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Fremont County Community Wildfire Protection Plan Mutual Agreement Page

The Community Wildfire Protection Plan developed for Fremont County, Colorado;

- □ Was collaboratively developed. Interested parties and federal land management agencies managing land in the vicinity of Fremont County have been consulted.
- □ This plan identifies and prioritizes areas for hazardous fuel reduction treatments and recommends the types and methods of treatment that will protect Fremont County.
- □ This plan recommends measures to reduce the ignitability of structures throughout the area addressed by the plan.

The following entities mutually agree with the contents of this Community Wildfire Protection Plan:

Fremont County Board of Commissioners	Date
Fremont County Sheriff's Office Wildland Fire	Date
Canon City Fire District	Date
Deer Mountain Fire District	Date
Florence Fire District	Date
Tallahassee RFDA	Date
Colorado State Forest Service	Date

Fremont County Wildfire Protection Plan

Howard Fire Department	Date
South Arkansas Fire Department	Date
Indian Springs Fire Department	Date
This Community Wildfire Protection Plan has been reviewed	ed and supported by:
Bureau of Land Management	Date
US Forest Service	Date

FREMONT COUNTY COMMUNITY FIRE PLAN

Background:

The Fremont County Community Fire Plan is a direct extension of the National Fire Plan authorized by Congress, as a response to the tragic summer wildfires of 2000. As a component of the National Fire Plan, the County Community Fire Plan is meant to help coordinate fire readiness efforts between local communities and Federal agencies through four major goals.

- 1. Ensure firefighting resources are available.
- 2. Rebuild communities and ecosystems damaged by wildfire.
- 3. Thin vegetation in areas where public lands and developing areas meet.
- 4. Help local residents to reduce fire risk and improve fire protection.

This Community Fire Plan has been developed to assist the Sheriff, Fire Officials and residents of Fremont County, Colorado, in the identification of private and public lands at risk of severe wildfire and explore strategies for the prevention and suppression of such fires. As a result of this action local cooperators should be able to improve firefighting resources.

A majority of the landmass in the county is in public ownership. Federal lands within the county consist primarily of BLM managed lands scattered throughout the county and San Isabel National Forest lands located in the Sangre de Cristo Mountains (southwest Fremont County) and southeast of Canon City in the Wet Mountains. State administered lands are scattered throughout the county typically as "school" sections, usually sections 16 and 36 of each township. Other state lands exist as well. BLM has a Fire Management Plan currently in place for its lands.

Fremont County has experienced rapid growth for the past ten years as people move from other areas into our primarily rural landscape. Much of this growth has occurred in the wildland/urban interface area, where private lands are adjacent to Federal or state land. While the risk of wildfire on public land is generally understood, much of the adjacent private land is equally at risk. Private lands adjoining public lands are becoming increasingly valued for their scenic beauty, solitude and access to recreation opportunities. As development in these continues to increase, the risk to lives, property and resources correspondingly increases.

Authorization

The county sheriff is authorized, under Colorado law to act as the fire warden on private lands in the county by the following authorities:

- C.R.S v.9 30-10-512 (Sheriff to act as Fire Warden)
- C.R.S. v.9 30-10-513 (Sheriff as commander of forest or prairie fire)
- C.R.S. v.9 30-10-513.5 (Authority of Sheriff relating to fire within unincorporated areas of the county)

Fremont County is a participant in the State Emergency Fire Fund (EFF). As a participant, the State agrees to come to the aid of the County should suppression resource needs exceed the capability of suppression resources of the County.

Implementation of EFF can only be done by the State Forester of Colorado or his representative upon the recommendation of the local CSFS District Forester or his designee, following a request from the County.

The County Sheriff or his designee is responsible for initiating a written analysis of the fire to help determine if a request for EFF implementation is warranted.

Land Ownership:

Fremont County is home to over 54,000 residents and is situated in the south-central portion of the state. The land is primarily rural, undeveloped land dedicated to the production of livestock. Increasingly, private lands are being developed, especially when adjacent to public lands, as residential areas, usually limited to 35-acre parcels as a minimum. Many subdivisions of earlier vintage also exist where lots as small a 1 acre each lie adjacent to public lands. Access is frequently limited and wildfire danger is high.

• Wilderness areas and Wilderness Study Areas (WSA's).

In Fremont County there exists one wilderness area, the Sangre De Cristo Wilderness area in the San Isabel national Forest and four wilderness study areas on BLM lands that require special approval for mechanized suppression activities. These are Beaver Creek, McIntyre Hills, Upper Grape Creek and Lower Grape Creek.

Land Ownership Table

(VALUES ARE APPROXIMATE)

Owner	Acres	Percentage of county
United States Forest Service	98,944	10.04%
Bureau of Land Management	338,212	34.35%
Colorado State Land	77,865	7.9%
Other Federal lands	6,161	0.63%
Private/Local Government	463,489	47%
Fremont County Total	984,671	

Land Coverage Table

Type	Sq. Miles	Sq. Km	Percentage of County
Built Area	9	22	0.56
Agricultural. Area	44	113	2.84
Grass Area	408	1058	26.57
Forest Area	1048	2715	68.18
Water Area	0	0	0
Shrub Area	11	27	0.69
Alpine Area	14	37	0.94

Fremont County Fire Protection Infrastructures and Community Preparedness

Fremont County has four county Fire Protection Districts (FPD's). These include Canon City, Florence, South Arkansas and Deer Mountain FPD's. Some remaining unincorporated land is covered by multiple Volunteer Fire Departments (VFD's). These include Indian Springs VFD, Tallahassee Rural Fire Protection Association and Howard VFD.

Local fire departments/protection districts and/or the County Sheriff share responsibility for wildland fire suppression on private land jointly. All private land that does not fall under the boundaries of local fire fighting agencies is covered by the Sheriff's Wildland Fire Team.

The USDA Bureau of Land Management has initial attack responsibility on most BLM and Forest Service lands within Fremont County.

The USDA Forest Service in Salida has initial attack responsibility for federal lands along the western most boundary of Fremont County

Local Volunteer Fire Agencies are comprised of volunteers living in the agency's jurisdiction. These volunteers comprise firefighters, local dispatchers and a variety of other help in order to make their community safer.

These agencies can provide detailed information on local conditions, mitigation efforts and requirements and general information on what can be done to protect lives and property in case of wildfire.

Please note that not all Fire Suppression Agencies are able to manage structural fires. Some agencies are wildland fire suppression only.

Insurance coverage can be affected by the type of Fire Suppression.

Contact the appropriate agency for details

Agencies that <u>do not</u> provide fire suppression for structures are listed below. Structures include homes and any other type of manmade structure.

- Fremont County Sheriff's Office Wildland Fire Team
- Tallahassee Rural Fire Protection Agency
- BLM, USFS

If you reside or have a home in the areas covered by the agencies listed above your home **may not be protected**.

If you reside in all other areas that are covered by structural fire suppression agencies your home and buildings will be covered.

See the **Fire Protection Districts Map on page 37** for a geographical display of Fremont County and its fire protection coverage and locations of major fire stations.

Fremont County has both private and public agencies with specialized equipment that can be utilized during a fire.

Appendix 1 has a listing of these agencies.

Fire Protection District Areas

District	Acres	Sq. Miles
Canon City FPD	77,120	121
Florence FPD	158,720	248
Deer Mountain FPD*	79,360	124
South Arkansas FPD	640	1
Howard VFD	7,833	12.25
Indian Springs VFD	1,444	2.25
Tallahassee RFPA*	246,222	384
Total	571,339	892.5
Fremont County**	981,120	1533

(*RFPA – Rural Fire Protection Association)

(**Fremont County – Includes Public Lands)

Cooperative Wildfire Protection

Fremont County has an agreement for cooperative wildfire protection with the State of Colorado through the Colorado State Forest Service. This agreement recognizes the authorities of Counties and the State with regard to wildfire suppression and provides a framework for cooperative wildfire protection and preparedness. Elements of the agreement include but are not limited to: Planning, Organizing, Equipping, Training, Prevention, Detection, Suppression, Reporting, Prescribed burning and Payments.

