

Valley Park Community Wildfire Protection Plan

Valley Park Homeowners Association

December, 2022

Version 1.6

Version	Comments
1	Initial submission
1.1	Modified to reflect comments received from Core team
1.2	Added approval signatures
1.3	Removed addresses from maps and lot table from appendix
1.4	Added verbiage that the plan is voluntary, and that plan dates are for planning purposes only. Removed all references to lot numbers. Either removed entire map showing lots or removed lot lines from maps where streets were also identified.
1.5	Removed last of owner names, corrected map references that had been removed, adjusted target plan dates, removed statistical tracking of lots inspected.
1.6	Updated area information. Replaced Douglas County Open Space regulation with a link to the doc. Update Section V, Assessment of Wild Fire Risks. Replace LFPD capabilities with a link to the document. Update Community Action and Fuel Treatment Action Plan tables. Added Record of Activity table.

Table of Contents

I. Executive Summary	1
A. Sponsorship	1
B. Community Background	1
C. Valley Park Home Owners Association	1
II. Plan Initiation	2
A. Core Team	2
B. Outside Threats	2
C. Community Work Areas	2
D. Primary Mitigation Strategies	2
E. Outside Agencies	2
F. Resident Notification	3
G. This Document	3
III. History of Valley Park	3
IV. Establish Community Base Map	5
A. Community Location	5
B. Fire Protection District	5
C. Other Developments	6
D. Community Description	7
E. Utilities	7
F. Wildfire Urban Interface	7
V. Assessment of Wildfire Risks in the Community	10
A. Methodology:	10
B. Fuel Types	10
C. Compartment Descriptions	15
D. Community Egress	17
E. Assessment of County Right-of-Ways (ROW) in Valley Park:	18
F. Assessment of Private Roads in Hidden Valley	20
G. Assessment of Douglas County Open Space Parcels in Valley Park	20
H. Topography and Potential Fire Behavior	21

I.	Weather and Fire Behavior	22
J.	Structural Ignitability	23
K.	Assessment of General Forest Health	23
L.	Assessment of VPHOA and Community Residents	24
M.	Assessment of Signage Issues	24
N.	Assessment of Emergency Staging Areas	24
O.	Assessment of the Community Water Resources	25
P.	Assessment of the Alert & Notification Systems	25
Q.	Assessment of LFPD's Wildfire Response Capability	26
R.	Assessment of the National Forest West of the Community	26
VI.	Treatment Objectives and Priorities	29
A.	Community Values and Objectives	29
B.	Priorities for Treatment	29
C.	General Treatment Methods within Compartments	30
D.	Reducing Structural Ignitability Methods	32
VII.	Action Plan and Assessment Strategy	33
A.	Summary of Action Plan	33
B.	Property and Home Owner Actions	33
C.	Douglas County Office of Emergency Management Actions	35
D.	Douglas County Public Works Actions	36
E.	National Forest Service Actions	37
F.	Douglas County Open Space Actions	37
G.	Assessment of Progress	38
H.	Action Plan Lists	38
I.	Douglas County Lands and Right-of-Way	41
J.	Preparedness	42
VIII.	Appendix 1: Factors Influencing Fire Behavior in the Front Range	43
A.	General Discussion:	43
B.	Topographic Features	44
C.	General Climate	45
D.	Assess Fuels (Vegetation) in the Local Area	49

E. Threatened and Endangered Species and Species of Concern in the Area of the CWPP53

IX. Appendix 2: DC Open Space Parcels54

A. Wildfire Hazard Assessment and Treatment Recommendations54

X. Appendix 3: Education Topics for Property and Home Owners.....58

XI. Appendix 4: Home Address Sign Standards59

XII. Appendix 5: Slash Disposal Options.....59

XIII. Appendix 6: Record of Activity60

XIV. Appendix 7: Approval Signatures62

I. Executive Summary

A. Sponsorship

This Community Wildfire Protection Plan (CWPP) is sponsored by the Valley Park Home Owners Association (VPHOA) for the safety of life and protection of property in the Valley. It was immediately apparent that the fate of Valley Park is tightly tied to its adjacent neighbors. Hidden Valley and the Metes / Bounds subdivisions to the north are regularly combined and referred to as Hidden Valley, and the large private parcel adjacent to the southwest. This CWPP covers all four areas and will refer to all of them as the Community. Additionally, this plan will be referred to as the Valley Park CWPP (VPCWPP). Development of this CWPP focused primarily on wildfire hazard identification, fuel mitigation and emergency response. Wherever possible, other values such as wildlife habitat enhancement, forest health restoration, improved aesthetics and increased property values are considered.

B. Community Background

The Community is no stranger to wildfires and the need for wildfire prevention and protection. The media coverage of Cherokee Fire (2003, 1,200 acres), the Buffalo Creek Fire (1996, 11,000 acres), Hi Meadow Fire (2000, 12,000 acre), the Hayman Fires (2002, 138,000 acres) and the Marshall Fire of December 2021 (destroyed over 1000 homes) emphasized the fact that wildfires “can happen here”! While the area has escaped all major wildfires in the past decade, the Hayman Fire came within five miles of the community. As windblown embers fell within the Community, the fire’s Incident Command evacuated the Community for the safety of its residents and consequently the Hayman Fire has left a lasting impression on the residents.

C. Valley Park Home Owners Association

The VPHOA is an organization whose membership is voluntary and consists of Community citizens concerned with improving the subdivision. The VPHOA has recognized the need to mitigate property in the Community for a number of years and has regularly included Firewise and mitigation presentations at its meetings and sponsored training sessions. These efforts have resulted in most owners performing some level of mitigation on their property. However, no properties in the Community are considered fully mitigated. In early 2010, the VPHOA recognized the importance of taking additional action and developing a program to address the wildfire risk to the Community. It began by forming the Firewise Committee to develop a CWPP. The CWPP is intended to generate additional focus on the need of owners to mitigate their property and provide them guidance and priorities. The original CWPP was developed and approved in 2012. The committee reviewed and updated this document (CWPP for Valley Park) in 4th quarter 2022.

II. Plan Initiation

A. Core Team

In 2011-12 the Core team consisting of the Community Firewise Committee, and participation from a broad stakeholder group including Colorado State Forest Service (CSFS), Larkspur Fire Protection District (LFPD), USDA Forest Service (USFS), Douglas County Public Works Department (DCPW), Douglas County Park and Open Space (DCOS), Douglas County Wildfire Mitigation staff and Douglas County Office of Emergency Management (DCOEM) had its first kick off meeting in March 2010. This was followed with numerous meetings of this Core team, focus groups, and Community meetings. In 2022 the Firewise committee of Valley Park met a number of times to review and update the original document.

B. Outside Threats

The Community has significant areas outside of their boundaries that could pose a potential wildfire threat to the Community. These areas are termed in total as the Wildland Urban Interface (WUI). They are bounded by Pike National Forest (Pikes Peak Ranger District) to the West, Sandstone Ranch Open Space (owned by Douglas County) to the North and DC Road 105 (Perry Park Road) to the East and primarily the Woodmoor Mountain Community to the South.

C. Community Work Areas

With this CWPP, care was taken to propose mitigation within the Community for fuel treatments to lower the risk of spreading wildfire internally and to protect residents from potential wildfire intrusion from the various risk sections of the WUI. Five compartments with varying degrees of required mitigation were identified within the Community. Mitigation of these areas should be reviewed annually for progress and re-prioritization. Fuel treatment is not a one-time event. Maintenance will be required on a periodic basis to remove ladder fuels and/or re-open stands with crown closure.

D. Primary Mitigation Strategies

Three primary strategies are employed to achieve mitigation: 1) Encouragement and support of the private land owners doing their own wildfire fuel mitigation; 2) Working with the Douglas County agencies that own lands within the development; 3) Support of on-going fuel and future treatment projects on USFS properties.

E. Outside Agencies

This CWPP identifies the response from agencies that may be employed for wildfire protection and wildfire suppression threatening the community. Douglas County Sheriff's Office, represented by DCOEM, in conjunction with LFPD has the primary responsibility for protecting life and property in the Community in the event of a wildfire incident. If a wildfire event is beyond LFPD resource capability, LFPD would look for assistance from DCOEM and would consider transitioning responsibility for the fire to the Sheriff. The Sheriff statutorily is the Fire Warden for the unincorporated areas of the County. DCOEM (inclusive of LFPD) is party to a mutual aid agreement for support from other fire departments from all over the Front Range.

F. Resident Notification

Valley Park does not have any emergency community communication system. Therefore Valley Park residents rely on the CodeRED system. Residents are encouraged to sign up for CodeRED, reference section V. P. for information on CodeRED.

G. This Document

This CWPP is a “living” document that will be evaluated and maintained annually as a responsibility of the VPHOA Board of Directors. Consequently, this plan should be amended and edited annually to assure that it stays viable and achieves its original intent. Annual meetings should be held with stakeholder agencies to review the progress and effectiveness of this CWPP. A general public meeting should also be conducted annually to receive public input. The recommendations described in this plan are provided as a resource to homeowners who voluntarily take an active role in reducing fire hazards on their property. The plan does not require homeowners or agencies to implement the recommendations on their respective properties.

III. History of Valley Park

In the early 1900's Elmer Ware, who originally homesteaded the Valley Park area in the late 1800's, rented the property to the Sedbook family. During this same time Joseph Metz had homesteaded Metz Canyon which is located just to the west of the subdivision in the Pikes Peak National Forest. Joseph was of German descent and married Ms. Sedbook who was of Irish descent and probably part of the Sedbook family in Valley Park. The Metz's were to have ten children, seven girls and three boys while living in the canyon. One of Metz's main crops was the timber in the area. It was primarily used to create railroad ties. The ties were hauled on mules to the railhead in Larkspur, where they were sold to the railroad.

Visitors of Metz Canyon have seen the remains of two cabins near the waterfall. These cabins were actually built in the 1960's during exploration for uranium. Little or no uranium was found, but during the search, silica sand, feldspar and molybdenum were discovered. Silica sand was used for cleaning oil well equipment; feldspar to make porcelain for sinks, toilets, and dishes, and molybdenum to harden steel.

Meanwhile back in the Valley, the homestead was lived in by a progression of tenants after the Sedbook's, Matt Davis, the Murr's, and then the Ira Raymond family. Wallace Turner and family moved there in 1936 and lived there for 5 years.

During the time the Turners lived in the Valley homestead, the log house was moved from its original setting further down in the valley to its present location in the center of Valley Park. The move took two weeks to complete but located it close to a spring in the draw which was used to keep things cool much like a refrigerator. Corn, oats and hay were raised on the ranch to help feed the cattle.



Figure 1: Historic Valley Park Buildings

When the Turners moved out, Mrs. Turner's folks, Mr. and Mrs. Jay McClure moved in. Around 1940 while the McClure's lived on the property, Tom Starr bought the homestead from Elmer Ware and ran electricity to the property.

