

Montezuma County

Community Wildfire Protection Plan (CWPP)

Introduction

Montezuma County, Colorado is home to 24,926 residents, of which 14,222 live in incorporated areas outside of the County's three towns. The County has 10,673 housing units, of which 6,041 are located outside of the Towns. Montezuma is the Southwestern corner of Colorado at the Four Corners where New Mexico, Arizona, Utah and Colorado intersect. The county encompasses 2,084 square miles or 1.3 million acres, and is a region with stunning landscapes ranging from high alpine peaks and meadows in the north and east, red arid plateaus, sage plains and mesas in the south.

Land Ownership in Acres	Number of Acres	
Private	397,404	30%
San Juan National Forest	256,801	19%
Bureau of Land Management	179,641	13%
State of Colorado	11,357	1%
National Park Service	48,689	4%
Ute Mountain Ute Indian Tribe	439,996	33%
Total	1,333,888	100%

Over 2,000 new lots were created by major and minor subdivisions from 1990 to 2005. Newcomers from all over the world find the environs of this place desirable for home building in vegetation which, in many parts of this county, is at high risk for catastrophic wildfire. The population of Montezuma County grew by 6,000 people (33%) between 1990 and 2004 growing at an average rate of a little over 2% per year. Much of this growth is happening in the wildland-urban interface (WUI) which is defined as:

...areas extending 1½ miles from the boundary of an at-risk community defined by the USFS and BLM's inventory and which lack emergency access routes; are in poor proximity to water sources; have areas with steep slopes; have high risk vegetation types; and/or that are in close proximity to fuels on public lands.



Most growth in Montezuma County and southwest Colorado is happening in the WUI. This picture is a development very near the City of Cortez which is a regional hub city and home to 8,500 residents, and near the San Juan National Forest/BLM, Canyon of the Ancients National Monument & Mesa Verde National Park. Thousands of structures like these exist throughout Montezuma County with many more planned for development.

Community Wildfire Protection Plan -- The Process

In May of 2002, Montezuma County, along with the four surrounding counties in southwest Colorado unveiled Community Fire Plans (CFPs) as part of the National Fire Plan. Collectively, these five Community Fire Plans are considered national models for collaboration, and inter-governmental planning and action around wildfire education in rural and rural/resort communities. These CFPs provided the strategic framework that has driven myriad action items pertaining to mitigation, education, and emergency response. The five CFPs and regional progress towards goal attainment can be found at this Web site: www.southwestcoloradofires.org.

This Community Wildfire Protection Plan (CWPP) is an update to the 2002 Community Fire Plan for Montezuma County and is being revised based on the principals, requirements and guidelines established through the Healthy Forest Restoration Act of 2003 or HFRA.

The specific steps taken to complete the Community Fire Plan (CFP) and this CWPP include:

- Held numerous meetings among state and federal fire-fighting entities, Montezuma County Government and local fire protection districts.
- Conducted an evaluation of wildfire risk resulting in the newly created *Montezuma County Fire Risk – Communities of Concern Map* (attached).
- Conducted a series of community wide and fire district level meetings to inform residents of risks/risk reduction strategies and supporting public and private sector resources. Including topics such as Pinon beetle epidemic & drought, the role of fire in the ecosystem, defensible space, evacuations, care of pets and livestock during evacuations.
- Aired the video “First Line of Defense” on the local TV channel.
- Published regular news article series on wildfire hazard mitigation. Sent the CWPP draft to key stakeholders for review.
- Developed prototype subdivision level Fuels Mitigation Plan.
- Continued to improve mapping and technological resources.
- Xeriscape Book which includes a section on defensible space and fire resistant landscaping has been published.



