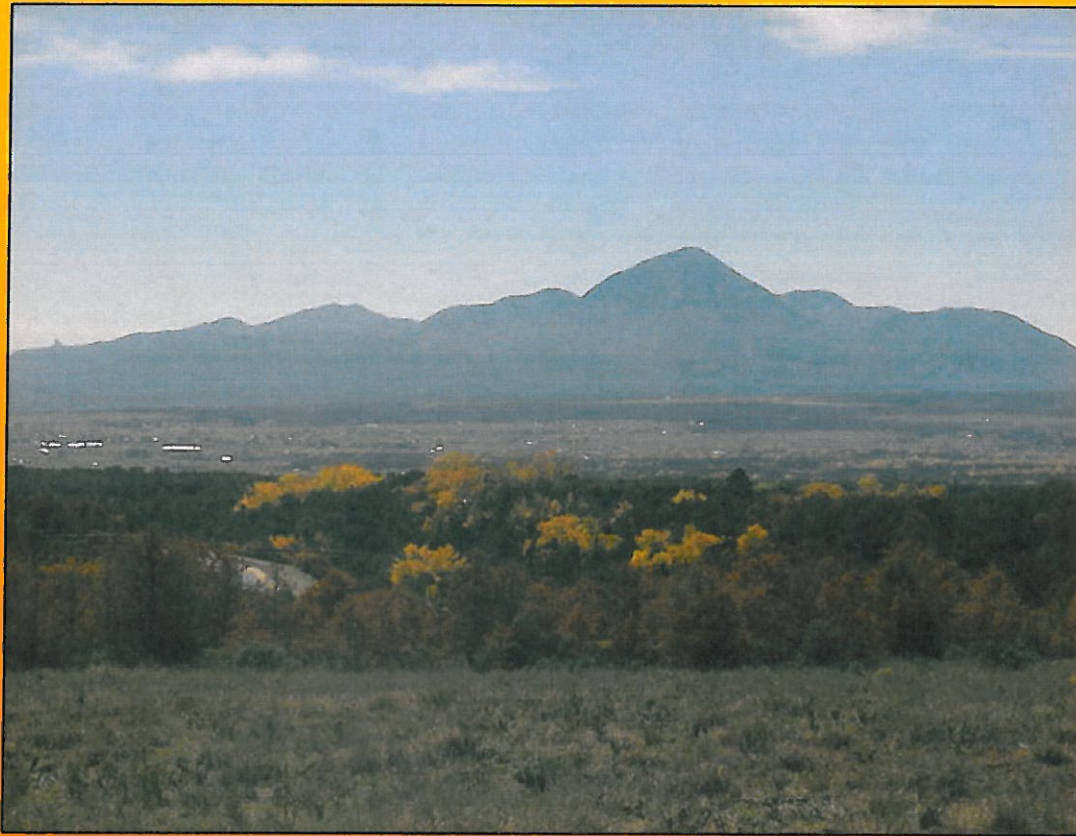


MONTEZUMA COUNTY, COLORADO

COMMUNITY WILDFIRE PROTECTION PLAN



2011 CWPP Update

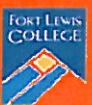
Prepared by the CWPP update team:

James Dietrich and Bill Ball, The Office of Community Services at Fort Lewis College

Fred Bird, Montezuma County Fire Protection Districts Fire Information Officer

Rebecca Samulski, Montezuma County FireWise Coordinator

In Collaboration with :



ADOPTION and APPROVAL

This Montezuma County Wildfire Protection Plan is hereby approved and adopted this ____ day of December, 2011 as a plan that meets all minimum Colorado State Forest Service Minimum Standards and presents a desired direction for wildfire protection and preparedness of Wildland Urban Interface residents, property, infrastructure, and valued resources.

Board of County Commissioners


(Chair, Larrie D Rule)

Date 1-23-2012


(Gerald Kopenhaffer)

Date 1/23/12


Chair (Steve Chappell)

Date 1-23/12


Colorado State Forest Service


(District Forester, Kent Grant)

Date 1/23/11

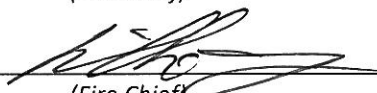
Fire Protection Districts

Mancos (FPD)


(Fire Chief)


Date 12-7-11

Dolores (FPD)


(Fire Chief)

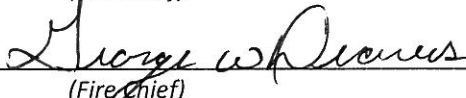
Date 12-7-11

Cortez (FPD)


(Fire Chief)


Date 12-7-11

Lewis/ Arriola (FPD)


(Fire Chief)

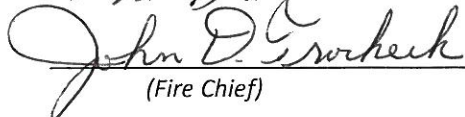
Date 12-7-11

Pleasant View (FPD)


(Fire Chief)

Date 12-7-2011

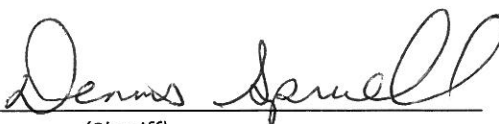
Towaoc (FPD)


(Fire Chief)

Date 12-7-11

Montezuma County;

Sheriff's Department


(Sheriff)

Date 1/19/2012

Emergency Management


(Emergency Manager)

Date 12-7-11

Federal Agencies;

National Park Service

Date _____

U.S. Forest Service/ BLM

Date _____

Bureau of Indian Affairs

Date _____

Table of Contents

ADOPTION AND APPROVAL	Pg. 2
BACKGROUND AND LEGAL AUTHORIZATION	Pg. 5
PURPOSE	Pg. 7
INTRODUCTION	Pg. 8
THE COLLABORATIVE PROCESS	Pg. 13
PAST (CWPP) ACCOMPLISHMENTS	Pg. 17
COMMUNITY RISK ANALYSIS	Pg. 19
MONTEZUMA COUNTY WILDLAND URBAN INTERFACE (WUI)	Pg. 21
COMMUNITY PREPAREDNESS TO RESPOND TO WILD LAND FIRE	Pg. 25
WILDFIRE PREPAREDNESS RECOMMENDATIONS	Pg. 31
(2011 CWPP) GOALS AND STRATEGIES	Pg. 35
OTHER RELATED PLANS	Pg. 45
IMPLEMENTATION PLAN	Pg. 46
<u>Appendices</u>	
COMMUNITY RISK ANALYSIS	Appendix A
IMPLEMENTATION PROJECTS	Appendix B
COMMUNITIES AT RISK	Appendix C

Montezuma County Community Wildfire Protection Plan (CWPP)

BACKGROUND AND LEGAL AUTHORIZATION

Throughout the 1990's and into the mid 2000's Southwest Colorado experienced unprecedented growth in the unincorporated areas of its rural counties. In 2000 a record breaking drought gripped the region and settled in for a period of years. This set the stage for a devastating series of bark beetle infestations which decimated vast regions of forested lands increasing the fire danger.

In 2000 two devastating wildfires, the Bircher Fire and the Pony Fire raged across the southern portion of Montezuma County consuming over 29,027 acres of Mesa Verde National Park, the Ute Mountain Ute Tribal Park, and private lands. Four structures were lost and five severely damaged, resulting in losses of over 1 million dollars in property damage. Total suppression costs exceeded 8.4 million dollars.

The summer of 2000 wildfire season was severe across the United States with over eight million acres burned in all. That summer of 2000 proved to be an eye opener on a national level as well as for the State of Colorado, and Montezuma County. On the heels of this extreme fire season, southwestern Colorado counties, federal agencies and local Fire Protection Districts began collaborating in earnest to educate their citizens about the dangers of wildland fires, and how mitigation efforts can help to make their homes and communities more resistant to fire danger.

On the national level, the 2000 fire season prompted the United States Forest Service and Bureau of Land Management to issue a joint report to the President entitled; *"Managing the Impacts of Wildfire on Communities and the Environment: A Report to the President in Response to the Wildfires of 2000."* This report became known as the National Fire Plan (NFP) which provided the basic framework for Montezuma County to begin its wildfire planning effort.

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 were considered at the time to be 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 a myriad of action items pertaining to mitigation, education, and emergency response.

The summer of 2002 was another severe fire season nation-wide, with over seven million acres burned. For Colorado, the summer of 2002 saw two of the largest fires in the State's history, the Hayman Fire near Denver, and the Missionary Ridge Fire in southwest Colorado. The severity of the fires season coupled with expanding growth in wild-land areas resulted in increasing public pressure to address wildland fire preparedness and suppression efforts.

Montezuma County Community Wildfire Protection Plan (CWPP)

Fire planning has been an iterative process across the nation. In 2003 the Healthy Forest Restoration Act (HFRA) was signed into law. This act focused on restoring forests and rangeland into healthy fire-adapted ecosystems while reducing the threat of wildfire to communities. HFRA established four key planning concepts including;

- Collaborative planning amongst stakeholders
- Identifying and prioritizing hazardous fuels reduction projects
- Assessment of community firefighting capacity
- Reducing structural ignitability.

In 2005, The Montezuma County CFP was modified to become a Community Wildfire Protection Plan to conform with the requirements set forth by HFRA.

LEGAL AUTHORITY

Colorado revised Statutes **30-11-124. Fire planning authority**, provides Colorado Counties with the legal authority to prepare, adopt, and implement a county fire management plan that details individual county policies on fire management for prescribed burns, fuels management, or natural ignition burns on lands owned by the state or county.

In 2009 Colorado Legislature passed into Law **Senate Bill 09-001 “CONCERNING THE ESTABLISHMENT OF COMMUNITY WILDFIRE PROTECTION PLANS BY COUNTY GOVERNMENTS.”** This act required counties within the State of Colorado to determine whether there are fire hazard areas within the unincorporated portion of the county, and to prepare Community Wildfire Protection Plans (CWPPs) that covered these areas. The act also provided counties in the State,

“the opportunity to establish a locally appropriate definition and boundary for the wildland urban-interface area.”

The Healthy Forest Restoration Act of 2003 required the Colorado State Forest Service to establish minimum standards for the development of CWPPs in Colorado. Per Colorado Senate Bill 09-001, this plan conforms to the 2009 revised minimum standards and guidelines that counties should consider when developing Community Wildfire Protection Plans (CWPPs).

Montezuma County Community Wildfire Protection Plan (CWPP)

PURPOSE

This document has been prepared to assist Montezuma County residents, local governments and land management agencies for the following primary purposes;

- 1.) To support the overarching goals of this plan to:
 - 1.) PROTECT THE LIVES OF RESIDENTS AND EMERGENCY PERSONELL.**
 - 2.) PROTECT PROPERTY AND CRITICAL INFRASTRUCTURE IN THE WILD LAND-URBAN INTERFACE.**
 - 3.) PROTECT KEY ENVIRONMENTAL VALUES AND QUALITY OF LIFE.**
- 2.) To update the existing Montezuma County CWPP to conform to Colorado Senate Bill 09-001, the Healthy Forest Restoration Act (HFRA) of 2003, and to the 2009 Colorado State Forest Service Minimum Standards for Community Wildfire Protection Plans (CWPP).
- 3.) To provide a sound comprehensive review and update of the existing community risk analysis using the best available data, and an approved methodology (FLAMMAP) to validate and or correct identified risk areas.
- 4.) To recognize the action items that have been accomplished through the 2005 CWPP and to clarify and refine the goals, strategies, and objectives of the 2005 plan.
- 5.) To achieve collaboration by bringing together diverse federal, state and local interests to; identify essential community values, discuss their mutual concerns for public safety, community sustainability, and natural resources.
- 6.) To share information from the updated community risk analysis with private and public land managers, the Sheriff and Fire Protection Districts to and reduce damage to values identified through the collaborative planning process.
- 7.) To foster coordination amongst all stakeholders by creating an “umbrella plan” for managing wildfire risks within Montezuma County.
- 8.) To ensure County eligibility for National Fire Plan (NFP) or other funding assistance, provide information to assist communities in recommending fuel reduction projects on private / federal lands.

