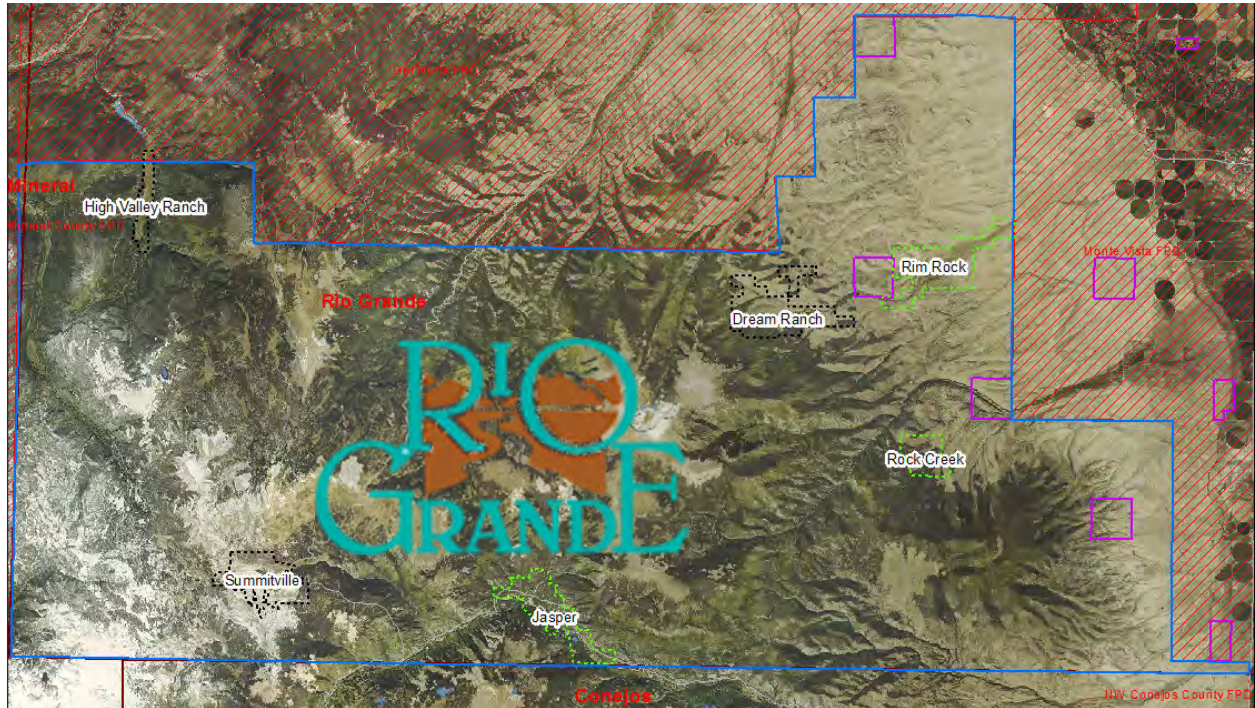


Rio Grande County South Area

Community Wildfire Protection Plan



Prepared by:
Adam Moore, Supervisory Forester
Sam Scavo, Forester
Alamosa Field Office
Colorado State Forest Service



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I. Background

A community wildfire protection plan (CWPP) is a blueprint and an action strategy for prioritizing the protection of life, property and critical infrastructure in your community. A CWPP allows a community to evaluate its current situation with regards to wildfire risk and plan ways to reduce risk for protection of human welfare and other important economic, social or ecological values. CWPPs help protect and prepare communities in the event of a wildfire. If your community resides in the Wildland-Urban Interface (WUI) and you believe there is a risk of wildfire, a CWPP can be excellent tool to gain community support to raise awareness about wildfire threat and to gain support to mitigate hazards. The WUI is any area where structures and other human developments meet or intermingle with wildland vegetative fuels.

The purpose of community fire planning is to:

- Empower communities to organize, plan, and take action on issues impacting community safety
- Enhance levels of fire resistance and protection to the community
- Identify the risks of wildland/urban interface fires in the area
- Identify strategies to reduce the risks to homes and businesses in the community during a wildfire.

How to use this plan

Successful wildfire risk mitigation begins with individual landowners, but landowners associations and other community organizations and entities also have a role to play. Individuals must work to reduce home ignitability and create defensible space.

Community-wide collaborative efforts are required to improve ingress and egress, provide signage, develop water resources, and create evacuation plans. This CWPP identifies efforts required of everyone with an interest in the protection of our communities.

Firefighters / USFS / CSFS	Public
Define WUI communities	Identify wildfire hazards in your community
Rank WUI communities	Prioritize mitigation projects
Identify fuels reduction project	Pursue grant opportunities
Prioritize treatments	Utilize wildfire tax deduction
Educate the public	Motivate the public to perform mitigation

II. Community Collaboration

Introduction:

Stakeholder input is the best method to achieve the best products, local knowledge, and community input. Stakeholder input will identify and address specific needs presented by the communities.

This CWPP:

1. Was collaboratively developed. Interested parties in the region of this CWPP have been consulted.
2. Identifies and prioritizes areas for hazardous fuels reduction treatments and recommends the types and methods of treatment to reduce the wildfire threat to values at risk in the area.
3. Recommends measures to reduce the ignitability of structures throughout the area addressed by the plan.

The following representatives of the entities required for CWPP approval mutually agree with and approve the contents of this Community Wildfire Protection Plan:

Prepared by: **Colorado State Forest Service – Alamosa Field Office**

PO Box 1137 (129a Santa Fe Ave.)

Alamosa, CO 81101

The following report is a collaborative effort between various entities. The representatives listed below comprise the core decision-making team responsible for this report and mutually agree on the plan's contents:

Chris Ortiz, Rio Grande County OEM

Karla Shriver, Rio Grande County Commissioner

Patrick Sullivan, Monte Vista Fire Protection District

Gilbert Trujillo, Del Norte Vista Fire Protection District

Tyler Off, South Fork Vista Fire Protection District

Brian Norton, Rio Grande County Sheriff

Adam Moore, Supervisory Forester, Colorado State Forest Service

Devin Haynie, Battalion Chief – San Luis Valley, CO Division Fire Prevention and Control

The following federal agencies and other interested parties were consulted and involved for the preparation of this report:

Rio Grande National Forest – Sid Hall, Martha Williamson, Chad Lewis

Bureau Land Management – Paul Minow

In addition to the above, the task force consulted with a number of interested parties to acquire additional input as the plan was developed:

Dixie Diltz – Rio Grande County Land Use Office

Meetings were held to encourage input from interested parties.

A draft version was made available to residents for comments.

III. Goals & Objectives

INTRODUCTION:

Wildfire has been a continuing challenge throughout Colorado's history. The safety of the citizens of any community 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 at the citizen/owner and association level.

Goals of a CWPP:

- Improve fire prevention and suppression.
- Restore forest health.
- Promote community involvement.
- Recommend measures to reduce structural ignitability in the CWPP area
- Open community discussion regarding management options.
- Provide maximum flexibility for communities to determine the substance and detail of their plan.
- Merge the goals and objectives of the landowners with the needs and expectations of the community regarding fire risk reduction in collaboration with local government officials including emergency management and fire departments.
- Coordinate fire protection strategies across property boundaries.
- Coordinate the grant funding and federal program budgets to achieve the most effective results with limited funding.
- Reduce the potential for and the consequences of wildfires.
- Increase organizational and interagency readiness.
- A reduction in the risk to watersheds and drinking water supplies.
- Reduce the risk of catastrophic wildland fires.
- Promote wildfire awareness programs.
- Reduce the risk of poor air quality through mitigation actions.
- Identify evacuation routes and temporary shelters.

Objectives of a CWPP:

- Identify and prioritize areas for hazardous fuels reduction treatments.
- Increase communication among residents of the community.
- Complete wildfire risk assessments.
- Address treatment of structural ignitability.
- Identify local fire response capacity and training needs.
- Reduce hazardous forest fuels.
- Enhance the safety of residents and responders.
- A prioritized action list of mitigation projects to reduce wildfire risk in the community
- Development of a user-friendly set of resources for homeowners and communities to use to reduce wildfire risk.

Rio Grande County South Area CWPP Goals:

The **goals** of the CWPP include mitigation practices for hazardous fuel reduction, permanent firebreaks and structure ignitability reduction practices. They may also include public information and education.

The specific **goals** of the Rio Grande County South Area CWPP implementation plan are:

- Wildland Fuels Treatments will -
 - Provide for firefighter and public safety in the event of a wildland fire.
 - Protect properties and communities located in the WUI.
 - Reduce the risk of catastrophic, high intensity crown fires from threatening communities.
 - Use the best available science and leverage multi-party resources to provide effective planning and implementation of fuels treatments.
 - Utilize fuel treatments to contribute toward the healthy, resilient ecosystems that are less receptive to catastrophic disturbances such as drought, insects and wildfire.
 - Reduce air quality risks during wildfire events.
- Create and maintain fire-adapted communities.
- Increase the community's ability to prepare for, respond to and recover from wildland fires.
- Recommend measures to reduce the ignitability of structures throughout the CWPP area.
- Improve community's preparedness for emergencies and evacuation.
- Raise community awareness of the issues and solutions of living in the wildland-urban interface.
- Assist residents in locating and securing resources for reducing risk. Instill a sense of personal responsibility for taking preventative actions regarding wildland fire.

Rio Grande County South Area CWPP Objectives:

The objectives of this CWPP are to set clear priorities for the implementation of wildfire mitigation in Rio Grande County South Area community. This includes prioritized recommendations for the community as a whole and also for individual homeowners where appropriate. This also includes prioritized recommendations as to the appropriate types and methods of fuel reduction and structure ignitability reduction that will protect this community and its essential infrastructure. The objectives should be as specific and measurable as possible.

- Increase number of Firewise USA Communities.
- High and Extreme ranked communities will decrease fuels to reduce wildfire intensity and impact in and around the community.
- Responding fire departments will evaluate, upgrade and maintain community wildfire preparation and response facilities and equipment.
- Community will help educate community members to prepare for and respond to wildfire.
- Community will regularly evaluate, update and maintain planning commitments.
- Community will develop and implement a comprehensive emergency response plan.
- Continue to evaluate wildfire potential in areas of concern.

IV. Community Background and Existing Situation

Introduction:

This provides an overview of the area covered by the Rio Grande County South Area CWPP. It provides a description of the jurisdiction including its location, development history, weather, historic fire conditions and land ownership.

Overview: The area covered by the Rio Grande County South Area CWPP is in the southwest part of Rio Grande County, which is in the San Luis Valley. Conejos County is to the south. There are multiple access points that are to the west of CO 15. This is a very rural and frontier part of Colorado without any large communities. The areas are serviced by the Monte Vista Fire Protection District. None of this area is located in a fire protection district, although Rim Rock now contributes to the Monte Vista FPD.

History: Various old homestead sites, ranches and mining claims create the areas where private development are adjacent to federal lands. The aforementioned area has since been subdivided and organized into private residential parcels. Additional subdivisions are platted on the books but have not been developed yet.

Weather: Typically the area experiences strong westerly winds in the spring. Lower elevations receive 7 inches of precipitation and the upper elevations receive 44 inches. Lower elevations precipitation occurs mostly during the winter as snow and afternoon summer rainstorms. Most precipitation at higher elevations occurs as winter snow.

Topography: Topography varies from flat to foothills to steep slopes. Variations in topographic features such as valleys, ridges, rock outcroppings, canyons and saddles are regular features that present hazards that further intensify or attract fires. Thankfully, most of the communities have been carved out of relatively flatter areas versus the steep slopes that surround the community. Unfortunately steep slopes may surround a community. Steeper terrain may contribute to more active wildfire behavior thereby providing additional challenges for suppression.

Historic Fires: Most recent fires in the area are small (less than 1/2 acre) and 75% lightning caused. However, even small fires can present a threat to life, safety, and property. This is based on the availability of fuel, both vegetative and man-made; the direct Wildland Urban Interface of subdivisions bordering fuel beds; community infrastructure, including access/egress routes, as well as weather and drought conditions.

Vegetation: The eastern and northern area is dominated by BLM land with sparse grassy vegetation. As you head west and up in elevation the vegetation transitions to pinyon pine forest along the foothills. Ponderosa pine/Douglas-fir/aspen montane forests cover the mid-slope while Engelmann spruce and alpine meadows are found at the higher elevations. Ponderosa pine/Douglas-fir forests are generally dense enough to sustain a substantial crown fire resulting in a high fire risk.

Access: Roads within the CWPP vary in surface, maintenance, quality and type of vehicles that can be safely used. Most communities are accessed or have within them gravel roads of varying quality. Road quality within communities ranges from good to poor. Driveway quality varies dramatically. Some communities have bridges that do not have load ratings on them. The primary type of firefighting vehicle responding to an area will probably be an ICS Type III - VI truck for wildland firefighting.

V. Community Base Map

Ownership:

The Rio Grande South Area CWPP incorporates land with various ownership as summarized below:

Land Ownership	Acres	Percentage
Private	12,456	6
BLM	32,200	16
USFS	160,223	77
Colorado State Land Board	2,560	1
Total	207,439	100

Communities:

These areas have been identified as WUI communities. The list is primarily based on subdivisions located within the CWPP that meet the WUI criteria of having more than 1 house per 40 acres and wildland vegetation is more than 50 percent.

WUI Communities	
Rim Rock II	Jasper
Rock Creek	

These areas have been identified as WUI areas of concern. The list is primarily based on large land holdings / ranches with a few structures on them. They do not have more than 1 house per 40 acres. If further development occurs in these areas they should be re-evaluated for their status as a WUI community.

WUI Areas of Concern	
Summitville	High Valley Ranch
Dream Ranch	

For the purposes of this plan, the WUI Zones can serve as planning unit boundaries. An additional planning buffer of ½ mile should also be considered to take into account changing fuel conditions. Subdivisions offer a ready-made boundary with known ownership and possible leadership infrastructure (Homeowners Associations or other community collaborations) appropriate to undertaking WUI-wide mitigation efforts. In areas without existing leadership, coordination of mitigation efforts might be more difficult. For these areas, mitigation recommendations include developing relationships or infrastructure, including identifying a Wildland Fire Mitigation Advocate that can support collaborative efforts within the community.

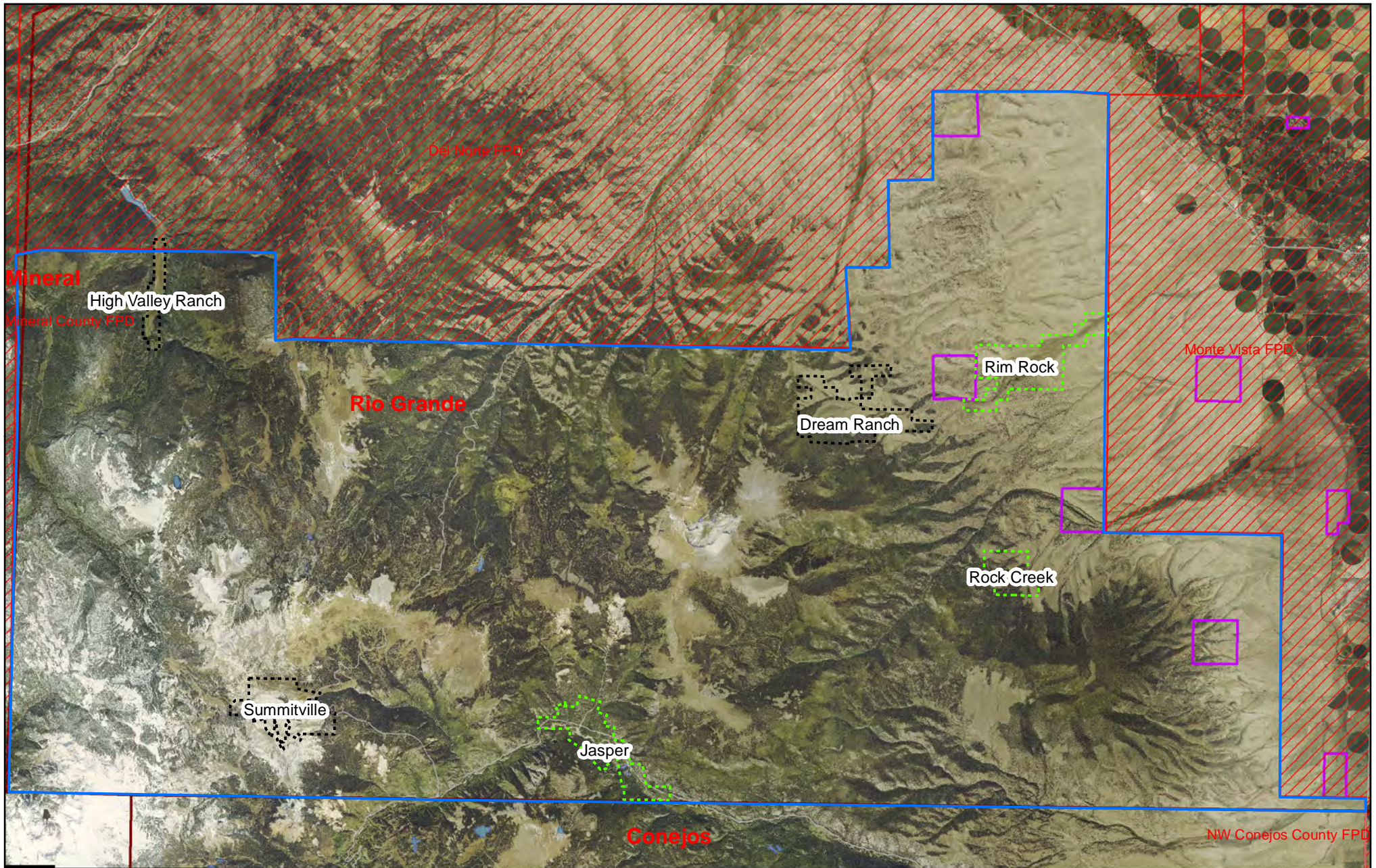
After considering the location of inhabited areas, critical human infrastructure, risk of wildfire CSFS has identified on the map a wildland-urban interface zone around the community assets, which in general includes the area within 200-400' from the community or structure. Ownership, natural and man-made barriers have been used to define the boundary of the community base map (e.g. highways, ridgelines, rivers, etc.).

Attached are base maps of the communities and adjacent landscapes of interest.

Highlighted on the map are:

- The inhabited areas at potential risk to wildfire and include:
 - WUI Zones & boundary
- Areas containing critical human infrastructure that require protection include escape routes, municipal water supplies, transportation resources, power or communication structures.
- Areas of community importance, including:
 - (name significant recreation and scenic areas)
 - (name the landscapes of historical, economic or cultural value)
 - (name landscapes designated as critical habitat)
- Land ownership
- COWRAP analysis

Rio Grande South CWPP - Overview



0 7,000 14,000 28,000 42,000 Feet

Legend

Rio Grande South CWPP

Communities

WUI

Yes

No

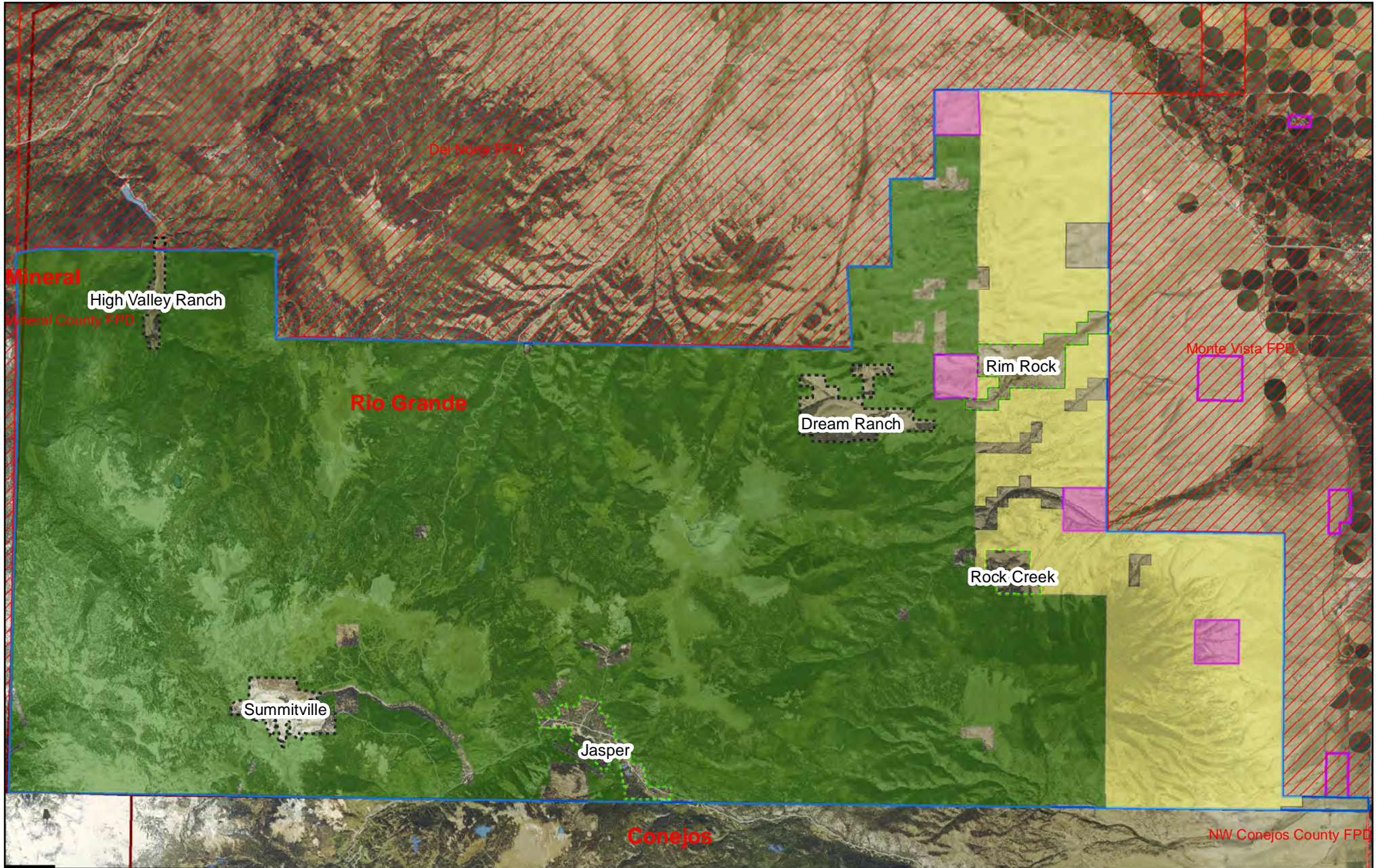
Fire Districts

Prepared By:



Alamosa District

Rio Grande South CWPP - Land Ownership



0 7,000 14,000 28,000 42,000 Feet

Legend

Communities

WUI

Yes

No

Rio Grande South CWPP

FireDistricts

Land Ownership

BLM

Private

State Trust Land

USFS

Prepared By:



Alamosa District

VI. Community Hazard & Fuels Map

Introduction:

The Community Hazards Maps are the same as the Community Base Map but with wildfire hazards from the CO-WRAP analysis. High numbers from any of these maps around your community means that substantial suppression difficulties may exist. These maps identify fuel and topography conditions that increase the communities' risk.