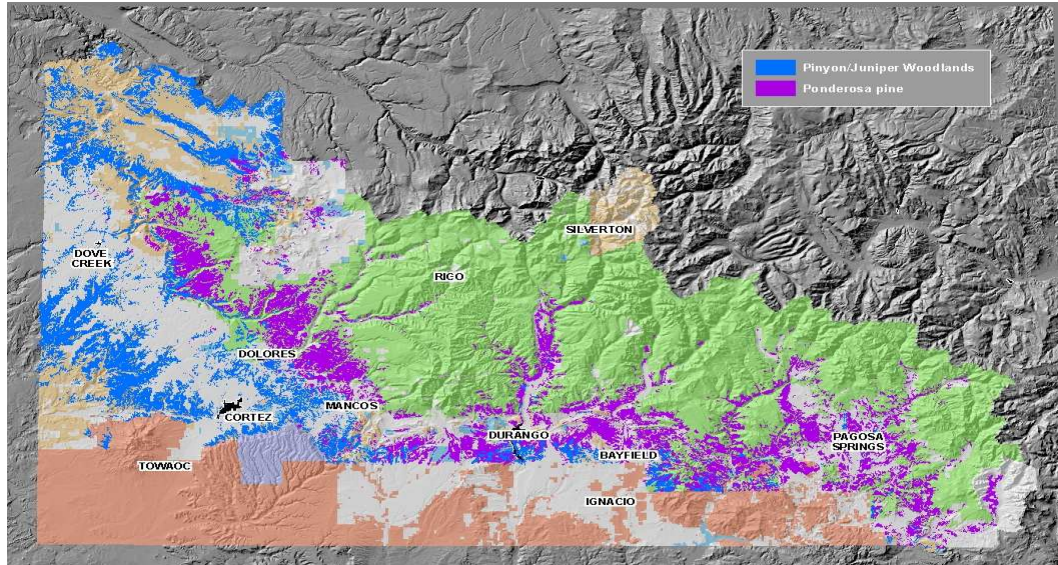
On July 20th 2000 a lightning caused fire was started at the base of the Mesa Verde escarpment. Within the first day the fire burned over 1000 acres. The fire burned over 5000 acres the next day when the fire was finally contained nine days later it had consumed over 23,607 acres. And cost over \$5.5 million to control. Just days later on August 4, 2000, a second lightning caused fire ignited 5,420 acres and caused heavy damage to Mesa Verde facilities. The cost to control the second fire was 2.6 million.

10-Year Strategy to Reduce Fuels and Restore Watersheds

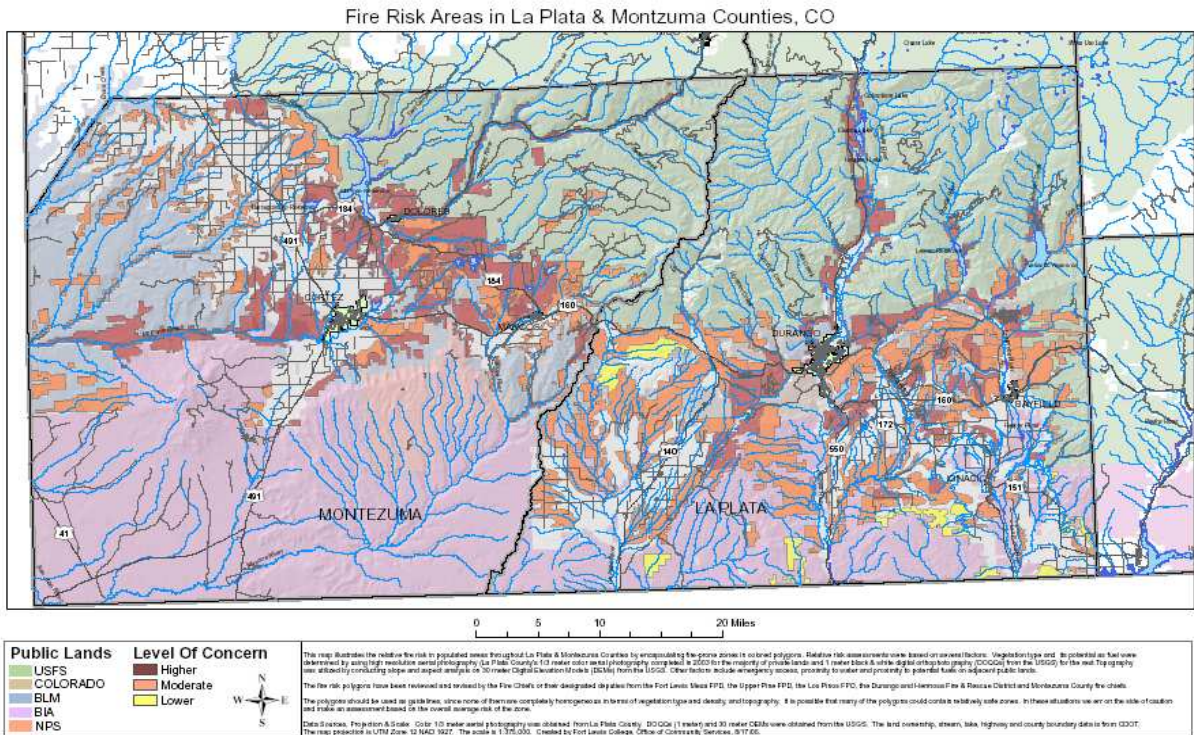
As background for the CWPP, it is important to relay that in March of 2004, the San Juan Public Lands Center released “A 10-Year Strategy to Reduce Fuels and Restore Watersheds.” This “living” document accompanies the CWPP by providing important background information and establishing a framework for setting priorities. The document...

