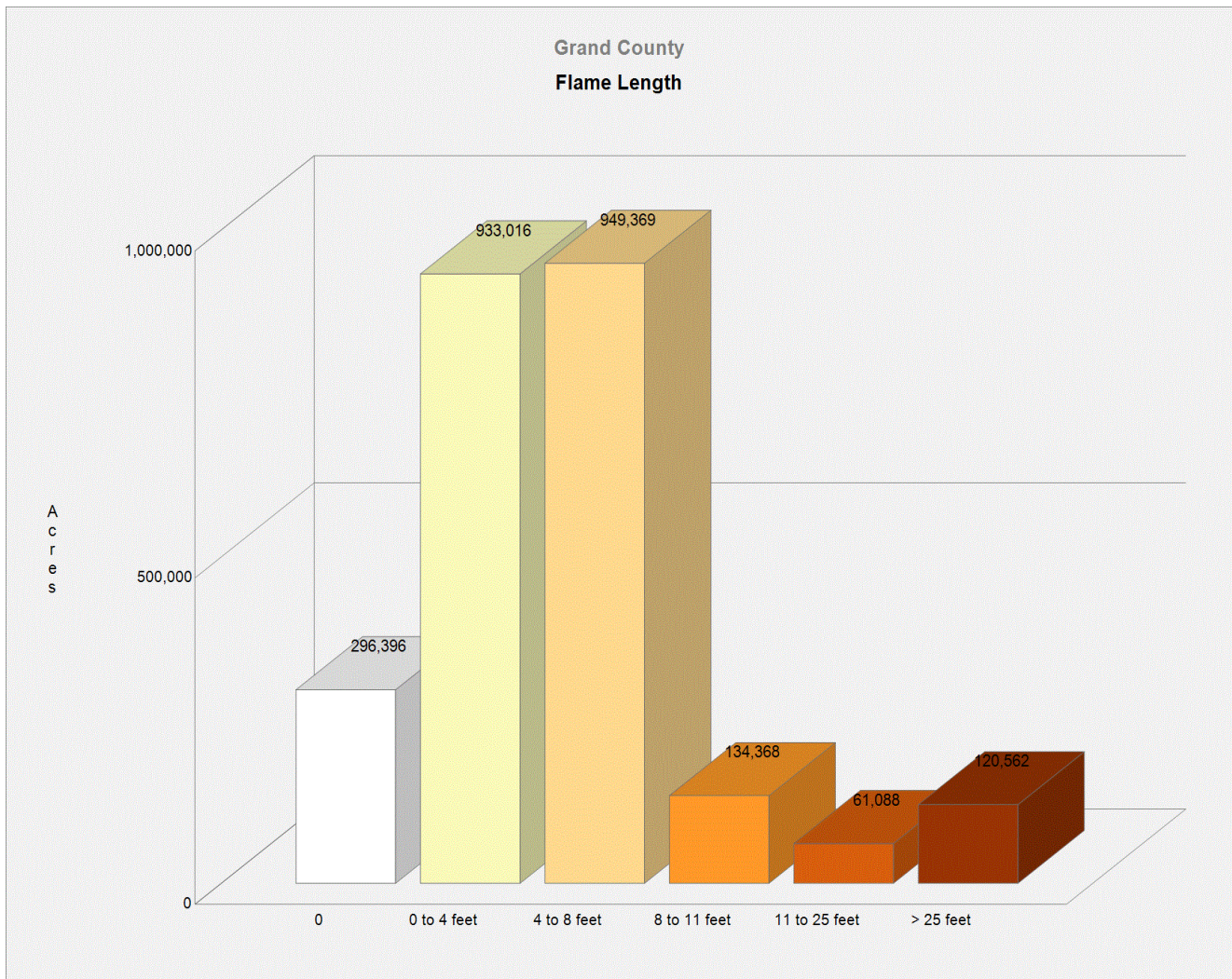
This dataset represents the weighted-average flame length (FL) in feet for a given pixel in the fuelscape (including any contribution of crown fuel). Flame length is the distance (in feet) between the flame tip and the midpoint of the flame depth at the base (generally the ground surface). This is a good indicator of fire intensity. Flame length is a strong indicator of the potential damage to structures; longer flame lengths will likely have a greater negative consequence. Flame lengths are also utilized in fuel-break planning.

	Flame Length Category	Acres	Percent
	0	296,396	12 %
	0 to 4 feet	933,016	37 %
	4 to 8 feet	949,369	38 %
	8 to 11 feet	134,368	5 %
	11 to 25 feet	61,088	2 %
	> 25 feet	120,562	5 %
	Total	2,494,797	100 %



