

# **Appendix A**

Compartment Summary

And

Priorities

## Sangres Foothills Community Wildfire Protection Plan Summary Sheet

Compartment #	Compartment Name	# Acres (private)	# Acres (public)	Total Acres	# Parcels	#Dwellings (Residences)	#Dwellings (Structures)
1	Brush Creek	4719	3730	8449	101	69	112
2	Verdemont	859	969	1828	119	78	127
3	Pines	1945	1362	3307	116	51	80
4	Taylor Creek	3095	584	3679	118	55	86
5	Alvarado	1442	1482	2924	143	101	131
6	Horn Creek	865	1466	2331	62	37	124
7	Macey Creek	1490	714	2204	100	64	82
8	Colony	2281	2074	4355	105	50	71
9	Music Pass	2160	4959	7119	39	17	14

Compartment #	Compartment Name	Staging Area(s)	Cisterns or Draftable Water Supplies
1	Brush Creek	CC-192 at CC-193 (San Rafael Road)	
2	Verdemont	CC-182, westernmost cattleguard (last viable turn-around)	
3	Pines	CC-171 to CC-170 (Pine Road)	
4	Taylor Creek	CC-159 at CC-160, CC-150 (Muddy Road) at CC-159	
5	Alvarado	CC-140 and Willow Drive	
6	Horn Creek	CC-129 (Shining Mtn. Rd.) at CC-140	
7	Macey Creek	Macey Cr. Rd. at CC-130 (Horn Rd.)	
8	Colony	CC-125 (Colony Lane)	
9	Music Pass	CC-119 (Colfax Lane)	

NOTE: Water supplies to be determined.

## Wet Mountain Fire Protection District Wildfire Mitigation Priorities

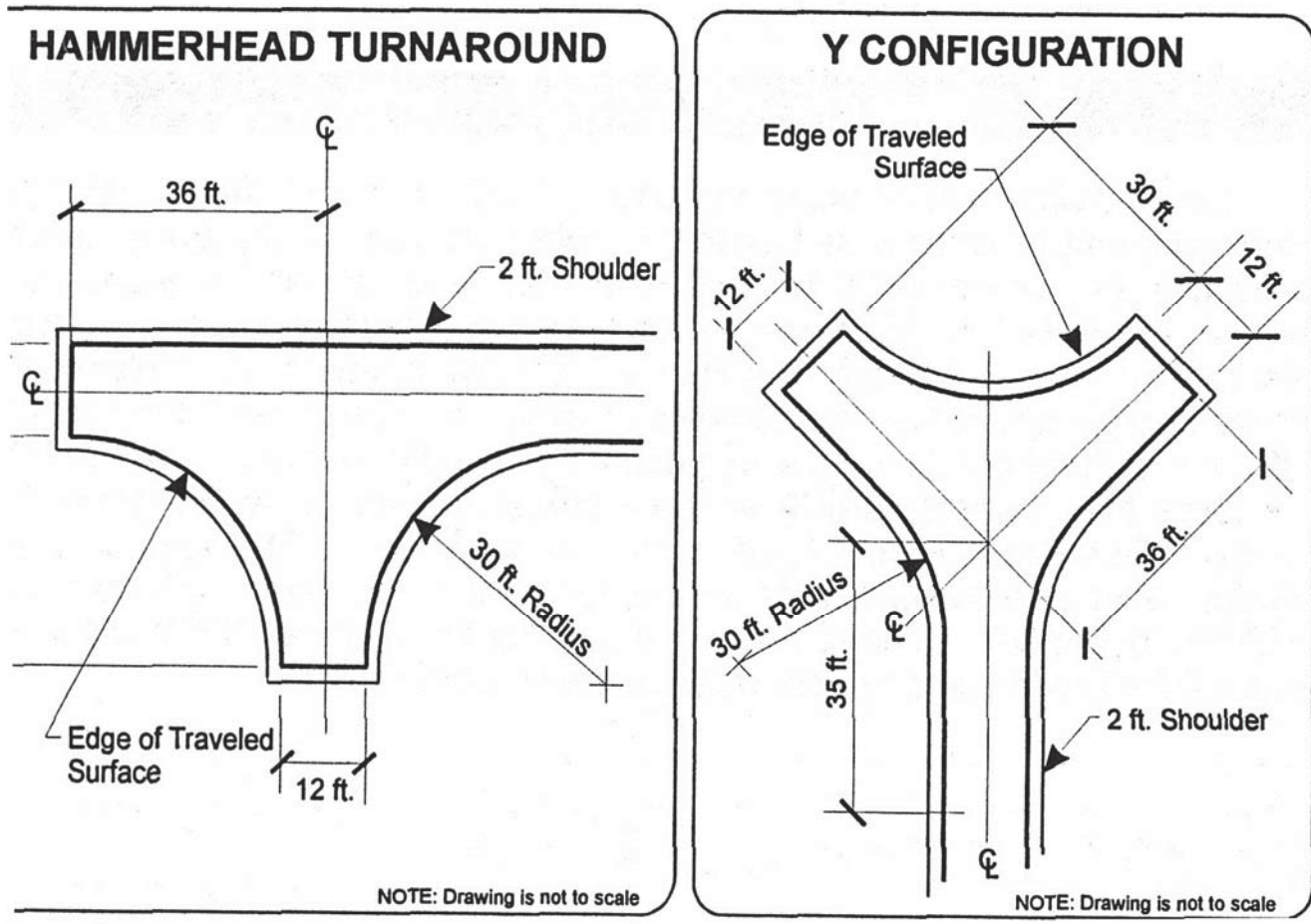
The table below is a list of priority projects within the District intended to promote public safety, protect property and reduce damage to natural resources. These should also promote firefighter safety, and post-fire recovery, as well as fire adaption.

<b>Project or Activity</b>	<b>Treatment</b>	<b>Ownership</b>	<b>Priority</b>
Road right-of-ways	Fuel reduction, shaded fuel breaks	County and private roads	1
Critical Intersections	Fuel reduction, shaded fuel breaks	County and private roads	1
Critical Infrastructure: Power lines	Line clearance and tree removal below power lines	Sangre de Christo Electric	1
Critical Infrastructure: Power substations	Fuel reduction, shaded fuel breaks	Rural Electric Association	1
Homeowner Defensible Spaces and Home Ignition Zones (HIZ)	Structural hardening, forest thinning, tree crown separation	Private owners	1
Watersheds	Fuel treatments necessary to protect water quality, and prevent soil erosion	Public and private ownerships	1
Critical Infrastructure: Storm water structures	Fuel treatments upstream from storm water conveyances (culverts, bridges, ditches, etc.)	Public and private	1
Firewise Community Projects	Fuel treatments intended to unify community wildfire mitigation and promote fire adaption.	Private owners and communities	1
Public Lands (USFS and BLM)	Fuel management zones for given fuel type to reduce crown fire potential	USDA Forest Service and DI-BLM	1
Private Open Spaces and Parks	Fuel management zones for given fuel type to reduce crown fire potential	Homeowner Associations	2
Private Access Easements	Fuel management zones for given fuel type	Private owners	2
Farm and Ranches abutting subdivisions	Fuel treatment zones for the given fuel type	Private owners	2

## High Priority Action Items

Action	Description	Ownership	
<b>Water Supplies for wildfire suppression</b>			
Helicopter Dip Sites	USFS compliant	Private	
Draft Sites	WMFPD compliant	Private	
Cisterns with proper equipment connections	WMFPD compliant	Private	
Use Agreements on file	WMFPD, USFS or CC-OEM	Public/Private partnerships	
<b>Roadway Signage</b>			
County Roads	MUTCD compliant	Custer County	
Private Roads	Upgrade to reflective and 4-inch minimum letter size (6-inch preferred). Identify "No Outlet", "Dead-end" or "No Turnaround" routes.	Communities and businesses	
<b>Evacuation Plans</b>			
Facilities	Develop evacuation and possible shelter-in-place plans	Resorts, Church Camps, Seminaries, businesses, etc.	
Public Areas	Trailhead and back-country users	USFS, CPW, CCSO	
<b>Mapping Tools</b>			
On-line maps	Smart-phone or tablet accessible.	USFS, CSFS, CC-OEM, CC-SO, CDFPC	
Hard-copies	Develop booklets for all engines.	WMFPD, CC-OEM	
Interactive tools	Investigate best options. Provide training to all potential users.	USFS, CSFS, CC-OEM, CC-SO, CDFPC	
Technology upgrades	Identify equipment and software needs.	USFS, CSFS, CC-OEM, CC-SO, CDFPC	
<b>Firewise Communities (FWC)</b>	Identify community leaders to assist with organization/activation.	Homeowner Assoc., Private communities.	
FWC Wildfire Risk Assessment Tool	Use FWC community assessment template.	CSFS, WMFPD, CC-OEM	
Firewise Events	Assist with coordination of events to coincide with seasonal residents.	CSFS, WMFPD, CC-OEM	
In-kind Tracking	\$2 per capita expenditure for hard and soft match.	Communities	
Application Process	Assist with process.	CSFS, WMFPD, CC-OEM	
Powerline Clearance	Coordinate line maintenance activities with communities to promote safety, and potential fuel treatment projects.	REA	

The turn-around detail below is recommended for all private roads.



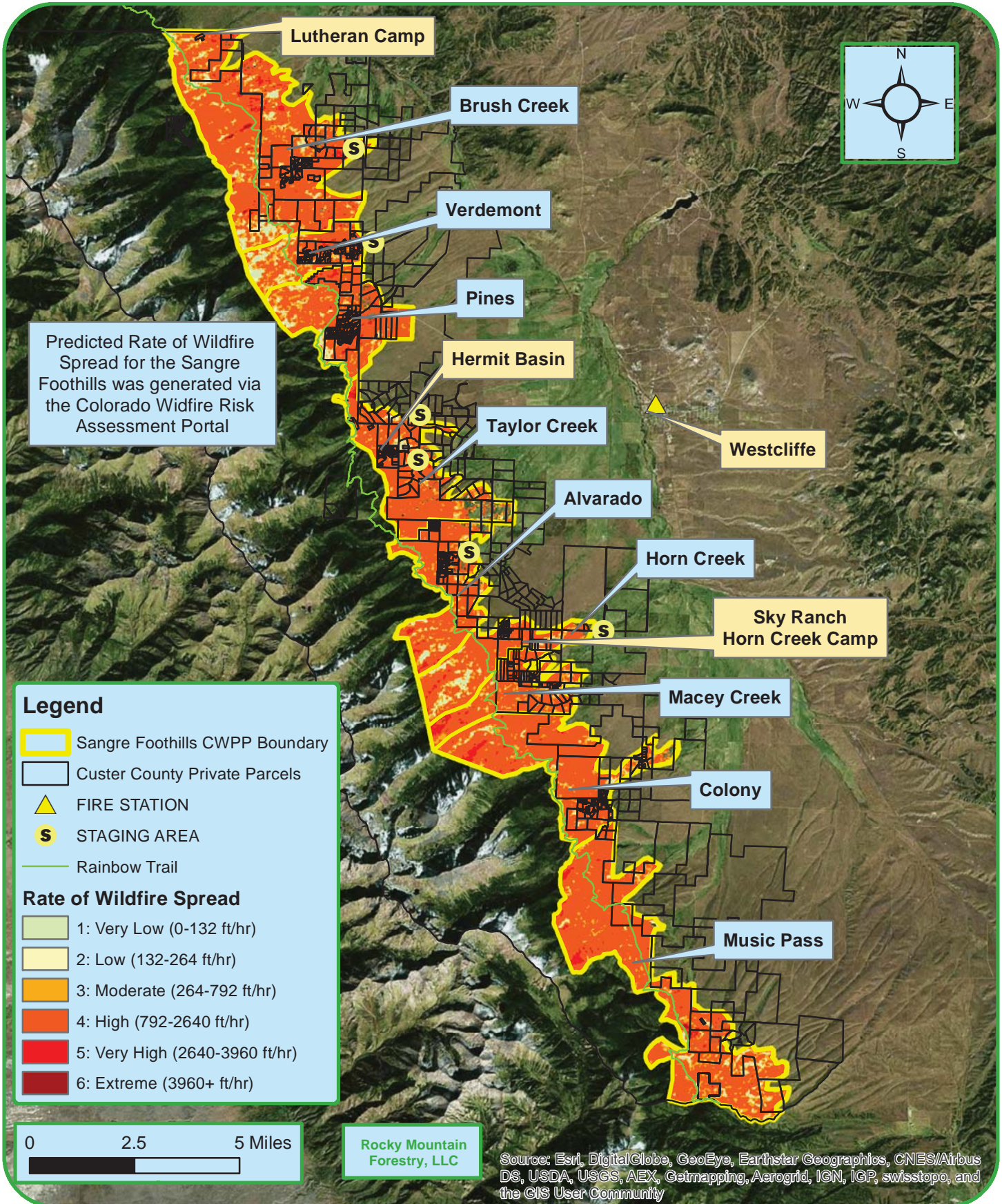
Minimum Fire Engine Turn-around Requirements