- presents a vision for the Public Lands including these concepts:
 - *landscapes with fire resilient, healthy ecosystems,*
 - *support for a wide range of multiple uses,*
 - *resistant to damage from fire, drought, insects, and disease,*
 - *risks to subdivisions and communities are minimized, and*
 - *forest and land health is improved and/or maximized.*
- describes the vegetation types, ecological environments and fire regimes in southwest Colorado and Montezuma County;
- explains why this area is at risk for catastrophic wildfire;
- outlines significant issues facing the Public Lands such as:
 - extended drought;
 - the Missionary Ridge Fire in 2002;
 - continued growth in the wildland urban interface; and
 - extensive beetle kill in the pinyon pine and moderate beetle kill in other conifers

- discusses the significant devastation caused by the Ips beetle which has destroyed about 80% of the pinyon pine forests in this region;
- identifies priorities for fuel treatments by zones of priority; and
- serves as an every-changing tool that can guide Federal actions.



Graphic: Vegetation types, southwest Colorado. Source: *10-Year Strategy to Reduce Fuels and Restore Watersheds*



Montezuma County -- Community Wildfire Protection Plan Firefighting and Prevention Capacity

There are a number of entities involved in fire prevention and firefighting in Montezuma County including:

- Bureau of Indian Affairs (BIA) – Ute Mountain Ute Agency
- Bureau of Land Management (BLM) San Juan Resource Area
- National Park Service (NPS) - Mesa Verde National Park
- Colorado State Forest Service (CSFS)
- Montezuma County (LPC) and Montezuma County Sheriff
- Local Fire Protection Districts (Lewis Arriola, Pleasant View, Cortez, Dolores, Mancos)
- United State Forest Service (USFS) – San Juan National Forest

All of these organizations work with each other and community partners to share resources and information. Over the years strong partnerships have developed related to fire prevention and demonstration projects, firefighting, public education and accessing resources such as equipment, grants, and training. It is in the spirit of these partnerships that the CWPP is updated.

On Private and State Lands fire protection is provided by the fire districts of: Lewis Arriola, Pleasant View, Cortez, Dolores, and Mancos .

