

Vista De Oro

Community Wildfire Protection Plan

2012



Prepared for:
Vista De Oro
Property Owners Association
Hesperus, Colorado 81326

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Signatures of Approval

The Durango District of the Colorado State Forest Service has reviewed this Community Wildfire Protection Plan for Vista De Oro, approves its content and recommendations, and certifies that it meets or exceeds CSFS Community Wildfire Protection Plan minimum standards.



D. Kent Grant,
District Forester, Colorado State Forest Service

12/27/12
Date

The following entities have received a copy of this Community Wildfire Protection Plan for Vista De Oro, and agree with and support its content and recommendations.



Stephanie Burgoyne
President, Vista De Oro POA Board

12/27/12
Date



K. G. Lockwood
Chief, Fort Lewis Mesa Fire Protection District

12/27/12
Date



Butch Knowlton
Director, Office of Emergency Management, La Plata County

Dec 27 2012
Date

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Appendices

- **Appendix A:** CSFS QUICK GUIDE SERIES, FIRE 2012-1 – *Protecting Your Home From Wildfire: Creating Wildfire-Defensible Space Zones*
- **Appendix B:** CSFS QUICK GUIDE SERIES, FM 2011-1 – *Piñon –Juniper Management*
- **Appendix C:** CSFS #6.303 – *Fire-Resistant Landscaping*
- **Appendix D:** CSFS #6.304 – *Forest Home Fire Safety*
- **Appendix E:** CSFS #6.305 – *Fire Wise Plant Materials*
- **Appendix F:** CSFS #6.306 – *Grass Seed Mixes to Reduce Wildfire Hazard*
- **Appendix G:** CSFS #6.310 – *Cheatgrass and Wildfire*
- **Appendix H:** CSFS #6.311 – *Gambel Oak Management*
- **Appendix I:** CSFS – *Mastication Operational Guidelines*
- **Appendix J:** CSFS – *Firewise Construction Design and Materials*
- **Appendix K:** CSFS – *Fuelbreak Guidelines for Forested Subdivisions and Communities*
- **Appendix L:** University of Nevada Cooperative Extension – *Be Ember Aware!*
(CSFS publications can be found at <http://csfs.colostate.edu>)
(UNCE publication can be found at <http://www.unce.unr.edu>)

Publication References

- Preparing a CWPP Handbook
(<http://www.stateforesters.org/files/cwpphandbook.pdf>)
- Leaders Guide for Developing a CWPP
(http://www.iafc.org/files/wild_CWPPleadrsGuide.pdf)
- CWPP Evaluation Guide (http://csfs.colostate.edu/pdfs/eval_9-8-08_web.pdf)
- Community Guide to Preparing & Implementing a CWPP
(http://files.dnr.state.mn.us/assistance/backyard/firewise/cwpp_Report_Aug2008.pdf)

Executive Summary

The Vista De Oro (VDO) subdivision lies in an incredibly beautiful part of



Colorado. Residents of the area are surrounded by fascinating archaeological sites, arts and culture, and homes are nestled in the majestic foothills of the San Juan Mountains. Daily lives include the observation of breathtaking vistas and abundant wildlife. As stewards of the precious land and active members in the community, VDO residents are aware of the potential risk of wildfire

and have taken many steps toward protecting the things they value through their proactive approach to wildfire preparedness.

The Board of Directors of the Vista De Oro Property Owners Association has recognized that the subdivision is at risk from wildfires moving into or originating within the subdivision. A local effort to educate property owners and to mitigate around structures has been underway for several years. Development of a Community Wildfire Protection Plan (CWPP) was the next step in that effort.

What is the Vista De Oro Community Wildfire Protection Plan?

The Vista De Oro CWPP is a written blueprint for improving wildfire preparedness and protecting community values. *The recommendations and projects contained in this CWPP are strictly voluntary and are in no way required.* The CWPP is a plan for action and will depend upon people and partnerships to carry it forward. The CWPP provides the following:



- A foundation for coordination and collaboration among residents and federal, state, county, and local agencies to reduce the risk of wildfire.
- Recommendations for actions residents and the Property Owners Association (POA) can take to reduce the risk and impacts of wildfire.
- Tangible evidence of VDO's dedication to wildfire preparedness, which can increase competitive advantage in securing future grant funding.
- A proactive guide for ongoing action and community involvement to create a safer community and to improve VDO's wildfire preparedness.

Why Develop a Community Wildfire Protection Plan?

The ultimate goals of a CWPP are to improve wildfire preparedness and to protect lives and property. Many benefits accompany the creation of a CWPP. Through the process of developing the VDO CWPP, the Vista De Oro community was able to:

- improve coordination and communication between emergency response agencies and the VDO community;
- define and map the Wildland-Urban Interface (WUI) specific to Vista De Oro (VDO)
- identify and prioritize projects that will increase wildfire preparedness;
- identify community values;
- assess wildfire risk;
- increase competitive advantage in securing grant funding;
- reduce the risk and impacts of wildfire;
- restore healthier, more resilient conditions in local forests; and improve neighborhood communications.

Who Participated in Developing the Plan?

The Vista De Oro Board of Directors recognizes that reducing the risk and potential impacts of wildfire requires a proactive approach that includes collaboration with federal, state, county, and local agencies. Vista De Oro convened a Core Team to oversee and guide the development of the VDO CWPP. The Team was a collaborative group responsible for making decisions and agreeing upon the final contents of the plan. The Team was comprised of VDO residents, members of the VDO Board of Directors, and representatives from the following agencies:

- San Juan Public Lands Center: United States Forest Service (USFS) and Bureau of Land Management (BLM)
- Colorado State Forest Service (CSFS)
- La Plata County Office of Emergency Management (OEM)
- Fort Lewis Mesa Fire Protection District (FLMFPD)
- FireWise Council of Southwest Colorado (FireWise)



VDO residents and adjacent property owners were contacted, consulted, and provided updates whenever possible during the development of this CWPP.

Several meetings were held to ensure collaboration and to gain input from potential stakeholders.

In order to obtain formal recognition, the Vista De Oro CWPP went through an approval process in which the CSFS, OEM, FLMFPD, and the President of the VDO Board of Directors agreed to, and signed off on, the final contents of the CWPP.

How Will the Plan be Implemented?

The CWPP is a recommended plan for voluntary action and places no requirements upon its parties. The effectiveness of the plan will be contingent upon actual implementation of the plan and the prioritized projects identified herein. Monitoring and evaluation of the implementation process will include:

- An annual report (including “Lessons Learned”) of fuels mitigation projects and activities which will be submitted to the VDO community, FireWise, and CSFS.
- An annual review of the CWPP, with adjustments to the plan in the form of revisions, which will be submitted to the VDO community, FireWise, and CSFS.
- A formal update to the CWPP will be conducted every 5 years (or less) and submitted to the VDO community, FireWise, and CSFS.



I. Introduction

Community Wildfire Protection Plans (CWPPs) are authorized by the federal Healthy Forests Restoration Act (HFRA) of 2003. HFRA places renewed emphasis on local community wildfire protection and response planning by extending a variety of benefits to communities with a wildfire protection plan in place. Among the benefits are the abilities to participate in establishment of fuels treatment priorities for both federal and non-federal lands surrounding communities, establishment of a local definition and boundary for the Wildland-Urban Interface (WUI), and enhanced opportunities for cost-sharing of community-based fuels treatments.

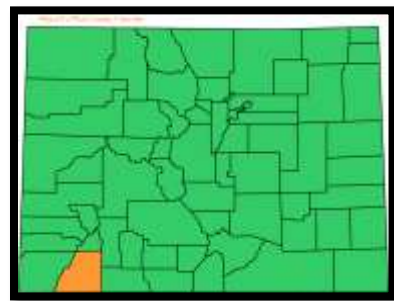
This CWPP was developed for the Vista De Oro subdivision with guidance and support from the Colorado State Forest Service, San Juan Public Lands Center (USFS/BLM), La Plata County Office of Emergency Management, Fort Lewis Mesa Fire Protection District, FireWise Council of Southwest Colorado, Wildfire Solutions LLC, and the Vista De Oro POA Board of Directors. The CWPP was developed according to the guidelines set forth by the Healthy Forests Restoration Act (2003) and the Colorado State Forest Service's *Minimum Standards for Community Wildfire Protection Plans* (revised in 2009). This plan is consistent with the goals and strategies described within the *La Plata County CWPP* approved in 2006, and provides further strategic and tactical direction specific to wildfire protection and mitigation for the VDO community.

II. Background & History

This Community Wildfire Protection Plan (CWPP) covers the Vista De Oro subdivision and the associated Wildland-Urban Interface (WUI) defined herein.

La Plata County

La Plata County, Colorado, is home to 51,334 residents and 21,946 housing units, and is situated in the southwest corner of Colorado. The county encompasses 1,692 square miles with 1.08 million acres, and is a region with stunning landscapes ranging from high alpine peaks and meadows in the north to arid plateaus, sage plains and mesas in the south.

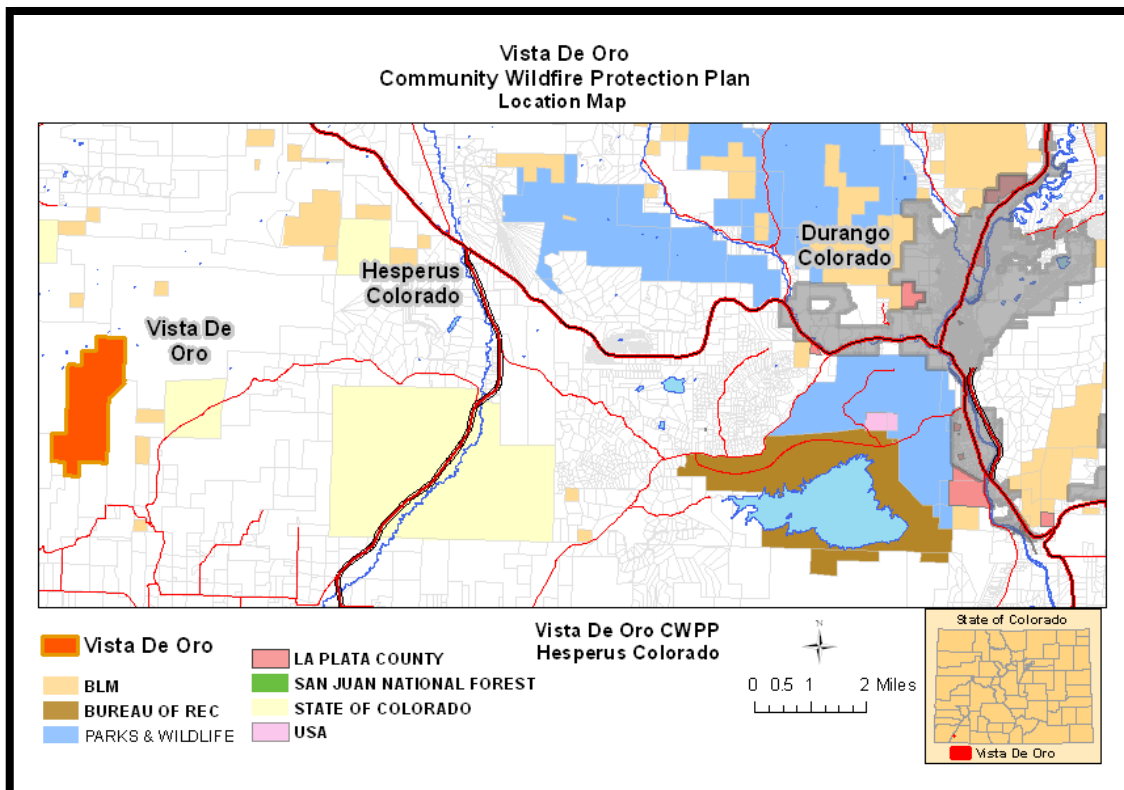


VDO CWPP Table I: La Plata County Land Ownership	
Land Ownership	Number of Acres
Private	461,185
San Juan National Forest	396,050
Bureau of Land Management	21,823
State of Colorado	23,287
Southern Ute Indian Tribe	179,055
Ute Mountain Ute Indian Tribe	1,685
Total	1,083,085

The inherent beauty of the area attracts people from all over the world; many of whom decide to build their lives and their homes in the heart of natural vegetation, which is at high risk for catastrophic wildfire. The population of La Plata County has had varied rates of growth over the past 10 years, but has averaged a rate of 1.4% annually. Much of this growth is happening in the Wildland-Urban Interface (WUI), which is commonly described as the zone where structures and other features of human development meet and intermingle with flammable wildland or vegetative fuels.

Vista De Oro

Vista De Oro is located approximately 7.5 miles southwest of Hesperus, Colorado, and approximately 15 miles south of the La Plata Mountains on the geologic boundary between the Southern Rocky Mountains and the Colorado



Plateau. The subdivision was incorporated in 1998, has an average elevation of 7,500 feet, and lies within Township 34 North - Range 12 West, and Township 35 North - Range 12 West, New Mexico Principal Meridian, La Plata County, CO.



Vista De Oro is a residential community of approximately 1,225 acres divided into 35 parcels of at least 35 acres each. Currently, six owners have built homes and are permanent residents. Five other owners have built permanent structures and are part-time residents or intermittent visitors. Of the remainder, approximately half have indicated that they plan to build in the future; the

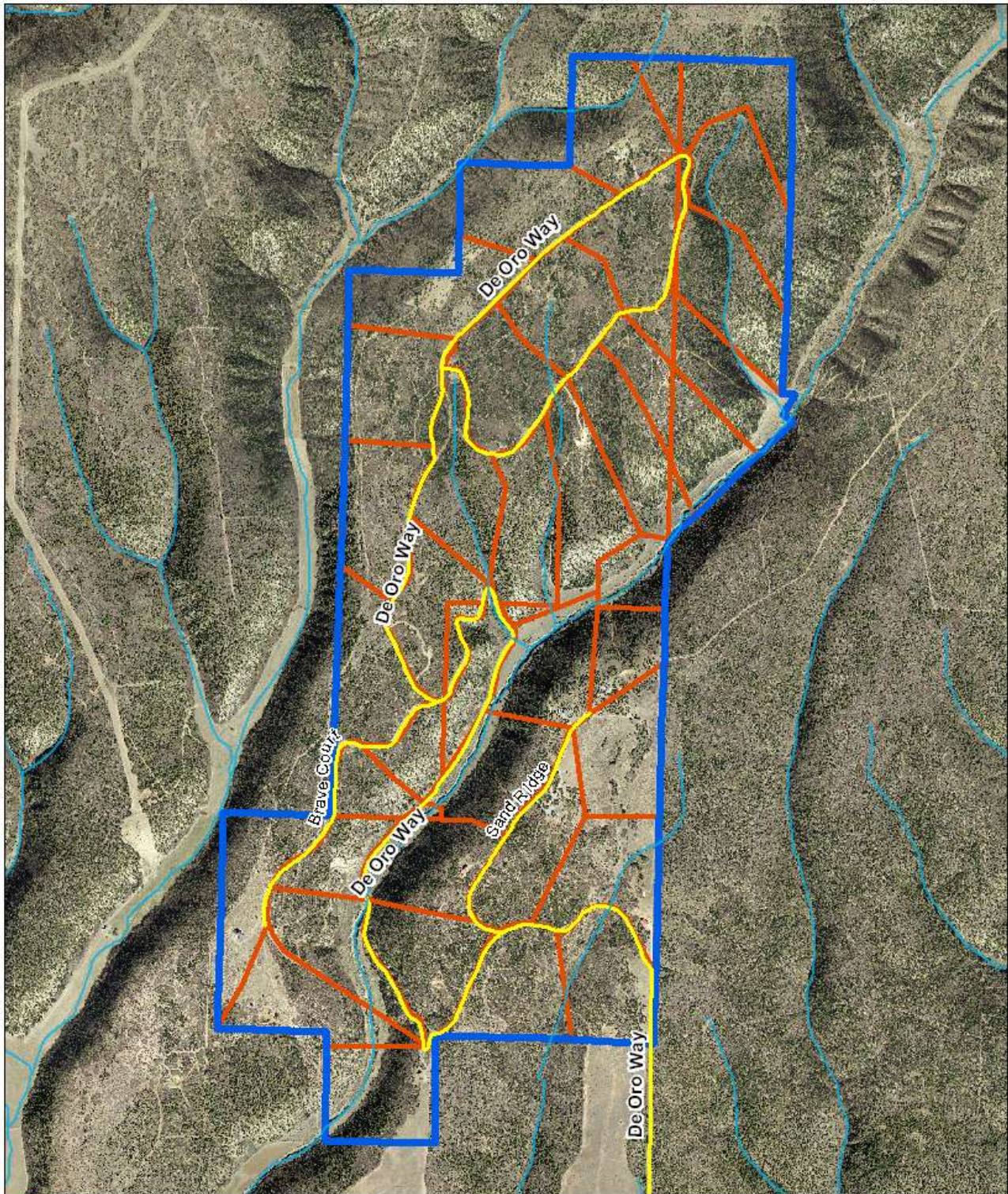
others are undecided or are considering ownership as an investment. Due primarily to the recent economic downturn, there has been no new home construction in about three years.