# **Appendix B**

## Compartment Maps

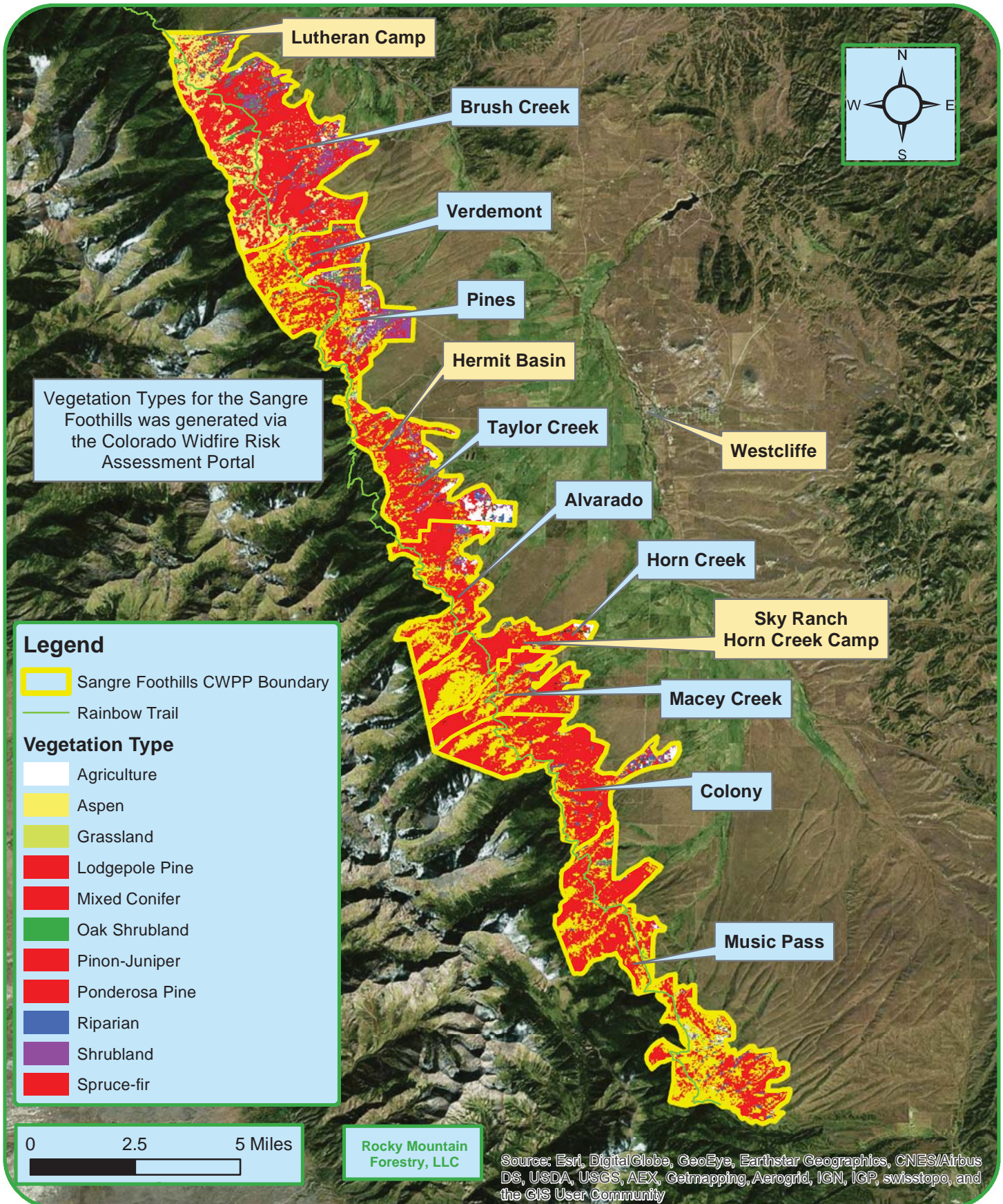
# Community Wildfire Protection Plan

## Custer County Sangre Foothills



# Community Wildfire Protection Plan

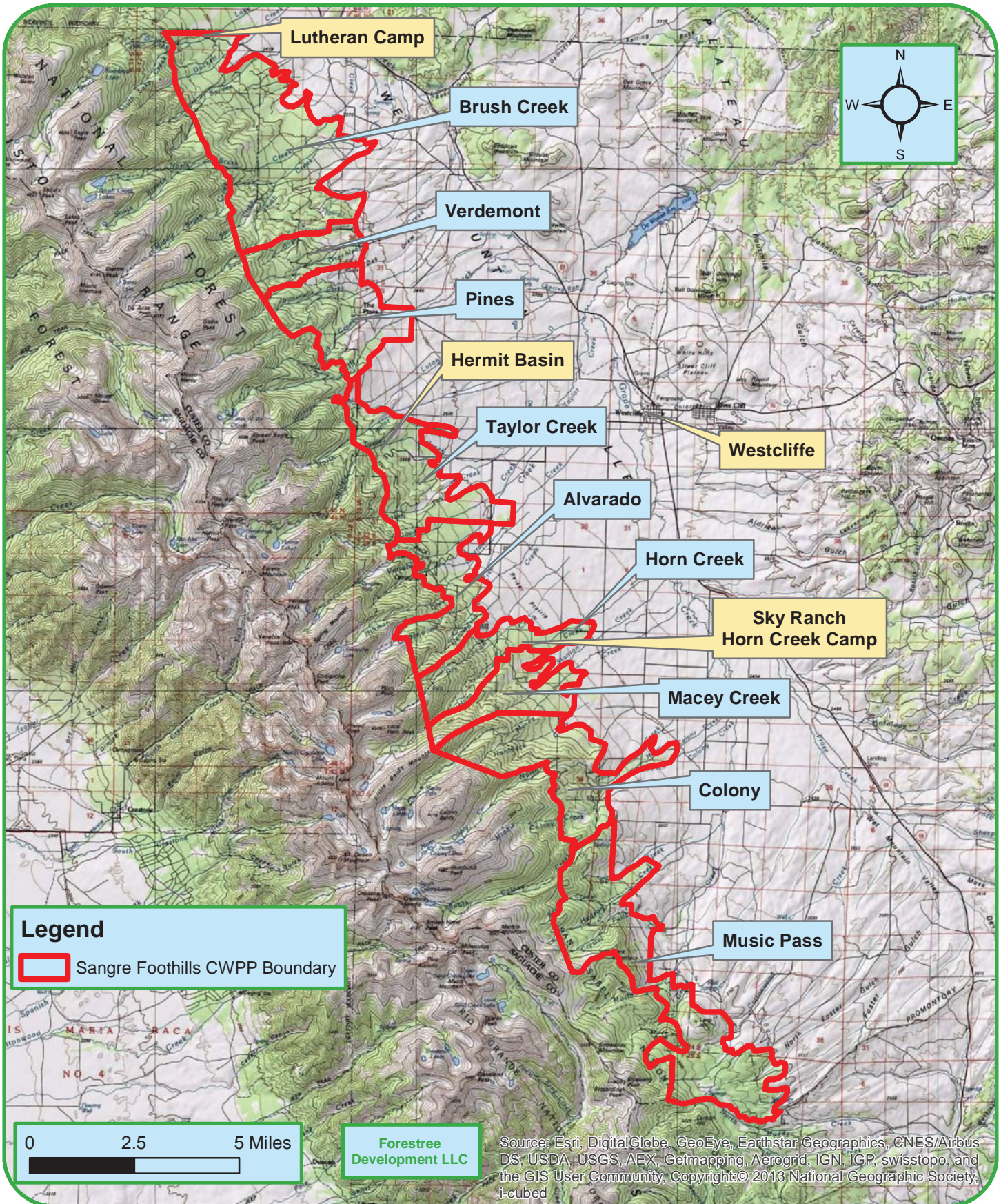
## Custer County Sangre Foothills: Vegetation Types





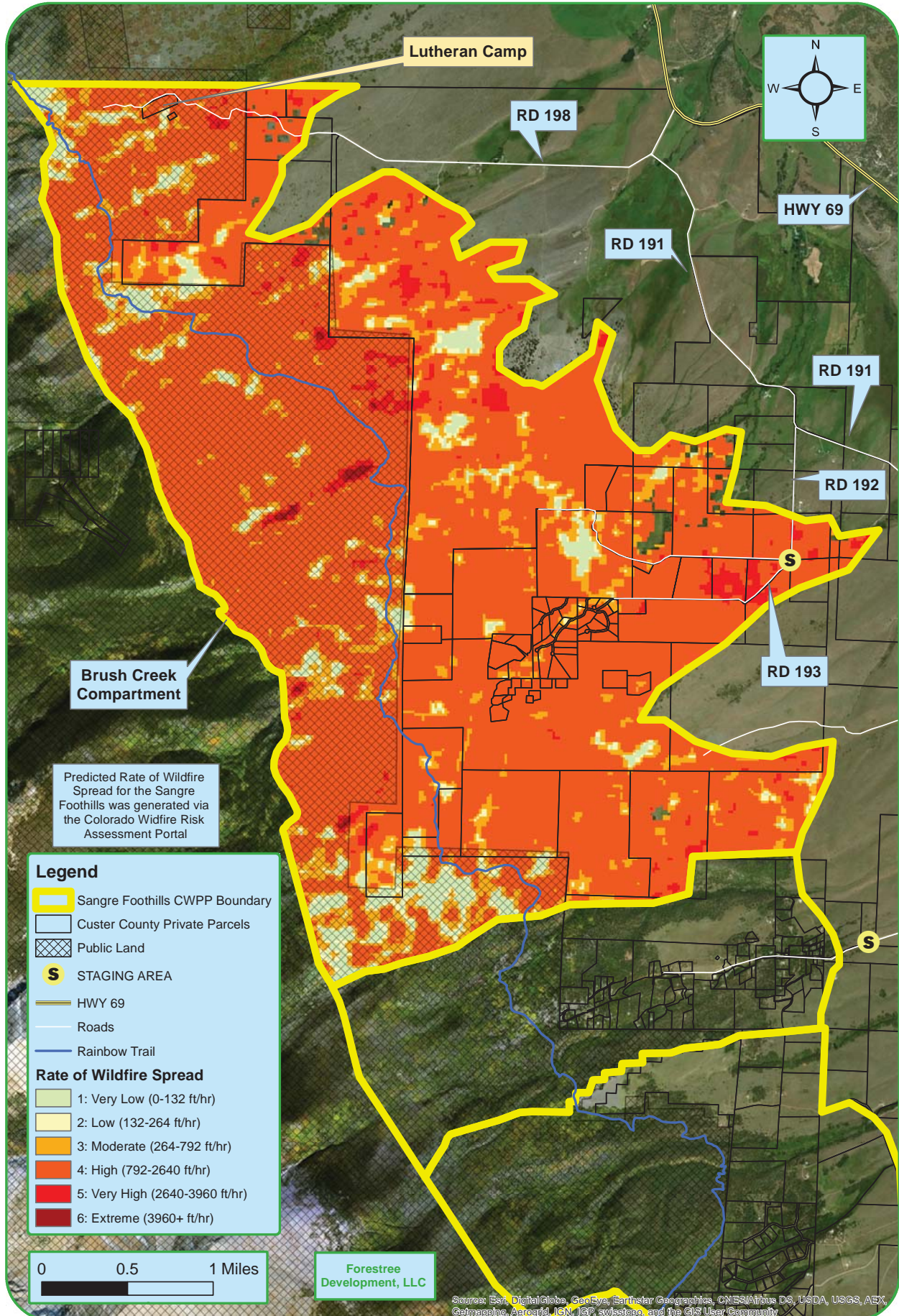
# Community Wildfire Protection Plan

## Custer County Sangre Foothills Topographic Map



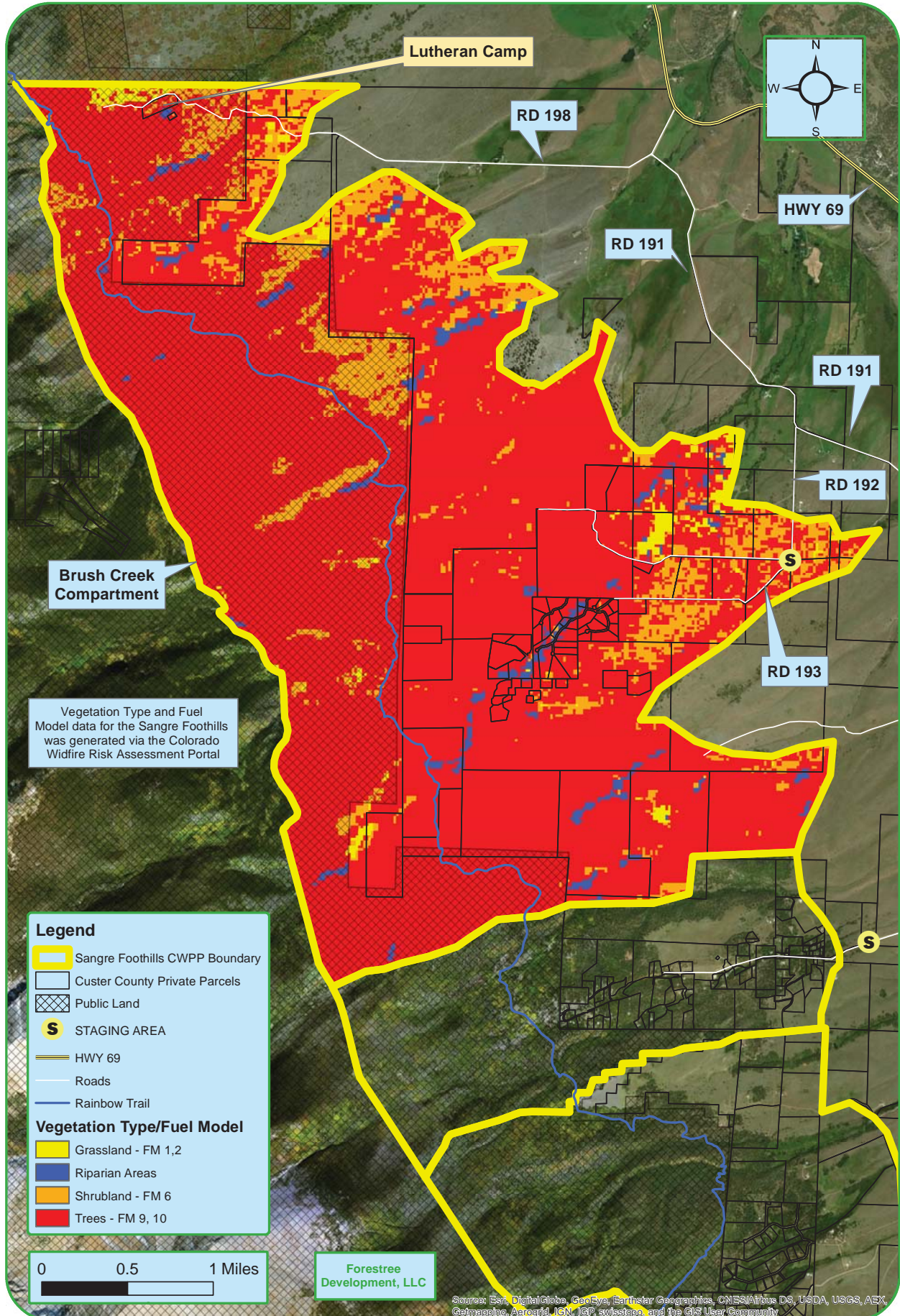
# Brush Creek Compartment: Rate of Wildfire Spread Map