The Colorado State Forest Service (CSFS) fire programs provide effective readiness, and response and suppression of wildfires. This organization's greatest emphasis is on prevention and mitigation to lessen the chances of catastrophic wildfires on state and private lands in Colorado. The CSFS's activities include:

- a) promoting fire mitigation projects;
- b) assisting county governments in assessing wildfire hazards; and
- c) sharing information with diverse audiences on the importance of mitigating hazards on their forested lands to help protect lives and property.

On Tribal Lands the Bureau of Indian Affairs provides wildland fire protection on Ute Mountain Ute tribal lands as well as coordinated fire suppression in interface areas between Ute Mountain Ute lands and other jurisdictions.

After the Community Fire Plans were released in May of 2002 and with the Missionary Ridge and Valley Fires breaking out days later, a Web site was established in partnership with the San Juan Public Lands Center (USFS and BLM), Colorado State Forest Service and Fort Lewis College - Office of Community Services:

www.southwestcoloradofires.org

This unique, locally-maintained site enjoys high usage and directs visitors to wildfire news and recovery information, downloadable and useable documents, maps, information about mitigation, local contractors and more!

On Federal Lands the Dolores District of the San Juan Forest /Bureau of Land Management cover Montezuma County including Canyons of the Ancients National Monument. The Dolores District has 4 engines, three type 3 and one type 4, each requiring a 3 person crew. There is only funding to staff 3 of the 4 engines. The engine crews do fuels treatments including preparation work and controlled burns. The Dolores District conducts prescribed fire and other treatments on approximately 2,500 to 3,000 acres of National Forest Land and 500 acres of BLM land per year.

During the summer “severity resources are brought in usually two type 3 or type 4 engines with 5 person crews. The 20-person San Juan Interagency Hotshot Crew is stationed in Durango but often works elsewhere across the nation. The crew is considered a national resource and in addition to fires in the local area, is assigned to fires outside of the county.

The Durango Interagency Fire Dispatch Center helps to make fire response quick and effective. The USFS, BLM, Bureau of Indian Affairs, Mesa Verde National Park and CSFS each contribute staff and resources to operate the full-time facility – located in the San Juan Public Lands Center, 15 Burnett Court, Durango. And finally, an air tanker base is located in La Plata County at the airport, and has improved firefighting capabilities.

Montezuma County - Community Wildfire Protection Plan Goals, Strategies and Responsible Entity

Partners

- Colorado State Forest Service (CSFS)
- Lewis Arriola. Pleasant View, Cortez, Dolores, Mancos Fire Protection Districts
- Fort Lewis College – Office of Community Services (FLC-OCS)
- Firewise Council of Southwest Colorado (Firewise Council)
- Montezuma County Planning Department, Government and Sheriff
- Private Contractors
- San Juan Mountains Association (SJMA)
- San Juan Public Lands Center (USFS/BLM)
- Ute Mountain Ute Indian Tribe

Note: Some strategies are listed twice because they relate to more than one goal.

Goal: Reduce Risk in the wildland-urban interface (WUI)

Strategy #1) Utilize the new Montezuma County Fire Risk - Communities of Concern map in as many ways as possible with governments, community groups, citizens and local, state and federal firefighting entities and public