Montezuma County Community Wildfire Protection Plan (CWPP)

INTRODUCTION

As of July 2009, Montezuma County, Colorado is home to 25,676 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 County sits in 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%

GROWTH IN MONTEZUMA COUNTY:

Like much of Colorado over the last two decades, Montezuma County has experienced rapid growth, especially in the unincorporated areas of the County. Over 2,000 new lots were created by major and minor subdivisions from 1990 to 2005. From 1990 to 2004, the population of Montezuma County grew by 6,000 people (33%) averaging a growth rate of a little over 2% per year.

Between 2005 and 2009 Montezuma County's growth rate slowed, largely due to the housing market collapse, and the ensuing national recession, yet the area is still experiencing growth. From 2005 to 2009 the county population expanded by 1,208 people (4.7%), averaging a growth rate of .94% per year.

Despite the slowing economy, newcomers from all over the world find the environs of southwest Colorado extremely desirable for home building. The amenity based migration patterns seen through the late 90's and early 2000's are expected to continue. Colorado Department of Local Affairs population projections indicate that the population of the county will increase by approximately 6,000 people over the next 10 years.

Much of the homebuilding activity over the past ten years has occurred in naturally vegetated regions which newcomers hold in high regard. The vegetation which newcomers find so attractive is, in many parts of this county, at high risk for catastrophic wildfire.

Montezuma County Community Wildfire Protection Plan (CWPP)

FIRE IN MONTEZUMA COUNTY

Fire is nothing new to Montezuma County or to the Southwest in general. For centuries it has been a natural, healthy part of the ecosystem. An important distinction of wildland fires is that all forests do not burn the same way. Tree species vary and each forest type has a historical fire regime, or interval and intensity at which fires occurred. This cycle has been altered over the last 100 years by human uses such as logging, livestock grazing and fire suppression.

Before Euro-Americans moved west and homesteaded, fire played a positive and natural role in the health of western forests. Research shows that fires recurred periodically for thousands of years. Each different forest type, whether ponderosa pine, pinion/ juniper, or mixed-conifer had fire as a recurring disturbance to the ecosystem. Some fire regimes were typified by the frequent fires at low intensity (fire stayed on the ground), while other fire regimes had less fires but burned hotter and more intensely, often as crown fires traveling in tree tops.

MONTEZUMA COUNTY COVER TYPES AND FIRE REGIMES

Fire ecologists know that the fire regimes in Southwest Colorado have changed and are different today than they were 100 years ago due to various human impacts. Not all forest types were affected the same; the forests with historically frequent low intensity fires were impacted most severely.

Pinion– Juniper Forests: Historically fires would burn every 25 to 100 years on average. Some pinion/ juniper forests would burn less frequently because they did not have the grassy understory to help carry the fire. Fires created openings with patches of grass, shrubs and small bunches of pinion and juniper trees. Today, because of human impacts, dense stands of pinion and junipers are encroaching on meadows and burn much more intensely.

Ponderosa Pine Forests: Research indicates that low-intensity fires once a decade. These fires usually burned on the ground and did not kill the ponderosa pines. This high frequency, low intensity fire regime has been documented for ponderosa pines throughout the southwestern United States. Crown fires (up in the treetops) were extremely rare since ground fuels were light and the crowns of the trees were generally spaced widely apart. Today these ponderosa pine forests are more crowded and tree crowns are much closer together or even touching, increasing the probability of more lethal crown fires. Grasses and shrubs are prevalent and create ladder fuels for fire to climb up and from one type of vegetation to another, and then into the crown of Ponderosa Pine trees.

Mixed-Conifer: This is a complex forest with a complex fire regime. It has dry and wet extremes. The cool moist mixed-conifer forest historically burned every 35 to 100+ years. Research suggests that suppression of fire has resulted in an increase of white fir in the understory, increasing the ability of fires to spread and intensify.

Montezuma County Community Wildfire Protection Plan (CWPP)

Spruce-Fir: This forest zone is located at higher elevations. Because of the cool, moist conditions, large fires do not occur frequently (every 200+ years). Fires that start generally remain small due to cooler temperatures, moist soil and greener vegetation. However, intense fires in the tree crowns may result. This fire regime has been impacted the least by human influences, but it is not completely unaffected.

Sagebrush and Grasslands: Sagebrush and grasslands are located primarily in the lower elevations of the County and often grow in association with pinion/ juniper stands. These plant communities often include saltbush and creosote bush in addition to a wide range of native grasses. In most of these sage communities fire occurrence has been altered by fire suppression and livestock grazing. Historically fires within these communities may have been infrequent due to the limited fuels. However the introduction of cheat grass has effectively increased fuel loads and the susceptibility of these communities. Furthermore fires in sage communities allow cheat grass to invade more readily.

Agricultural: Agricultural cover can vary greatly year to year depending on the farming practices being used. The northern and western regions of Montezuma County rely heavily on “dry-land” farming practices. The risk of wildland fire on these crop lands is more pronounced. Winter wheat, beans and sunflowers make up the majority of the dry land crops. Wheat in particular will readily carry fire when it is dry and ready for harvest. Wheat harvest typically occurs in July during the height of the summer fire season. Most other dry-land crops also dry in the field before harvest which elevates the wildfire risk.

FIRE BEHAVIOR BASICS

Because fire is a natural part of the forest ecosystem in southwest Colorado, it will always be a threat to homes built in the wild land urban interface where homes meet the forest. Understanding fire behavior will help owners determine the best course of action when creating defensible space. Defensible space provides room for firefighters to do their job should wildfire threaten your home. It also improves the chances of your home surviving.

Heat, Oxygen, Fuel

Fire needs heat, oxygen and fuel to burn. Take one of those elements away and the fire can't burn. Firefighters concentrate on removing fuels by creating fire lines and fuel breaks, and removing oxygen and heat with water and fire retardant. Homeowners can help by removing fuel around their home and creating defensible space long before a wildfire threatens.

Fire behavior is determined by three main factors;

- 1.) Weather
- 2.) Topography
- 3.) Fuels

Montezuma County Community Wildfire Protection Plan (CWPP)

The weather is out of our control and cannot be modified. Topography can only be modified on a very limited basis, but we can be aware of the opportunities and risks presented by the topography and take advantage of our knowledge and awareness by building in sensible locations and by designing developments with wildfire in mind. Fuels are the one factor that can be modified to manage our wildfire risks.

Fuels: Fuels, or burnable vegetation are arranged horizontally and vertically and come in several forms; trees, shrubs, and grasses.

Vegetation that grows in horizontal and vertical arrangements (for example, trees and brush next to each other) are the most hazardous, particularly when they occur on slopes. Heavy fuels, such as brush and trees, produce a more intense and longer lasting fire than light fuels, such as grass. Breaking the chain of continuous fuels or vegetation, up to and around a home can serve as a fuel break, slowing a fire and bringing it to the ground where firefighters can stop it. In some cases defensible space alone can deter fire even if firefighters are not present.

Topography: Topography, or the lay of the land, plays an important role in fire behavior. Homes situated on hillsides, in canyons, and on ridge tops are particularly vulnerable. Fire travels faster uphill and afternoon winds travel upslope as hot air rises, pushing fire even faster. Homes built in steep terrain need larger areas of defensible space, particularly on the down-hill side. Aspect, or the direction the slope faces is also a factor. South-facing slopes tend to be hotter and drier, north-facing slopes cooler and wetter.

Weather: Weather elements that determine fire behavior are relative humidity (RH), temperature, and wind. Low (RH) and high temperatures decrease the amount of moisture in the vegetation and increase the chances of a fire starting. Once a fire is started, wind can push it making it grow quickly out of control before firefighters can arrive on the scene. When developing defensible space, determine the predominate wind direction in the area and factor it into your plans.

FOREST CHANGE

In addition to over 100 years of human impacts, our forests are now facing changing climatic conditions. While the cause of the apparent climatic change may be debated it is a fact that summers and winters both have been, on average, warmer and drier recently.

These climatic changes have included a prolonged drought which have also spawned a series of pine beetle infestations, and Sudden Aspen Declines (SAD). These two events have lead to landscape scale tree die-offs in Colorado forests. And experts believe that they are clearly tied to the changing climate and the prolonged drought of the 2000's in particular.

Montezuma County Community Wildfire Protection Plan (CWPP)

Pine beetles and other maladies have always been a part of the forest ecosystem; however, the effects of the prolonged drought have weakened trees and increased beetle populations. Trees that are stressed from lack of water and nutrients have a much more difficult time fighting off insects or diseases. In addition the moisture content in the vegetation decreases under such conditions and creates a situation where wildfire risk is elevated. Dead beetle-killed pinion trees still can be seen across thousands of acres of land in Montezuma County and across all of southwest Colorado. In many cases pinion mortality was nearly 90% across the County, and many of those dead stands of trees were over-populated due to fire past suppression creating increased fire danger.

Various species of trees have been colonized by beetles in southwest Colorado. The effects on pinion, and ponderosa pine are visually very evident when traveling through the region. More recently beetles have been attacking spruce trees in the higher elevations.

Though the *Ips* beetle epidemic in the pinion forest has now subsided it is important to remember that beetles are always present and managing our forest resources for overall health is one of the best protections against wildfire that can be advocated.

Foot Notes: San Juan Public Lands, the San Juan Mountains Association & Firewise SW Colorado 2006

Montezuma County Community Wildfire Protection Plan (CWPP)

COLLABORATIVE PROCESS

This CWPP is being revised in accordance with Colorado Senate Bill 09-001 as an update to the 2005 Community Wildfire Protection Plan (CWPP), and an effort has been made to involve a wide array of professionals, public, and firefighting personnel,

This plan builds upon what was started as a broad collaborative community effort with the initial Community Fire Plan in 2002. The specific steps taken include:

Collaborative work prior to 2011;

- 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: pinion beetle epidemic and 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 a 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.
- Published a Xeriscape Landscaping Guide which included defensible space strategies and fire-resistant landscaping information and suggestions.

Broad collaborative input is critical for the success of this CWPP. This CWPP update will analyze and include new direction from federal land management agencies and the Colorado State Forest Service as well as the implementation of mitigation measures, public education improvements, and efforts to secure identified equipment needs.

Collaboration during the 2011 CWPP update;

- Met with the Board of County Commissioners to secure authorization and support for the for the current (CWPP) update.
- Posted notification in the Local Newspaper regarding the proposed CWPP update and allowed a 45 day public comment period.