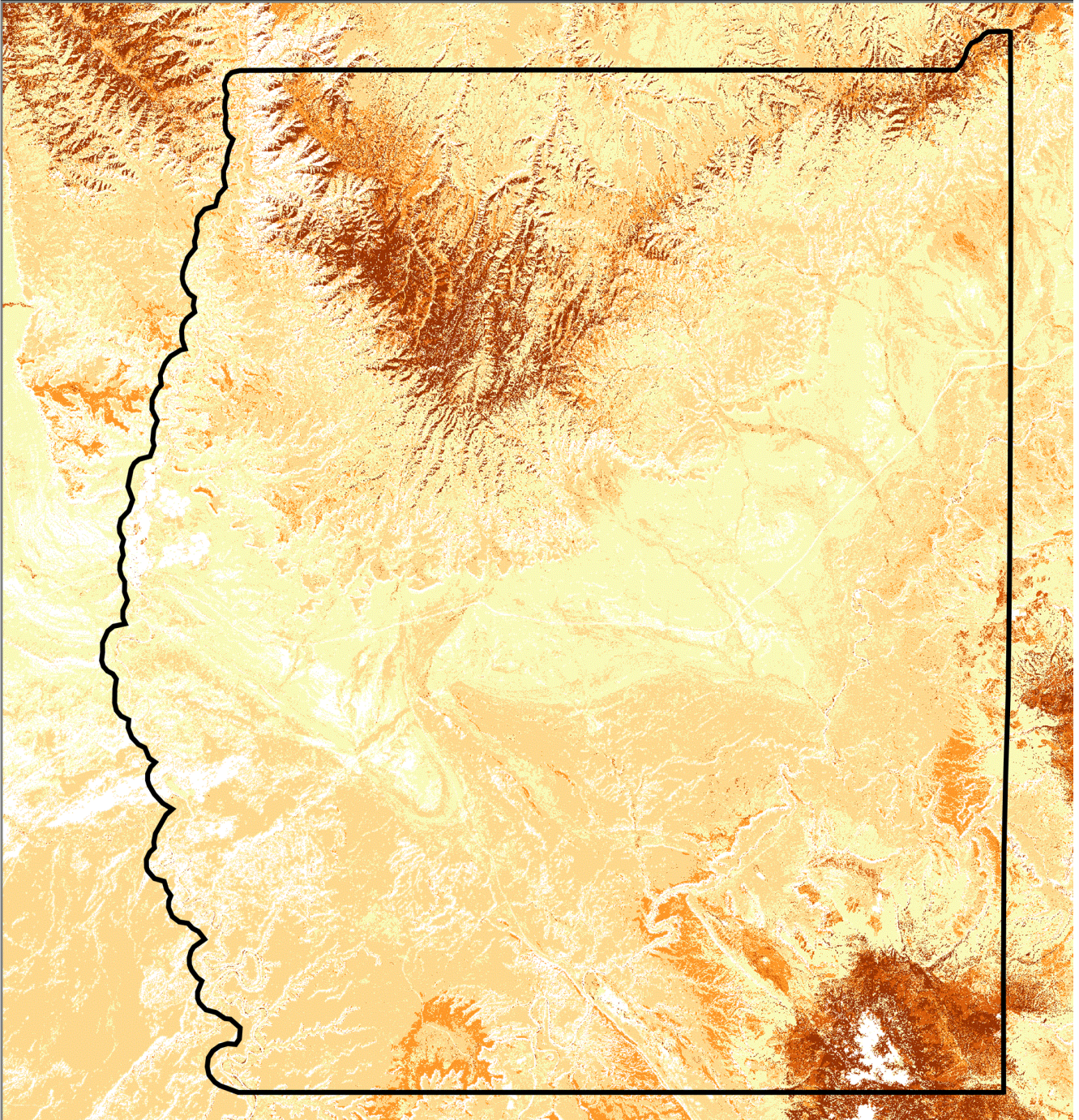
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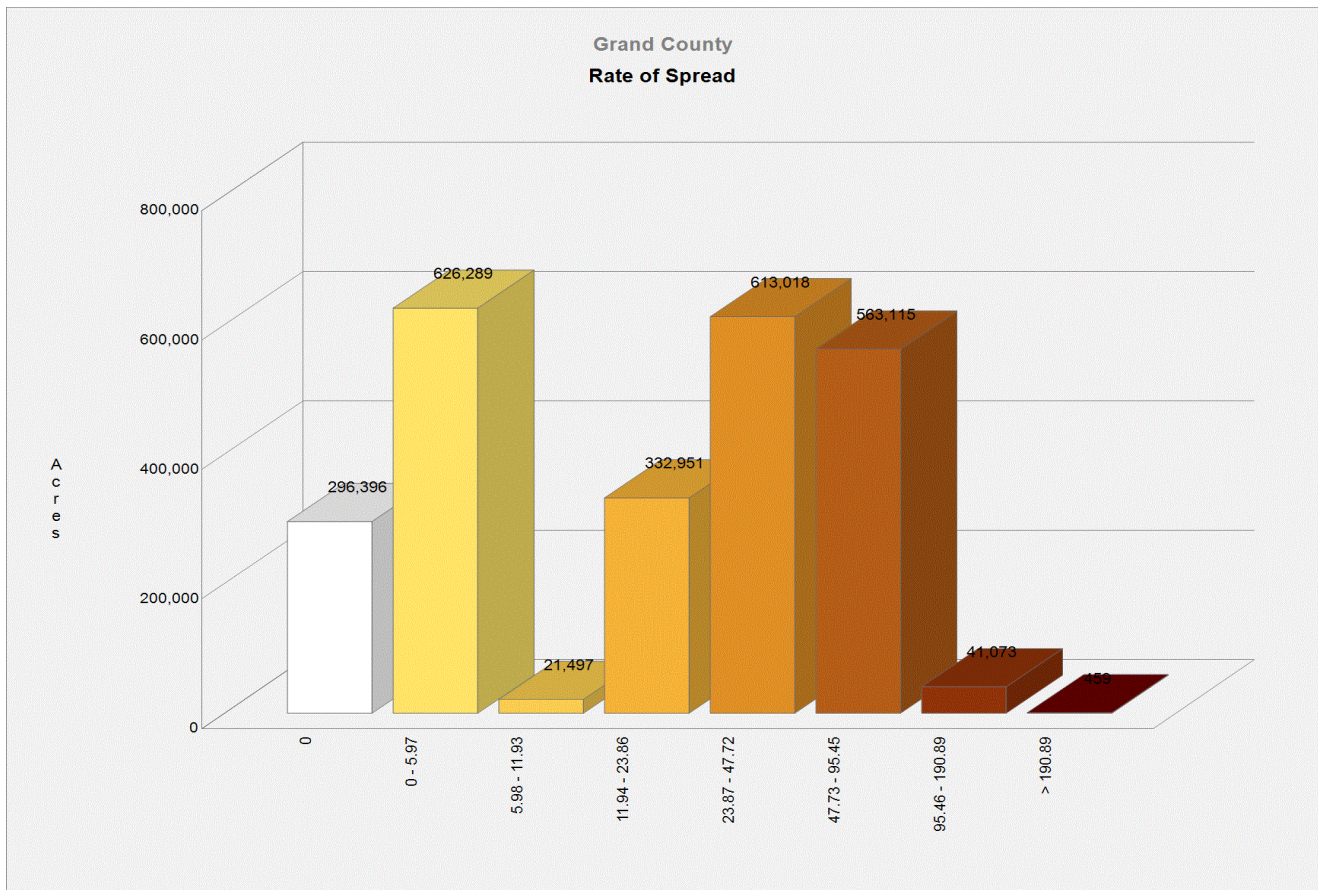
Rate of Spread (chains/hr)

Rate of Spread (ROS) represents the weighted-average rate of spread in chains per hour for a given pixel in the fuelscape (including any contribution of crown fire spread rate). Rate of spread can affect suppression efforts by “outrunning” direct attack and can have an impact on evacuation.