- land management organizations to reduce wildfire risk especially in the Wildland Urban Interface. (USFS, BLM, Montezuma County, Fire Districts, CSFS, FLC-OCS, Firewise Council)
- Strategy #2) Explore adding a GIS layer to the Montezuma County Fire Risk - Communities of Concern map that would show an inventory of treatments including the method of treatment done on private lands adjacent to the WUI -- to be used as a tool for Federal fuel treatment project identification. (FLC-OCS, USFS/BLM, Private contractors, CSFS)
- Strategy #3) Build the capacity of the Firewise Council of Southwest Colorado's Neighborhood Ambassador Program through recruitment, training, and utilization, and by helping the program via ongoing development and capacity building (e.g. funding, publicity, media, participation, etc., etc.) (Firewise Council, SJMA, community partners)
- Strategy #4) Initiate fire mitigation projects on federal lands identified in the CWPP planning process after appropriate review processes are completed, and assist other fire managers with fire management activities in their jurisdictions. These projects will be carried out by the United States Forest Service and Bureau of Land Management, in partnership with local communities, the local fire departments, the Colorado State Forest Service, and the Bureau of Indian Affairs. (USFS and BLM, with community partners)
- Strategy #5) Support and advertise the existence of private contractors who can carry out Firewise prevention projects on homeowners' properties. (CSFS, media, April Wildfire Prevention and Education Month Committee)
- Strategy #6) Encourage the development of private, small diameter wood products processing businesses including biomass technologies by: assisting businesses with grant writing and other means of finance such as linkage with the Wood Products RLF managed by R9; on-going meetings and discussions with a pellet manufacturer for location to southwest Colorado; supporting demonstration of whole tree pellet technology by placing a pellet stove at the Mountain Studies Institute in Silverton; and working in partnership with the BLM to develop products and markets for pinyon and juniper. (All partners)
- Strategy #7) Increase the number of locally developed community wildfire protection plans in at-risk subdivisions and communities through Montezuma County partnering with federal and state agencies, the Firewise Council of Southwest Colorado and its Neighborhood Ambassador Program and Homeowner Associations. (CSFS, USFS/BLM, Firewise Council, Neighborhood Ambassadors)

Goal: Increase Public Involvement in Wildfire Prevention and Education

Strategy #1) Increase the capacity of the Firewise Council of Southwest Colorado by ensuring the Council has adequate resources to carry out 2006 mission working with key stakeholders across Montezuma County.
(USFS/BLM, Firewise Council membership, SJMA)

Strategy #2) Implement demonstration projects that will give communities and neighborhoods a visual picture of Firewise strategies, and combine these projects with public education meetings and campaigns.
(Fire Protection Districts, Home Owners Associations (HOAs), April Wildfire Prevention and Education Month Committee, CSFS)

Strategy #3) Continue to utilize the resource of the web site:
www.southwestcoloradofires.org for on-line information sharing with citizens and organizations in Montezuma County and southwest Colorado.
(FLC-OCS, USFS/BLM, CSFS)

Goal: Reduce Ignitability of Structures

Strategy #1) Initiate fire mitigation projects on federal lands identified in the CWPP planning process after appropriate review processes are completed, and assist other fire managers with fire management activities in their jurisdictions. These projects will be carried out by the United States Forest Service and Bureau of Land Management, in partnership with local communities, the local fire departments, the Colorado State Forest Service, and the Bureau of Indian Affairs.
(USFS/BLM working with partners)

Strategy #2) Support and advertise the existence of private contractors who can carry out Firewise prevention projects on homeowners' properties.
(April Wildfire Prevention and Education Month, CSFS)

Strategy #3) Provide information to educate local governments, builders, architects and other stakeholders about Firewise construction techniques and materials.

Strategy #4) Continue working collaboratively to implement policies that will reduce the chances of catastrophic wildfires on private lands, and lands in the WUI, and reduce risks to life and property including the implementation of County polices for fuels mitigation and access standards for new development in Montezuma County. (Montezuma

County Government, Fire Protection Districts, Elected Officials, wildfire hazard mitigation planners and contractors)

Goal: Increase and strengthen the tools for local governments and fire departments to encourage Firewise policies and practices.

Strategy #1) Continue working collaboratively to implement policies that will reduce the chances of catastrophic wildfires on private lands, and lands in the WUI, and reduce risks to life and property including the implementation of County polices for fuels mitigation and access standards for new development in Montezuma County. (Montezuma County Government, Fire Protection Districts, Elected Officials, wildfire hazard mitigation planners and contractors)

Strategy #2 Continue to improve the technological resources and utilize improved data to assist in the creation of more in-depth assessments and wildfire protection plans in high risk areas and at the subdivision level. Make data accessible to property owners, fire mitigation contractors, fire protection districts and emergency services providers to support increased wildfire hazard mitigation and to increase the safety and efficiency of wildfire emergency responders.