About 1950 Doc Forest Button purchased the ranch from Tom Starr. The McClure's continued to live in the log house until Mrs. McClure passed away in 1955. Mr. McClure stayed on for a few years until Doc Button sold the ranch to a developer in the early 1960's. Mr. McClure then moved into a little house at his granddaughter's place, now the Tommy Prince residence on Fox Farm Road.

It took the developer until 1972 to develop the Valley Park Plat Filling with its 75 lots on 592 acres and start selling. There were six houses built in 1972 and the Valley Park sub-division was off to a fast start. As of 2010, 56 lots had been developed, and there are 63 owners. As of 2022, 65 lots in Valley Park and 12 in Hidden Valley have been developed. The history provided here came from two lifelong residents of the Larkspur area. Betty Prince was a resident of Larkspur until she passed away in December of 2007, and from Lewis Been (aka Louie). His father-in-law was Charlie Metz, one of Joseph's three sons. Louie married Charlie's daughter, Georgie. Children from this marriage were Lois, Gloria and Gerry Been. Gerry lives in Larkspur and is a direct descendant of Joseph Metz.

IV. Establish Community Base Map

A. Community Location

The Community is located along the front range of Colorado, in south-central Douglas County.



Figure 2: Douglas County Colorado

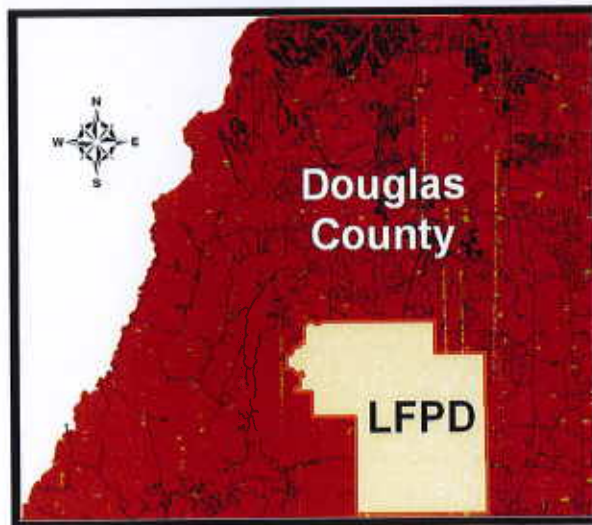


Figure 3: Larkspur Fire Protection District Location

B. Fire Protection District

The Community is located outside of Larkspur in the Larkspur Fire Protection District (LFPD). The LFPD encompasses approximately 110 square miles of land and is located half way between Denver and Colorado Springs metropolitan areas. The neighboring sub-developments of Perry Park and Woodmoor Mountain both have active CWPP's in place.



Figure 4: Larkspur Fire Protection District Detail

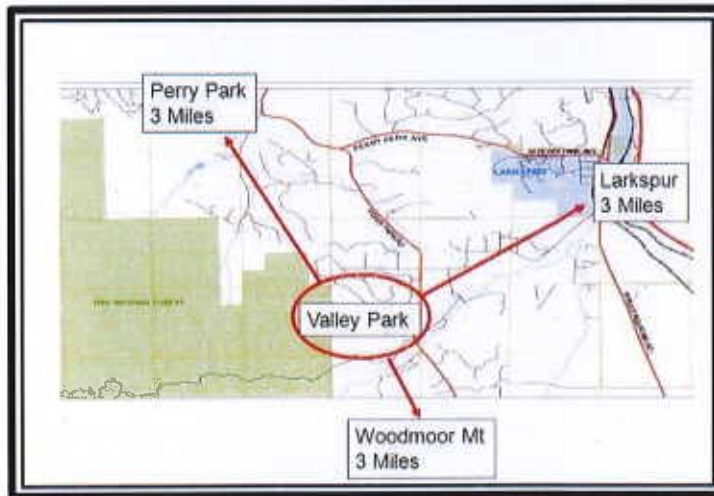


Figure 5: Valley Park Location

C. Other Developments

Between the Community and Perry Park is the Douglas County Sandstone Ranch Open Space. Between the Community and Woodmoor Mountain are a number of smaller ranches and ranchettes.

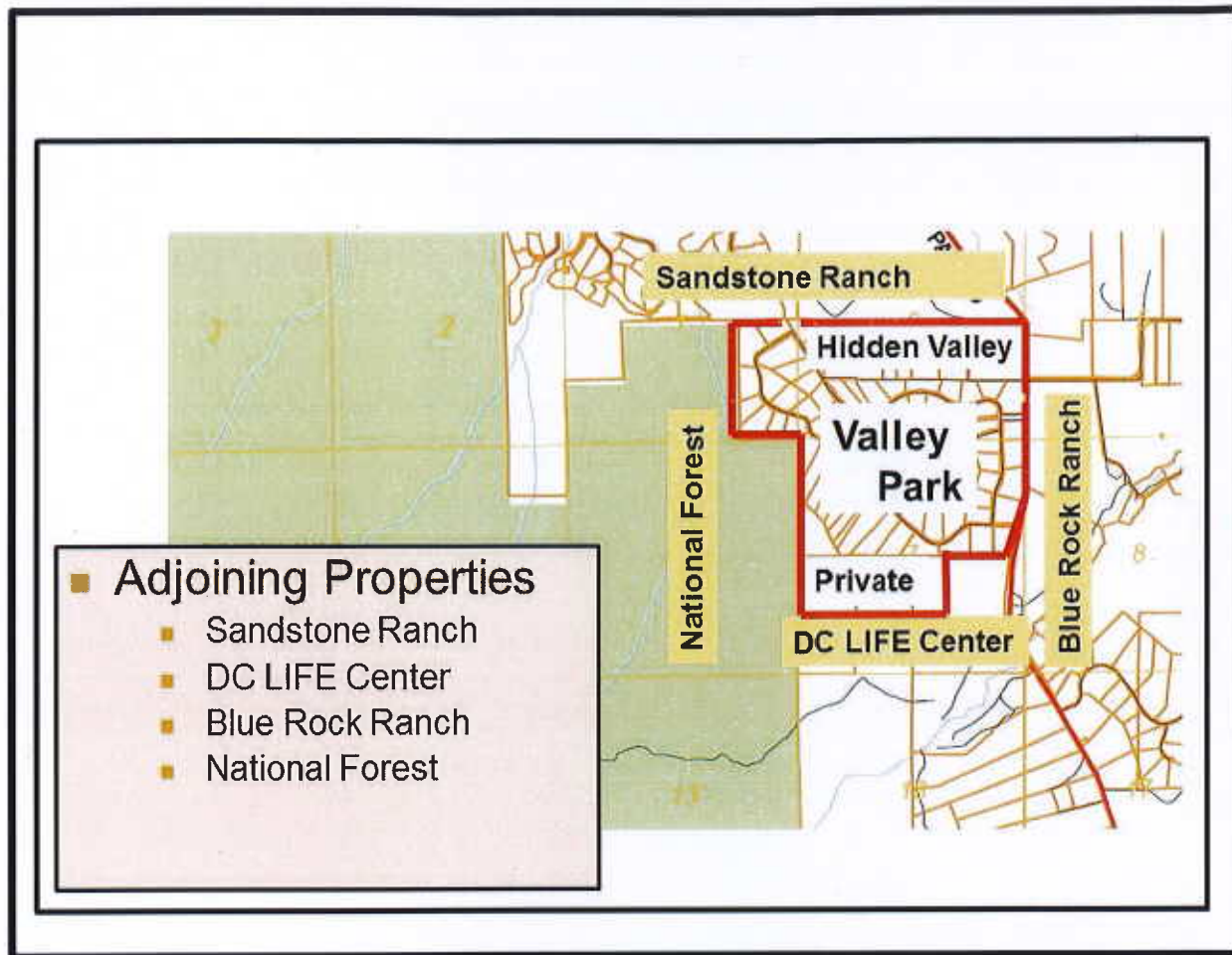


Figure 6: Adjoining Properties

D. Community Description

The community consists of 89 lots each approximately 5 acres. Each lot with residential construction is served by a well and septic system. There is no central, community water supply. All roads in the community are gravel.

E. Utilities

The community has above ground electric lines and most houses have natural gas. The remaining homes use propane. Phone lines are buried. There is no cable in the Community. Cell phone reception is limited. Internet is available via satellite, relayed and phone lines.

F. Wildfire Urban Interface

The Wildfire Urban Interface (WUI) is an area where structures and other development adjoin or are intermixed with hazardous vegetation. The Community protection zone is shown in the following figure:

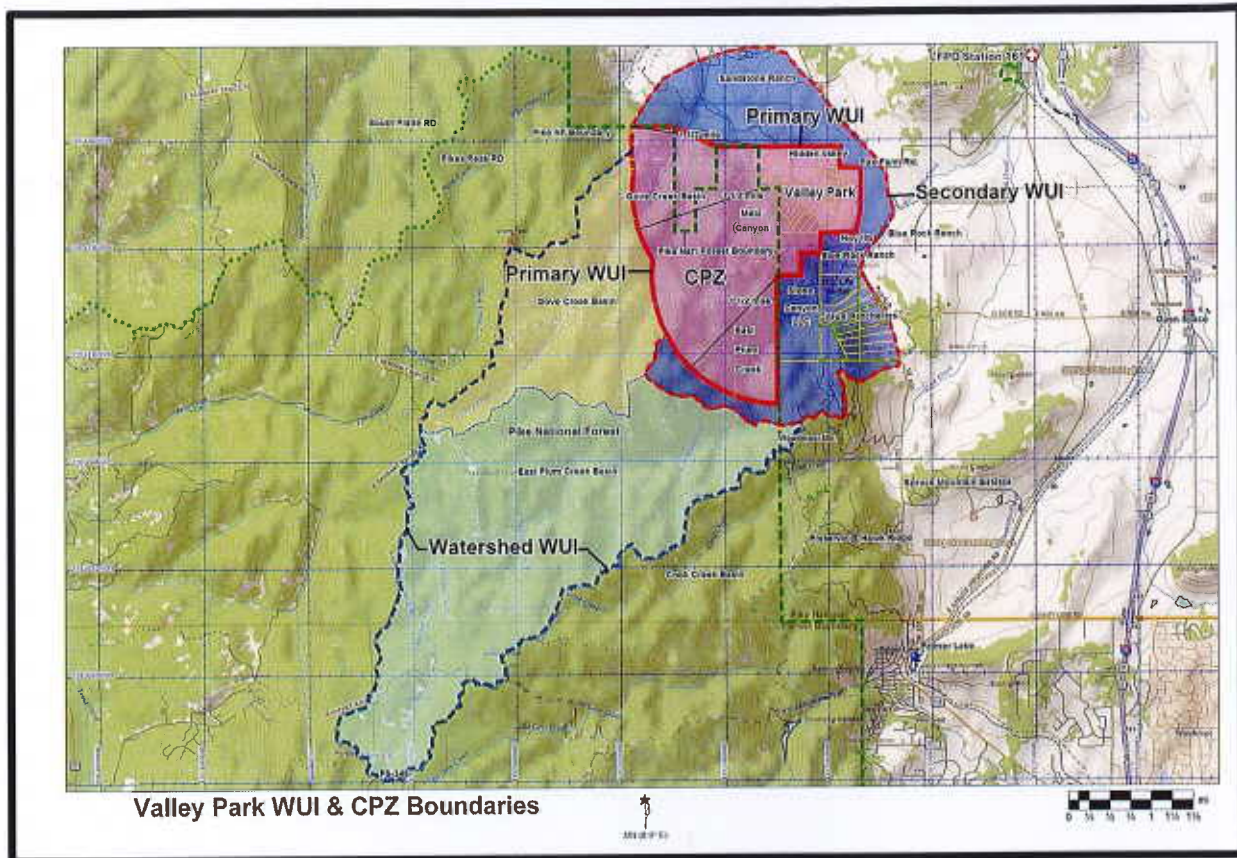


Figure 7: Valley Park WUI

1. Primary Wildland Urban Interface (WUI) Boundary Descriptions:

- a) The Primary WUI includes private holdings, Douglas County right of ways, Douglas County Open Space lands and federal land within the Pike National Forest.
- b) The Primary WUI has a perimeter of 10.86 miles and an area of approximately 5.53 square miles or 3,539 acres.
- c) The Primary WUI boundary for the Valley Park CWPP includes all property parcels within the Valley Park subdivision boundary. The west boundary of the Valley Park subdivision is the Pike National Forest boundary.
- d) The properties located within the Hidden Valley subdivision to the north of Valley Park are included within the Primary WUI and are comprised of private land parcels and private roadways.
- e) The large private land parcel adjoining the south west corner of the Valley Park subdivision is included in the Primary WUI and is a private land parcel.
- f) A section of the Sandstone Ranch Open Space that is surrounded on three sides by the Pike National Forest is also included within the Primary WUI boundary.
- g) The federal lands included within the Primary WUI are located within the Pike National Forest and are a part of the Rampart East Roadless Area. As such, the proposed Colorado Roadless Petition defines an area within a designated roadless area that is within 1-1/2 miles of a

community's border, and meeting certain criteria, as a Community Protection Zone or CPZ. The CPZ, as designated by the Colorado Roadless Petition, is included in the Primary WUI of the Community.

- h) Lands within the Primary WUI and CPZ are the areas of highest priority for fuel reduction efforts and implementation of other wildland fire mitigation strategies as defined within this CWPP.

2. Secondary WUI Boundary Descriptions:

- a) Lands within the Secondary WUI include private parcels, Douglas County right-of-way and Federal land within the Pike National Forest.
- b) This area includes a total of approximately 5.23 square miles or 3,347 acres of area beyond the Primary WUI boundary and has a perimeter of 19.65 miles.
- c) The Secondary WUI for the Valley Park CWPP encompasses an area beyond the Primary WUI and includes a portion of Sandstone Open Space adjoining to and north of Valley Park and Hidden Valley within approximately one mile of the Primary WUI.
- d) The Secondary WUI encompasses a portion of the East Plum Creek basin to the south of Valley Park which includes; the Douglas County LIFE Center (previously the Griffith Center), the Vaux Ranchettes subdivision, a northern portion of the Woodmoor Mountain subdivision, and federal land within the Pike National Forest.
- e) The Secondary WUI boundary is used to identify lands where fuel reduction and other wildland fire mitigation efforts would have a great impact on the reduction of wildland fire risk to Valley Park.
- f) The Secondary WUI boundary is defined by terrain features and land use elements that may be utilized through preparatory mitigation efforts to inhibit the progress and reduce the effects of wildland fire, or enhance the tactical firefighting options against a wildland fire that starts in another location and approaches Valley Park.

3. Watershed WUI Boundary Description:

- a) The Watershed WUI boundary for the Valley Park CWPP is the area to the southwest of the Primary and Secondary WUI boundaries that encompasses the upper segments of the Gove Creek drainage basin and the East Plum Creek drainage basin.
- b) This WUI area extends southwest to Rampart Range Road within the East Plum Creek drainage basin. Lands contained in the Watershed WUI are almost exclusively Federal land in the Pike National Forest with the exception of small private land in-holdings or claims within the Pike National Forest.
- c) The Watershed WUI boundary has a perimeter of 22.61 miles and covers approximately 15.00 square miles or 14,470 acres of area beyond the Primary and Secondary WUI boundaries.
- d) The Watershed WUI boundary is used to identify lands defined by terrain features and land use elements that may be utilized through preparatory mitigation efforts to inhibit the progress and reduce the effects of wildland fire, or enhance the tactical firefighting options against a wildland fire that starts in another location and approaches the Community and to reduce the impacts of wildfire to the upper sections of the Gove Creek basin and the East Plum Creek basin watershed.

Wildland fire damage to these watersheds would have significant impact on water quality and significantly increase the potential for damaging floods to those water users and residents downstream of the area.

4. WUI Boundary

The total area covered within all WUI boundary definitions for the Valley Park CWPP is approximately 25.76 square miles or 16,486 acres.

V. Assessment of Wildfire Risks in the Community

This section of the CWPP addresses the identification and assessment of the fuels currently within Community. For an assessment of the general factors influencing fire in this area of the Front Range, see Appendix 1: Factors Influencing Fire Behavior in the Front Range. The wildfire risks section addresses all areas in Community and those areas immediately outside of its boundaries in the WUI.

A. Methodology:

1. Wildfire behavior in the Community will be affected by fuel, weather and topography. No attempt was made to use fuel modeling for determining fire behavior for any one event. Instead, all areas will be treated as if fire can start at any point in or around the Community and be affected by an infinite number of probabilities. Wildfire is capable of coming from any direction.
2. Wildfire threatening the Community is just as likely to approach from the southeast, driven by an upslope wind, as it is to approach from the Pike National Forest to the west.
3. The Community has been divided into five compartments. Each compartment has specific treatments intended to prevent a wildfire from spreading to another compartment.
4. Treatments are spelled out in The Treatments Section.
5. Each compartment's overall hazard rating is based on the highest rated fuel type within the compartment.

B. Fuel Types

Four main "fuel types" are found within the Community. For those of us that are not fire professionals, fuel models are complicated, confusing and have little meaning. For the residents of the Community, the fuel models are simplified to "Grasslands", "Open Pine with Grasses and Gambel Oak", "Mature Brush", and "Heavy Timber".

Note: the rate of spread and flame length information listed below are general figures for fires with no slope and low winds (5 mph). Topography, high winds, fuel moisture and relative humidity will affect the rate of spread and flame length, and may be higher or lower during an actual wildfire.

1. **Grasslands – Moderate Hazard:**



Figure 8: Grasslands Example

- Typically light, flashy fuels with scattered yucca, three-leaf sumac and noxious weeds. Occasional scattered ponderosa pines are present.
- Anticipated Fire Behavior- Flames less than five feet high, higher flare-ups rare; duration of flame lengths brief; fire spread slow to fast (~1mile per hour); spotting is generally rare and with a short range.

2. **Open Pine with Grasses and Gambel Oak- High Hazard:**



Figure 9: Open Pine with Grasses and Gambel Oak

- Typically scattered ponderosa pines with grass and light brush understory. Gambel oak acts as a ladder fuel carrying fire from the ground into the tops of the trees creating a crown fire situation which makes controlling the fire difficult.
- Moderate understory fuels may be present that contribute to areas of crowning.
- Anticipated Fire Behavior- Intermittent flare-ups occurring up to many feet above tree tops; short and medium range spotting common; flame lengths will generally be 4-10 feet with rates of spread less than a mile per hour.

3. **Mature Brush – High Hazard:**



Figure 10: Mature Brush

- Areas with heavy brush (Gambel Oak, three-leaf sumac and mountain mahogany) and scattered Ponderosa Pines and Douglas-Firs. Brush affected by frost and drought kill.
- Anticipated Fire Behavior; Flames 5-20 feet high, brief duration and with high spread rate. Short range spotting from blown embers is common.

4. **Heavy Timber – Severe Hazard:**



Figure 11: Heavy Timber

- Areas with heavy, dense and clumpy stands of Ponderosa Pine and Douglas-Fir. Overtopped and suppressed trees contribute to ladder fuels.
- Crown fire potential is high.
- Anticipated Fire Behavior- Flare-ups higher than tree tops are frequent to continuous; spread rates of up to several miles per hour are possible; spotting of up to $\frac{1}{4}$ of a mile is common.

5. **Fuel Hazards**

Fuels and the fuel hazard do not respect property lines; nature has created its own lines. The Fuel Hazard Map below identifies the fuel levels within the Community.