Montezuma County Community Wildfire Protection Plan (CWPP)

- Met with the Local Fire Warden (Montezuma County Sheriff), Local Fire Protection Districts, the Montezuma County Emergency Management Officer and representatives from the US Forest Service (USFS), Bureau of Land Management (BLM), Mesa Verde National Park (USNPS), the Bureau of Indian Affairs (BIA), FireWise of Southwest Colorado and the Colorado State Forest Service to garner support and seek input for the CWPP update.
- Hosted a series of five community meetings to review and update goals, request input on values at risk, and document ideas and strategies to protect health property and welfare of Montezuma County's citizens and guests.
- Conducted a new community risk analysis using approved analysis methodology (FLAM MAP) and the best new data available including information garnered through public and professional input.
- Reviewed Draft Plan with fire professionals including; the Local Fire Warden (Montezuma County Sheriff), Local Fire Protection Districts, the Montezuma County Emergency Management Officer and representatives from the US Forest Service (USFS), Bureau of Land Management (BLM), Mesa Verde National Park (USNPS), the Bureau of Indian Affairs (BIA), and the Colorado State Forest Service for input and guidance.

COMMUNITY OUTREACH

A transparent public process is a key component of this CWPP. In an effort to engage the public, each Fire Protection District in Montezuma County hosted a community meeting designed to provide outreach to the citizens living in their district. These meetings were intended to provide an opportunity for citizens and firefighters to meet each other, ask questions, circulate information and garner input from the citizen perspective. The meetings were also an opportunity for the Montezuma County Chapter of FireWise to participate and continue community outreach.

Five meetings were held in all, and representatives from federal and State land management agencies also participated in some of the meetings. However, some of the State and federal representatives were detailed out on fire assignments during the scheduled meetings, so a special effort was made to visit with those representatives who could not attend to make sure their input would also be included.

The community meeting format provided citizens with a brief update on the current wildfire situation nationally to broaden perspectives and pique interest in wildland fires on a regional scale. The Montezuma County Chapter of FireWise made contacts with local citizens and provided information on their mission, and the services available to county residents. The Montezuma County Planning Department provided a brief history of past CWPP planning in the County.

Montezuma County Community Wildfire Protection Plan (CWPP)

Community meetings were facilitated for the following purposes:

- Identify the community values to be protected from wildfire
- Review of the 2005 CWPP Goals and Objectives
- Review of the 2005 Community Risk Map
- Identify specific wildfire preparedness recommendations
- Identify potential implementation strategies

VALUES AT RISK

Catastrophic wildfire was generally recognized as a real and likely threat to many values within the wildland-urban interface in Montezuma County. Citizens and professionals were asked to help discuss their concerns for public safety and to help generate a list of values that they felt were potentially at risk within the Wildland-urban interface.

Discussions were also designed to be very broad so that less obvious values could be identified such as values relating to impacts on natural resources, impacts to the local economy, and the burden on the local tax base and basic services.

While stakeholders expressed many concerns regarding the risk of wild-land fire, participants also recognized beneficial role fire plays in the ecosystem including benefits to wildlife, forest and range land health. Participants were also notably knowledgeable and concerned about the threats to local watersheds.

The following values were identified as being at risk in Montezuma County;

Lives: firefighters and the public but also livestock and pets

Private & Public Property: homes, businesses, public buildings

Public Health: air quality, water quality

Critical Infrastructure: emergency services, hospitals, electric transmission, pipelines, irrigation ditches, compressor stations, well pads, roads etc.

Ecosystem: watershed protection, wildlife, stable plant communities

Local and Regional Economies: tourism, timber, grazing, mineral production, hunting & fishing

Natural and Cultural Amenities: views, historic structures, pre-historic structures and artifacts

Local tax base & basic services: risk to property values, prohibitive costs associated with fighting wildfires, drain on community resources

Montezuma County Community Wildfire Protection Plan (CWPP)

Because all data required to produce a comprehensive inventory of all values at risk is incomplete. The best available data sources have been used to provide an analysis of the values at risk.

The recommendations embedded within this plan were developed with collaborative input and specifically to protect the values identified. New ideas and recommendations may surface at any time and will be incorporated into future plan updates.

PUBLIC AND PROFESSIONAL REVIEW OF 2005 CWPP GOALS AND STRATEGIES

Public and professional collaboration in 2005 yielded five overarching goals that were included in the 2005 CWPP. As a part of the current collaborative process, these goals were publicly reviewed to validate their significance, and to seek direction in clarification and refinement.

Participants in the collaborative process generally verified that the goals stated in the 2005 CWPP were adequate and appropriate to protect the values that were identified to be at risk. Participants were given opportunity to provide input on ways to clarify the 2005 goals.

While no new goals were surfaced through the collaborative process, the 2005 goals were reviewed and analyzed to avoid overlap and to make them as concise as possible.

The goals for this CWPP include;

- 1.) PROTECTION OF THE LIVES OF RESIDENTS AND EMERGENCY PERSONELL.**
- 2.) PROTECTION OF PROPERTY, AND CRITICAL INFRASTRUCTURE IN THE WILD LAND-URBAN INTERFACE.**
- 3.) PROTECT KEY ENVIRONMENTAL VALUES AND QUALITY OF LIFE.**

Montezuma County Community Wildfire Protection Plan (CWPP)

PAST CWPP ACCOMPLISHMENTS

Over the past nine years, Montezuma County stakeholders have all continued to be very proactive in working towards the goals identified in the collaborative process. Each respective stakeholder has had to overcome many challenges and obstacles blocking the path toward each goal. Yet steady, and often remarkable, progress has been made.

The 2005 CWPP identified five goals and each goal was accompanied by several strategies. Many of the strategies listed have been in play since the plan was written. For unincorporated private lands some of the significant accomplishments include:

- **Accomplishment:** Montezuma County began recruitment of neighborhood FireWise ambassadors in 2005. Since that time several ambassadors have been recruited and have actively promoted FireWise principals in their communities. In 2009, FireWise established a Chapter in Montezuma County and hired a part-time coordinator to help organize educational efforts within the community.
- **Accomplishment:** Subdivision-level CWPPs have been created for two Montezuma County subdivisions, Elk Stream Ranch and Cedar Mesa Ranches.
- **Accomplishments:** The Montezuma County Planning Department keeps a list of contractors and consultants who assist developers and private landowners in developing CWPPS, Fuels Mitigation Plans, and implementing fuels reduction projects on new and existing subdivisions. Many of these contractors and consultants have completed project work in Montezuma County.
- **Accomplishment:** Fire Protection Districts created a Wildfire Prevention and Education Specialist position to provide community out reach and mitigation consulting. This position has been filled annually since 2002 and has provided extensive educational outreach to the community.
- **Accomplishments:** The Southwest Colorado Fires website www.southwestcoloradofires.org is maintained by the Office of Community Services at Fort Lewis College to provide information on County CWPPS, wildfire preparedness, contractor and consulting resources, ways to reduce structural ignitability, WUI and Communities at Risk.

Montezuma County Community Wildfire Protection Plan (CWPP)

- **Accomplishments:** In 2007 Montezuma County revised its land use code to require Fuel Mitigation Plans and implementation for all new subdivisions.

COMMUNITY RISK ANALYSIS

A Community Risk Analysis was completed to assist with the definition of Wildland –urban Interface (WUI) boundaries and to interpret and analyze the initial findings from the 2005 Community Risk Analysis. (The complete risk analysis can be found in Appendix XXX)

The current Community Risk Analysis utilizes the most up-to-date data and methodology available, in an effort to make the analysis as scientifically structured as possible. The primary tools used for the analysis were ArcGIS 10, the Landfire Data Access Tool (LFDAT) extension, Fire Family Plus and FlamMap 3. ArcGIS 10 is the de facto standard for GIS professionals universally. Fire Family Plus is a tool for analyzing multiple factors influencing fire behavior including historical climatology data. FlamMap uses a standardized set of spatial inputs and provides fire behavior predictions based on a given set of weather inputs, usually a scenario that utilizes the kind of weather where fire warnings would be issued, i.e., dry conditions and windy. The LFDAT is an extension to ArcGIS that aids in downloading, unzipping and assembling the Landfire datasets for use in FlamMap.

DATA

The data for the analysis was obtained from the Landfire website (www.landfire.gov). Landfire data products are designed to facilitate national- and regional-level strategic planning and reporting of management activities. Data products are created at a 30-meter grid spatial resolution raster data set.

The principal purposes of the data products are:

- Provide national-level, landscape-scale, geospatial products to support fire and fuels management planning
- Provide consistent fuels data to support fire planning, analysis, and budgeting to evaluate fire management alternatives
- Provide landscape-scale, cross-boundary strategic products for fire and land management activities
- Supplement planning and management activities, including monitoring, that require consistent vegetation data
- Supplement strategic and tactical planning for fire operations utilizing the LFDAT. The data was obtained from Landfire and then unzipped and assembled by the LFDAT. Specific Landfire datasets utilized were:

1. Elevation
2. Slope
3. Aspect
4. Canopy Cover
5. Stand Height
6. Canopy Base Height
7. Canopy Bulk Density

Montezuma County Community Wildfire Protection Plan (CWPP)

FINDINGS

The Community Risk Analysis verified that the analysis completed in 2005 was valid and accurate for the methodology used at the time. Both analyses are risk-based analysis with the 2005 analysis being a more intuitive based analysis relying on ground knowledge, input from fire professionals and visual examination of aerial imagery and topographic maps. The 2005 analysis was used to define communities and rank those communities as areas of high, medium or low risk.

The newly completed analysis did not surface glaring omissions nor did it identify any discrepancies from the 2005 analysis. This verifies that the 2005 the analysis correctly identified the key communities at risk within the County.

Key stakeholders reviewing the new analysis felt that the community boundaries identified in the 2005 analysis were correct will remain unchanged but the new analysis provides a more detailed view of the range of risks within each community. The new analysis also adds an additional risk level. The current risk map categories are Extreme, High, Moderate and Low and reflect the ground conditions more truly than the previous map that portrayed blanketed risk levels.