Vista De Oro is located in the western area of La Plata County; primary access to the community is County Road 117 (currently a non-maintained county road), which intersects County Road 120 in Hay Gulch. In addition to County Road 117, access and egress is possible on several ranch roads in the area; for example, a dirt road connects Vista De Oro with the Schirard property to the west, and from there to CR 117. The Vista De Oro Property Owners Association is responsible for maintaining (grading, graveling, snowplowing, etc.) the internal network of 8.7 miles of dirt roads. Although County Road 117 was built to La Plata County standards, responsibility of its maintenance currently belongs to the Vista De Oro Property Owners Association. The VDO CWPP recommends



further investigation into, and lobbying for, the possibility of La Plata County taking responsibility of maintaining County Road 117 (see Project #10, section VII, Wildfire Preparedness Plan).

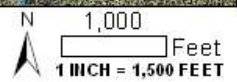
Vista De Oro Subdivision



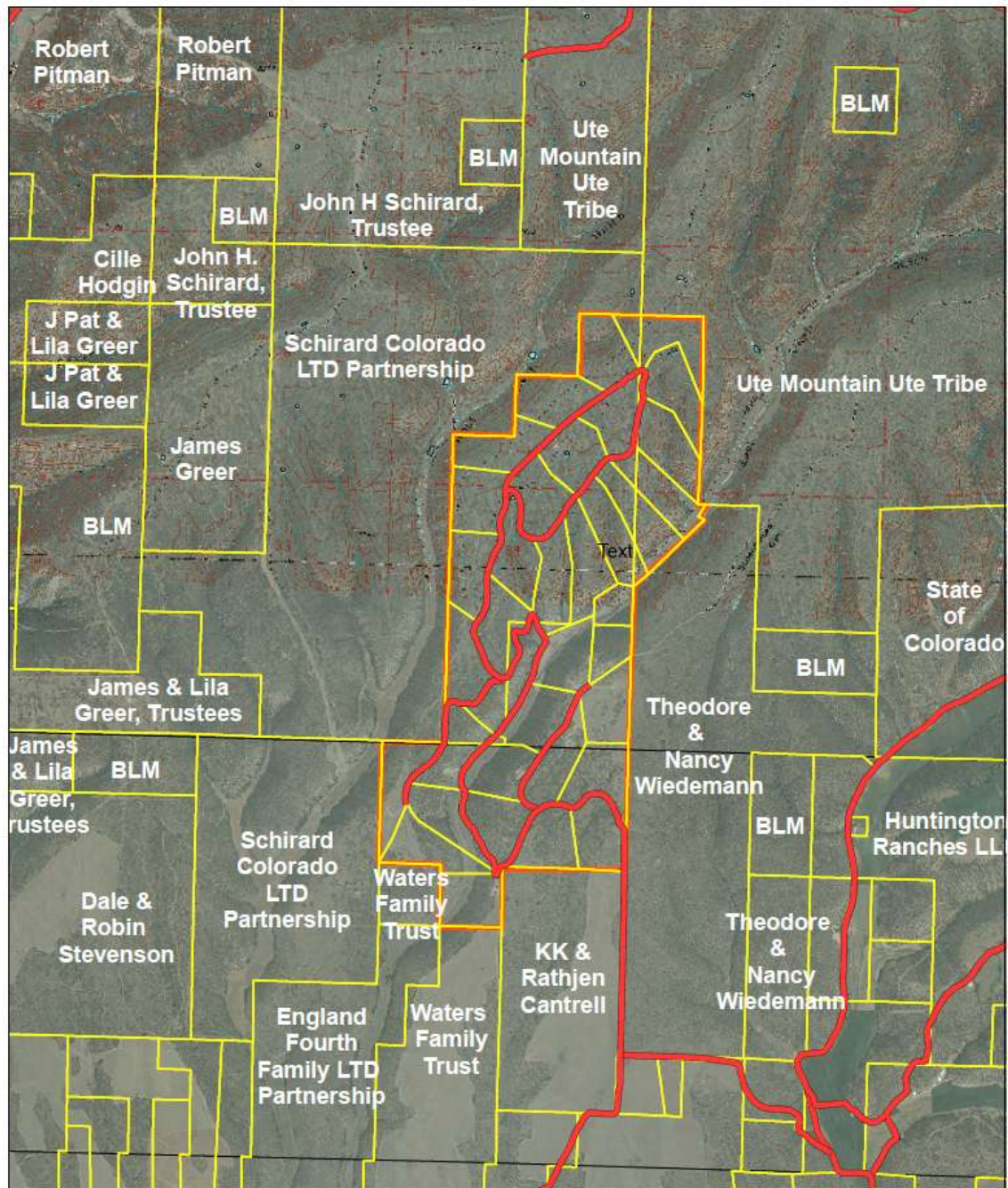
- Vista De Oro Subdivision
- Vista De Oro Roads
- Vista De Oro Parcel Lines

Vista De Oro CWPP
Hesperus Colorado

The Wildland Urban Interface (WUI) area is the area within and adjacent to the community from which a significant wildfire within that area would likely pose an imminent threat to that community.



Vista De Oro Subdivision Adjacent Landowners



Legend

- roads
- LaPlata parcels
- Vista De Oro Subdivision

0 1,500 3,000 6,000 9,000 12,000 Feet



The terrain within the VDO subdivision is characterized by predominantly flat mesas separated by deep canyons. East Alkali Gulch divides two mesas on which all structures have been built to date. There are no running streams in the community; East Alkali Gulch has had intermittent flow once in the past six years following a year of particularly heavy snowfall. In addition to views of the La Plata Mountains to the north, the Chuska Mountains in New Mexico and the Carrizo Mountains in Arizona are easily seen as well as the volcanic features of Ship Rock and Angel Peak in New Mexico. (Additional VDO vegetation information can be found on page 27 of this plan.)

Vista De Oro has a pasture lease with a local rancher who places cattle in the community for grazing annually from June to November.

Southwest Colorado Climate

The combination of high elevation and mid latitude interior continent geography results in a cool, dry but invigorating climate. There are large seasonal swings in temperature and large day to night changes. The summer months generally consist of hot days that are often relieved by afternoon thundershowers that can lead to lightning strikes and wildfires. Humidity is generally quite low, which favors rapid evaporation and a relatively comfortable feeling even on hot days. The thin atmosphere allows for greater penetration of solar radiation and results in pleasant daytime conditions even during the winter. Outdoor work and recreation can often be carried out in relative comfort year round. At night, temperatures drop quickly.



Warm, moist air from the south moves into Colorado infrequently, but most often in the spring, summer and early autumn. For southwestern Colorado, the intrusions of moist air are most common from mid-July into September associated with wind patterns known as southwest monsoons. Frequent showers and thunderstorms continue well into the summer, sometimes leading to lightning strikes and subsequent wildfires. At times during the summer, winds

shift to the southwest and bring hot, dry air from the desert Southwest over the State. Such hot spells are usually of short duration.

The climate of local areas is profoundly affected by differences in elevation, and to a lesser degree, by the orientation of mountain ranges and valleys with respect to general air movements. Wide variations occur within short distances. Statewide average annual precipitation is 17 inches but ranges from only 7 inches in the valleys to over 60 inches in a few mountain locations. While temperature decreases, and precipitation generally increases with altitude, these patterns are modified by the orientation of mountain slopes with respect to the prevailing winds and by the effect of topographical features in creating local air movements.

As a result of southwest Colorado's distance from major sources of moisture (the Pacific Ocean and the Gulf of Mexico) precipitation is generally light in the lower elevations. Prevailing air currents reach the area from westerly and southwesterly directions. Eastward-moving storms originating in the Pacific Ocean lose much of their moisture falling as rain or snow on the mountaintops and westward-facing slopes.

Storms moving from the north usually carry little moisture into southwest Colorado. The frequency of such storms increases during the fall and winter months, and decreases rapidly in the spring. The effects of such storms are felt mostly in the eastern part of the state, but occasionally reach southwest Colorado, as well.

In general, temperatures decrease with increases in elevation. Summer afternoon temperatures consistently decrease about 4-5 degrees Fahrenheit per thousand foot increase in elevation. Elevation-driven temperature changes are often masked by temperature inversions especially at night and during the winter. Cold air is denser than warmer air and collects in some of the lower elevations. On clear nights, especially during winter when the ground is snow covered, strong temperature inversions form. Under these circumstances, the coldest temperatures are found near the center of valleys, while temperatures in the high mountains are considerably warmer.



Mountain-valley circulations are common with winds often blowing up the valley from lower to higher elevation during the day reversing and blowing down the valleys at night. The mountains form a substantial block to regional air motion, causing winds in most valleys west of the Continental Divide to be very light, especially in fall and winter.

Precipitation patterns are largely controlled by mountain ranges and elevation. Precipitation increases with elevation throughout the year, but the elevation effect is greatest in mid-winter when winds at mountaintop level are typically strongest. Snow accumulates without melting in shaded or level areas at elevations above 8,000 feet. When it melts in the spring, this snow is the primary source of water for much of the population of southwest Colorado and provides water for extensive irrigation. Most of the mountain snow melts during May and June when rivers reach their peak for the year.

In summer, mountain peaks and ranges are effective thunderstorm generators when the regional air masses are sufficiently moist. In some years, local thunderstorms form nearly every afternoon in and near the mountains. The last half of July and much of August are particularly prone to mountain thunderstorms while June is often a much drier month. Lightning often triggers wildfires in drier years.

Old Fort Lewis Climatic Data

As the former campus of Fort Lewis College, Old Fort Lewis was more recently an agricultural research station managed by Colorado State University. It is located on property administered by the Colorado State Land Board, and is currently leased to Fort Lewis College in Durango. At an elevation of 7,600 feet, Old Fort Lewis is located approximately five miles south of downtown Hesperus, Colorado, and approximately six miles east of the Vista De Oro subdivision. The property consists of over 6,000 acres of rangeland, cropland, and irrigated hayfields. Along with numerous other studies and research, Old Fort Lewis has collected climatic data for the past 60 years, dating back to 1950. Due to their close proximity, and similar elevation and vegetation, it can be assumed that the climatic data collected by Old Fort Lewis closely mirrors the past climate conditions of Vista De Oro.



VDO CWPP Table II: Summary of Old Fort Lewis Climatic Data										
	1950-2010			2001-2010			1950-2010		2001-2010	
Month	Low (F)	High (F)	Mean	Low (F)	High (F)	Mean	Snow (inches)	Rain (inches)	Snow (inches)	Rain (inches)
January	9.6	36.7	23.2	11.7	36.7	24.2	19.4	1.6	20.4	1.6
February	12.9	40.5	26.7	14.7	39.8	27.3	14.6	1.4	15.8	1.8
March	19.5	46.5	33.0	21.2	48.2	34.8	10.4	1.4	0.9	0.8
April	26.0	56.2	41.1	27.1	57.6	42.4	4.8	1.1	5.9	1.1
May	33.2	65.9	49.5	33.8	67.8	50.7	0.5	1.0	0.5	0.6
June	40.6	76.7	58.6	42.0	78.3	60.2	0.0	0.6	0.0	0.3
July	48.7	81.2	64.9	50.6	82.9	66.8	0.0	2.0	0.0	1.6
August	47.4	78.1	62.8	48.6	77.2	62.9	0.0	2.3	0.0	2.2
September	39.9	71.7	55.9	41.2	71.6	56.4	0.0	1.8	0.1	2.2
October	30.4	61.1	45.7	31.5	60.2	45.9	1.2	1.9	1.1	1.5
November	19.7	46.9	33.3	21.8	47.0	34.5	8.1	1.4	8.1	0.9
December	11.6	38.2	24.9	12.7	36.7	24.7	14.9	1.4	16.5	1.2
Mean/Total	28.0	58.1	43.1	29.7	58.7	44.2	76.4	17.9	69.3	15.7
The data provided in the above table allows for comparison between the past 60 years and the past 10 years for the identification of climate trends.										

The Old Fort Lewis / Vista De Oro region receives the largest amount of rain in August and the smallest amount in June. January typically brings the largest measure of snowfall with an annual, accumulated total of around six feet. Over the past 60 years, the area has experienced a warming, drying trend. A comparison between the past 60 years and the past 10 years shows a mean temperature increase of 1.1 degrees Fahrenheit, coupled with a reduction in overall precipitation including a 12% decrease in annual rainfall and a 9% decrease in snow. Combined with an increased forest fuel load (due to numerous factors including past wildfire suppression practices) *this climatic trend leads to an increase in wildfire risk throughout the region.*

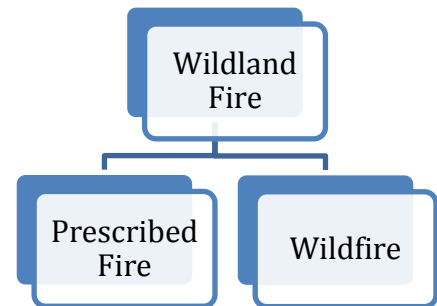


Fire Nomenclature

For clarification, it is important to note the nomenclature of and relationships between wildland fire, prescribed fire, and wildfire.

Wildland Fire – The term “wildland fire” encompasses both prescribed fire and wildfire.

Prescribed Fire - A prescribed fire is ignited and/or managed by public land managers or private property owners, is considered a *controlled* fire, and is a vegetative management tool used to maintain fire dependent ecosystems and restore those outside their natural balance. Generally, low-intensity prescribed fire is applied by trained experts to clear ground of dangerous fuels like dead wood and brush. This low-intensity fire is vital to the life cycles of fire-dependent range and forest lands.



Wildfire - A wildfire is any *uncontrolled* fire in combustible vegetation that occurs in the countryside or a wilderness area. Its origin can be natural, such as a lightning strike, or human caused.

The Natural Role of Fire

Fire is a significant force in the forest environment. Through the recognition of ecological interrelationships, natural resources can be best managed to accomplish natural and human driven goals. To meet environmental demands, land managers are participating in three major fire activities: prevention, protection, and fire prescribed for ecological benefits.

Agent of Necessary Change

Fire is often considered an agent of destruction, but to Nature, it is an agent of necessary change. Fire breaks down complex organic molecules into smaller ones. When a fire changes a log to ash, nutrients bound in chemical compounds are released and changed to a form that is more water soluble. In this soluble form, nutrients percolating into the soil are again usable in the growth of other plants. Fire also effects a more visible change. Ash and nutrients occupy less space than trees and shrubs. Thus, fire changes both the composition and the density of the forest.

Forest fires act as a natural cleanser to forests by cleaning the forest floor, reducing ladder fuels (combustible material that provides vertical continuity between vegetation strata and allow fire to climb into the crowns of trees or

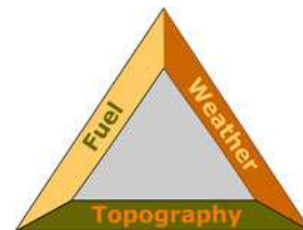


shrubs with relative ease), and removing weaker vegetation which is susceptible to disease and infestation. Without the natural occurrence of fire, forests become overstocked and their individual components are forced to compete for nutrients, water and sunlight. Fire-caused changes in ecosystems help to sustain plant and animal life, both to individuals and to whole plant and animal communities. Thousands of years of natural fires achieved a dynamic balance in forests

of the past. Forest fire suppression efforts in the last century have grossly disrupted that balance, leaving unnatural conditions including heavy fuel loads that can lead to catastrophic wildfire.

Necessary Conditions for Wildland Fire

Fires, like many natural events, are somewhat cyclic. The fire cycle (see fire behavior triangle on the right) is governed by three major conditions; fuel, weather, and topography. Weather and topography are both beyond human control, but the amount of flammable vegetation (fuel), in forested areas can be modified by actions such as prescribed fire, thinning, and wildfire hazard mitigation treatments.