CO-WRAP Maps & Analysis:

The Colorado Wildfire Risk Assessment Portal (CO-WRAP) was used to generate reports on a variety of wildfire-oriented themes. CO-WRAP was developed by the Colorado State Forest Service and is a tool designed to provide wildfire risk information to both resource managers and any interested citizens. Because CO-WRAP utilizes digital data at a resolution of 30 meter by 30 meter units (approximately 100 ft by 100 ft), smaller-scale differences are sometimes unable to be detected.

These are useful illustrations of how the forests within the CWPP transition across a large area, and the amounts of each type found within the district. On any given parcel of land, there may be several different forest and fuel types present, which will not be reflected on these maps as noted previously. Nor do these maps provide any information as to important forest attributes such as tree density, size, age or overall health. These maps do provide information for landscape-scale project planning, but only on-the-ground examination can provide planners the necessary information for detailed project layout.

Fire Behavior Analysis – from CO-WRAP Analysis

Vegetation

Depicts general vegetation landcover and fuel type. These are useful illustrations of how the forests within the CWPP transition across a large area and the amounts of each type found within the CWPP. On any given parcel of land, there may be several different forest and fuel types present. Nor do these maps provide any information as to important forest attributes such as tree density, size, age or overall health. These maps do provide information for landscape-scale project planning, but only on-the-ground examination can provide planners the necessary information for detailed project layout.

Suppression Difficulty

This rating reflects the difficulty or relative cost to suppress a fire given the terrain and vegetation conditions that may impact machine operability under normal fire conditions. This layer is an overall index that combines the slope steepness and the fuel type characterization to identify areas where it would be difficult or costly to suppress a fire due to the underlying terrain and vegetation conditions that would impact machine operability. The amount of effort, risks present, the tactics and resources employed in suppression of wildland fires is dictated to a large extent by the current and predicted fire behavior.

Other important factors may include resource availability, access, ownership and regulations. During the initial attack phase of a fire, the amount of difficulty suppression forces encounter in traveling to and attacking the fire is an important determinant of whether the fire will be quickly brought under control or rage out of control causing great expense and loss.

To assist firefighter's efforts the homeowners should create defensible space.

Rate of Spread

Represents a measure of the expected rate of spread of a potential fire front over time. Rate of spread is influenced by fuels, weather and topography. This measurement represents the maximum rate of spread of the fire front. The measurement is based off of chains (66 feet). Chains per hour roughly equates to feet per minute (example – a fire moving 12 chains/hour will be moving 12 feet per minute).

A fire's rate of spread also factors into the tactics and resources employed to fight it. Very low rates of spread mean that firefighters may be able to safely attack the fire from all directions or spend time mitigating fuels around structures. A fire moving very quickly may only be safely attacked from the rear and sides (known as a "flanking attack") while the fire front is allowed to burn to a road or some other obstacle and firefighters may not have time to mitigate fuels around a structure.

Predictions about rates and direction of a fire's spread also influence emergency managers' decisions regarding public safety and consequence management. Determining areas for immediate evacuation versus those which may only be on alert are one such example.

The knowledge of how fuel types affect both fire intensity of rate of spread is important to landowners, foresters and fire managers as they seek to reduce risks to lives and property from wildfires. Not only do these measures dictate actions during a wildfire, they also must be considered when planning preventative measures, such as hazard reduction thinning or fuel break construction.

Flame Length

Represents the measure of the expected flame length of a potential fire. Flame length is influenced by fuels, weather and topography. It is an indicator of fire intensity and is often used to estimate how much heat the fire is generating. Since flame length describes the intensity of a fire, low fire lengths may allow firefighters and machinery close to flame front, and when lengths are high, these resources must be positioned further away. Hand crews cannot safely control fires that exceed 4 foot flame lengths.

Due to the anticipated flame lengths firefighters may not attempt to protect structures. Homeowners may decrease flame lengths around their structures through creating defensible space in advance.

Fire Intensity Scale

Specifically identifies areas where significant fuel hazards and associated dangerous fire behavior potential exist. Similar to the Richter scale for earthquakes, FIS provides a standard scale to measure potential wildfire intensity. FIS consist of five (5) classes where the order of magnitude between classes is ten-fold. The minimum class, Class 1, represents very low wildfire intensities and the maximum class, Class 5, represents very high wildfire intensities. It only evaluates the potential fire behavior for an area.

- 1. Class 1, Lowest Intensity:**

Very small, discontinuous flames, usually less than 1 foot in length; very low rate of spread; no

spotting. Fires are typically easy to suppress by firefighters with basic training and non-specialized equipment.

2. **Class 2, Low:**

Small flames, usually less than two feet long; small amount of very short range spotting possible. Fires are easy to suppress by trained firefighters with protective equipment and specialized tools.

3. **Class 3, Moderate:**

Flames up to 8 feet in length; short-range spotting is possible. Trained firefighters will find these fires difficult to suppress without support from aircraft or engines, but dozer and plows are generally effective. Increasing potential for harm or damage to life and property.

4. **Class 4, High:**

Large Flames, up to 30 feet in length; short-range spotting common; medium range spotting possible. Direct attack by trained firefighters, engines, and dozers is generally ineffective, indirect attack may be effective. Significant potential for harm or damage to life and property.

5. **Class 5, Highest Intensity:**

Very large flames up to 150 feet in length; profuse short-range spotting, frequent long-range spotting; strong fire-induced winds. Indirect attack marginally effective at the head of the fire. Great potential for harm or damage to life and property.

Fire Type

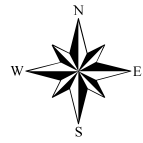
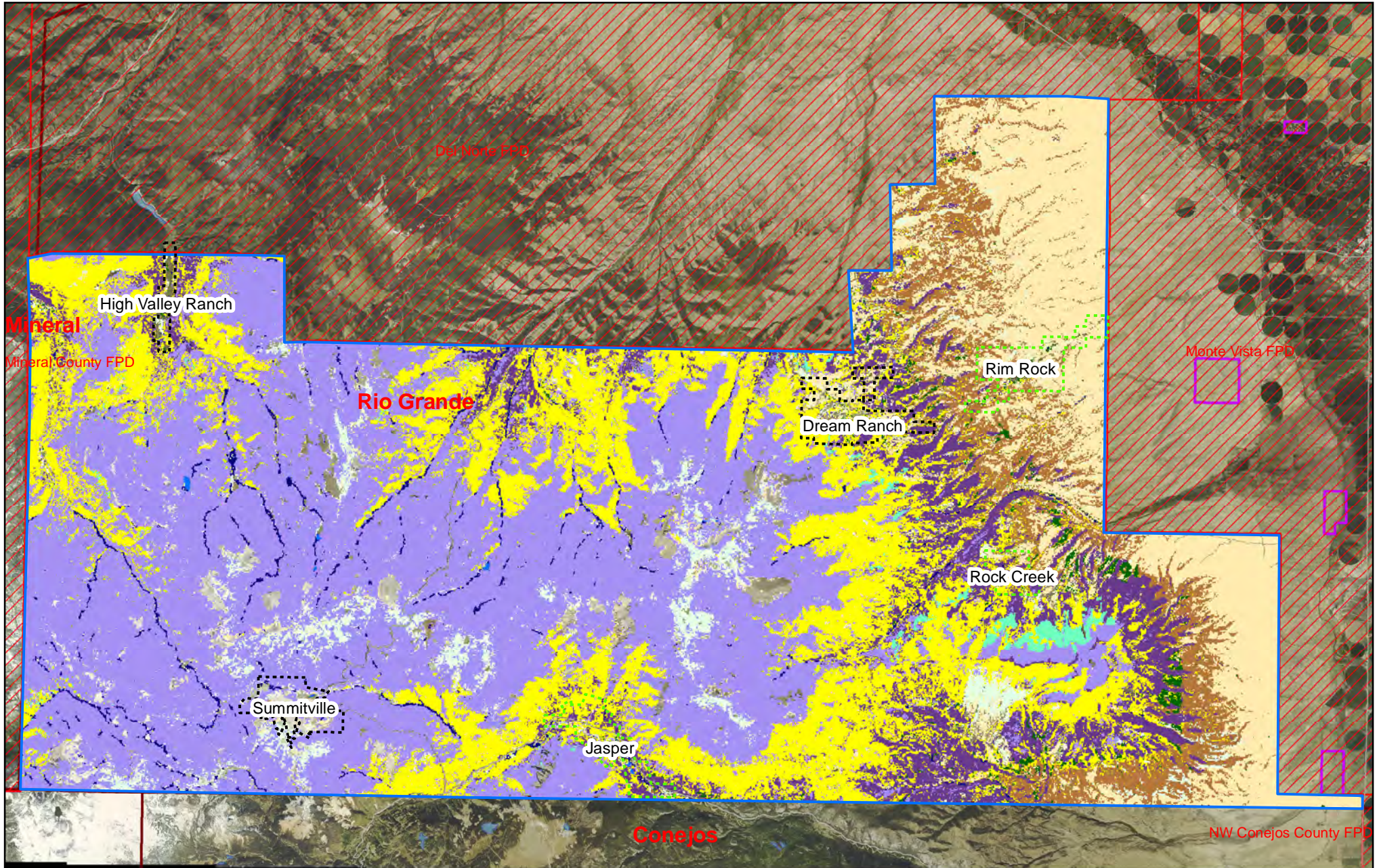
Represents the potential fire type under the most extreme fire weather conditions. The type of fire determines how firefighters may be able to suppress the fire. Surface fires means that firefighters may actively engage the fire and may be able to be in the area to protect structures. Canopy fires mean that aerial resources are the main form of suppression and firefighters may not be able to safely engage the fire on the ground.

A Surface Fire spreads through surface fuel without consuming any overlying canopy fuel.

Surface fuels include grass, timber litter, shrub/brush, slash and other dead or live vegetation within about 6 feet of the ground. Surface fires allow firefighters to actively engage the fire and work in the area to protect structures.

Canopy fires are very dangerous, destructive and difficult to control due to their increased fire intensity. From a planning perspective, it is important to identify where these conditions are likely to occur on the landscape so that special preparedness measure can be taken if necessary. Typically canopy fires occur in extreme weather conditions. *A Passive Canopy Fires* burns the crowns of individual trees or small groups of trees. Whereas an *Active Canopy Fire* burns the entire fuel complex (canopy) is involved in flame. Canopy fires often require aerial resources to be used as the main form of suppression since firefighters may not be able to safely engage the fire on the ground.

Rio Grande South CWPP - Vegetation



0 7,000 14,000 28,000 42,000 Feet

Communities

WUI

Yes

No

Rio Grande South CWPP

Fire Districts

Legend

Vegetation

Aspen

Grassland

Lodgepole Pine

Mixed Conifer

Open Water

Pinon-Juniper

Ponderosa Pine

Riparian

Shrubland

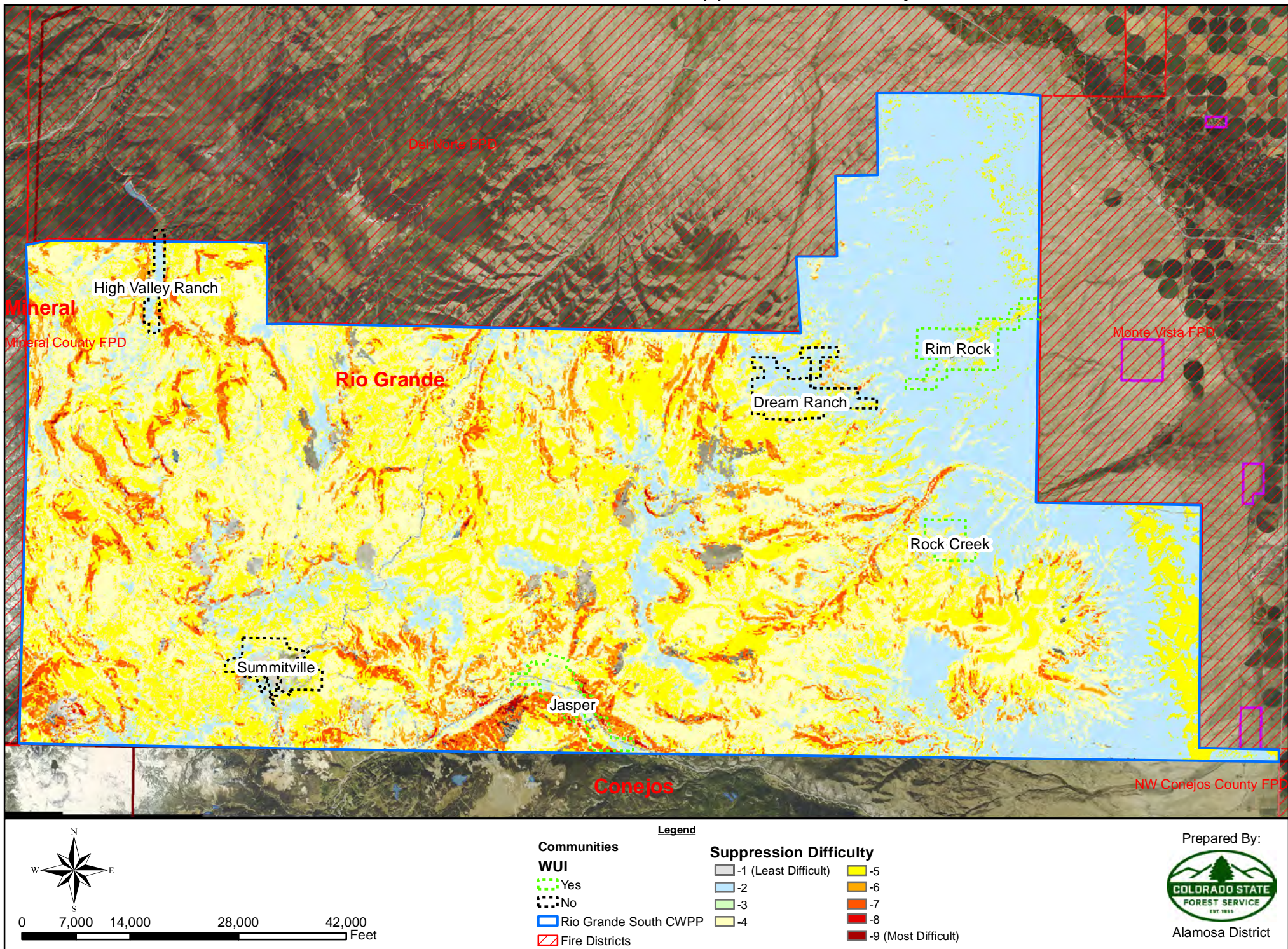
Spruce-Fir

Prepared By:



Alamosa District

Rio Grande South CWPP - Suppression Difficulty

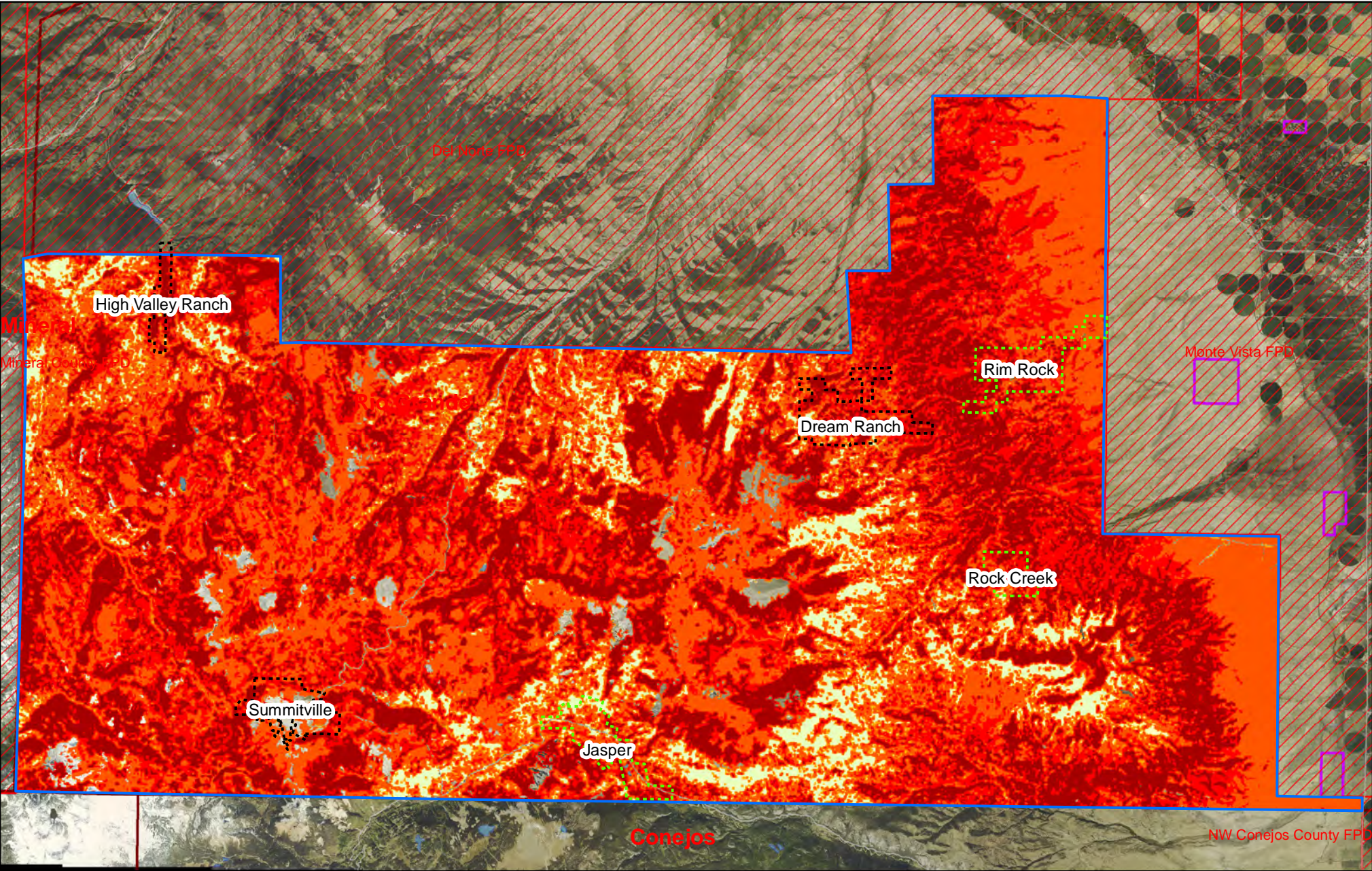


Prepared By:



Alamosa District

Rio Grande South CWPP - Rate of Spread



0 7,000 14,000 28,000 42,000 Feet

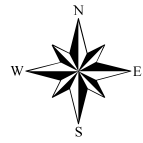
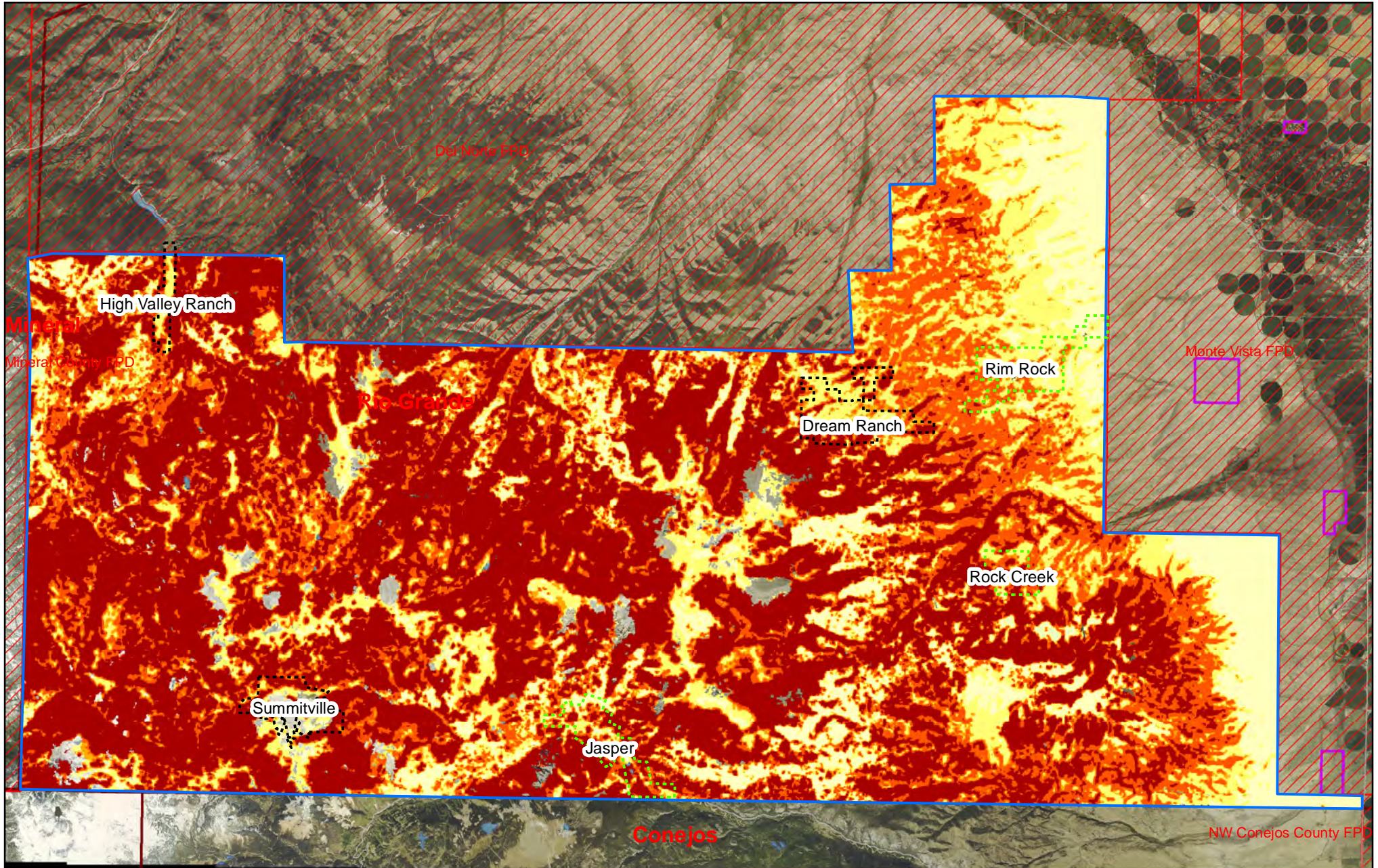
Legend

Communities	WUI	Rate of Spread
Yes	Non-burnable	12 - 40 chains/hr
No	0 - 2 chains/hr	40 - 60 chains/hr
Rio Grande South CWPP	2 - 4 chains/hr	>60 chains/hr
Fire Districts	4 - 12 chains/hr	

Prepared By:

Alamosa District

Rio Grande South CWPP - Flame Length



0 7,000 14,000 28,000 42,000 Feet

Legend

Communities

WUI

Yes

No

Rio Grande South CWPP

Fire Districts

Flame Length

Non-burnable

0 - 1 ft

1 - 4 ft

4 - 9 ft

9 - 12 ft

12 - 25 ft

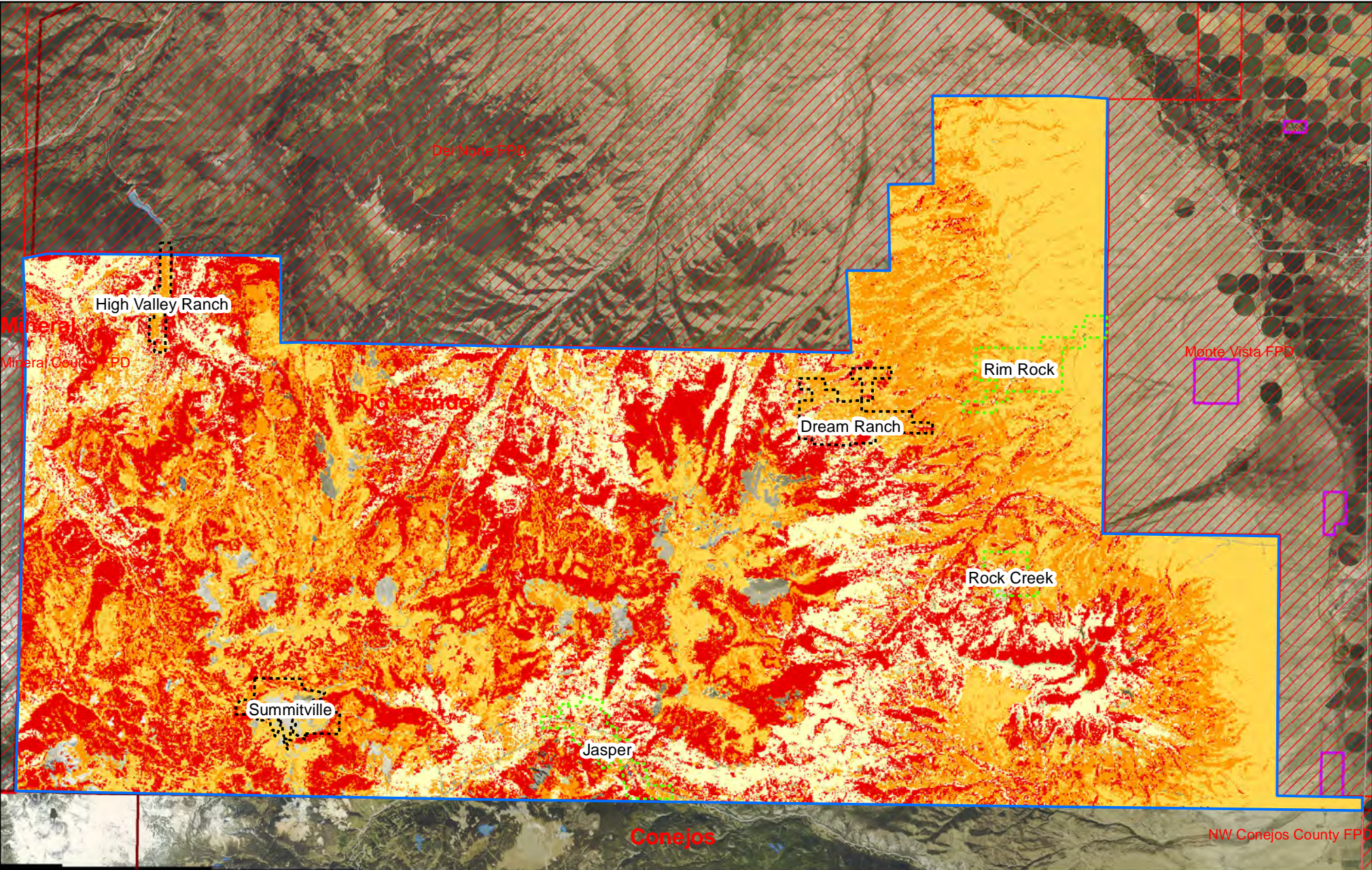
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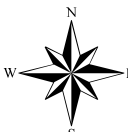
Prepared By:



Alamosa District

Rio Grande South CWPP - Fire Intensity





0 7,000 14,000 28,000 42,000 Feet

Communities

WUI

Yes (dashed green line)

No (dashed black line)

Rio Grande South CWPP (blue outline)

Fire Districts (red outline)

Legend

Fire Intensity


Lowest Intensity (light green)

Moderate Intensity (yellow)

High Intensity (orange)

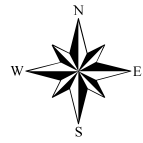
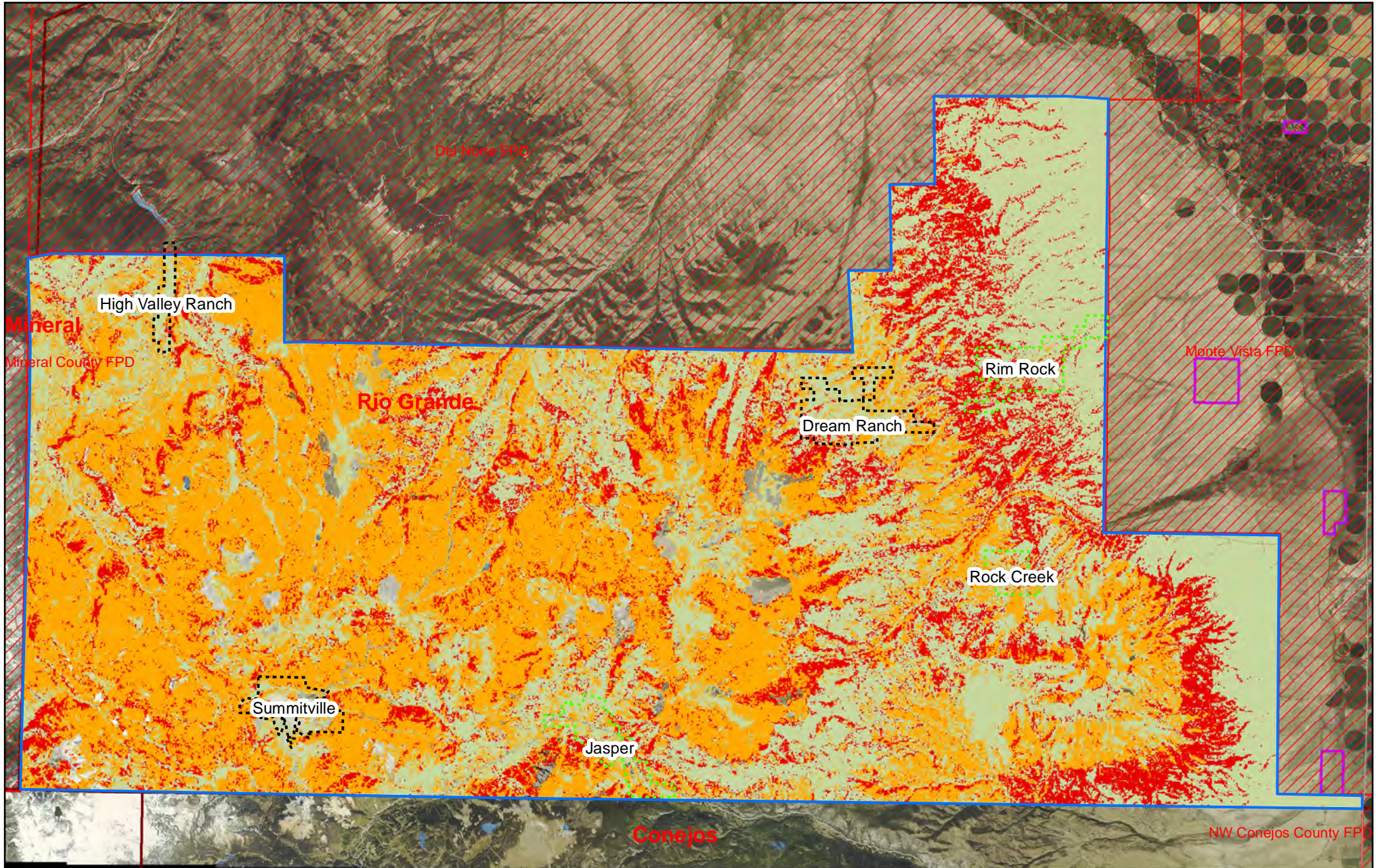
Highest Intensity (red)

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Alamosa District

Rio Grande South CWPP - Fire Type



0 7,000 14,000 28,000 42,000 Feet

Legend

Communities

WUI

Yes

No

Rio Grande South CWPP

Fire Districts

Fire Type Extreme

Surface Fire

Passive Canopy Fire

Active Canopy Fire

Prepared By:



Alamosa District

VII. Community Wildfire Risk Assessment

Introduction:

This section identifies general community concerns. Communities identified as WUIs represent a single geographic area that may encompass a variety of vegetation, topography and infrastructure. Community mitigation recommendations are also identified.

Wildfire hazard ratings for the CWPP communities range from low in some areas to extreme in the steep mountain areas of the west in the district. This assessment is based on an analysis of multiple factors, including the district's wildland fire history, and information provided by experts and the Colorado State Forest Service CO-Wildfire Risk Assessment Portal. It should be noted that incomplete fire occurrence data results in understated wildland fire risk. The following information represents the most accurate information available.

Infrastructure

Infrastructure that could be negatively affected by a fire include various small private dams, powerlines and communication lines. One main powerline runs up to Summitville. Power may be lost or shut off in the event of a fire. The powerline corridor should be evaluated for fuels reduction work along it.

Transportation

There is one main road (FDR 250), which could be closed during a wildfire. Communities (Jasper) that rely on these roads should develop evacuation plans so they are not stuck in place in the event of road closure.

Economic & Commerce

Wildland fires can directly impact an area's economy. A majority of the CWPP consists of large ranches, multi-acre residential developments, ranchettes, Homeowners Associations and unincorporated communities. Numerous residents return during the summer months, the primary wildfire season in Colorado. Economic losses will occur if residents are unable to work due to wildfires.

Tourism

Effects on tourism could be considered a subset of the Economic & Commerce effects. Tourism brings in external money to Rio Grande County during both the primary wildfire seasons of summer and fall. Main tourist attractions that could be affected include: forested areas for hunting (both guided and unguided), hiking trails, 4-wheel drive roads.

Environmental

The natural resources covered by the CWPP area are one of the main reasons residents live in the area and why tourists come to visit.

Impacts of wildfires in the CWPP can include soil degradation, increased soil erosion, changes in vegetation composition, loss of vegetation and destruction of animal habitats and death of animals, increased weed invasion, and degradation of water quality.

Other

VIII. Individual Community Assessments

Introduction:

This section examines the current wildland fire risk in the individual communities in the CWPP based on current conditions and recommends fire mitigation strategies. Each community evaluation includes information about typical lot sizes or acreage, structure risk assessments, area fuel types, expected fire behavior, and risk mitigation recommendations and can serve as a stand-alone plan. Once individual communities are successful in achieving initial mitigation efforts, the likelihood that large-scale landscape treatment projects involving multiple landowners can be accomplished will improve.

To improve life safety and preserve property, every home in identified CWPP communities should have compliant, effective defensible space. Mitigation efforts designed to create defensible space are usually the recommended first priority for every identified community.

Defensible space is determined to be the greatest benefit for the least cost for landowners, and is the MOST IMPORTANT action an individual can take. However, additional larger landscape-scale projects are also identified, including some projects that require collaborative efforts from adjoining landowners. Identifying these larger projects in surrounding areas will assist communities in obtaining grants to help fund all the projects.

Completing treatment along roads in the communities is a recommendation made throughout the CWPP area. Particular attention should be paid to roads that offer the only access/evacuation routes both in and out of subdivisions or communities.

Each community write-up also includes a community wildfire risk assessment. This assessment assigns a hazard rating ranging from low to extreme based on a composite score that incorporates considerations for factors that affect the potential for hazardous fire behavior in the WUI. The factors considered include: community design, existing building materials, defensible space, availability of fire suppression resources and physical conditions such as fuels and topography. See Appendix E for description of factors.

Each community evaluation that follows can be regarded as an individual document. As a result, you will see recommendations such as creating defensible space that apply to all communities.

Low Hazard	Moderate Hazard	High Hazard	Extreme Hazard
			Jasper
			Rim Rock - West
			Rock Creek

Fire Control Feature Maps

In 2011 and 2012 Forest Stewardship Concepts created a Fire Control Feature map of some of the CWPP communities. These maps are designed to aid firefighters in the event of a fire. It identifies features that may aid firefighters such as: helispots, hydrants, safety zones, steep roads, fuel breaks. It also assessed the structures to give the firefighters an idea of the resources they would need to protect them. The structures were rated as: survivable and non-survivable. A survivable home will survive a wildfire with no help from firefighters. A non-

survivable home may not survive a wildfire without some additional fuels reduction work. A home was determined to be non-survivable if it met any of the following criteria-

- Final score of 8 or greater on Wildland Fire Risk and Hazard Severity Assessment form. See Appendix G for Wildland Fire and Hazard Severity Assessment form.
- On a slope of 31% and greater with heavy vegetation adjacent to the structure.
- Presence of a wood roof.
- Less than 30 feet of defensible space around the structure.
- Fuel or firewood on or under the deck or within 5 feet of a structure.
- Tree branches over house and deck.
- Poor access.

Creating defensible space around structures rated is non-survivable should be the primary course of action for the homeowner.

Jasper

Size	Number of Structures	Overall Fire Hazard
1,316 acres	100+	Extreme

Community Description:

Historically, Jasper was a mining town located at the base of Cornwall Mountain. More recently Jasper has grown into a mostly seasonal development and has been merged with another historic mining town from the same era, the Town of Cornwall. There is year round access to Jasper via FDR 250, which is unplowed beyond the limits of development.

Home construction varies quite a bit in Jasper. Structures from the original town are still present and in use while more modern structures have been built. There is no power to the town, only telephone service. Most homes utilize a solar/battery system or a generator for power. Phone lines service Jasper. In lieu of wells most residents have cisterns for their residential water needs. Lot size in Jasper are ½ - 1 acre with some 50 acre properties outside of town.

Interface Conditions and Fuel Hazards:

Forest Road 250 is the only access to Jasper and is between 20 and 25 feet wide, safe enough for most engines to access, although there are limited areas to easily turn around. In the main town site Forest Road 250 is tanker friendly and could be utilized as a filling area, it is recommended that no larger than a Type VI engine be used to access side roads and drive ways. Majority of homes in Jasper are constructed of noncombustible siding and roofs. Less than 30% of homes have defensible space or sufficient littler clean-up. On average slopes in the development are not in excess of 10%. Forest types are mostly aspen with smaller components of spruce/fir and pine. Fuels between home sites are generally high and fuels are in close proximity to structures.

Fire Response Information

Access is very limited to many houses. A Type VI engine would barely be able to fit up or turn around in many locations. Houses closer to FDR 250 may be reached by as large as a Type III engine. The bridge across Alamosa River to access is the closest drafting site.

USFS Fuels Interface:

Fuelbreak not recommended due to the steepness of the forested terrain.

Recommendations

The following table of recommendations was created using information collected during the community assessments. Together, these recommendations are suggested to minimize the overall wildfire risk.

Priority	Task
1	Create defensible space
2	Thin roadsides for safer ingress/egress
3	Remove firewood or other combustible material on/under deck or near house

Other Recommendations

Houses should be labeled with reflective lettering. Road signs should be reflective and visible. Dead end roads should be labeled.

NEIGHBORHOOD RISK/HAZARD ASSESSMENT RATING SCORE SYSTEM

NAME: Jasper		DATE: 9/23/2016
SIZE (acres): 1,316	# LOTS or HOMES: 100+	RATING: Extreme - 109
COMMENTS: verify no that there is power to jasper		

COMMUNITY DESIGN	28
1. Ingress/Egress <input type="checkbox"/> Two or more primary roads <input checked="" type="checkbox"/> One Road <input type="checkbox"/> One-way road in, one-way out	1 3 5
2. Width of Primary Road <input type="checkbox"/> >24 ft. <input checked="" type="checkbox"/> >20 ft. and <24 ft. <input type="checkbox"/> <20 ft.	1 3 5
3. Accessibility <input checked="" type="checkbox"/> Road grade 5% or less <input type="checkbox"/> Road grade more than 5%	1 3
4. Secondary road terminus: <input type="checkbox"/> Loop roads, cul-de-sacs with outside turning radius of 45 ft. or greater <input type="checkbox"/> Cul-de-sac turn-around radius less than 45 ft. <input type="checkbox"/> Dead-end roads 200 ft. or less in length <input checked="" type="checkbox"/> Dead-end roads greater than 300 ft. in length	1 3 5 10
5. Street Signs <input type="checkbox"/> Present 90-100% <input type="checkbox"/> Present 75-89% <input checked="" type="checkbox"/> Present <75%	1 3 5
6. Address Signage <input type="checkbox"/> Present 90-100% <input type="checkbox"/> Present 75-89% <input checked="" type="checkbox"/> Present <75%	1 3 5
EXISTING BUILDING MATERIALS*	11
1. Roofing Materials <input checked="" type="checkbox"/> Non-combustible covering 90-100% <input type="checkbox"/> Non-combustible covering 80-90% <input type="checkbox"/> Non-combustible covering 70-80% <input type="checkbox"/> Non-combustible <70%	1 5 8 10

*most common within subdivision

2. Existing Building Construction Material <input type="checkbox"/> Noncombustible siding/decks <input checked="" type="checkbox"/> Noncombustible siding with combustible decks <input type="checkbox"/> Combustible siding and decks	1 5 10
3. Unenclosed Features (decks, eaves, vents) <input type="checkbox"/> Less than 25% <input type="checkbox"/> 25-50% <input checked="" type="checkbox"/> >50%	1 3 5
UTILITIES*	3
<input type="checkbox"/> All underground utilities <input checked="" type="checkbox"/> One underground, one above ground <input type="checkbox"/> All above ground	1 3 5
DEFENSIBLE SPACE	25
1. Fuel Load between Home Sites: <input type="checkbox"/> Light <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Heavy	1 5 10
2. Defensible Space for Individual Homes: <input type="checkbox"/> 70% or more of sites <input type="checkbox"/> 30 % or more of sites <input checked="" type="checkbox"/> Less than 30 % of sites	1 7 15
HOME IGNITION ZONE	7
Thorough Litter and Debris Clean Up: <input type="checkbox"/> 70% or more of sites <input type="checkbox"/> 30% to 69% of sites <input checked="" type="checkbox"/> 10% to 29% of sites <input type="checkbox"/> 0% to 9% of sites	1 4 7 10
FIRE PROTECTION	15
1. Water Source <input type="checkbox"/> 500 gpm hydrants within 500 ft. of structures <input type="checkbox"/> 500 gpm hydrants or draft source within 1000 ft. of structures <input checked="" type="checkbox"/> Wafer source 20 minutes away roundtrip <input type="checkbox"/> Water source > 45 minutes away roundtrip	1 2 5 10

2. Fire Department Protection within 5 Miles <input type="checkbox"/> Career Department <input type="checkbox"/> Combination Career / Volunteer <input type="checkbox"/> Volunteer with Seasonal Staffing <input type="checkbox"/> All Volunteer Department <input checked="" type="checkbox"/> No Organized Department	1 3 5 7 10								
FIRE BEHAVIOR	20								
1. Slope <input type="checkbox"/> 8% or less <input checked="" type="checkbox"/> 8%-20% <input type="checkbox"/> 20%-30% <input type="checkbox"/> >30%	1 4 7 10								
2. Aspect <input checked="" type="checkbox"/> North or <8% slope <input type="checkbox"/> East <input type="checkbox"/> West <input type="checkbox"/> South	1 3 7 10								
3. Fuels <input type="checkbox"/> Light density <input type="checkbox"/> Medium density <input checked="" type="checkbox"/> High density	1 3 5								
Situation #3 - Fine or sparse fuels surround structures; infrequent wind exposure; flat terrain with little slope or north aspect; no large wildland fire history or moderate fire occurrence	<input type="checkbox"/> 3								
Situation #2 - Moderate slopes; broken moderate fuels; some ladder fuels; composition of fuels is conducive to torching and spotting; conditions may lead to moderate suppression success; some fire history or moderate fire occurrence.	<input type="checkbox"/> 7								
Situation #1 - Continuous fuels in close proximity to structures; composition of fuels is conducive to crown fires or high intensity surface fires; steep slopes; predominately south aspects; dense fuels; heavy duff; prevailing wind exposure or ladder fuels that may reduce suppression effectiveness; history of large fires or moderate fire occurrence.	<input checked="" type="checkbox"/> 10								
Rating Scale: <table> <tr> <td>39 or less points</td> <td>Low hazard</td> </tr> <tr> <td>40-60 points</td> <td>Moderate Hazard</td> </tr> <tr> <td>61-75 points</td> <td>High Hazard</td> </tr> <tr> <td>76 or more points</td> <td>Extreme Hazard</td> </tr> </table>		39 or less points	Low hazard	40-60 points	Moderate Hazard	61-75 points	High Hazard	76 or more points	Extreme Hazard
39 or less points	Low hazard								
40-60 points	Moderate Hazard								
61-75 points	High Hazard								
76 or more points	Extreme Hazard								
TOTAL FOR AREA: 109									