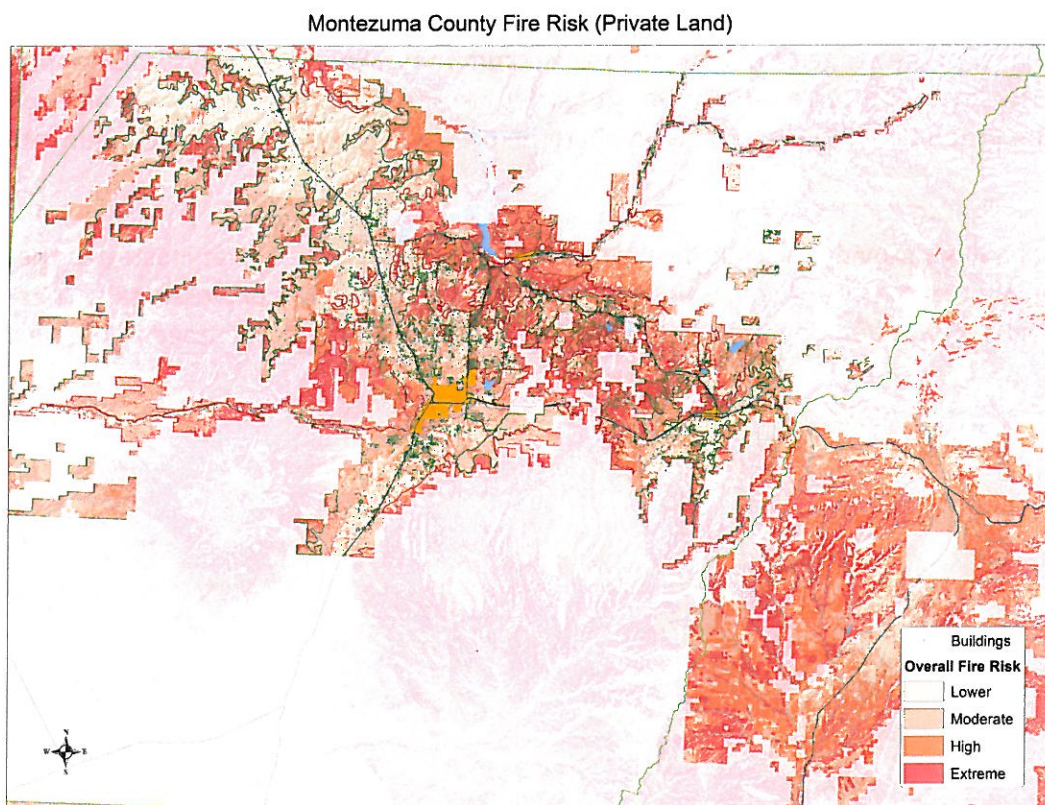
The new analysis provides a scientifically based classification system that illustrates the overall risk that Montezuma County faces and validates the input from fire professionals. These findings are essential in defining the Wildland-urban Interface which is discussed in the next chapter.

Montezuma County Community Wildfire Protection Plan (CWPP)

MONTEZUMA COUNTY WILDLAND-URBAN INTERFACE (WUI)

Montezuma County is peppered with developed parcels in heavily vegetated fire-prone areas (Intermix Communities), and along the boundaries of federal or State lands (Interface Communities). Many other developed parcels are scattered across dry-land farms, or mixed crop lands which may carry a lower level of risk but may be adjacent to heavily vegetated federal lands or include heavily vegetated ravines, or isolated stands of forest.

All areas of rural Montezuma County are at some level of risk from wildfire. Therefore Montezuma County defines its WUI as; *“all unincorporated lands within the County.”* The Montezuma County WUI identifies four levels of risk within the WUI.



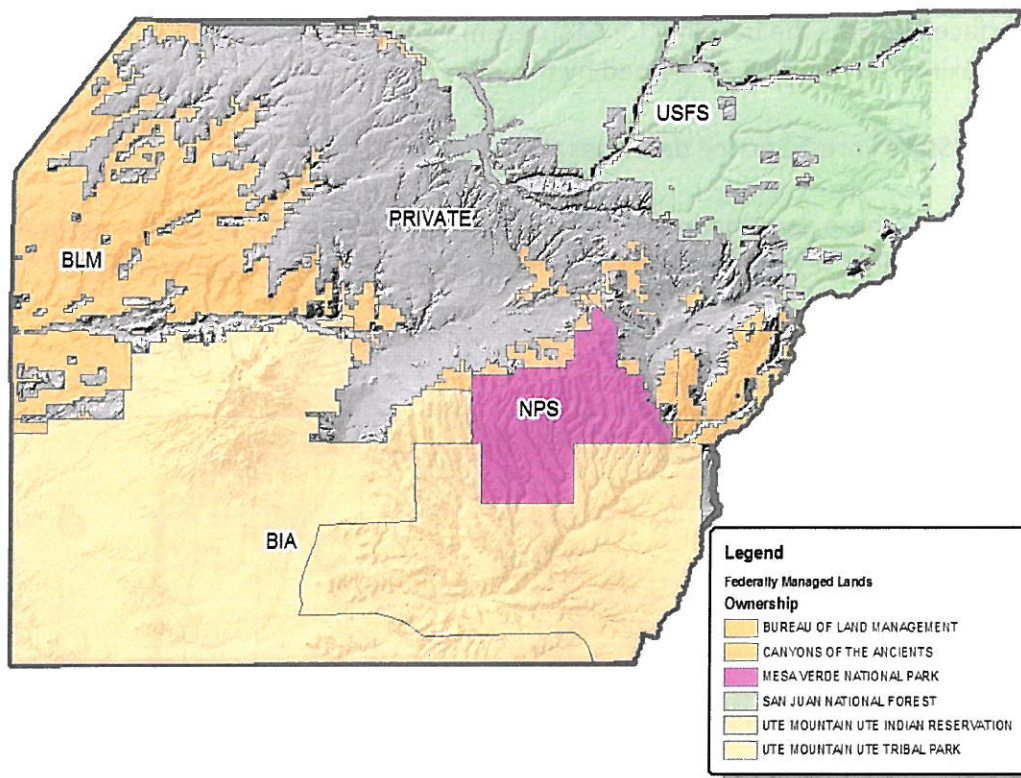
The 2005 Montezuma County CWPP also identified the WUI as *“all un-incorporated lands within the county.”* This definition was based in part on the default definition in HFRA, in part from the input from stakeholders, and in part due to the geographic positioning of unincorporated lands in the County.

Stakeholder input during the collaborative process of this update (2011) has validated the position that *“all un-incorporated lands within the County are WUI”*.

Montezuma County Community Wildfire Protection Plan (CWPP)

Federal and State lands make up over 70% of Montezuma County's land base. Private lands in Montezuma County make up only 30% of the total County land base. Private lands are geographically situated in between large expanses of federally managed wildlands that would pose a real and significant risk to developments located adjacent to their boundaries.

Federally Managed Lands in Montezuma County



Most of the growth in Montezuma County and many other rural southwest Colorado counties occurs in the unincorporated areas, often adjacent to federal lands where the rural character, natural vegetation and topography provides an alluring setting for transplants seeking refuge from urban environments. Many of these developments are remote, hard to access, and lack adequate water for fire suppression. The picture at the right is a good example of the type of development happening in these areas.



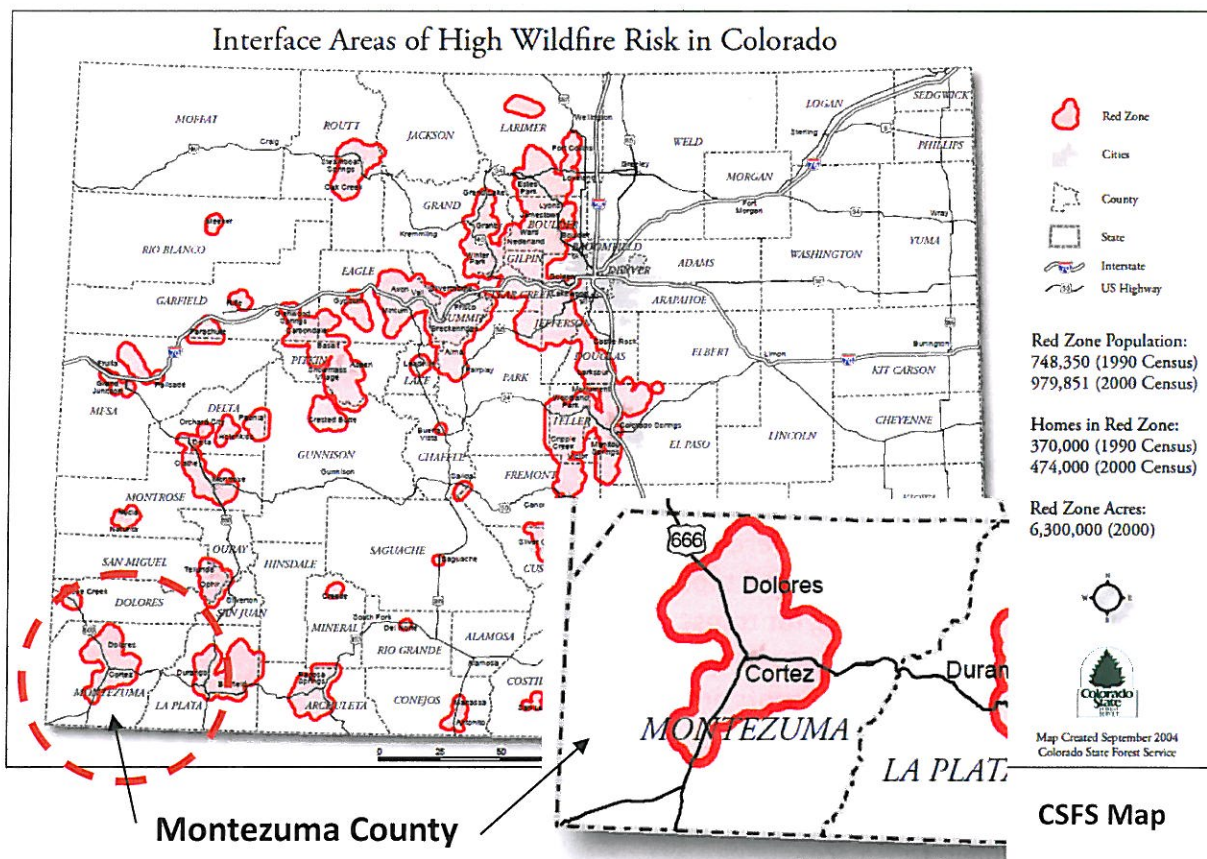
Montezuma County Community Wildfire Protection Plan (CWPP)

The adjacency to federally managed lands is an important factor in the identification of Montezuma County's WUI. While the definition of WUI varies somewhat agency by agency, Colorado *Senate Bill 09-001* allows local County governments to define and identify their own WUI so that it fits each county's unique situation.

In 2004, the Colorado State Forest Service prepared an analysis of "Interface areas of High Wildfire Risk" (*below*) to assist communities in identifying wildland-urban interface (WUI) areas. This coarse-scale analysis identifies much of Montezuma County as "High Risk" wildland-urban interface and sets the baseline for Montezuma County's hazard analysis as it very closely approximated the WUI as defined by this plan.