Fremont County also participates in the development and execution of a wildfire annual operating plan or AOP. The AOP is discussed and updated annually by local authorities having wildfire suppression responsibilities. This plan is similar in intent to the Cooperative Agreement for Wildfire Protection between the State and Fremont County but also includes the participation of Federal agencies with wildfire protection responsibilities. While the AOP does not *require* the participation of local fire protection districts and fire departments; local level agencies are encouraged, and do participate in the development of annual operating plans. The AOP addresses a broad spectrum of issues and a greater degree of specificity with regard to interagency wildfire protection within the county.

Mutual aid for wildfire suppression, use of wildfire suppression aircraft, sharing of communication networks, dispatching procedures, cost reimbursement procedures, contact information and a list of suppression resources within the county are a few of the key elements included in the AOP. This plan provides a framework for cooperation between all entities with wildfire protection responsibilities within Fremont County.

The Wildfire Annual Operating Plan is a linchpin document because it is specifically mentioned and required under the terms of the Cooperative Wildfire Protection Agreement between Fremont County and the State of Colorado. The AOP is also mentioned and required under the terms of the Colorado Cooperative Fire Management Agreement between the state of Colorado and various federal land management agencies involved with wildfire suppression. The AOP serves to link agencies at the federal, state, county and local levels to provide for cooperative interagency wildfire protection.

Emergency Fire Fund and Wildfire Emergency Response Fund

Fremont County is a participant in the Emergency Fire Fund (EFF) through an agreement with the Colorado State Forest Service. This fund was established to help pay for additional suppression resources (human, material, support) that may be needed from time to time to suppress fires that exceed the capabilities of resources within Fremont County. Funds are provided annually by participating counties and managed by the State Forester. A board of directors consisting of

county commissioners, county sheriffs, fire chiefs and the State Forester establish policies pertaining to payments into the fund and fund disbursements.

The Colorado State Legislature has established the Wildfire Emergency Response Fund (WERF) to encourage aggressive initial attack on wildfires within local or county jurisdictions. The fund will pay for initial attack aircraft and hand crews when needed, to suppress highly threatening wildfires with in the initial stages. The fund will pay for the first load of fire retardant from any sized aircraft or one hour of helicopter time. The fund will also pay for a 20 person hand crew for up to two days.

Goals Of The Fremont County Community Fire Plan

The Fremont County Community Fire Plan is intended as a "living document" to be used to stimulate community involvement and long range strategic planning. This document should be evaluated and updated on a regular basis as new information is gathered. The following goals have been identified as initial desired outcomes of this plan:

- Identify and prioritize areas for hazardous fuels reduction treatments and identify the types and methods of treatment that will protect one or more 'at risk' communities and essential infrastructure. Various treatment that *may* be used are thinning, clearing, prescribed burning and other methods, both hand and mechanical.
- Identify areas in the county where private development has occurred.
- Outline planning and design strategies that private landowners can
 use to reduce wildfire risk. Educate the public in the treatment of
 structural ignitability. Improve the fire suppression resources of the
 community by identifying equipment and training needs.
- Help coordinate fuels reduction opportunities between private landowners and public land managers.
- Identify potential public/private lands for fuels demonstration projects that illustrate fuels mitigation techniques and results.
- Identify public education strategies using information gathered in the development of this plan.

Federal fuels reduction project areas

Fuels reduction will include thinning or removal through the use of mechanical means or burning. Past fuels reduction, ongoing reduction and planned future reductions are shown on the **Fuels Reduction Map** on page 39 along with past large wildfire events.

The table below gives information on past wildfire events in Fremont County.

FIRE NAME	YEAR	ACRES	SQ. MILES
Table Mtn.	1996	11	0.017
Poverty Gulch	1981	386	0.603
Locke Mtn.	2002	16	0.025
Iron Mtn.	2002	4441	6.94
Dinosaur	1987	2794	4.366
Copper Gulch	1990	94	0.147
Cooper Mtn.	2000	60	0.093
Big Baldy	2001	39	0.062

Past Large Wildfire Events Table

The **Vegetation Map** on page 40 gives a geographical representation of the predominant vegetative species for areas in Fremont County.

Emerging Issues:

- GIS data gaps
- Comprehensive Road System Information

At this time a series of 1:6000 and 1:12000 maps have been issued out to all the fire chiefs in the county for an intense review of Fremont County's road network. These maps are being updated to show new roads, old roads that are gated or otherwise blocked, roads that are nonexistent and to verify that road names are accurate. Other information as deemed pertinent will also be added. These will be returned to the GIS Authority and added to the GIS system for the county.

• Fire History Information

Fire Plan Implementation

The following recommendations have been developed in an effort to reach the goals stated in the Community Fire Plan. As a living document, these recommendations should be reviewed at least annually and new recommendations or amendments to the existing recommendations should be included where appropriate.

Action Recommendation #1

Continue to refine, update and evaluate the wildfire risk map on an annual basis between the Fremont County Sheriff's Department, the Fire Protection Districts, County Commissioners, Emergency Management Office, Federal agencies, state agencies and other stakeholders. This annual update will be done on the yearly anniversary of the plan approval.

The **Wildland/Urban Interface Risks Map** on page 38 is designed as a tool for common geographical reference information for the Community Fire Plan. The map is intended to be used as a resource to help coordinate the long range, intra-agency strategic fire management goals identified in this plan. It should be updated on an annual basis.

As a common resource, the map will help local stakeholders

- Prioritize and coordinate mitigation treatments on private and public lands to reduce catastrophic fire risk.
- Provide decision-making data for the County Planning Commission and County Commissioners as they evaluate future development proposals.
- Identify resource (information or equipment) gaps.
- Protect and manage community values including residences, watersheds archaeological or historic sites, view corridors, recreation resources, wildlife habitat, energy resources, and grazing and timber resources.
- Keep "up-to-date" information on new development locations.
- Keep track of lands that are in need of fuels treatments, lands that have been treated to reduce risk and locations where treatments are needed.

Action Recommendation #2

Provide improved access for responders through road and trail improvements.

All new home construction/subdivisions should be required through zoning/planning regulations to provide adequate ingress and egress routes to each area in case of emergency. Road steepness and width should be adequate to provide safe access for emergency vehicles with turn-around capability provided.

Access to and through adjoining Public Lands whether Federal, State or local should be maintained to handle vehicles and fire equipment suitable for firefighting in that particular area. Road width and steepness should be adequate for emergency vehicles with turnaround areas provided when possible.

Adjoining wildland fuels should be thinned to provide safe ingress and egress and to act as a firebreak where terrain allows.

Action Recommendation #3

Develop and sustain a general public informational/educational campaign and concentrate special efforts in areas identified as high risk.

Develop a packet for new and existing land and home owners that will be provided at the County Administration Building at the Building and/or Road and Bridge Departments for persons requiring building and driveway permits.

These packets will also be made available to rural fire departments and community centers.

Expanding the use of public informational tools already in place is an immediate action step that can be taken. Firewise publications and videos provided by the stakeholder agencies are available in addition to the FIREWISE information that can be found on the Internet (www.Firewise.org).

Action Recommendation #4

Create a mechanism for the oversight and management of the Fremont County Community Fire Plan.

Fremont County Office of Emergency Management has taken responsibility for the oversight of the Fremont County Fire Plan for the immediate future. Collaborative input obtained through the establishment of a "core group' of representatives of the local fire fighting communities, including federal, state and county assets and other interested parties will be used to update and improve the Community Wildfire Protection Plan as needed. This plan will be updated on an annual basis upon acceptance by the appropriate State agency.

That date will be one year from the acceptance date.

Action Recommendation #5

Support and promote private contractors who perform fire safe mitigation work on private and public land.