	Rate of Spread Category (chains/hr)	Acres	Percent
	0	296,396	12 %
	0 - 5.97	626,289	25 %
	5.98 - 11.93	21,497	1 %
	11.94 - 23.86	332,951	13 %
	23.87 - 47.72	613,018	25 %
	47.73 - 95.45	563,115	23 %
	95.46 - 190.89	41,073	2 %
	> 190.89	459	0 %
	Total	2,494,797	100 %

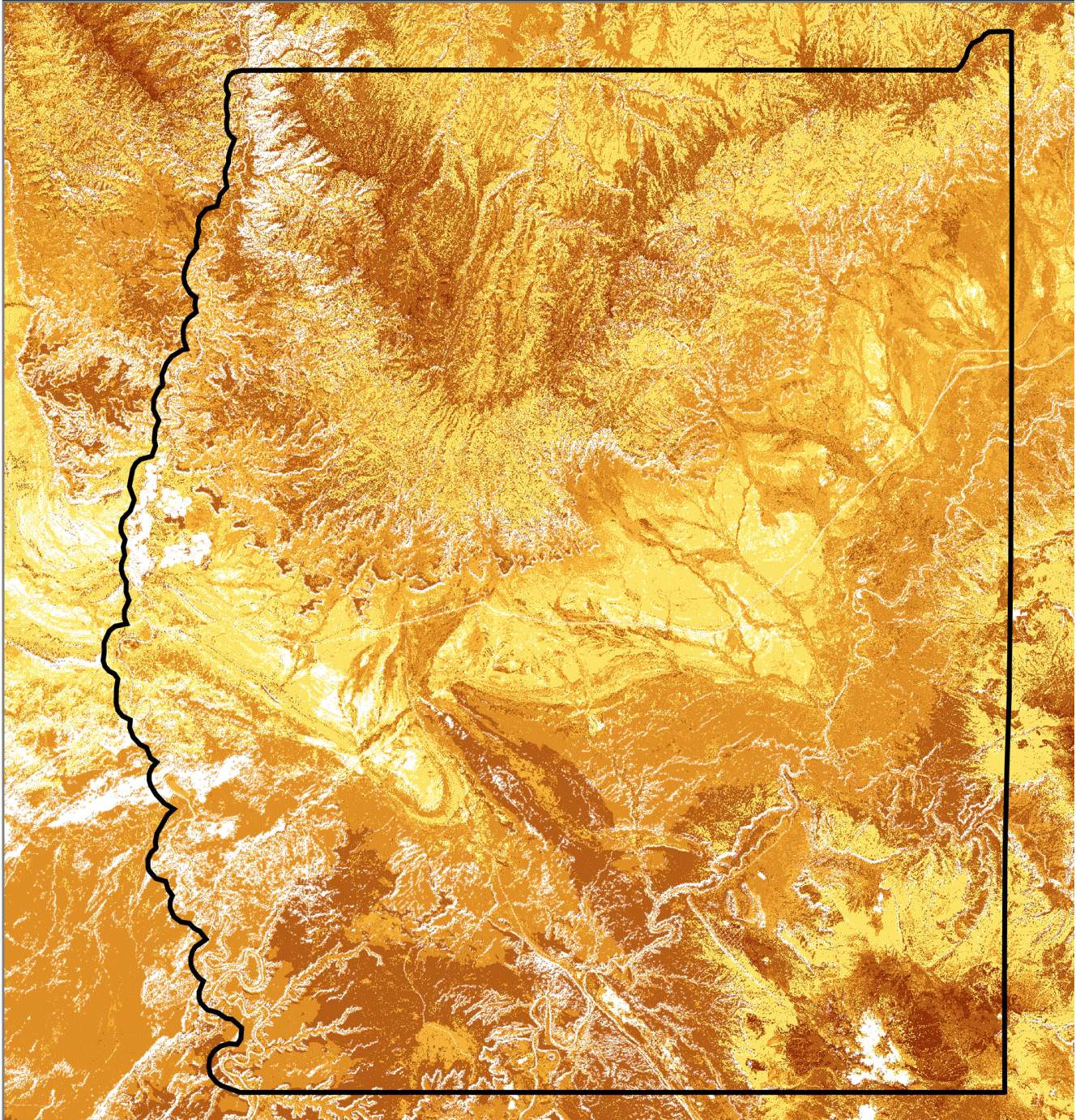
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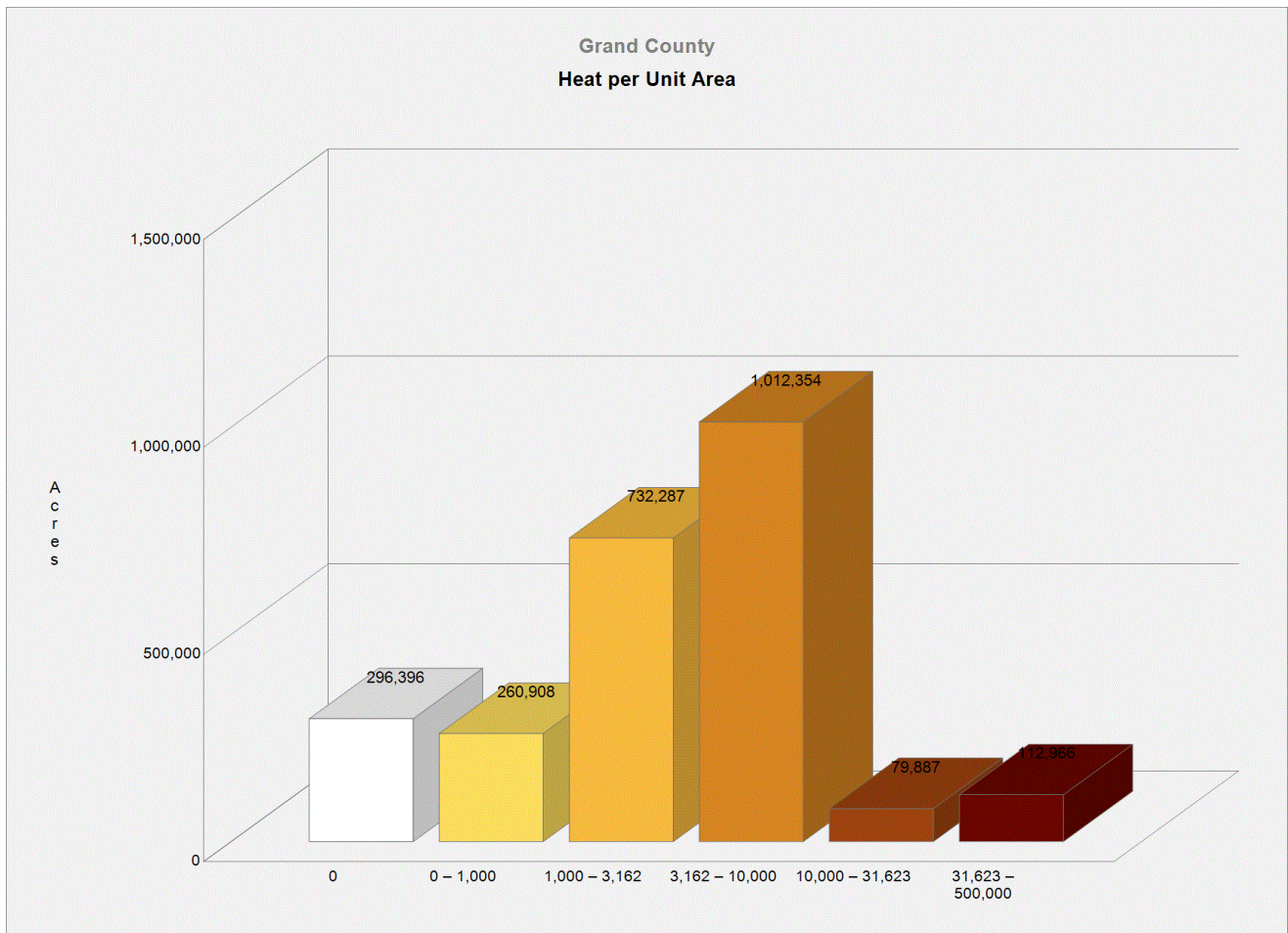
Heat per Unit Area