## Community Wildfire Protection Plan



# Brush Creek Compartment: Vegetation Type/Fuel Model Map

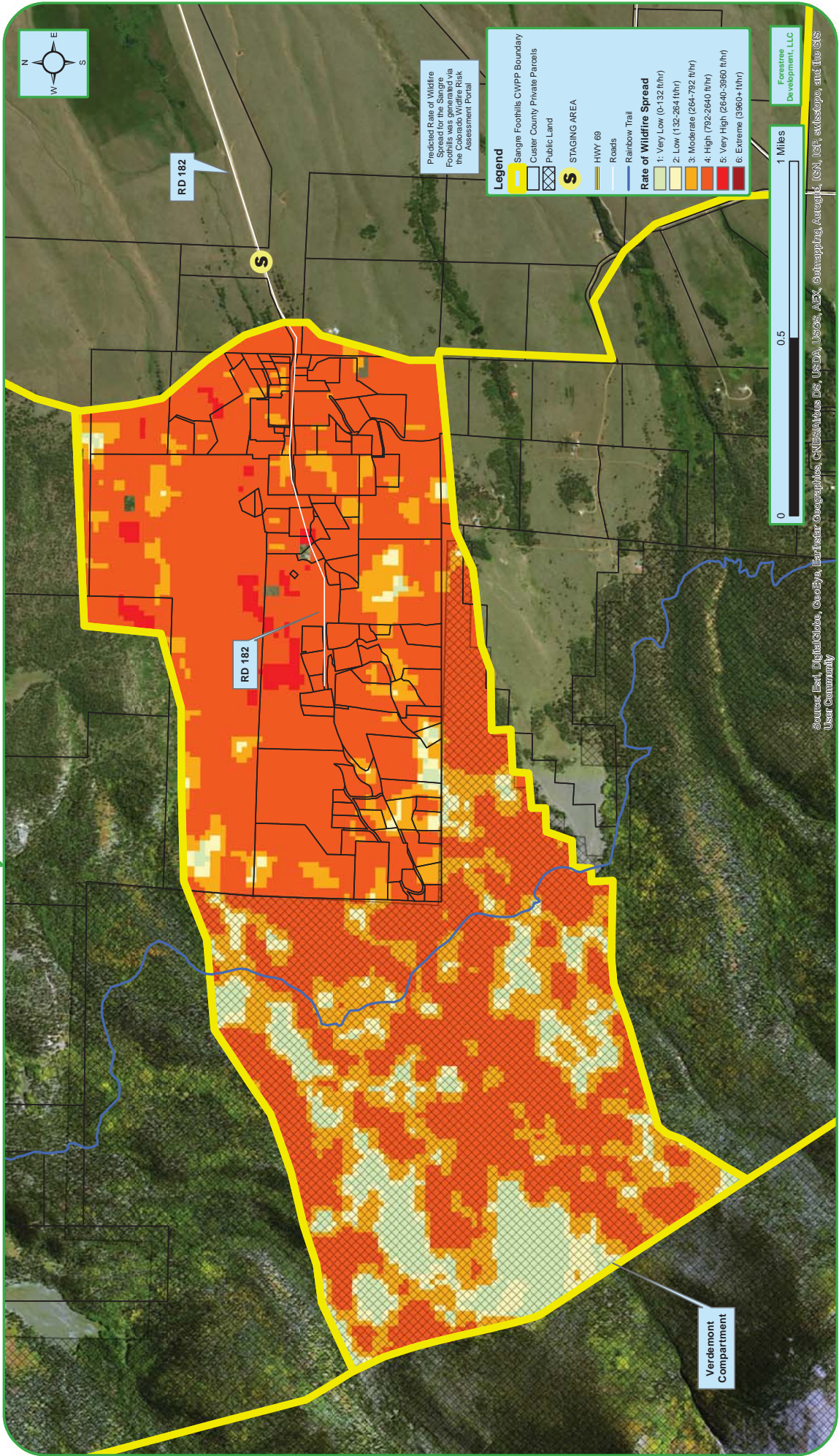
## Community Wildfire Protection Plan



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aergrid, IGN, IGP, swisstopo, and the GIS User Community

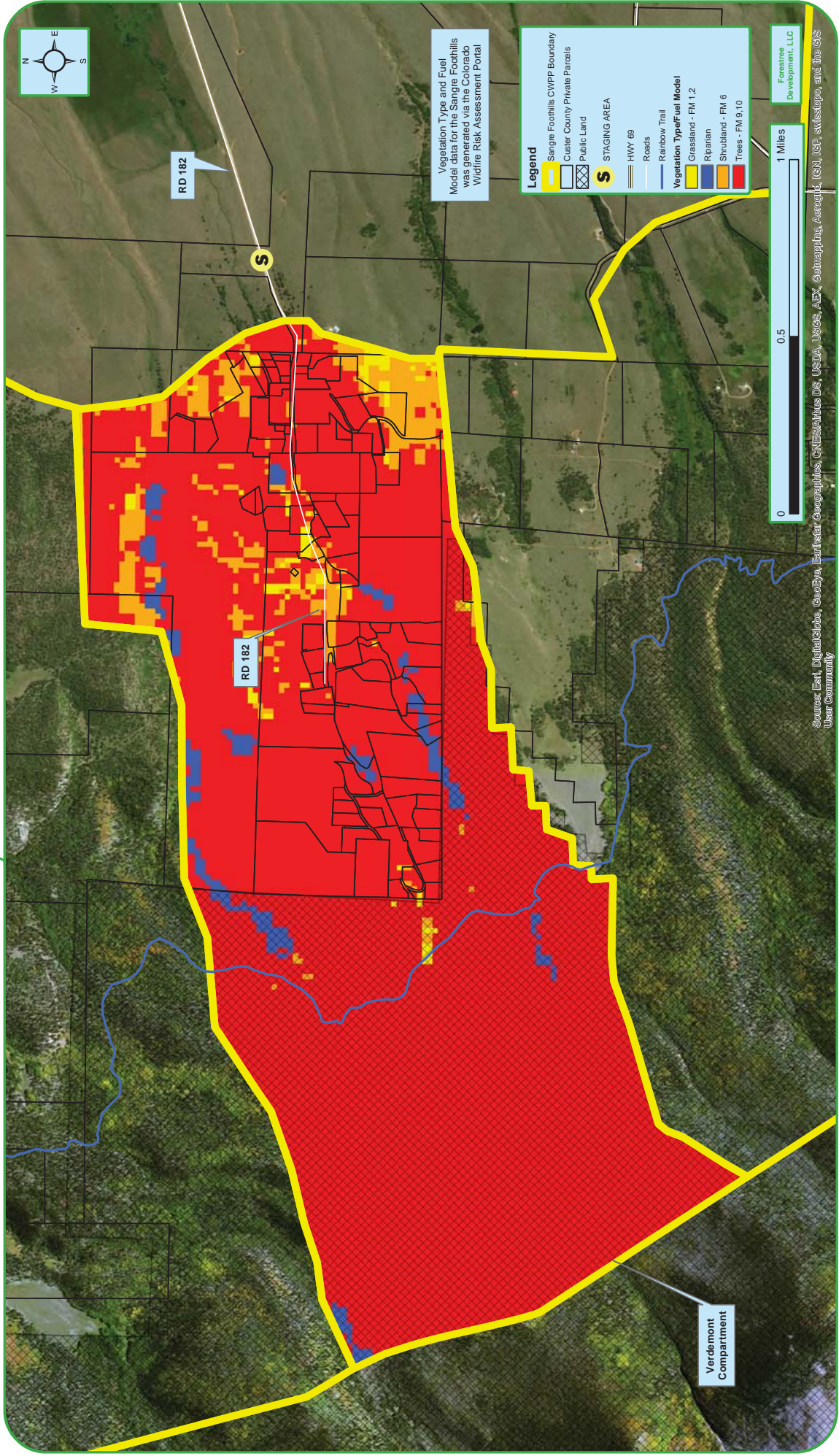
# Verdement Compartment: Rate of Wildfire Spread Map

## Community Wildfire Protection Plan



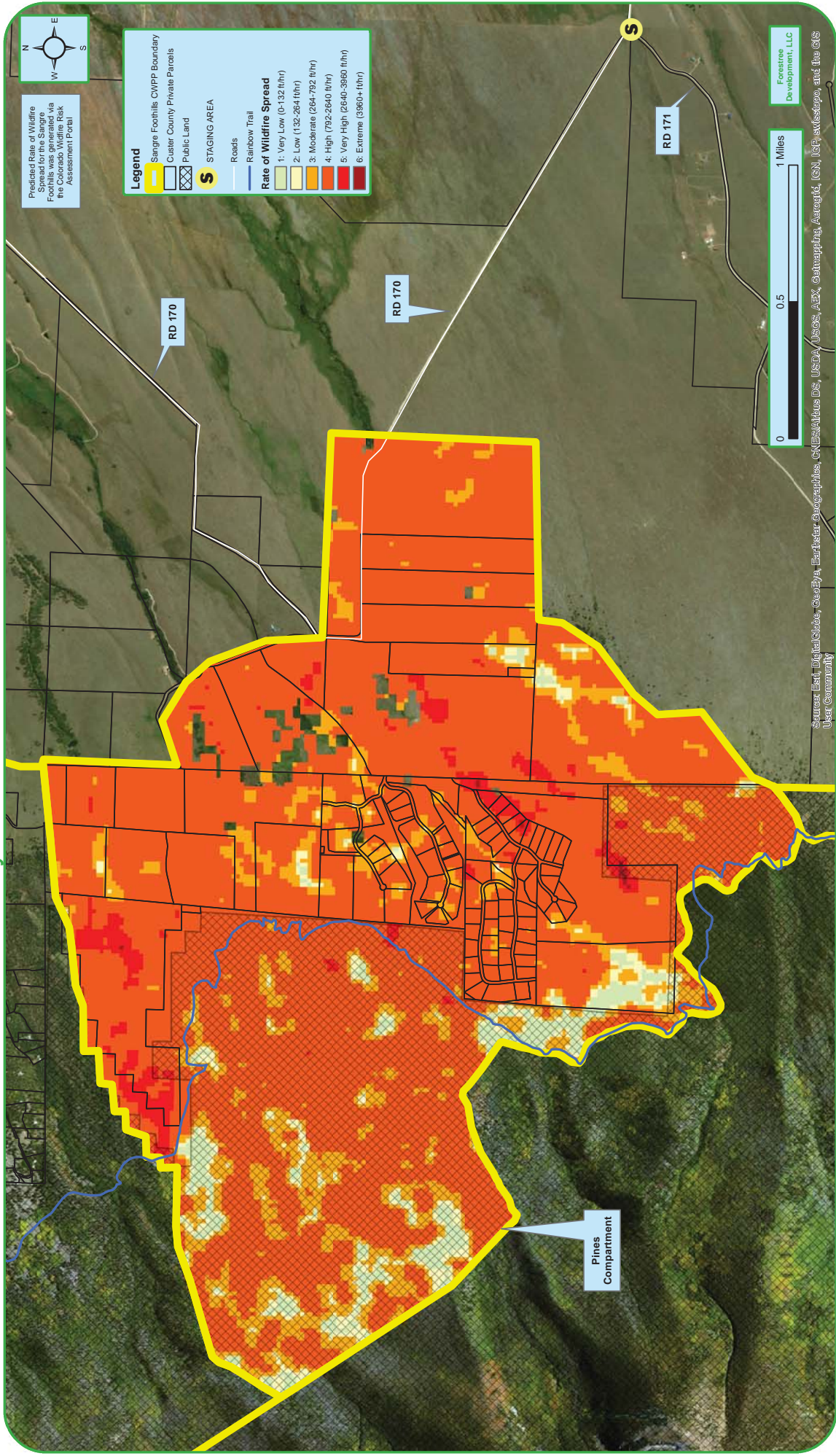
# Verdemont Compartment: Vegetation Type/Fuel Model Map