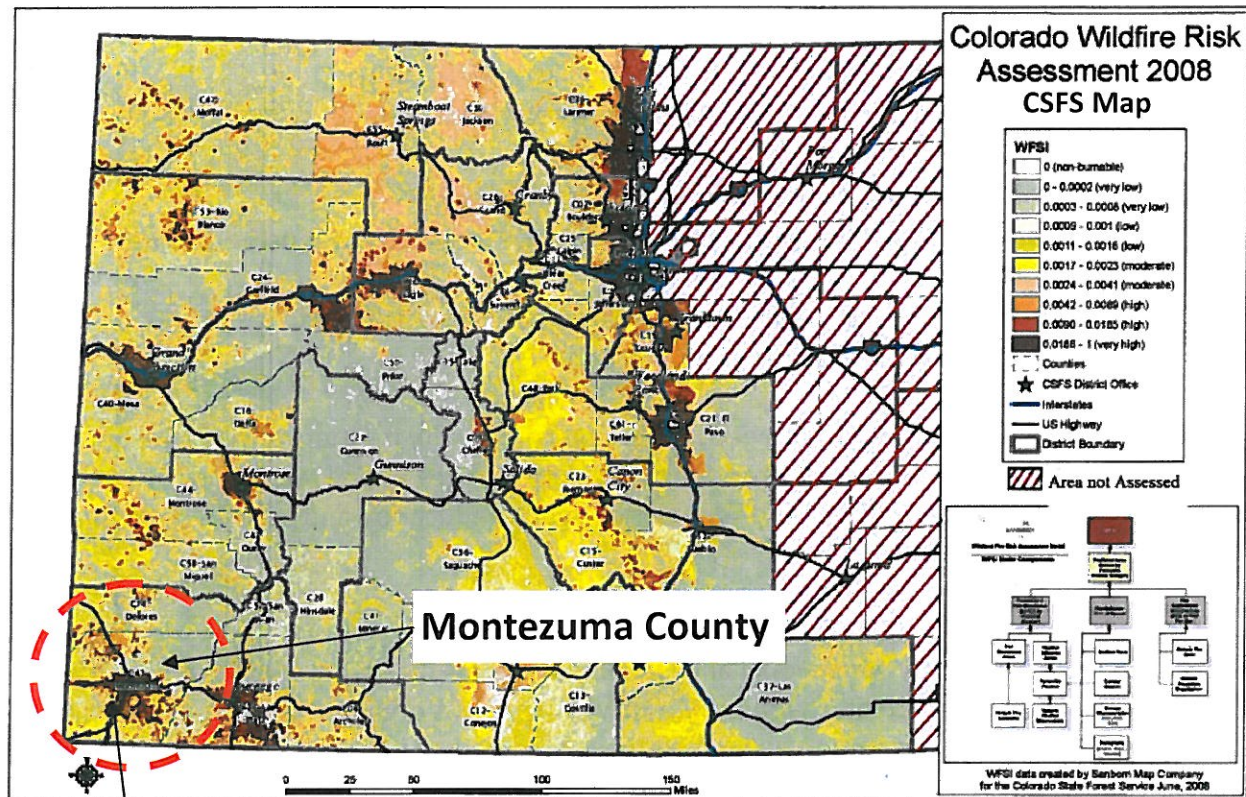
The Colorado State Forest Service describes the (WUI) as:

"any area where man-made improvements are built close to, or within, natural terrain and flammable vegetation, and where high potential for wildland fire exists."

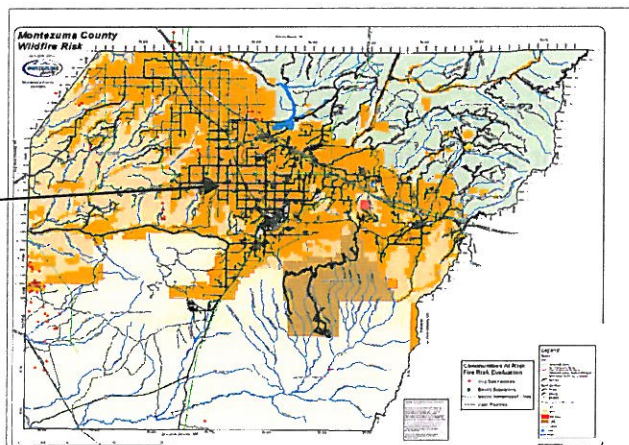


Montezuma County Community Wildfire Protection Plan (CWPP)

In 2008, The Colorado State Forest Service prepared yet another updated version of the Wildfire Risk Assessment. The 2008 map (*below*) validates the 2004 map. Clearly, the CSFS considers Montezuma County to be a community at risk. Again the independent Colorado State Forest Service analysis seems to correlate the high risk areas very well with the Montezuma County definition of WUI, offering a further validation.



The areas identified as high risk on the 2008 CSU map clearly conform very well with the private lands within the county as seen in this illustration.



2005 (WUI) Indicated by orange

COMMUNITY PREPAREDNESS TO RESPOND TO WILD LAND FIRE

There are a number of resources and entities involved in fire management in Montezuma County including:

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

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, fire suppression, public education and accessing resources such as equipment, grants, and training.

THE COLORADO STATE FOREST SERVICE (CSFS)

The CSFS mainly supports educational and training programs that promote forest health, effective readiness, response and suppression of wildfires. This organization's greatest emphasis is on forest health, prevention and mitigation to lessen the chances of catastrophic wildfires on state and private lands in Colorado. The CSFS also administers several grant programs that are designed to assist private landowners or local governments with fuels reduction projects.

The CSFS activities include:

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

Montezuma County Community Wildfire Protection Plan (CWPP)

FIRE SUPPRESSION ON UTE MOUNTAIN UTE TRIBAL LANDS

The Bureau of Indian Affairs (BIA) provides wildland fire protection on Ute Mountain Ute Nation lands as well as coordinated fire suppression in interface areas between Ute Mountain Ute lands and other jurisdictions.

The community of Towaoc also has a paid Fire Protection District (FPD). The Towaoc FPD provides suppression services to the community of Towaoc mainly with structural fires, it but also assists BIA with wildland fire suppression wherever needed on Tribal lands. The Towaoc FPD also provides coordinated fire suppression and emergency response in interface areas between Ute Mountain Ute lands and other jurisdictions.

The BIA conducts prescribed fire and other fuel treatments on land within its jurisdiction.

FIRE SUPPRESSION ON NATIONAL FOREST/ BLM LANDS

The Dolores District of the San Juan Forest /Bureau of Land Management provides wildfire management on US Forest Service and BLM lands, including Canyons of the Ancients National Monument. (The National Park Service provides wildfire management at Mesa Verde National Park. The Bureau of Indian Affairs (BIA) provides wildfire management on the Ute Mountain Ute Indian Reservation.)

Although there is some annual fluctuation in available resources within the federal agencies they always have resources on hand to manage, monitor or suppress wildfire starts within their locality. If local resources are not sufficient to manage wildfire starts, then additional resources may be requested through the Durango Interagency Dispatch Center.

During the summer “severity resources” are often brought in to supplement locally stationed resources. The 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, may be assigned to fires across the country. This is the same for the two type III initial attack helicopters located at Ute Mountain and at Mesa Verde, as well as the type II helicopter pre-positioned at Ft. Lewis.

There is good coordination between federal agencies and local resources. Mutual aid response is adequate and detailed out when conditions or available resources dictate.

The Dolores District conducts prescribed fire and other fuel treatments on approximately 2,500 to 3,000 acres of National Forest land and 500 acres of BLM land per year.

Montezuma County Community Wildfire Protection Plan (CWPP)

FIRE SUPPRESSION ON NATIONAL PARK SERVICE LANDS

The National Park Service provides wildfire management at Mesa Verde National Park. The National Park Service conducts prescribe fire and other fuel treatments on land within its jurisdiction.

FIRE SUPPRESSION ON STATE AND PRIVATE LANDS

Fire protection is provided by the five Montezuma County fire districts including: Lewis Arriola, Pleasant View, Cortez, Dolores, and Mancos.

The Pleasant View Fire Protection District extends northward into a relatively small rural area of neighboring Dolores County. Likewise the Dolores Fire Protection District provides service to the “Ground Hog” area of Dolores County which is not covered by a Fire Protection District. Each Montezuma County Fire Protection District is equipped with at least one brush truck and a variety of other equipment which enable them to provide suppression for wild-land fires within their district.

Mutual-aid between Fire Protections Districts as well as for federally managed lands is well coordinated and used effectively when the situation dictates.

THE DURANGO INTERAGENCY FIRE DISPATCH CENTER

The 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. This is a sub-geographical coordination center with direct links to the Rocky Mountain Geographic Coordination Center (Denver) and the National Inter-agency Coordination Center (Boise, Idaho)

AIR SUPPORT

An air tanker base is located in La Plata County at the airport, and the Mesa Verde Heli-tack base has been located at the Old Fort Lewis in Hesperus. Both have greatly improved local firefighting capabilities. Additional air support can be tapped into from other areas if it is available.

OTHER ORGANIZATIONS

The FireWise Council of Southwest Colorado interfaces between fire management entities and private landowners to increase community readiness for wildfire. The FireWise Council is a grass-roots organization with a part-time chapter coordinator working part time in Montezuma County to coordinate education outreach, wildfire planning, and mitigation support throughout the county.

Montezuma County Community Wildfire Protection Plan (CWPP)

EDUCATION MATERIALS

A wide variety of educational materials designed to educate private landowners on how to prepare for wildfire have been prepared and are disseminated by the Montezuma County Planning Department, the Montezuma County FireWise Chapter, the USFS & BLM, the Colorado State Forest Service, and local Fire Protection Districts.

FIRE PROTECTION DISTRICT CAPACITY

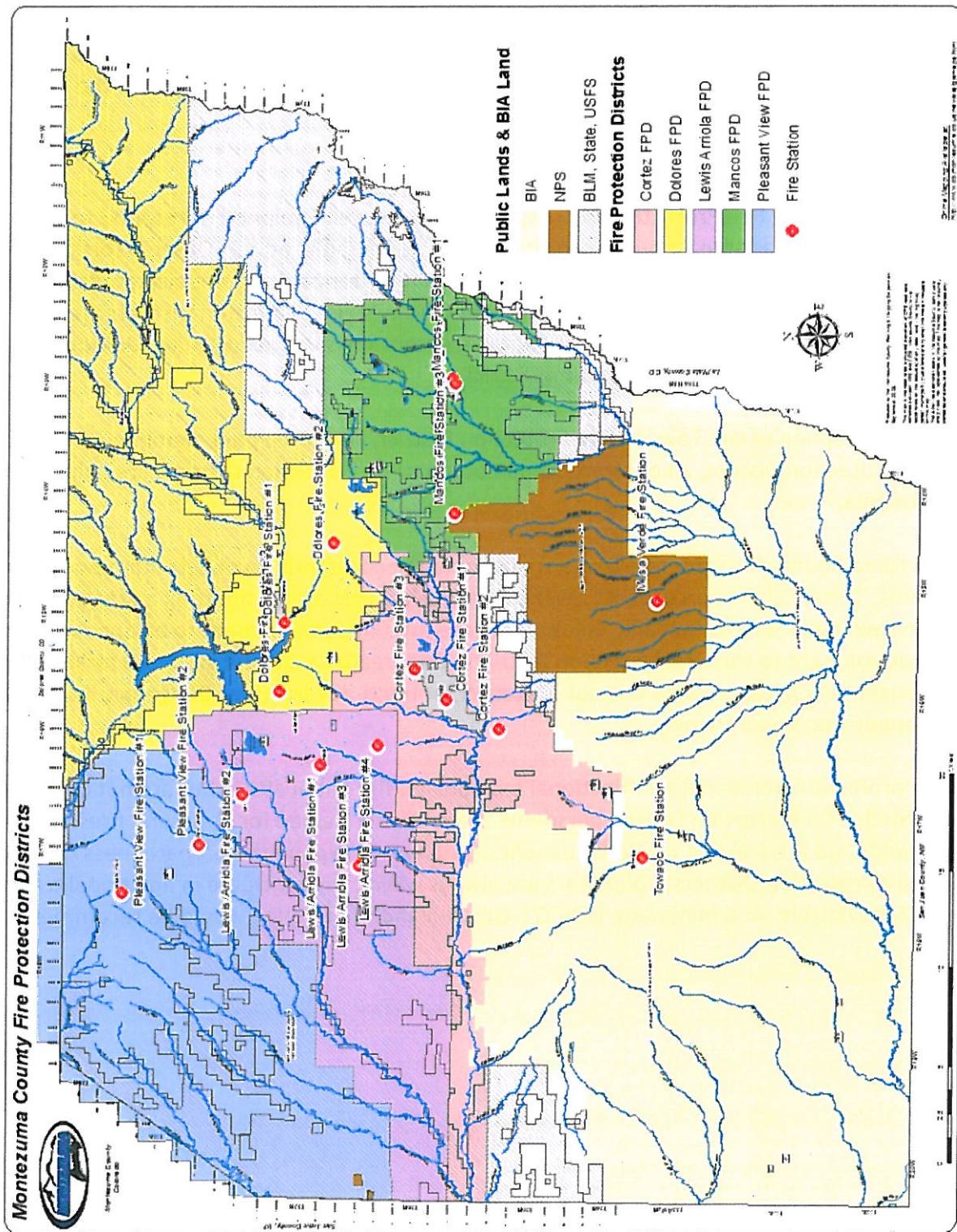
Montezuma County Fire Protection Districts are generally well equipped to respond to wildland fires. Each district has at least one brush truck available for initial attack. Other assorted equipment such as protective clothing, hand tools, ATV's and water bladders are also available. In short, the equipment needs for all of Montezuma County's Fire Protection Districts are reasonably well met for the time being. One notable exception is the need for an additional water tender for the Dolores Fire Protection District.