Wildfire

Uncontrolled wildfire raging through a forested area, where previous wildfire suppression efforts have led to an excessive fuel load, can have disastrous effects. Healthy trees are sometimes reduced to blackened snags, and under the intense heat some soil nutrients are vaporized and become airborne in clouds of smoke. Ash falls on rooftops and window sills, hangs in the air that we breathe, and can cause both short-term



and long-term health concerns. Where a green, scenic landscape once existed, there is instead a stark, grey scene and a forest that has been significantly altered.

In the past, forest fires would benefit the whole forest ecosystem because their frequency and intensity was determined by the system's natural readiness to burn. When there is a departure from the natural fire return interval (or frequency) such that fuels build up to uncharacteristically high levels for the vegetation type, fires can be severe and cause damage to soils and root systems and hamper the vegetation's ability to recover. Soils can be overheated and root systems damaged. Along with the usual dead needles and branches, living tree crowns may be either desiccated or reduced to ashes.



Obviously, all forest fires cannot be permitted to burn uncontrolled according to the sporadic strikes of lightning or the carelessness of humans. Yet, in attempting to protect forest values, the powerful role of fire has almost disappeared from the ecosystem it once shaped and created. *The inevitable release of natural energy is only postponed, and the probability of a devastating wildfire is increased.* By utilizing proper prevention, protection, and prescribed fire techniques and other vegetative treatments, public land managers and private property owners can restore health to forests while creating safer communities in the Wildland-Urban Interface.

Wildfire History and Ecology of Piñon-Juniper in SW Colorado

Piñon-juniper woodlands grow between 5000 and 7750 feet in Southwest Colorado. At the lower elevations, piñon-juniper grades into sagebrush, desert



shrub, and desert grasslands and at its upper elevations piñon-juniper grades into ponderosa pine. Piñon pine (*Pinus edulis*), Utah juniper (*Juniperus osteosperma*) and Rocky Mountain juniper (*Juniperus scopulorum*) dominate the piñon-juniper forest type. Junipers tend to dominate lower elevation, dry sites and piñon pine dominates at higher elevation, mesic sites.

Both piñon pine and juniper have a low resistance to fire because of their relative flammability of foliage, low canopy height and thin to moderate bark thickness. Piñon-juniper in more wet areas with higher tree densities and understory fuel to carry fires tends to burn more frequently than piñon-juniper in drier sites.

The piñon-juniper shrub woodland's structure is characterized as having sparse to moderately dense herbs, shrubs, and trees and a periodic, high severity fire regime. By examining the stand structure and age of the piñon-juniper shrub woodland in VDO, there is evidence of a large, high severity fire that likely occurred 75 to 100 years ago. The majority of the landscape has filled back in with piñon-juniper trees and shrubs in a dense and continuous structure. Most of the trees, however, are relatively young (less than 50 years old).



The VDO site is relatively unusual to piñon-juniper shrub woodlands in that it is much more productive than most. The VDO site has relatively good moisture, and deep soils for piñon-juniper shrub woodland. The increased productivity results in a shorter than normal fire return interval since vegetative growth occurs more rapidly and thus fuels build up over a shorter time frame.

There have been numerous large fires in the vicinity of VDO over the past 25 years. Cow Camp, Trail East, Cherry Creek and most recently the 10,000 acre Weber Fire have all been within the overall larger landscape which VDO is a part of. In fact, if the Weber fire had not been stopped west of Cherry Creek, it might very well have impacted the VDO Wildland-Urban Interface or even spread into the subdivision itself.

Based on recent fire history within the larger landscape surrounding VDO, and the fuels matrix within the subdivision, it is likely that additional significant fires will occur within the area in the not too distant future.



Recent Wildfire Preparedness Activities

The Vista De Oro property owners and Property Owners Association (POA) have been proactive regarding wildfire preparedness since 2004. The following are activities that have previously been accomplished.

POA

- Disseminated educational information to residents via email and at POA meetings.
- Secured \$13,500 in the form of a Community Assistance grant through the Bureau of Land Management, with FLMFPD acting as the fiscal agent. The cost-share portion of the grant consisted of \$7,322 for a total of \$20,822 dedicated to treating 48 acres of land.
- Provided one POA member as a Neighborhood Ambassador for FireWise Council of Southwest Colorado (FireWise), who also holds a seat on the FireWise Steering Committee.
- Worked with FLMFPD in the donation of 8.9 acres of land by an adjacent property owner (Wiedemann) to FLMFPD, on which FLMFPD Station #5 was built.
- Secured \$1,400 through FireWise to conduct a Home Ignition Zone triage/assessment for the lots in Vista De Oro and to create a shaded fuel-break measuring approximately 12-feet in width and 1.5 - 2 miles long.
- Coordinated Community Work Days annually over the past seven years, which have included wildfire mitigation and fuel reduction projects throughout the subdivision and along County Road 117.
- Provided one Vista De Oro resident who serves as Chairman of the Board for FLMFPD.
- Developed 6,000 gallons of additional water storage for which an easement for access and storage was granted by one of the VDO property owners.
- Identified land for future donation to house an additional water storage tank. A plan is in place to purchase a recycled 6,000-gallon tank, when one becomes available, with assistance from FLMFPD.



Property Owners

- All lots with occupied structures have some degree of defensible space.
- One resident is a volunteer firefighter and Emergency Medical Technician with FLMFPD.
- Property owners have participated in Community Work Days coordinated by the Vista De Oro POA.

III. Vista De Oro Wildland-Urban Interface

The Wildland-Urban Interface (WUI) is commonly described as the zone where structures and other features of human development meet and intermingle with flammable wildland or vegetative fuels. Communities within or adjacent to the WUI face significant risk to life, property, and infrastructure from wildfire.



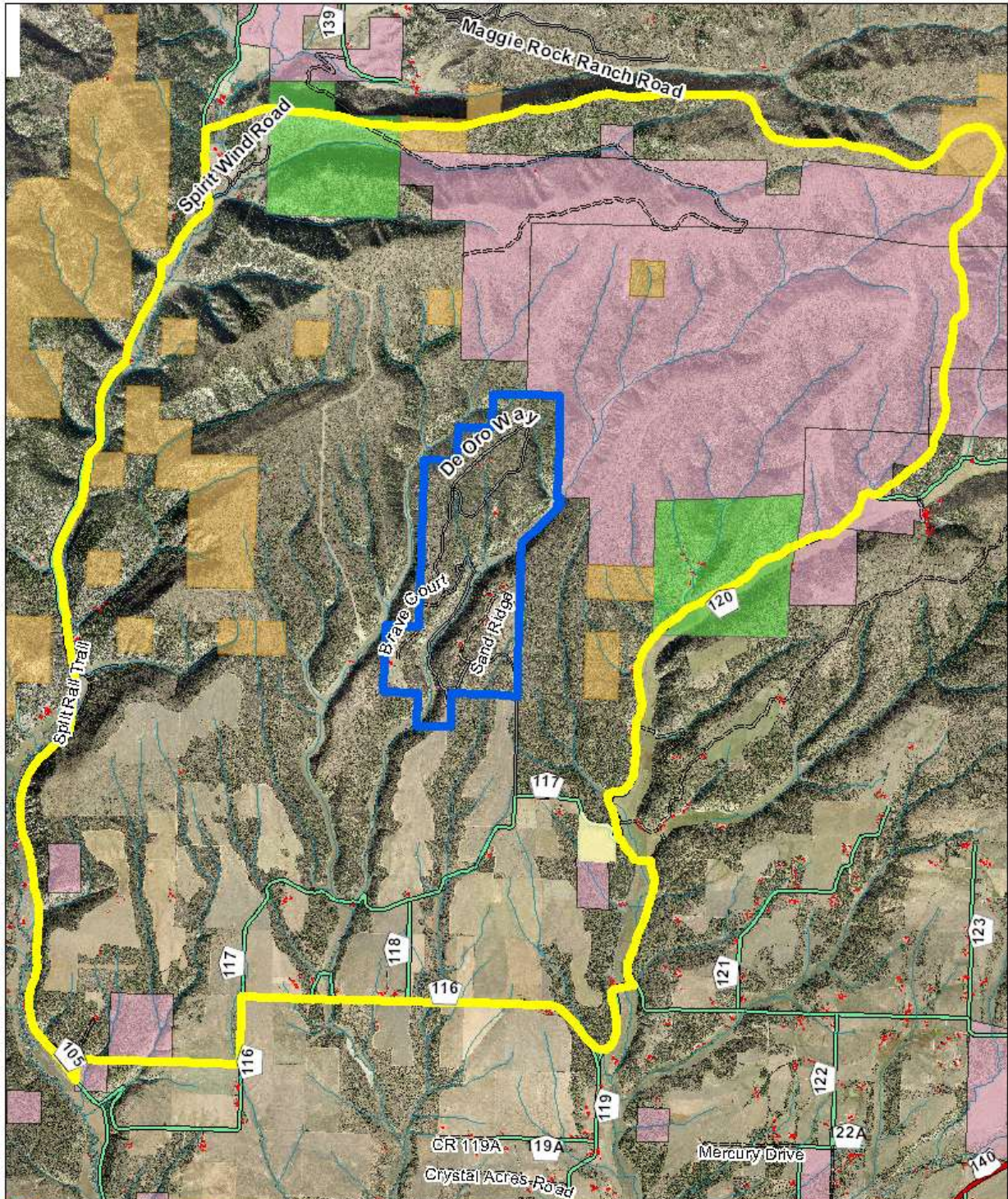
Wildfire within the WUI can be one of the most dangerous and complicated situations firefighters face. Both the National Fire Plan (NFP), a response to catastrophic wildfires, and *A Collaborative Approach for Reducing Wildland Fire Risk to Communities and Environment, 10-Year Comprehensive Strategy* (2001) place a priority on working collaboratively with communities in or adjacent to the WUI to reduce their risk from large-scale wildfire. The Healthy Forests Restoration Act of 2003 (HFRA) builds on existing efforts to restore healthy forest conditions in the WUI by empowering local communities or POAs by authorizing expedited environmental assessment, administrative appeal, and legal review for qualifying projects on federal land. The VDO community is recognized as an “at risk” community for catastrophic wildfire, as identified in the *La Plata County CWPP*, and the *La Plata County Fire Risk – Communities of Concern* map. The VDO CWPP is consistent with the goals and strategies described within the *La Plata County CWPP* and provides further strategic and tactical direction specific to wildfire protection and mitigation for the VDO community.

The 1,225-acre VDO community is identified within the subdivision boundary (see the VDO Wildland-Urban Interface map on the following page). The balance of the WUI area covers 21,654 acres and contains both public and private property owners such as the Bureau of Land Management (~1,130 acres), State of Colorado (~900 acres), Ute Mountain Ute Indian Tribe (6,050 acres of reacquired land), and many additional private in-holdings (~13,574 acres). The total acreage within the WUI is 22,879 acres.

VDO CWPP Table III: Land Ownership within VDO WUI		
Private Ownership	Number of Acres	Total Private
VDO	1,225	20,849
Ute Mountain Ute	6,050	
Other Private Landholdings	13,574	
Public Ownership	Number of Acres	Total Public
State of Colorado	900	2,030
Bureau of Land Management	1,130	
Total WUI Acres=		22,879

The WUI area was defined collaboratively with the VDO Board of Directors, FireWise, USFS/BLM, CSFS, and FLMFPD, using fire behavior and fire history, the risk of crown fires, topography and predominant south/southwest wind direction as deciding factors. The WUI boundaries are partially defined by the northern ridge line of Dead Man Gulch to the north, and Hay Gulch (along County Road 120) to the east; and firmly defined by County Road 116 to the south and County Road 105 to the west; as shown in the map on the following page.

Vista De Oro Wildland-Urban Interface



- Vista De Oro Boundary
- Wildland-Urban Interface
- Firestation #5
- Structures
- BLM
- STATE OF COLORADO
- UTE MOUNTAIN UTE

Vista De Oro CWPP

Hesperus Colorado

This Wildland-Urban Interface (WUI) area is the area within and adjacent to the community that is high-risk wildfire within that area would likely pose an unreasonable threat to that community.

0 1000 2000 3000 Feet
1 INCH = 4,500 FEET

Private Land Characteristics

The 20,849 acres of private land within the WUI boundary include the 1,225-acre Vista De Oro subdivision, approximately 13,574 acres of additional private in-holdings outside the subdivision, and 6,050 acres of private land reacquired by the Ute Mountain Ute Indian Tribe. Private parcel sizes range from approximately 40 acres to over 1,320 acres. Many of the private parcels contain residences and/or other structures. Land uses are generally residential, agricultural (pasture and hay production) and non-industrial business.

Vegetation is primarily piñon pine and juniper with a few ponderosa pines evident. Gambel oak, serviceberry, snowberry, mountain mahogany, and sagebrush are abundant. Native grasses and grasses planted by ranchers in the past fill meadow areas. Wildflowers ranging from lupine to asters to larkspur add color and beauty.

VDO CWPP Table IV Acres by Surface Fuel Model within the Vista del Oro WUI Zone (LANDFIRE Refresh 2008 data)	
SURFACE FUEL MODEL	ACRES
91 NB1 Urban/Developed	73
93 NB3 Agricultural	164
98 NB8 Open Water	1
101 GR1 Short, Sparse Dry Climate Grass (Dynamic)	2740
102 GR2 Low Load, Dry Climate Grass (Dynamic)	164
121 GS1 Low Load, Dry Climate Grass-Shrub (Dynamic)	400
122 GS2 Moderate Load, Dry Climate Grass-Shrub (Dynamic)	3768
141 SH1 Low Load, Dry Climate Shrub (Dynamic)	1546
147 SH7 Very High Load, Dry Climate Shrub	772
161 TU1 Low Load, Dry Climate Timber-Grass-Shrub (Dynamic)	5587
165 TU5 Very High Load, Dry Climate Timber-Shrub	3931
181 TL1 Low Load Compact Conifer Litter	2
183 TL3 Moderate Load, Conifer Litter	2921
186 TL6 Moderate Load Broadleaf Litter	10
188 TL8 Long Needle Litter	800
Total Vista del Oro WUI Zone Acres	22879

When reviewing the fuel models within the WUI area one must recognize that fuel models are created specifically as input into various fire spread and fire behavior modeling programs and are not necessarily representative of the actual vegetation found on the landscape. With that said, there are some correlations between the fuel models and the vegetative landscape of VDO's WUI. The NB

fuel models represent non-burnable features. GR1 represents the non-irrigated grasslands or pastures which are found mostly in the valley bottoms within the VDO WUI. GS2 fuel model represents a predominately grass, sage and Gambel oak landscape while TU1 is representative of the relatively open piñon-juniper type. TU5 represents the relatively closed piñon-juniper stands while TL3 represents the open ponderosa pine/Gambel oak areas.

A complicating factor in fuel modeling is the abnormal level of standing and down dead wood present in the piñon-juniper woodlands due to the piñon Ips beetle outbreak in the early 2000s. Fuels are nearly continuous in the untreated areas within the woodland type.



GR1



GS2



TU5

Vista De Oro Fire Risk Zone

This map displays the fire risk concern levels and Wildland-Urban Interface (WUI) for the Vista De Oro area. The map shows various roads, including Spirit Wind Road, De Oro Way, Brave Court, Sand Ridge, and Crystal Acres Road. The fire risk concern levels are categorized into Lower (yellow) and Moderate (red). The WUI is indicated by a yellow outline. The map also shows the Vista De Oro Boundary (blue outline) and the Firestation #5 (yellow square). A legend at the bottom left explains the symbols used. A scale bar at the bottom right indicates that 1 inch equals 4,963 feet.