## Community Wildfire Protection Plan



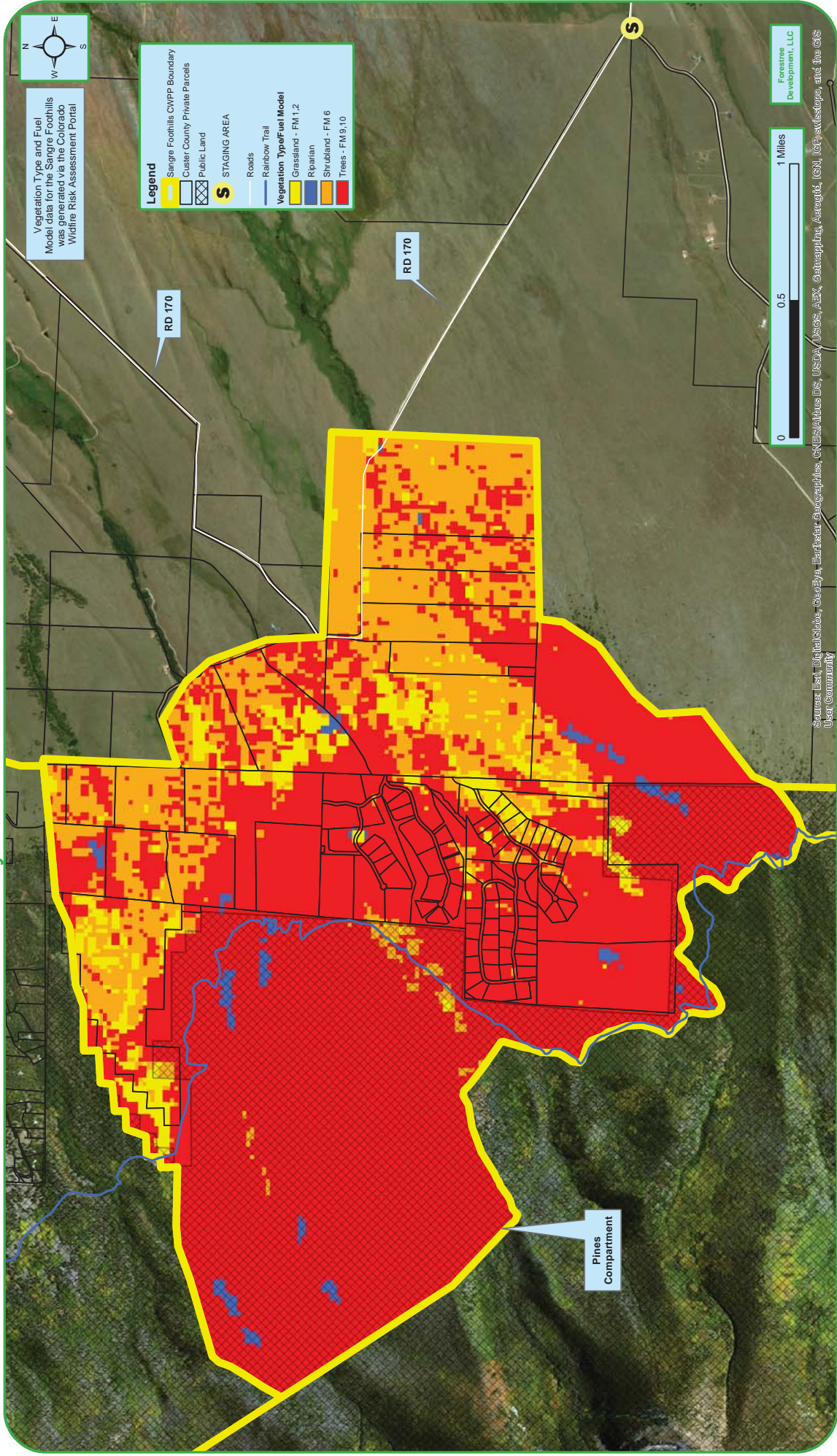
# Pines Compartment: Rate of Wildfire Spread Map

## Community Wildfire Protection Plan



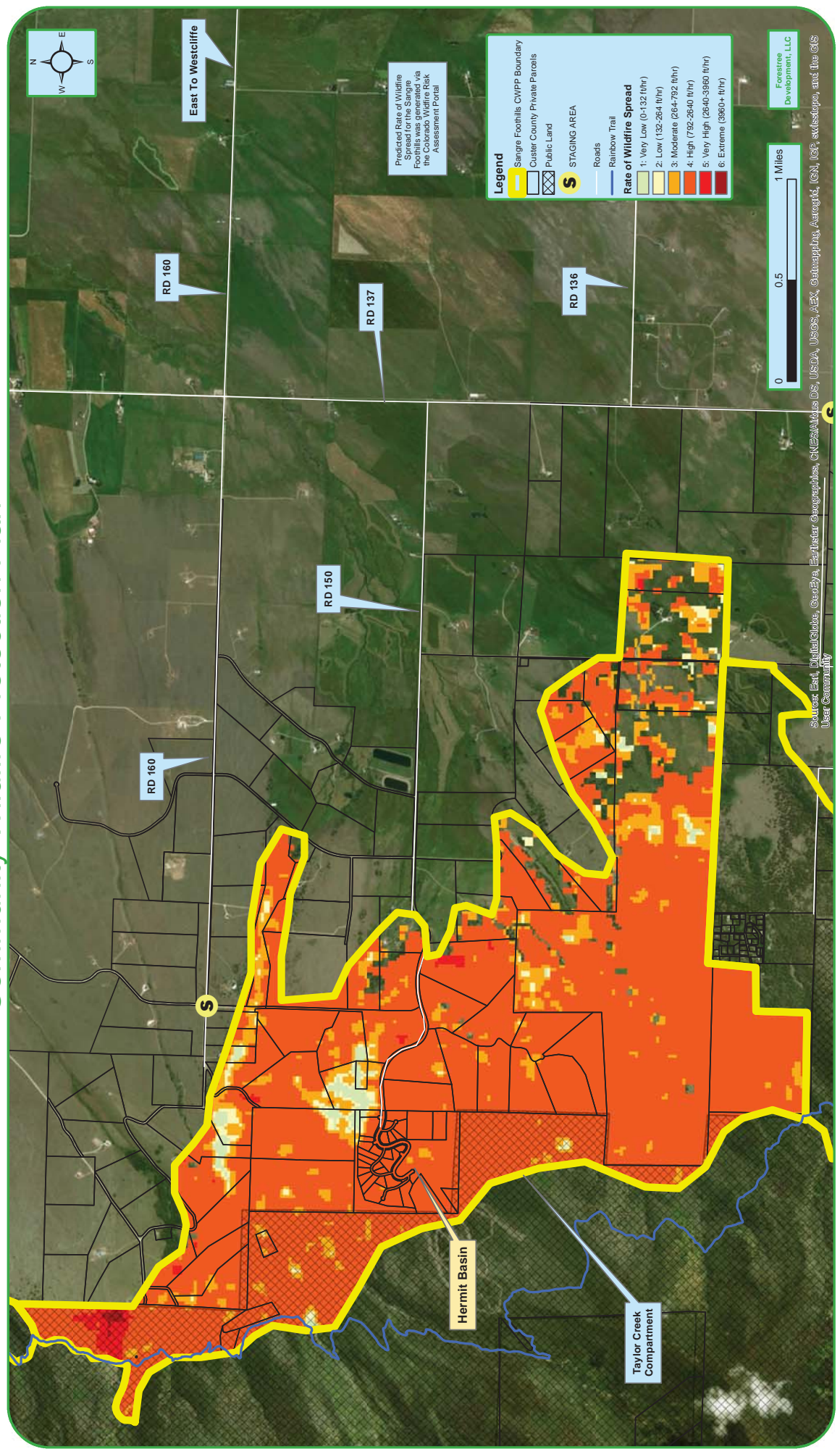
# Pines Compartment: Vegetation Type/Fuel Model Map

## Community Wildfire Protection Plan



# Taylor Creek Compartment: Rate of Wildfire Spread Map

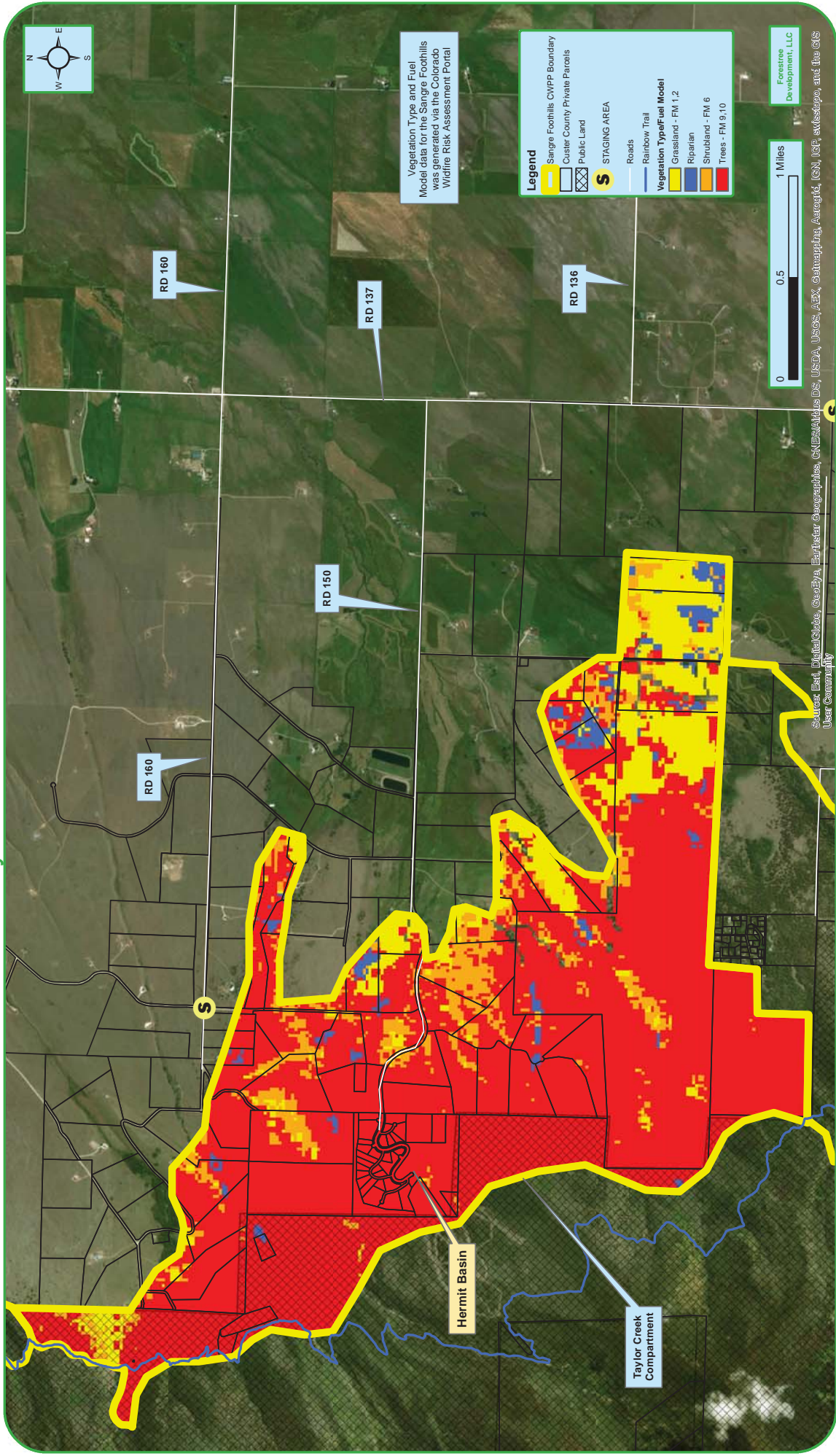
## Community Wildfire Protection Plan





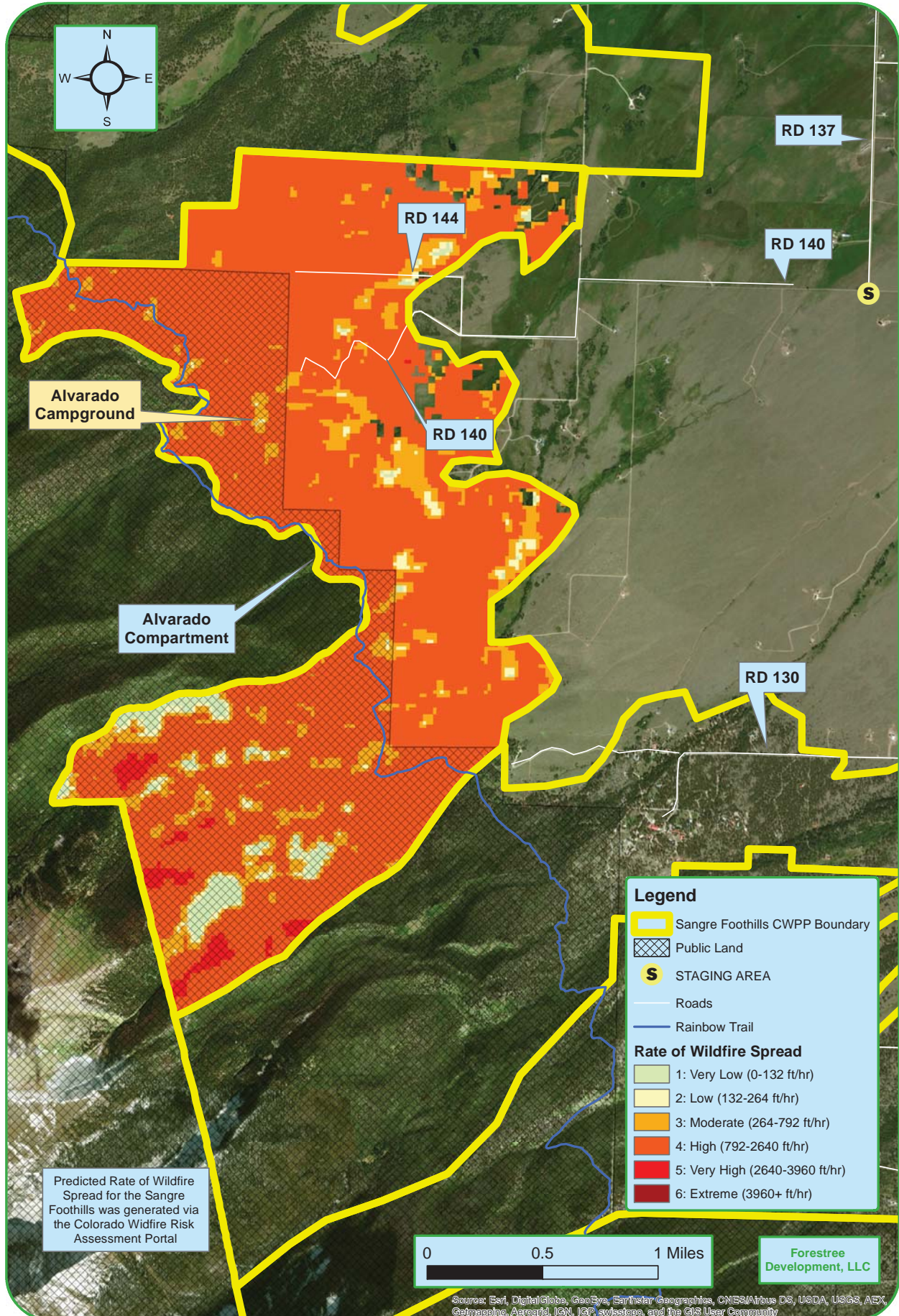
# Taylor Creek Compartment: Vegetation Type/Fuel Model Map