This dataset represents the weighted-average heat per unit area (HPA) in kilojoules per square meter for a given pixel in the fuelscape (including any contribution of crown fuel).

	Heat per Unit Area Category	Acres	Percent
	0	296,396	12 %
	0 – 1,000	260,908	10 %
	1,000 – 3,162	732,287	29 %
	3,162 – 10,000	1,012,354	41 %
	10,000 – 31,623	79,887	3 %
	31,623 – 500,000	112,966	5 %
	Total	2,494,797	100 %

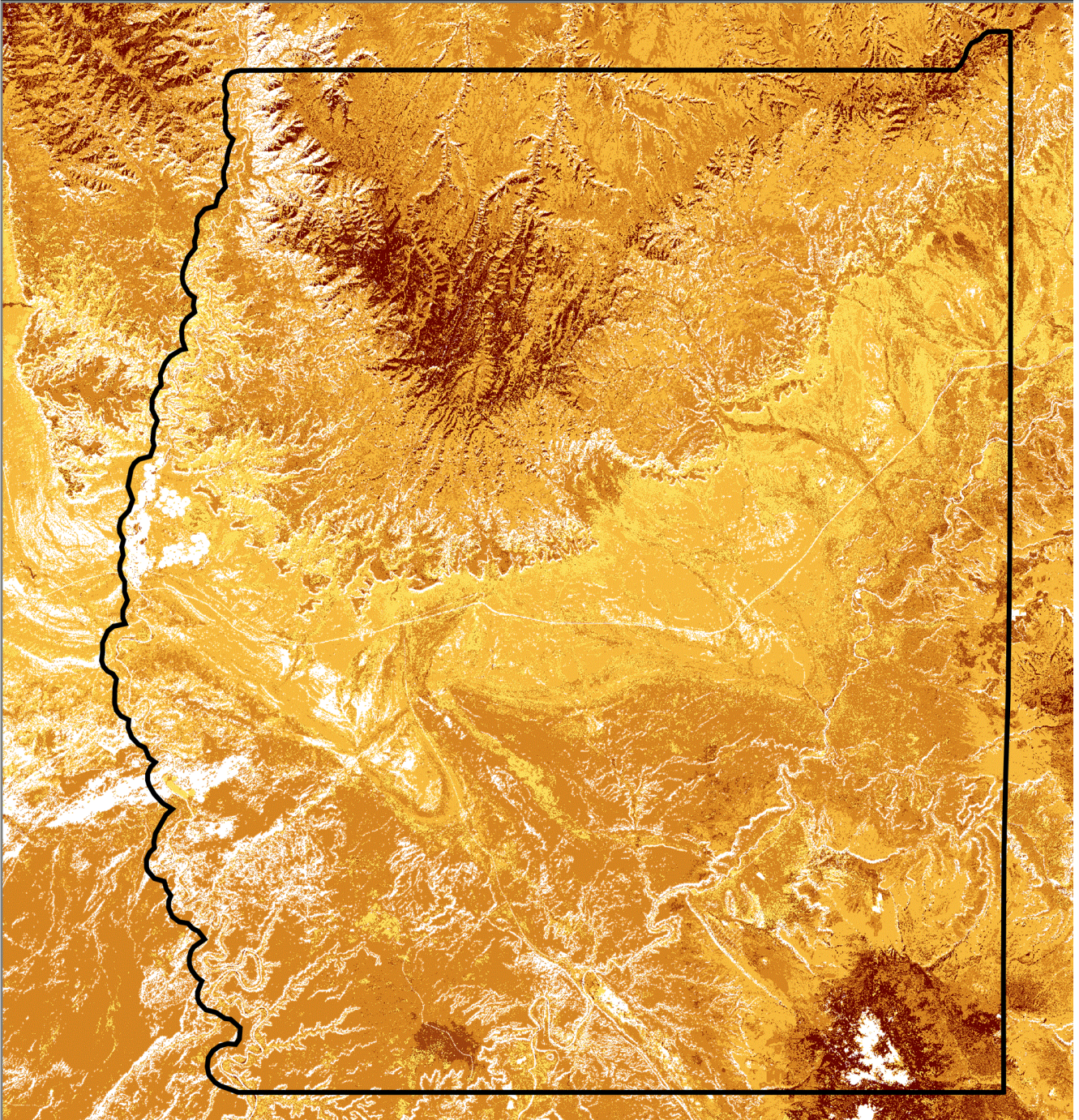