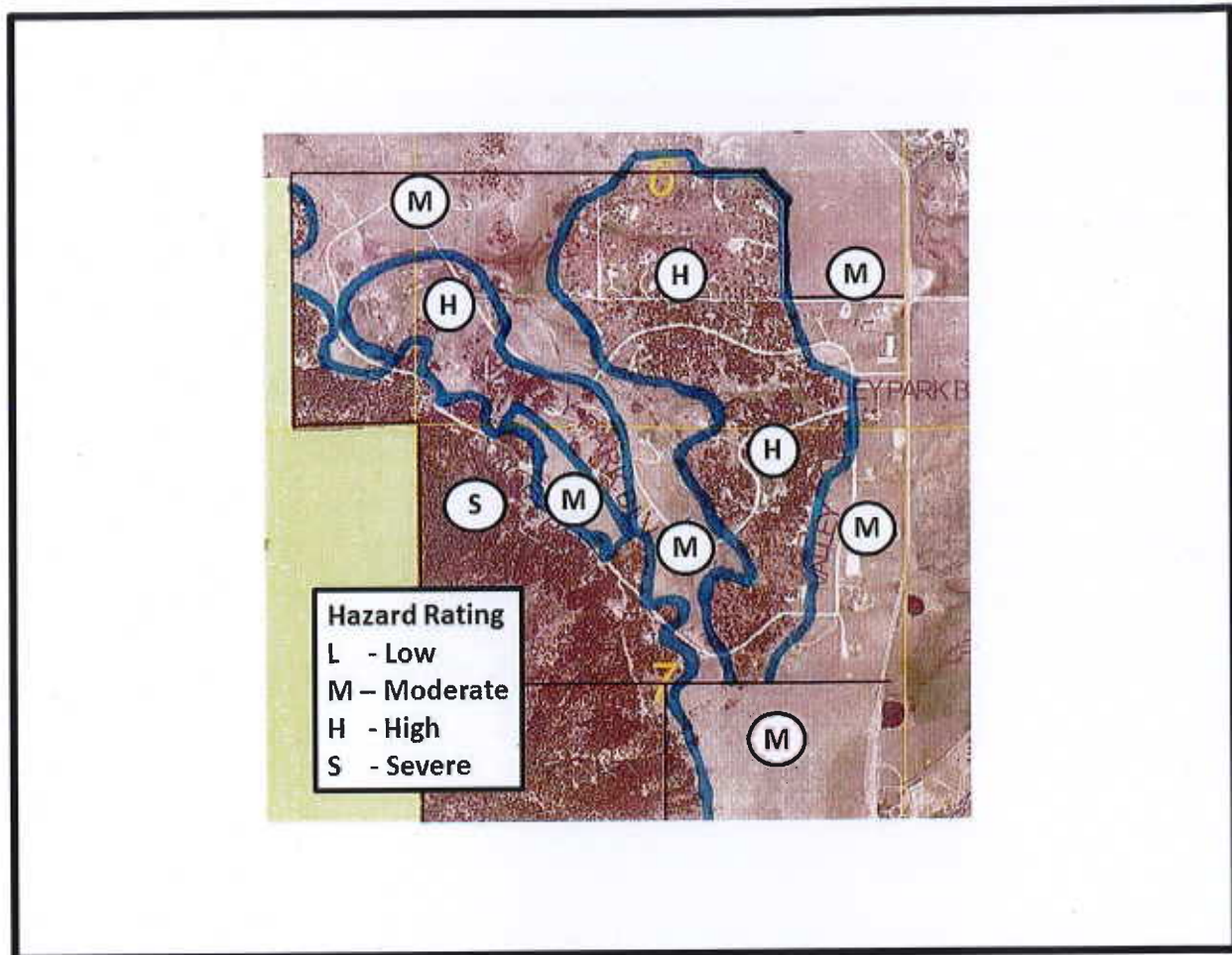


Figure 12 Fuel Hazards

Note: No properties in the Community are considered low hazard. There are small low hazard areas within lots, such as graded horse arenas, gravel road/driveway surfaces and ponds. Areas currently mowed on an annual basis lower a moderate hazard to a low hazard. However, failure to mow, for even one year, returns these areas to moderate hazard.

C. Compartment Descriptions

The Community Compartments are shown in the following figure:

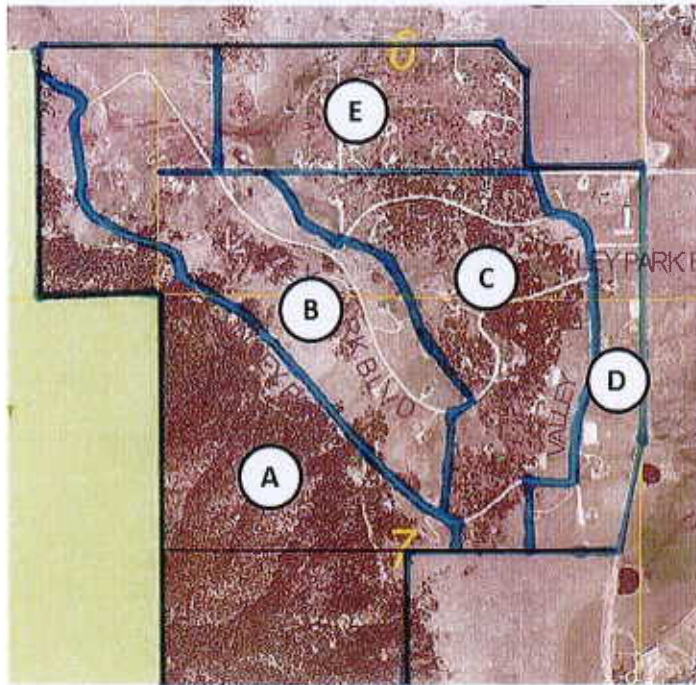


Figure 13: Community Compartments

1. Compartment A - This area is bounded by the Pike National Forest along its entire western boundary and includes the large private parcel adjacent to the south and Douglas County Open Space on the south. Its Eastern boundary is Valley Park Drive. Primarily heavy fuels and steep slopes will be a hindrance to containment efforts. Attempts at containment of wildfire may be limited to the roadway given current fuel loading to the west. Crown fire potential is high. Property in this compartment is generally rated as severe risk.
2. Compartment B - This area is bounded by Valley Park Drive on the west and Valley Park Boulevard on the east. Containment or exclusion of wildfire from this compartment will be aided by areas of lighter, grass fuels. Crowning in oak possible. Property in this compartment is mostly rated as high risk.
3. Compartment C - This area is bounded by the meadow edge east of Valley Park Boulevard, the subdivision boundary to the north, and Valley Drive to the east and south. Dense stands of Ponderosa Pines and heavy Gambel Oak will make containment difficult. Roadway access may be impeded by heavy fuels along roadways. Crown fire potential is high. Property in this compartment is mostly rated as high risk.

4. Compartment D - This area is predominantly fine grass fuels bounded by Perry Park Road on the east and Valley Drive on the west. Property in this compartment is primarily rated as medium risk.
5. Compartment E - This area is the Hidden Valley Subdivision with fuels consistent with Compartment C. The narrow private roads may be a hindrance to firefighting efforts and evacuation. Crowning in oak possible with torching of individual trees and tree clumps. Property in this compartment is generally rated as high risk.

D. Community Egress

All residents should be encouraged to develop and practice an evacuation plan. The following egress routes were reviewed and approved by the Sheriff's office after the original plan was published. In addition, signage and public education is still required. Primary egress from the Community is to the east onto Perry Park Rd (Hwy 105). If this route is blocked egress would be to the west through Sandstone Open Space and then north to Perry Park Rd.

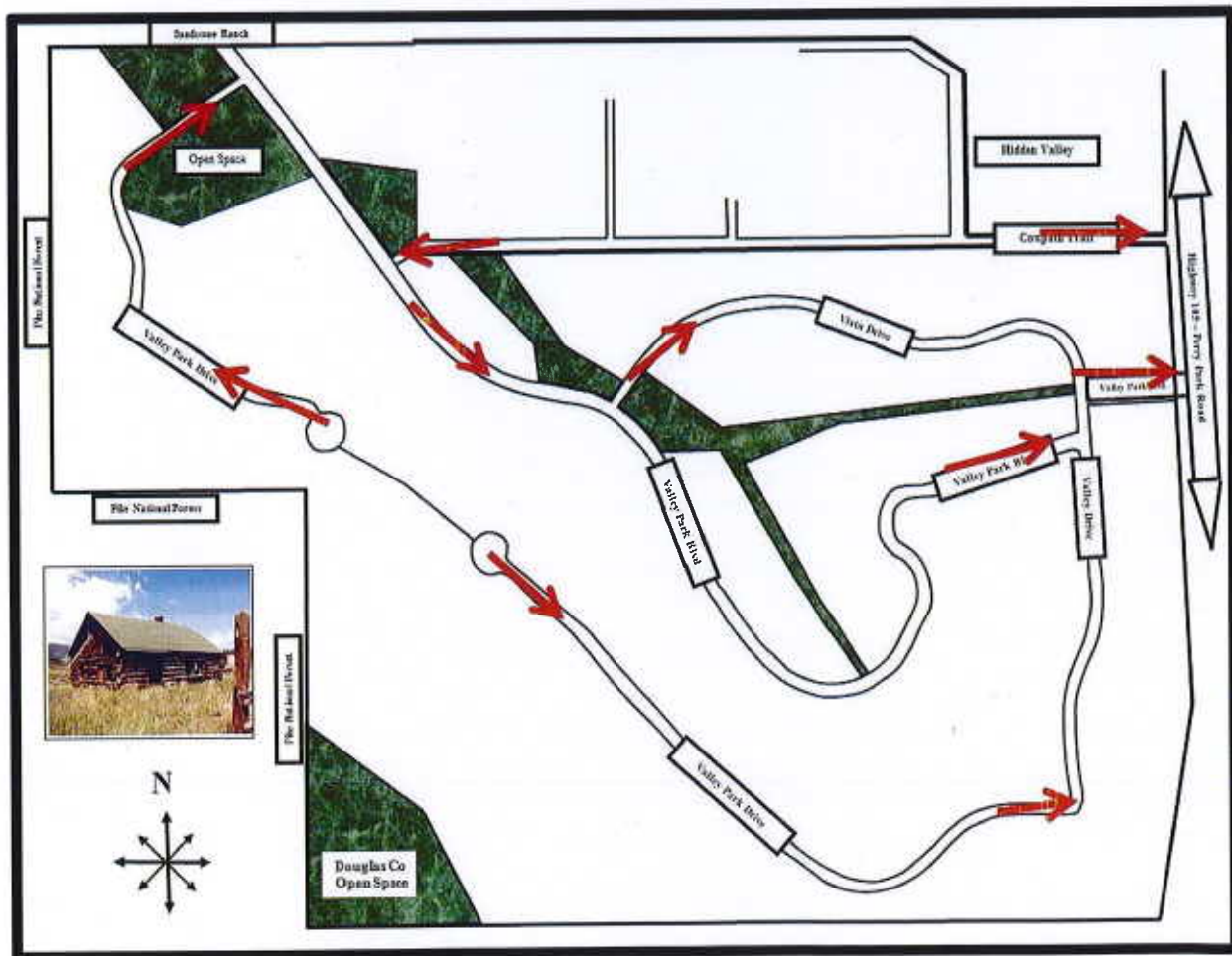


Figure 14: Community Egress

E. Assessment of County Right-of-Ways (ROW) in Valley Park:

1. Ingress/Egress

The County ROW is not wide enough to provide a shaded fuel break along the egress routes and will require shared responsibility to mitigation on both the ROW and adjacent private property. The centers of the roads in Valley Park are supposed to be thirty feet from either side of the Right of Way as platted by the developer. However the actual boundaries are unclear. Maintenance of the area between the actual road and the adjacent property is the responsibility of DCPW. DCPW Operations does not have adequate resources to remove trees and brush from the ROW for the sole purpose of providing fire mitigation. However, DCPW Operations will coordinate with the fire mitigation committee to identify those areas where sight distance, usable roadway width and drainage conveyance improvements are required. Brush and trees obstructing regulatory signs create a hazardous situation and will be addressed first. The LFPD has expressed concern that, during a wildfire, some roadways would not simultaneously accommodate incoming fire apparatus with outgoing residential traffic, thus, those areas where usable roadway width has narrowed due to vegetation will be addressed next. Because DCPW Operations has limited resources work will be prioritized against other department projects and responsibilities and will be scheduled in accordance with available County manpower and equipment. DCPW's policy for Tree Removal can be found at: www.douglas.co.us/documents/tree-removal-2.pdf/

- a) Fire impinging on ingress / egress routes is a life safety issue. For example, the fire in Israel (December 2010) where many individuals burned in a bus while attempting to rescue others demonstrates the importance of maintained right-of-ways, adjacent property and driveways. The Israel fire was just one of many fires where most of the fire related deaths occurred during evacuation.
- b) Burning fuels along roadways and driveways may hinder evacuation of residents and ingress of firefighting resources.
- c) There are many sections of County ROWs within Valley Park where hazardous fuels are growing in the area between the road and the adjacent property.
 - 1) Of highest priority would be the section of Vista Drive that has large and small trees growing in the ditch of the county ROW on both sides of the road. Vista is part of the primary Egress Route for a large portion of the subdivision.