Listings of local contractors are available through the Colorado State Forest and BLM offices in Canon City.

Action Recommendation #6

Use the Land Use Code as a vehicle for maintaining the momentum of wildfire management strategies on private and public land.

Action Recommendation #7

Continue to pursue grant money to build fire suppression capacity within the Fire Protection Districts and for fuels reduction on private and public land.

Action Recommendation #8

Provide a means and location for county residents to dispose of slash accumulated through thinning and mitigation efforts.

Fire Hazard Areas Identification

Initial Identification of Fire Hazard Areas

At risk areas listed below by agency were defined and prioritized by the fire suppression agency heads and their staff who respond to those areas. Risk factors that were used to determine these areas are listed below. Particular risk factors for each specific area are provided after the name or location of each area.

- Developing areas with excessive fuel loading
- Developing areas that lie outside a fire protection district
- Developing areas adjacent to public lands that have an increased risk of catastrophic wildfire due to their physical location (i.e. Homes located on ridge tops adjacent to drainages that might act as chimneys funneling fire toward a home).
- Developed areas that are a long distance from fire response agencies as defined by the appropriate fire district.
- Use of this map will help to visually display areas that are in need of mitigation and to help coordinate and prioritize actions as defined by fire personnel from the appropriate agencies.
- Areas marked are those defined by the appropriate agencies as their highest fire risk areas. Other areas or subdivisions may also be at risk.

Identification of Fire Hazard Areas By Agency

The **Wildland/Urban Interface Risks Map** on page 38 shows the following Fire Hazard Areas listed by fire suppression agency:

Canon City Fire Protection District

- <u>Cooper Mountain Subdivision</u>---Private development in steep area.
 No water sources and hemmed in by wildland fuels. Slow response time from Canon City Fire Stations. Some portions of subdivision lie outside of CCFPD.
- <u>Dakota Hideout</u>---No water sources and slow response time from Canon City Fire Stations.

- <u>Dawson Ranch</u>---High density wildland fuels and excessive beetle killed timber.
- Royal Gorge Bridge and Park---Slow response time, long winding road with adjacent wildland fuels.
- County Roads 61, 62 and 69---Slow response time, no water sources.
- <u>Dilley Ranch Subdivision</u>---Slow Response time, dense wildland fuels. Adjacent to Red Canyon Park with similar risk factors.
- <u>C.R. 3 (Temple Canyon Rd. and Park)---</u>High density wildland fuels, excessive beetle killed trees and slow response time on narrow, winding road.

Deer Mountain Fire Protection District Coaldale

- <u>Hamilton Creek Road/Cedar Canyon Ranch</u>—Private portion of road lying west of the terminus of the County Road segment. Single lane, winding, narrow and hemmed in by dense wildland fuels. Adjacent to Cedar Canyon Ranch subdivision.
- <u>Sangre De Cristo Road</u>—Private portion lying south of the terminus of County maintained section. Single lane, narrow poorly maintained and, in parts, hemmed in by dense wildland fuels.
- <u>Cutty's Campground</u>—Large numbers of motor homes and trailers present an evacuation hazard both inside the narrow campground road and on County Road 6.
- County Road 40—Road forks approximately 2 miles south of Hwy. 50 creating address confusion. Right fork, following creek, is single lane, narrow and winding with adjacent wildland fuels.

Deer Mountain Fire Protection District Cotopaxi

- <u>County Road 13</u>---Limited access to wildland areas. Medium density fuels
- <u>County Road 37</u>---Access to Eastern side of road limited to foot or ATV.
- Eagle Peak Ranch---Limited water sources, adjacent wildland fuels.
- <u>County Road 12</u>---No motorized access on western side of road, adjacent wildland fuels.

Deer Mountain Fire Protection District Deer Mountain

- Glen Vista Subdivision---Limited access with narrow winding roads. Dense wildland fuels adjacent to road system. Limited water sources.
- <u>Cody Park</u>--- Steep narrow winding roads with adjacent dense wildland fuels. Limited water sources.
- <u>Iron Mtn. Wilderness Subdivision</u>---Limited access, narrow winding roads with adjacent wildland fuels.

Indian Springs Volunteer Fire Department

• <u>Indian Springs</u>---Limited water sources, limited access.

Tallahassee Rural Fire Protection Association

- <u>Christopher Ranch Subdivision---Steep narrow roads</u>. One lane access with adjacent wildland fuels.
- <u>Canyon Springs Subdivision</u>---Steep narrow roads. One lane access with adjacent wildland fuels.
- <u>Gardner Peak Subdivision</u>---Steep narrow roads. One lane access with adjacent wildland fuels.

Fremont County Sheriff's Office Wildland Fire District

- <u>Spruce Basin Subdivision</u>---Subdivision situated among wildland fuels on steep slopes. Winding, steep roads adjacent to wildland fuels.
- <u>County Rd. 77 (Chandler Rd.)</u>---County road traveling near heavy metals disposal site. Adjacent wildland fuels.
- County Rd. 3 (Temple Canyon Rd. and Park)---County road with several homes. Travels through city park. Dense wildland fuels adjacent both sides of narrow winding road. Excessive beetle killed trees.

Florence Fire Protection District

- <u>Los Pinos Subdivision</u> off C.R. 100 has a long, narrow and steep road to get up on the mesa. No water sources
- <u>Twin Creek Ranch</u> off C.R. 84 has slow response time. The development is on a steep grade with steep, long and narrow roads

- with only one ingress and egress. Heavy wildland fuels with no water sources. No turnaround for fire equipment.
- <u>Locke Mountain Ranch</u> off C.R. 84 same as above with the exception of a couple of ponds.
- <u>County Road 103</u>. Private development with a poor narrow and steep road and no water sources.
- <u>County Road 132</u>. Slow response time. A lot of homes/subdivision in medium density fuel area. No water sources.
- <u>County Road 15</u> South of the coal mines. Slow response time with no water sources.
- <u>County Road F-45</u>. Beaver Creek off Highway 115. Slow response time with no permanent water sources.
- County Road 67. Long response time with no water sources.

Bureau of Land Management/ United States Forest Service

- <u>Spruce Basin</u>---The Public Lands surrounding the Spruce Basin Subdivision have large amounts of standing dead timber and are currently experiencing a large amount of bug infestation.
- Park Mountain Ranch---The surrounding Public Lands to the Northwest are experiencing a large amount of bug infestation leading to dead or dying wildland fuels.
- <u>Pine Ridge Subdivision</u>---The surrounding Public Lands to the North, East and West contain large concentrations of timber/wildland fuels.
- <u>Kerr Gulch Allotment</u>---The Public Lands to the West contain dense wildland fuels. Borders Cedar Canyon Ranch subdivision and Hamilton Creek Road.
- <u>Deer Mountain</u>---Lands adjacent to the Deer Mountain Fire Protection District on the West and Northwest are an area that wildfires occur annually.
- Gardner Peak Ranch---The Public Lands surrounding Gardner Peak Ranch and bordering Cedar Ridge, Canyon Springs and Cottonwood Springs Ranches contain large amounts of wildland fuels.
- County Road 11---The Public Lands extending to the South and bordering the Woodlands Subdivision on the West and Deer Park Ranch on the East contain large amounts of wildland fuels.
- Whiskey Park---The Public Lands to the Northwest of Whiskey Park extending east to Dilley Ranch are an area that wildfires occur on an annual basis.
- Oak Creek Mountain Ranch---Is a subdivision surrounded by Public Lands with limited access and large amounts of wildland fuels.

<u>Identification of Highest Priority Fire Hazard Areas in Fremont</u> County

By combining the information gathered in the Initial Identification of Risk Areas and prioritizing those areas identified with respect to the likelihood of damaging wildland fire and comparing that information, a consensus was reached based on those findings.

The identified areas are not restricted to any agency and sometimes cross areas without respect for agency or jurisdictional boundaries.