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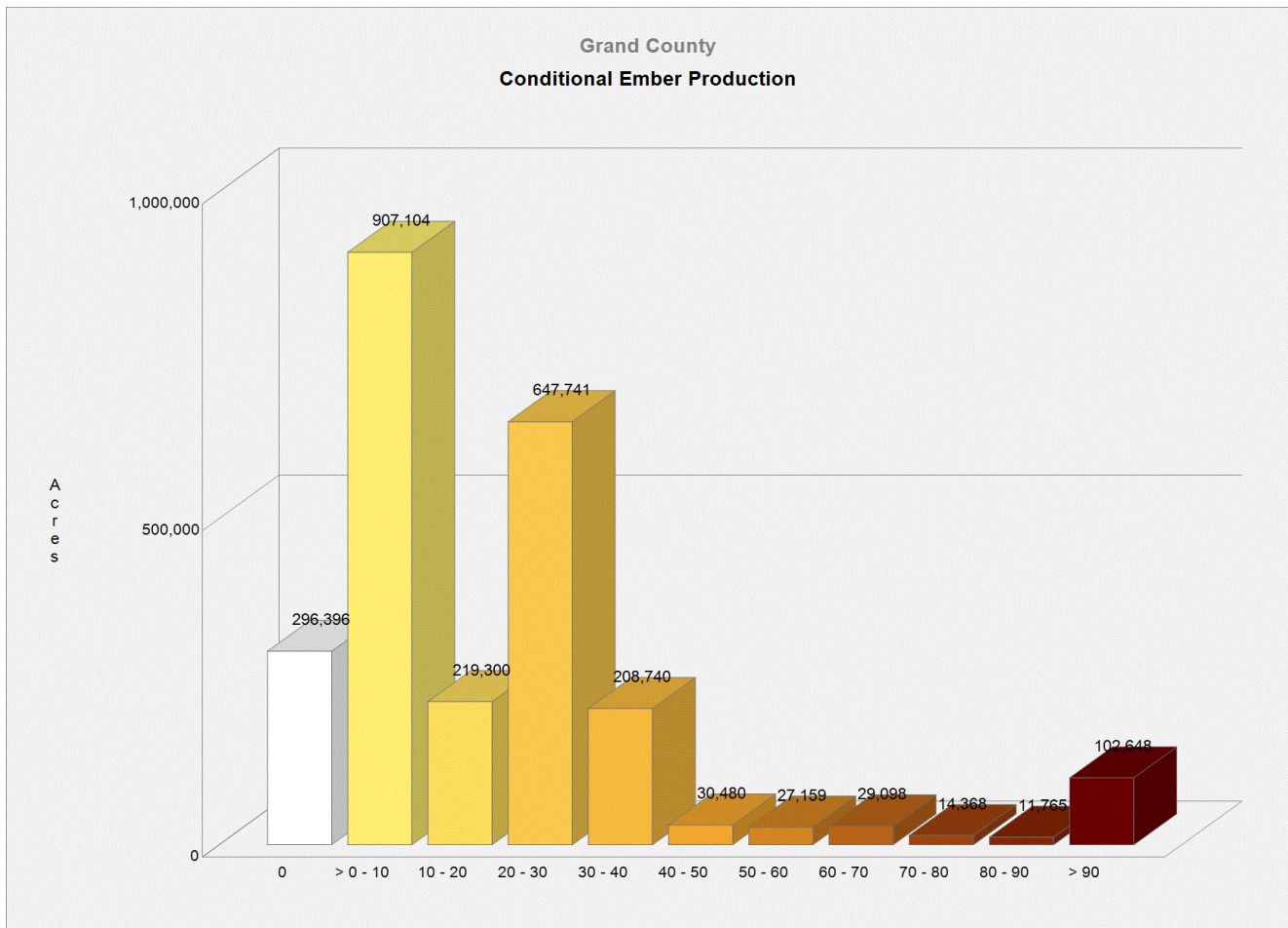
Conditional Ember Production

This dataset indicates where embers are originating when fires occur (so they could be targeted for treatment).

	Conditional Ember Production Category	Acres	Percent
	0	296,396	12 %
	> 0 - 10	907,104	36 %
	10 - 20	219,300	9 %
	20 - 30	647,741	26 %
	30 - 40	208,740	8 %
	40 - 50	30,480	1 %
	50 - 60	27,159	1 %
	60 - 70	29,098	1 %
	70 - 80	14,368	1 %
	80 - 90	11,765	0 %
	> 90	102,648	4 %
	Total	2,494,797	100 %