Legend:

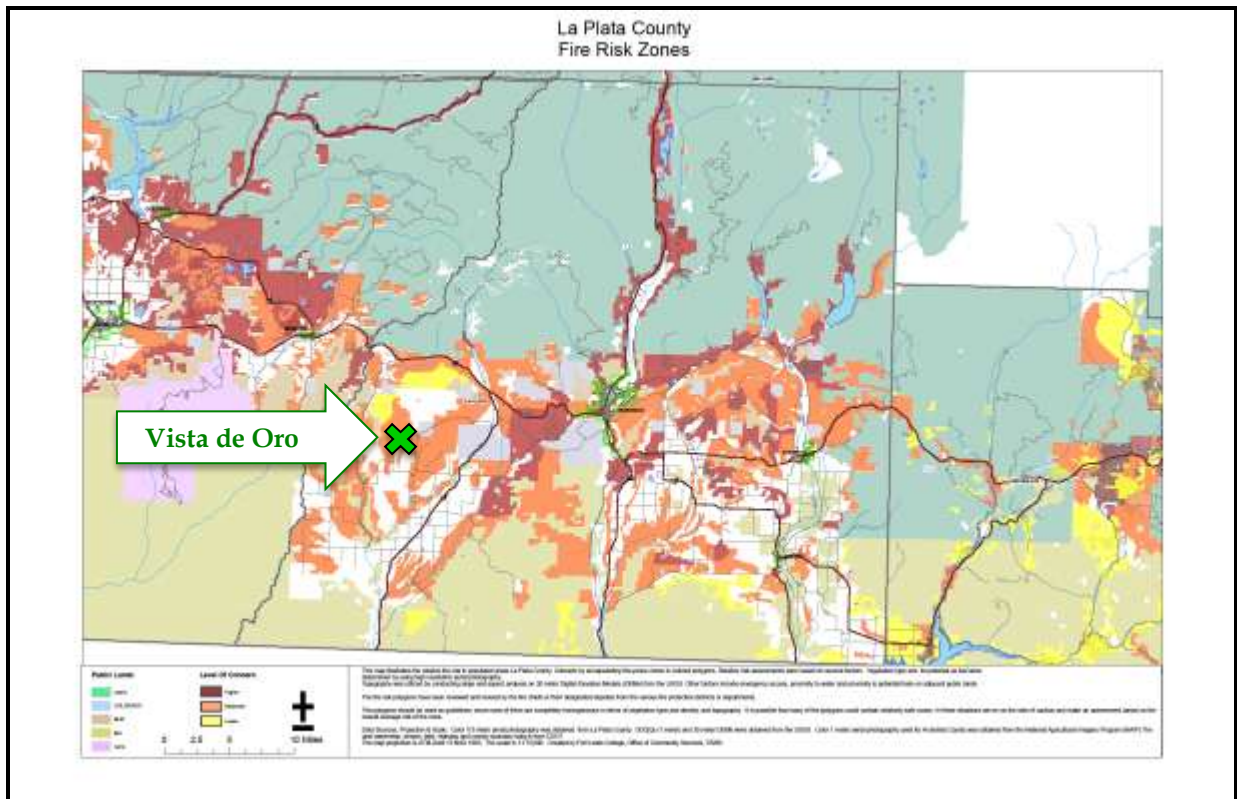
- Vista De Oro Boundary
- Fire Risk Concern Level
 - Lower
 - Moderate
- Wildland-Urban Interface
- Firestation #5

Vista De Oro CWPP
Hesperus Colorado

This WUI area is the area within and adjacent to the Vista De Oro area which is significant wildfire within that area would likely pose an increased threat to lives, property, and the environment.

1 INCH = 4,963 FEET

and does not equate to the level of wildfire risk. While the Concern Level in Vista De Oro is designated as “moderate,” the wildfire risk has been determined as “high.” It should also be noted that Concern Levels were only designated in populated areas; therefore, open land areas with little or no human population are not shaded with a Concern Level color in the Vista De Oro Fire Risk Zone map on the previous page or the La Plata County Fire Risk Zones map below.



The common space in Vista De Oro includes the road system Rights-Of-Way and the property on which the mail kiosk was constructed. VDO terrain includes two mesas where all structures have been built to date and East Alkali Gulch which consists of private landholdings and the Right-Of-Way for De Oro Way. The gulch contains grasses that are typically maintained by grazing cattle (VDO has a pasture lease with a local rancher who places cattle in the community from June to November) or mechanically mowed during the growing season.

Within the subdivision boundaries, elevation ranges from 7,200-7,950 feet, with an average of 7,500 feet.

Public Land Characteristics

Public lands in the WUI include ~1,130 acres managed by the Bureau of Land Management and ~900 acres owned by the State of Colorado. Vegetative cover is similar in all the public lands within the WUI and similar to the private lands.

Cover includes grass and forbs, piñon pine, juniper, ponderosa pine, Gambel oak, mountain mahogany and other montane shrubs. Some of the public lands have similar down woody fuels loads as the private lands. None of the public land has received fuels mitigation treatment within the WUI boundaries.

Fire Protection Capabilities

Initial response to all fire, medical, and associated emergencies for VDO and the defined WUI is the responsibility of Fort Lewis Mesa Fire Protection District (FLMFPD), with a response time of approximately four minutes from the closest FLMFPD Station to the subdivision entrance. Total response time varies, as FLMFPD is a volunteer fire department. (More information regarding the equipment and resources of FLMFPD can be found on pages 48 and 49 of this plan.)



Additional Reinforcements

Additional reinforcements and wildland firefighting capabilities are available from participants of the *Southwest Colorado Annual Fire Operating Plan (AOP)*, which addresses mutual aid.

AOP Approvers include:

- | | |
|-----------------------------------|--|
| 1. Archuleta County Commissioners | 9. San Juan County Commissioners |
| 2. Archuleta County Sheriff | 10. San Juan County Sheriff |
| 3. Dolores County Commissioners | 11. Mesa Verde National Park |
| 4. Dolores County Sheriff | 12. San Juan Public Lands |
| 5. La Plata County Commissioners | 13. Southern Ute Agency |
| 6. La Plata County Sheriff | 14. Ute Mountain Agency |
| 7. Montezuma County Commissioners | 15. Division of Fire Protection & Control (DFPC) |
| 8. Montezuma County Sheriff | |

AOP Acknowledgement Participants include:

- | | |
|--|--|
| 1. Dolores Fire Protection District | 10. Mancos Fire Protection District |
| 2. Pagosa Fire Protection District | 11. Pleasant View Fire Protection District |
| 3. Los Piños Fire Protection District | 12. Lewis-Arriola Fire Protection District |
| 4. Dove Creek Fire Protection District | 13. Ute Mountain Ute Fire & Safety |
| 5. Rico Fire Protection District | 14. Silverton/San Juan Volunteer Fire Department |
| 6. Durango Fire & Rescue Authority | 15. Jicarilla Agency |
| 7. Fort Lewis Mesa Fire Protection District | 16. New Mexico State Forestry Division |
| 8. Upper Pine River Fire Protection District | |
| 9. Cortez Fire Protection District | |

17. Canyon of the Ancients National Monument

18. Archuleta County Combined Dispatch

Additional Funding

Additional funding and reimbursement for wildfire costs are available in the following forms:

Emergency Fire Fund

This fund was established in 1967 by several counties that recognized that some wildfires may exceed the counties' resources and abilities to manage. Participation in the EFF is voluntary. Currently, 43 Colorado counties (including La Plata County) and the Denver Water Board contribute to EFF. A county's annual assessment for EFF is calculated using a formula based on the acreage of private watershed and the annual property tax valuation. Emergency funding requests must originate from the county sheriff and State Forester approval is required. Once accepted, an EFF fire is managed under the direction of Division of Fire Prevention & Control (DFPC).

Federal and State Funding Assistance

CSFS is authorized by the governor as the primary point of contact with the Federal Emergency Management Agency (FEMA) when wildfires pose an imminent threat to life and property. CSFS requests, and if awarded funds, administers FEMA Fire Management Assistance Grants (FMAG). FMAGs provide for up to 75 percent of eligible costs in the suppression of catastrophic wildfires.



Wildfire Emergency Response Fund (WERF)

This State of Colorado fund was first designated and funded by the state legislature in 2002. The fund reimburses a fire department or county for the first retardant load or one hour of helicopter use on state and private land initial attack fires at the request of the county sheriff, municipal fire chief or fire protection district. In 2006, the legislature expanded authorities in the WERF to include reimbursement of up to two days of hand crew use with preference to state inmate crews. The goal is to reduce suppression costs by quickly attacking fires to keep them small.

Current Conditions and Recommended Measures

The potential risk to Vista De Oro from wildfire is high. Actions are needed to effect an immediate change in fire behavior, to reduce the rate of spread and

intensity, and to increase forest and ecosystem diversity and resilience to disturbance. Some of the most critical areas that should receive treatment are those WUI areas located outside the VDO subdivision boundaries. Typically in the summer, afternoon prevailing breezes and winds are out of the southwest. With this wind direction and the increase in elevation from the southern subdivision boundary to the north, the potential fire spread is greatly increased. Creating a shaded fuelbreak on the southern boundary of the subdivision would assist in the firefighting effort, by slowing the fire progression into the subdivision (see Project #2, section VII, Wildfire Preparedness Plan).



A variety of restorative treatments including mowing and thinning have been conducted within the subdivision portion of the WUI. Firewise materials have been used in the construction of most structures, all lots containing occupied structures have had substantial defensible space created, fire safety signs have been posted, and firefighting

equipment access to structures has been rated “very good” by FLMFPD due to driveway and roadway widths. These proactive steps have resulted in an overall “moderate risk” assessment of structural vulnerability within the subdivision boundaries. The VDO CWPP recommends continued maintenance on previously treated areas and additional fuels reduction projects throughout the WUI (see Project #17, and Projects #1-5, section VII, Wildfire Preparedness Plan).



IV. Governing Policies

National Fire Plan

In August 2000, the President of the United States directed the Secretaries of Agriculture and Interior to write a report outlining how the nation could better respond to wildfire risks and emergencies. Once completed, the report formed the basis of what is now known as the National Fire Plan. The plan outlines how the country will develop an integrated response to severe wildfires to ensure sufficient firefighting resources for the future, restore ecosystems damaged by fires, rebuild



communities and economies, and reduce the risk of future fire through the treatment of hazardous fuels. The report ultimately secured nearly \$2.9 billion in appropriations for the USDA Forest Service and the Department of Interior for implementation.

Healthy Forests Restoration Act

The Vista De Oro CWPP has been developed in response to the federal Healthy Forests Restoration Act of 2003 (HFRA). This legislation established unprecedented incentives for communities to develop comprehensive wildfire protection plans in a collaborative, inclusive process. Furthermore, this legislation directs the Departments of Interior and Agriculture to address local community priorities in fuel reduction treatments, on both federal and non-federal lands.



The HFRA emphasizes the need for federal agencies to collaborate with communities in developing hazardous fuel reduction projects and places priority on treatment areas identified by communities themselves through development of a Community Wildfire Protection Plan (CWPP). Priority areas include the Wildland-Urban Interface (WUI), municipal watersheds, areas

impacted by windthrow or forest insect or disease epidemics, and critical wildlife habitat that would be negatively impacted by a catastrophic wildfire. In compliance with Title 1 of the HFRA, the CWPP requires agreement among local government, local fire departments, and the state agency responsible for forest management (i.e., in Colorado, the Colorado State Forest Service). The CWPP must also be developed in consultation with interested parties and the applicable federal agency managing the land surrounding the at-risk communities.

Colorado Cooperative Fire Management Agreement

The purpose of the Cooperative Fire Management Agreement is to document agreement and commitment to fire management assistance and cooperation. The Agreement is entered into by Division of Fire Prevention & Control and the federal land management agencies (Bureau of Indian Affairs, Bureau of Land Management, Bureau of Reclamation, National Park Service, U.S. Fish & Wildlife Service, and USDA Forest Service).

State of Colorado

The State of Colorado is concerned about the size and intensity of wildfires occurring across the state in recent years. Because of this, a number of new laws have been enacted by the State Legislature addressing wildfire and forest health issues. For



example, in 2008, the Legislature enacted HB 1110 which allows a subtraction of 50% of the cost of wildfire mitigation in Wildland–Urban Interface areas covered by a Community Wildfire Protection Plan from an individual’s income. For the tax years 2009-2013 up to \$2500 may be excluded from taxable income for mitigation work.

Southwest Colorado Annual Fire Operating Plan

Additional reinforcements and wildland firefighting capabilities are available through approvers and participants of the *Southwest Colorado Annual Fire Operating Plan* (AOP). This plan provides for mutual aid to assist with the management of wildfire incidents in southwest Colorado. The plan for mutual aid provides significantly enhanced initial and extended attack capabilities through the rapid convening of fire protection resources for managing a wildfire. The AOP outlines standard operating procedures and the level of participation and available resources of each party under the plan. Participants to the agreement are previously listed in this CWPP.

USFS and BLM Land and Resource Management Plan / Fire Management Plan

The San Juan National Forest and San Juan Resource Area Land and Resource Management Plan and associated Fire Management Plan describe the role of fire in the native ecosystems in southwest Colorado. These plans outline the strategies that the USFS and BLM will utilize to manage wildland fire and fuels on these federal lands in southwest Colorado. The San Juan National Forest and San Juan Resource Area Fire Management Plan (2007) specifically describes objectives and strategies to manage fire and fuels on federal lands near communities within the Wildland-Urban Interface.



Cooperative Fire (Watershed) Protection Agreement

This Agreement is entered into by Division of Fire Prevention & Control and La Plata County for the purpose of outlining responsibilities and procedures for wildfire suppression planning, organizing, equipping, and training within the County. It also provides a link to Colorado Cooperative Fire Management Agreement between the Division of Fire Prevention & Control and the federal land management agencies.

2002 Community Fire Plan for La Plata County

The La Plata County Community Fire Plan (CFP) is a direct extension of the National Fire Plan authorized by Congress, as a response to the tragic summer fires of 2000. As a component of the National Fire Plan, the CFP is meant to help

coordinate fire preparedness efforts between local communities and federal agencies. The plan has been developed to assist the Sheriff, fire officials, and residents of La Plata County, Colorado, in the identification of private and public lands at risk of severe wildland fires, to explore strategies for the prevention and suppression of such fires, and to improve firefighting resources.

La Plata County CWPP

In May of 2002, La Plata 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 CFPs 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 La Plata County CWPP is an update to the 2002 Community Fire Plan for La Plata County, and was revised based on the principles, requirements and guidelines established in the Healthy Forest Restoration Act (HFRA) of 2003.

Fort Lewis Mesa Fire Protection District

The local wildland fire management policy of Fort Lewis Mesa Fire Protection District (FLMFPD) is full suppression, early recognition for additional resources through the *Southwest Colorado Annual Fire Operating Plan* (AOP), and coordination of all available resources to bear as necessary to attack all fires with full force to achieve full containment and control as early as possible to prevent large scale conflagrations.



Vista De Oro POA Covenants & Building Requirements



The Vista De Oro POA Board of Directors maintains an Architectural Review Committee that reviews and approves all building plans for the subdivision per the Association's Covenants and Building Requirements, which include the use of noncombustible building materials on outer, exposed surfaces during structure construction, and recommended wildfire mitigation standards.

V. Planning Process and Partners

The Vista De Oro POA Board of Directors maintains an Architectural Review



Committee chaired by one of the Board members. One of the residents is a Neighborhood Ambassador for the subdivision through the FireWise Council of Southwest Colorado, and holds a seat on the FireWise Steering Committee. The Ambassador regularly attends the FireWise Council of Southwest Colorado meetings and brings back FireWise information to the POA Board and the POA members

at the regularly scheduled Board meetings. The POA Board has maintained involvement with the CWPP preparation process through periodic progress and substance updates and through participation in VDO CWPP meetings.

A Core Team was assembled to develop the Vista De Oro CWPP including representatives from:

- Colorado State Forest Service,
- San Juan Public Lands Center (USFS/BLM),
- La Plata County Office of Emergency Management,
- Fort Lewis Mesa Fire Protection District,
- FireWise Council of Southwest Colorado,
- POA Board of Directors, and
- Vista De Oro residents.



The Team met in July 2011 to discuss the CWPP process, define the WUI boundaries, and begin identifying potential wildfire mitigation and preparedness projects.

The Team also met in early August 2011 where they performed a page-by-page review of the rough draft CWPP with all attendees' participation and input. Overall buy-in to the document was achieved and collaboration efforts were approved. One potential project was discarded, two new projects were identified, and a list of suggested additions to the CWPP was developed.

In late August 2011, members of the Core Team met and approved the final set of WUI boundaries, determined project prioritization method and assignments, reviewed the Revised Draft VDO CWPP, and determined the "next steps" required for progress. Attendees included VDO residents, members of the VDO Board of Directors, and a representative from FireWise Council of Southwest Colorado. *Several Team members were unable to attend due to their assignments on active wildfires.*

A CWPP final draft unveiling and input-gathering workshop was tied to the POA annual meeting in September 2011 with participants including residents of VDO, members of the VDO Board of Directors, and representatives from San Juan Public Lands Center (USFS/BLM) and FireWise Council of Southwest Colorado.