These areas have been identified as high risk areas by a meeting of Fire Chiefs and/or their staff and are geographically identified rather than applied to a jurisdiction or agency.

Priority Fire Hazard Areas Listing

1. Spruce Basin / Indian Springs

Spruce Basin and Indian Springs are two subdivisions that are connected to a County Road by a single ingress and egress road, each. Each access is steep and narrow with large amounts of wildland fuels. Many individual home access have driveways that are unsuited for response vehicles. Heavy timber is predominant, with steep, sloping ridges. Many homes are summer residences.

Indian Springs does have a volunteer fire station on site while Spruce Basin does not.

2. <u>Deer Mountain</u>

Heavy wildland fire fuels, steep hills, narrow roads and a growing housing area combine to make the Glen Vista Subdivision of Deer Mountain a high risk area. Many roads offer only one ingress and egress. The road system is poorly maintained in places and extremely confusing, with many starting and stopping only to start up again somewhere else.

3. Coaldale / Howard Southern Boundaries

The terrain is similar from Coaldale through Howard and up to the Chaffee County boundary on the southern border with the USFS public lands. Many single ingress and egress roads exist. These normally start at Highway 50 and proceed into, and end, at the National Forest at a much higher elevation. Fairly narrow roads with substantial wildland fire fuels to either side present a high risk factor.

New and existing homes are present throughout in areas of pinon/juniper up to heavy timbered areas along and inside the public lands. Steep sloping ridges are the norm.

Water sources are rare. Some intermittent and annual streams are present in normal years.

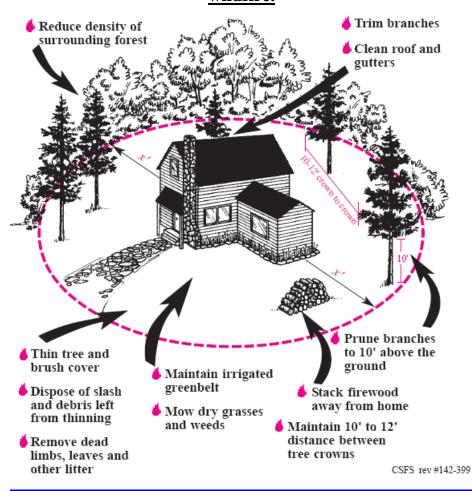
4. Christopher Ranch Subdivision

The Christopher Ranch is located in a steep sloping area that is heavily wooded with a pinon/juniper mix. New housing areas are developing rapidly. Access roads are generally good but are bordered by heavy wildland fire fuels. This area is the main route north to the gambling and tourist area of Cripple Creek.

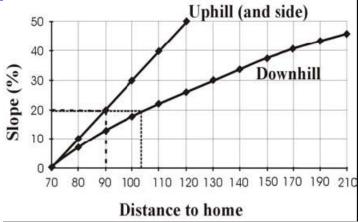
Water sources are not readily available.

STRUCTURAL IGNITABILITY

Create Defensible Space around your home. Defensible space is an area around your home that has been landscaped to reduce the threat of wildfire.



This chart can be used to determine the minimum recommended dimensions (X feet) of your defensible space.



Defensible Space is an area of 30 feet to 200 feet, or more, around your home that is kept free of features that tend to increase the risk of your home being destroyed.

10 Steps to Defensible Space

- Thin tree and brush cover.
- Dispose of slash and debris left from thinning.
- Remove dead limbs, leaves and other litter.
- Stack firewood away from home.
- Maintain irrigated green belt around the home.
- Mow dry grasses and weeds.
- Prune branches to 10 feet above the ground.
- Trim branches from the lowest 1/3 of smaller trees (under 30 feet).
- Clean roof and gutters.
- Reduce density of surrounding forest (beyond the defensible space zone).

Other improvements include improving driveway access and water supplies, having a fire-resistive roof, enclosing overhanging eaves and decks, spark arrestors on chimneys, etc.



The photo above shows a home that followed the defensible space guidelines.

Access

The road and/or driveway to your home must offer a **safe evacuation route** as well as reasonable ingress for firefighters to respond quickly. Access roads should be **two lanes with frequent turnouts**. It is a poor idea to purchase property in the wildland interface that is located on a dead end road.

Driveways should be as **short as possible** with **vegetation trimmed back 20 feet** from the road edge. Large trees in this zone should be limbed no lower than 15 feet. Road surfaces must provide **good traction** for a large fire engine, with sufficient room for a **turnaround and parking**, in order for its crew to protect your house.

Driveways longer than 50 yards should have turnouts at their midpoints or every hundred feet that allow vehicles to safely pass. **Bridges and culverts must be adequate** in width and load capacity to support a 20-ton engine. The drive must not be too steep for an engine and be certain it can negotiate any sharp curves.

Road names should be posted at intersections with 6-inch white letters on a reflective background. When the house cannot be seen from the road, the address should be posted at the driveway entrance. The house should have its address clearly visible in at least 6-inch numbers.

Firewise Construction

According to FEMA's publication "At Home In The Woods" Structures ignite in three basic ways:

- ➤ When fire creates such intense radiant heat that a nearby combustible ignites
- ➤ When the fire burns right to a structure, causing the flames to directly touch and ignite something that will burn.
- ➤ When fiery embers, also known as firebrands, fly through the air and land on the structure igniting a fire.

Structural composition and design play a major part in slowing down or defeating these actions.

Roof material should be 'Class A' rated for ignition resistance. Such materials include composite shingles, metal or tile. Wood shake shingles, if used, should be pressure treated fire retardant. Eaves and dormers along with complex roof lines provide nooks and crannies for flying embers to land and take hold. Metal flashing along these areas will help retard the spread of fire. Gutters need to be clean of debris and vents need to be screened to prevent firebrands from entering. Firebrands can carry up to a mile downwind from the actual fire and ignite combustibles.

Exterior wall material ideally should be of a non combustible nature such as brick, stucco or stone. If wood siding is used it should be made as ignition resistant as possible. Generally, the larger the mass and dimensions of the wood siding the more resistant to ignition it is. Log homes are highly resistant to ignition, shake cedar siding is not.

More detailed information about reducing structural ignitability can be found in the booklet "Firewise Construction Design and Materials" by Peter Slack. This publication is available on line at www.csfs.colostate.edu/library

Ground level areas need to be kept free of debris, blown leaves and grass buildup. Decks need to be separated from adjacent combustibles such as debris, grass, firewood and dead leaves along the edges and underneath. Wood siding also needs to be separated from combustibles.

Structural projections such as decks, porches, gazebos, privacy fences, etc., are often constructed of small dimensional lumber such as 2x2's, 1x4's, 2x4's, 2x6's and 4x4 posts. Because of the smaller sized and exposed materials, these projections are highly susceptible to ignition from wildfire. Once ignited, the heat produced from a burning deck is more than sufficient to ignite the adjoined house. All too frequently, homes are lost to small, slow moving, wildfires in this manner. The stereotypical "raging forest inferno" is not as common as the more mundane forest fire. Separating projections from forest fuels and debris is the best way to reduce the chance of ignition at these critical points.



This deck is at risk to wildfire. Note the flammable materials stored under and around the deck. Vegetation is also growing under and around the deck.



This deck is resistant to ignition. Note the gravel placed under the deck and the absence of stored flammables. Grass near the deck is cut short and irrigated.

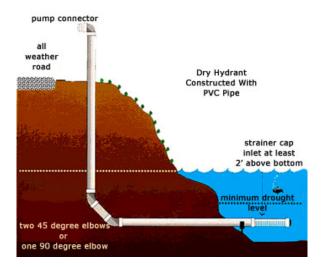
Water

Most rural communities in Fremont County do hot have community water storage and distribution systems which often include a system of fire hydrants for fire protection. Most rural communities obtain water from individual or community wells. In most cases well water is the only source of water providing for the needs of the homeowner. Other sources such as rivers, streams and ponds are a relatively rare exception.