Figure 15: Example of Gambel Oak and Ponderosa Pines along Vista Drive

- 2) The next priority would be the southern section of Valley Park Drive. This section has large overly dense trees growing within the county ROW on both sides of the road with some trees impinging on power lines.
- 3) The section of Valley Park Blvd at the intersection of Vista has large trees growing within the county ROW on the side of the road across from Vista. This blocks the view of oncoming traffic, and is on the primary egress route.
- d) There are sections of Douglas County ROWs within Valley Park where trees are growing in the right of way and creating unsafe driving conditions:
 - 1) On the approach to Valley Drive from the north on Valley Park Boulevard the view of the stop sign is blocked by trees growing in the ROW.



Figure 16: Example of obscured stop sign, Valley Park Blvd. at Valley Drive

- 2) Across from the bottom of Vista Drive there are trees growing in the ROW of Valley Park Boulevard that block the view of vehicles approaching Vista from either direction on Valley Park Boulevard.
- 3) Trees and shrub growth at intersections may also be a hindrance to firefighting resources by blocking signage and sight distances. Night time and heavy smoke conditions can further reduce visibility.
- 4) Out-of-district firefighters may be assigned during a wildfire event. Lack of clearly visible street signs will be critical if they do not have current GIS mapping or GPS capabilities.

F. Assessment of Private Roads in Hidden Valley

The private roads within Hidden Valley are about 20 feet wide. This width makes difficult for two vehicles to pass and will be a hindrance to first responder's ability to reach the site of a fire and the ability of residents to safely evacuate. Gridlock could easily occur. The roads themselves are in poor condition. The road easement between Hwy 105 and the development is 60 feet wide, but within the properties, the easement reduces to 30 feet. In addition, growth along the shoulders of the roads and adjoining property will provide fuel for wildfires and make the roads impassable.

G. Assessment of Douglas County Open Space Parcels in Valley Park

1. Supporting Documentation

A self-assessment by Douglas County's staff of its Open Spaces in Valley Park along with a map is in Appendix 4: DCOS Parcel Wildfire Hazard Assessment and Treatment Recommendations Valley Park CWPP.

Regulations regarding Douglas County Open space can be found at: <https://www.douglas.co.us/parks-trails-building-grounds/rules-regulations/>

2. Threat Assessment

Five of the eight parcels were identified for treatment within the community more detailed information can be found in Appendix 4: DCOS Parcel Wildfire Hazard Assessment and Treatment Recommendations Valley Park CWPP.

H. Topography and Potential Fire Behavior

1. General Description

The Community is in a valley that has Rampart Range to the southwest of it. Slopes range from gentle meadow slopes of 5-8% to steeper areas of 20-100% with heavy timber. Rate of spread will be increased on steeper areas of the Community. The terrain is made up of numerous draws, ravines and small saddles. These will impact fire behavior by increasing wind speeds.

2. Accessibility

It is estimated that over 80% of the Community is accessible by all-wheel drive vehicles and equipment for fire suppression and fire prevention activities.

3. Additional Resources

A more thorough introduction to wildfire behavior and topography is found in the CSFS publication "Shaded Fuel Breaks for Rural Subdivisions and Mountain Communities".

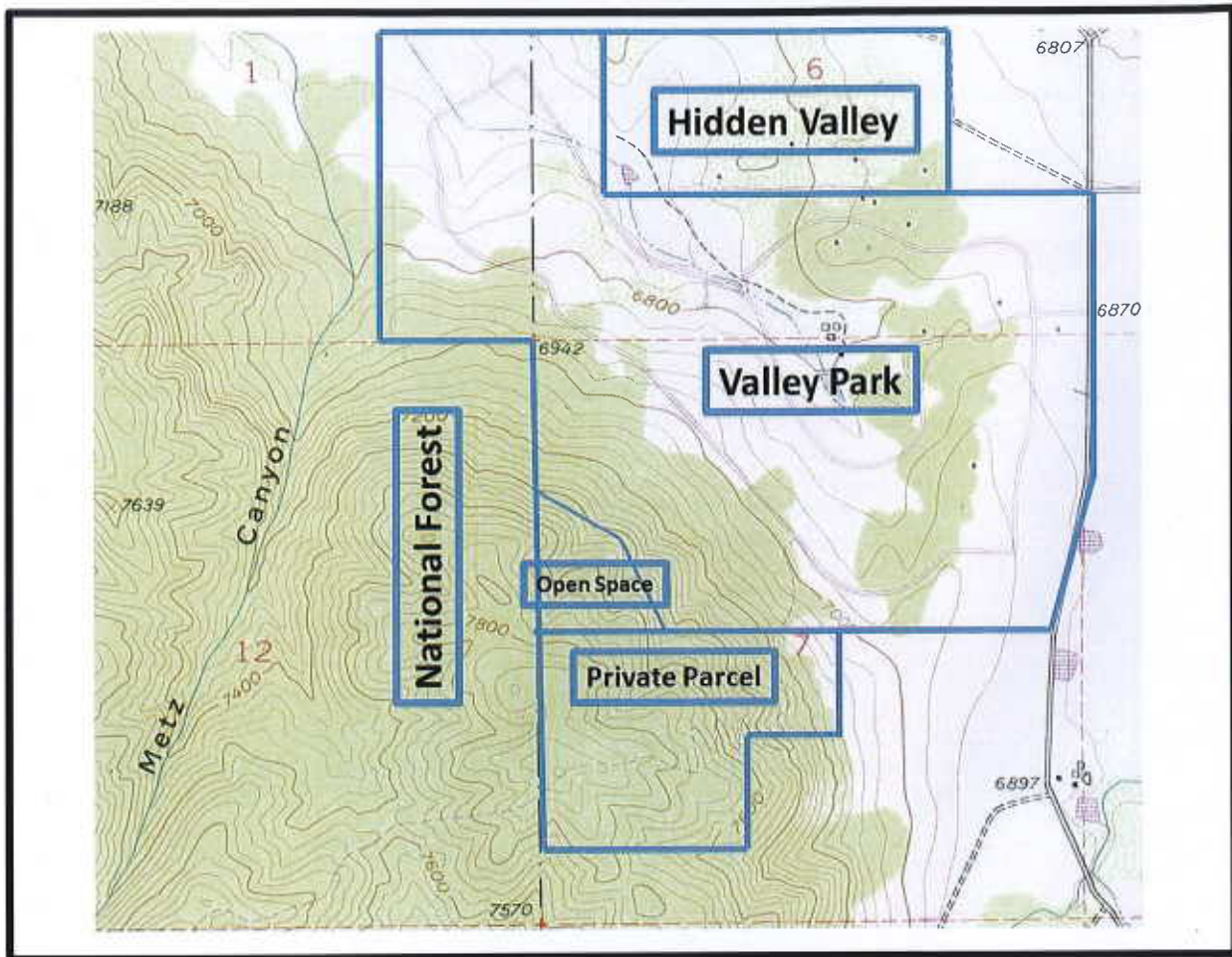


Figure 17: Community Topography

I. Weather and Fire Behavior

1. Wind

The Community is often affected by high winds from the west associated with frontal passages. Upslope weather patterns occasionally generate winds out of the south and southeast.

2. Thunderstorms

Gusty winds typically accompany thunderstorms which produce dry lightning. These gusty winds accelerate the spread of fires. Thunderstorm winds tend to be erratic in direction and speed, posing one of the greatest dangers for firefighters.

3. Lightning

The Community is located in a high lightning strike zone. This zone extends from the Pikes Peak Region to the northern edge of the Palmer Divide in southern Douglas County. About half of all forest fires in Colorado are ignited by lightning (source: National Oceanic and Atmospheric Administration).

J. Structural Ignitability

The Larkspur Fire Protection District has completed baseline home assessments for all lots in the Community for wildfire hazards. In addition many homeowners have implemented some level of wildfire mitigation. However, none should be considered fully Firewise at this time. It is recommended that home owners follow; "The Home Ignition Zone" publication from Colorado State Forest Service. A link to the document:

<https://csfs.colostate.edu/wildfire-mitigation/protect-your-home-property-from-wildfire/>

1. Roofing

No homes in the Community have wood shake roofs. Most have composition roofing.

2. Siding

A majority of the homes have wood siding. A few of the newer homes have stucco siding.

3. Decks

Most of the homes have decks.

K. Assessment of General Forest Health

General Forest Health in the Community has been affected by limited active forest management and wildfire suppression along with insects, diseases and the following events. This is most notable in the areas where no cleanup has been done.

1. The area has suffered an extended drought during which the trees were under severe stress and are still exhibiting signs of this stress.
2. The trees in the area are being affected by several insects and diseases including;
 - Western Spruce Budworm.
 - Dwarf mistletoe (evident in both Ponderosa Pine and Douglas-Fir)
 - Tussock Moth attacked the Douglas-Fir trees in and along the Pike national forest boundary in 2015-16 killing a large number of trees. Residents in the affected area have done excellent mitigation but the dead trees in the Pike National Forest bordering Valley Park remain a hazard.
 - Douglas-fir is attacked by three different bark beetles typically associated with tree stressing agents such as drought, wildfire damage or insect defoliation (collectively called Douglas Fir bark beetles):
 - Douglas-fir Beetle
 - Douglas Pole Beetle
 - Douglas-fir Engraver
 - The Ponderosa is attacked by two different beetles:
 - Mountain Pine Beetle
 - Ips Engraver Beetle
3. There have been several major snow storms in the Community in recent history.
 - a) These storms have caused widespread and severe damage to the area's trees.

- b) This damage is especially evident by the many dead topless trees, dead & downed trees, and dead limb material on the ground in the National Forest and private property.
- c) There are a lot of new growth Douglas-fir trees and oak brush under the forest canopy in the western portion of the Community and beyond in the National Forest.

L. Assessment of VPHOA and Community Residents

1. VPHOA

The Valley Park Home Owner Association is a voluntary organization. Residents of the community may choose to participate or not participate. About 30% of the residents are members of the organization. Dues are collected from members resulting in an annual operating budget less than \$1,000 depending on the membership numbers. The organization has no other funding sources. These funds pay for lighting and maintenance the Valley Park entrance development sign and flag. Any remaining funds are used for special projects decided by the board of directors and the membership.

2. Community Residents

The residents of the Community can be classed as “older”. There are a few households with young children. But there are a significant number of households where the residents are retired or nearing retirement. Property mitigation can be expensive and or physically demanding and therefore challenging for a number of the property owners. However, most owners support the need to mitigate their property and most have taken some level of action.

M. Assessment of Signage Issues

1. Signage in Valley Park:

- a) There is no signage for Valley Park’s primary Emergency Egress and evacuation routes.
- b) Sandstone Ranch Open Space is the approved alternative emergency egress exit but is not identified with signage. In addition, the route out of the Sandstone Ranch Open Space is not labeled. A knox lock has been installed on the gate.
- c) Most house numbers are not posted effectively for first responders.