## Community Wildfire Protection Plan



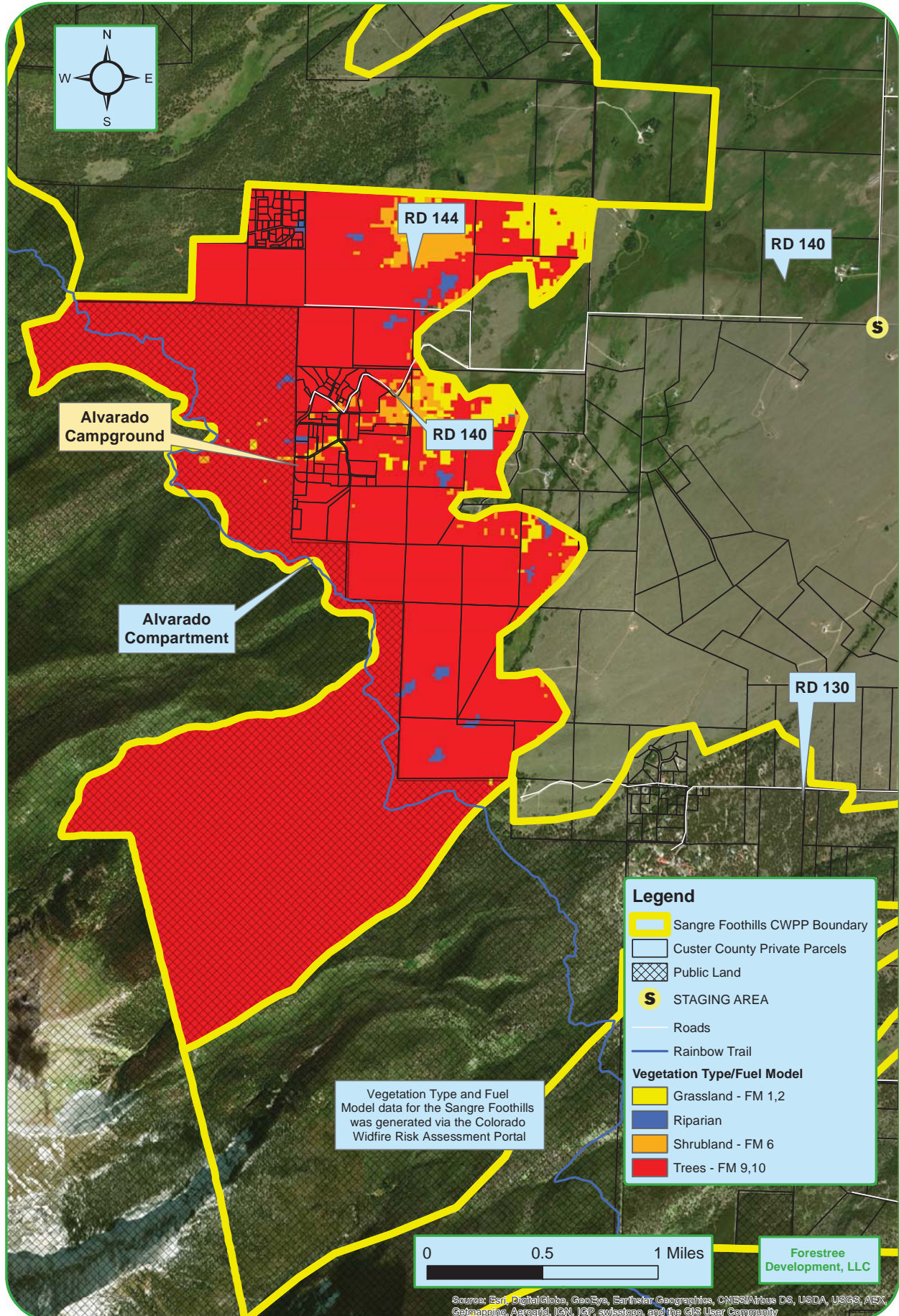
# Alvarado Compartment: Rate of Wildfire Spread Map

## Community Wildfire Protection Plan



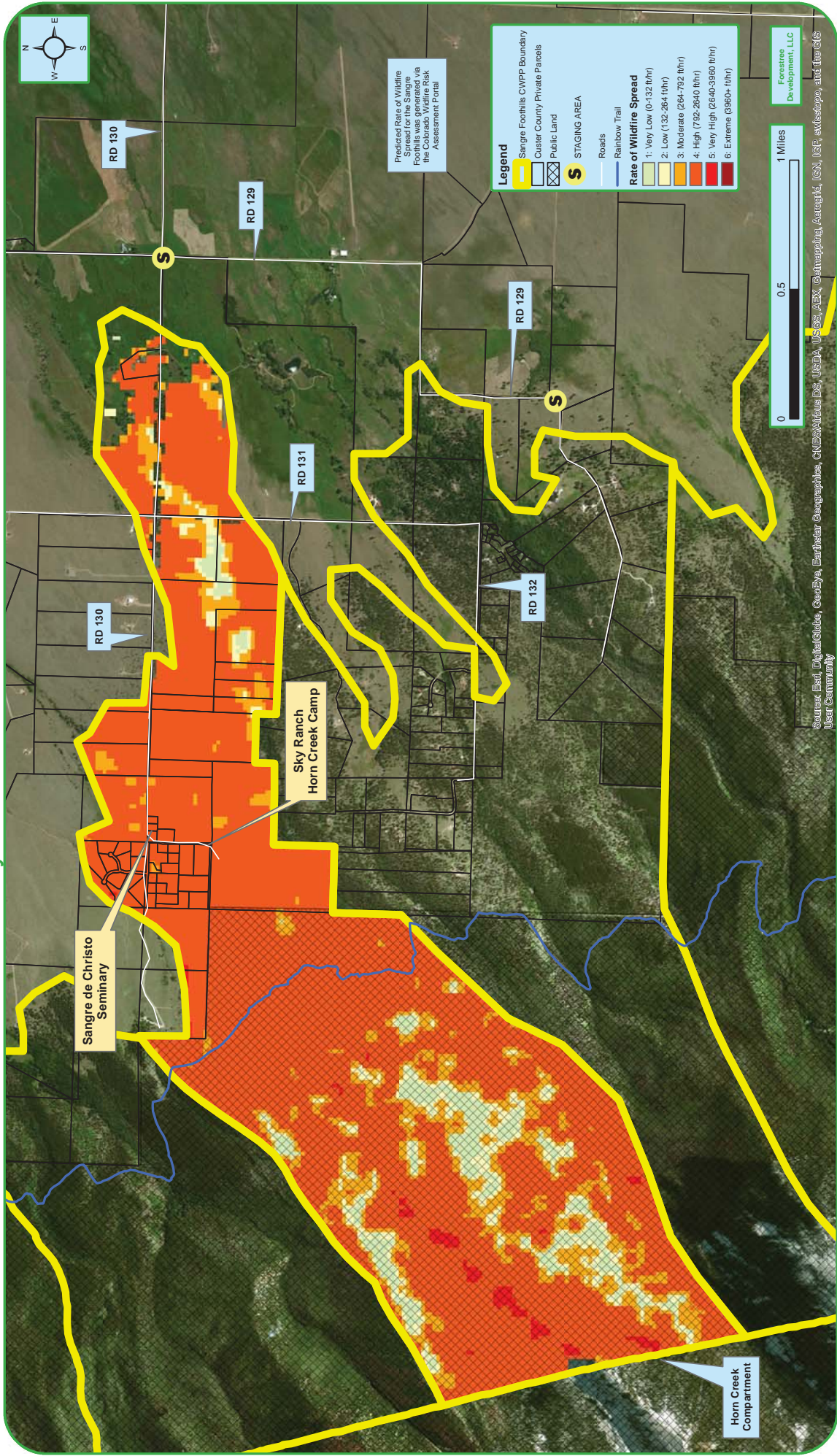
# Alvarado Compartment: Vegetation Type/Fuel Model Map

## Community Wildfire Protection Plan



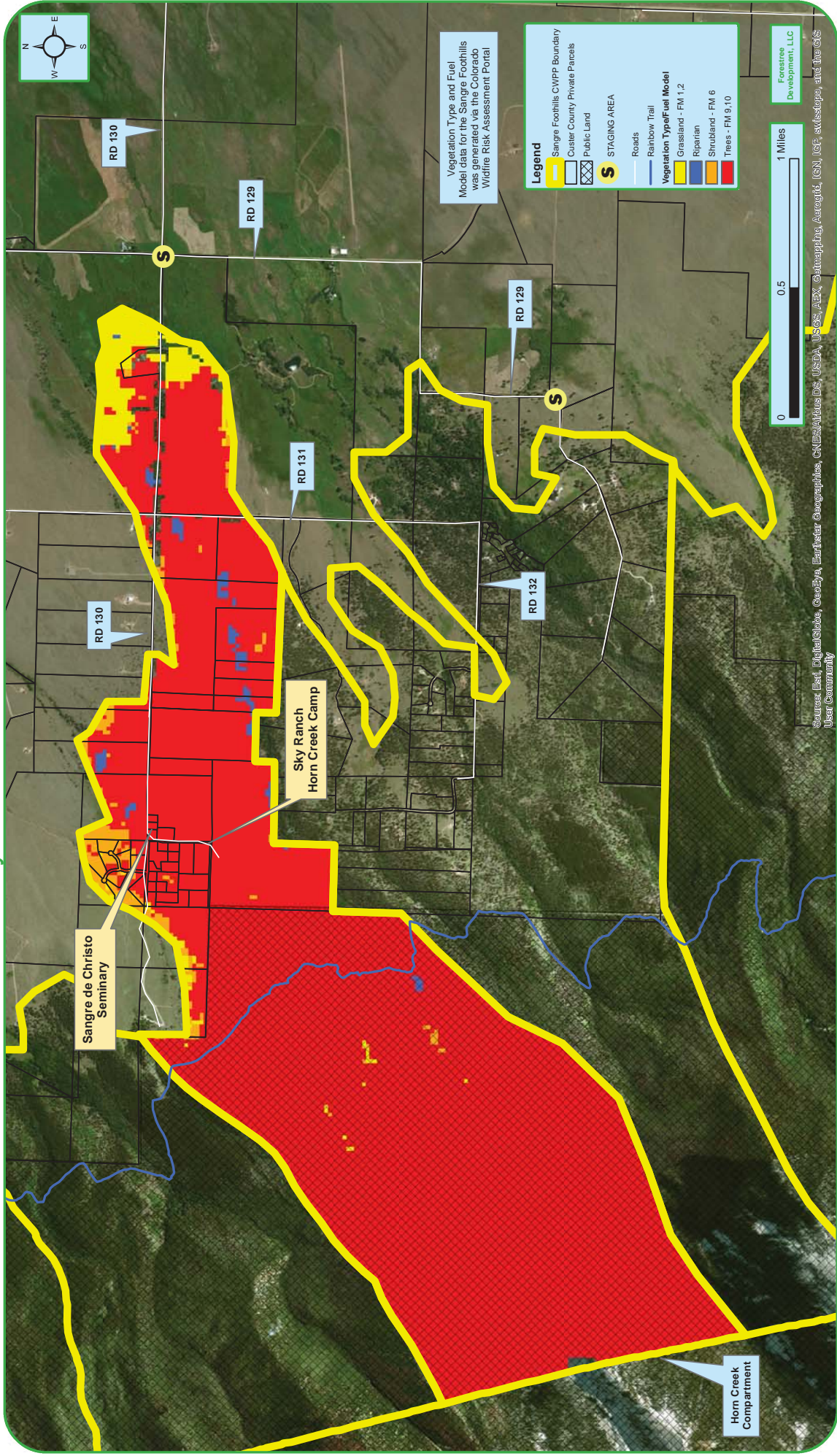
# Horn Creek Compartment: Rate of Wildfire Spread Map

## Community Wildfire Protection Plan



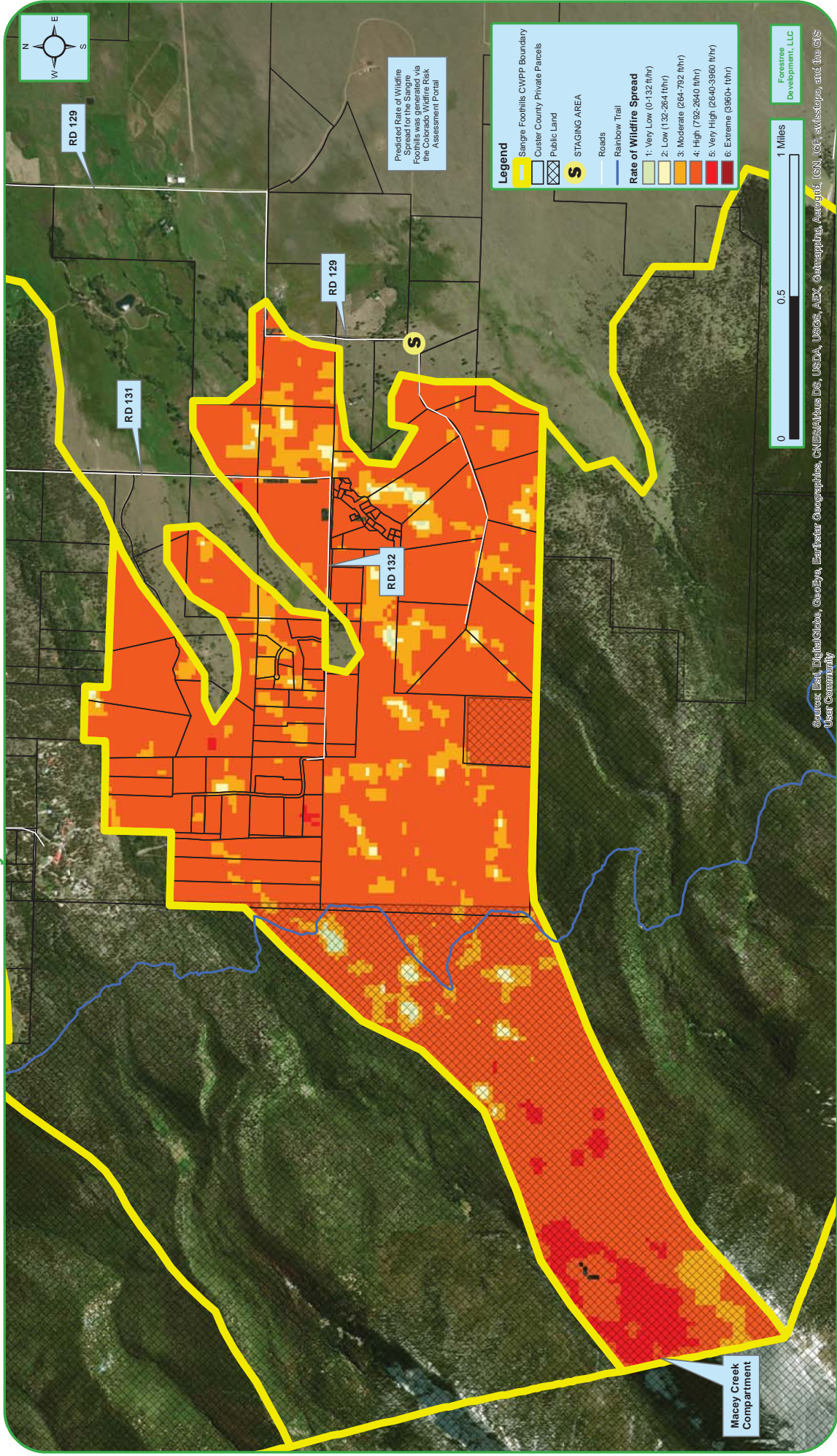
# Horn Creek Compartment: Vegetation Type/Fuel Model Map