Rio Grande South CWPP - Jasper



0 950 1,900 3,800 5,700 Feet

Legend

Communities

WUI

Yes

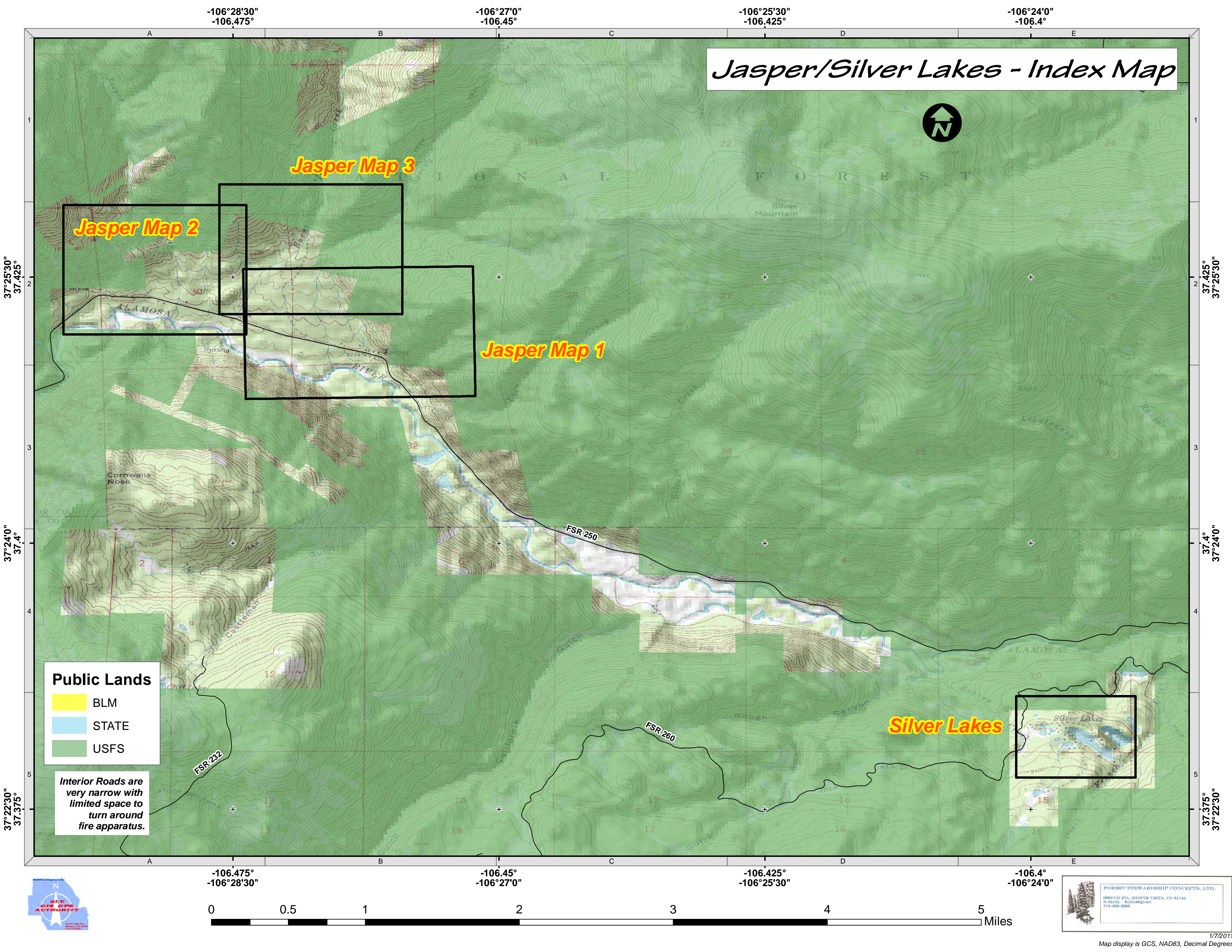
No

WUI-Zone

Rio Grande South CWPP

Prepared By:

Alamosa District



Jasper/Silver Lakes - Index Map

Jasper Map 3

Jasper Map 2

Jasper Map 1

Silver Lakes

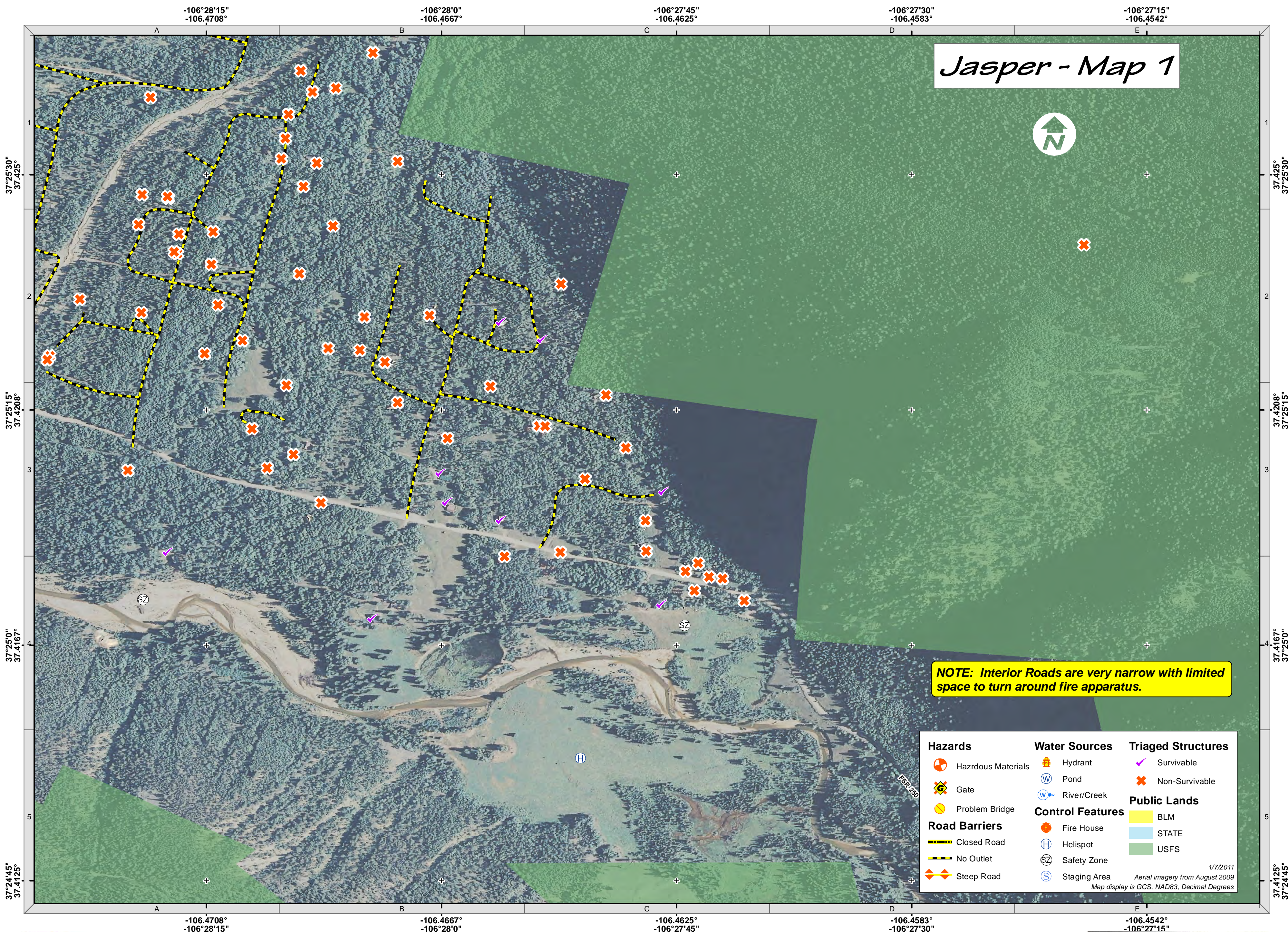
Public Lands

- BLM
- STATE
- USFS

Interior Roads are very narrow with limited space to turn around fire apparatus.



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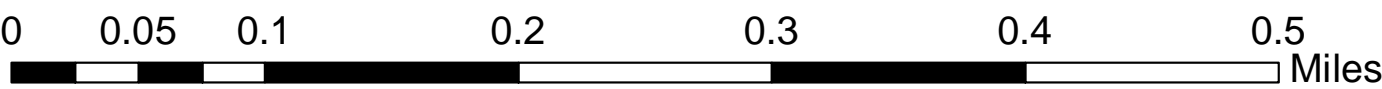
Jasper - Map 1



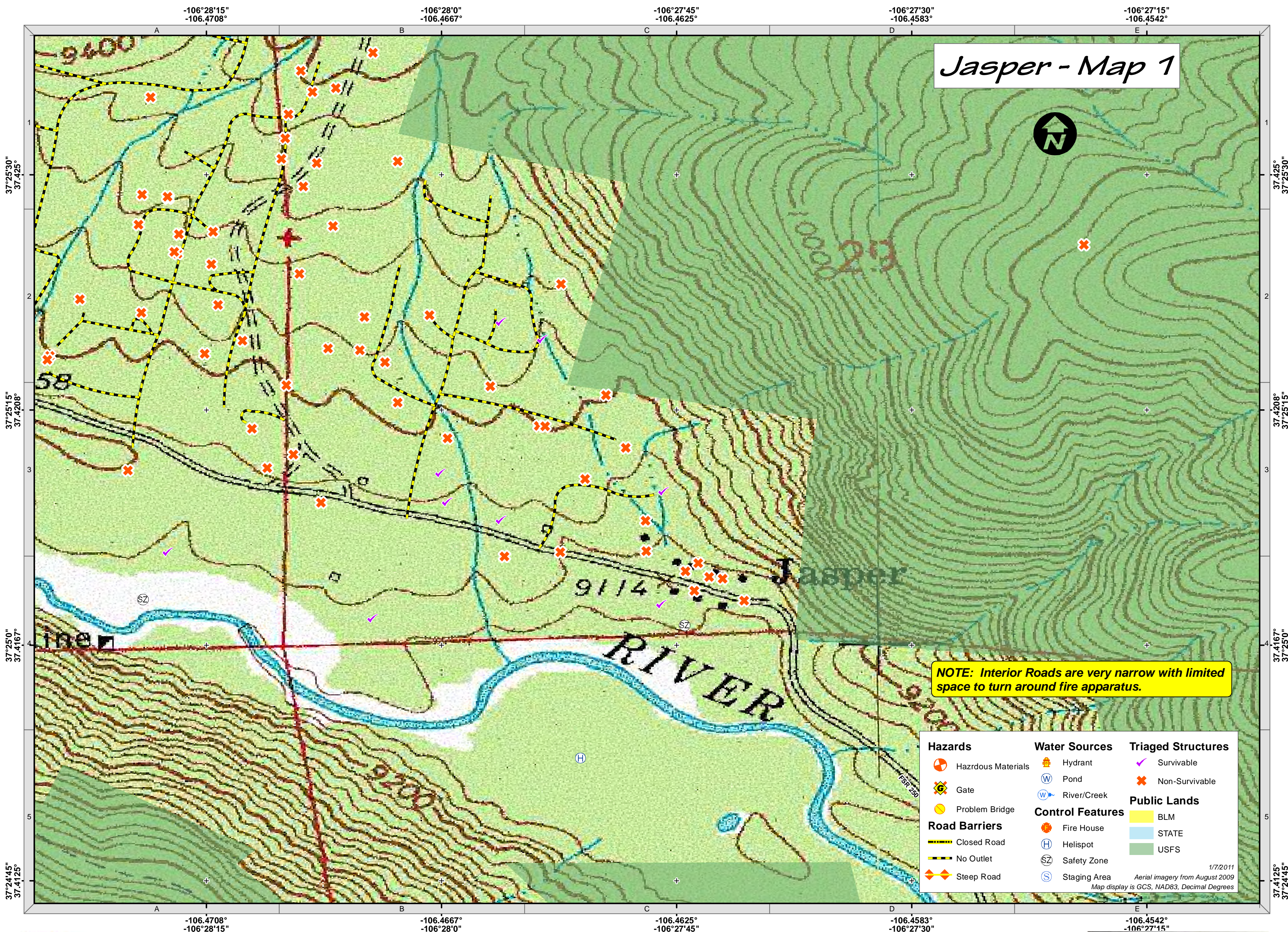
NOTE: Interior Roads are very narrow with limited space to turn around fire apparatus.

Hazards	Water Sources	Triaged Structures
Hazrdous Materials	Hydrant	Survivable
Gate	Pond	Non-Survivable
Problem Bridge	River/Creek	Public Lands
Road Barriers	Fire House	BLM
Closed Road	Helispot	STATE
No Outlet	Safety Zone	USFS
Steep Road	Staging Area	

1/7/2011
Aerial imagery from August 2009
Map display is GCS, NAD83, Decimal Degrees



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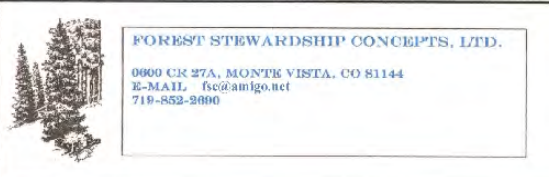
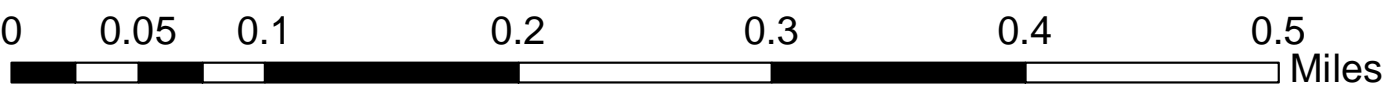


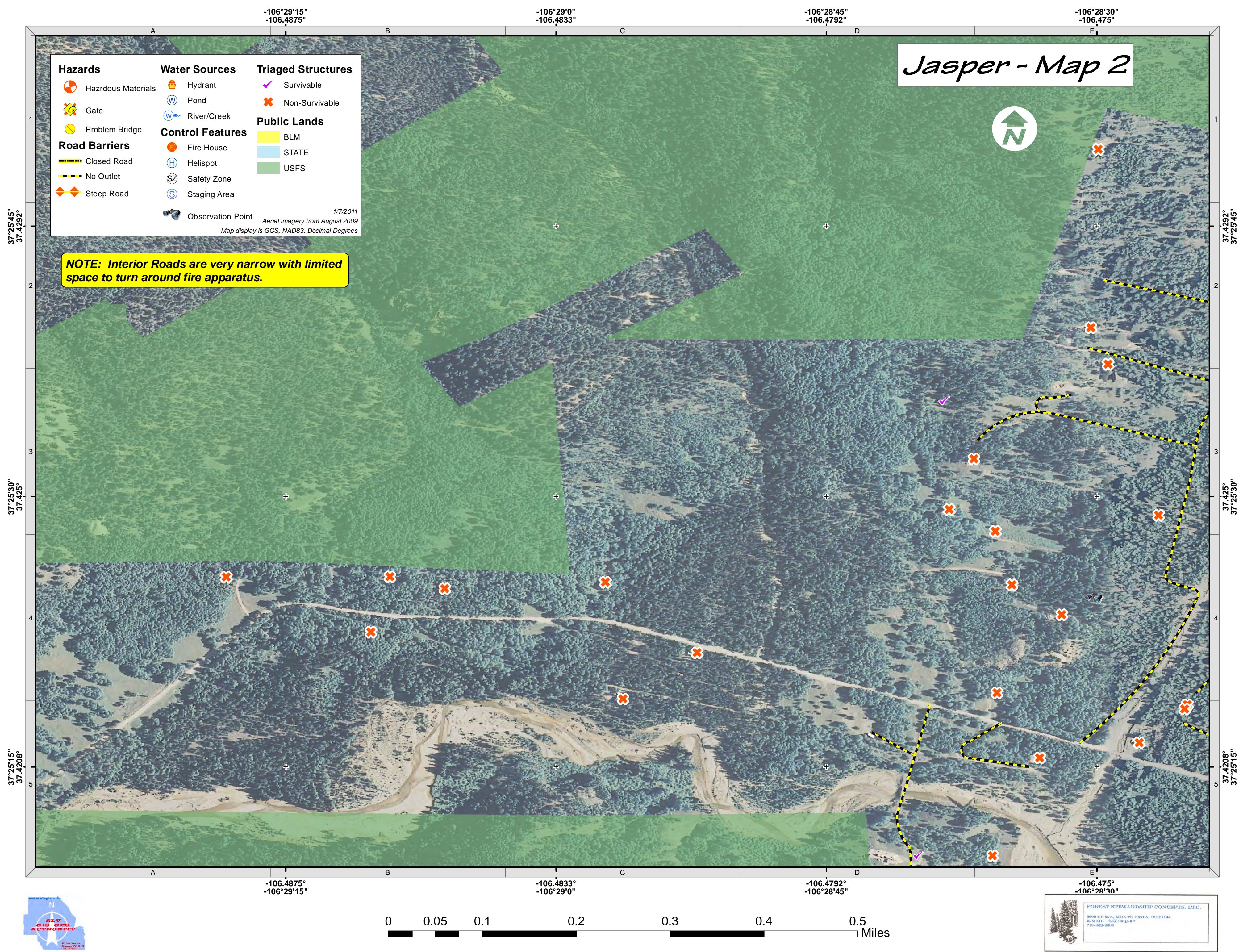
Jasper - Map 1

NOTE: Interior Roads are very narrow with limited space to turn around fire apparatus.

Hazards	Water Sources	Triaged Structures
Hazardous Materials	Hydrant	Survivable
Gate	Pond	Non-Survivable
Problem Bridge	River/Creek	Public Lands
Road Barriers	Fire House	BLM
Closed Road	Helispot	STATE
No Outlet	Safety Zone	USFS
Steep Road	Staging Area	

1/7/2011
Aerial imagery from August 2009
Map display is GCS, NAD83, Decimal Degrees





Jasper - Map 2



Hazards

- Hazardous Materials
- Gate
- Problem Bridge

Road Barriers

- Closed Road
- No Outlet
- Steep Road

Water Sources

- Hydrant
- Pond
- River/Creek

Control Features

- Fire House
- Helispot
- Safety Zone
- Staging Area
- Observation Point

Triaged Structures

- Survivable
- Non-Survivable

Public Lands

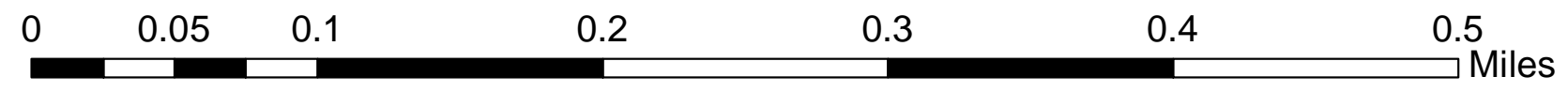
- BLM
- STATE
- USFS

1/7/2011

Aerial imagery from August 2009

Map display is GCS, NAD83, Decimal Degrees

NOTE: Interior Roads are very narrow with limited space to turn around fire apparatus.

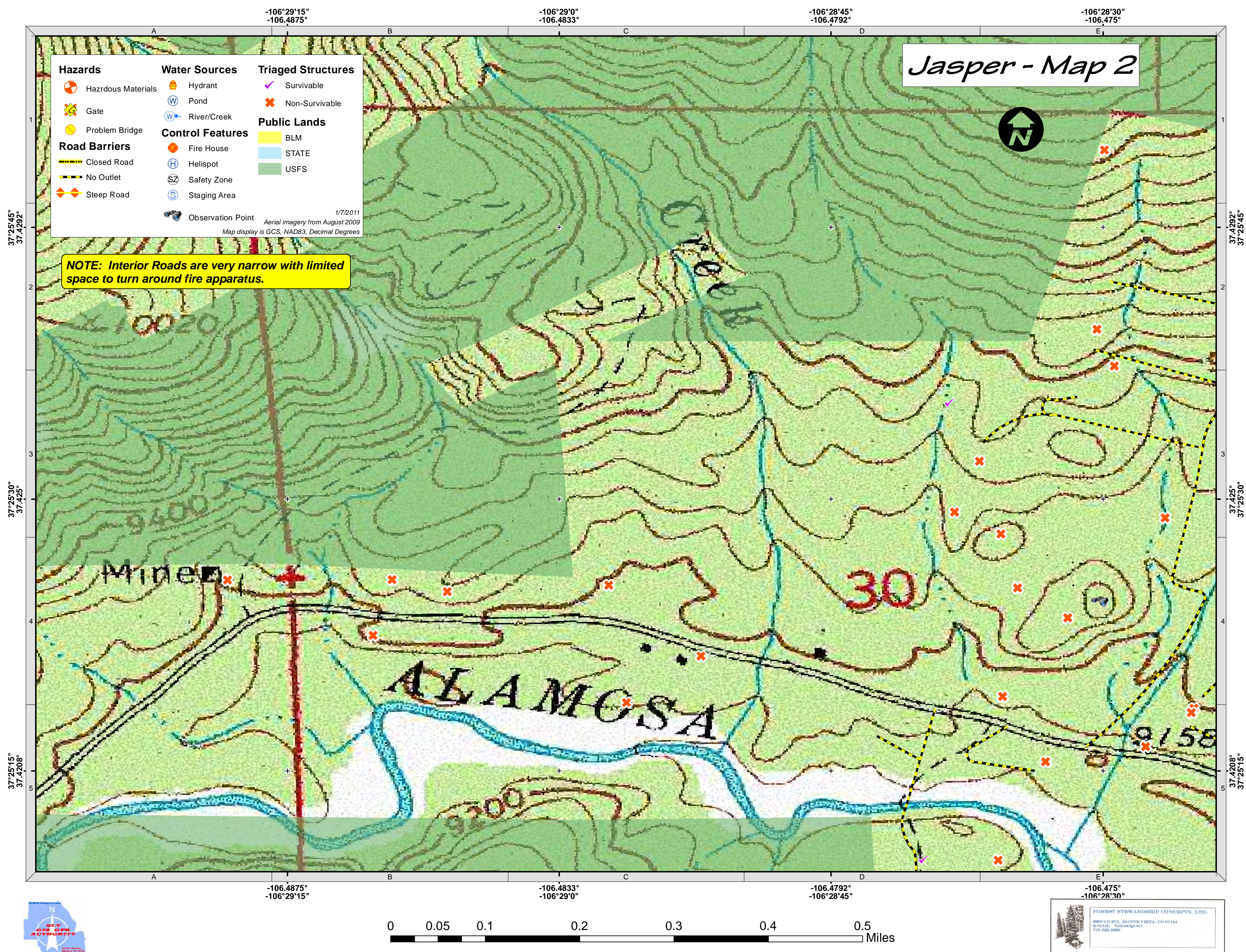


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Jasper - Map 2

Hazards

- Hazardous Materials
- Gate
- Problem Bridge

Road Barriers

- Closed Road
- No Outlet
- Steep Road

Water Sources

- Hydrant
- Pond
- River/Creek

Control Features

- Fire House
- Helispot
- Safety Zone
- Staging Area
- Observation Point

Triaged Structures

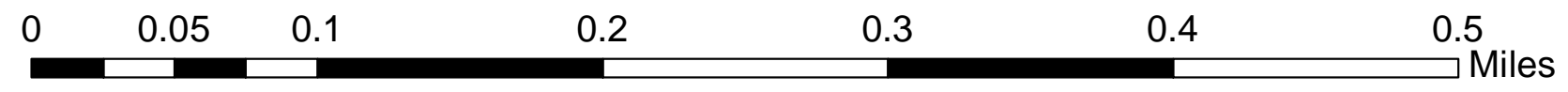
- Survivable
- Non-Survivable

Public Lands

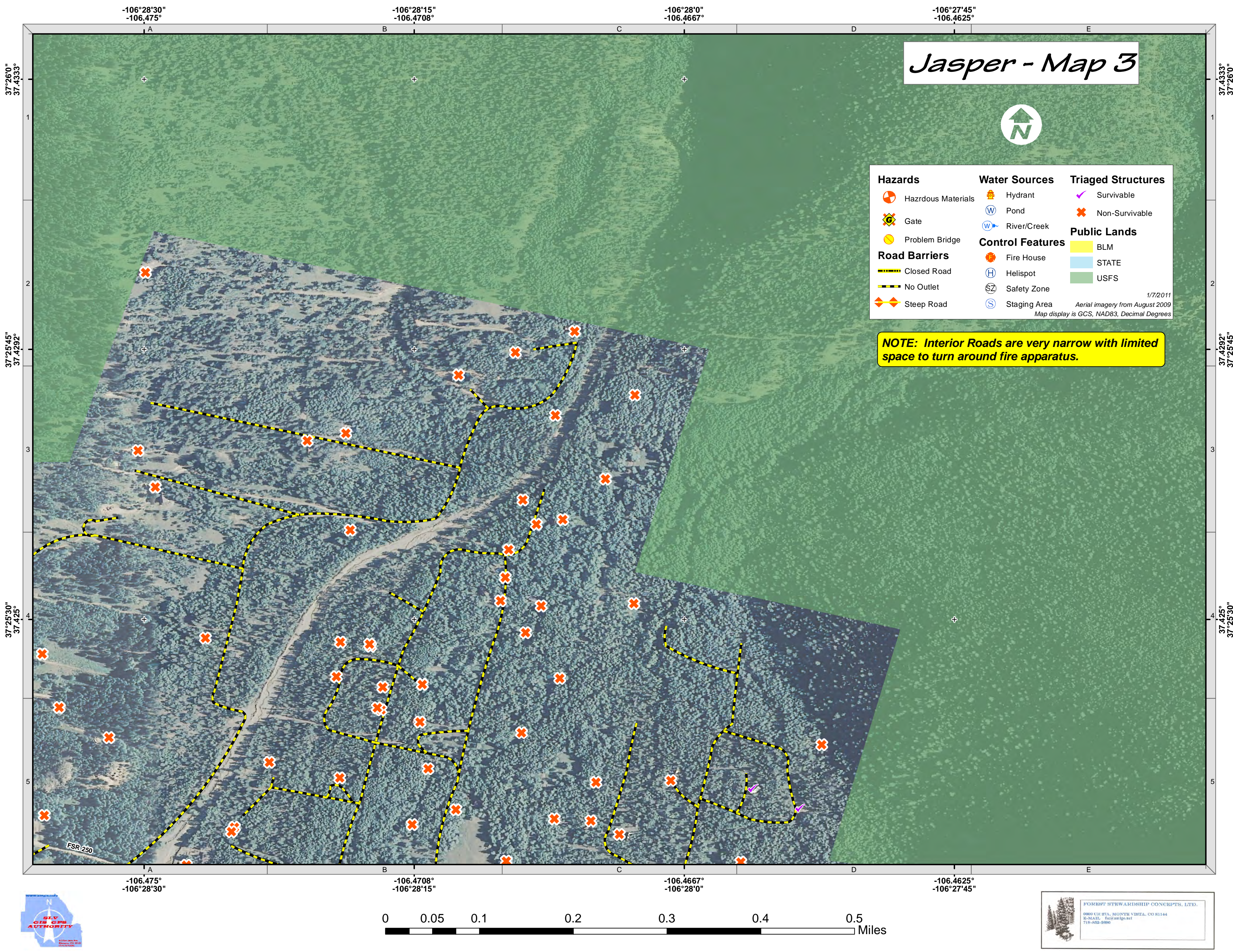
- BLM
- STATE
- USFS

1/7/2011
Aerial imagery from August 2009
Map display is GCS, NAD83, Decimal Degrees

NOTE: Interior Roads are very narrow with limited space to turn around fire apparatus.