To adequately protect a home from the threat of wildfire it is recommended that a 2500 gallon supply of water be available. The water needed to control a structure fire is many times greater than this. Fire engines are typically equipped with water tanks ranging from 200 to 1000 gallons. They must be frequently re-supplied from other sources of water to remain effective. Water can be trucked to the engines in large water tenders or the engines can draft from natural or manmade sources. Trucking water is time consuming, limited by the availability of water tenders and can result in interruptions to the flow of water.

Homes serviced by wells can create their own water supply for fire protection by including cisterns or tanks of adequate size into their home water system. The well will fill the cistern and the water can be used to provide for household needs AND fire protection. Key components to this system are accessibility to fire fighters and fire fighter knowledge of the existence of the water supply. Cisterns should be clearly marked and highly visible. They also need to be accessible in order to draft water from them. A capped pipe or riser extending up from a buried cistern will allow fire fighters to insert draft hose into the buried tank.

If there is a natural source of water near a home such as a river, stream or pond, create and maintain good access to the water. Drafting water directly into a fire engine requires the engine to drive very close to the water source. If access problems can't be corrected, plan to move the water to a more accessible location. Gas powered portable pumps or a pipe extending from the water source to a more accessible location where a riser and threaded fitting (dry fire hydrant) can be used by the engine to draft, are common solutions to water access challenges.



Dry (non pressurized) Fire Hydrant

Develop your own fire plan.

What you'll need....

- **Evacuation Plan.** Early evacuation is the safest way to avoid injury or death. Timing and other factors can vary so widely that each household needs its own specific plan, including options to cover anything that might happen.
- Escape Routes. Normal and alternate escape routes.
- **Safety Zones.** Locations of and routes to large areas with little or no vegetation or other fuels where family members can ride out the fire if it's too late to evacuate.
- **Communication Plan.** Pre-arrange normal and alternate ways to stay in touch with family members, even if phones are out. Family members might "check in" with a friend or relative in another area as soon as they're able.
- **Assignments.** Who is to do what when in an emergency

Equipment you may need...

- **Hoses.** Pre-connected to faucets.
- Ladder. Long enough to reach the roof easily.
- **Fire Extinguishers.** One or more 5-pound multipurpose type, readily available.
- **Protective Clothing.** For anyone who is unable to evacuate before the fire arrives. This includes a cotton long-sleeved shirt or jacket and trousers, a handkerchief to provide minimum protection for the lungs (avoid inhaling smoke or hot gases!), or leather boots, gloves, a helmet or other head covering and glasses or goggles. **Cotton clothing is a "must."** *Synthetic fabrics can melt onto your skin.*

When caught in a wildfire....

If you see a wildfire, call 9-1-1. Don't assume that someone else has already called. Describe the location of the fire, speak slowly and clearly, and answer any questions asked by the dispatcher.

Before the fire approaches your house....

- **Evacuate.** Evacuate your pets and all family members who are not essential to preparing the home. Anyone with medical or physical limitations and the young and the elderly should be evacuated immediately.
- Wear Protective Clothing.
- **Remove Combustibles.** Clear items that will burn from around the house, including woodpiles, lawn furniture, barbecue grills, tarp coverings, etc. Move them outside of your defensible space.

- Close/Protect Openings. Close outside attic, eaves and basement vents, windows, doors, pet doors, etc. Remove flammable drapes and curtains. Close all shutters, blinds or heavy non-combustible window coverings to reduce radiant heat.
- Close Inside Doors/Open Damper. Close all doors inside the house to prevent draft. Open the damper on your fireplace, but close the fireplace screen.
- Shut Off Gas. Shut off any natural gas, propane or fuel oil supplies at the source.
- Water. Connect garden hoses. Fill any pools, hot tubs, garbage cans, tubs or other large containers with water.
- **Pumps.** If you have gas-powered pumps for water, make sure they are fueled and ready.
- Ladder. Place a ladder against the house in clear view.
- Car. Back your car into the driveway and roll up the windows.
- **Garage Doors.** Disconnect any automatic garage door openers so that doors can still be opened by hand if the power goes out. Close all garage doors.
- Valuables. Place valuable papers, mementos and anything "you can't live without" inside the car in the garage, ready for quick departure. Any pets still with you should also be put in the car.

When you leave, remember....

- **Lights.** Turn on outside lights and leave a light on in every room to make the house more visible in heavy smoke.
- **Don't Lock Up.** Leave doors and windows closed but unlocked. It may be necessary for firefighters to gain quick entry into your home to fight fire. The entire area will be isolated and patrolled by sheriff's deputies or police.

If you're in a car....

This is dangerous and should only be done in an emergency, but you can survive the firestorm if you stay in your car. It is much less dangerous than trying to run from a fire on foot.

- Roll up windows and close air vents. Drive slowly with headlights on. Watch for other vehicles and pedestrians. Do not drive through heavy smoke.
- If you have to stop, park away from the heaviest trees and brush. Turn headlights on and ignition off. Roll up windows and close air vents.
- Get on the floor and cover up with a blanket or coat.
- Stay in the vehicle until the main fire passes.
- Stay in the car. Do not run! Engine may stall and not restart. Air currents may rock the car. Some smoke and sparks may enter the vehicle. Temperature inside will increase. Metal gas tanks and containers rarely explode.

If you're trapped in your house....

Stay calm. As the fire front approaches, go inside the house. You can survive inside. The fire will pass before your house burns down.

After the fire passes....

- Check the roof immediately. Put out any roof fires, sparks or embers. Check the attic for hidden burning sparks.
- If you have a fire, get your neighbors to help fight it.
- The water you put into your pool or hot tub and other containers wilt come in handy now. If the power is out, try connecting a hose to the outlet on your water heater.
- For several hours after the fire, maintain a "fire watch." Re-check for smoke and sparks throughout the house.

If you are caught in the open....

- The best temporary shelter is in a sparse fuel area. On a steep mountainside, the back side is safer. Avoid canyons, natural "chimneys" and saddles.
- If a road is nearby, lie face down along the road cut or in the ditch on the uphill side. Cover yourself with anything that will shield you from the fire's heat.
- If hiking in the back country, seek a depression with sparse fuel. Clear fuel away from the area while the fire is approaching and then lie face down in the depression and cover yourself. Stay down until after the fire passes!

MITIGATION RESOURCES

Online Resources:

www.Firewise.org

Firewise has a large assortment of downloadable fire mitigation documents available for private landowners plus fire information in general

www.redcross.org

The Red Cross has a web page dedicated to wildfire and wildfire prevention.

www.firesafecouncil.org

This website has a variety of fire safe material for homeowners including grant information and education on landscaping in fire hazard areas.

www.smokeybear.com

A good website for children, parents and teachers.

www.rockymountainwildlandfire.info/

The Interagency Wildland Fire Communications Group, Rocky Mountain Area has a listing of mitigation resources and documents for homeowners and landowners.

Local Government Resources:

Colorado State Forest Service 515 McDaniel Blvd. Industrial Park Canon City, Co. 81212 719 275-6865

The CSFS has a listing of consultants capable of providing a variety of mitigation work for private landowners. They also have a large information library on wildfire mitigation and other informative links.

The CSFS has a large chipper available for clearing slash and wood up to 12 inches in diameter. An operating crew is supplied to run the equipment.