## Community Wildfire Protection Plan



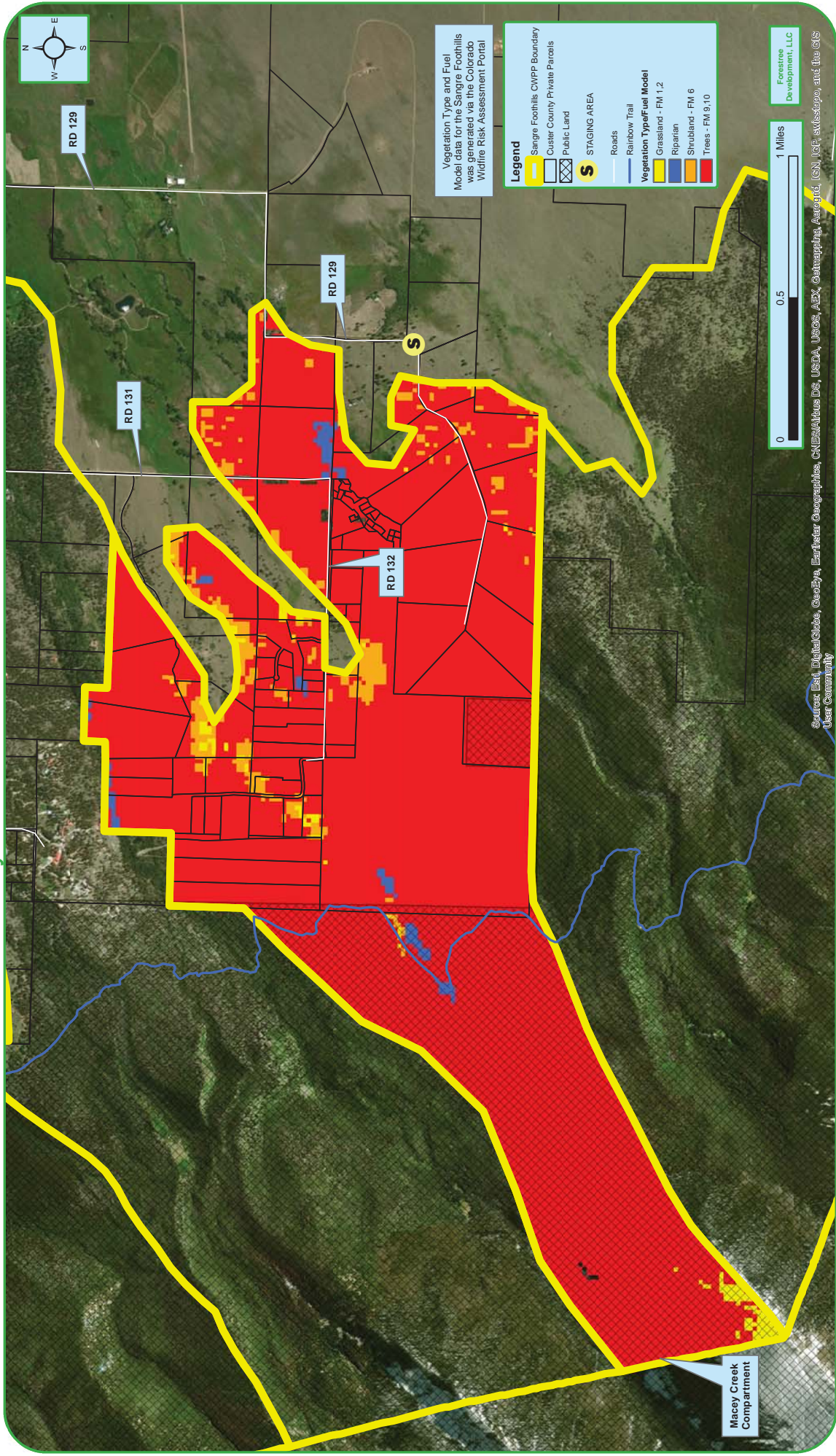
# Macey Creek Compartment: Rate of Wildfire Spread Map

## Community Wildfire Protection Plan



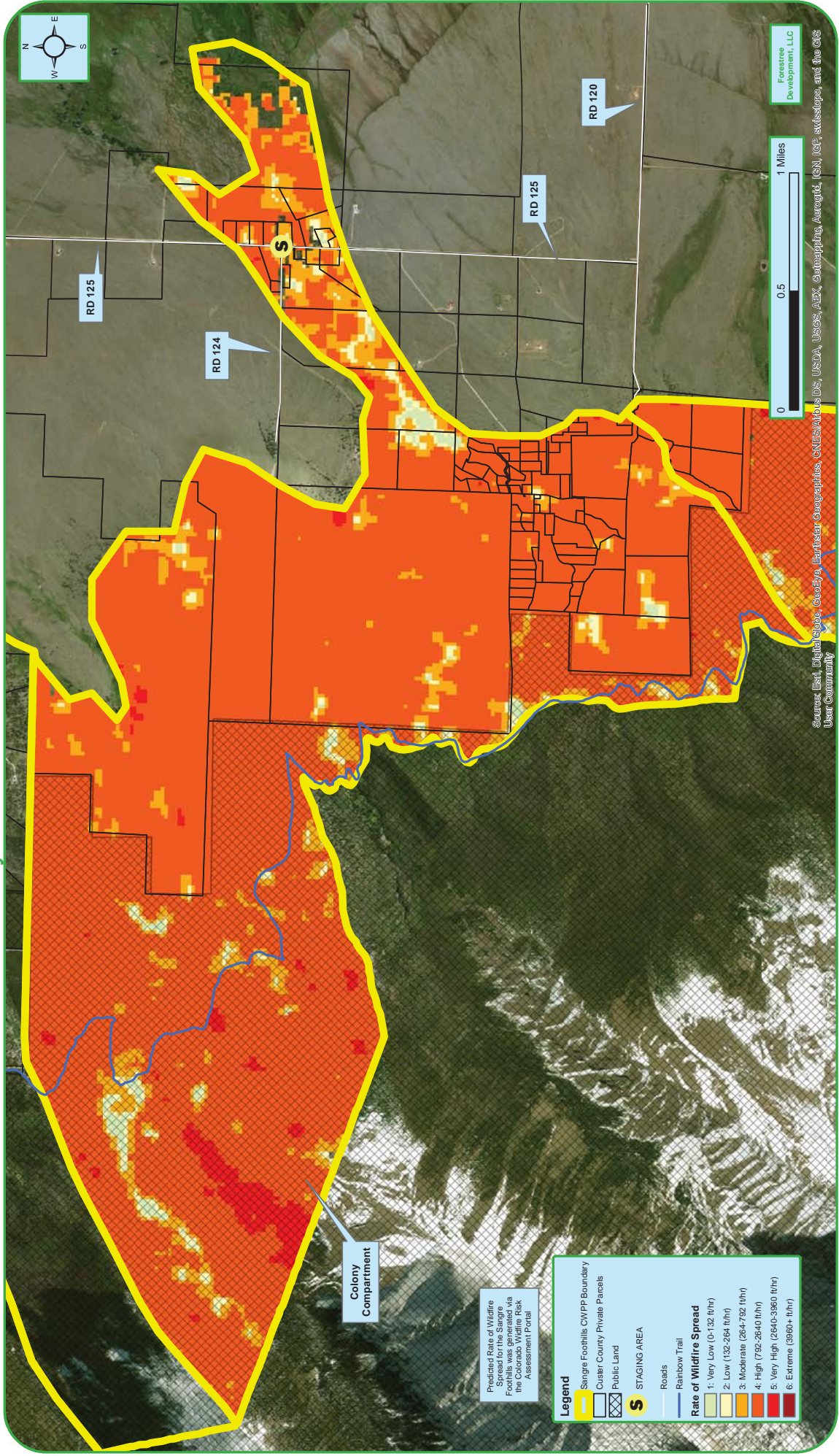
# Macey Creek Compartment: Vegetation Type/Fuel Model Map