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E-MAIL: fsc@amigo.net
719-832-9000



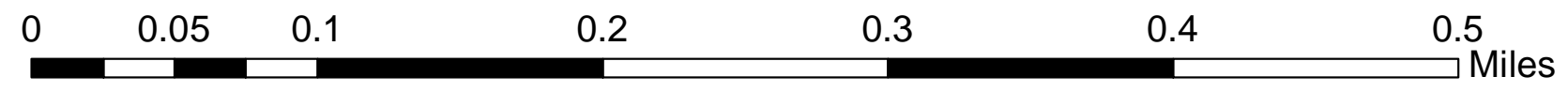
Jasper - Map 3



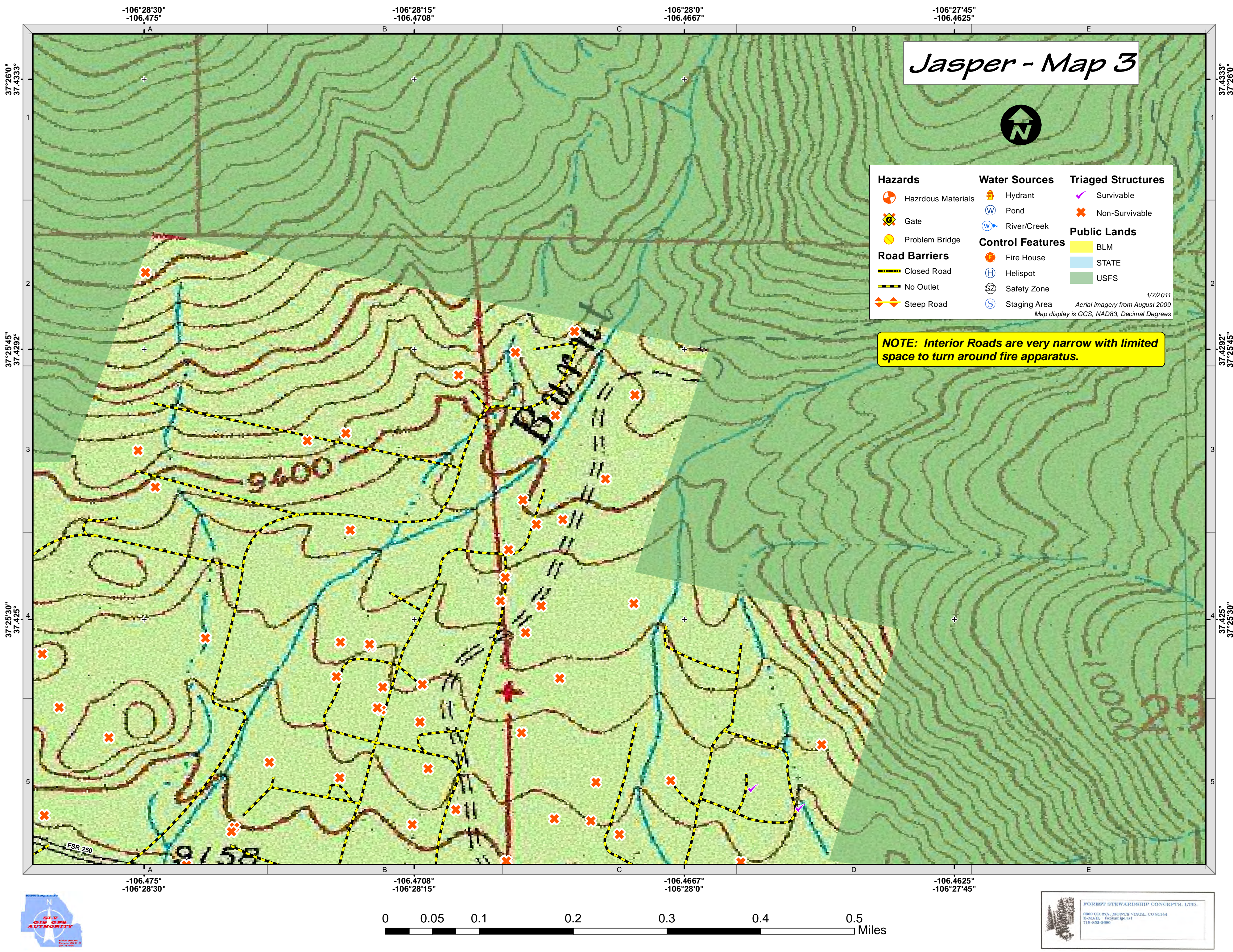
Hazards	Water Sources	Triaged Structures
Hazardous Materials	Hydrant	Survivable
Gate	Pond	Non-Survivable
Problem Bridge	River/Creek	Public Lands
Road Barriers	Control Features	BLM
Closed Road	Fire House	STATE
No Outlet	Helispot	USFS
Steep Road	Safety Zone	
	Staging Area	

1/7/2011
Aerial imagery from August 2009
Map display is GCS, NAD83, Decimal Degrees

NOTE: Interior Roads are very narrow with limited space to turn around fire apparatus.



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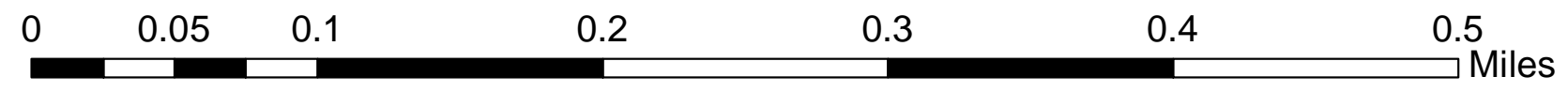
Jasper - Map 3



Hazards	Water Sources	Triaged Structures
Hazardous Materials	Hydrant	Survivable
Gate	Pond	Non-Survivable
Problem Bridge	River/Creek	
Road Barriers	Control Features	Public Lands
Closed Road	Fire House	BLM
No Outlet	Helispot	STATE
Steep Road	Safety Zone	USFS
	Staging Area	

1/7/2011
Aerial imagery from August 2009
Map display is GCS, NAD83, Decimal Degrees

NOTE: Interior Roads are very narrow with limited space to turn around fire apparatus.



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Rock Creek

Size	Number of Structures	Overall Fire Hazard
640 acres	8	Extreme

Community Description:

Rock Creek is an area of both year-round and seasonal residences along County Road 28 in Rio Grande County. There is large spacing between home sites as well as large tracts of public land adjacent to the area. Homes are off the grid with solar/battery systems or generators for power.

Interface Conditions and Fuel Hazards:

Rio Grande County Road 28 is the only access to Rock Creek and is between 20 and 25 feet wide. This road is sufficient for wildland engines Types III - VI to access safely, although some stretched of the road are narrow enough that passing would be difficult and there are limited areas to easily turn around. Driveways are steep and narrow with limited space to turn around, Type VI engines should be utilized in these areas. The majority of homes in Rock Creek are constructed of noncombustible siding and roofs with combustible decks. Roughly half of homes have defensible space or sufficient littler clean-up. On average slopes in the development are not in excess of 30% although there is variation in topography. Forest types in the Rock Creek area are roughly half mixed conifer with the other half made up of aspen, ponderosa pine and pinon/juniper. Fuels between home sites are of medium density.

Fire Response Information

Dry Creek parking is the closest acceptable drafting source (irrigation ditch) is over a 45 minute round trip. A Type III or smaller engine can access the houses. Not all houses are visible from the road and not all driveways lead to houses.

USFS/BLM Fuels Interface:

Fuelbreak not recommended due to the structures not being close enough to the USFS/BLM boundary.

Recommendations

The following table of recommendations was created using information collected during the community assessments. Together, these recommendations are suggested to minimize the overall wildfire risk.

Priority	Task
1	Create defensible space
2	Remove firewood or other combustible material on/under deck or near house
3	Address labels

Other Recommendations:

NEIGHBORHOOD RISK/HAZARD ASSESSMENT RATING SCORE SYSTEM

NAME: Rock Creek		DATE: 12/12/2016
SIZE (acres): 640	# LOTS or HOMES: 8	RATING: Extreme - 91
COMMENTS: No secondary roads. Homes are all off grid.		

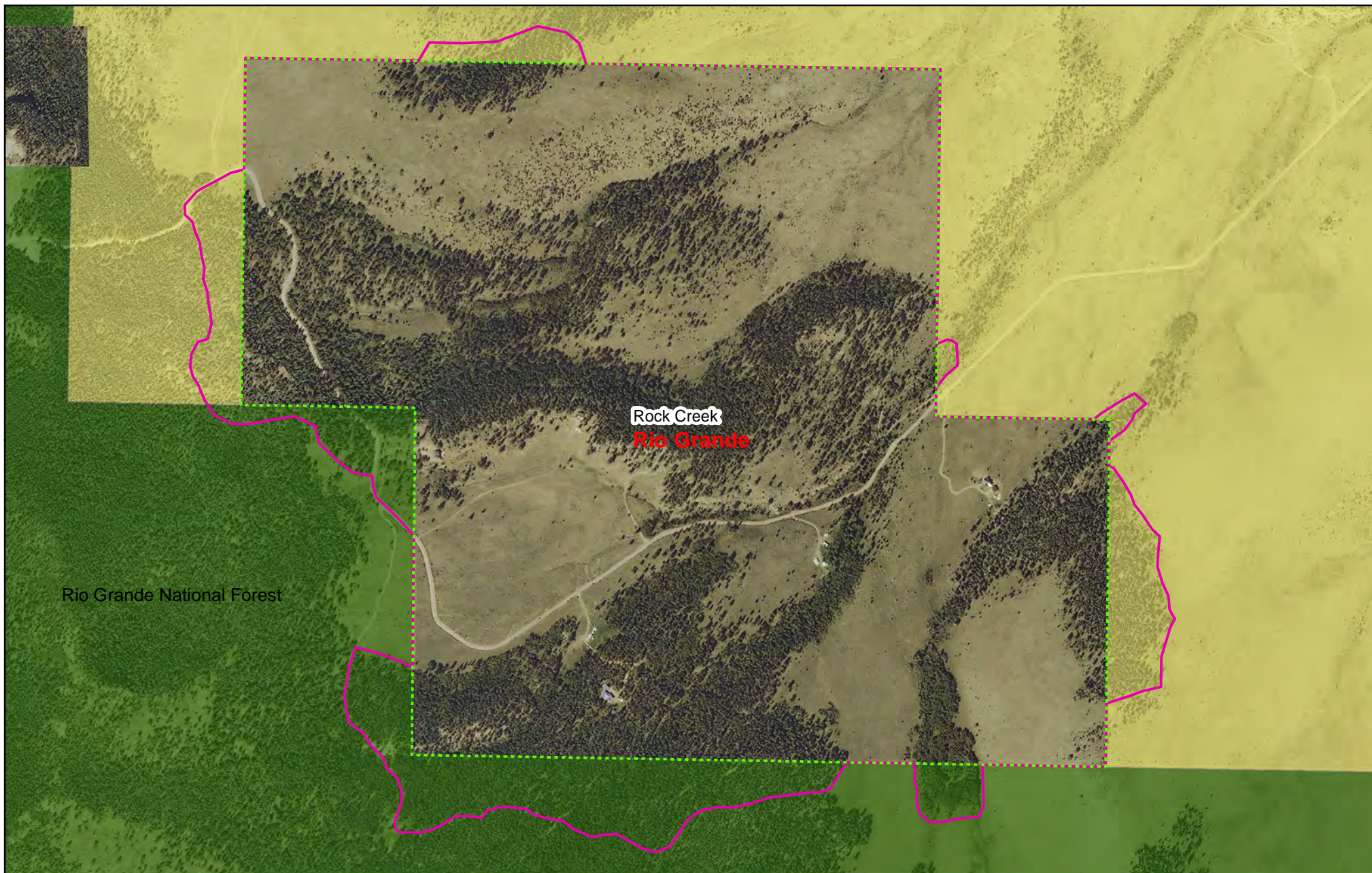
COMMUNITY DESIGN	24
1. Ingress/Egress <input type="checkbox"/> Two or more primary roads <input type="checkbox"/> One Road <input checked="" type="checkbox"/> One-way road in, one-way out	1 3 5
2. Width of Primary Road <input type="checkbox"/> >24 ft. <input checked="" type="checkbox"/> >20 ft. and <24 ft. <input type="checkbox"/> <20 ft.	1 3 5
3. Accessibility <input checked="" type="checkbox"/> Road grade 5% or less <input type="checkbox"/> Road grade more than 5%	1 3
4. Secondary road terminus: <input type="checkbox"/> Loop roads, cul-de-sacs with outside turning radius of 45 ft. or greater <input type="checkbox"/> Cul-de-sac turn-around radius less than 45 ft. <input type="checkbox"/> Dead-end roads 200 ft. or less in length <input checked="" type="checkbox"/> Dead-end roads greater than 300 ft. in length	1 3 5 10
5. Street Signs <input type="checkbox"/> Present 90-100% <input type="checkbox"/> Present 75-89% <input type="checkbox"/> Present <75%	1 3 5
6. Address Signage <input type="checkbox"/> Present 90-100% <input type="checkbox"/> Present 75-89% <input checked="" type="checkbox"/> Present <75%	1 3 5
EXISTING BUILDING MATERIALS*	7
1. Roofing Materials <input checked="" type="checkbox"/> Non-combustible covering 90-100% <input type="checkbox"/> Non-combustible covering 80-90% <input type="checkbox"/> Non-combustible covering 70-80% <input type="checkbox"/> Non-combustible <70%	1 5 8 10

2. Existing Building Construction Material <input type="checkbox"/> Noncombustible siding/decks <input checked="" type="checkbox"/> Noncombustible siding with combustible decks <input type="checkbox"/> Combustible siding and decks	1 5 10
3. Unenclosed Features (decks, eaves, vents) <input checked="" type="checkbox"/> Less than 25% <input type="checkbox"/> 25-50% <input type="checkbox"/> >50%	1 3 5
UTILITIES*	1
<input checked="" type="checkbox"/> All underground utilities <input type="checkbox"/> One underground, one above ground <input type="checkbox"/> All above ground	1 3 5
DEFENSIBLE SPACE	15
1. Fuel Load between Home Sites: <input type="checkbox"/> Light <input checked="" type="checkbox"/> Medium <input type="checkbox"/> Heavy	1 5 10
2. Defensible Space for Individual Homes: <input type="checkbox"/> 70% or more of sites <input type="checkbox"/> 30 % or more of sites <input checked="" type="checkbox"/> Less than 30 % of sites	1 7 15
HOME IGNITION ZONE	4
Thorough Litter and Debris Clean Up: <input type="checkbox"/> 70% or more of sites <input checked="" type="checkbox"/> 30% to 69% of sites <input type="checkbox"/> 10% to 29% of sites <input type="checkbox"/> 0% to 9% of sites	1 4 7 10
FIRE PROTECTION	20
1. Water Source <input type="checkbox"/> 500 gpm hydrants within 500 ft. of structures <input type="checkbox"/> 500 gpm hydrants or draft source within 1000 ft. of structures <input type="checkbox"/> Wafer source 20 minutes away roundtrip <input checked="" type="checkbox"/> Water source > 45 minutes away roundtrip	1 2 5 10

2. Fire Department Protection within 5 Miles <input type="checkbox"/> Career Department <input type="checkbox"/> Combination Career / Volunteer <input type="checkbox"/> Volunteer with Seasonal Staffing <input type="checkbox"/> All Volunteer Department <input checked="" type="checkbox"/> No Organized Department	1 3 5 7 10								
FIRE BEHAVIOR	20								
1. Slope <input type="checkbox"/> 8% or less <input type="checkbox"/> 8%-20% <input checked="" type="checkbox"/> 20%-30% <input type="checkbox"/> >30%	1 4 7 10								
2. Aspect <input type="checkbox"/> North or <8% slope <input checked="" type="checkbox"/> East <input type="checkbox"/> West <input type="checkbox"/> South	1 3 7 10								
3. Fuels <input type="checkbox"/> Light density <input checked="" type="checkbox"/> Medium density <input type="checkbox"/> High density	1 3 5								
Situation #3 - Fine or sparse fuels surround structures; infrequent wind exposure; flat terrain with little slope or north aspect; no large wildland fire history or moderate fire occurrence	<input type="checkbox"/> 3								
Situation #2 - Moderate slopes; broken moderate fuels; some ladder fuels; composition of fuels is conducive to torching and spotting; conditions may lead to moderate suppression success; some fire history or moderate fire occurrence.	<input checked="" type="checkbox"/> 7								
Situation #1 - Continuous fuels in close proximity to structures; composition of fuels is conducive to crown fires or high intensity surface fires; steep slopes; predominately south aspects; dense fuels; heavy duff; prevailing wind exposure or ladder fuels that may reduce suppression effectiveness; history of large fires or moderate fire occurrence.	<input type="checkbox"/> 10								
Rating Scale: <table> <tr> <td>39 or less points</td> <td>Low hazard</td> </tr> <tr> <td>40-60 points</td> <td>Moderate Hazard</td> </tr> <tr> <td>61-75 points</td> <td>High Hazard</td> </tr> <tr> <td>76 or more points</td> <td>Extreme Hazard</td> </tr> </table>		39 or less points	Low hazard	40-60 points	Moderate Hazard	61-75 points	High Hazard	76 or more points	Extreme Hazard
39 or less points	Low hazard								
40-60 points	Moderate Hazard								
61-75 points	High Hazard								
76 or more points	Extreme Hazard								
TOTAL FOR AREA: 91									

*most common within subdivision

Rio Grande South CWPP - Rock Creek



Rio Grande National Forest

Rock Creek
Rio Grande



0 470 940 1,880 2,820 Feet

Legend

Communities

WUI

Yes

No

WUI-Zone

Land Ownership

BLM

Private

State Trust Land

USFS

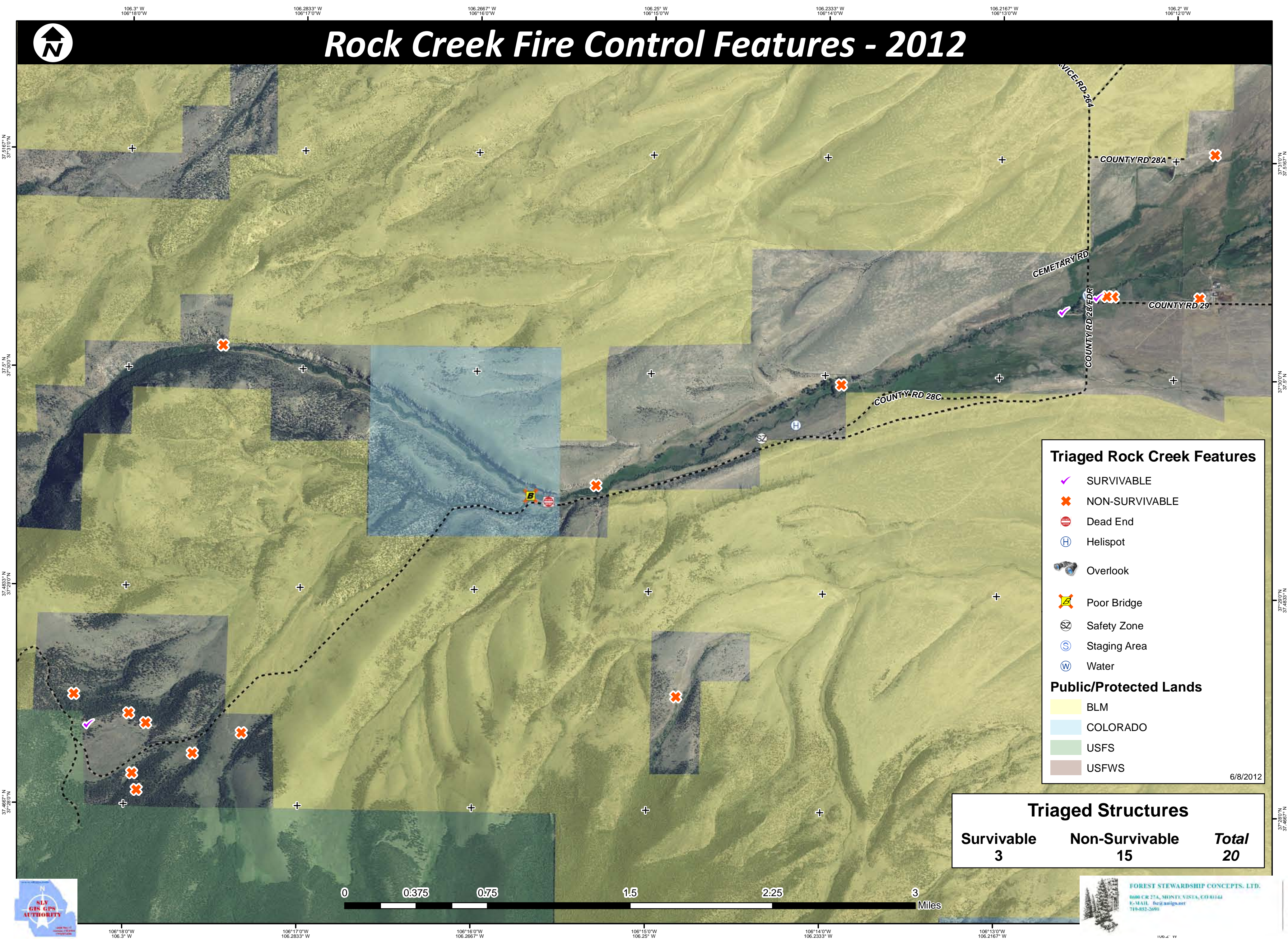
Prepared By:



Alamosa District



Rock Creek Fire Control Features - 2012



Triaged Rock Creek Features

- SURVIVABLE
- NON-SURVIVABLE
- Dead End
- Helispot
- Overlook
- Poor Bridge
- Safety Zone
- Staging Area
- Water

Public/Protected Lands

- BLM
- COLORADO
- USFS
- USFWS

6/8/2012

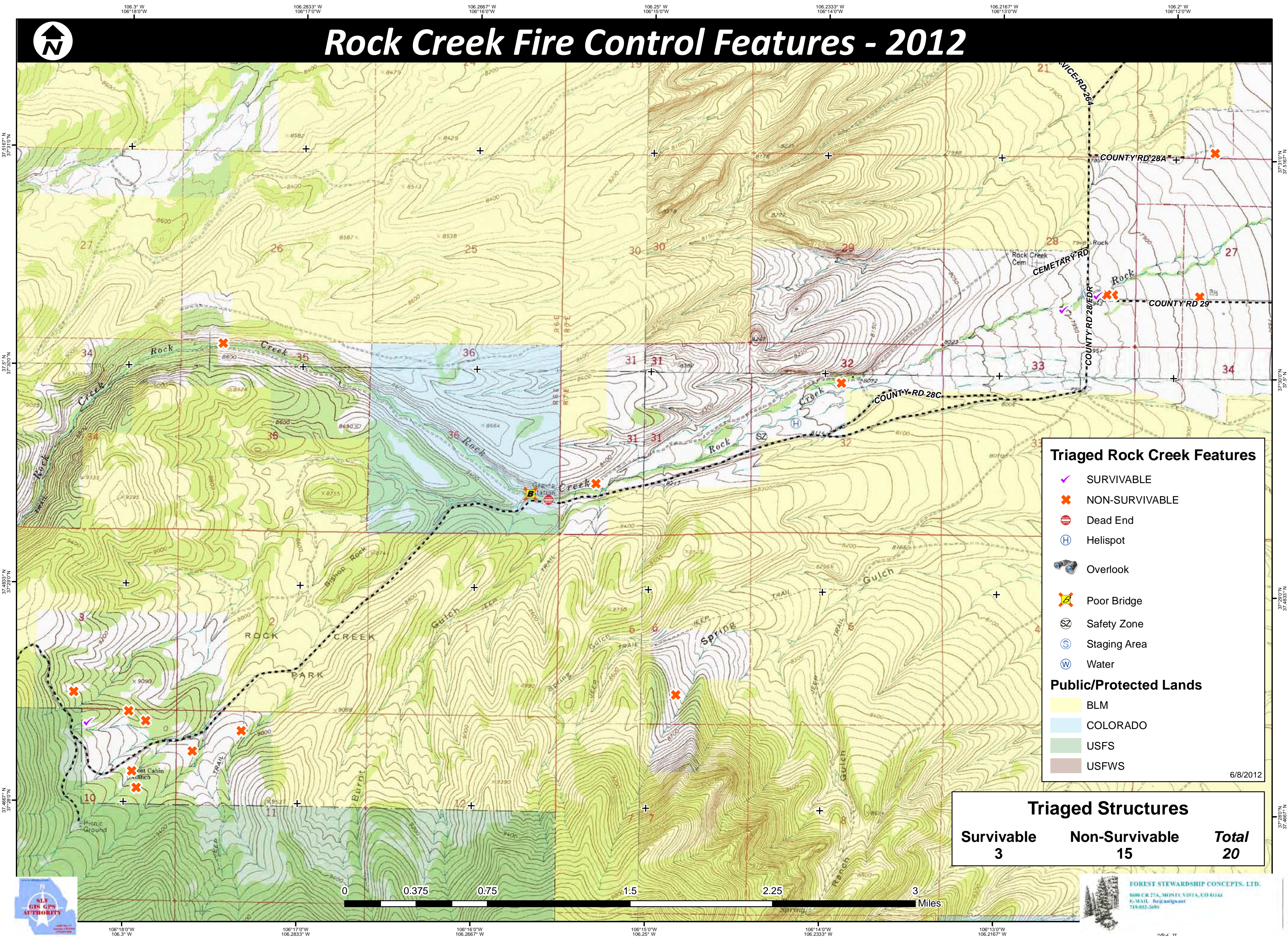
Triaged Structures		
Survivable	Non-Survivable	Total
3	15	20



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Rock Creek Fire Control Features - 2012



Triaged Rock Creek Features

- SURVIVABLE
- NON-SURVIVABLE
- Dead End
- Helispot
- Overlook
- Poor Bridge
- Safety Zone
- Staging Area
- Water

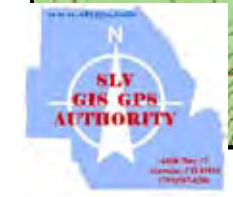
Public/Protected Lands

- BLM
- COLORADO
- USFS
- USFWS

6/8/2012

Triaged Structures

Survivable	Non-Survivable	Total
3	15	20



Rim Rock

Size	Number of Structures	Overall Fire Hazard
158 acres	31	Moderate

Community Description:

Rim Rock is a community 10 miles west of Monte Vista along the Raton Creek drainage. Accessed via Lariat Road off of Rio Grande County Road 28, it is a single road that turns into a one way road on a loop through the subdivision. Home constructions is rather varied, ranging from rustic cabins to modern single family homes. Much of the residents in Rim Rock are year round, although there are a number of seasonal residences. Homes in this development have underground electric and communication and most homes have propane tanks.

Interface Conditions and Fuel Hazards:

Fuels across the subdivisions are mostly light grasses and low shrubs. Any fire that would move through this area would likely be a low intensity grass fire. Although there are areas of Pinion/Juniper on the outskirts of the subdivision boundary. The main road through the development is suitable for most wildland engines it would be best to access driveways first with a Type 6 to insure ingress and egress for larger engines.

Fire Response Information

A Type III or smaller engine can access the houses. Not all houses are visible from the road and not all driveways lead to houses. Rim Rock has recently joined the MVFPD. Hydrants in MV are the closest source of water.

USFS/BLM Fuels Interface:

Fuelbreak not recommended due to low structure and fuel density.

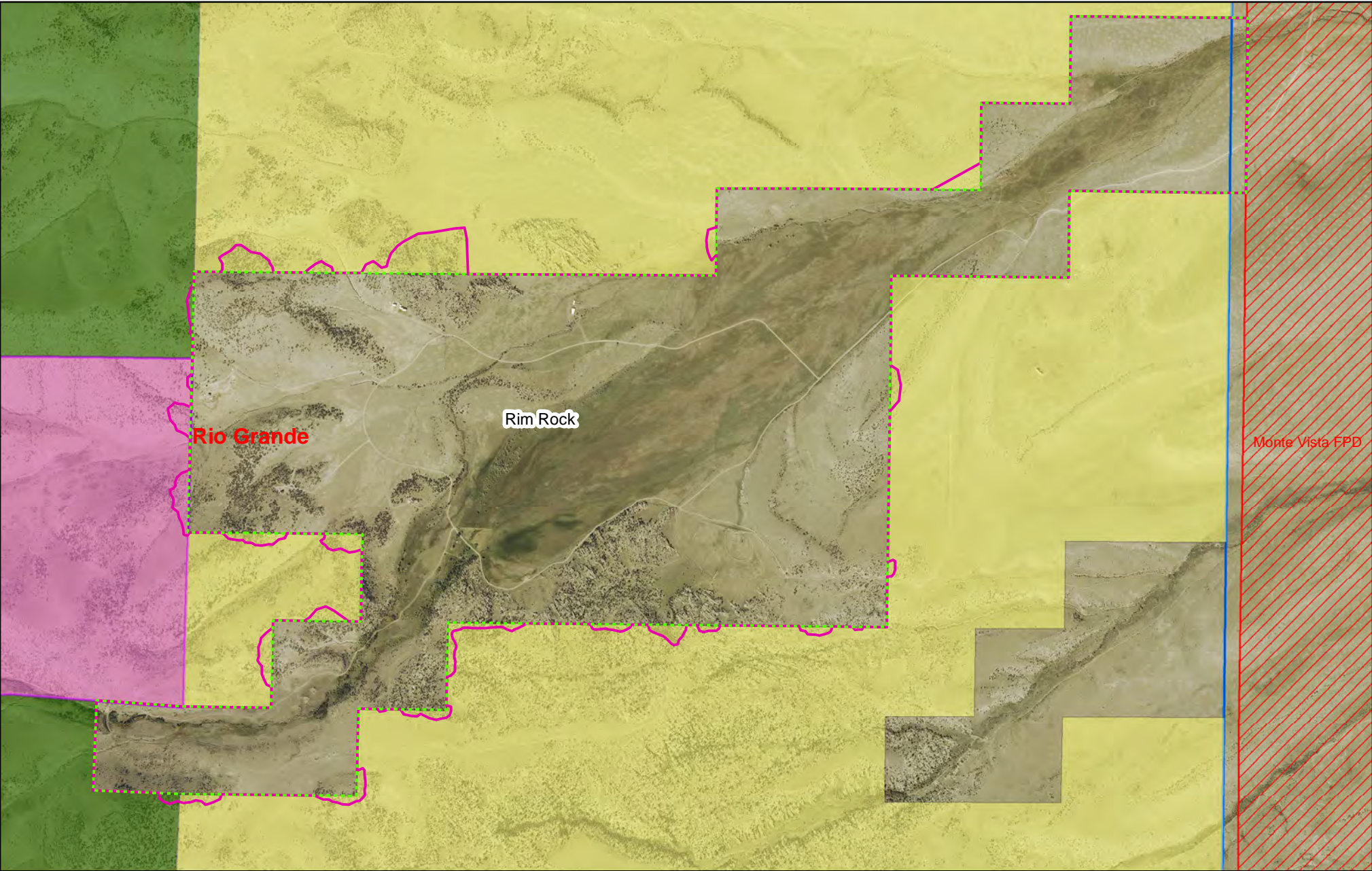
Recommendations

The following table of recommendations was created using information collected during the community assessments. Together, these recommendations are suggested to minimize the overall wildfire risk.

Priority	Task
1	Remove firewood or other combustible material on/under deck or near house
2	Create defensible space
3	Address labels

Other Recommendations:

Rio Grande South CWPP - Rim Rock West



0 900 1,800 3,600 5,400 Feet

Communities

WUI

- Yes
- No
- WUI-Zone
- Rio Grande South CWPP
- FireDistricts

Land Ownership

- BLM
- Private
- State Trust Land
- USFS

Legend

Prepared By:

Alamosa District

NEIGHBORHOOD RISK/HAZARD ASSESSMENT RATING SCORE SYSTEM

NAME: Rim Rock-West		DATE: 12/12/2016
SIZE (acres): 1,751	# LOTS or HOMES: 7	RATING: Extreme - 80
COMMENTS: Define and make residents aware of exit off Boulder Lake Road. Driveways greater than 5% grade. Need to label dead ends. Need addresses at end of driveways.		

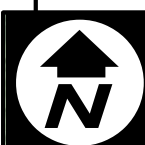
COMMUNITY DESIGN	25
1. Ingress/Egress <input type="checkbox"/> Two or more primary roads <input checked="" type="checkbox"/> One Road <input type="checkbox"/> One-way road in, one-way out	1 3 5
2. Width of Primary Road <input type="checkbox"/> >24 ft. <input type="checkbox"/> >20 ft. and <24 ft. <input checked="" type="checkbox"/> <20 ft.	1 3 5
3. Accessibility <input checked="" type="checkbox"/> Road grade 5% or less <input type="checkbox"/> Road grade more than 5%	1 3
4. Secondary road terminus: <input type="checkbox"/> Loop roads, cul-de-sacs with outside turning radius of 45 ft. or greater <input type="checkbox"/> Cul-de-sac turn-around radius less than 45 ft. <input type="checkbox"/> Dead-end roads 200 ft. or less in length <input checked="" type="checkbox"/> Dead-end roads greater than 300 ft. in length	1 3 5 10
5. Street Signs <input checked="" type="checkbox"/> Present 90-100% <input type="checkbox"/> Present 75-89% <input type="checkbox"/> Present <75%	1 3 5
6. Address Signage <input type="checkbox"/> Present 90-100% <input type="checkbox"/> Present 75-89% <input checked="" type="checkbox"/> Present <75%	1 3 5
EXISTING BUILDING MATERIALS*	16
1. Roofing Materials <input checked="" type="checkbox"/> Non-combustible covering 90-100% <input type="checkbox"/> Non-combustible covering 80-90% <input type="checkbox"/> Non-combustible covering 70-80% <input type="checkbox"/> Non-combustible <70%	1 5 8 10

2. Existing Building Construction Material <input type="checkbox"/> Noncombustible siding/decks <input type="checkbox"/> Noncombustible siding with combustible decks <input checked="" type="checkbox"/> Combustible siding and decks	1 5 10
3. Unenclosed Features (decks, eaves, vents) <input type="checkbox"/> Less than 25% <input type="checkbox"/> 25-50% <input checked="" type="checkbox"/> >50%	1 3 5
UTILITIES*	1
<input checked="" type="checkbox"/> All underground utilities <input type="checkbox"/> One underground, one above ground <input type="checkbox"/> All above ground	1 3 5
DEFENSIBLE SPACE	8
1. Fuel Load between Home Sites: <input checked="" type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy	1 5 10
2. Defensible Space for Individual Homes: <input type="checkbox"/> 70% or more of sites <input checked="" type="checkbox"/> 30 % or more of sites <input type="checkbox"/> Less than 30 % of sites	1 7 15
HOME IGNITION ZONE	7
Thorough Litter and Debris Clean Up: <input type="checkbox"/> 70% or more of sites <input type="checkbox"/> 30% to 69% of sites <input checked="" type="checkbox"/> 10% to 29% of sites <input type="checkbox"/> 0% to 9% of sites	1 4 7 10
FIRE PROTECTION	12
1. Water Source <input type="checkbox"/> 500 gpm hydrants within 500 ft. of structures <input type="checkbox"/> 500 gpm hydrants or draft source within 1000 ft. of structures <input checked="" type="checkbox"/> Wafer source 20 minutes away roundtrip <input type="checkbox"/> Water source > 45 minutes away roundtrip	1 2 5 10

2. Fire Department Protection within 5 Miles <input type="checkbox"/> Career Department <input type="checkbox"/> Combination Career / Volunteer <input type="checkbox"/> Volunteer with Seasonal Staffing <input checked="" type="checkbox"/> All Volunteer Department <input type="checkbox"/> No Organized Department	1 3 5 7 10								
FIRE BEHAVIOR	11								
1. Slope <input type="checkbox"/> 8% or less <input checked="" type="checkbox"/> 8%-20% <input type="checkbox"/> 20%-30% <input type="checkbox"/> >30%	1 4 7 10								
2. Aspect <input type="checkbox"/> North or <8% slope <input checked="" type="checkbox"/> East <input type="checkbox"/> West <input type="checkbox"/> South	1 3 7 10								
3. Fuels <input checked="" type="checkbox"/> Light density <input type="checkbox"/> Medium density <input type="checkbox"/> High density	1 3 5								
Situation #3 - Fine or sparse fuels surround structures; infrequent wind exposure; flat terrain with little slope or north aspect; no large wildland fire history or moderate fire occurrence	<input checked="" type="checkbox"/> 3								
Situation #2 - Moderate slopes; broken moderate fuels; some ladder fuels; composition of fuels is conducive to torching and spotting; conditions may lead to moderate suppression success; some fire history or moderate fire occurrence.	<input type="checkbox"/> 7								
Situation #1 - Continuous fuels in close proximity to structures; composition of fuels is conducive to crown fires or high intensity surface fires; steep slopes; predominately south aspects; dense fuels; heavy duff; prevailing wind exposure or ladder fuels that may reduce suppression effectiveness; history of large fires or moderate fire occurrence.	<input type="checkbox"/> 10								
Rating Scale: <table> <tr> <td>39 or less points</td> <td>Low hazard</td> </tr> <tr> <td>40-60 points</td> <td>Moderate Hazard</td> </tr> <tr> <td>61-75 points</td> <td>High Hazard</td> </tr> <tr> <td>76 or more points</td> <td>Extreme Hazard</td> </tr> </table>		39 or less points	Low hazard	40-60 points	Moderate Hazard	61-75 points	High Hazard	76 or more points	Extreme Hazard
39 or less points	Low hazard								
40-60 points	Moderate Hazard								
61-75 points	High Hazard								
76 or more points	Extreme Hazard								
TOTAL FOR AREA: 80									

*most common within subdivision

106.3167° W 106.3° W 106.2833° W 106.2667° W 106.25° W 106.2333° W



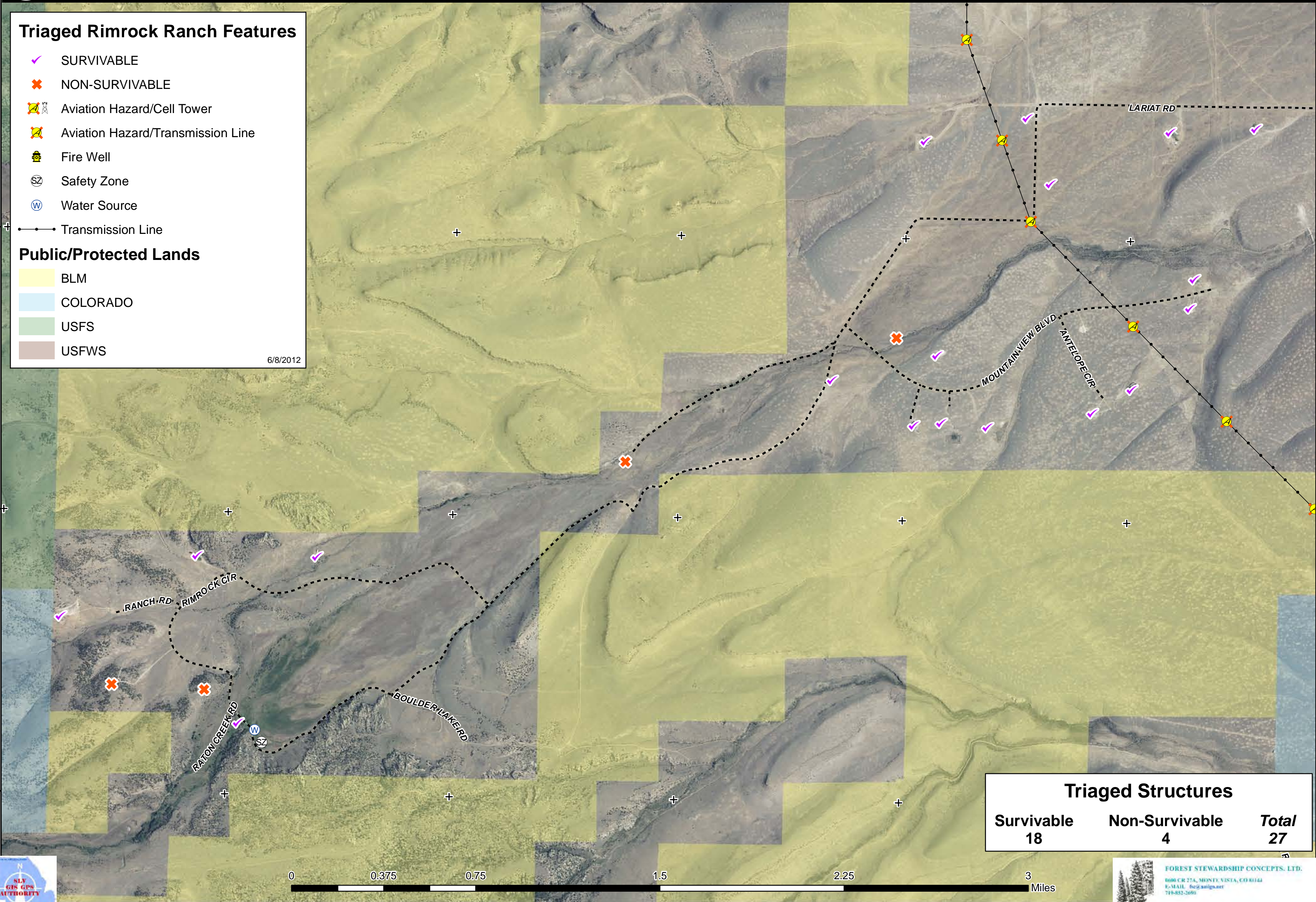
Triaged Rimrock Ranch Features

- SURVIVABLE
- NON-SURVIVABLE
- Aviation Hazard/Cell Tower
- Aviation Hazard/Transmission Line
- Fire Well
- Safety Zone
- Water Source
- Transmission Line

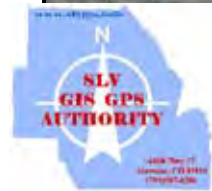
Public/Protected Lands

- BLM
- COLORADO
- USFS
- USFWS

6/8/2012



Triaged Structures		
Survivable	Non-Survivable	Total
18	4	27



106.180° W 106.3° W 106.2833° W 106.2667° W 106.25° W 106.2333° W

106.3167° W 106°19'0"W 106.3° W 106°18'0"W 106.2833° W 106°17'0"W 106.2667° W 106°16'0"W 106.25° W 106°15'0"W 106.2333° W 106°14'0"W