2. Signage in Hidden Valley

- a) There are no signs for Hidden Valley residents to identify the Emergency Egress and evacuation routes.
- b) Most house numbers are not posted effectively for first responders.
- c) Road naming in Hidden Valley is not consistent. Google Maps (Cowpath Trail) and MapQuest (Hidden Valley Drive) have different names for the roads in this area and residents believe the main road in the community is not named. This could lead to confusion when emergency crews attempt to locate properties in the area.

N. Assessment of Emergency Staging Areas

Potential staging areas are for planning purposes only as the actual use will depend on the current and predicted fire behavior during a wildfire event. Identified areas are:

- The center of the entrance to Valley Park is considered a possible staging area by the LFPD and the DCOEM.
- The DCOS parcels 276901001001 and 276901002001 at the back of Valley Park near the Sandstone Open Space gate is considered a possible staging area by the LFPD and the DCOEM.

O. Assessment of the Community Water Resources

1. Residential Water Supply

Water supply for properties within the Community consists of individual private wells serving the residents. These wells are not considered an adequate source of water for fire suppression.

2. LFPD Tenders

The LFPD uses tenders to truck water to fire events within the Community.

3. Emergency Cistern

Valley Park has an emergency cistern of 10,000 gallons located on the north side of Vista Dr. near the entrance to the community. This cistern is maintained by the LFPD. However, in a wildfire event, more water is always better. Additional cisterns or possible development of existing private ponds should be investigated.

P. Assessment of the Alert & Notification Systems

Timely and accurate notification of the public is critical in a wildfire event. The Community does not have an alert and notification system and is dependent upon public and government systems. All residents should be encouraged to develop and practice an evacuation plan.

1. Douglas County Citizen Alert Messaging: CodeRED

- a) This notification system automatically uses existing phone lines, some landlines; others cell phones and internet dependent cell phones. In addition, there is a sign-up feature that allows citizens to subscribe by entering additional means by which they would like to be notified such as cell phones, and e-mail. It is not known to what extent residents have subscribed to this service. Register for CodeRED online at <http://www.douglascountyCodeRED.com> or text DRCC to 99411 to receive a direct link to the enrollment form on your mobile device.
- b) The system takes time to alert thousands of devices; therefore it is most efficient when used for a well-defined geographic area that has less than 10,000 subscribers. For time sensitive events (such as tornados) this is not the best choice since such alerts generally need to notify very large numbers very quickly (tornadoes last approximately 13 minutes on average). It takes approximately 30 minutes to notify the entire county.
- c) This system will be used for incidents such as: HAZMAT spills, floods, criminal activity, missing children, and wildfires.

2. Media Text/Voice Alerts:

- a) Denver TV Channels 4, 7 & 9 all provide a free service for which citizens can sign up. These services provide customized weather alerts for the individual based upon the address provided during sign up. Internet weather sites also offer alerts that work well on cell phones.
- b) The alert level is customized by the subscriber so that one can receive watches and/or warnings. These are excellent and timely.
- c) The DCOEM works directly with the Sheriff's Public Information Office to provide alert information to the media.

3. Douglas County Twitter & Facebook Messages:

- a) DCOEM also uses Twitter and Facebook to get messages out. Both Emergency Management and the Sheriff's Office have accounts and will use this method during emergencies.
- b) This is not a primary form of notification; however, it is growing in popularity so it will continue to be used it as an adjunct to notify citizens.

Q. Assessment of LFPD's Wildfire Response Capability

1. Larkspur Fire Protection Capabilities

Below is the link to Larkspur fire department capabilities. Concerns or questions about the LFPD should call 303-681-3284 and ask for the Fire Marshall. <https://www.larkspurfire.org/>

2. Summary

- a) Overall, the capacity of the LFPD to successfully contain and control wildland fire upon initial attack is very good.
- b) The LFPD response is enhanced through mutual aid from adjoining fire districts which respond on the initial call out for wildland fire events.
- c) Throughout the years, there have only been a couple of wildland fires that have moved into the extended attack mode and covered more than one operational period for total suppression. No homes or major structures have been lost due to ignition from wildland fire within the LFPD.
- d) However, given the natural fuels, weather and topography within the LFPD, the potential for a wildland fire event that escapes initial and extended attack and/or that will threaten lives or consume homes and other structures remains high within the LFPD.
- e) The LFPD views that continued educational efforts related to wildland fire mitigation are key to the defense of homes during a fire event.
- f) Many residents within the District have made great strides in making their homes and properties more resistant to the effects of wildland fire through appropriate mitigation measures including fuel reduction.

R. Assessment of the National Forest West of the Community

Fire suppression and a lack of forest management have resulted in the extreme fuel conditions that exist in the National Forest.

1. **Assessment of Conditions Encountered in the National Forest**

- a) Combinations of drought, insects and snow storms have stressed the local forest. These were detailed in a prior risk section.
- b) The amount of dead and dry fuel available from each damaging snow storm has increased steadily, and these dense piles of fuel on the ground will escalate the intensity of fire behavior when an actual fire does occur.
- c) The tussock moth infestation of 2015 has left large areas of dead Douglas-Fir trees that are a fire hazard especially as these dead trees fall to the ground.
- d) The density and size of new growth Douglas-Fir trees and Gambel Oak now provides an abundance of ladder fuels that will dramatically increase the likelihood of any ground fire developing into a crown fire event in a short period of time.

2. **Roadless Area and National Environmental Policy Act (NEPA)**

- a) The area of National Forest west of the Community that is included in its WUI is all in a designated Roadless Area. Current direction is that no cutting of trees can occur in a roadless area without approval from the Regional Office. Such approvals have been limited. No categorical exclusion would be allowed for a project area of this size. This designation has prevented any cleanup from occurring. A wildfire in the National Forest will likely move into the Community.
- b) A NEPA study will be required before any action towards developing a Good Neighbor Policy with the Community and the residents bordering the National Forest. A new NEPA document for the Pike National Forest North to South Zone is currently being developed and should be finalized in 2023. Once completed this may allow for mitigation projects to move forward. Until this mitigation occurs there is a clear and present danger to the Community which further emphasizes the need of homeowners taking step to reduce wildfire hazards on their property regardless of what actions take place in USFS land..

3. **Insects**

The possible infestation of the area by the tussock moth and spruce budworm are of concern to the USFS District Ranger. However, the forest entomologist has reviewed the area and confirmed that no epidemic exists at this time, there was an infestation of tussock moth in 2015 that killed a large number of Douglas-Fir. There is active western spruce budworm in this area and significant defoliation has occurred. Monitoring of this area will continue.

4. **Terrain**

Like fuels, the terrain does not follow property lines. However it needs to be noted that on the southwestern boundary of the Community there is terrain that would be operable for machine mastication to develop a shaded fuel break between the Community and National Forest. This workable terrain is on National Forest, Douglas County Open Space, and Private Property as the map below shows.

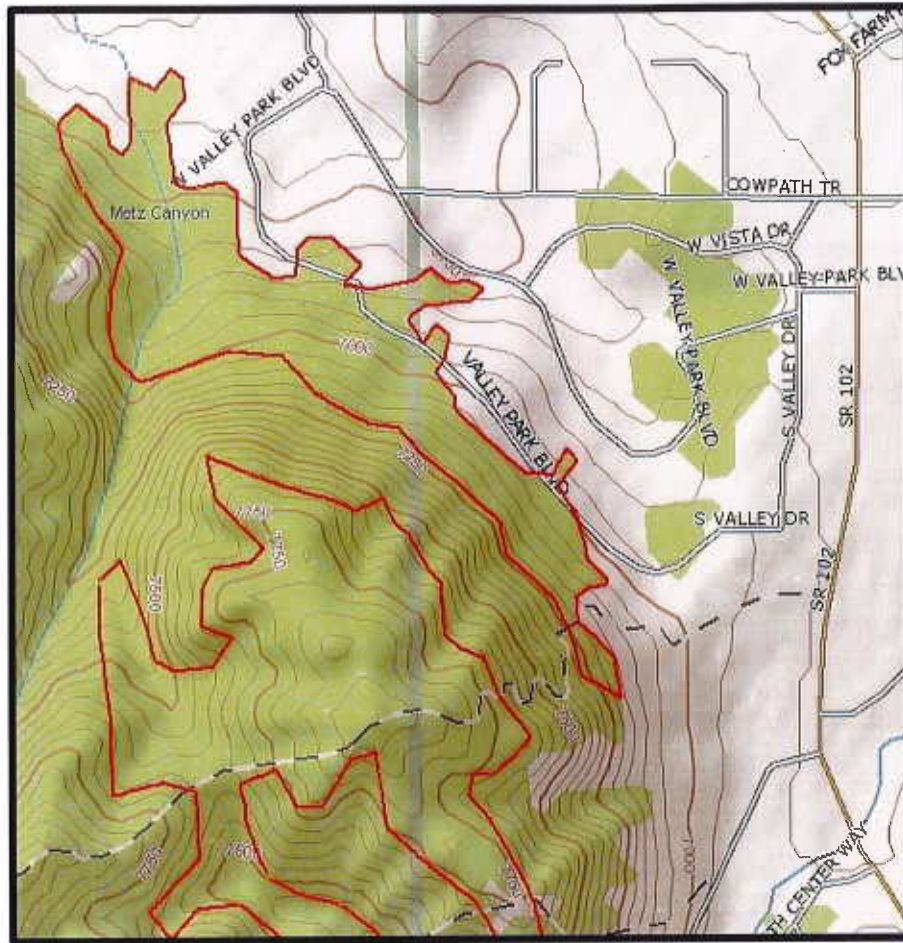


Figure 20: Operable Terrain for Fuel Break

5. Summary

As a result of fire suppression, no active forest management, storms, insects, and impediments of the Roadless Rule there has been no effort to reduce the extreme fuel conditions that exist in the area of the National Forest bordering the Community. To protect the Community, a fuel break should be constructed along the property boundary between National Forest and the Community. Such a fuel break will require mitigation for 150' on either side of the property lines as shown on the map below. Such a fuel break will require a combination of mastication and hand work.

Valley Park mitigation project administered by the CSFS Franktown Field Office in 2017-2018 on resident properties bordering the national park mitigated 41.75 acres on 12 individual landowner lots. Treatments included removal of Douglas-fir Tussock Moth killed trees; tree thinning & understory ladder fuel treatments, & Gambel oak management. Similar treatment should be done on the national forest side of the property line.