The POA Board has received process and planning input from the following professionals:

- Craig Goodell, Fuels Mitigation and Education Specialist for the San Juan Public Lands Center;
- Kent Grant, District Forester for Colorado State Forest Service in Durango;
- Butch Knowlton, Director for La Plata County Office of Emergency Management;
- Steve Ebner, Chief for Fort Lewis Mesa Fire Protection District;
- Pam Wilson, Program Director for FireWise Council of Southwest Colorado; and
- Tammy Tyner, CWPP Coordinator for FireWise Council of Southwest Colorado, and Owner of Wildfire Solutions, LLC.

VI. Wildfire Risk Assessment

The potential risk to VDO from a wildland fire is HIGH. This section discusses the factors considered and contributing to the overall rating.

Fire Hazard

The fuel structure in the Vista De Oro region has been significantly modified by fire suppression efforts and there are more sources of human caused ignition now than in the past. The nature of the vegetation in the Vista De Oro area is thick piñon-juniper and oak brush. The terrain is another contributor to fire hazard and to the rapid spread of fire, as the subdivision is cut in half by a deep canyon with steep canyon walls with piñon and juniper growing on the canyon slopes. Many areas, within and bordering the subdivision, are inaccessible by vehicle and can be accessed only by foot or by air. Thick vegetation, steep terrain, and lack of access to many areas in or around the subdivision present challenges for firefighting efforts. The location of residences close to the canyon shoulder also creates challenges for structure protection. During the Vista Fire of 2008, the first consideration was the safety of the residents in relation to the location of the fire. Evacuations on the west side of the subdivision were considered, but did not occur.



Once a fire has the ability to get established, a fast moving fire is anticipated, possibly moving upslope and wind driven or topography driven, that would create extreme and erratic fire behavior. Flame impingement on structures, outbuildings, vehicles and utilities are of concern, thus, leading to grave concerns regarding the life safety issues of occupants of the subdivision which may require them to “shelter in place” or evacuate. “Shelter in place” would be considered a last resort provided that the subdivision could be evacuated early in the incident and the residents would have the appropriate time to evacuate using the subdivision roads or established secondary routes.

History – Fire History near the VDO WUI

In the past 20 years there have been numerous wildfires in the area. The vast majority of these fires have been lightning caused with the larger fires being holdovers that emerge several days after the lightning. Large fires within or adjacent to the VDO WUI include the 2002 Cherry Creek (SUA/PVT), 2002 Breen (PVT), 2002 Cow Camp (SUA/BLM/PVT), 2005 Trail East (BLM/PVT/SUA), 2006 Weaver (UMA), 2007 Bear (PVT/SUA) and the 2012 Weber Fire (BLM/PVT).

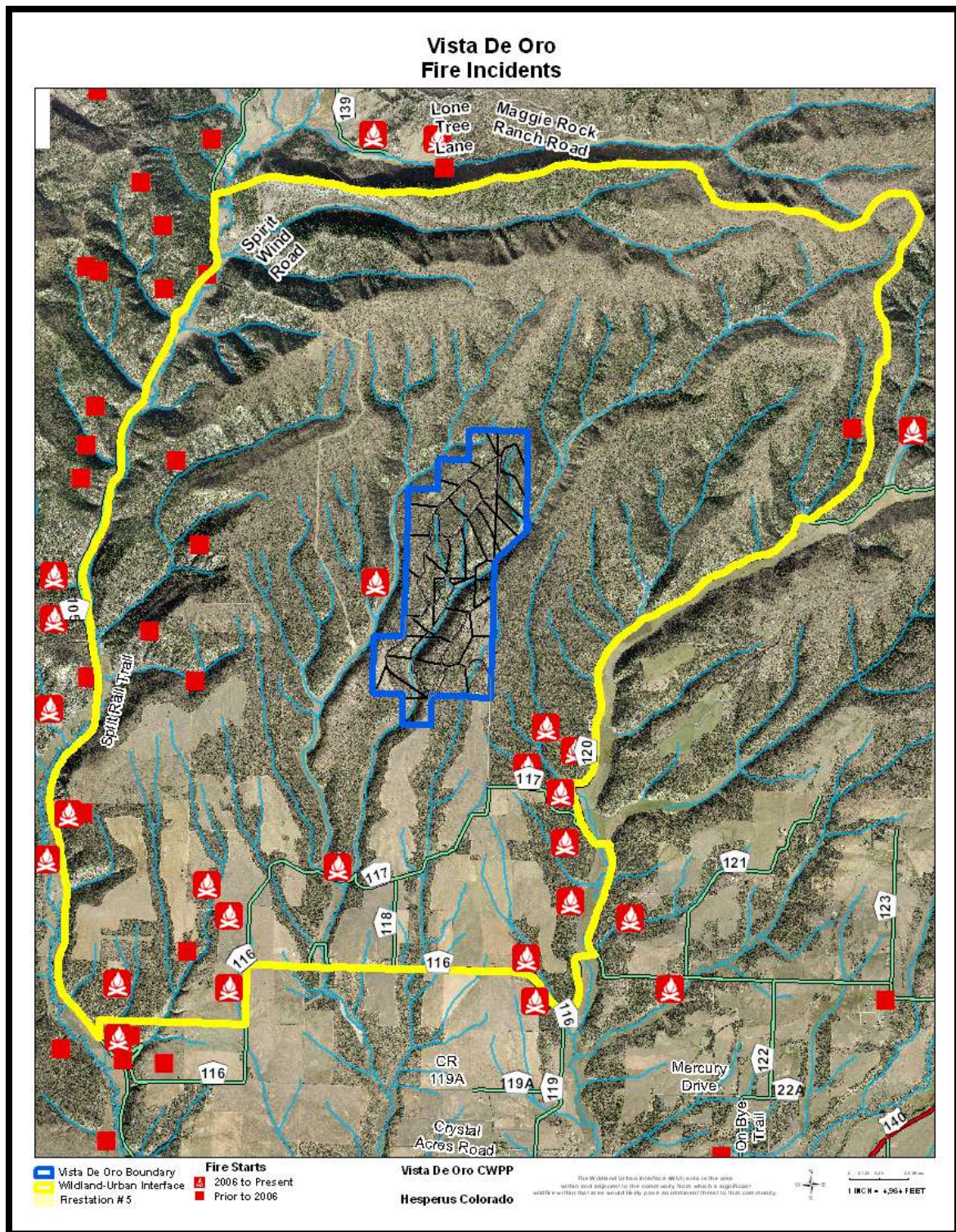
In October 2012 the Little East Fire came close to the VDO WUI and burned 80 Acres. In June 2012, the Weber Fire burned in excess of 10,000 acres, caused the evacuation of 350 homes, and threatened the town of Mancos. The Weber fire threatened and damaged critical communications infrastructure and cost over \$6,000,000 to suppress.



Had the Weber Fire not been contained on the west side of East Canyon, it is very likely that it could have spread into the VDO WUI if not the subdivision itself.

Local Wildfire History

In the last six years the Fort Lewis Mesa Fire Protection District has responded to many incidents of natural cause (lightning).



VDO CWPP Table V: Fire Incidents - Vista De Oro WUI (past 6 years)					
Year	Fire Number	Location	Fire Type	Area Affected	Land Ownership
2011	11-00075	CR 120 & CR 117	Lightning Strike	Single Tree	Private
	11-0078	8000 Cr 105	Wild Land	6 Acres	Private
2010	10-00043	1652 CR139	Grass Fire	¾ Acre	Private
	10-00108	CR 139	Grass Fire	¼ Acre	Private
2009	09-1793	CR 116 & CR 117	Wild Land	½ Acre	Private
	09-03090	7275 CR 105	Lightning Strike	1/10 Acre	Private
	09-04139	5720 CR 116	Grass Fire	¼ Acre	Private
2008	08-02586	8875 CR 105	Wild Land	16 Acres	Federal
	08-02710	700 Brave Ct	Wild Land	50 Acres	Private
	08-02818	CR 116 & CR 120	Lightning Strike	Single tree	Private
2007	07-03497	Hwy 160 & CR105	Lightning Strike	Single Tree	USFS
	07-2895	3000 Blk CR 120	Lightning Strike	Single Tree	Private
	07-2883	3000 Blk CR 120	Lightning Strike	Single Tree	Private
	07-2548	Cr 117 & CR 120	Grass Fire	¼ Acre	Private
	07-2460	CR 117	Lightning Strike	¼ Acre	Private
	07-2409	1000 Blk CR 117	Brush Fire	½ Acre	Private
	07-1854	4000 Blk CR 120	Lightning Strike	Single Tree	Private
	07-1851	4000 Blk CR 120	Lightning Strike	Two Trees	Private
	07-1766	1000 Blk Hwy 160	Brush Fire	½ Acre	USFS
2006	06-01826	10685 CR 120	Lightning Strike	Single Tree	Private
	06-1305	2400 Blk CR 120	Brush Fire	3 Acres	Unknown
	06-1280	7082 CR 105	Lightning Strike	Single Tree	Unknown
	06-3004	8800 BLK CR 105	Lightning Strike	Single Tree	Unknown
	06-0399	CR 117 & CR 120	Lightning Strike	Single Tree	Not reported
	06-3804	9000 Blk CR 120	Grass Fire	3 Acres	Private
	Not Assigned	CR 105 & CR 116	Lightning Strike	Single Tree	Private
	06-2414	5653 CR 105	Lightning Strike	¾ Acres	Private
	06-02223	CR 120 & CR 117	Lightning Strike	Single Tree	Ute Mountain
	06-2201	CR 120 & CR117	Lightning Strike	Single Tree	Private
	06-2186	CR 116	Lightning Strike	Single Tree	Unknown
	06-2175	385 CR 116	Lightning Strike	Single Tree	Private
Source: FLMFPD					

Most of the incidents were caught early and kept small. The largest in the immediate vicinity of Vista De Oro was the Vista Fire in 2008, where lightning caused a 50-acre fire in heavy piñon-juniper just west of the Vista De Oro property boundary.

Structural Vulnerability

The main principle concerning structure ignitability is that the structure is a source of fuel and may burn just as readily as oak brush or piñon pine.

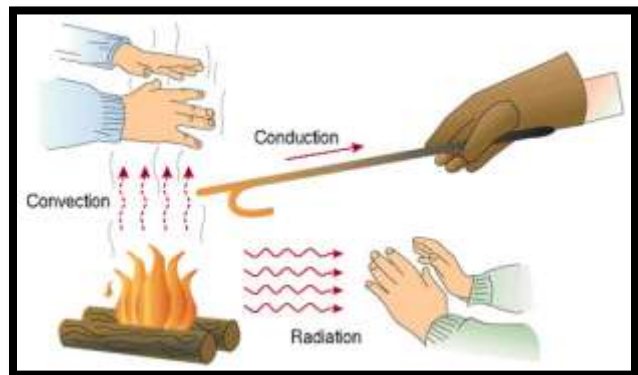
Structures lost to wildfire can occur by conduction, radiation, or convection.

Conduction – Heat transfer to another body or within a body by direct contact. When heat is sustained near flammable fuels, conduction provides the process that continues to transfer heat through the fuel masses and supports the fuels continued and complete combustion. In wildfires, embers or firebrands falling on combustible surfaces of a home transfer heat energy to the surface by conduction.

Radiation – Heat transfer by way of electromagnetic energy.

The best example of heat transfer by radiation is the sun's heating of the earth.

Radiation occurs when the structure becomes hot enough to combust without direct flame contact. During wildfires, radiant heat transfer from large flames in close proximity to a home may fracture large plate glass windows. Should the fractured glass be heavy enough to then fall out of its casing, the home becomes vulnerable to firebrands entering these openings and resulting in ignition(s) inside the home. Radiant heat may spontaneously ignite combustible material such as the structure's roofing or siding materials.



Radiant heat may spontaneously ignite combustible material such as the structure's roofing or siding materials.

Convection – Heat transfer by circulation within a medium such as a gas or liquid. Convective heat transfer to combustible materials on, or near homes requires direct contact with combustible materials by the flames or the hot gasses emitted by the flames. In wildfires, convected heat energy is usually not sufficient to ignite a wood wall when the distance becomes tens of feet beyond the wall. In the absence of defensible space, a large volume of vegetative fuel can quite easily create convection.

Firebrands

Firebrands are embers or burning pieces of limbs, leaves or twigs that can ignite a new fire if they fall upon a suitable fuel bed. Firebrands may lodge in the crevices of roofs, eaves or side paneling and smolder for several hours before combustion. Firebrands carried by the wind or on air currents resulting from the fire may be transported over a mile from the fire front. Volumes of windborne firebrands have been proven to be a primary cause of structure loss during a wildland fire.



Requirements for Fire

The fire requirements triangle shows that heat, oxygen, and fuel are required to achieve fire. Critical factors that increase the chances of structure loss are flammable roofing materials (cedar shingles) and flammable vegetation (trees, shrubs and debris/wood piles) near the structure. A wildfire does not burn a structure unless it meets fuel and heat requirements sufficient for ignition and continued combustion. With this understanding of fire behavior, the flammability of the structure and its immediate surroundings can be managed to reduce the chances of ignition and loss during a fire incident.



Property Owner Empowerment

The primary and ultimate responsibility for structure protection during wildland fires lies with the structure owner. The following are two actions that home owners can take to greatly reduce the chances of wildfire burning their structure:

- Develop a defensible space around the structure that is at least 100 feet wide, use low combustible plant material for landscaping and remove wood piles next to the structure.
- Use noncombustible construction material to the extent possible. The minimum is noncombustible roofing material.

*The **primary** and
ultimate **responsibility**
for structure protection
during wildland fires lies
with the
STRUCTURE OWNER.*

POA Action

VDO has in place an Architectural Review Committee that reviews and approves all building plans for the subdivision per the Association's Covenants and Building Requirements. Firewise, noncombustible materials have been used in the construction of

existing structures. It is imperative that the Committee continues to approve only plans that follow the covenants and requirements, including the use of noncombustible building materials on outer, exposed surfaces during structure construction, and suggested wildfire mitigation (see Project #16, section VII, Wildfire Preparedness Plan).



A variety of wildfire mitigation and fuels reduction treatments including mowing, thinning, and pruning have been conducted throughout the subdivision. Such treatments include some measure of defensible space creation on 100% of the lots containing occupied structures, Rights-of-Way clearing along driveways and roadways, and fuels reduction on sections of common property. Roadways within the subdivision allow for two-way traffic, and all driveway widths meet or exceed the 10-foot minimum requirement by the Fort Lewis Mesa Fire Protection District (FLMFPD).

FLMFPD Action

A formal triage/assessment was conducted on each Vista De Oro lot by FLMFPD. Access to structures by firefighting equipment has been rated “very good,” and structural vulnerability has been assessed at an overall risk rating of “moderate” by FLMFPD. The District has suggested the need for further thinning along specific sections of existing roadways and driveways to further improve emergency access capabilities (see Project #4 and Project #9, section VII, Wildfire Preparedness Plan).

Community Values at Risk & Hazard Assessment Values

Eleven of the 35 (31%) lots in VDO contain structures. These structures are in the forms of permanent homes, free-standing garages, and sheds or outbuildings. Of the eight permanent homes, six (75%) are occupied throughout the year by approximately 15 residents. House pets are common and highly valued as well.

VDO owners place a very high premium on the natural surroundings and the visual quality of the rolling landscapes. Large areas of heavily burned, charred forest are most objectionable whether the structures burn or not. When the views are seriously eroded much of the intrinsic and financial value of the properties and structures will also be lost.



Other community values include wildlife habitat, scenic areas, and landscapes of historical, economic or cultural value. Essential infrastructure such as evacuation routes, municipal water supply structures, and major power or communication lines exists, as well. Risk to livestock is present, as VDO has a pasture lease with a local rancher who places cattle in the community for grazing annually in the summer and fall.