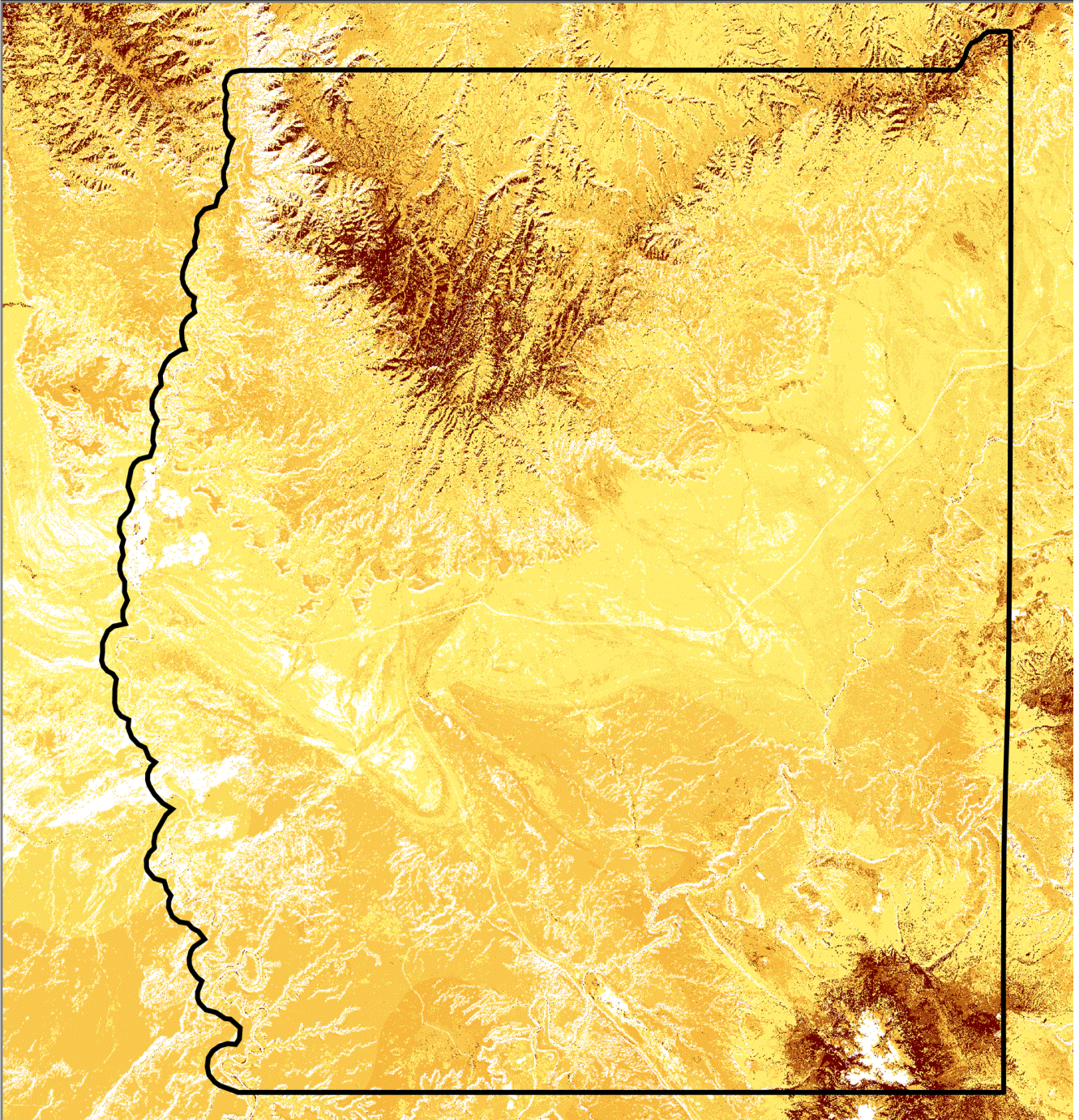
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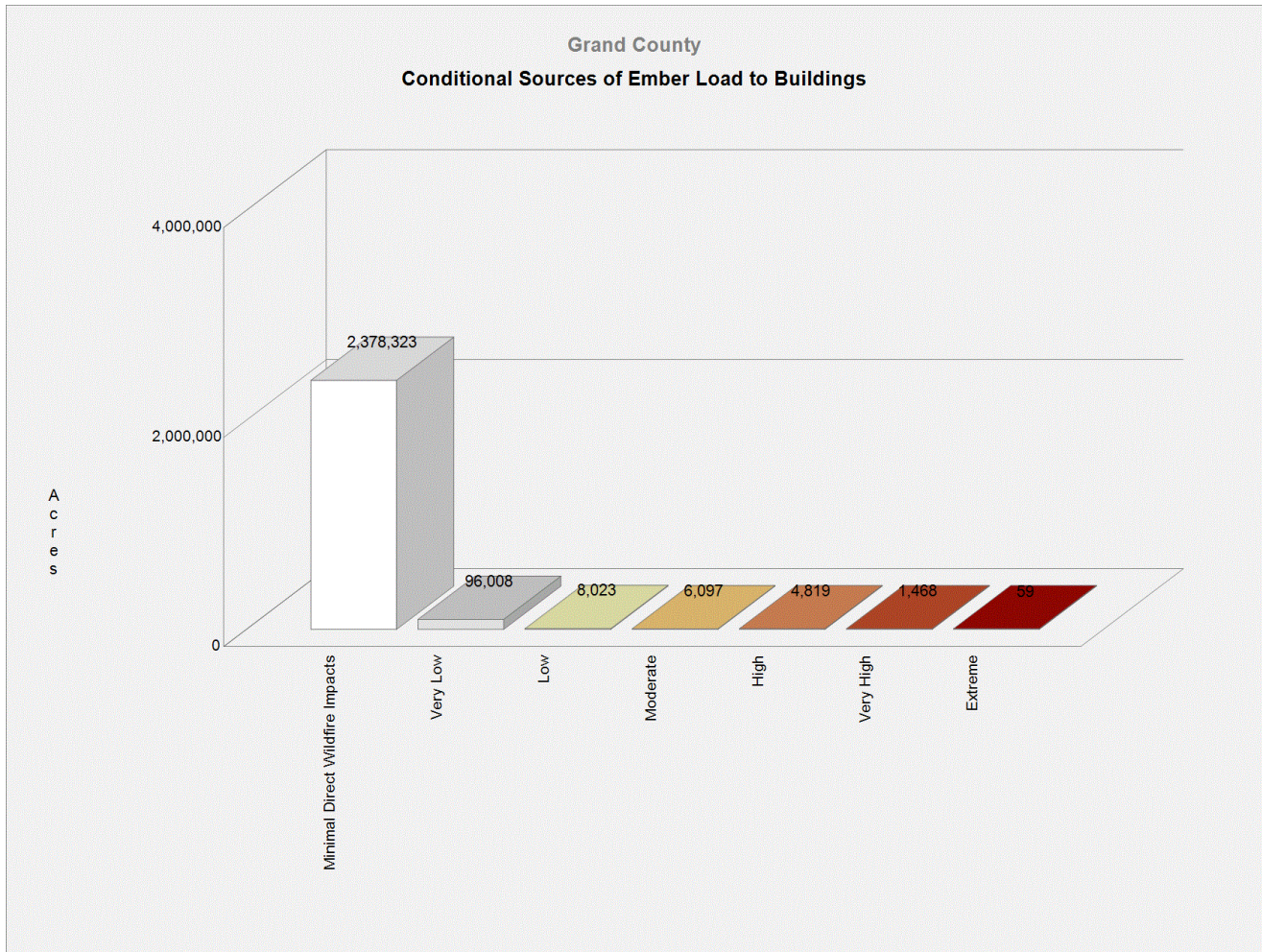
Conditional Sources of Ember Load to Buildings

This dataset indicates where embers might land near buildings.