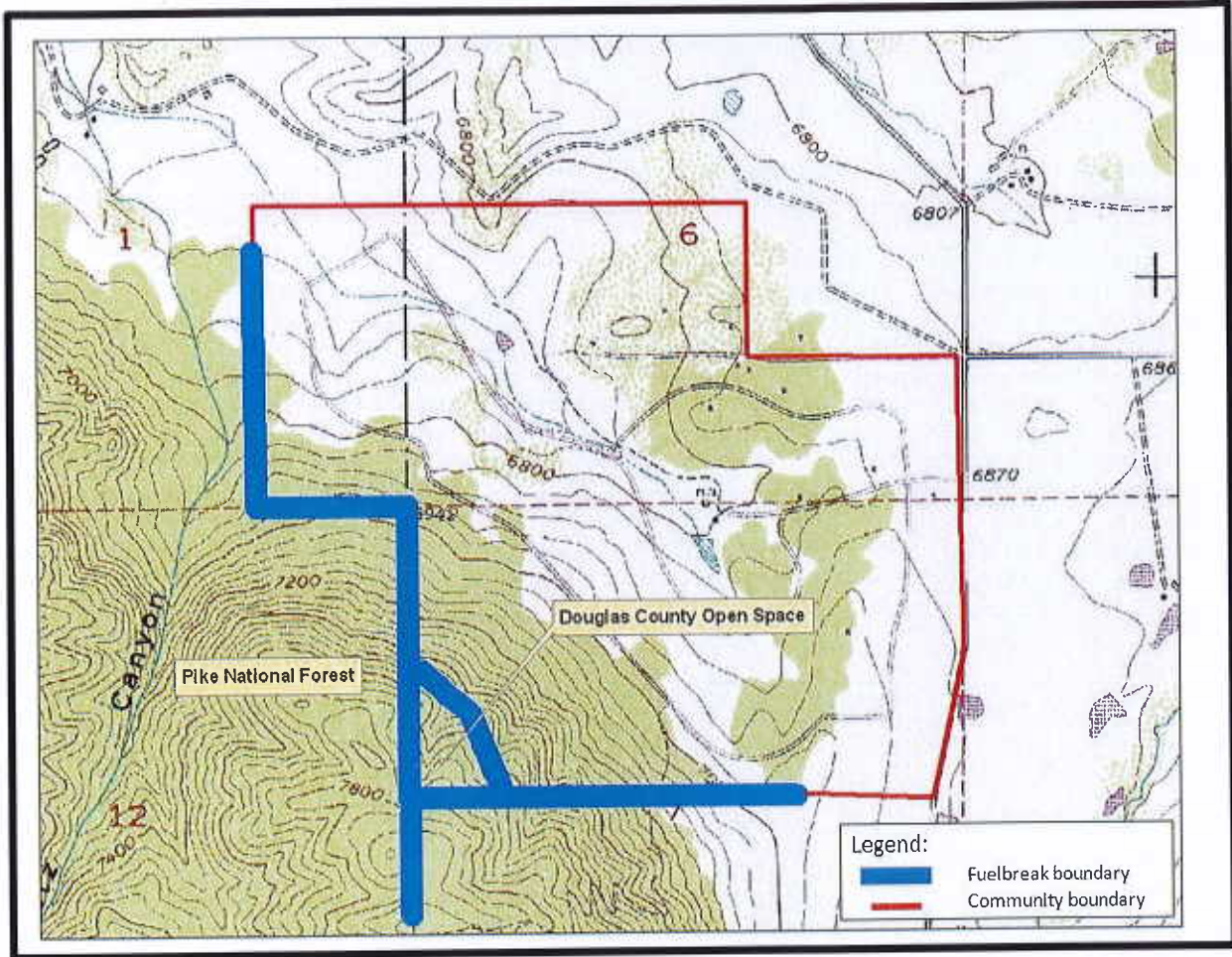


Figure 21: Valley Park Community Shaded Fuel Break

VI. Treatment Objectives and Priorities

A. Community Values and Objectives

The objectives of the CWPP were established early in the process. These objectives are as follows:

1. Save Lives = Safe evacuation for residents and safe access for First Responders;
2. Save Property = Defendable zones around each home and building;
3. Save Lifestyle = Mitigate fuels beyond defendable zones and the community.

B. Priorities for Treatment

Based upon the Community objectives, treatments have been prioritized. Priority one being egress routes to save lives, Priority two are home defense zones to save property, and Priority three consists of the remaining land in the Community to save rural lifestyle.

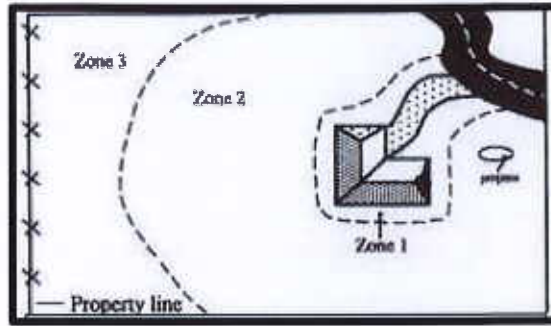


Figure 22: The Three Defensible Zones

1. Routes for Evacuation from fires - All heavy fuels along roadways and driveways should be treated to reduce fire intensity to a level that can be survived while in a vehicle. The objective for all roadways and driveways is to have flames on the ground in lighter fuels versus dangerous flame lengths that may extend into the roadways and driveways. The recommended guidelines for this type of treatment are spelled out in the Colorado State Forest Service (CSFS) publication "Fuelbreak Guidelines for Forested Subdivisions & Communities", www.csfs.colostate.edu
2. Home Defense Zones – The homes in the Community are of significant value. The best way to protect homes is to create a zone around the house that makes defending the home possible. All areas around homes should be mitigated to a level sufficient to reduce the possibility of home ignition from both flame impingement and aerial firebrands (embers). All homeowners should follow "The Home Ignition Zone" publication from Colorado State Forest Service.
3. Property and Community Zones - Areas beyond each home's defense zone will affect fire behavior from one lot to the next and compartment to compartment. This means mitigating the remaining areas of one's property that are outside the home defense zone. These areas should be thinned to prevent the spread of fire from or to an adjacent property as well as promote forest health. Guidelines for treating beyond the defensible space are listed in the CSU Extension Fact Sheet 6.302 under Zone 3. Treatments surrounding the Community should work towards meeting the criteria for "shaded fuel breaks" per CSFS publication "Fuelbreak Guidelines for Forested Subdivisions and Communities".

C. General Treatment Methods within Compartments

The Community has been divided into five compartments. They range from open grasslands to heavy timber. Owners' efforts should start with the easiest and the least expensive. The areas closest to the home and driveway should be addressed first and then move outward to the property lines. It should be noted that any mitigation effort that will impact traffic flow requires a County permit. This should be considered when large trees that might fall on the roadway are to be removed.

Reference: "The Home Ignition Zone" publication from Colorado State Forest Service.

www.csfs.colostate.edu



Figure 23: Example of Shaded Fuel Break



Figure 24: Example of Treated Oak

1. Properties in Compartment A – Heavy Timber: Prescription for treatment should focus on improving tree health while creating crown separation to reduce crown fire risk. Selected areas should be treated to CSFS shaded fuel break specifications when adjacent to large areas of untreated fuels (See Figure 21 Valley Park Community Fuel Break). Overtopped and suppressed trees should be removed from underneath mature conifers. Brush should be cleared from under conifers to a distance ten feet beyond their drip lines (extent of outer branches) to reduce tree

branch ignition. Branches of larger trees should be pruned to a height of ten feet above ground level.

2. Properties in Compartment B – Open Pine with grasses: Prescription for treatment is periodic mowing of grasses and removal of larger trees lower branches to a height of 10 feet above ground level. Ladder fuels under mature conifers should be removed to reduce tree losses.
3. Properties in Compartment C – Mature Brush: Prescription for treatment is to break up fuel continuity both horizontally and vertically. Remove dead material and prune oak clumps to a three foot height. Clumps should not be wider than two times their height. Clump separation should be at least 2.5 times their height. Due to vigorous re-sprouting maintenance of oak will be needed every 5-7 years depending on regrowth.
4. Properties in Compartment D – Grasslands: Prescription for treatment is regular mowing and noxious weed control. Timing of mowing is typically at time of grass curing/drying (July/August). Areas not mowed in late summer or fall should be mowed in the spring if insufficient snow was present to lay down grass. Mowing should also be timed to allow for adequate reseeding of native grasses and wildflowers. Properties in Compartment E – Mature Brush: Prescription for treatment is to break up fuel continuity both horizontally and vertically. Remove dead material and prune oak clumps to a three foot height. Clumps should not be wider than two times their height. Clump separation should be at least 2.5 times their height. Due to vigorous re-sprouting maintenance of oak will be needed every 5-7 years depending on regrowth.

D. Reducing Structural Ignitability Methods

Structural ignitability and good home maintenance methods often go hand in hand. Many of the most critical actions involve only a little time and effort. Fire ignitability should always be considered when building or remodeling all structures. All homes, even those well away from native vegetation, should have measures taken to protect them from firebrands or embers lofted into the area by an advancing wildfire. Firebrands can be lofted high into the air and carried up to a mile, placing all homes in the Community at risk. Reference: "The Home Ignition Zone" publication from Colorado State Forest Service. www.csfs.colostate.edu

1. General Maintenance

General maintenance practices will remove easily ignitable material from around the structure. A more complete list can be found in CSU Publication 6.304, Forest Home Fire Safety.

- a) Removal of trash and debris
- b) Cleaning of leaves and needles from gutter, roofs, and around the structure
- c) Stack firewood away from structure
- d) Do not use under deck areas for storage

2. Construction Methods

Fire resistant materials should always be considered when building and remodeling. Additional information can be found in CSFS Publication: Firewise Construction Design and Materials.

- a) There are restrictions by Douglas County requiring certain roofing materials. Homeowners are to use Class B or better roofing materials which are less prone to ignition. Wood shakes are not permitted.
- b) Decks present a large flat surface on which firebrands can land and remain. Composite decking material has proven to be more fire resistant than wood materials.
- c) Replacing wood siding with fire-wise building materials should be considered.

3. Landscaping Considerations

Landscaping materials and plants should be considered when assessing fire risk. Owners should follow CSU Extension Publication 6.305, Firewise Landscaping, and 6.306, Firewise Plant List, which are available at <http://www.csfs.colostate.edu>.

VII. Action Plan and Assessment Strategy

A. Summary of Action Plan

1. Approach

Based upon the Community objectives of saving lives, property, and lifestyle, the following action lists have been established. The action items identified in this document and in Community meetings have been divided into fuel treatments and a second list of all other action items. The action plans identify organizations or individuals that are responsible for the activity. Many of the action items can occur in parallel with other activities on the lists. It is acknowledged that each responsible party faces challenges in completing their action items. Financial, legal, other priorities, cooperation of individuals and organizations are just a few of these challenges. An individual homeowner may be able to make great strides in the mitigation of their property. But without actions from the surrounding properties their efforts will have limited benefit. This must be a complete team effort to improve the safety of the Community.

2. Review

An annual review of the Community CWPP is planned. This review will include an evaluation of the current action items on the list along with documentation of Community activities such as attendance at educational meetings. This review will be used to as input to produce an updated CWPP for the Community.