Goal: Increase the number of fuel reduction projects on federal lands in the WUI and other priority areas.

Strategy #1) Initiate fire mitigation projects on federal lands identified in the CWPP planning process after appropriate review processes are completed, and assist other fire managers with fire management activities in their jurisdictions. These projects will be carried out by the United States Forest Service and Bureau of Land Management, in partnership with local communities, the local fire departments, the Colorado State Forest Service, and the Bureau of Indian Affairs.

Strategy #2) Continue to build, create and strengthen partnerships to carry out this CWPP among federal, state, and local governments and agencies, and with private sector entities and non-profits. (All partners)

Strategy #3) Encourage the development of private, small diameter wood products processing businesses including biomass technologies. (All partners)

Key Approaches in CWPP Implementation

Community Base Map

The *Montezuma County Fire Risk - Communities of Concern* map has been developed (see Attachment) in response to the CWPP update. Previous maps were limiting because they were too vague, not easily used or did not take into consideration enough factors. This new map was developed in close concert with the local fire chiefs and Montezuma County's planning department. The map illustrates the relative wildfire risks in the WUI and was completed using cutting-edge GIS technology. Relative risk assessments were done based on several factors including vegetation type and its potential as fuel using high resolution aerial photography. Slope and aspect analyses were also factored into the map's rating system on 30 meter Digital Elevation Models (DEMs) from the USGS. Other factors were also considered as "ground truth" mechanisms reported by the County planning staff and fire chiefs, including emergency access, proximity to water and potential fuels on public lands. The development of this map completes the Community Risk Assessment guidelines of the CWPP. This map is now widely used in our community to assess risk, identify areas for future fuel reduction projects on federal lands, and for decision-making tools in the County's land use development process.

- ✓ **The CWPP recommends ongoing and continued use of this valuable planning tool.**

Fuel Treatments Map

Accompanying the *Montezuma County Fire Risk - Communities of Concern* map, is a companion map developed by the USFS/BLM – San Juan Public Lands Center that shows already treated areas on public lands as well as future projects.

- ✓ **The CWPP recommends utilizing the map for action and public education.**

Communities-At-Risk Inventory

Local Federal Land fire managers, using national guidelines, have produced a list of Communities-At-Risk for Montezuma County. This document, combined with the *Montezuma County Fire Risk – Communities of Concern* map and the *Federal Fuels Treatment* map, clearly show priorities for fuel treatments until the year 2010. The inventory not only identifies communities at risk in three categories (WUI, Intermix and Occluded) but also documents risk factors such as fuels and terrain. Finally, lists are given of federal fuels treatment projects over multiple years with latitudinal and longitudinal coordinates for each. Contact the San Juan Public Land Center (247-4874) for this list.

- ✓ **The CWPP recommends utilizing this inventory to define the WUI and prioritize future fuels treatment(s) projects.**
- ✓ **Additional data should be collected whenever practical to enhance the functionality of the Communities at Risk Inventory. One possible course of action is to utilize the best available and affordable software to collect and manage new data.**

County Policies: Fuels Mitigation and Emergency Access Standards for New Development

Since the last writing of the Community Fire Plan, Montezuma County Planning Department working with local fire protection districts has developed policies for fuel hazard mitigation and emergency access for new subdivisions and housing units. During 2006 these policies, which currently function as guidelines, will be reviewed by the Planning Commission and County Commission for inclusion in the Montezuma County Land Use Code. These policies are designed to reduce structural ignitability, increase community and firefighter safety, and reduce the private and public costs resulting from wildfires in the WUI by implementing the following requirements, using guidelines from Colorado State University Fact Sheet #6.302:

Pre-Development Planning and Fuels Mitigation:

- A Comprehensive Inventory, Analysis and Fuel Mitigation Plan.
- Fuels mitigation to Zone 3 Standards on all land within the development.
- Fuels mitigation to Zone 2 Standards on all land within existing and proposed roadway and utility easements.