Access

The 8.7 miles of gravel and dirt roads provide good access to VDO. All roads are well marked/signed, and all occupied residences have some type of posted



address. There are only three named roads within VDO (De Oro Way, Sand Ridge Court, and Brave Court) and there are only two driveways that lead to empty lots. Road grades on the mesa plateaus of the subdivision are all less than 7% within the VDO

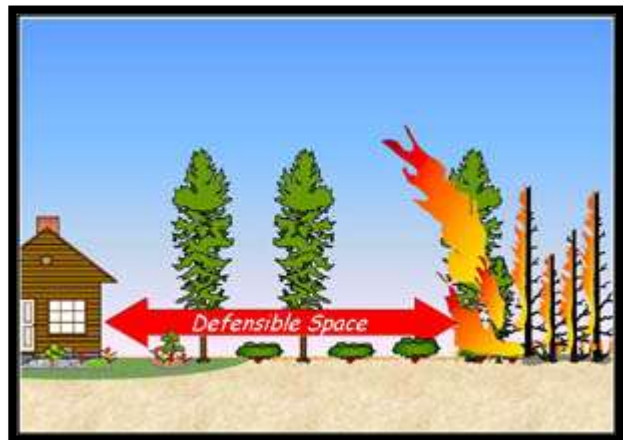
subdivision and from these roads all residences are accessed. There is a very deep canyon cutting the subdivision in half with very steep road grades, the steepest portions on the east side of the canyon road with short runs of 10% grade, totaling less than 0.10 miles. The grades are manageable for FLMFPD emergency vehicles, as they are 4 or 6 wheel drive and are geared down for rough/steep

terrain. The west side is all at 10% or less. None of the residences use this area of the canyon subdivision road for property access, but this roadway is the only access to the western half of the subdivision. All individual driveways leading into the residences within the Vista De Oro subdivision are below 5% grade, thus making access by all apparatus very manageable. Turnarounds and cul-de-sacs at the end of roads are adequate for modern large structure fire equipment.

Risk

The general risk of wildfire occurrence in the VDO area is high, with the potential for lightning-caused fires rated as high and the potential of human-caused fires rated as low.

Numerous types of risks are associated with wildland fires, but three are of major concern. The first concern is the risk to property owners attempting to evacuate with



less than perfect conditions. The second is the risk to firefighters who are attempting to protect property. Third is the risk to the property from wildfire. The defensible space concept addresses both the second and third factors under one umbrella.

Defensible space is an area around a structure where fuel and vegetation are treated, cleared, or reduced to slow the spread of wildfire towards the structure and reduce the intensity of the fire as it passes the developed area. This also reduces the chances of structure fires moving from buildings to surrounding vegetation. A structure is likely to withstand a wildfire if vegetation is managed to reduce a fire's intensity. Structure design and construction also influence its survivability when a wildfire passes through a community. Removing flammable material such as firewood, lumber and gasoline from decks and around structures will result in big dividends if an ember storm hits the home. Only inorganic material, as opposed to regular mulch, should be used around the first 5 feet of the home.

Defensible space has been created and the removal of flammable materials around structures has been accomplished on all developed lots, adding to the "moderate" risk assessment of structure vulnerability by FLMFPD.



Triage

An overall assessment was conducted for each structure within VDO as a pre-triage measure. Triage is the concise decision-making process that determines the priorities for action in an emergency, and is used by FLMFPD when a wildfire threatens multiple structures at the same time. The pre-triage assessments led FLMFPD to the conclusion that 100% of the occupied structures in VDO are defensible. This "Defendability" rating is a summary of all the factors listed below.

1. Position of residential structures in relation to topography
2. Exterior finishes of residential structure, including decks, balconies, chimneys and overhangs from structure
3. Subdivision roads, width, road surface condition, vegetation along roadway and grades
4. Vegetation type and density
5. Access to location from subdivision road
6. Defensible spaces immediate to structures
7. Mitigation of vegetation approaching defensible spaces (i.e.... fuels reduction)
8. Utilities, electric & gas considerations

FLMFPD hired a volunteer firefighter with extensive computer skills to develop a comprehensive computer program using Google Earth to compile valuable information obtained in the pre-triage assessment process. This information is available on the main FLMFPD laptop computer and is utilized for emergency and planning purposes.



It is important to understand the role of pre-triage assessment in this Community Wildfire Protection Plan. It is a very quick, inexpensive way to determine overall community wildfire risk and helps to identify areas to focus improvement efforts. Its utility during an actual wildfire depends upon the nature of the wildfire. When only one structure is threatened, firefighting resources are usually assigned to protect that single structure, unless it is totally undefendable.

During a large wildfire scenario when more structures are threatened than there are firefighting resources to protect them, this triage work will help those in charge assign scarce resources to the locations where they have the best chance for success. This CWPP will be an ever evolving document and will be revised on a regular basis to reflect new information about structure defendability and other important fire control issues in VDO.

Evacuation

There is only one way in and out of the VDO community, hence a traffic jam, comprised of emergency vehicles and evacuating residents, is somewhat likely during an evacuation. The main entrance road (De Oro Way) is the only access for the entire subdivision. An informal agreement with an adjacent property owner, Jack Schirard, has been reached which provides an alternative route out of VDO in the case of an emergency. The VDO CWPP recommends evacuation planning to include further investigation into the creation of alternative, emergency access/egress routes for VDO, and the creation of a formal agreement to solidify the route offered by Jack Schirard (see Project #8, section VII, Wildfire Preparedness Plan).

Emergency contact information for each residence and a telephone tree can be obtained from the VDO Property Owners Association.

Protection Capabilities

The Fort Lewis Mesa Fire Protection District has 30 volunteer firefighters, one of which is a full time resident of Vista De Oro, and one full time paid position which is held by the Fire Chief. All fire fighters have been trained to at least the S 130/190 level, basic wildland firefighter.

FLMFPD Fire Stations



Station #5, located on County Road 117, is the closest fire station to Vista De Oro at approximately two miles from the subdivision entrance, and has a response time of approximately four minutes. This is not a staffed station, as it is comprised of volunteer firefighters, but six volunteers reside within three miles of the station and respond to emergency situations with Station #5 equipment (listed on the following page). Response time can be negatively impacted when volunteer firefighters are out of the area for work, vacation, etc.

Station 1 houses:

1. One structure Engine, carries 2,500 gallons of water, 1,750 GPM pump
2. One Type IV Engine, carries 500 Gallons of water, 250 GPM pump

Station 2 houses:

1. One structure Engine, carries 750 gallons of water, 750 GPM pump, and is equipped for structure protection
2. One Type III 6x6 Engine, carries 1,000 gallons of water, 500 GPM pump, and is equipped for wildland firefighting and structure protection.
3. One Type IV Engine, carries 400 gallons of water, 250 GPM pump with CAFS, and is equipped for wildland firefighting and structure protection.

Station 3 houses:

1. One structure Engine, carries 1,000 gallon of water, 1,250 GPM pump with Foam Pro system, and is equipped for structure protection
2. One Water Tender carries 1,500 gallons of water, 300 GPM pump.



Station 4 houses:

1. One structure Engine, carries 1,000 gallons of water, 1,000 GPM pump, and is equipped for structure protection
2. One Type III 6x6 Engine, carries 1,000 gallons of water, 500 GPM pump, and is equipped for wildland firefighting and structure protection.
3. One Type IV Engine, carries 300 gallons of water, 250 GPM pump, and is equipped for wildland firefighting and structure protection.

Station #5 houses:

1. One Structure Engine, carries 1 ,000 gallons of water, 1,000 GPM pump, and is equipped for structure protection
2. One Type III 6x6 Engine, carries 1,000 gallons of water, 500 GPM pump with CAFS, and is equipped for wildland firefighting and structure protection.
3. One Water Tender, carries 1500 gallons of water, 500 GPM pump
4. One water supply Engine, Carries 750 gallons of water, 1,000 GPM pump, 3 300 GPM porta pumps, 2,500 gallon porta tank and is also equipped for structure protection



Additional reinforcements and wildland firefighting capabilities are available from participants of the *Southwest Colorado Annual Fire Operating Plan*. Approval participants and Acknowledgement participants to the agreement were previously listed in this CWPP. These additional resources are at least 30 minutes away with availability based upon work load at the time of the request. Additional funding and reimbursement for wildfire costs are available from the *Emergency Fire Fund*, *Wildfire Emergency Response Fund*, and other potential Federal and State funding assistance previously described in this CWPP.

Water Supply

All Vista De Oro residences have private wells for personal water supply, and six have installed cisterns which provide a total of 13,200 gallons of additional water



storage that can be accessed for emergency purposes (see VDO Table VI on the following page). VDO currently has a 6,000-gallon water tank accessible for wildfire fighting purposes at the junction of Brave Court and De Oro Way. A plan is in place to purchase another recycled, 6,000-gallon tank in the near future with assistance from the FLMFPD. However, due to the recent economic recession, fewer water storage remodeling projects are occurring,

reducing the availability of recycled tanks. Therefore, this project is on hold until a recycled tank becomes available.

VDO CWPP Table VI: Cisterns Located within Vista De Oro		
Cistern #	Location	Capacity (gallons)
1	700 Brave Court	1,800
2	225 Sand Ridge Court	1,800
3	*500 Sand Ridge Court	1,800
4	*500 Sand Ridge Court	1,800
5	595 Sand Ridge Court	3,000
6	625 Sand Ridge Court	1,500
7	650 Sand Ridge Court	1,500
Total Cistern Capacity		13,200
*Two, 1,800-gallon cisterns exist at 500 Sand Ridge Court.		

FLMFPD Station #5 has 24,000 gallons of water storage and the tanker shuttle capabilities stated above. King Coal Mine I is approximately four miles from the VDO entrance and is currently developing 30,000 gallons of water storage which should be available upon approval of the VDO CWPP. King Coal Mine II is approximately three miles from the VDO entrance and has 100,000 gallons of water in storage that can be shuttled via tanker.

Local Wildland Fire Management Policy

As stated on page 36, the local wildland fire management policy of Fort Lewis Mesa Fire Protection District (FLMFPD) is full suppression, early recognition for additional resources through the *Southwest Colorado Annual Fire Operating Plan* (AOP), and coordination of all available resources to bear as necessary to attack all fires with full force to achieve full containment and control as early as possible to prevent large scale conflagrations.

VII. Wildfire Preparedness Plan

Audience

The audience for the Wildfire Preparedness Plan includes the residents of Vista De Oro, landowners immediately surrounding the subdivision who can benefit from mitigation activities on their properties and within the subdivision; other subdivisions in the area such as Hidden Ridge and Cougar Mountain;



government agencies planning complementary mitigation treatments and/or supplying grants or matching funds to perform mitigation; and emergency responders.

Outreach methods may include:

- Educational information dissemination at annual POA meetings.
- Educational information, including the national Firewise Newsletter, posted on VDO website.
- Identified, individualized mitigation needs mailed to all lot owners with methods to cost-effectively accomplish those actions (including cost-sharing and grants).
- Annual progress updates to audience members.

Desired Future Condition

The desired future condition of Vista De Oro will be a safer community protected from catastrophic wildfire moving through the subdivision and destroying community values. Structure vulnerability will be low due to consistent use of



noncombustible building materials and fire resistant landscaping. Fuels within 100 feet of residences and roads will be maintained at levels which support only low intensity surface fires, while fuels in the remainder of the subdivision support low to moderate intensity wildfire. Ladder fuels such as Gambel oak will be kept from beneath tree crowns. Oak and other shrubs will be left in scattered clumps, retaining the best stands, especially those with

a tree-like growth form, at an appropriate distance from one another. Openings between clumps will be mowed, brush hogged, masticated, and/or treated with herbicide to prevent oak from filling back in between clumps. Grass in the openings will be mowed, or at least those closest to structures, especially after it cures in late summer.

Home Ignition Zone

The Home Ignition Zone (HIZ) primarily determines a home's ignition potential. This "zone" includes the home and immediate surroundings up to 200 feet. Although we can never ensure a home won't ignite, we can be tremendously effective in reducing the ignitability of homes by selecting ignition resistant building materials, by assessing the home and its surroundings and rectifying problem areas that may allow for ignition, and by creating defensible space (manipulating the surrounding landscape and vegetative fuels).



As the flammability of structural and vegetative fuels is reduced by treating HIZs, communities become more ignition resistant as they no longer support the requirements for combustion. When this occurs, the exposure to fire fighters around treated home zones is reduced, their safety is enhanced, and fire fighting resources become more efficient.

Ignition Sources

The ignition of a home might occur from one or more of these sources:

1. Big Flames: Crown fire or intense surface fire
One objective in treating the HIZ is to keep crown fire and high intensity surface fire at a distance of 100-200 feet or more from homes and other potential hazards (flammables, buildings, etc.).
2. Small Flames: Surface fire
Another objective of treating the HIZ is to keep small flames at a distance of 30 feet or more from homes and flammable attachments (decks).
3. Firebrands: Embers
A final and essential objective of treating the HIZ is to eliminate beds of fine fuel and entry points for firebrands on and near homes.

HIZ Assessment

The overall objective of an HIZ assessment is to discover measures that can be taken which will help prevent the home from igniting. While every HIZ is site specific and unique, the following questions should be asked during an assessment (these questions are by no means all inclusive):



- Overview of Surroundings – the surrounding area (topography and vegetation) and location of the home relative to the broad environmental picture
 - Are there topographical features that will adversely affect the home's risk of ignition, i.e. steep slopes, natural chimneys (steep narrow draw or small canyon), etc.?
 - How is the home positioned in relationship to potentially severe fire behavior?
 - Will local weather conditions play a role in fire behavior?
 - In which direction is a fire most likely to come from?
 - What is the frequency of Red Flag warnings in that area? (For Red Flag warning information go to www.nws.noaa.gov.)
 - Are there adjacent ignitable homes that will contribute to heat intensity, flame contact, and fire spread from firebrands?
 - To what degree might other properties affect the ignitability of the home?
 - If the home is on a slope, does that increase its exposure to heat?
 - Is the home set back from the slope enough to reduce its radiant heat exposure?
- Peak to Eaves – roof peak, eaves and gutters
 - Is the roof constructed of ignition resistant building material?
 - Are there areas of the roof, attic, eaves, ridge, vents, etc. with openings that will allow access to wind-blown and falling firebrands?
 - Can the roof surface material or covering be easily ignited by flames or firebrands?
 - Are there gaps in the roof covering that might allow small wind-blown firebrands to penetrate under the covering and ignite material below?
 - Is the roof subject to the collection of flammable vegetative litter (leaves, pine needles, etc.) and buildup that can be ignited by firebrands?
 - Are gutters and eave troughs made from combustible materials (e.g., wood, vinyl)?
 - Are gutters attached to flammable fascia boards that can be ignited by fine fuels burning in the gutters?
- Eaves to Foundation – eaves, eave vents, siding, windows, screens, fences, decks, and spaces between the home and the ground (e.g., beneath the deck, in crawl spaces, and other nooks and crannies)
 - Are attic, crawl space, eave, and soffit vents appropriately protected (e.g., 1/8" metal screening, noncombustible skirting) to prevent entry of firebrands?

- Are roof turbine vents screened (1/8" screen) to prevent the entry of firebrands into attic spaces?
- Is vegetation close enough to windows and overhangs to provide intense radiant heat or flame contact?
- Are large windows constructed of multi-paned or tempered glass that will resist fracture from intense heat?
- Are window screens made from a material that will not allow hot firebrands to enter the home's interior?
- What is the wall covering or siding (wood, vinyl, brick, stucco, etc.)?
- Can litter build up and accumulate on surfaces next to walls?
- Are there flammable walkways, fencing or decking attached to the home?
- Will combustible decking provide ember beds next to combustible walls?
- Are decks, balconies, and porches open underneath to allow debris and embers to collect?
- Foundation to Immediate Landscaped Area – lawn and yard area (out to 30 feet from the home)
 - Are the first 3-5 feet from the home as free of flammable vegetation and combustible materials as possible?
 - Is flammable vegetation so close to windows that it would provide intense radiant heat or flame contact?
 - Would landscaping materials (i.e., mulch, ground cover) in this area and surrounding plants support flaming combustion?
 - Is landscape vegetation in this area irrigated and/or include low flammability plants?
 - Have all highly flammable plants, like junipers and ornamental conifers, been removed or trimmed and maintained?
 - Has the vegetation deposited flammable leaf litter or pine needles that can support surface fire and flames?
 - Is fuel adjacent to the home that could easily be ignited by firebrands? (Examples of such fuels include vegetation, flammable materials, firewood, animal nests, brooms, welcome mats, furniture cushions, gasoline cans, piled construction material, etc.)
 - Are liquid petroleum gas (LPG or propane) tanks clearly visible and at least 30 feet from the home?