United States Forest Service/ Bureau Of Land Management San Carlos District 3028 East Main St. Canon City, Co. 81212 719 269-8500

APPENDIX 1 Fire Protection Agencies

Canon City FPD Chief Dan Brixey	Phone	275-8666	(Station 1)
Florence FPD Chief Gene MacKinnon		784-4848 x2 429-1464	(29 (Office) (Cell)
Deer Mountain FPD		942-9610	(Station)
Deer wountain 11D		942-4444	(Dispatch)
Chief Todd Bell		942-4090	(Home)
Penrose VFD Chief Calvin Sundermann		372-3001	(Station)
Cotopaxi VFD Chief Steve Sanger		942-9611	(Station)
Coaldale VFD		942-9615	(Station)
Chief John Walker		942-3687	(Home)
Tallahassee RFPA Chief Erik Johnson		275-7015	(Local Dispatch)
Indian Springs VFD Chief Bob Bauer			
Williamsburg VFD Chief Steve Turner		784-3740	(Home)
Fremont County Sheriffs Dep Cmdr. Kent DeGarmo	ot.	276-5555	
Howard VFD		942-4833	(Local Dispatch)
Chief Dan Ogden		942-3352	(Home)
Cinci Dan Ogucii		742 3332	(Home)
Rockvale VFD Chief Marty Walker		784-4593	(Home)
Coal Creek VFD Chief Larry Todd		371-0914	(Home)
BLM Fire Management Officer Ed Skerjanec		269-8500 269-8561	

Fremont County Wildfire Protection Plan

USDA Forest Service Ed Skerjanec	269-8500
Colorado State Forest Service John Grieve	275-6865
Pueblo Interagency Dispatch Center	533-1600

APPENDIX 2 Contributors

Joe Vieda BLM/USFS

Mike Gaylord BLM/USFS

Dennis Page BLM/USFS

Gene Mackinnon Florence Fire

Bill Guindon Canon Fire

Todd Bell Deer Mountain Fire

John Walker Deer Mountain Fire

Steve Sanger Cotopaxi Fire

Skip Ferguson Indian Springs Fire

Barry Bonner Tallahassee Fire

Orland Lighty Tallahassee Fire

John Grieve Colorado State Forest Service

Cmdr. Kent Degarmo Fremont Sheriff Wildland Fire

Bob Bush Fremont GIS Authority

Tim Klco Fremont GIS Authority

John Nichols Canon City

APPENDIX 3 Sample Mutual Aid Agreement

INTERAGENCY AGREEMENT FOR MUTUAL AID BETWEEN FIRE DEPARTMENTS

THIS AGREEMENT entered by and between the organized Governmental entities and Fire Departments whose signatures are affixed hereto:

WITNESSETH THAT:

WHEREAS, intergovernmental/interagency agreements to provide functions or services, including the sharing of costs of such services or functions, by political subdivisions of the State of Colorado are specifically authorized by Section 29-1-203 C.R.S. (1986); and

WHEREAS, the parties hereto are each authorized to lawfully provide, establish, maintain, and operate firefighting and other emergency services; and

WHEREAS, each of the parties hereto maintain emergency equipment; and

WHEREAS, emergencies may arise in one or another of the jurisdictions of the parties, resulting in greater demands than the personnel and equipment of that party can handle, or emergencies of such intensity may occur that cannot be handled by the equipment of the party in whose jurisdiction the emergency occurs; and

WHEREAS, it is in the best interest of each of the parties that it may have service of and from the other parties to aid and assist it in the purpose of fighting fires or responding to other emergencies; and

WHEREAS, other parties who provide similar services and maintain similar equipment may in the future desire to be included in this agreement; and

WHEREAS, establishment of a mutual aid agreement will serve a public purpose and will promote the safety, security, and general welfare of the inhabitants of the parties; and

WHEREAS, the following definitions shall apply for the application of this agreement:

- Automatic Aid: Request for additional assistance being automatically requested upon initial dispatch and pre-arranged agreements.
- Mutual Aid: Request for additional assistance being dispatched only upon the request of the receiving jurisdiction in accordance with this Interagency Agreement for Mutual Aid between Fire Departments.

NOW THEREFORE, IT IS MUTUALLY AGREED by each of the parties as follows:

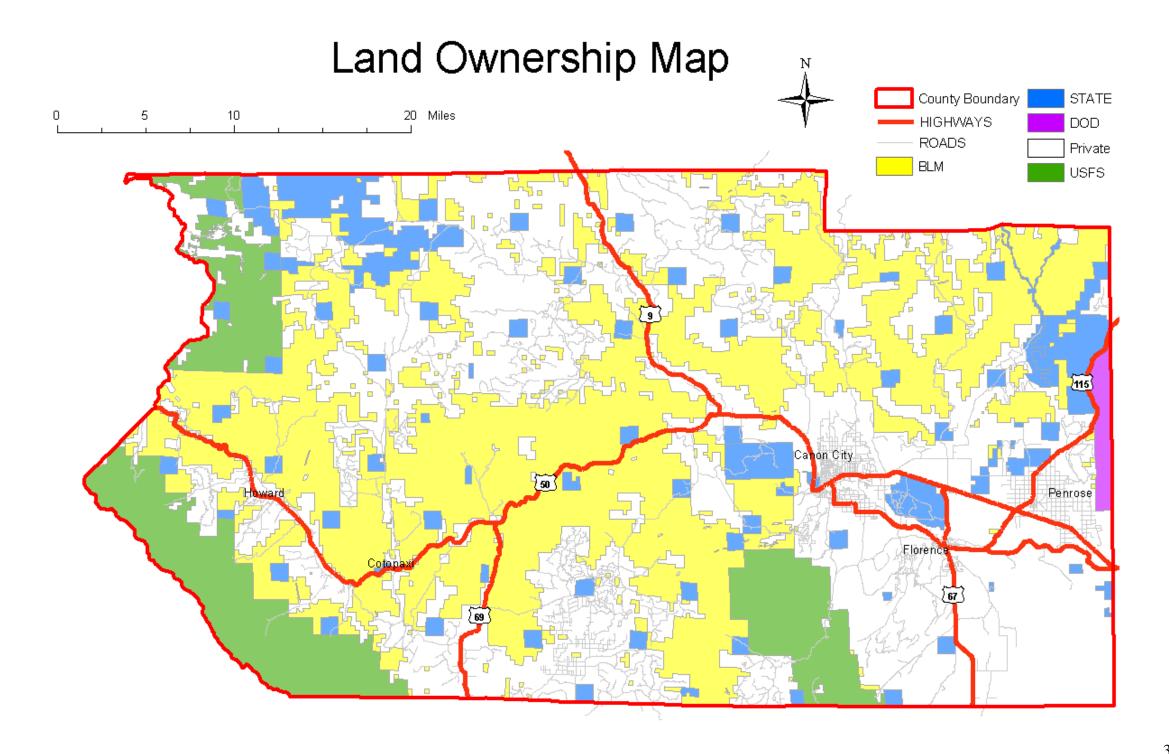
- 1. Provisions of Article 5, Title 29, the Colorado Revised Statutes, as amended, are incorporated herein by this reference. The statute shall control in the event of a conflict between the statute and this agreement.
- 2. It is understood and agreed that this Agreement would provide for the joint exercise by the parties of the function or service provided herein, but would not establish a separate legal entity to do so, nor would it constitute any party as a agent of any other party for any purpose whatsoever. This agreement shall provide only for sharing of in-kind services and costs by the parties toward the establishment of a common mutual goal.
- 3. For and in consideration of the promises of each participating party set forth, each agrees with each of the others that in the event there are fires or other emergencies in the territory served by one party which are beyond the control of the Fire Department of that party; whether because of use of its equipment at other places, or whether because of the intensity of the emergency or otherwise, each agrees, subject to the limitations set forth, to aid and assist the other, by causing and permitting their fire department and its equipment to be used in responding to emergencies in the territorial area of any of the others, and the need for such aid and assistance shall be determined by the Fire Department requesting assistance, subject however to the following limitations:
 - a. Any of the agreeing parties shall be excused from making its equipment or service available to any of the other, in the event of the need of the emergency equipment or need of the personnel of such party, or in the event that the terms of the article seven apply, which decision of availability shall be made by the Fire Department requested to give mutual aid, in the exercise of its sole discretion, which decision shall be final and conclusive.
 - b. It is understood and agreed that each party's performance shall be subject to appropriation of funds by its City Council or other legislative body, and payment of such funds into the treasury of such party.
 - c. Mutual aid response by any party beyond the political boundary of the responding party is hereby deemed to be approved by the respective Executive and Legislative governing bodies and Fire Chiefs of the parties.
- 4. Each party shall, at all times, be responsible for its own costs incurred in the performance of this Agreement, and shall not receive any reimbursement from any other party, except for third party reimbursement under Article 9.
- 5. The extent of the mutual aid period, (as measured from the time of dispatch for request of mutual aid) will be 8 hours unless extended by an additional agreement between parties.
- 6. Each party waives all claims and causes of action against all of the other parties for compensation (except as set forth in Article 9, below), damages, personal injury or death occurring as a consequence, direct or indirect, of the performance of this Agreement.
- 7. Each party shall be expected to maintain its equipment and organize its emergency response method with both personnel and equipment to the degree necessary to cope with the ordinary and routine emergencies arising within its boundaries and