## Community Wildfire Protection Plan



# Colony Compartment: Rate of Wildfire Spread Map

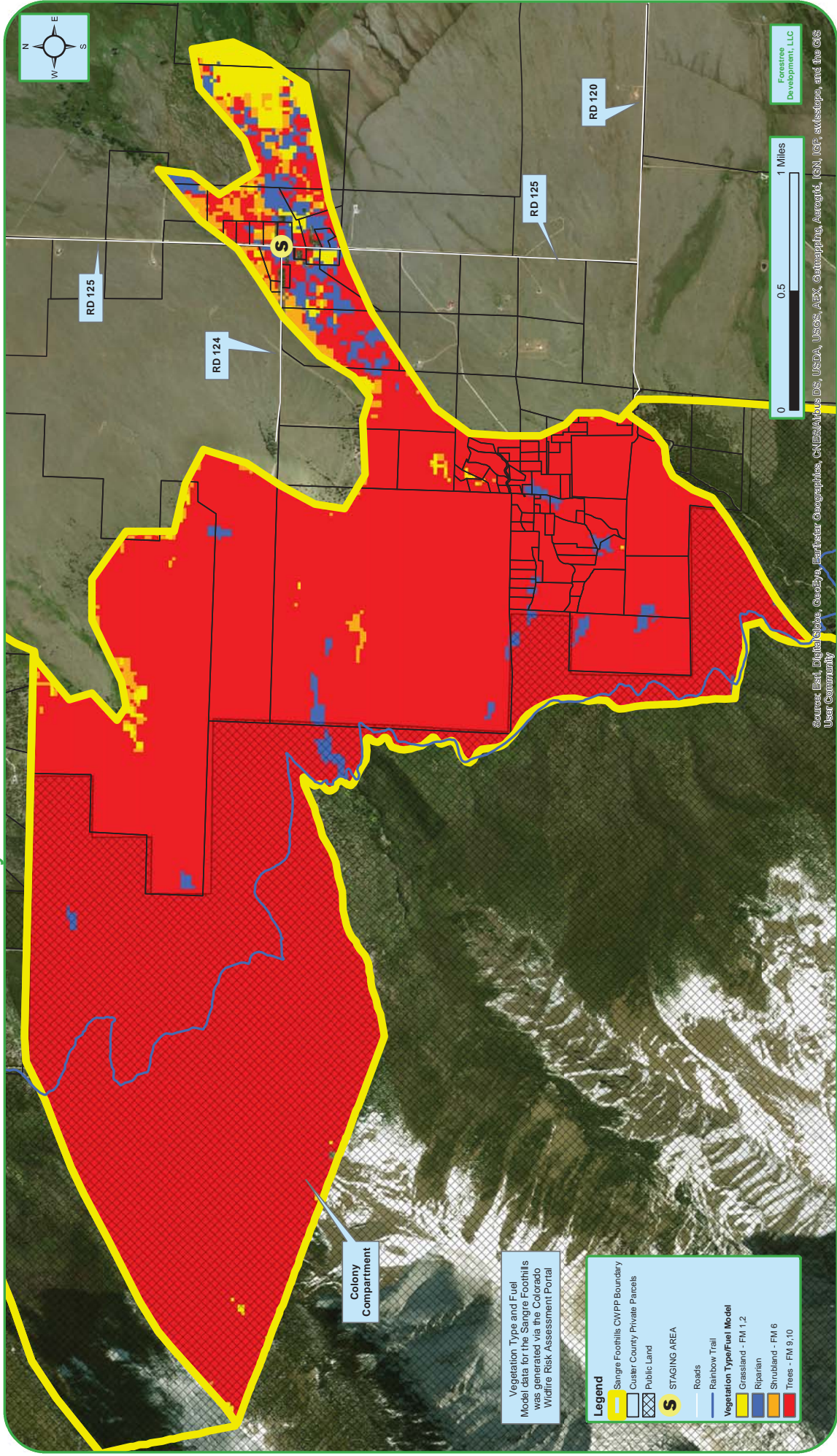
## Community Wildfire Protection Plan





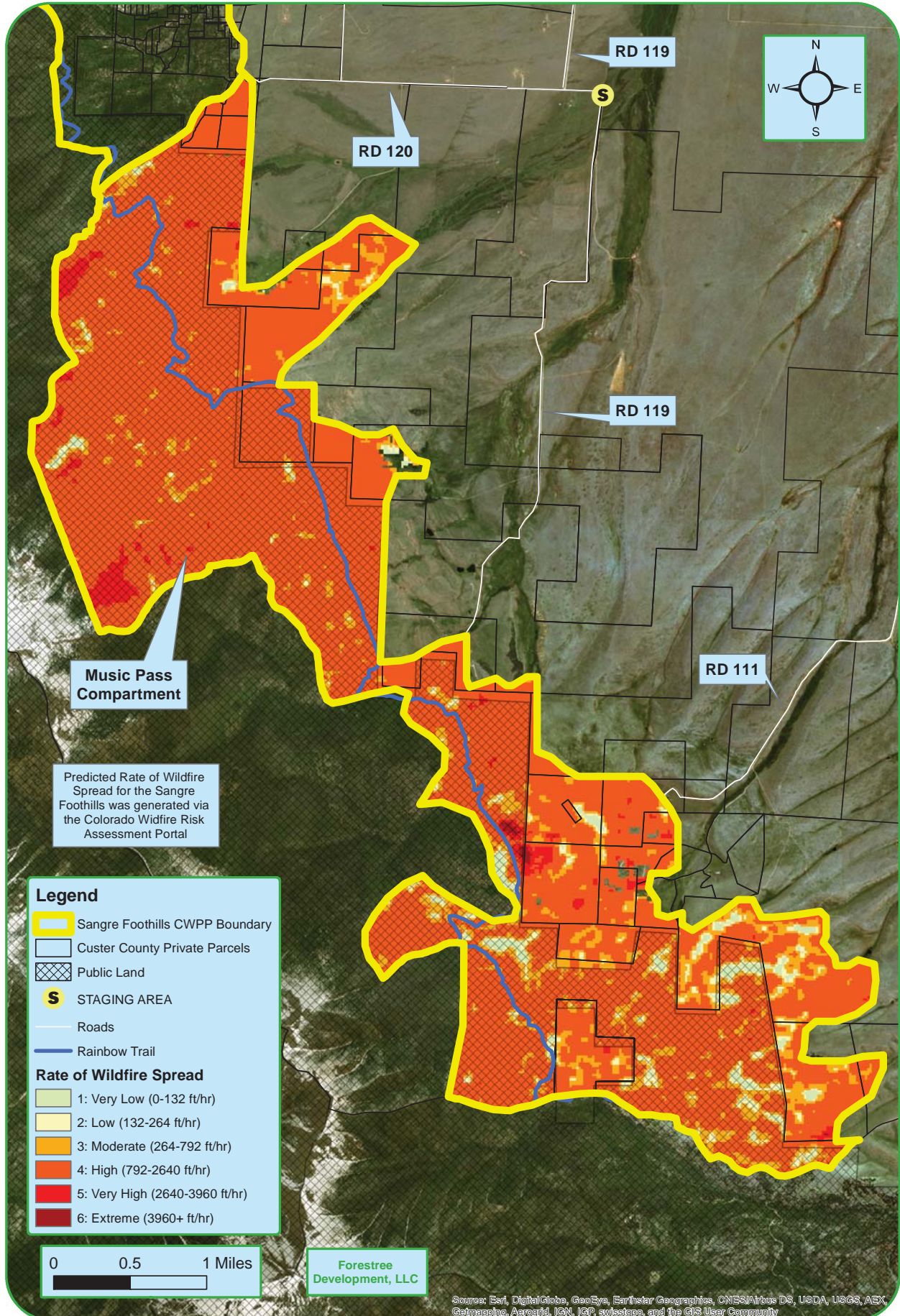
# Colony Compartment: Vegetation Type/Fuel Model Map

## Community Wildfire Protection Plan



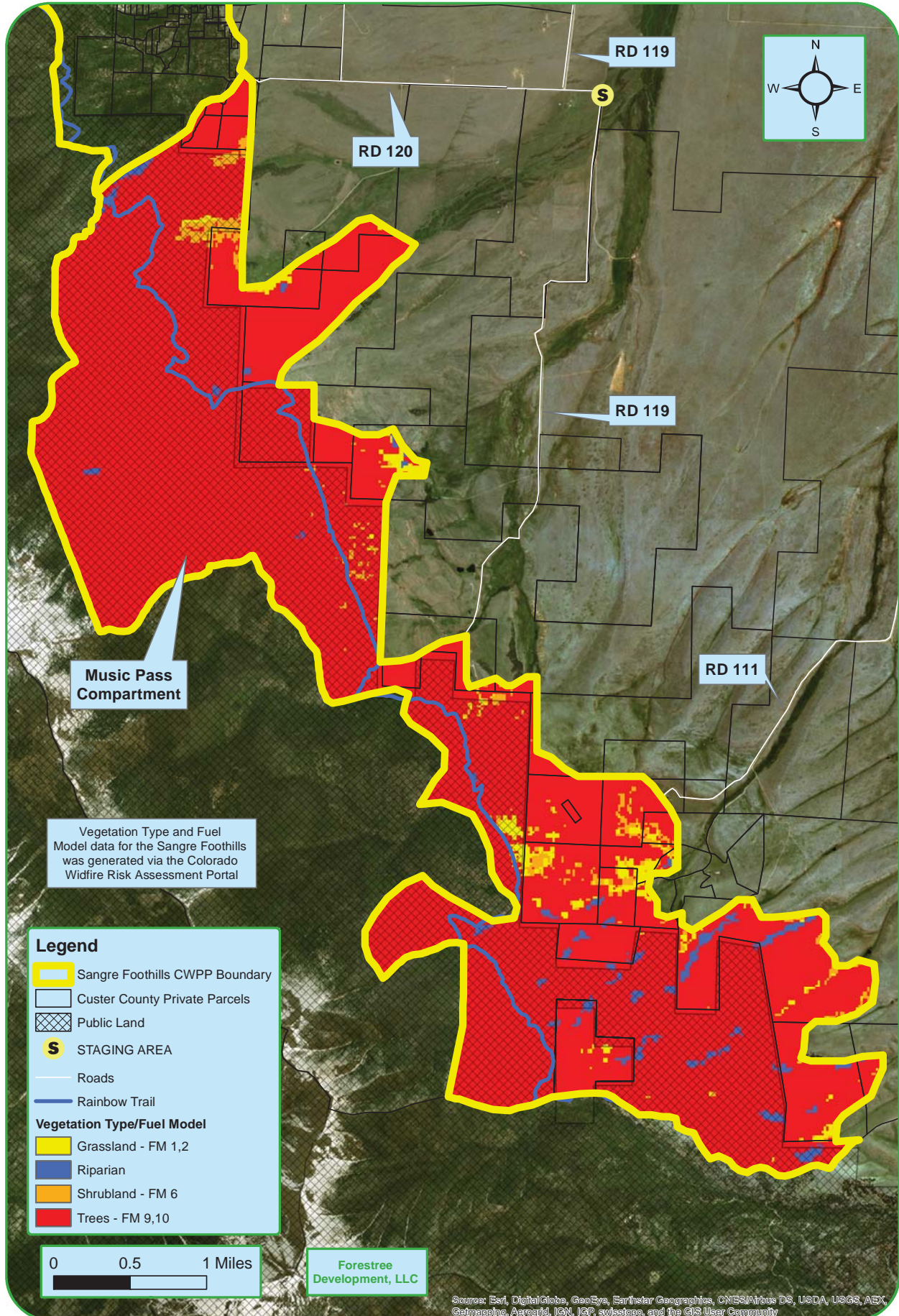
# Music Pass Compartment: Rate of Wildfire Spread Map

## Community Wildfire Protection Plan



# Music Pass Compartment: Vegetation Type/Fuel Model Map

## Community Wildfire Protection Plan



# **Appendix C**

Wildfire Mitigation

And

Forestry

Resources

# Wildfire Information

Wet Mountain Fire Protection District- 719-783-9245 (non-emergency number)

Custer County Office of Emergency Management- 719-783-2410

[www.oem.custercountygov.com](http://www.oem.custercountygov.com)

**Code Red (Custer County emergency notification system, a.k.a. “Reverse 911”)**

<https://public.coderedweb.com/cne/en-US/811FF8D0376F>

Custer County homeowners who do not have Century Link land lines are not in the emergency notification system. Voice-Over-Internet-Phones (VIOP), such as Comcast, and mobile lines are not in the system. These must be registered at the sheriff’s office web site listed above.

**Custer County recommended Firewise building practices-**

The Planning and Zoning “Homeowner’s Packet” includes info on developing cisterns.

<http://www.custercountygov.com/pdf/Homeowners%20Packet.pdf>

Custer County Sheriff 719-783-2270 (non-emergency number)

[www.custercountygov.com](http://www.custercountygov.com)

Colorado State Forest Service- [www.csfs.colostate.edu](http://www.csfs.colostate.edu)

Firewise Communities- [www.firewise.org](http://www.firewise.org)

Ready! Set! Go! (RSG)- [www.wildlandfirersg.org](http://www.wildlandfirersg.org)

**Insurance Institute for Business and Home Safety (IBHS)**

Web site: [www.disastersafety.org](http://www.disastersafety.org)

1. Site has regional guides for retro-fitting homes for wildfire.
2. Wildfire Home Assessment & Checklist
3. View videos of ember ignition lab tests.

**Pikes Peak Wildfire Prevention Partners- [www.ppwpp.org](http://www.ppwpp.org)**

1. Black Forest Fire Assessment Report
2. Black Forest Fire Video

**Fire Adapted Communities (FAC)- [www.fireadapted.org](http://www.fireadapted.org)**

## MUST SEE VIDEOS:

- **Wildfire! Preventing Home Ignitions** View at [www.firewise.org](http://www.firewise.org)
- YouTube videos: View at [www.youtube.com](http://www.youtube.com)
  - o Type “Melody Lane Fire” in the browser (see a wildfire in real time destroy 5 homes)
  - o Type “IBHS, Ember” in the browser (see a home ignited by embers in a laboratory setting)

## **Appendix of Other Resources**

### FIRE, FUELBREAK, AND DEFENSIBLE SPACE ETC.

Creating Wildfire-Defensible Zones Quick Guide –  
[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- FIRE2012\_1\_DspaceQuickGuide.pdf

Fire Resistant Landscaping-  
[csfs.colostate.edu](http://csfs.colostate.edu), CSU publication- 06303.pdf

FireWise Plant Materials-  
[csfs.colostate.edu](http://csfs.colostate.edu), CSU publication- 06305.pdf

Creating Fuelbreaks-  
[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- fuelbreak\_guidelines.pdf

Forest Home Fire Safety-  
[csfs.colostate.edu](http://csfs.colostate.edu), CSU publication- 06304.pdf

Grass Seed Mixes to Reduce Wildfire Hazard-  
[csfs.colostate.edu](http://csfs.colostate.edu), CSU publication- 06306.pdf

Insect and Disease After Wildfire  
[csfs.colostate.edu](http://csfs.colostate.edu), CSU publication- 06309.pdf

Soil Erosion After wildfire  
[csfs.colostate.edu](http://csfs.colostate.edu), CSU publication- 06308.pdf

Veg Recovery After Wildfire  
[csfs.colostate.edu](http://csfs.colostate.edu), CSU publication- 06307.pdf

### MANAGEMENT ACTIONS

*Restoring Composition and Structure in Southwestern Frequent-fire Forests*  
USDA Forest Service GTR-310  
[www.fs.fed.us/rm/pubs/rmrs\\_gtr310](http://www.fs.fed.us/rm/pubs/rmrs_gtr310)

Forestry Best Management Practices to Protect Water Quality in Colorado –  
[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- ForestryBMP-CO-2010.pdf

Landowner Guide to Thinning-  
[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- landowner\_g4thin\_scr.pdf

Mastication Guidelines-  
[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- masticationoperationalguidelines.pdf

#### Tree Planting-

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [plantingguide.pdf](#)

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [seedling-planting-guide.html](#)

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [buying-trees.html](#)

#### Post Wildfire Replanting-

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [Post-FireReplanting-andSafetyTips-2013Feb11.pdf](#)

### FOREST INSECTS, DISEASES

#### Mountain Pine Beetle-

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [MPB.pdf](#)

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [pinebeetlemgmt.pdf](#)

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [Solar Treatment for Mountain Pine Beetle 2009.pdf](#)

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [mountain-pine-beetle.html](#)

#### Ips Beetle-

[csfs.colostate.edu](http://csfs.colostate.edu), CSU publication- [ipsbeetle.pdf](#)

#### Dwarf Mistletoe in Pines-

[csfs.colostate.edu/pdfs/dmt.pdf](http://csfs.colostate.edu/pdfs/dmt.pdf)

[csfs.colostate.edu/pdfs/csfs-poster-dmt.pdf](http://csfs.colostate.edu/pdfs/csfs-poster-dmt.pdf)

[csfs.colostate.edu/pages/dwarf-mistletoe.html](http://csfs.colostate.edu/pages/dwarf-mistletoe.html)

#### Western Spruce Budworm-

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [WSBW.pdf](#)

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [poster-sbw.pdf](#)

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [western-spruce-budworm.html](#)

#### Western Gall Rust-

[www.fs.usda.gov](http://www.fs.usda.gov), USFS publication- [DOCUMENTS/stelprdb5341326.pdf](#)

#### Aspen Diseases-

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [insect-diseases-aspen.html](#)

[csfs.colostate.edu](http://csfs.colostate.edu), CSFS publication- [aspen.pdf](#)

# **Appendix D**

## Acronyms and Glossary



# Acronyms

**AAR-** After Action Report

**AOP-** Annual Operating Plan

**BLM-** US Department of Interior, Bureau of Land Management

**BoCC-** Custer County Board of County Commissioners

**CCCSD-** Custer County Consolidated School District

**CCOEM-** Custer County Office of Emergency Management

**CCSO-** Custer County Sherriff's Office

**CDS-** Colorado Department of Safety

**Co-WRAP-** Colorado State Forest Service wildfire risk assessment mapping portal.

**CSFS-** Colorado State Forest Service

**CWPP-** Community Wildfire Protection Plan

**DFPC-** Colorado Division of Fire Prevention and Control

**EFF-** Emergency Firefighting Fund

**EOC-** Emergency Operations Center

**EOP-** Custer County Emergency Operations Plan 2017

**ESA-** Endangered Species Act

**FBO-** *Aids to Determining Fuel Models For Estimating Fire Behavior*, Hal E. Anderson, USDA Forest Service General Technical Report INT-122, April 1982.