- Are small propane tanks used for RVs and BBQs located away from the home?
- Is a vehicle or RV near the home parked over flammable material that could ignite and spread fire to the vehicle?
- Do woodsheds, gazebos, garages, or other structures near the home have ignition resistant roofing that is maintained free of flammable material?
- Immediate Landscaped Area to the Extent of the HIZ – outward from the typical “yard” area (30 feet) to 100-200 feet from the home
 - Are there areas of vegetation (i.e., natural areas, undeveloped areas, landscaped areas, fields) that could lead surface fire to the immediate landscaped area?
 - Is the area maintained to prevent high intensity fire?
 - Are ladder fuels present?
 - Are flammable tree crowns separated enough to prevent big flames from coming within 30 feet of the home?

VDO CWPP Table VII: Examples of HIZ Mitigation Recommendations	
Wildfire Hazards	Mitigation Action
Combustible (Ignitable) Roofing	This one item is the most important change a resident can make to improve the survivability of the home. Even though changing from combustible roofing to noncombustible roofing may be cost prohibitive, the installation of a noncombustible roof should be a long-term objective.
Flammable Vegetation	The resident can effectively reduce the flammability of their landscaping by working outward from the home in "zones" by reducing the amount of flammable vegetation, rearranging the home's vegetative fuels, breaking up the continuity of these fuels, eliminating certain fuels altogether, or by using a combination of these approaches.
Nearby Structures	The resident may or may not be able to physically move an outbuilding, for example, to decrease the exposure to the main home, but may be able to reduce its flammability by eliminating or limiting the fuels around it that could cause it to ignite and transfer additional heat to the main home. Another option might be to install more fire resistive materials (siding) on the exterior wall(s) of the main home and or outbuilding.
Combustible Structural Materials	The materials used in the construction of a house are an important consideration in mitigating its ignition potential. Replacing aging exterior siding, vulnerable to flames or firebrands, with newer flame resistant materials will reduce the ignition factor, as will changing from wooden gutters to metal, or eliminating/cleaning gutters that tend to collect tree litter more readily than diverting rainwater. Replacement of doors and windows/screens is also a tenable option.
Source: Assessing Wildfire Hazards in the Home Ignition Zone, Student Workbook	

The reduction of ignitability in the HIZ must largely occur before the threat from wildfire. Treating structural and vegetative fuels must be taken on prior to the potential for wildfire occurrence. Without effective mitigation actions, response from fire and emergency services during severe situations may only be marginally effective.

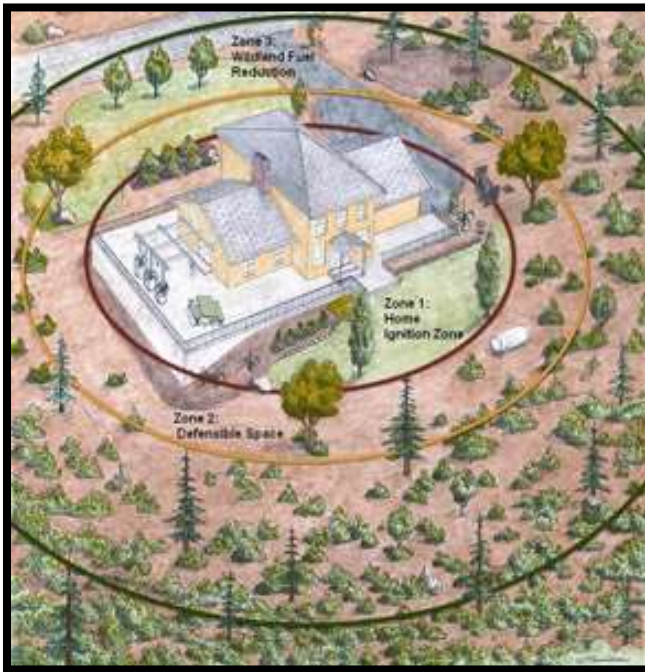
During severe fire conditions, fire protection resources are most challenged. When conditions do not allow us to control nature and stop a fire from entering a community, our most effective action is to reduce the ignitability of the homes, thereby preventing community-wide damages.

Fuels Treatment Types

Several types of fuels treatment are addressed in the Vista De Oro CWPP. The following are descriptions of those types of treatments along with examples of wildfire hazard mitigation measures that can be taken.

Defensible Space Creation

Defensible space, as mentioned in the Home Ignition Zone section, is an area



around a structure where fuels and vegetation are treated, cleared, or reduced to slow the spread of wildfire towards the structure. A 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. It also reduces the chance of a structure fire moving from the building to the surrounding forest. Defensible space provides room for firefighters to effectively and safely do their jobs. Due to limited resources, firefighters are required to make decisions regarding safety and

defensibility during fire events. The possibility exists that they might pass up trying to defend a property/structure that has minimal defensible space and go to another location where their efforts would be more successful and it would be safer for them to make a stand. Defensible space can also make it safer for residents to "shelter in place" if it is necessary or they chose to do so. It can help

a house or other structure survive even if the subdivision has been evacuated, or if firefighters are not present to fight the fire when it arrives, or if a burning ember starts a new fire near the structure.

The measure of fuel hazard refers to its continuity, both horizontal (across the ground) and vertical (from the ground up into the crowns of vegetation). Fuels with a high degree of both vertical and horizontal continuity are the most hazardous, particularly when they occur on steep slopes. Heavier fuels (brush and trees) are more hazardous (i.e., produce a more intense fire) than light fuels such as grass. Mitigation of wildfire hazards focuses on breaking up the continuity of horizontal and vertical fuels. Additional distance between fuels is required on slopes.

The construction of defensible space involves developing a series of management zones in which different treatment techniques are used. The actual design and development of defensible space depends on several factors: size and shape of buildings, materials used in their construction, the slope of the ground upon which the structures are built, surrounding topography, and sizes and types of vegetation on the property.

Defensible Space Management Zones:

Zone 1, the heart of the Home Ignition Zone, is the area of maximum modification and treatment and consists of 30 feet immediately around the structure of which the first 3-5 feet is noncombustible.

Zone 2 is an area of fuel reduction that extends 100 feet out from the structure. Tree crowns should be spaced an average of 10-20 feet from each other.

Zone 3 is an area of traditional forest management zone that extends beyond the defensible space to the property boundary. Tree crowns in this zone should be spaced an average of 5-10 feet apart, with random “clumping” of healthy tree stands that reflects a natural, mosaic pattern.

Specific prescriptions for each zone are listed in the Colorado State Forest Service QUICK GUIDE SERIES, FIRE 2012-1 – *Protecting Your Home from Wildfire: Creating Wildfire-Defensible Zones*” which is an appendix to this plan and can also be found at:

http://csfs.colostate.edu/pdfs/FIRE2012_1_DspaceQuickGuide.pdf.

Piñon-Juniper Thinning

It is recommended that a non-uniform spaced thinning be conducted in the piñon-juniper stands not only for reduction of fire hazard, but to enhance the visual quality of the stands and to replicate the natural structure found in piñon-juniper stands in the southwest. This type of thinning is more appropriate outside of the defensible space zones for structures. Trees should be spaced 10 feet between crowns. Some trees may be left in small clumps with interconnected crowns, but to compensate, greater spacing should be created between the clumps. Tree clumps are essential habitat for several wildlife species that inhabit piñon-juniper stands. All ladder fuels should be removed from under the remaining trees and, ideally, these trees should be limbed up to 1/3 the height of the tree.



Thinning piñon-juniper stands not only reduces fire hazard, but will also enhance individual tree and forest health. Thinned forests are at lower risk of disease and infestation, and have a higher wildfire survival rate, both major threats to the forests of southwest Colorado. Property owners are encouraged to contact the Colorado State Forest Service or a private forestry consultant for help in designating trees for removal during the thinning process.

Shaded Fuelbreaks

A shaded fuelbreak is an easily accessible strip of land in which fuel density is reduced, thus improving the possibility of fire control. As opposed to a firebreak



which is completely void of vegetation, a shaded fuelbreak is a strategically thinned strip of land where vegetation is modified to reduce vertical and horizontal continuity. Timber stands are thinned, and remaining trees are pruned to remove ladder fuels. Brush, heavy ground fuels, snags, and dead trees are reduced or cleared to create an open park-like appearance. When placed along

boundaries, roadways, driveways, and ridge tops, shaded fuelbreaks serve as potential fire line locations (points from which to attack an advancing fire), increase the possibility of crown fires losing intensity and dropping to the ground, and can increase the safety of ingress and egress during wildfires.

General Forest Stewardship Treatments

Other forest stewardship treatments can be incorporated into wildfire hazard mitigation efforts to help accomplish a variety of other goals. Examples include:

- Thinning to enhance overall forest health by reducing competition between trees for sunlight, nutrients, and moisture.
- Brush thinning and mastication (chipping) to reduce the vertical continuity of heavy fuel loads.
- Control of noxious or troublesome weeds.
- Enhancement of wildlife habitat or aesthetic qualities.



Thistle

Examples of Wildfire Hazard Mitigation Measures

These measures were obtained from the following Colorado State Forest Service publications: *Protecting Your Home from Wildfire: Creating Wildfire-Defensible Zones*; *Firewise Construction – Design and Materials*; and *Fuelbreak Guidelines for Forested Subdivisions and Communities*.

- Creating defensible space as previously described.
- Separating crown distance between coniferous trees to lower the likelihood of their sustaining a crown fire.
- Removing branches overhanging the roof and chimney.
- Removing or lowering ladder fuels, such as brush and small trees (i.e., Gambel oak) from beneath tree crowns.
- Creating small scattered clumps of brush spaced at an appropriate distance from each other.
- Removing lower tree limbs to a height of 8-10 feet from the ground (or to 1/3 the height of the tree, whichever is the least).
- Irrigating the lawn to keep green and mowing tall grasses.
- Cleaning combustible debris from under decks, roofs, gutters, next to structures, and within defensible space area.
- Positioning stacks of firewood and propane tanks away from structures (ideally above or at the same level) and clear combustible vegetation from around them.
- Using chimney screens and maintaining them in good condition.
- Screening attics, roof eaves, and foundation vents to keep out burning embers.
- Screening, enclosing, or walling up stilt foundations and decks to prevent burning embers from landing beneath and starting a fire.
- Using fire-resistant building materials in the construction of new buildings and when remodeling.
- Making sure driveways are designed and constructed to adequate width, grade, and curve radius, and that they have turnouts and turnarounds where appropriate. Clearing overhanging branches that may interfere with taller firefighting apparatus.
- Having an outdoor water supply, complete with hose and nozzle.

- Keeping fire extinguishers of adequate type and size in good operating condition.
- Having easily accessible tools such as shovels, rakes, hoes, and axes for use in case of a fire.

Action Plan – VDO Projects

Five wildfire hazard mitigation projects (projects #1 through #5) have been defined for Vista De Oro (see the map on the following page: Proposed Mitigation Projects). Although landowners are encouraged to implement wildfire hazard mitigation treatments on their property at their earliest convenience, these larger projects are listed and prioritized in the VDO CWPP Table VIII: Action Plan for Implementing the Vista De Oro CWPP. Some measure of defensible space / fuels reduction treatments have already been implemented on all developed lots, but some lots will require additional treatment. The need to maintain fuel mitigation treatments over time applies to every lot within the subdivision. Some lots at Vista De Oro are located outside of or partially within project areas. Although the greatest perceived need(s) within each project area is listed below, other wildfire hazard mitigation measures on these properties should not be ignored.

Two shaded fuelbreak projects (projects #2 and #5) have been identified on land located within the WUI, but outside of Vista De Oro. These projects will reduce the overall wildfire risk for the subdivision.

Additional projects (projects #6-23), in conjunction with the fuels treatment projects stated above, are intended to further prepare Vista De Oro for upcoming wildfire events.

The majority of funding for these projects is expected to come from grants that may be available once the VDO CWPP is approved. Grant funding may be provided by BLM (Community Assistance Grants), CSFS (WUI Grants), and even by FEMA if La Plata County completes its FEMA All Hazards Plan which is currently in preparation.

Time-Sensitive Projects

Project prioritization was determined based on each project's ability to reduce overall wildfire risk. Each project was given its own, separate priority rating (which corresponds directly with its project number), as opposed to clustering projects under a limited number of ratings.



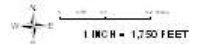
This aerial map displays a property with several distinct areas and features. A large area is outlined in blue, containing a red dashed line and a yellow dashed line. A yellow solid line outlines a smaller area at the bottom. An orange solid line outlines a narrow strip on the left. A red solid line outlines a small area in the center. Labels include 'De Oro Way' at the top and bottom, 'Brave Court' on the left, and 'Sand Ridge' in the center. Numbered markers #1 through #6 are placed throughout the map. A scale bar at the bottom right indicates 117 feet.

	1		4
	2		5
	3		6

 Vista De Oro Boundary

Hesperus Colorado

The Wildland Urban Interface (WUI)-area is the area within and adjacent to the community from which a significant wildfire within that area would likely pose an imminent threat to that community.



Project #1: Eastern Ridge-Line of East Alkali Gulch Shaded Fuelbreak

Located in the southern half of the subdivision, Project #1 (P1) consists of the creation of a shaded fuelbreak along the southeast ridge-line of East Alkali Gulch within the subdivision boundaries. The purpose of this treatment is to modify the existing vegetation to reduce vertical and horizontal continuity, resulting in improved firefighting capability and reduced ability of the remaining vegetation within the treatment area to sustain high intensity crown fires.

Comprised of portions of lots 7-11, P1 follows the contour of the ridge-line, is roughly 100-feet wide, 1.25-miles long, and encompasses a total of approximately 15.15 acres. This project was given the priority rating #1, will cost approximately \$19,360, and has a targeted completion date of September 2013.

Project #2: Subdivision Boundary Shaded Fuelbreak

Located to the south of the Vista De Oro subdivision, Project #2 (P2) consists of the creation of a shaded fuelbreak along the outside perimeter of the subdivision boundaries. The purpose of this treatment is to modify the existing vegetation to reduce vertical and horizontal continuity, resulting in improved firefighting capability and increased possibility of potential crown fires losing intensity and dropping to the ground.

Comprised of five properties owned by four separate property owners (Jack Schirard, England Fourth Family LTD Partnership, The Waters Family Trust, and Kaynet C Rathjen), P2 follows the subdivision boundary, is roughly 100-feet wide, 1.5-miles long, and encompasses a total of approximately 18 acres. This project was given the priority rating #2, will cost approximately \$15,444, and has a targeted completion date of September 2013.

Project #3: Fire Shelter with Defensible Space

Located in the northern half of the subdivision, to the west of East Alkali Gulch, and on the east corner of the Haggarty/Caldwell property (lot 34, 4382 De Oro Way), Project #3 (P3) consists of the creation of a fire shelter and defensible space surrounding the shelter. The purpose of this project is to provide a safety shelter for residents and firefighters to utilize as a last resort during a wildfire event in which evacuation from the subdivision is not possible. The shelter itself will be a Zircon modified to ensure proper ventilation to support 24 people for a period of at least 4 hours.

Zone 1 defensible space will be created around the shelter to slow the spread of wildfire and to increase firefighting capability. The Zircon unit, modified to fulfill fire shelter needs, will be buried under soil to protect the people sheltering in place from radiant heat.



NOTE: Butch Knowlton, Director of the La Plata County Office of Emergency Management, has strongly recommended that a concrete entryway be created and connected to the front entrance of the Zircon unit. The entryway should extend six to eight feet out from the Zircon, make a 90-degree turn (preferably to the north due to prevailing wind direction), and then extend an additional six to eight feet before it ends. Once buried, the entryway will reduce the amount of radiant heat associated with wildfire that reaches the Zircon unit, thus, better protecting the people inside. More research is necessary to estimate the costs associated with the creation of the concrete entryway.

This project was given the priority rating #3, will cost approximately \$93,632 (excluding the costs associated with the concrete entryway), and has a targeted completion date of September 2015. It should be noted that the estimated cost stated above is based on the retail prices of the Zircon and supplies. Significant savings can be realized by “shopping around” for a previously owned container and supplies.

Project #4: Right-of-Way Shaded Fuelbreak

Located in the northern half of the subdivision and to the west of East Alkali Gulch, Project #4 (P4) consists of the creation of a shaded fuelbreak along strategically selected sections of De Oro Way. The purpose of this treatment is to modify the existing vegetation to reduce vertical and horizontal continuity, resulting in improved firefighting capability, increased possibility of crown fires losing intensity and dropping to the ground, and increased safety of ingress and egress during wildfire events.