With the exception of the Towaoc Fire Protection District, and three paid members of the Cortez Fire Protection District, all of Montezuma County's Fire Protection Districts are volunteer departments.

Montezuma County firefighters are well trained and are constantly involved with new training programs. The collaboration process revealed that volunteers are committing a great deal of time to training as well as for calls. Volunteers have full-time employment to balance with their commitment to the Fire Protection Districts. This creates a difficult situation for fitting in additional training, especially if it is out of District, or multi-day training. Budgetary limitations also impede additional training.

All fire protection personnel are functional for wildland fire initial attack but are not uniformly red carded. Fire Protection District personnel are primarily trained for structural fires. Additional wild-land fire training would be beneficial and would expand the preparedness capacity of all Fire Protection Districts. Volunteers are always willing to participate in additional training when it is available. At a minimum, NWCG basic wildland fire training would be recommended.

Montezuma County Community Wildfire Protection Plan (CWPP)



Montezuma County Community Wildfire Protection Plan (CWPP)

WATER SUPPLIES

Water supplies for fire flow in unincorporated areas of Montezuma County cannot be guaranteed. Many subdivisions throughout the county have municipal fire hydrants that are either not functional or do not provide enough flow to support fire suppression. In the past there have been instances where water lines have collapsed when fire flow is drafted out of them. In other instances drafting has caused serious interruptions to downstream water supply to water supply creating difficult situations for Montezuma Water Company to handle. Drafting can also potentially create a backflow contamination situation for the entire water system which could potentially create a health threat for hundreds or even thousands of residents. To avoid these potential problems water supplies are often augmented from the Dolores River, areas lakes, pond or irrigation ditches. All Fire Protection Districts need water tenders to provide additional initial attack capacity. Needs for this apparatus should be monitored and replacements or additions should be sought when need arises.

To further compound the water supply problem is the fact that many county residents must haul water into cisterns for their domestic use. County subdivisions can still be approved without access to municipal water systems or to wells. This lack of dependable water supply sources is a significant factor in determining the level of risk for communities as well as for identifying the WUI. Any opportunity to upgrade existing supply infrastructure to accommodate fire flows should be examined and capitalized on if possible.

Montezuma County is fortunate in the sense that it is still primarily a rural agricultural county with an extensive irrigation water delivery system in place even on federal lands. Irrigation canals & stock ponds can often be used to supplement water supply and many such features are found throughout the county.

The County also has four main river systems and many minor tributaries that retain perennial water flow. Water flow in some of these streams is supplemented by return flows from irrigation. There are also several lakes within the county that can be used to draft water from.

WILDFIRE PREPAREDNESS RECOMMENDATIONS

SECTION 1

RECOMMENDATIONS FOR REDUCING STRUCTURAL IGNITABILITY

Wildland fires typically ignite homes in two ways;

1.) Direct flame heating

2.) Firebrand ignition

Keeping these two factors in mind will help homeowners plan to lessen the ignitability of their home and increase the chances of their home, and themselves, surviving if a fire does occur. There are four principal considerations that can be addressed to help prepare homeowners for wildfire events.

1.) MASTER PLANNING

Pre-construction planning and design can often play a significant role in increasing a home or subdivision's resistance to wildfire. Understanding and accepting that fire is a natural occurrence in the landscape can help from the beginning design stages through the final build-out. Careful design will result in communities that are attractive, livable and ultimately more valuable because they are more compatible with their natural environment which includes wildfire.

Appropriate planning includes community infrastructure considerations, site preparation, home design and layout, fire resistant building materials, landscaping layout and materials, and long-range maintenance activities. All of these planning elements are applied with the risk of wildfire in mind.

For more comprehensive information visit the Firewise website at www.firewise.org for a free download of the publication entitled *Safer from the Start*. This publication is also accompanied by a free video.

Chapter 5 Section 5103.1 (G.) of the Montezuma County Land Use Code also provides developers with the minimum standards required by the County for Subdivisions or High Impact Permits. A copy of the Montezuma County Land Use Code can be obtained from the Montezuma County website at www.co.montezuma.co.us

Montezuma County Community Wildfire Protection Plan (CWPP)

2.) FIRE SAFE CONSTRUCTION MATERIALS AND TECHNIQUES

After carefully designing a development, it is important to follow through with the appropriate building materials and techniques. Proper selection of materials for roofing, siding, and windows can significantly improve a structures resistance to fire. In addition attention must be paid to areas that can catch firebrands such as eaves, vents, and wooden decks.

For more comprehensive information visit the Firewise website at www.firewise.org for a free download of the publication entitled **Be Firewise Around Your Home.**

3.) FIRESAFE LANDSCAPING

Proper landscaping helps to improve the enjoyment and value of a home. Landscaping offers the opportunity to manipulate micro-climates to manage storm water, take advantage of cooling shade or manage solar heat. Landscaping make homes more livable and connects people with the outdoors.

Landscaping is an essential element of home ownership and special attention to proper planning will ensure a successful landscape while managing risks associated with wildfires. Homeowners typically landscape their properties with a variety of plants to provide variation in color, texture and foliage. Homeowners in fire-prone areas should make sure that the plants and landscaping materials they use are fire resistant. A fire-safe landscape shows off plants and other garden elements by leaving space between plants and groups of plants.

For more comprehensive information visit the Firewise website at www.firewise.org for a freed down-load of the publication entitled **Firewise Guide to Landscape and Construction**

4.) DEFENSIBLE SPACE

This is often the last step in the construction process but next to fire-resistant roofing materials, it is probably the best preventive measure a homeowner can take. Thinning out vegetation and removing combustible materials around homes is the most important step in creating defensible space Not only does this improve the chances of your home surviving a wildfire, but it is also the best thing that can be done to help keep firefighters safe and give them a chance to protect your property.

The Colorado State Forest Service offers the following advice on creating defensible space;

“Defensible space is an area around a structure where fuels and vegetation are treated, cleared or reduced to slow the spread of wildfire toward the structure. It also reduces the chance of a structure fire moving from the building to the surrounding forest. Defensible space also provides room for firefighters to do their jobs. Your house is more likely to withstand a wildfire if grasses, brush, trees and other common forest fuels are managed to reduce a fire’s intensity.” CSFS

Montezuma County Community Wildfire Protection Plan (CWPP)

For more comprehensive information visit the Colorado State Forest Service website at csfs.colostate.edu for a free download of the publication entitled;

Creating Wildfire-Defensible Zones no. 6.302

The Fire Safe Council at www.firesafecouncil.org also has a free download of the very popular and informative publication entitled Living with Fire.

ADDITIONAL INFORMATIONAL RESOURCES

- All of the publications previously mentioned can be downloaded from the Montezuma County website at www.co.montezuma.co.us
- The Office of Community Services at Fort Lewis College also maintains a website entitled Southwest Colorado Fire Information Clearinghouse at: www.southwestcoloradofires.org
- The Colorado State Forest Service
 - Kent Grant - District Forester
 - Durango District Office
 - FLC 7233
 - 1000 Rim Drive
 - Fort Lewis College Campus
 - Durango, CO 81301-3908
 - (970) 247-5250
 - FAX (970) 247-5252
 - csfsdugo@lamar.colostate.edu

Montezuma County Community Wildfire Protection Plan (CWPP)

GETTING THE WORK DONE !

None of the four recommendations to reduce home ignitions will do any good if they are not practiced. Master Planning and community design, fire-safe construction, fire-safe landscaping, and defensible space all can involve a lot of work. Many homeowners may have the knowledge, time, energy and tools to do the job themselves. Others may need to enlist the help of professionals to help get the job done.

The Montezuma County Planning Department keeps a list of contractors and consultants who can do everything from pre-construction design and consulting, to hazardous fuel reduction projects.

For a list of contractors please contact;

Montezuma County Planning Department
Montezuma County Courthouse
109 W. Main Cortez, Colorado.
Rm. 305
Ph: 1-970-565-2801

Or

Montezuma County Federal Lands Program
Montezuma County Courthouse
109 W. Main Cortez, Colorado.
Rm. 304
Ph. 1-970-565-7402

Montezuma County Community Wildfire Protection Plan (CWPP)

2011 CWPP GOALS AND STRATEGIES

From the five goals identified in the 2005 version of this plan, and input from the community and fire entities, the following three goals summarize the intent of the recommendations of this plan.

The goals for this CWPP include:

- 1.) PROTECTION OF THE LIVES OF RESIDENTS AND EMERGENCY PERSONEL.
- 2.) PROTECTION OF PROPERTY, AND CRITICAL INFRASTRUCTURE IN THE WILDLAND-URBAN INTERFACE.
- 3.) PROTECT KEY ENVIRONMENTAL VALUES AND QUALITY OF LIFE.

GENERAL RECOMMENDATIONS FOR FOCUSED STRATEGIES

To reach our stated goals, the collaborative process yielded six focused strategy areas and many specific objectives and actions that support each strategy. Realizing the goals of this CWPP will require a very broad effort that will continue to evolve as new ideas emerge and existing ideas hit obstacles or delays, it is the intent of this plan to support, and pursue as many actions as possible in an ongoing effort to achieve the plan's three overall goals. This plan is not intended to be a "final plan" to sit on a shelf. Rather this document is a living plan that will be revisited and modified many times in the future to keep the plan as viable and energized as possible.

Strategies and actions were gathered from the five community input meetings, fire management entities, the FireWise Council of Southwest Colorado, and the previous version of the Montezuma County CWPP and have been compiled herein by the CWPP Planning Team. Many of the actions will require an ongoing effort to implement. The Planning Team did not intend that all of these actions will take place, but rather intend the following tables to be used like a menu of opportunities for creating a more prepared WUI community. Actions should be pursued as opportunities arise and the action language indicates existing efforts that should be continued and strengthened. The following tables begin with a heading, and general explanation of the intent of the actions, followed by a sequence of objectives (**in red bold**), and specific actions to help meet each objective. High priority actions have been listed first under each objective (**in bold italics**). The tables are divided into six general strategy categories as follow:

- | | | |
|---------------|---------------|-----------------|
| ➤ Education | ➤ Prevention | ➤ Mitigation |
| ➤ Cooperation | ➤ Suppression | ➤ Appropriation |

Montezuma County Community Wildfire Protection Plan (CWPP)

PREVENTION

Montezuma County takes a very proactive approach to preventing human-caused ignitions, which pose a significant risk in Montezuma County. These ignitions can be caused by many different activities including controlled burns of all types, operation of welders or other power equipment, fireworks, smoking and even arson. The Montezuma County Fire Protection Districts, Sheriff's Department (Fire Warden), Federal Land Agencies and the Board of County Commissioners coordinate very effectively to implement fire bans when conditions merit the extra precaution. Burn bans restrict or modify a number of activities that could pose a fire risk. Another piece of preventing wildfire destruction in the WUI is paying special attention to reducing the potential for home ignitions.