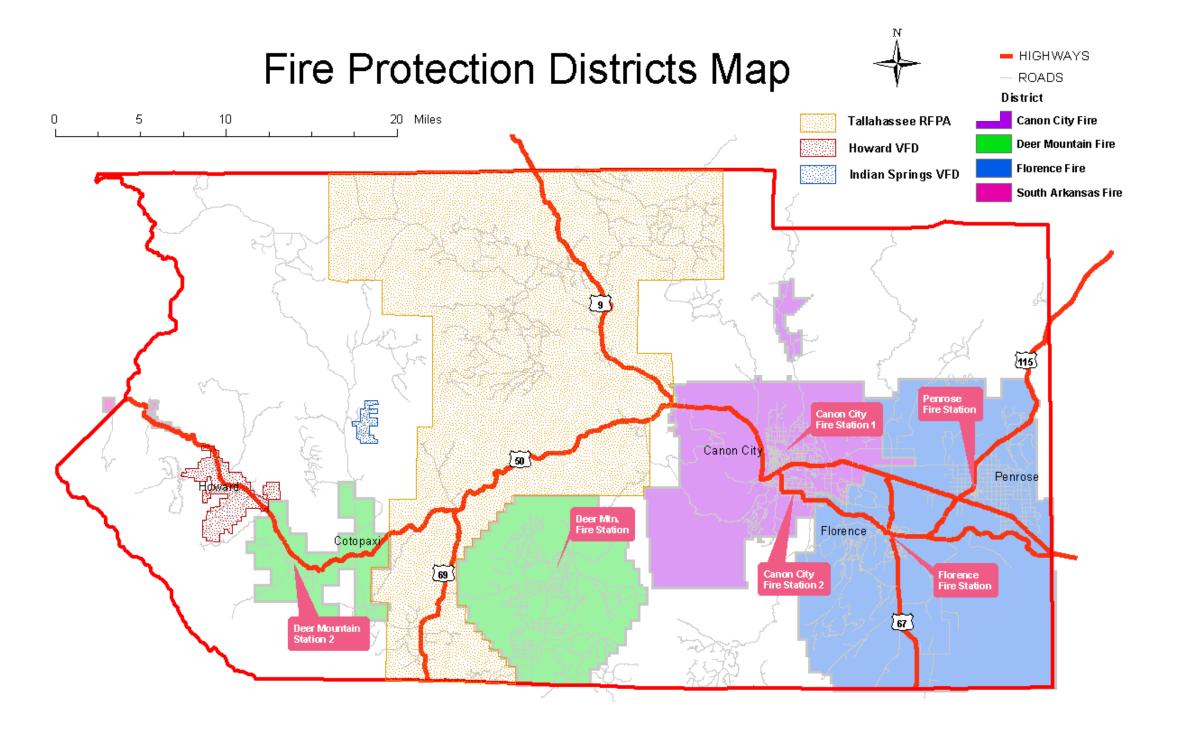
- for which party is organized. No party shall expect any other to respond to emergency calls where emergency arises due to a failure to organize available personnel or maintain equipment in proper working order and in sufficient quantity to meet the respective demands of the persons and property within each of the parties' respective jurisdictions.
- 8. Each party agrees to allow any other municipal or quasi-municipal fire department to join in this Mutual Aid Agreement after formal approval by its governing body and notification of such action to each of the other parties to this Agreement. Each party shall execute such amendments, as may be necessary in the future to accommodate the joining of new parties to the Agreement, without change of any other terms or conditions of the Agreement.
- 9. Each party agrees that, for each call occurring within its jurisdiction, for which it has requested mutual aid; it will reasonably pursue any and all legal reimbursement possible, pursuant to state or federal laws, including but not limited to reimbursement for hazardous materials incidents, occurring within its jurisdiction, on behalf of all parties responding and, upon full or partial payment by the responsible entity, will distribute the reimbursement received in a fair and equitable manner to assisting parties based on their relative documented expenses for the involved incident.
- 10. Nothing contained in this Agreement, and not performance under this Agreement by personnel of the parties hereto shall in any respect alter or modify the status of officers, agents, or employees of the respective parties for purposes of workers' compensation or their benefits or entitlements, pension, levels or types of training, internal discipline, certification, or rank procedures, methods, or categories, or for any purpose, or condition or requirement of employment. Workers' Compensation coverage shall be structured in C.R.S. 29-5-109.
- 11. It is understood and agreed by all parties hereto that if any part, term or provision of this Agreement is by the courts held to be illegal or in conflict with any law of the State of Colorado, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term, or provision held to be invalid.
- 12. Each and every term, provision, or condition herein is subject to and shall be construed in accordance with the provisions of Colorado law, the Charters of the various parties and the ordinances and regulations enacted pursuant thereto.
- 13. It is agreed by all parties that the National Incident Management System (NIMS) will be utilized and applied to ensure the safety and organizational efficiency of personnel.
- 14. This Agreement shall be binding upon the successors and assigns of each of the parties hereto, except that no party may assign any of its rights or obligations hereunder, without the prior written consent of all of the other parties.
- 15. It is expressly understood and agreed that enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to the named parties hereto, and nothing contained in this Agreement shall give or allow any such claim or right of action by any other or third person on such Agreement. It is the express intention of the named parties that

- any person other than the named parties receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.
- 16. Any party hereto may terminate this Agreement with or without cause upon thirty (30) days prior written notice to each of the others.
- 17. This agreement shall be executed in (# of parties) counterparts, each of which shall be deemed to be an original of this agreement.
- 18. Various parties to this Agreement may be parties to previously existing Mutual Aid Agreements, which are more detailed and specific that this Agreement. In such an event, any pre-existing Mutual Aid Agreements and the terms thereof, between any of these parties shall be considered the primary agreement between those parties and shall have priority over this Agreement.