Comprised of several sections of Right-of-Way along De Oro Way, the P4 shaded fuelbreak consists of fuels reduction treatments that are roughly 100-feet wide (measured 50-feet from centerline on both sides of the road and including the road itself), an additive total of approximately 0.75-miles long, and an area of approximately 7.5 acres. This project was given the priority rating #4, will cost approximately \$9,075, and has a targeted completion date of September 2014.

Project #5: West Alkali Gulch Shaded Fuelbreak

Located to the southwest of the Vista De Oro subdivision, Project #5 (P5) consists of the creation of a shaded fuelbreak along the east ridge-line of West Alkali Gulch outside of the subdivision boundaries. The purpose of this treatment is to

modify the existing vegetation to reduce vertical and horizontal continuity, resulting in improved firefighting capability and increased possibility of crown fires losing intensity and dropping to the ground.

Comprised of one property owned by Jack Schirard, P5 follows the ridgeline, is roughly 100-feet wide, 3800-feet long, and encompasses a total of approximately 8.72 acres. At its closest point, this project actually reaches the Vista De Oro boundary, and extends as far from the subdivision boundary as 3,300 feet. This project was given the priority rating #5, will cost approximately \$7,722, and has a targeted completion date of September 2014.

Project #6: Additional Water Storage

VDO currently has a 6,000-gallon water tank accessible for wildfire fighting purposes. A plan is in place to purchase another, recycled, 6,000-gallon tank in the near future with assistance from FLMFPD. However, due to the recent economic recession, fewer remodeling projects are occurring, reducing the availability of recycled tanks. Efforts dedicated to the search for another recycled, 6,000-gallon tank should continue. Once purchased, the tank needs to be buried, piped, and filled so it can be utilized by emergency personnel in future fire events. This project was given the priority rating #6, will cost approximately \$6,996, and has a targeted completion date of December 2012.

Project #7: Uniform Street Address Signage

Standardized, universally installed, visible, reflective street address signs or markers are imperative for first responders' effectiveness. La Plata County has



already assigned the street numbers and presently the county is providing these signs at a minimal cost of approximately \$35. The VDO Board of Directors will facilitate the installation of these standardized address signs and follow up to ensure all of the signs are posted properly, including those on vacant lots. This project was given the priority rating #7, will cost

approximately \$385, and has a targeted completion date of December 2012.

Project #8: Evacuation Planning

The VDO community's principal evacuation route leaves the subdivision through De Oro Way and connects to County Road 117 which leads to County Road 120 in Hay Gulch.

Secondary evacuation roads are also important to VDO residents. They may be the only routes to safety in the event that the principal route is blocked by fire or emergency vehicles. Currently VDO has NO formal secondary evacuation routes. An informal agreement with an adjacent property owner, Jack Schirard,



has been reached which provides an alternative route out of VDO in the case of an emergency, but there is no written document formalizing this agreement. The VDO CWPP recommends further investigation into the creation of alternative, emergency access/egress routes for VDO, and the creation of a formal agreement to solidify the route offered by Jack Schirard.

When an evacuation order is given by the local officials, just making sure that everyone is notified will be a major task. The current phone tree may work for some, but time will be of the essence. Back-up plans should be in place when key individuals in the calling tree are unavailable, as wildland fires spread quickly depending upon a number of factors. An evacuation simulation would be a real test for VDO residents and should be addressed by the Board of Directors. A test run would give everyone involved a better sense of the task to be undertaken.

This project was given the priority rating #8, will require more research to determine estimated cost, and has a targeted completion date of December 2012.

Project #9: Driveway Rights-of-Way Thinning

Utilizing previously collected triage information, the VDO Property Owners Association and the FLMFPD need to collectively identify driveways within Vista De Oro that require thinning to improve emergency vehicle access and to reduce the overall wildfire risk of the subdivision. Once that is accomplished, an estimate for mitigation of each driveway in need can be obtained and disseminated to the appropriate property owner. Grant funding can be applied for by the VDO Property Owners Association to help lessen the costs incurred by the individual property owners. This project was given the priority rating #9, will require more research to determine estimated cost, and has a targeted completion date of September 2012.

Project #10: La Plata County Maintenance of County Road 117

Although County Road 117 was built to La Plata County standards, responsibility of its maintenance is currently deferred to the Vista De Oro Property Owners Association. Further investigation into, and lobbying for, the possibility of La Plata County taking responsibility for maintaining the



county road should be conducted. County maintenance could significantly improve ease of access into the subdivision by emergency vehicles and increase the safety of VDO residents during emergency evacuation situations. This project was given the priority rating #10, will include no

monetary costs, and has a targeted completion date of November 2012.

Project #11: Reverse 911

La Plata County's central Dispatch emergency communications center now has



the means to send a "Reverse 911" phone call to a cell phone or VOIP (Skype, Vonage, etc.) phone number. Previously, only land-line phones could be notified of an emergency by a Reverse 911 call. The notifications are sent out by Central Dispatch after receiving notification from the Sheriff's Department or the Office of Emergency Management. Since the reverse 911 system can play an important role during emergency events, this CWPP recommends that the POA provide information to VDO residents regarding the system. The VDO CWPP recommends that cell phone numbers be kept track of and updated annually. The following link can be used to list cell phone and VOIP phone numbers with the system:

<http://www.durangogov.org/>.

This project was given the priority rating #11, will include no monetary costs, and has a targeted completion date of December 2012.

Project #12: Fire Danger Sign

A Fire Danger sign needs to be purchased, posted, and monitored at the FLMFPD Station #5. *Smokey Zone* (www.smokeyzone.com) offers a two sided, 45" by 32", powder-coated, aluminum sign with reflective lettering and a movable arrow with heavy-duty locking pin. In addition to the sign (right) and its shipping, the purchase of two posts and securing hardware would be required for this project. This project was given the priority rating #12, will cost approximately \$880, and has a targeted completion date of December 2012.



Project #13: Firewise Communities/USA Recognition Program

Continue the steps necessary for Vista De Oro to be recognized as A Firewise Community. This project was given the priority rating #13 and has a targeted completion date of May 2012.



Ongoing Projects

The following are projects that are ongoing and have no final completion date. It is imperative to the wildfire preparedness of the Vista de Oro subdivision and its residents that these projects remain intact and are continually visited and/or revised.

Project #14: Continued Education and Information

Vista de Oro began participation in the FireWise Council of Southwest Colorado (FireWise) in 2004 with the appointment of its first Neighborhood Ambassador.

Vista de Oro currently has one Neighborhood Ambassador who also holds a seat on the FireWise Steering Committee. The Neighborhood Ambassador, the Board



of Directors, and VDO residents have contributed over 1,000 volunteer hours towards the reduction of wildfire risk throughout Vista de Oro, building and repairing projects, and ongoing education. The Ambassador will continue to provide timely educational materials to residents all year long, especially during Wildfire Prevention and Education Month every May.

Project #15: Community Work Days

Vista de Oro has conducted annual community work days for the past seven years. These days involve residents working together to improve wildfire preparedness conditions on the ground. It is recommended that these work days continue on an annual basis and that upon completion of each work day, an evaluation of the current conditions is conducted and that goals are set for the next work day in the upcoming year.



Project #16: Adherence to Noncombustible Building Material Requirements

VDO has in place an Architectural Review Committee that reviews and approves all building plans for the subdivision per the Association's Covenants and Building Requirements. Firewise, noncombustible building materials on outer, exposed surfaces have been used in the construction of existing structures. It is imperative that the Committee continues to only approve plans that follow the Association's Covenants and Building Requirements.

Project #17: Shaded Fuelbreak and Defensible Space Maintenance

Without the use of natural fires, the vegetation in VDO will continue to re-sprout and grow. Therefore, it is imperative that the shaded fuelbreaks and the defensible space created in the VDO subdivision be maintained by the POA and individual property owners.

Project #18: Funds for the Plan

The Vista De Oro POA must continue to seek funds through agencies such as FireWise and CSFS to implement projects recommended in this CWPP.

Project #19: “Lessons Learned”

On an annual basis, the VDO POA will document what worked well and lessons learned over the preceding year, and supply the information in the Annual Report described below.

Project #20: Annual Report

The Vista De Oro POA (VDO POA) will document subdivision accomplishments prior to the annual meeting. An annual report will be submitted by the VDO POA to VDO community members, FireWise, and CSFS. The report will include “Lessons Learned” and project-specific information from fuels mitigation projects and activities over the preceding year.

Project #21: Monitor Mitigation

The CSFS will monitor all wildfire mitigation projects that are covered by grants as required.

Project #22: Review CWPP

The VDO POA will conduct an annual review of the CWPP, measure progress by degree of accomplishment of mitigation benchmarks, and make adjustments to the plan in the form of revisions. The revisions will be forwarded to the VDO community, FireWise, and CSFS.

Project #23: Update CWPP

The VDO POA and CSFS will conduct a formal update of the VDO CWPP within five years of the latest, formally updated CWPP.

Strategic Recommendations

In order to strengthen the ability of VDO to implement the Community Wildfire Protection Plan, the Board of Directors should seek funds to ensure implementation of the plan. These funds are principally available through the Colorado State Forest Service. Information regarding the recommended projects supported by this CWPP is organized in the table on the following page.

VDO CWPP Table VIII: Action Plan for Implementing the Vista de Oro CWPP

Project #	Priority Rating	Action	Estimated Cost	Target Date	Assigned to	Date Completed
1	1	Eastern Ridge-Line of East Alkali Gulch Shaded Fuelbreak	\$ 19,360	Sept, 2013	POA	
2	2	Subdivision Boundary Shaded Fuelbreak	\$ 15,444	Sept, 2013	POA	
3	3	Fire Shelter with Defensible Space	\$ 93,632	Sept, 2015	POA	
4	4	Right-of-Way Shaded Fuelbreak	\$ 9,075	Sept, 2014	POA	
5	5	West Alkali Gulch Shaded Fuelbreak	\$ 7,722	Sept, 2014	POA	
6	6	Additional Water Storage	\$ 6,996	Dec, 2012	POA/FLMFPD	
7	7	Uniform Street Signage	\$ 385	Dec, 2012	POA	
8	8	Evacuation Planning	Unknown	Dec, 2012	POA	
9	9	Driveway Rights-of-Way Thinning	Unknown	Sept, 2012	POA / Prop. Owners	
10	10	La Plata County Maintenance of County Road 117	No Cost	Nov, 2012	POA	
11	11	Reverse 911	No Cost	Dec, 2012	POA	
12	12	Fire Danger Sign	\$ 880	Dec, 2012	POA/FLMFPD	
13	13	Firewise Communities USA	No Cost	May, 2012	POA	
14	Ongoing	Continued Education and Information			POA	
15	Ongoing	Community Work Days		Annually	POA	
16	Ongoing	Adherence to Noncombustible Building Material Requirements		Ongoing	Architectural Review Committee	
17	Ongoing	Shaded Fuelbreak and Defensible Space Maintenance		Ongoing	POA / Prop. Owners	
18	Ongoing	Funds for the Plan		Ongoing	POA	
19	Ongoing	"Lessons Learned"		Annually	POA	
20	Ongoing	Annual Report (submitted to Community, FireWise, CSFS)		Annually	POA	
21	Ongoing	Monitor Mitigation	grant funded	As Required	CSFS	
22	Ongoing	Review CWPP		Annually	POA	
23	Ongoing	Update CWPP		< 5 years	POA/CSFS	

VDO CWPP Table IX: Project Cost Estimates						
Project #						
1	Eastern Ridge-Line of East Alkali Gulch Fuelbreak	Cost/Acre \$ 1,100	Total Acres 16	Subtotal \$ 17,600	10% Discrepancy \$ 1,760	Total \$ 19,360
2	Subdivision Boundary Shaded Fuelbreak	Cost/Acre \$ 780	Total Acres 18	Subtotal \$ 14,040	10% Discrepancy \$ 1,404	Total \$ 15,444
3	Fire Shelter with Defensible Space					
		Cost/Acre	Total Acres	Subtotal	10% Discrepancy	Total
	Mitigation	\$ 1,100	1	\$ 1,100	\$ 110	\$ 1,210
	Zircon			\$ 80,000	\$ 8,000	\$ 88,000
	Excavation			\$ 4,020	\$ 402	\$ 4,422
	Supplies			\$ -	\$ -	\$ -
	(More research - costs to create the concrete entryway)				Total	\$ 93,632
4	Right-of-Way Shaded Fuelbreak	Cost/Acre \$ 1,100	Total Acres 7.5	Subtotal \$ 8,250	10% Discrepancy \$ 825	Total \$ 9,075
	[0.75 mile = 0.75 x 5280ft, 3960ft x (100-20)ft = 316800sqft, 316800sqft/43560(sqft/acre) = ~7.5 acres]					
5	West Alkali Gulch Shaded Fuelbreak	Cost/Acre \$ 780	Total Acres 9	Subtotal \$ 7,020	10% Discrepancy \$ 702	Total \$ 7,722
6	Additional Water Storage Refurbished Tank			Subtotal \$ 1,000	10% Discrepancy \$ 100	Total \$ 1,100
	Excavation			\$ 4,460	\$ 446	\$ 4,906
	Piping			\$ 500	\$ 50	\$ 550
	Water			\$ 400	\$ 40	\$ 440
					Total	\$ 6,996
7	Uniform Street Signage	Cost/Sign \$ 35	Total Signs \$ 10	Subtotal \$ 350	10% Discrepancy \$ 35	Total \$ 385
8	Evacuation Planning	(More research needed.)			Total	\$ -
9	Driveway Rights-of-Way Thinning	# of Lots ?	Cost ?	Subtotal \$ -	10% Discrepancy \$ -	Total \$ -
	(More research needed.)				Total	\$ -
12	Fire Danger Sign			Subtotal	10% Discrepancy	Total
	Sign			\$ 675	\$ 68	\$ 743
	Shipping			\$ 25	\$ 3	\$ 28
	2 Posts + hardware			\$ 100	\$ 10	\$ 110
					Total	\$ 880
	Estimated Costs highlighted in yellow require further research.					

VIII. Monitoring & Evaluation

The completion and approval of this CWPP is a valiant accomplishment in and of itself. However, it is imperative to the safety and wildfire preparedness of the Vista De Oro community that the actions listed in the Plan are implemented. This is a “living” document that requires periodic monitoring, evaluation, and revision.



The Vista de Oro POA will revisit the CWPP and associated accomplishments each summer (prior to the annual meeting), and make adjustments to the Plan in the form of revisions. The Board of Directors (BOD) and Neighborhood Ambassadors will seek funds through the Colorado State Forest Service and the FireWise Council of Southwest Colorado for the purpose of implementing this Plan. In addition, the BOD and Neighborhood Ambassadors will do the following:

- Encourage a wildfire preparedness attitude in the community.
- Facilitate ongoing cooperation and collaboration between the Vista De Oro BOD, FLMFPD, USFS/BLM, CSFS, FireWise, and La Plata County officials.
- Coordinate annual community work days.

Monitoring and evaluation of outreach, education and mitigation efforts within the Vista De Oro and its WUI are an important part of the CWPP. The monitoring and evaluation actions, responsible parties, and frequency, are shown below.

VDO CWPP Table X: Monitoring Efforts		
Party	Action	Frequency
POA	Annual Report to the Community, FireWise Council of SW Colorado , Colorado State Forest Service	Annually
CSFS	Monitoring of mitigation work status for work covered by grants	As required
POA/FLMFPD	Inspection of and recommendations for VDO subdivision including roadways, driveways, and defensible spaces	Bi-annually

VDO CWPP Table XI: Evaluation of Efforts		
Party	Action	Frequency
POA	Annual Report will list “Lessons Learned” from fuels mitigation projects and activities over the preceding year.	Annually
POA	Review CWPP and measure progress by degree of accomplishment of mitigation benchmarks	Annually
POA/CSFS	Update CWPP	No more than 5 years

Lessons from Recent Fires & Firefighters

- The primary and ultimate responsibility for structure protection during wildfires lies with the structure owner.
- Fire Protection capabilities are limited...more now than in the past.
- Firefighters will try to do as much work to protect your property as you have done to mitigate wildfire before it comes.
- Firefighters often have to make the tough decision regarding which homes they can save and which they have to skip over.
- In a sizable fire event, there aren't enough emergency vehicles to park in front of everyone's home...will your house be chosen due to your proactive efforts?



“The future depends on what you do today.”

~Mahatma Gandhi