Reduce the number and scope of wildfires ignited as controlled burns by residents.

1. *Develop and implement a burn permitting system for the purpose of safely disposing of slash in accordance with Colorado Senate Bill 11-110, beginning in January 2012.*
2. *Consider providing assistance from Fire Protection Districts or qualified professionals to provide oversight and stand-by on controlled burns (when requested).*
3. Widely advertise proper prescribed burning techniques.
4. Develop refrigerator magnets and other advertising with telephone numbers and policy on reporting controlled burns.

Strengthen County Burn Bans.

5. Collaboratively develop protocol for instituting uniform countywide fire restrictions between all fire management entities.
6. Utilize a range of media to advertise fire restrictions and discourage cigarette ignitions.
7. Enforce littering laws for cigarettes butts. Consider a (cigarette) butt busters campaign at the beginning of the wildfire season.

Reduce the number of arson incidents.

8. Work with law enforcement to catch "firebugs."
9. Develop culturally appropriate messages about the use of fire, and a specific education program to implement in coordination with the Ute Mountain Ute Tribe.
10. Promote alternative activities for youth when opportunities arise.

Reduce Structural Ignitability.

11. Encourage appropriate building techniques through incentives and working w/ builders, hardware stores, and plant nurseries to utilize and sell appropriate materials and distribute educational materials.
12. Include detailed analysis of the Home Ignition Zone and structural ignitability in all site assessments.
13. Consider requirements for the use of fire-resistant building materials and landscaping in new construction and landscaping projects.

Montezuma County Community Wildfire Protection Plan (CWPP)

EDUCATION

The coordinated wildfire education program that has been developed in Montezuma County between the Land Mangers, Fire Districts, and the FireWise Council of Southwest Colorado needs to be continued and strengthened. Emphasis needs to be shifted to the education component by all parties involved. Studies indicate that effective education and outreach provides the foundation for accomplishing all other aspects of wildfire preparedness. Education on wildland fire prevention, mitigation, and suppression should have a broad reach in the community, not only providing consistent and appropriate messages for WUI residents and firefighters, but also youth, businesses (mitigation, insurance, real estate, chainsaw, rental), governmental and non-government non-profits (Planning and Zoning, Land Conservancy, Water Conservation Districts). The public outreach at various venues and an active media campaign in 2011 has been a step in the right direction, but future outreach should strive to target high risk areas and the specific extreme risk communities identified by the Fire Protection Districts with community specific messages.

Increase public awareness of the size and scope of wildfire hazards in the Wildland Urban Interface.

1. Inundate the community with educational programs and materials on the fire ecology of the County.
2. Utilize all media outlets to disseminate the Wildfire Risk - Communities of Concern Map.
3. Develop a message that appeals to the sense of community responsibility and independent actions. Include the null alternative.
4. Reach out to existing community groups to provide information and brief wildfire awareness programs.
5. Include wildfire information in County welcome packets.
6. Provide wildfire information, including the benefits of mitigation, and refer residents to FireWise in the County Planning Department.
7. Maintain and widely advertise the FireWise Council and the southwestcoloradofires.org website as a one-stop source for wildfire information.
8. Develop social media outlets to share wildfire messages.

Involve youth in wildfire awareness activities to develop the next generation of wildfire conscious adults.

9. Provide wildfire education opportunities in the primary and secondary schools.(C.E.R.T., Service Learning, clubs)
10. Encourage the school districts and teachers to include fire ecology in the science curriculum.
11. Engage existing youth organizations in fuels mitigation training and projects. (ie. Boy Scouts, SW CO Conservation Corps, Career Pathways)

Montezuma County Community Wildfire Protection Plan (CWPP)

9. Encourage High School aged students to become FireWise Neighborhood Ambassadors as part of their service learning curriculum.

Improve community readiness for wildfires through education on what to do when a fire is here.

13. Get youth to develop their own emergency checklists, plans, and meeting spots for their families.

14. Utilize all available media outlets to promote evacuation kits and disseminate a checklist of what to do before you leave if time allows.

Raise awareness of high and extreme risk areas of the WUI.

15. Display the Wildfire Risk – Communities of Concern Map and WUI wildfire images in public places, on local tv stations, at fairs and expos, in Fire Protection District Stations, and as a layer of the Montezuma County GIS viewer.

16. Consider door-to-door education campaigns in the most extreme risk communities.

Enhance opportunities for adult wildfire education.

17. Work with the Colorado Community College and public land agencies to offer courses to train firefighters and mitigation contractors.

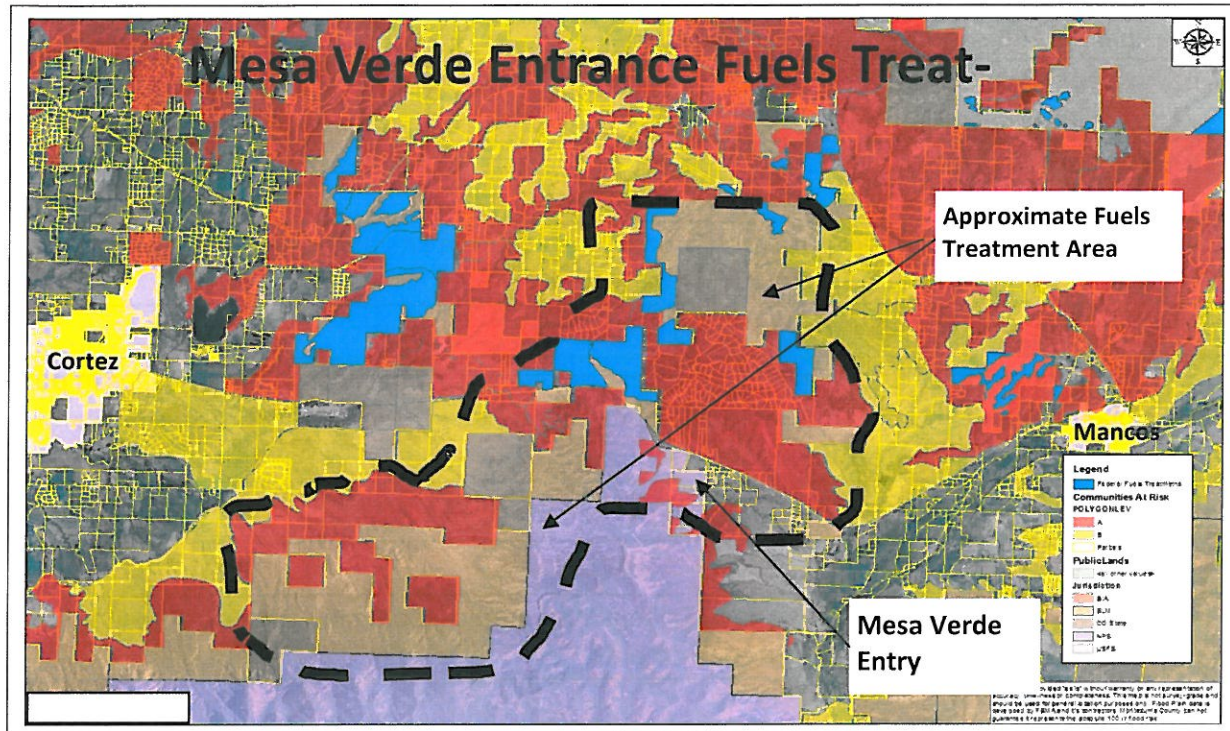
MITIGATION

"Homes ignite and burn during wildfires when the requirements for combustion, a sufficiency of fuel, heat, and oxygen are sustained at one or more places on a home. If homes do not ignite, homes do not burn and if homes do not burn during a wildfire then the WUI fire disaster does not occur. (p. 73, Fourmile Canyon Fire Preliminary Findings, 2011)" Fuel sources can be modified to maintain a healthy forest which is more resistant to fire, insects and diseases. The WUI is predominantly privately owned, and therefore engaging private property and homeowners in mitigation activities, including defensible space development and reducing structural ignitability, are paramount to reducing the risk of catastrophic wildfire losses in the WUI. Professional experience in wildfire behavior and mitigation actions is required to capitalize on fuel reduction efforts.

Implement Landscape Level Fuels Treatment Projects on Public Land Adjacent to Private Land.

- 1. Perform fuels treatment in Mesa Verde Entrance Area (see map next page)**

Montezuma County Community Wildfire Protection Plan (CWPP)



Implement Landscape Level Fuels Treatment Projects on Public Land Adjacent to Private Land. (cont'd)

2. *Identify and create treatment plans for landscape level mitigation projects on public and private lands so that there is a menu of shovel ready projects when funding or crews become available to do work.*
3. *Encourage implementation of subdivision Level Fuels Treatment Plans that have not been acted on as already prescribed projects on private lands. (See appendix)*
4. *Fuels Treatment to develop anchor point and defensible space at the head of Alkali Canyon.*

Montezuma County Community Wildfire Protection Plan (CWPP)

5. <i>Develop and Maintain Defensible Space 200 ft. to hydro-axe project on SW edge of Towaoc.</i>
6. <i>Restart Brush Hog Maintenance Crew in Towaoc to do fuels maintenance around homes and structures as identified by Towaoc Fire and Rescue and the Elders Council.</i>
Provide more property owners with the tools they need to create and maintain appropriate fuels mitigation and structure protection.
7. Make site assessments easily accessible to all community residents and widely advertise and promote this service.
8. Promote programs that help people take preparedness one step at a time.
9. Utilize the Neighborhood Ambassador Program, incentive programs, and public fire-fighting agency resources to connect do-it-yourself homeowners with the tools they need for fuels treatment and home ignition zone improvements.(ie. Neighbor may have appropriate tool; rebates may offset rental or purchase price; hydromower on neighboring federal lands may complete projects on adjacent private lands at greatly reduced rates by eliminating transportation costs; sales on 1/8" screen and other fire resistant materials may be organized.)
10. Provide Home Ignition Zone workshops to the public.
11. Develop and advertise demonstration sites for appropriate, access, defensible space development, and home ignition zone improvements.
12. Work with the Landfill and develop additional free or low cost slash disposal sites and services.
Engage residents on Summit Ridge in an active mitigation and preparedness program.
13. Conduct WUI checkpoints to raise awareness of the extreme risk in that area.
14. Place high priority on recruiting FireWise Neighborhood Ambassadors throughout the Summit Ridge area.
15. Utilize Summit Lake State Park as a demonstration site for quality fuels treatment in the Ponderosa Pine ecosystem.
16. Designate a slash site in the area and arrange slash removal days.
17. Seek timber harvest opportunities for landscape scale thinning throughout private property on Summit Ridge.
Engage residents on Summit Ridge in an active mitigation and preparedness program (cont'd)
18. Develop rapid notification system for emergency evacuation of Summit Ridge region.
19. Assist with development of a Summit Ridge CWPP.