**HFRA-** Healthy Forest Restoration Act of 2003

**HIZ-** Home Ignition Zone

**HOA-** Homeowners Association

**ICS-** Incident Command System

**ISO-** Insurance Services Organization

**NFDRS-** *Gaining an Understanding of the National Fire Danger Rating System (NFDRS)*, PMS 932/NFES 2665, National Wildfire Coordinating Group (NWCG), 2002.

**NGO-** Non-governmental Organization

**NIMS-** National Incident Management System

**NRCS-** US Department of Agriculture, Natural Resource Conservation Service

**NWCG-** National Wildfire Coordinating Group

**PPE-** Personal Protective Equipment

**ROW-** Right-of-way

**SFB-** Shaded Fuel Break

**SFCWPP-** Sangres Foothills Community Wildfire Protection Plan

**USFS-** US Department of Agriculture, Forest Service

**VOIP-** Voice Over Internet Protocol

**WMFPD-** Wet Mountain Fire Protection District

**WUI-** Wildland Urban Interface

## Appendix D

### Glossary

**Abiotic Factors:** The non-living components of the environment, such as air, rocks, soil, water, peat, and plant litter.

**Afforestation:** The establishment of trees on an area that has lacked forest cover for a very long time, or has never been forested.

**Aerial fuels:** Standing and supported live and dead combustibles not in direct contact with the ground and consisting mainly of foliage, twigs, branches, stems, cones, bark, and vines: typically used in reference to the crowns of trees.

**Cambium:** A single layer of cells between the woody part of the tree and the bark. Division of these cells result in diameter growth of the tree through formation of wood cells (xylem) and inner bark (phloem).

**Canopy:** The forest cover of branches and foliage formed by tree crowns.

**Chain:** A measuring tape, often nylon, 50 meters or 75 meters in length, used to measure distances. This term is derived from an old unit of measurement (80 Chains = 1 mile).

**Chimney:** A topographical feature such as a narrow drainage on a hillside or the upper end of a box canyon that could channel wind, smoke or flames up the slope; acting as a fireplace chimney would to draw smoke and heat upward.

**Class A Roof:** Effective against severe fire test exposures, as classified by the Universal Building Code (UBC). Under such exposures, roof coverings of this class are not readily flammable, afford a fairly high degree of fire protection to the roof deck, do not slip from position, and are not expected to produce flying brands.

**Class B Roof:** Effective against moderate fire test exposures, as classified by the Universal Building Code (UBC). Under such exposures, roof coverings of this class are not readily flammable, afford a moderate degree of fire protection to the roof deck, do not slip from position, and are not expected to produce flying brands.

**Class C Roof:** Effective against light fire test exposure, as classified by the Universal Building Code (UBC). Under such exposures, roof coverings of this class are not readily flammable, afford a measurable degree of fire protection to the roof deck, do not slip from position, and are not expected to produce flying brands.

**Clearcut:** An area of forest land from which all merchantable trees have recently been harvested.

**Climax Forest:** A forest community that represents the final stage of natural forest succession for its locality, i.e. for its environment.

**Coarse Woody Debris (CWD):** Sound and rotting logs and stumps that provide habitat for plants, animals, and insects, and a source of nutrients for soil development.

**Colorado Champion Tree:** The largest known tree of its species in the state. Trees are ranked by a point system based on three measurements: trunk circumference in inches at 4.5 feet above the ground, tree height in feet, and the average crown spread in feet.

**Commercial Thinning:** A silviculture treatment that "thins" out an overstocked stand by removing trees that are large enough to be sold as poles or fence posts. It is carried out to improve the health and growth rate of the remaining crop trees.

**Competing Vegetation:** Vegetation that seeks and uses the limited common resources (space, light, water, and nutrients) of a forest site needed by preferred trees for survival and growth.

**Conifer:** Cone-bearing trees having needles or scale-like leaves, usually evergreen, and producing wood known commercially as "softwoods."

**Conservation:** Management of the human use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations. It includes the preservation, maintenance, sustainable utilization, restoration, and enhancement of the environment.

**Crown fire / Crowning:** A form of extreme wildland fire behavior consisting of fire that advances from top to top of trees or shrubs more or less independent of a surface fire. Crown fires are sometimes classed as running or dependent to distinguish the degree of independence from the surface fire.

**Deciduous:** Perennial plants that are normally leafless for some time during the year.

**Defensible Space:** An area within the perimeter of a parcel, development, neighborhood, or community where basic wildland fire protection practices and measures are implemented, providing the key point of defense from an approaching wildfire or defense against encroaching wildfires or escaping structure fires. The perimeter as used herein is the area encompassing the parcel or parcels proposed for construction and/or development, excluding the physical structure itself. The area is characterized by the establishment and maintenance of emergency vehicle access, emergency water reserves, street names and building identification, and fuel modification measures. In simplest terms, it is adequate space between structures and flammable vegetation which allows firefighters a safe working area from which they can attack an oncoming wildfire. Defensible Space is the best element of fire protection for individual property owners.

**Defoliator:** An agent that damages trees by destroying leaves or needles.

**Dripline:** The outer most leaves on a tree defines its dripline and the ground within the dripline is known as the drip zone; also defined as the area defined by the outermost circumference of a tree canopy.

**Deforestation:** The removal of a forest stand where the land is put to a non forest use.

**Eave Opening:** A vent located in an eave or soffit which allows airflow into the attic and/or walls of a structure.

**Ecosystem:** A functional unit consisting of all the living organisms (plants, animals, microbes) in a given area, and all the non-living physical and chemical factors of their environment, linked together through nutrient cycling and energy flow. An ecosystem can be of any size a log, pond, field, forest, or the earth's biosphere but it always functions as a whole unit. Ecosystems are commonly described according to the major type of vegetation; for example, forest ecosystem, old-growth ecosystem, or range ecosystem.

**Escape route:** A preplanned and understood route firefighters take to retreat from an unsafe or fire-threatened area and move to a safety zone or other low-risk area.

**Extreme fire behavior:** A level of fire behavior that ordinarily precludes firefighting methods involving direct attack on the fire. One or more of the following is usually involved: high rate of spread, prolific crowning and/or spotting, presence of fire whirls, strong convection column. Predictability is difficult because such fires often exercise some degree of influence on their environment and behave erratically, sometimes dangerously.

**Felling:** The cutting down of trees.

**Firebrands:** Flaming or glowing fuels lofted into the air during intense burning by strong upward convection currents. Also referred to as airborne embers.

**Fire break:** A natural or constructed fuel-free barrier used to stop or check fires that may occur, or to provide a control line from which to work.

**Fire front / Flame front:** The part of a fire within which continuous flaming combustion is taking place. Unless otherwise specified, the fire front is assumed to be the leading edge of the fire perimeter.

**Fire Dependent:** Requiring one or more fires of varying frequency, timing, severity, and size in order to achieve optimal conditions for population survival or growth.

**Fire Hazard Mitigation:** Various methods by which existing fire hazards can be reduced in a certain area, such as fuel breaks, non-combustible roofing, spark arresters, etc.

**Fire Management:** The activities concerned with the protection of people, property, and forest areas from wildfire and the use of prescribed burning for the attainment of forest management and other land use objectives, all conducted in a manner that considers environmental, social, and economic criteria.

**Fire Suppression:** All activities concerned with controlling and extinguishing a fire following its detection.

**Firewise:** A National Fire Protection Association's (NFPA) program encouraging local solutions for wildfire safety by involving homeowners, community leaders, planners, developers, firefighters, and others in the effort to protect people and property from wildfire risks.

**Forest Fire:** Any wildfire or prescribed burn that is burning in forest, grass, alpine, or tundra vegetation types.

**Forest Type:** A group of forested areas or stands of similar composition (species, age, height, and stocking) which differentiates it from other such groups.

**Fuel:** Any living or dead material that will burn.

**Fuel break:** An existing barrier or change in fuel type (to one that is less flammable than that surrounding it) or a wide strip of land on which the native vegetation has been modified or cleared, that acts as a buffer to fire spread so that fires burning into them can be more readily controlled. Often selected or constructed to protect a high value area from fire.

**Fuel Management:** The act or practice of controlling flammability and reducing resistance to control of wildland fuels through mechanical, chemical, biological, or manual means, or by fire in support of land management objectives.

**Fuel reduction zone:** An area similar to a fuel break but not necessarily linear, in which fuels have been reduced or modified to reduce the likelihood of ignition and/or to reduce fire intensity thereby lessening potential damage and resistance to control.

**Germination:** The development of a seedling from a seed.

**Home Ignition Zone (HIZ):** An area including the home and its immediate surroundings within which burning fuels could potentially ignite the structure; usually considered to be an area extending out roughly 100 feet from the home. The HIZ is often used to describe the area in which fuel modification measures should be taken to protect the home.

**Ladder Fuels:** Fuels that provide vertical continuity between the surface fuels and crown fuels in a forest stand, thus contributing to crown fires.

**Lines of Effort:** Tasks sets or sets of actions that are linked or coordinated with other task sets to accomplish a larger mission or reach a desired end state. Lines of effort allow leaders and decision makers to direct a variety of separate actions toward a unified result.

**Maximum Density:** The maximum allowable stand density above which stands must be spaced to a target density of well-spaced, acceptable stems to achieve free-growing status.

**National Fire Protection Association (NFPA):** A private, non-profit organization dedicated to reducing fire hazards and improving fire service.

**Phloem:** A layer of tree tissue just inside the bark that conducts food from the leaves to the stem and roots.

**Pitch Tubes:** A tubular mass of resin that forms on bark surface at bark-beetle entrance holes.

**Prescribed Burning:** Controlled application of fire to wildland fuels, in either their natural or modified state, under certain conditions of weather, fuel moisture, soil moisture, etc. as to allow the fire to be confined to a predetermined area and at the same time to produce results to meet planned land management objective.

**Ready, Set, Go (RSG):** A program, managed by the [International Association of Fire Chiefs \(IAFC\)](#), seeking to develop and improve the dialogue between fire departments and residents. The program helps fire departments teach individuals who live in high-risk wildfire areas how to best prepare themselves and their properties against fire threats.

**Regeneration:** The act of renewing tree cover by establishing young trees, naturally or artificially note regeneration usually maintains the same forest type and is done promptly after the previous stand or forest was removed.

**Saddle:** A depression, dip or pass in a ridgeline; significant in wildland firefighting because winds may be funneled through a saddle, causing an increase in wind speed.

**Safety zone:** An area essentially cleared of flammable materials, used by firefighters to escape unsafe or threatening fire conditions. Safety zones are greatly enlarged areas in which firefighters can distance themselves from threatening fire behavior without having to take extraordinary measure to shield themselves from fire/heat.

**Sapwood:** The light-colored wood that appears on the outer portion of a cross-section of a tree.

**Serotinous:** Pertaining to fruit or cones that remain on a tree without opening for one or more years note in some species cones open and seeds are shed when heat is provided by fires or hot and dry conditions.

**Shaded fuel break:** A fuel break built in a timbered area where the trees within the break are thinned and limbed up to reduce crown fire potential, yet retain enough crown canopy to provide shade, thereby making a less favorable microclimate for surface fires.

**Silviculture:** The art and science of controlling the establishment, growth, composition, health, and quality of forests and woodlands. Silviculture entails the manipulation of forest and woodland vegetation in stands and on landscapes to meet the diverse needs and values of landowners and society on a sustainable basis.

**Snag:** A standing dead tree or part of a dead tree from which at least the smaller branches have fallen.

**Stand:** A continuous group of trees sufficiently uniform in age-class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit.

**Spot Fire / Spotting:** Fires ignited beyond control lines or outside the perimeter of a fire by firebrands landing on/among flammable material. Spot fires/spotting are a form of extreme fire behavior typically resulting from high wind conditions.

**Structure protection:** A defensive strategy in wildland firefighting in which firefighters are assigned to evaluate, prepare and, when possible, defend structures/homes that may be threatened by a wildfire.

**Structure triage:** Evaluating and sorting structures/homes into categories based on their relative likelihood of surviving a wildland fire threat (*defensibility*). Triage decisions are based multiple factors and conditions occurring during an actual fire - weather, fire behavior, home ignition potential, defensible space, presence of escape routes, and availability of firefighting resources, among others - with the goal of doing the most good with the resources available.

**Succession (or Ecological Succession):** The replacement of one plant and/or animal species over time by another in progressive development toward climax vegetation.

**Surface fuels:** Fuels lying on or near the surface of the ground, consisting of leaf and needle litter, dead branch material, downed logs, bark, tree cones, and low-lying live vegetation.

**Survivable space:** A term typically used to describe the area around a structure/home indicating that fuels in the area have been reduced to the point that there is little or no serious fire threat to the structure; the structure has a high probability of surviving a wildland fire without anyone on scene providing active protection.

**Thinning:** A cutting made in an immature crop or stand primarily to accelerate diameter increment, but also, by suitable selection, to improve the average form of the tree that remain.

**Torching:** The burning of the foliage of a single tree or a small group of trees, from the bottom up. Sometimes, also called candling. Torching is an extreme form of fire behavior, similar to but less extreme than crowning in that crowning affects larger numbers, even entire stands of trees.

**USDAFS:** United States Department of Agriculture - Forest Service, what is commonly known as just "The Forest Service"

**Windbreak:** A strip of trees or shrubs maintained mainly to alter wind flow and microclimates in the sheltered zone, usually farm buildings.

**Wildland-Urban Interface or Wildland-Urban Intermix (WUI):** The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Although *Interface* is the more general, more commonly used term; it technically refers specifically to the area where development and wildlands meet. *Intermix* indicates the presence of wildland vegetation/fuels intermingled throughout the developed area.