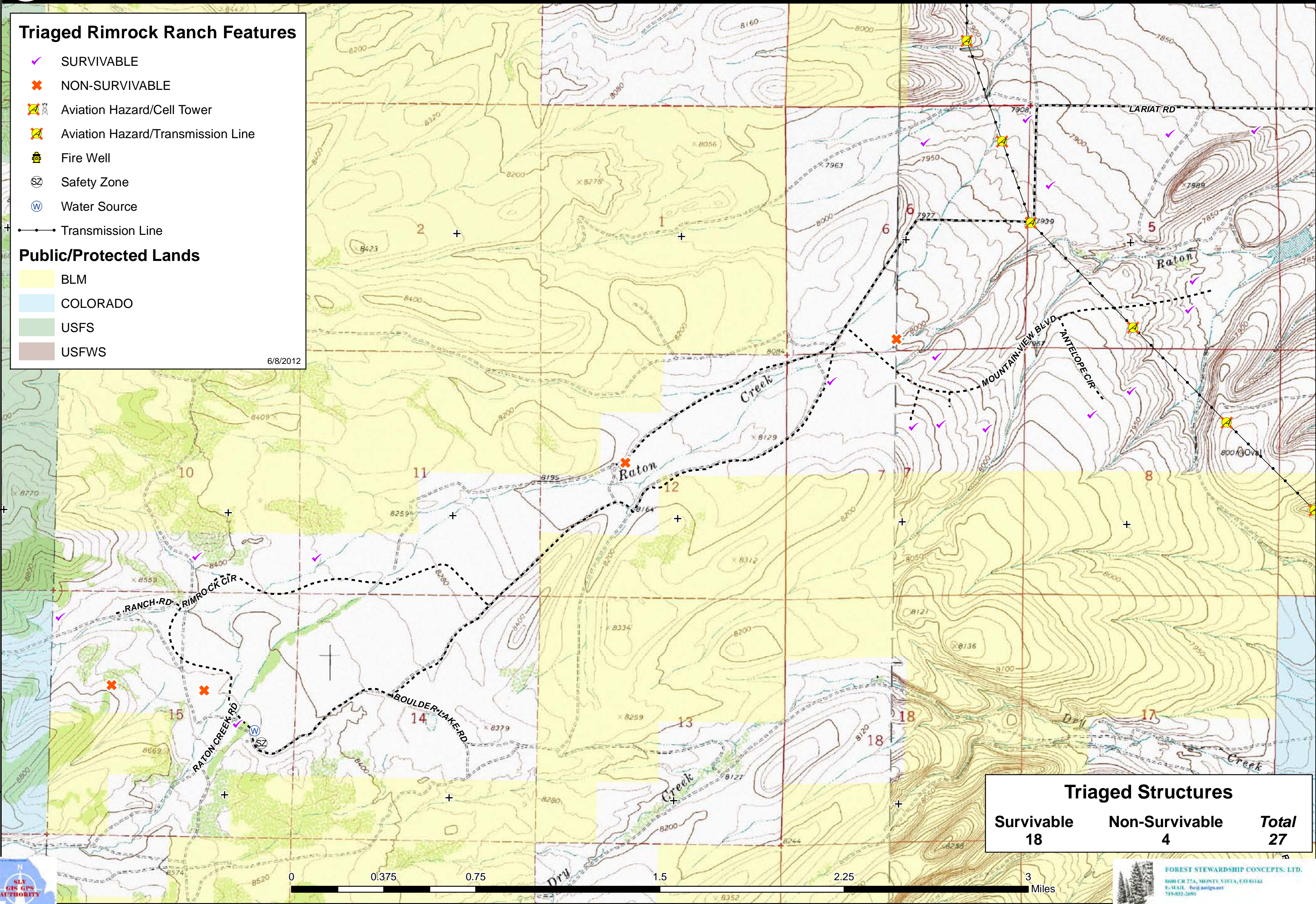
Triaged Rimrock Ranch Features

- SURVIVABLE
- NON-SURVIVABLE
- Aviation Hazard/Cell Tower
- Aviation Hazard/Transmission Line
- Fire Well
- Safety Zone
- Water Source
- Transmission Line

Public/Protected Lands

- BLM
- COLORADO
- USFS
- USFWS

6/8/2012



Triaged Structures		
Survivable	Non-Survivable	Total
18	4	27



FOREST STEWARDSHIP CONCEPTS, LTD.
8000 CR 27A, MONTE VISTA, CO 81444
E-MAIL: fsc@amiga.net
719-882-2690

106°18'0"W 106°17'0"W 106°16'0"W 106°15'0"W 106°14'0"W 0 0.375 0.75 1.5 2.25 3 Miles 10

IX. Summary of Prioritized Mitigation Recommendations

Introduction:

The following recommendations were developed by the CWPP Working Group or as a result of the community wildfire risk assessment and follow-up meetings with local, state, federal and community stakeholders. A priority order was determined based on which mitigation projects and education efforts would best reduce the hazard of wildfire in the assessment area. A summary of the community recommendations for the type and method of treatment for the surrounding vegetation are listed in the following table.

Community	Top Priority
Jasper	Create defensible space
Rim Rock	Remove firewood or other combustible material on/under deck or near house
Rock Creek	Create defensible space

Additional recommendation of this CWPP that the following are considered:

- Identify and pre-plan primary escape routes for the county
- Develop evacuation centers and staging/check-in areas for fire resources
- Educate citizens on the proper escape routes and evacuation centers
- Plan for evacuation of large animals
- Perform response drills to determine the timing and effectiveness of escape routes and fire resource staging/check-in areas
- Consider implementing building and land use codes that address wildfire hazard mitigation
- Consider implementing road standards that facilitate fire apparatus access
- Consider sponsoring community chipper operations and designated burn areas

Proposed Community Hazard Reduction Ideas:

- Community clean-up day.
- Create an emergency exit.

Proposed Structural Ignitability Reduction Priorities:

- Clean roof & gutters.

Proposed Education and Outreach Priorities:

- Increase Firewise USA Communities

X. Action Plan / Conclusion and Next Steps

Introduction:

This section provides a summary of recommendations identified and an action plan for the CWPP.

The Rio Grande South Area CWPP is a comprehensive review of wildfire-related hazards and risks in the WUI areas. This plan and its accompanying assessment of values at risk demonstrate that Rio Grande South Area has variable, but considerable, risk to wildfires across much of the area. Much can be done to reduce this risk before the next wildfire occurs.

The success of the plan depends upon strong leadership at the community, district and county level. Educating citizens and organizations about the risk of wildfires and mitigation to reduce that risk is paramount. The plan also relies on the efforts of individuals, landowners associations, the Monte Vista FPD and Rio Grande County to reduce the risks of wildland fires.

No matter how good a plan is, it holds little value if it is not implemented. Defensible space is THE MOST IMPORTANT action an individual can take to protect their home. It is imperative that individual homeowners respond and begin efforts to mitigate the fire risk around their homes. It is also critical that communities organize to accomplish subdivision or community-wide mitigation and fuels reduction.

Tables are included in each community write-up that define and prioritize community action. The priority level should be used to assist in determining which fuels projects should be focused on and in what order they should be implemented. CWPP activities may be eligible for funding through state and federal grant programs.

Stakeholders, including representatives of the community that may include homeowner's association board members or citizens, must support recommendations in this plan. A concerted effort to identify Wildfire Mitigation Advocates within each community may be one of the most important recommendations of this CWPP. A Wildfire Mitigation Advocate can assist local communities in strengthening public understanding, acceptance and participation in the plan.

The projects detailed in the CWPP are not the only projects that are required within the planning area; they are the most achievable for the communities at this point in time. Landscape scale projects are excellent options as well, but often require the collaboration of multiple communities working with federal, state and county government. As support and community involvement grow through the completion of recommended smaller projects, the larger treatments become more obtainable. The core stakeholder group should consider additional projects at all scales, especially as communities begin to complete the initial projects identified in the CWPP. Communities are encouraged to consider and propose new projects.

Action Plan:

1. Increase number of Firewise USA Communities.
 - a. Priority - Medium
 - b. Action – Increase educational efforts on the shoulder of fire season
 - c. Timeframe - Ongoing
 - d. Responsible Party – CSFS, Local FPDs, concerned citizens within HOAs
2. High and Extreme ranked communities will decrease fuels to reduce wildfire intensity and impact in and around the community.
 - a. Priority - High
 - b. Action – Increase number of homes with defensible space, conduct roadside thinning, conduct fuels treatment along border of community – ie fuel break, establish emergency egress
 - c. Timeframe - Ongoing
 - d. Responsible Party – community leaders, concerned citizens, CSFS, USFS/BLM
3. Responding fire departments will evaluate, upgrade and maintain community wildfire preparation and response facilities and equipment.
 - a. Priority - High
 - b. Action – Increase level of involvement and communication of FD with communities. Replace and obtain wildland fire equipment.
 - c. Timeframe – Annual
 - d. Responsible Party – FD Chief and community leaders, DFPC
4. Community will help educate community members to prepare for and respond to wildfire.
 - a. Priority - High
 - b. Action – Increase frequency of meetings, instill sense of personal responsibility
 - c. Timeframe – Ongoing
 - d. Responsible Party – Community leaders and concerned citizens, CSFS, FPDs
5. Community will regularly evaluate, update and maintain planning commitments.
 - a. Priority - Medium
 - b. Action – Actively evaluate, update and maintain plan
 - c. Timeframe – annually
 - d. Responsible Party – Community leaders,
6. Community will develop and implement a comprehensive emergency response plan.
 - a. Priority – High
 - b. Action – Seek professional assistance to develop and implement emergency response plan
 - c. Timeframe - ASAP
 - d. Responsible Party – Community leaders, concerned citizens, RGC Emergency Manager
7. Continue to evaluate wildfire potential in areas of concern.
 - a. Priority – Medium
 - b. Action – Evaluate whether WUI Areas of Concern should be considered a WUI Community. Evaluate fuels reduction options adjacent to reservoirs, powerlines, telephone lines. Rank and map individual structures in communities as needed.

- c. Timeframe – as needed
- d. Responsible Party – USFS, CSFS, CO Emergency Manager

XI. Responding fire department resources

Wildland Fire Management and Suppression Tactics: Suppression priorities for firefighters will vary based upon capabilities, overall strategy and fire behavior. Firefighter safety is always a top priority. These priorities make it imperative that individual homeowners effectively treat the home ignition zone around their structures to increase the likelihood of their structures surviving a wildfire without aid from firefighters.

Resources to Respond to a Wildfire

Water Delivery

Very few hydrants or cisterns exist in the CWPP area. The most reliable water source will be drafting sites on lakes or rivers. Consider establishing dry hydrants or fire wells or cisterns or the establishment of drafting sites over the next few years to develop alternate water sources.

Fire Response

In the event of a fire, provide safety for your family and yourself. The primary fire response should be to call 911 immediately.

Responding Fire Departments

Two main fire departments will respond to fires:

Monte Vista Fire Protection District	
Item	Number Available
Total volunteers	25
Engine - Type 6	3
Engine – Type 1	3
Water tender – Type 2 (3,000 gallons)	2

Northwest Conejos Fire Protection District (La Jara, Carmel, Capulin, Romeo)	
Item	Number Available
Total volunteers	51
Engine - Type 6	4
Engine – Type 2	4
Engine – Type 1	2
Water tender – Type 2 (3,000 gallons)	4

The primary mutual aid responding fire departments to assist include:

Del Norte Fire Protection District		
Item	Number Available	Needed
Total volunteers	20	
Engine - Type 6	2	
Engine – Type 3 or 4	1	
Engine – Type 2	2	
Engine – Type 1	2	
Water tender – Type 2 (3,000 gallons)	2	

CO Division of Fire Prevention and Control – DFPC

DFPC has an automatic aid agreement with most SLV Fire Agencies. Staffed year round with three firefighters and four in the summer.

Equipment: Type III engine. Chase truck.

Response Area: All six counties of the San Luis Valley

SLV Interagency Fire Management Unit –

Consists of equipment and personal from Rio Grande NF, Great Sand Dunes NP, regional Wildlife Refuges and USFWS. Staffing varies by year and season.

Equipment: Three Type VI engines located at Conejos Peak RD, Saguache RD and Monte Vista. Module 4-1 initial attack out of Del Norte.

Response Area: All fires on federal land. Fires within one mile mutual aid zone to federal land on private land.

XII. Additional Comments

Consider planning for events during and after wildfire

Traditionally, CWPPs have focused on wildfire prevention and response. Recent wildfires have shown the importance of planning ahead for community action during the fire event, as well as for the post-wildfire effects and recovery, which can be as devastating as the fire itself.

Post-fire landscapes present significant community challenges. Key considerations for Rio Grande County include identifying both the desired future condition for the affected community and defining the community actions to get there. Immediate post-fire stabilization activities, such as erosion control, generally has broad levels of support. Removal of hazard trees, particularly along roads, is highly supported. Broader management decisions, such as salvage logging, tend to elicit a greater range of opinions.

Immediate Safety Consideration- The first post-fire recovery concern is safety. After a wildfire it is important that residents stay away from their homes or businesses until officials determine it is safe to return. Because utility services can be disrupted by wildfire:

- Do not drink or use water from the faucet until officials say it is okay.
- Use extreme caution around trees, power poles and other tall objects that may have lost stability during the fire.
- If you have a propane tank or system, contact a propane supplier, turn off valves on the system, and leave valves closed until the supplier inspects your system.
- Look for smoke or sparks that may still be burning.

Long Term Safety Considerations- Post fire flooding is a major concern. The heavy monsoon season rains common in Colorado in the late summer and early fall can often bring flooding and debris flows after wildfire. These storms are typically very local, very intense, and of short duration, delivering a lot of rain in a short amount of time. When such storms develop over burned areas, the ground cannot absorb the rain, so it runs off the burned area, accumulates in streams and produces flash floods. Even areas that are not traditionally flood prone are at risk due to changes to the landscape caused by a wildfire. As a result, much less rainfall is needed to produce a flash flood. A good rule of thumb is, if you can look uphill from where you are and see an area burned by a wildfire, you are at risk.

Post-wildfire flooding preparation should also be included in the Rio Grande County Multi-Hazard Mitigation Plan. Some homes and businesses may want to re-evaluate their flood insurance coverage in light of the fact that post-wildfire floods are often more extensive than the flood risk before a wildfire might indicate.

In addition, many elements of post-wildfire recovery are similar to recovery from other disasters and are covered in the Rio Grande County Multi-Hazard Mitigation Plan.

1. Develop a plan to monitor air quality during wildfires and provide citizens with a location free of smoke. The wildfire response and recovery team in collaboration with the Rio Grande County Emergency Manager should identify evacuation locations and shelters for those displaced by wildfire. Identify a community liaison for each community to interface with incident command and/or Burned Area Emergency Response (BAER) teams during and after wildfires.

2. Review “After Wildfire: A Guide for New Mexico Communities” (<https://www.afterwildfirenm.org//>) with your Core Team. Consider integrating applicable elements into a post-fire section of your CWPP.
3. Identify and establish a wildfire response and recovery team (which may be different from your CWPP Core Team) along with a strategy (see the “Mobilize Your Community: Assess Your Needs” section of the After Wildfire Guide) and an annual action plan with activities to keep the team together.
4. Identify values at risk from post-fire impacts and use those to develop desired post-fire conditions for your landscape. Consider which techniques you might utilize to help protect areas from post-fire flooding or to rehabilitate burned areas (see the “Post Fire Treatments” section of the After Wildfire Guide).

Forest Restoration- Catastrophic wildfires have resulted in significant losses to critical wildlife habitat, imperiled fisheries, watersheds, and municipal water sources. These events also threaten the long-term productivity of forest soils, through erosion and changes in soil properties, as well as many other resources. It may be appropriate to implement post-wildfire treatments in the forest such as erosion control or planting, but first communities should be sure to identify values at risk post-wildfire and focus on treatment that reduce the threat to those values.

Restoring forested ecosystems following a large-scale wildfire typically involves a series of steps:

- Emergency stabilization to prevent threat to life, property, and further damage to watersheds.
- Rehabilitation of resources affected by the disturbance that are unlikely to recover without human intervention.
- Longer term restoration treatments, including reforestation, that span many years and are needed to restore functioning ecosystems.
- On some occasions, natural regeneration can serve to meet forest management objectives. In other instances, active reforestation actions such as planting seedlings may be necessary.

XIII. Assessment / Monitoring

Introduction:

A CWPP is a planning tool. As such, it will help to identify and guide mitigation efforts within the community. Its overall value is directly related to the ongoing evaluation and improvement of the plan for the future. Future plans will reevaluate risks as conditions change and as mitigation efforts are completed. As a living document, the plan relies on the input of all stakeholders and partners. The plan should be revisited at least annually and should be formally updated every five years. We invite you to be involved in that process.

Assessment Plan

Work and wildfire hazards do not stop once the CWPP is complete or even once all action items are completed. Resources and landscapes change over time and CWPPs must be revisited and refreshed regularly. Changes in risk ratings should be reflected upon completion of priority projects and new initiatives developed for the CWPP to remain viable. In addition, effective new strategies and wildland programs should be incorporated into CWPP planning efforts.

These guidelines are designed to enhance a CWPP's effectiveness and were generated from actual experiences with mitigation and large wildfires, as well as community planning processes.

Potential process to update your CWPP:

1. Review existing CWPP.
2. Describe progress made and list accomplishments since the CWPP was adopted.
3. Host collaborative meetings.
 - a. Identify any new risks that have developed.
 - b. List any changes in a community's hazard risk rating.
4. Update maps.
5. Reflect changes in risk ratings due to completed projects or changes in landscape.
6. Develop updated priorities.
7. Distribute CWPP update drafts to key stakeholders (including local, state, tribal and federal partners) for review and input before the final approval.
8. Submit the final document to your local government body, local fire department(s) and State Forestry for required signatures and endorsement.
9. Once signed and endorsed by your local governing parties, submit all documentation to CSFS.

The community intends to assess the progress annually and invite agencies and landowners to submit projects that provide community protection. Additional projects will be displayed in an updated appendix to this plan

XIV. Appendixes

Introduction:

Appendixes detail general information, the scientific and/or technical information used to generate the CWPP and provide homeowners and community leaders' extensive information on creating defensible space and improving home ignitability risks. Additional resources are also identified.

- A. CWPP Background
- B. Prioritized Mitigation Recommendations Explanations
- C. General Recommendations
- D. Firewise USA Communities
- E. Community Risk Assessment Factors
- F. Glossary
- G. Wildland Fire and Hazard Severity Assessment Form
- H. Wildfire Pre-Suppression Plan

Appendix A – CWPP Background

Why have a CWPP?

CWPPs are essential to collaborative efforts that reduce fire risks in your communities, the surrounding WUI and other nearby landscapes. CWPPs:

- Provide for community-based decision-making
- Communities benefit from a CWPP by being more prepared for a wildfire
- Encourage communities and their local governments to determine boundaries of the WUI that surrounds their communities
- Identify ways to reduce wildfire risk to communities, municipal water supplies, critical infrastructure and at-risk federal lands
- Provide a mechanism to seek grants for further implementation of the plan
- Promote systematic information gathering to address goals of the plan
- May serve as a pathway to federal and state grants and other assistance
- Prerequisite for federal & state assistance programs that address wildfire response, hazard mitigation, community preparedness and structure protection and other critical tasks
- Communities can work cooperatively with technical and public safety experts to reduce vulnerability to wildfire hazards in their communities
- Communities can take ownership of efforts to reduce wildfire hazards in their communities

Appendix B - Prioritized Mitigation Recommendations Explanations

Task
Create defensible space
Maintain defensible space
Extend defensible space
Remove firewood or other combustible material on/under deck or near house
Home construction retrofit
Thin roadsides for safer ingress/egress
Thin land beyond defensible space between homes
Create fuelbreak along USFS/BLM boundary
Create fuelbreak within community
Education / Advocacy ¹
Community design / Infrastructure ²
Other:

Create defensible space – Structures need defensible space created within 100'. *Method* – Hand fell to remove and prune branches near homes to reduce ladder fuels and thin; mow; landscape appropriately; remove flammables. *Reference* – Protecting Your Home from Wildfire: Creating Wildfire Defensible Zones.

Maintain defensible space – Defensible space needs some general maintenance to maintain its effectiveness. *Method* – Trees & shrub regeneration needs removing; grass mowed; debris moved. *Reference* – See Annual Requirements checklist on page 11 in Protecting Your Home from Wildfire: Creating Wildfire Defensible Zones.

Extend defensible space – Defensible space created may not be wide enough for the given terrain, amount of fuel or time it may take firefighters to access the area. *Method* – Follow same methods as creating defensible space but go beyond 100'. *Reference* – Protecting Your Home from Wildfire: Creating Wildfire Defensible Zones.

Remove firewood or other combustible material on/under deck or near house – Excess material creates spots for embers to land and catch the structure on fire. *Method* – Keep firewood at least 30 feet away from structures, and uphill if possible. Remove construction material. Do not store anything under the deck. *Reference* – Protecting Your Home from Wildfire: Creating Wildfire Defensible Zones.

Home construction retrofit – Change the construction of home to incorporate additional FireWise recommendations. *Method* – Depends on structure, but commonly includes; closing off deck, using non-combustible materials for decks, changing roof material. *Reference* – FireWise Construction: Site Design & Building Materials.

Thin roadsides for safer ingress/egress – Thinning along both sides of roads in areas of heavy flammable fuel loadings will aid in the egress of residents and ingress of firefighters by reducing the intensity of fire and smoke. *Method* – Thinning, pruning and mowing. *Reference* – Fuelbreak Guidelines for Forested Subdivisions & Communities.

Thin land beyond defensible space between homes – Heavy fuel loads, topography or distance between houses means that additional fuels reductions beyond defensible spaces and between homes would benefit the community. *Method* – Thin trees and prune branches. *Reference* – Fuelbreak Guidelines for Forested Subdivisions & Communities, Protecting Your Home from Wildfire: Creating Wildfire Defensible Zones, page 8, Zone 3.

Create fuelbreak within community – A fuelbreak is a strip of land in which fuel density is reduced to keep a fire on the ground and create an anchor point. *Method* – The stand is thinned and remaining trees are pruned to remove ladder fuels. Brush, heavy ground fuels, snags and dead trees are disposed of and an open park-like appearance is established.

Reference – Fuelbreak Guidelines for Forested Subdivisions & Communities.

Create fuelbreak along USFS/BLM boundary – Structures are close enough to USFS/BLM boundary that adequate fuels reduction may not be provided on private land only. *Method* – Thin trees and prune branches. *Reference* – Fuelbreak Guidelines for Forested Subdivisions & Communities, Protecting Your Home from Wildfire: Creating Wildfire Defensible Zones, page 8, Zone 3.

Education / Advocacy - A local Wildfire Mitigation Advocate should be identified for the community that will assist with implementing recommended activities in coordination with adjacent landowners and promoting Firewise USA Communities . *Method* – Work with CSFS Alamosa and local fire department.

Community design / Infrastructure – Items to consider include: Provide adequate turnarounds for fire apparatus throughout the community. Identify all water sources within the community, including hydrants, cisterns and ponds, and make sure they are visible, maintained and operable. Develop additional water sources and storage as required. Label roads and houses with 4” reflective letters on metal signs. Where dead end and private road markers occur, the addresses of homes beyond the marker should be clearly posted. This can be done with a group address marker.

Appendix C - General Recommendations

Home Mitigation

In the end, every homeowner and every community must assume responsibility for protection from wildfire. Although VFDs are dedicated to protect and defend, in the event of a catastrophic fire, or even a much smaller fire under the right conditions, the VFDs may or may not be able to intervene. The more steps each homeowner and each community takes to mitigate wildfire risk, the more likely it is a home will survive without intervention and the more likely it is that lives will be protected.

All of the communities in the CWPP, especially those with extreme, very high and high hazard ratings, should consider implementing a parcel-level analysis. Even homes that are outside of a defined CWPP community will most likely have hazard levels similar to homes within near-by evaluated communities. Communities may undertake large-scale projects that may benefit multiple homes, but the most effective steps landowners can take to protect their property from wildfire is to mitigate around homes.