Defensible Space and Emergency Access:

- When homes are constructed defensible space will be created to CSFS Zone 1 and Zone 2 Standards.
- Driveways, culverts, bridges and turnarounds will be constructed to meet Emergency Access Standards.
- Maintenance of defensible space will be incorporated into Subdivision covenants.
- Defensible space and emergency access standards will apply to new houses in subdivisions that pre-date the adoption of these standards.

- ✓ **The CWPP recommends that Montezuma County Fire Protection Districts, Fire Mitigation Contractors and Developers work together to implement fire mitigation policies in a consistent manner to increase safety in the WUI, and in areas of high concern and risk.**

April Wildfire Prevention Month

As a result of the partnerships built locally and regionally over the years and through the 2001 CFP processes, in 2003, a strong region-wide education program was launched called: *What are You Waiting For?* April Wildfire Prevention and Education Month. Over 20 partners have joined together to produce a month of events, forums, publicity endeavors (e.g. newspaper inserts), tours to demonstration sites, video production and releases, and events at local fire houses. In 2005, an exciting regional addition to April's itinerary was the ten (10) neighborhood-based education events entirely planned and implemented by the Neighborhood Ambassadors.

- ✓ **The CWPP recommends continuing April Wildfire Prevention and Education Month as a key tool for carrying out broad, mass media education around key wildfire and firewise principals and practices, and recommends the continued expansion of the Ambassadors' role in "wildfire month."**