	Conditional Sources of Ember Load to Buildings Category	Acres	Percent
	Minimal Direct Wildfire Impacts	2,378,323	95 %
	Very Low	96,008	4 %
	Low	8,023	0 %
	Moderate	6,097	0 %
	High	4,819	0 %
	Very High	1,468	0 %
	Extreme	59	0 %
	Total	2,494,797	100 %

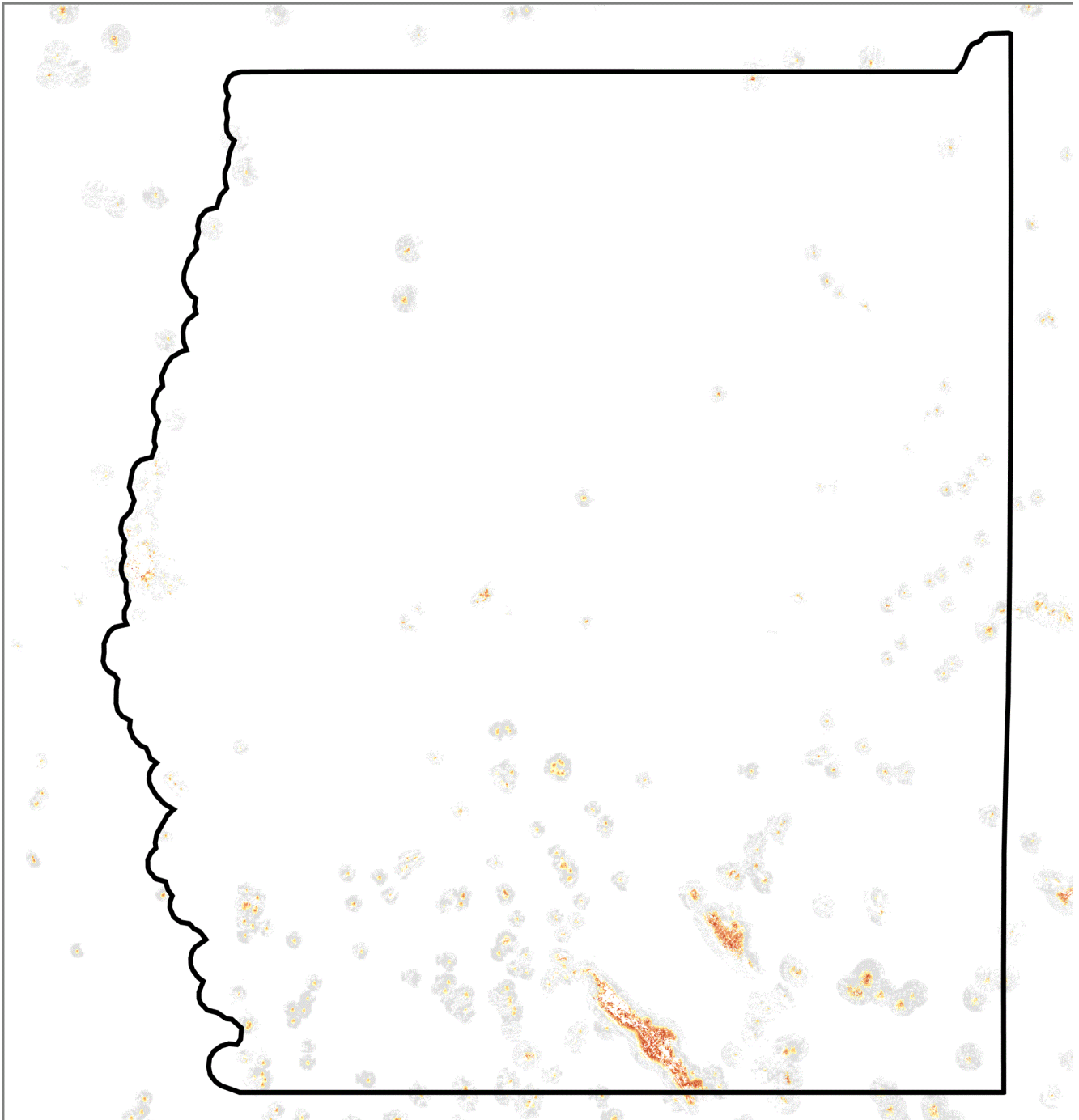
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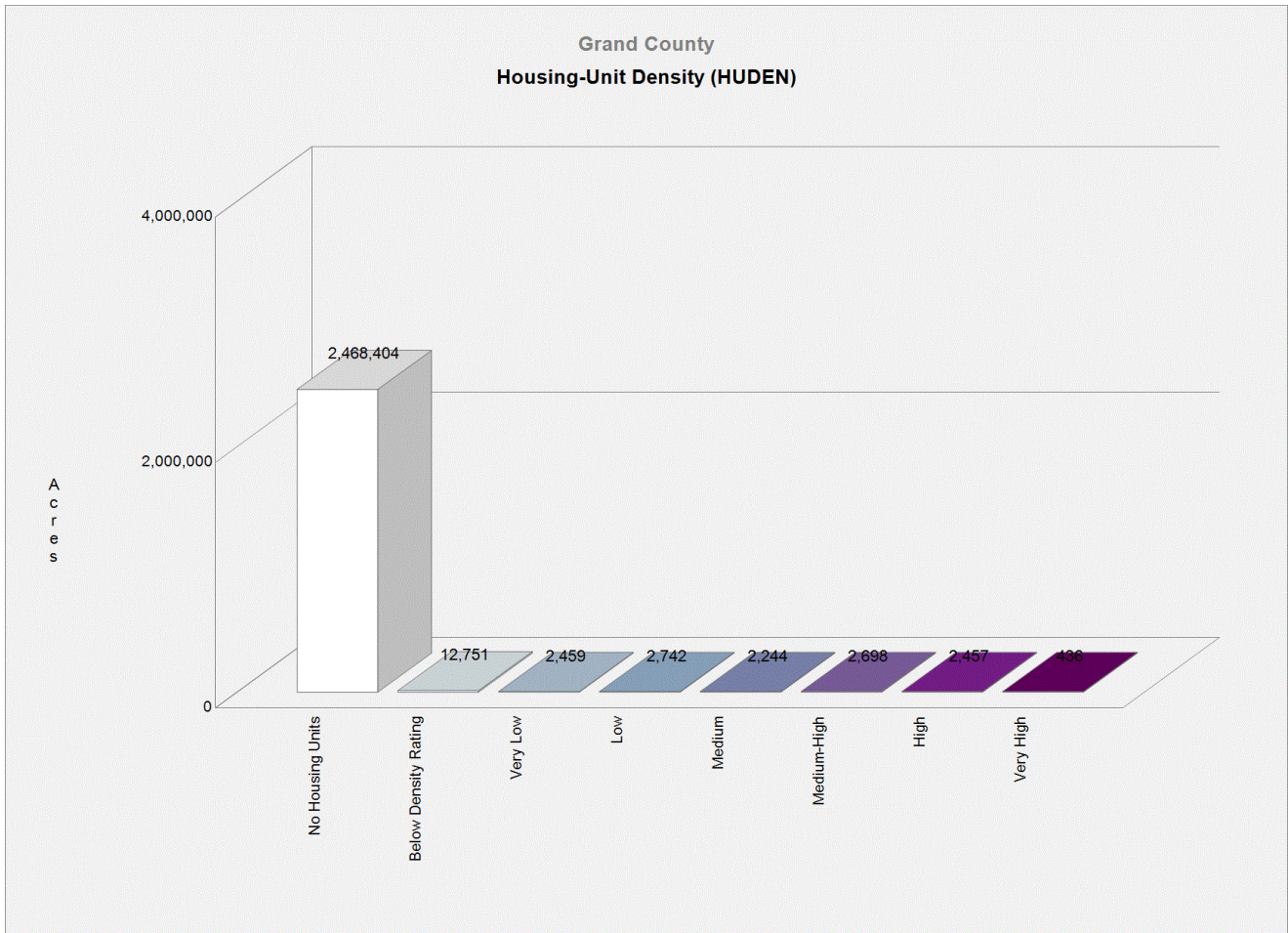
Housing-Unit Density (HUDEN)