Home Construction

All new construction within the CWPP area should consider incorporating wildfire construction principles. Recommended alterations to a home may include simple tasks such as cleaning gutters, moving firewood from around buildings, raking pine needles and flammable ground cover away from the home. Other recommendations might include replacing flammable roofing materials and siding, screening beneath decks and vents, double pane windows, and more. Please see CSFS publication *Firewise Construction: Site Design & Building Materials*.

Road Signs and Home Addresses

The majority of the streets within the CWPP are not adequately labeled, signs are not always reflective and are frequently combustible. There are still many places where signs are missing or it is unclear which road is which. Proper reflective signage is a critical operational need. Knowing at a glance the difference between a road and a driveway (and which houses are on the driveway) cuts down response time by reducing navigation errors. This is especially true for out-of area responders who are not familiar with our area. The value of the time saved, especially at night and in difficult conditions, cannot be overstated: it can make the difference between lives saved and lost.

Recommendations:

- Ensure that every intersection and street name change has adequate, reflective signage.
- Develop a program of replacing worn or difficult to read street signs. Include specifications and input from developers, HOAs, and the fire protection districts.
- Lot markers should be replaced with address markers as soon as a home has a certificate of occupancy.
- Where dead end and private road markers occur, the addresses of homes beyond the marker should be clearly posted. This can be done with a group address marker.

Preparedness Planning

Many communities in the CWPP have only one way in and out of the community. In order to reduce potential conflicts between evacuating citizens and incoming responders, it is desirable to have evacuation plans in place that have been trained and practiced .

Recommendations:

- Identify and pre-plan primary escape routes for all CWPP communities. Emergency management personnel should be included in the development of pre-plans for consequence management that includes evacuation. Re-evaluate and update these plans as necessary.
- Educate citizens on the proper escape routes and evacuation centers to use in the event of an evacuation. This also applies to animal rescue.
- Ensure the existing reverse 911 system includes already developed wildfire notifications.
- Perform response drills to determine the timing and effectiveness of escape routes and fire resource staging/check-in areas.

Public Education

There is likely to be a varied understanding among property owners of the hazards associated with the threat of a wildfire. An approach to wildfire education that emphasizes safety and hazard mitigation on an individual property level should be undertaken.

Recommendations:

- Provide communities and homeowners fire prevention educational materials through personal contact.
- Fire prevention and wildfire hazard mitigation education should be an ongoing effort.
- Implement fire prevention, fire preparedness, defensible space, and hazard reduction recommendations for each community.
- Create an evacuation plan that is presented and distributed to residents.
- Hold multiple meetings per year to educate residents on wildfire risk, defensible space, and evacuation.
- Provide citizens with the findings of this study including:
 - Levels of risk and hazard.
 - Values of fuels reduction programs.
 - Consequences of inaction for the entire community.
- Create a community level Mitigation Advocates or Firewise Ambassador or similar WUI citizen advisory committee to promote the message of shared responsibility. The Mitigation Advocates or Firewise Ambassadors should consist of local citizens and its primary goals should be:
 - Bringing the concerns of the residents to the prioritization of mitigation actions.
 - Selecting demonstration sites.
 - Assisting with grant applications and awards.
 - Make use of regional and local media to promote wildfire public education messages including www.SLVEMERGENCY.org.
 - Maintain a current wildfire educational presentation explaining the concepts of defensible space and wildfire hazard mitigation. The

information in this CWPP should be incorporated into that presentation for the education of homeowners. This could be promoted through informational gatherings sponsored by the fire department, homeowners associations or neighborhood gatherings such as local festivals, and school events. It should also be presented during times of extreme fire danger and other times of heightened awareness concerning wildfire.

Water Supply

Water is a critical fire suppression issue in the community. Very little of the area is served with water hydrants. All new developments within the CWPP should consider developing year-round water sources.

Recommendations:

- Areas with no water or inadequate water supply should be evaluated to establish a stored water supply, or use preplanned firefighting resources.
- Map existing water sources and their volume. Make this information available for emergency personnel in and out of the district.
- Make sure cisterns are well marked with their capacity and are kept clear of vegetation.

Appendix D – Firewise USA Communities

NFPA FIREWISE USA® COMMUNITIES RECOGNITION PROGRAM
<p><i>Instructions/Participation Process:</i> The National Fire Protection Association (NFPA) Firewise USA Communities Recognition Program provides resources and action steps homeowners can take now to reduce their community’s risk of wildfire damage in the future. After completing a CWPP, your community may realize that it already has completed the requirements for the NFPA Firewise USA Communities Recognition Program, and the only remaining step is to complete an application.</p> <p>Following are the benefits of receiving NFPA Firewise Communities/USA recognition:</p> <ul style="list-style-type: none"> • Provides community-building opportunities that will enhance your CWPP and reduce wildfire risk • Fosters a sense of pride throughout the community • Promotes visibility for the community by providing metal signs, a plaque and other materials that recognize the community as a NFPA Firewise USA Communities designee • Improves the chances of receiving grant funding • Focuses resident action on homes and their immediate surroundings to reduce structural ignitability <p>For more information on the benefits and requirements of the Firewise USA Communities Recognition Program, please visit www.firewise.org.</p>
<p>Requirements</p> <ul style="list-style-type: none"> • Obtain a wildfire risk assessment as a written document from your state forestry agency or fire department. <i>A completed and approved CWPP meets this requirement.</i>
<ul style="list-style-type: none"> • Form a board or committee and create an action plan based on the assessment. <i>The board or committee can include members of the CWPP planning team. The Mitigation and Implementation Plan in the CWPP qualifies as an action plan.</i>
<ul style="list-style-type: none"> • Conduct a “Firewise Day” event. <i>This step may have been included in the CWPP, depending on what type of community engagement was completed. A “Firewise Day” can include a “chipper day” that engages volunteers to chip up brush and limbs, a community clean-up day or workshop. Firewise events can help you get the work done to make your community safer. Keep in mind, to renew the community’s Firewise status, a “Firewise Day” must occur once annually.</i>
<ul style="list-style-type: none"> • Invest a minimum of \$25.96 per residence annually in local Firewise actions. <i>Check with the HOA to see if this step is already complete. Work by municipal employees or volunteers using municipal and other equipment can be included, as can state/federal grants dedicated to this purpose.</i>
<ul style="list-style-type: none"> • Submit an application to your local CSFS district forester. <i>Applications are available online at www.firewise.org.</i>
<p>Renewal</p> <ul style="list-style-type: none"> • Submit a renewal form each year to your local CSFS district forester to maintain the Firewise recognition status. <i>Renewal forms are available online at www.firewise.org.</i>

Appendix E – Community Risk Assessment Factors

Each community write-up also included a community wildfire risk assessment. This assessment assigned a hazard rating ranging from low to extreme based on a composite score that incorporates considerations for factors that affect the potential for hazardous fire behavior in the WUI. The factors considered include: community design, existing building materials, utilities defensible space, availability of fire suppression resources and physical conditions such as fuels and topography. This is adapted from University of Nevada Cooperative Extension's Nevada Community Wildfire Risk and Hazard Assessment Methodology.

Community Design:

Design aspects of roadways influence the hazard rating assigned to a neighborhood. A road gradient of greater than five percent can increase response times for heavy vehicles carrying water. Roads less than twenty feet in width often impede two-way movement of vehicles for resident evacuation and access for fire suppression equipment. Hairpin turns and cul-de-sacs with radii of less than 45 feet can cause problems for equipment mobility. Adequately designed secondary access routes and loop roads in a neighborhood can lower a hazard rating. Visible, fire resistant, street and address identification and adequate driveway widths also reduce the overall neighborhood hazard rating.

Existing Building Materials:

Appropriate home construction and maintenance resists ignition. While it is not feasible to expect all structures in the wildland-urban interface area to be rebuilt with fire-resistant materials, there are steps that can be taken to address specific elements that strongly affect structure ignition potential in the interface area. Factors considered in the assessment include:

A. Building Materials. The composition of building materials determines the length of time a structure could withstand high temperatures before ignition occurs. Houses composed of wood siding and wood shake roofing are usually the most susceptible to ignitions. Houses built with stucco exteriors and tile, metal, or composition roofing are able to withstand higher temperatures and heat durations when defensible space conditions are adequate.

B. Architectural Features. Unenclosed or unscreened balconies, decks, porches, eaves, or attic vents provide areas where sparks and embers can be trapped, smolder, ignite, and rapidly spread fire to the house. A high number of houses within a wildland-urban interface with these features implies a greater hazard to the neighborhood.

Utilities:

Poorly maintained overhead power lines can be a potential ignition source for wildfires. It is important to keep power line corridors clear of flammable vegetation, especially around power poles and beneath transformers, as fires have been known to start from arcing power lines during windy conditions. Keeping flammable vegetation cleared from beneath power lines and around power poles also reduces potential hazards from damaged power lines. Energized power lines may fall and create additional hazards for citizens and firefighters, including blocked road access. Power failures are especially dangerous to a neighborhood without a backup energy source. Many communities rely on electric pumps to provide water to residents and firefighters for structure protection and fire suppression.

Defensible Space:

Density and type of fuel around a home determines the potential for fire exposure and damage to the home. The type and condition of vegetation near the home, woodpiles, and other combustible materials influences the ease of ignition, intensity of the fire, and duration of the fire. Defensible space is one of the factors that homeowners can manipulate in order to improve the chances that a home or other property avoids damage from a wildfire.

Fire Suppression Resources:

Knowledge of the capabilities or limitations of the fire suppression resources in a neighborhood can help local officials and residents take action to maximize the resources available. Factors considered in the assessment include:

- A. Availability, Number, and Training Level of Firefighting Personnel. When a fire begins in or near a neighborhood, having the appropriate firefighting personnel available to respond quickly is critical to saving structures and lives. Whether there is a local paid fire department, volunteer department, or no local fire department affects how long it takes for firefighters to respond to a reported wildland fire or to a threatened neighborhood.
- B. Quantity and Type of Fire Suppression Equipment. The quantity and type of available fire suppression equipment has an important role in minimizing the effect of a wildfire on a neighborhood. Wildland firefighting requires specialized equipment.
- C. Water Resources. The availability of water resources is critical to fighting a wildland fire. Whether there is a community water system with adequate fire flow capabilities, or whether firefighters must rely on local ponds or other drafting sites affects how difficult it will be for firefighters to protect the neighborhood.

Physical Conditions such as Fuels and Topography:

Physical conditions include slope, aspect, topography, typical local weather patterns and drought, fuel type, and fuels density. With the exception of changes to the fuel composition, the physical conditions in and around a neighborhood cannot be altered to make the neighborhood more fire safe. Therefore, an understanding of how these physical conditions influence fire behavior is essential to planning effective preparedness activities such as fuel reduction treatments. Physical conditions considered in the assessment include:

- A. Slope, Aspect, and Topography. In addition to local weather conditions, slope, aspect, and topographic features are also used to predict fire behavior. Steep slopes greatly influence fire behavior. Fire usually burns upslope with greater speed and longer flame lengths than on flat areas. Fire will burn downslope; however, it usually burns downhill at a slower rate and with shorter flame lengths than in upslope burns. East aspect slopes may experience afternoon downslope winds that may rapidly increase downhill burn rates. West and south facing aspects are subject to more intense solar exposure, which preheats vegetation and lowers the moisture content of fuels. Canyons, ravines, and saddles are topographic features that are prone to higher wind speeds than adjacent areas. Fires pushed by winds grow at an accelerated rate compared to fires burning in non-windy conditions. Homes built midslope, at the crest of slopes, or in saddles are most at risk due to wind-prone topography in the event of a wildfire.

B. Fuel Type and Density. Vegetation type, fuel moisture values, and fuel density around a neighborhood affect the potential fire behavior. Areas with thick, continuous, vegetative fuels carry a higher hazard rating than communities situated in areas of irrigated, sparse, or non-continuous fuels. Dry weather conditions, particularly successive years of drought, in combination with steep slopes or high winds can create situations in which the worst-case fire severity scenario can occur.

Appendix F – Glossary

The following definitions apply to terms used in the Stonewall Fire Protection District Community Wildfire Protection Plan or referenced in supporting documents.

Active Crown Fire: This is a crown fire in which the entire fuel complex – all fuel strata – become involved, but the crowning phase remains dependent on heat released from the surface fuel strata for continued spread (also called a Running Crown Fire or Continuous Crown Fire).

Chimney: A steep and narrow drainage that has the potential to funnel winds and greatly increase fire behavior. Due to this increase, the tops of chimneys are especially hazardous areas.

Community Wildfire Risk Assessment: The wildfire risk analysis is the foundation for the CWPP. It is based on research of the Home Ignition Zone concept developed by Jack Cohen at the *Fire Science Lab* in Missoula, Montana and the latest research and findings from the *Institute for Business and Home Safety* (IBHA) on factors that play into a home’s survivability during a wildfire.

Crown Fire (Crowning): The movement of fire through the crowns of trees or shrubs; may or may not be independent of the surface fire.

Defensible Space: An area around a structure where fuels and vegetation are modified, cleared or reduced to slow the spread of wildfire toward or from the structure. The design and distance of the defensible space is based on fuels, topography, and the design/materials used in the construction of the structure.

Engine ICS Typing – Wildland

Requirements	Engine Type			
	3	4	5	6
Tank minimum capacity (gal)	500	750	400	150
Pump minimum flow (gpm)	150	50	50	50
@ rated pressure (psi)	250	100	100	100
Hose – 1.5"	1,000	300	300	300
Hose – 1"	500	300	300	300
Pump & Roll	Yes	Yes	Yes	Yes
Maximum GVWR (lbs.)	-	-	26,000	19,500
Personnel (min)	3	2	2	2

Fine Fuels: Fuels that are less than 1/4-inch in diameter, such as grass, leaves, draped pine needles, fern, tree moss, and some kinds of slash which, when dry, ignite readily and are consumed rapidly.

Fire Adapted Community: A Fire Adapted Community takes responsibility for its wildfire risk. Actions address resident safety, homes, neighborhoods, businesses and infrastructure, forests,

parks, open spaces, and other community assets. The more actions a community takes, the more fire adapted it becomes. See: <http://www.fireadapted.org/resources/what-is-a-fire-adapted-community.aspx>

Fire Behavior Potential: The expected severity of a wildland fire expressed as the rate of spread, the level of crown fire activity, and flame length. This is derived from fire behavior modeling programs using the following inputs: fuels, canopy cover, historical weather averages, elevation, slope, and aspect.

Fire Hazard: Given an ignition, the likelihood and severity of Fire Outcomes (Fire Effects) that result in damage to people, property, and/or the environment. The hazard rating is derived from the Community Assessment and the Fire Behavior Potential.

Fire Mitigation: Any action designed to decrease the likelihood of an ignition, reduce Fire Behavior Potential, or to protect property from the impact of undesirable Fire Outcomes.

Fire Outcomes, Fire Effects: This is a description of the expected effects of a wildfire on people, property and/or the environment, based on the Fire Behavior Potential and physical presence of Values at Risk. Outcomes can be desirable as well as undesirable.

Fire Risk: The probability that an ignition will occur in an area with potential for damaging effects to people, property, and/or the environment. Risk is based primarily on historical ignitions data.

Firewise USA Community: National Fire Protection Association's [Firewise USA Communities Program](#) encourages local solutions for safety by involving homeowners in taking individual responsibility for preparing their homes from the risk of wildfire. Firewise is a key component of [Fire Adapted Communities](#) – a collaborative approach that connects all those who play a role in wildfire education, planning and action with comprehensive resources to help reduce risk.

Flame Length: The distance between the flame tip and the midpoint of the flame depth at the base of the flame (generally the ground surface)—an indicator of fire intensity.

Fuelbreak: A natural or constructed discontinuity in a fuel profile that is used to isolate, stop, or reduce the spread of fire. Fuelbreaks in the WUI are designed to limit the spread and intensity of crown fire activity.

ICS - Incident Command System: ICS is a standardized all-hazards management approach that establishes common procedures for responding to and managing emergency incidents; establishes a common communications protocol; and enables a coordinated response among multiple agencies and/or jurisdictions.

Roadside thinning: The primary purposes of roadside thinnings are to increase the ability of firefighters to successfully use the existing road as a control line in the event of a fire, to improve evacuation of civilian and fire traffic, and to reduce the fire impacts along the road.

Dry Hydrant: A fixed pipe attached to a water source located at an easily accessible point that allows firefighters to draft from the water source more efficiently.

Safety Zone: An area cleared of flammable materials used for escape in the event the line is outflanked or in case a spot fire causes fuels outside the control line to render the line unsafe.

Safety zones may also be constructed as integral parts of fuel breaks; they are greatly enlarged areas which can be used with relative safety by firefighters and their equipment in the event of a blowup in the vicinity.

Surface Fire: A fire that burns in the surface litter, debris, and small vegetation on the ground.

Values at Risk: People, property, ecological elements, and other human and intrinsic values within the project area. Values at Risk are identified by inhabitants as important to the way of life in the study area, and are particularly susceptible to damage from undesirable fire outcomes.

WUI (Wildland Urban Interface): The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

Appendix G - Wildland Fire and Hazard Severity Assessment Form

Use this form to see the specific wildfire risk for you residence. Use this form to prioritize projects by choosing those that rank the highest as a primary priority.



Wildland Fire Risk and Hazard Severity Assessment Form

(Circle the most appropriate element in each category and total the points)

Home owner: _____ County: _____

Address: _____ City: _____ Zip: _____

Element	Assessed Points	Element	Assessed Points
A. Means of Access		D. Additional Rating Factors (rate all that apply)	
1. Ingress and egress		1. Topographical features that adversely affect wildland fire behavior	0 1 2 3 4 5
a. Two or more roads in/out	0	2. Areas with a history of higher fire occurrence than surrounding areas due to special situations (e.g. Heavy lightning, railroads, escaped debris burning, arson, malicious burning)	0 1 2 3 4 5
b. One road in/out	7	3. Areas that are periodically exposed to unusually severe fire weather and strong dry winds	0 1 2 3 4 5
2. Road width		4. Separation of adjacent structures that may contribute to fire spread	0 1 2 3 4 5
a. ≥ 7.3 m (24 ft.)	0		
b. 6.1 m to 7.3 m (20 to 24 ft.)	2	E. Roofing Assembly	
c. < 6.1 m (20 ft.)	4	1. Class A roof (metal)	0
3. All-season road condition		2. Class B roof (asphalt)	3
a. Surfaced road, grade $< 5\%$	0	3. Class C roof (wood)	15
b. Surfaced road, grade $> 5\%$	2	4. Nonrated	25
c. Non-surfaced road, grade $< 5\%$	2		
d. Non-surfaced road, grade $> 5\%$	5	F. Building Construction	
e. Other than all-season	7	1. Materials (predominate)	
4. Fire Service Access		a. Noncombustible/fire resistive siding, eaves, & deck	0
a. ≤ 91.4 m (300 ft.) with turnaround	0	b. Noncombustible/fire resistive siding, combustible deck	5
b. > 91.4 m (300 ft.) with turnaround	2	c. Combustible siding and deck	10
c. < 91.4 m (300 ft.) with no turnaround	4	2. Building setback relative to slopes $> 30\%$	
d. ≥ 91.4 m (300 ft.) with no turnaround	5	a. ≥ 9.1 m (30 ft.) to slope	1
5. Street signs		b. < 9.1 m (30 ft.) to slope	5
a. Present: 10.2 cm (4 in.) in size and reflectorized	0		
b. Not present	5	G. Available Fire Protection	
B. Vegetation (Fuel Models)		1. Water source availability	
1. Characteristics of predominate vegetation within 91.4 m (300 ft.)		a. Pressurized water source availability	
a. Light (e.g. grasses, forbs, sawgrasses, and tundra) NFDRS fuel models A, C, L, N, S, and T	5	1892.7 lpm (500 gpm) hydrants ≤ 304.8 m (1000 ft) apart	0
b. Medium (e.g. light brush and small trees) NFDRS fuel models D, E, F, H, P, Q and U	10	946.4 lpm (250 gpm) hydrants ≤ 304.8 m (1000 ft) apart	1
c. Heavy (e.g. dense brush, timber, and hardwoods) NFDRS fuel models B, G, and O	20	b. Non-pressurized water source availability (off site)	
d. Slash (e.g. timber harvesting residue) NFDRS fuel models J, K, and L	25	≥ 946.4 lpm (250 gpm) continuous for 2 hours	3
2. Defensible space		< 946.4 lpm (250 gpm) continuous for 2 hours	5
a. More than 30.48 m (100 ft.) of vegetation treatment from the structure(s)	1	c. Water unavailable	10
b. 21.6 - 30.48 m (71 - 100 ft.) of vegetation treatment from the structure(s)	3	2. Organized response resources	
c. 9.1 - 21.3 m (30 - 70 ft.) of vegetation treatment from the structure(s)	10	a. Station ≤ 8 km (5 mi.) from structure	1
d. < 9.1 m (30 ft.) of vegetation treatment from the structure(s)	25	b. Station > 8 km (5 mi.) from structure	3
C. Topography within 91.4 m (300 ft.) of structure(s)		3. Fixed fire protection	
1. Slope $< 9\%$	1	a. NFPA 13, 13R, 13D sprinkler system	0
2. Slope 10% to 20%	4	b. None	5
3. Slope 21% to 30%	7	H. Placement of Gas and Electric Utilities	
4. Slope 31% to 40%	8	1. Both utilities underground	0
5. Slope $> 41\%$	10	2. One underground and one aboveground	3
		3. Both aboveground	5
		Totals for Home or Subdivision:	
		(Total of circled points)	_____
		Hazard Rating:	_____
		Colorado State Forest Service	
		Alamosa District	
		719-587-0915	
		m/fire/forms&lib/RiskAssessmentSLV071411	

Hazard Rating	Total Points
1. Low hazard	< 40
2. Moderate hazard	40 - 69
3. High hazard	70 - 112
4. Extreme hazard	> 112

Source: NFPA 1144 Standard for the Protection of Life and Property from Wildfire, 2002 edition, NFPA, Quincy, MA

Appendix H - Wildfire Pre-Suppression Plan

Completion of the information in this section will help to ensure the communities have gathered all pertinent information for use in case of a widespread or catastrophic wildfire. Assistance for gathering this information may be provided by the local fire departments, CSFS, county Emergency Management Officer, the local District of the Rio Grande National Forest. The items listed in this section should be identified as completely as possible in order to be prepared for a wildfire.

A Pre-Attack Plan should be in place, with a detailed description attached. It should address the following:

- Emergency early warning and notification procedures
- Fire protection responsibilities among agencies (private, state, federal lands; response times)
- Command responsibilities
- Traffic Control
- Briefing of personnel on safety and hazards
- Determining Operational Mode
- Determining resource needs (aircraft, mechanized, hand crews, water, chemical delivery systems)
- Determining assignments (reconnaissance, medical suppression, rehab)
- Pre-determined locations for (Command Post, Staging Areas, Safety Zones, Helibase / Helispots)

<u>Goal(s)</u> (briefly identify)	<u>Timeframe</u>	<u>Person in Charge</u>