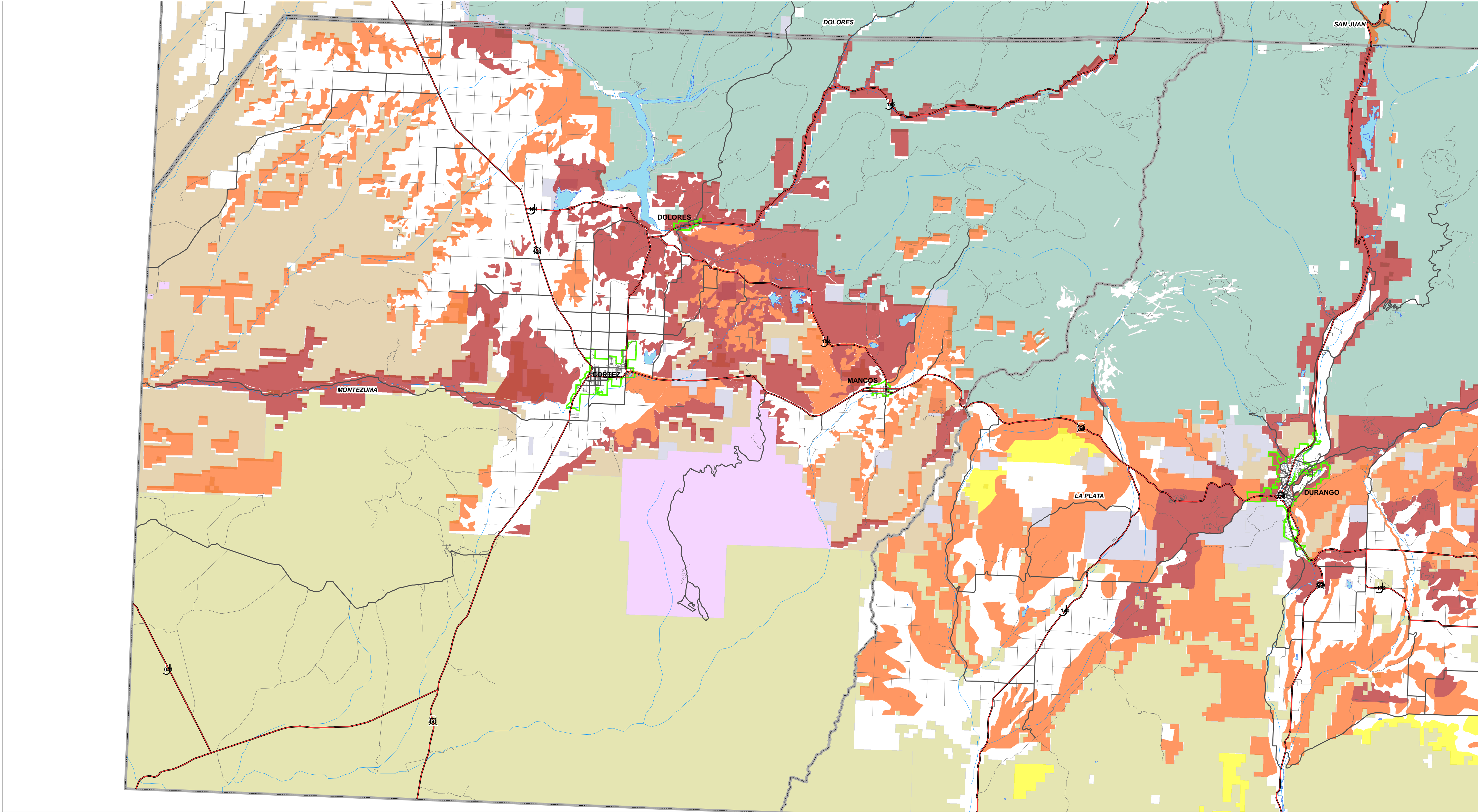
Summary

This CWPP compliments and builds upon the nationally recognized Community Fire Plan done in 2002. It incorporates key principals and guidelines arising from the HFRA. The plan lays out an ambitious program for:

- reducing structural ignitability;
- increasing community safety;
- continuing successful education and community mobilization endeavors;
- reducing risk in the WUI;
- accomplishing important federal lands fuels treatments; and
- continually enhancing partnerships between federal and state agencies, wildfire mitigation planners and contractors, and among community organizations and local governments.

As in the past, success of this CWPP can only be realized through sustained, careful and effective partnership building among all affected stakeholders.

Montezuma County Fire Risk Zones

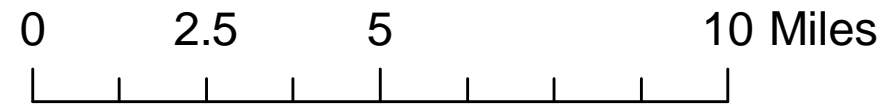


Public Lands

- USFS
- COLORADO
- BLM
- BIA
- NPS

Level Of Concern

- Higher
- Moderate
- Lower



This map illustrates the relative fire risk in populated areas Montezuma County, Colorado by encapsulating fire-prone zones in colored polygons. Relative risk assessments were based on several factors. Vegetation type and its potential as fuel were determined by using high resolution aerial photography. Topography was utilized by conducting slope and aspect analysis on 30 meter Digital Elevation Models (DEMs) from the USGS. Other factors include emergency access, proximity to water and proximity to potential fuels on adjacent public lands.

The fire risk polygons have been reviewed and revised by the fire chiefs or their designated deputies from the various fire protection districts or departments.

The polygons should be used as guidelines, since none of them are completely homogeneous in terms of vegetation type and density, and topography. It is possible that many of the polygons could contain relatively safe zones. In these situations we err on the side of caution and make an assessment based on the overall average risk of the zone.

Data Sources, Projection & Scale: Color 1/3 meter aerial photography was obtained from La Plata County. DOQQs (1 meter) and 30 meter DEMs were obtained from the USGS. Color 1 meter aerial photography used for Archuleta County was obtained from the National Agricultural Imagery Program (NAIP) The land ownership, stream, lake, highway and county boundary data is from CDOT. The map projection is UTM Zone 13 NAD 1983. The scale is 1:175,000. Created by Fort Lewis College, Office of Community Services, 7/5/06.