This dataset is the Housing-Unit Density (HUDEN) raster for the United States. HUDEN is a nationwide raster of housing-unit density measured in housing units per square kilometer. It reflects 2018 estimates of housing unit and population counts from the U.S. Census Bureau, combined with building footprint data from Microsoft (version 1.1), LandScan where building footprint data were unavailable, and land cover data from LANDFIRE.

	Housing-Unit Density (HUDEN) Category	Acres	Percent
	No Housing Units	2,468,404	99 %
	Below Density Rating	12,751	1 %
	Very Low	2,459	0 %
	Low	2,742	0 %
	Medium	2,244	0 %
	Medium-High	2,698	0 %
	High	2,457	0 %
	Very High	436	0 %
	Total	2,494,189	100 %

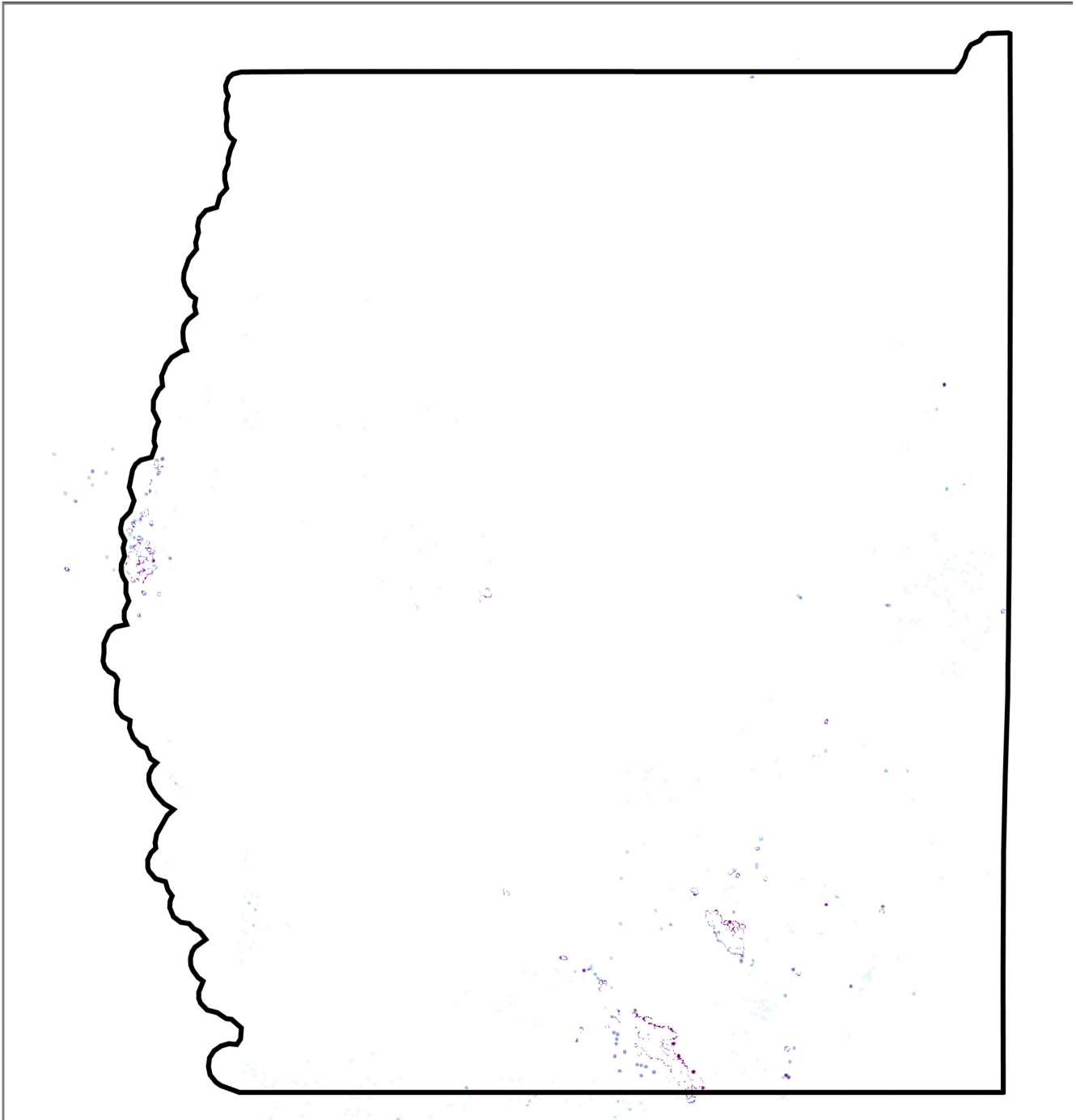
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