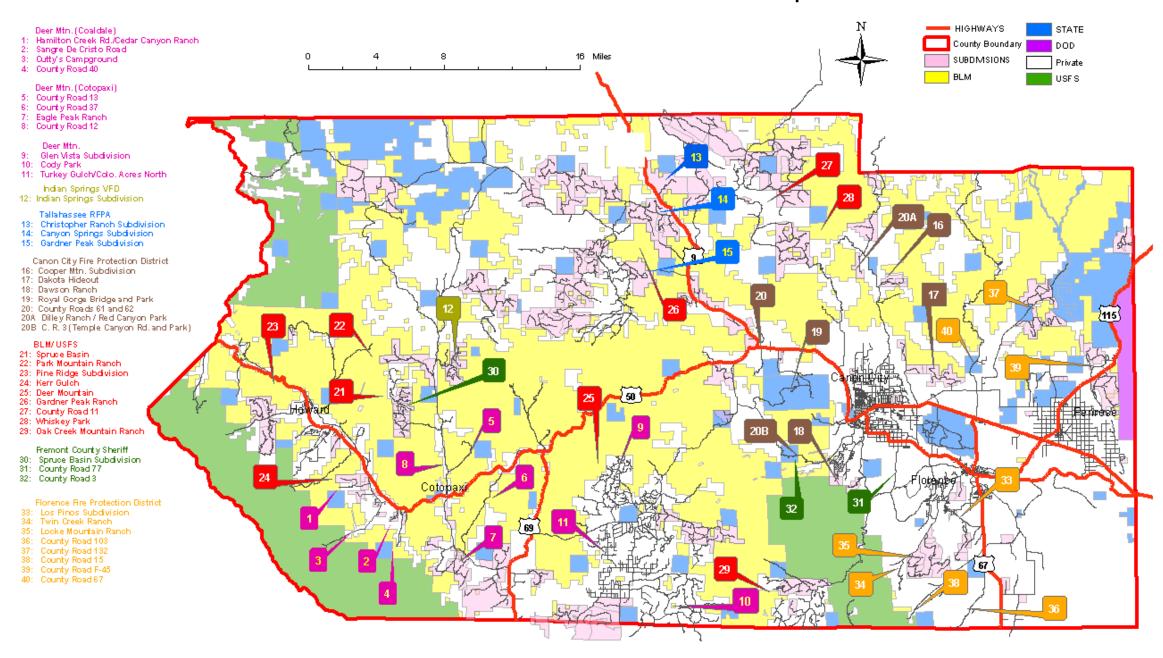
IN WITNESS WHEREOF, the parties heret day of, 2008.	to have executed this agreeme	nt on this
Canon City Fire Protection District:	by Sample ,	(Title)
City of Salida	by Sample (Name)	(Title)
Coaldale Volunteer Fire Department	by Sample (Name)	(Title)
Cotopaxi Volunteer Fire Department:	by Sample (Name)	(Title)
Deer Mountain Fire Protection District:	by Sample (Name)	(Title)
Howard Volunteer Fire Department:	by Sample (Name)	(Title)
Indian Springs Volunteer Fire Department	by Sample (Name)	(Title)
South Arkansas Fire Protection District	by Sample , (Name)	(Title)
Tallahasee Regional Fire Protection Author	ity by <u>Sample</u> .	
Wet Mountain Fire Protection District	(Name) by Sample	(Title)
	,	(Title)

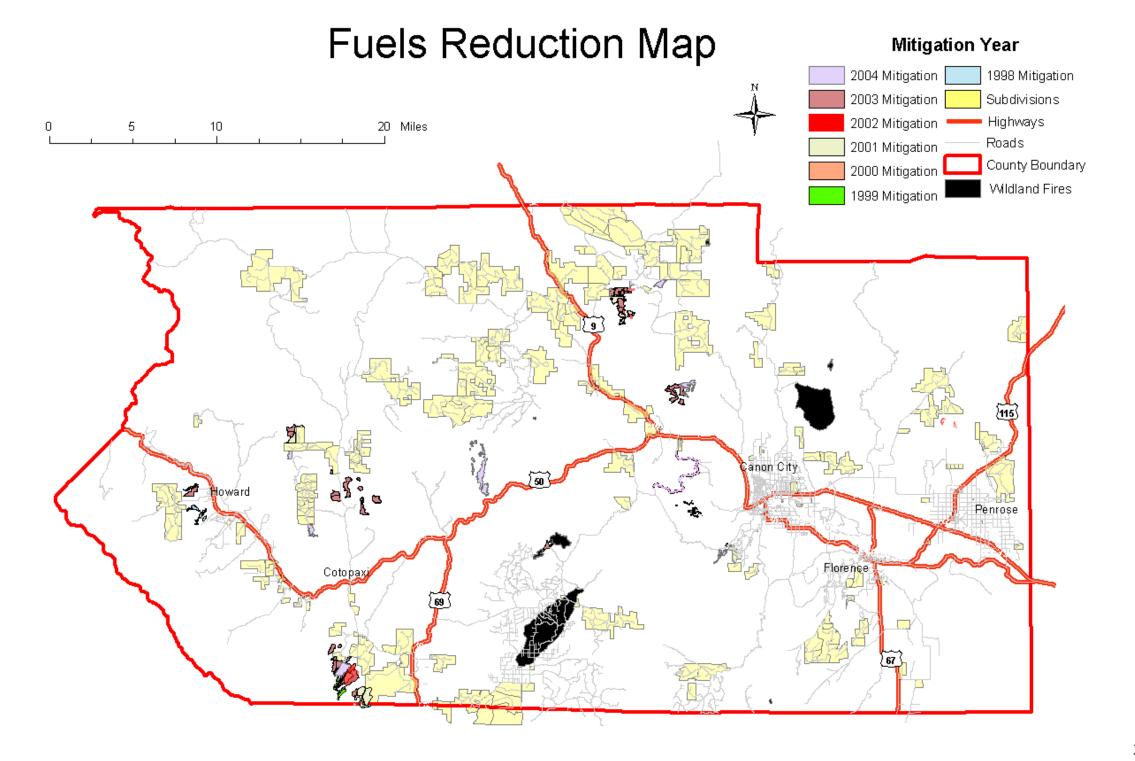
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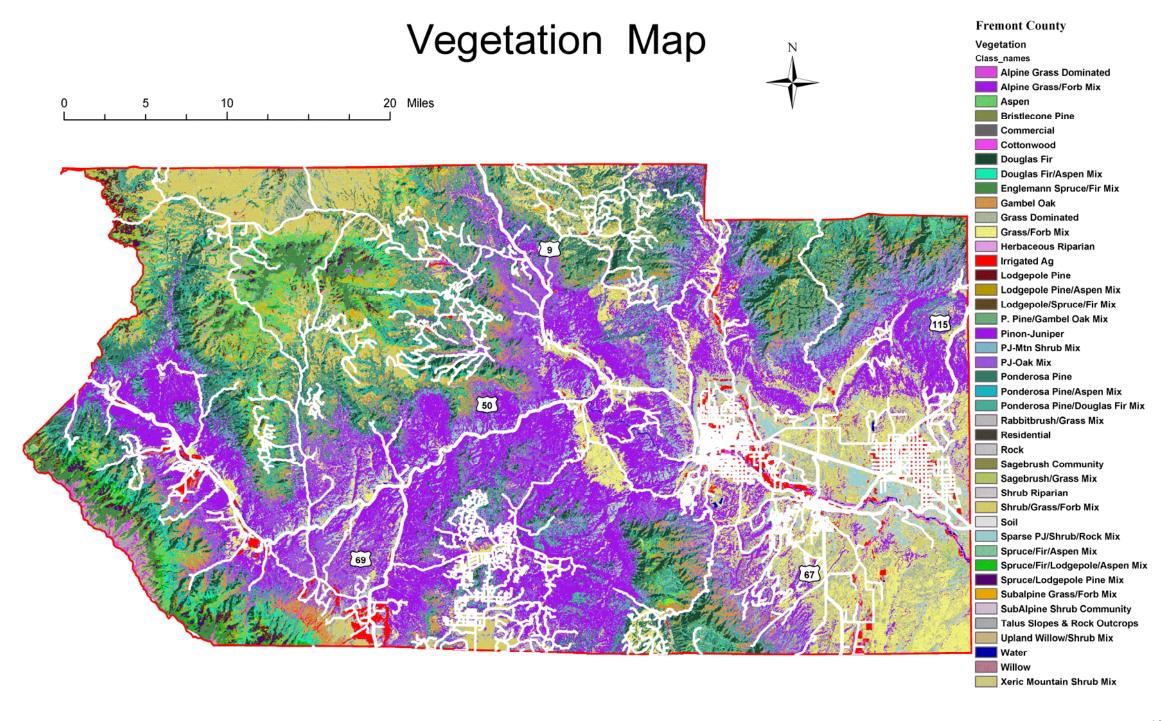




Wildland/Urban Interface Risks Map







Fremont County Wildfire Protection Plan

Fremont County Wildfire Protection Plan