Montezuma County Community Wildfire Protection Plan (CWPP)

20. Encourage public and private treatment to create fuel breaks, safe areas, & emergency access.

Enhance the use of mitigation contractors.

21. Encourage fast expansion of Wildfire Professionals Mitigation Association into Montezuma County and advertise these reputable businesses.

22. Have regular training opportunities for contractors, property owners, and firefighters to improve their knowledge and skills for fuels treatment.

23. Keep an updated list of mitigation contractors and the services that they offer.

24. Develop programs and secure grants for treatment of properties where the homeowners does not have the personal ability to do the work or resources to hire professional assistance.

25. Provide incentives for chipping and slash removal to reduce accumulation of slash piles throughout County.

26. Develop a program to connect those in need of firewood with excess wood where treatment has been done, or with properties where thinning is needed.

27. Utilize inmate work crew to haul slash and for other public fuels treatment projects.

28. Consider burn permit fees as funding source for education and mitigation projects, when burn permitting system is developed in accordance with Colorado Senate Bill 11-110.

Increase mitigation by rental and absentee home and property owners.

29. Disseminate message of null alternative, increased property value from mitigation, and other benefits, to targeted property owners on authority figure letterhead.

30. Continually seek programs that provide low cost fuels mitigation opportunities.

31. Support County subdivision fire mitigation regulations.

32. Provide resources for developers to perform appropriate mitigation, focusing financial resources on assistance for minor developments.

33. Explore additional regulatory options to address existing development that can be supported by existing or new programs to assist homeowners in completing required preparedness activities.

34. Enhance enforcement of subdivision mitigation. Consider tools such as bonding mitigation work or creating special improvements districts for wildfire mitigation.

Reduce Structural Ignitability.

35. Encourage appropriate building techniques through incentives and working w/ builders, hardware stores, and plant nurseries to utilize and sell appropriate materials and distribute educational materials.

36. Include detailed analysis of the Home Ignition Zone and structural ignitability in all site assessments.

37. Consider requirements for the use of fire resistant building materials and landscaping in new construction and landscaping projects.

Montezuma County Community Wildfire Protection Plan (CWPP)

COORDINATION

Close coordination of activities between the Fire Protection Districts and FireWise Council of Southwest Colorado needs to be continued. This will reduce the duplication of efforts as well as provide more wildfire professional expertise to the mitigation efforts. The Montezuma County Fire Chief's Association Wildfire Education and Prevention Specialist position or a Fireman assigned by the Fire Protection Districts could help provide this coordination effort as well as site specific mitigation prescription recommendations. Closer coordination between the Fire Protection Districts, the Colorado State Forest Service, and the Public Lands Wildland Fire Managers is desired to improve training opportunities, consistent messaging, well coordinated response and comradere for fires in the WUI. Outreach between these fire management entities, the FireWise Council, and the community, should result in the development of more community level CWPPs. Recognizing that it takes a community to prepare for wildfires, FireWise and the Fire Chief's educator should continue to serve as community liasons between all fire managemetn entities and homeowners, regulators, building trades, landscaping trades, mitigation contractors, equipment dealers and renters, schools, insurance companies, Real Estate agents, property managers, media outlets, and more.

Enhance Coordination throughout the community for shared responsibility for wildfire preparedness.

1. Work with real estate, property management, and insurance companies to develop a shared understanding of effective risk management and the market benefits of appropriate wildfire mitigation.
2. Look to service organizations, Sherrif's office, etc. to find volunteers who can assist with message dissemination and mitigation work.
3. Continue coordinated mitigation on public and tribal lands adjacent to high risk areas of the WUI.

Strengthen Relationships between Fire Protection Districts, Fire Management entities, and the Public.

4. Develop an interagency prescribed fire and hazardous fuels council.
5. Coordinate Fire Information Officer, FPD Education Specialist, and the FireWise Council messages to the community.
6. Put on a Fire Fair in which all Fire Management entities, appropriate businesses and non-profits, FireWise, and the community participate.

Improve emergency response through information accuracy.

7. Update wildfire risk – communities of concern maps regularly to reflect mitigation work, development patterns and access to new data.
8. Participate in land database system tracking various levels of mitigation work.
9. Support County addressing program.
10. Fire Protection Districts should utilize wildfire risk map analysis components and community polygons to better understand conditions in specific areas of the WUI.

Montezuma County Community Wildfire Protection Plan (CWPP)

Increase the number of community scale CWPPs.

11. Provide support in the CWPP process.
12. Promote the benefits of prior planning on funding and response.
13. Ensure FPDs are familiar with CWPPs and their role in general and for the specific adopted plans as mutual aid agreements may have firefighters in a jurisdiction where they did not participate in a CWPP process.

Suppression

The wildfire suppression efforts in Montezuma County are excellent. The interagency initial attack and mutual aid provided is well coordinated and supported by all agencies. The land management agencies and fire district are well equipped with just a few additional equipment needs. The Fire Protection Districts rely dominately on an aging base of volunteers, which creates some challenges for additional training and engagement wildland fire planning and preparedness activities. There are wildland fire training and assignment needs for the Fire Protection Districts to maintain and enhance the National Wildfire Coordination Group (NWCG) standards. The requirements of the annual wildland fire refresher review should be a high priority for every firefighter. Additional high level training and assignment opportunities should be explored. The NWCG level of Strike Team Leader, Task Force Leader and Type III IC should be a long term goal for every department.

Improve wildfire training for all firefighters.

1. ***Provide advanced Wildfire training in Wildland Interface s-205, Intermediate Wildland Fire behavior s-290 and Strike Team Leaders-336.***
2. Consider requirements for basic wildfire training of all paid and volunteer firefighters. Coordinate with public lands agencies for joint training opportunities.
3. Open up training opportunities between all fire management entities as often as possible.
4. Explore additional incentives for additional training for volunteer firefighters.
5. Include ICS training for all fire personnel and the designated fire warden.

Ensure adequate water availability for structure protection.

6. ***Invest in a 3,000 gallon water tender for the Dolores Fire Protection District.*** Continually evaluate equipment needs for all Fire Protection Districts.
7. ***Develop tender draft sites identified by Dolores Fire Protection District; a pond on Summit Ridge and a gravel pit pond on the Dolores River.***
8. If the water district cannot supply adequate flow, cisterns, tanks, or pump points should be developed before final subdivision approval.
9. Inventory water pump points and incorporate in County GIS for use by all fire management entities.

Montezuma County Community Wildfire Protection Plan (CWPP)

Appropriation

An ounce of prevention is worth its weight in gold for managing the output costs of suppressing fires in the WUI. It is desirable that new emphasis be placed, on prevention, education and outreach within the community and among the fire management entities. The cheapest fire is the one you do not have to fight. It is also recognized that our education and legislative efforts to improve defensible space and reduce structural ignitability in the WUI need to be financially viable in order for residents to take action. Specific attention needs to be given to supporting and strengthening Montezuma County's requirements for defensible space development in new subdivisions in the WUI. All fire management entities and the FireWise Council should be active in identifying, pursuing, and managing grants that contribute toward the goals of this CWPP. Publicizing existing financial incentives and increased property values and marketability of mitigated property and exploring creative means of further incentivizing mitigation should be included in all education and outreach efforts.

Increase grants obtained for wildfire preparedness activities.

1. Utilize the FireWise Council of Southwest Colorado, All Fire Management Entities, and volunteers to help write and manage grants.
2. Seek continued funding for the Montezuma County FireWise Chapter and the Fire Chief's Association Wildfire Education and Prevention Specialist.
3. Explore foundation grants as a means of funding identified activities.
4. Leverage the cost savings of preventing wildfire threats to homes to obtain mitigation funds.
5. Leverage location within Region 9 economic development district and an enterprise zone to find new funding sources.
6. Utilize special improvements districts as a means of funding mitigation in some higher scale communities to stretch other dollars further in lower income
7. Encourage the development of small diameter commercial wood processing businesses or use of central heating systems that utilizing local small diameter fuels from mitigation projects as a heat source.

OTHER RELATED PLANS

Because Montezuma County is a multi-jurisdictional County, the Montezuma County CWPP recognizes all valid Fire Management Plans that are in place throughout Montezuma County.

This document is intended to be an umbrella document for all agencies charged with Fire Management under their jurisdiction including the U.S. Forest Service, Bureau of Land Management (BLM), Bureau of Indian Affairs (BIA), the National Park Service and the Ute Mountain Nation. Existing Fire Management Plans, CWPPs etc. are on file with each respective agency.

This document is also intended to be an umbrella document for all sub-division level CWPPs that are prepared in accordance to minimum standards set forth by the Colorado State Forest Service, including the Elk Springs CWPP and the Cedar Mesa Ranches CWPP. Subdivision level CWPPs are on file with the Montezuma County Office of Emergency Management.

Subdivision level fuel mitigation plans are also recognized by this document and those plans are on file with the Montezuma County Planning Department.

Montezuma County Community Wildfire Protection Plan (CWPP)

IMPLEMENTATION PLAN

Continuing the notable achievements attained since the first iteration of this plan will take persistent cooperation and effort to select attainable actions from the table and carry them out. The emboldened action items represent high priority items as identified by the Fire Chiefs that should be initiated in 2012. Key participants include the Fire Protection Districts and their Chief's Association, Wildfire Education and Mitigation Specialists, the Colorado State Forest Service, federal and Tribal fire management entities, the Montezuma County Sheriff's Department, Office of Emergency Management, Montezuma County Planning Department, Montezuma County Federal Lands Program, and the FireWise Council of Southwest Colorado. Fire Protection Districts should lead the implementation effort, reviewing the opportunities for action on an annual basis (each December), reviewing annual progress, and determining an annual work plan.

The projects identified in this plan are recommended, but not mandated, with the exception of the implementation of a permit system for controlled burns, mandated by Colorado State Senate Bill 11-110. The Planning Team did not intend that all of the identified action will take place, but rather intend the tables to be used like a menu of opportunities for creating a more prepared WUI community. Actions should be pursued as opportunities arise and the action language indicates existing efforts that should be continued and strengthened.

In addition to the actions and specific projects identified in the six category areas of the recommendations table, important planning was done beginning with the Community Fire Plan adopted in 2002, which is included as the "fire management polygon" appendix C. These polygons identify and prioritize high risk communities and the basic wildfire risk attributes and community values for each polygon or polygon group. As this plan is intended to be a living, growing document, so is the "fire management polygon" supplement. As the key participants review this planning document, the polygons should also be revisited and specific landscape scale mitigation opportunities in each community should be planned and implemented as the opportunities arise. Fuel Mitigation Plans already exist for some subdivisions throughout the County, and these treatments can be carried out as funding opportunities arise, as ready to go projects. Landscape scale approaches identified in the coordination, education, and mitigation focused strategies should be directed at the highest risk areas as highlighted in the prioritized Communities at Risk Polygons based on their level of risk and year round population density and other infrastructure considerations identified as values at risk.

Participating in mapping efforts to track mitigation and maintenance will assist in the planning process to know where progress is taking place and where greater effort should be focused. The communities at risk should be re-prioritized as part of the annual work plan taking into consideration momentum in communities and also giving high priority to high risk communities where the message is clearly not reaching residents.