B. Property and Home Owner Actions

1. Education of Home Owners

Owners must become educated on the possibility and dangers that wildfires pose. The CWPP is the first step in this education process, and a number of educational meetings have already been held in the Community. But education is a continuing process, both to include new residents and to also expand the understanding of longer term residents. The Valley Park HOA is tasked with taking a leading role in planning and organizing these training sessions. It is recommended that the VPHOA make a Firewise

training part of their regular HOA meetings. In addition, it is recommended that a spring mitigation kick off training and coordination meeting be held. This meeting should not only include training, but allow for planning Community mitigation activities for the coming season. A more complete list can be found in Appendix 6: Education Topics for Property and Home Owners, but identified topics include:

- a) The Valley Park CWPP
- b) Community evacuation routes
- c) Development an evacuation / preparedness plan
- d) Property preparation and mitigation
- e) Warning and notification systems
- f) Home address sign standards

2. Improved House Signage

Effective house numbers are critical for first responders attempting to locate individual properties. Each owner needs to insure that their address numbers are posted in a manner that meets NFPA standards. These standards are presented in Appendix 7: Home Address Sign Standards.

3. Elimination of Egress Hazards

It is a top priority of this plan to save lives, both for the residents and for first responders. As such, residents are encouraged to work on insuring that routes from their homes out of the Community will be safe during a wildfire. There are two areas of focus for the owner:

- a) Their driveway must be safely passable during a fire emergency if they are to reach public roads and safety. Each owner must insure that mitigation efforts are undertaken on each side of their drive to insure they will not become trapped.
- b) The public egress routes need to have improved mitigation. While the road ROW is the responsibility of DCPW, the individual owners along these routes also have a responsibility.
 - 1) The ROW is not of adequate depth to insure that the roads will remain passable. The recommended mitigation depth is 150 feet either side of the road. Each owner, for their safety and that of their neighbor's safety needs to mitigate their property within this range.
 - 2) Each owner needs to request and encourage the DCPW to mitigate the ROW adjacent to their property. The DCPW looks for guidance in this area from the adjacent owner. Property owners that wish to have work done along the ROW adjoining their property should call DCPW – Operations, Director at 303-660-7480.
 - 3) All roads are of concern, but of particular concern are sections of roads within the Community that act as primary routes for large numbers of people trying to exit the community. Of particular focus are:

- Valley Park
 - Vista Drive
 - Valley Park Drive
 - Valley Park Boulevard (egress route to Sandstone Ranch)
- c) Hidden Valley
 - 1) The roads in Hidden Valley are private but those residents should consider widened and improved roads for access.
 - 2) The road sometimes referred to as Cowpath Trail running from Perry Park Rd to Valley Park Boulevard is a primary egress road from this area and should take priority in treatment.

4. Creation of Defendable Homes and Structures

A defendable space must be created around each structure if the first responders are expected to have any chance of saving the property from a wildfire. There may not be enough resources to protect every home and in many instances the fire will burn through the area before firefighters can arrive so it is critical to have defensible space. The structures themselves must be built and maintained so that they are as fire resistant as possible.

- a) Homeowners are encouraged to have the LFPD to come to their property and give them a one on one Firewise analysis of their property. This evaluation will allow each owner to best plan what mitigation or structure changes would be the most beneficial for their situation. Follow up evaluations may also be requested to review completed actions and plan next steps.
- b) A major impediment to homeowner mitigation is disposal of the biomass, or slash disposal. A number of disposal sites and other options such as chipping or mastication are presented in Appendix 8: Slash Disposal Options for the owners' consideration.

5. Valley Park Water Resources Actions

- a) Valley Park already has an emergency supply of 10,000 gallons located on the north side of Vista Dr. near the entrance to the community. Work with LFPD to identify funds for another emergency supply cistern in Valley Park preferably on the south side of the community. There are several lots suitable for a cistern that would allow the cistern to be filled from one road and gravity extraction from a lower road.

C. Douglas County Office of Emergency Management Actions

1. Signage within the Community

During the development of this plan multiple signage issues were identified. The DCOEM is willing to assist with coordination between Douglas County departments the task of adding, correcting or improving these issues. Additional departments will probably include Engineering and Public Works and if road renaming is involved Community Planning and Sustainable Development Department will need to be engaged.

It is also noted that not all signage changes and additions will be paid for by Douglas County. Some signs will be the responsibility of the Community to purchase.

2. Emergency Egress for Community

Primary egress is assumed to be east and onto Perry Park Rd. The secondary egress is to the west and north through the south entrance to Sandstone Open Space. See Figure 14 for a map showing primary egress routes. Signage identifying these routes needs to be developed and installed.

- a) Signage to identify main exit onto Perry Park Rd (DC105) as an Emergency Exit for the Community.
- b) Signage to identify the Private entrance into Sandstone Open Space as an Emergency Exit

3. Signage for Hidden Valley

- a) Signage for Hidden Valley residents and first responders to identify the private driveway through the lot on the west side of Hidden Valley that connects to Valley Park Blvd as an alternate emergency egress route from Hidden Valley to Valley Park.
- b) Need signage to identify primary (Perry Park Rd) evacuation route for Hidden Valley Residents.

D. Douglas County Public Works Actions

1. ROW Mitigation

DCPW Operations supports the Community's fire mitigation goals and will partner with the Community, when possible. However, the main assistance will be done in conjunction with two fundamental department missions; a) maintaining roadway safety, and b) maintaining roadside drainage conveyance. These are the two primary areas of responsibility within DCPW Operations and any fire mitigation accomplished would be a by-product of these two core responsibilities. It is understood that these actions will need to be undertaken in cooperation with the adjacent property owners. Priority areas are listed below.

- a) The southern section of Valley Park Drive has large overly dense trees growing within the county right of way (ROW) on both sides of the road with some trees impinging on power lines.
- b) Vista Drive has large and small trees growing within the county ROW on both sides of the road;
- c) The section of Valley Park Blvd where the secondary egress from Hidden Valley and Open Space parcel #277106001010 meet has dense growth of scrub Oak growing in the ROW.

2. Traffic Hazards

There are sections of ROW within Valley Park where trees are growing in the right of way and creating unsafe driving conditions.

- a) The approach to Valley Drive from the north on Valley Park Boulevard the view of the stop sign is blocked by trees growing in the ROW. ??????

- b) The section of Valley Park Blvd, at the intersection with Vista has large trees growing within the county ROW obscuring oncoming traffic approaching Vista from either direction on Valley Park Boulevard.

E. National Forest Service Actions

1. Forest Mitigation

The Community shares much of its southern and western boundary with the Pike National Forest. This area of the National Forest is classed as a “roadless” area. Partly as a result of this classification, a high fuel load of dead standing and fallen trees has accumulated. This area needs to be mitigated. The Community would like to see a shaded fuel break in this area (USFS and private land) of sufficient depth to allow a reduction in extreme wildfire behavior and provide opportunities for control and suppression. This would aid in preventing a wildfire from moving between the National Forest and the Community. The Forest Service needs to:

- a) Before progress can be made the Colorado Roadless Rule must be adopted.
- b) Initiate a NEPA study for the area as a first step so that other paths of mitigation may be taken.
- c) Use the Good Neighbor Authority to treat USFS land when similar treatments are occurring on adjoining private lands. The Good Neighbor Authority can be used to create the fuelbreak along the boundary once NEPA has been completed, the Colorado Roadless Rule issue has been resolved, adjoining landowners agree to treatment on their lands, and the USFS secures funding for treatment on USFS lands.
- d) Work with LFPD, CSFS and DCOS personnel and private land owners to develop a shaded fuel break on the boundary with the Community.

F. Douglas County Open Space Actions

1. Open Space Mitigation

The following Open Space parcels have been identified as conditionally recommended for treatment.

- SPN: 277106001010
 - o Compartment: B
 - o Size: 2.3 Acres
- SPN: 277106003006
 - o Compartment: B/C
 - o Size: 6.8 Acres
- SPN: 277107003004
 - o Compartment: C
 - o Size: 0.7 Acres
- SPN: 277106003007
 - o Compartment: C
 - o 2.7 Acres

SPN: 277107004021

- Compartment: A
- 17 Acres

G. Assessment of Progress

The assessment of progress on the action items will be done in conjunction with future plan revisions and updating. This plan is sponsored by the Valley Park HOA and it will be at their direction to drive the review process. It is recommended that this review happen on an annual basis, and will include the following:

1. Homeowner Items:

- a) Record education classes and the attendance of each one
- b) Review of home address signs that meet standards

2. DC Office of Emergency Management Coordinated Items:

- a) Record new signs and improved signs

3. DC Public Works Items:

- a) Record mitigation of Right of Ways

4. National Forest Service Items:

- a) Progress on Colorado Roadless Rule adoption
- b) Record progress of NEPA study
- c) Record progress of Good Neighbor Authority progress
- d) Record progress on Shaded Fuel Break west of Valley Park

5. DC Open Space Items:

- a) Record mitigation on Open Space parcels

H. Action Plan Lists

This plan is a voluntary plan intended to help the Valley Park Community better prepare for and lessen the impact of wildland fire. Property owners in the community are encouraged to read and understand this plan and implement recommended wildland fire mitigation measures on their property. This plan does not provide for entry to anyone onto any private property or public lands for the implementation of CWPP recommendations without the owner's explicit permission.

The due dates listed in these Action Plans are for planning purposes only and are subject to change based on community needs.

1. Community Action Plan

Category	Activity	Responsibility	Timeline
CWPP Maintenance	Maintain Valley Park Document	VPHOA	Annually
	Document projects implemented	VPHOA	Annually
	Hold annual meeting with community/core team to review/update plan	VPHOA	Annually
	Maintain recognition as a FireWise Community USA	VPHOA	Annually
	Apply for grants as opportunities arise	VPHOA	when available
Education / Outreach	Provide training sessions for homeowners on the following topics: Valley Park CWPP, evacuation routes, mitigation techniques, warning systems, signs.	VPHOA	As Possible
	Encourage utilization of LFPD home assessment program	VPHOA	As Possible
	Encourage participation in Larkspur fire department and/or Douglas county wild fire preparedness meeting.		Annually
Community Events	Organize community slash and chipping days. Encourage community participation/volunteers.	VPHOA	Annually
	Compartment A: Resolve addressing confusion between the two segments of Valley Park Dr.	DCPW, DCEng, DCOEM, VPHOA, Owners	As Possible
	Valley Park secondary egress signs (Sandstone Ranch Open Space)	DCPW, DCEng, DCOEM, VPHOA, Owners	As Possible
	Improved placement of stop sign at Vista and Valley Park Blvd	DCPW, DCEng, DCOEM, VPHOA, Owners	As Possible
	Removal of foliage blocking view of stop sign at Valley Park Blvd (east end) and Valley Park Drive	DCPW, DCEng, DCOEM, VPHOA, Owners	As Possible
	Hidden Valley secondary egress sign (Cow Path and Roberts Property)	DCPW, DCEng, DCOEM, VPHOA, Owners	As Possible
Addressing	Encourage homeowners to improve visibility of addressing signs	VPHOA	As Possible
Water Supply	Additional cistern south side of the Community	VPHOA/LFPD	As Possible

USFS Support	Support Colorado Roadless Rule	VPHOA, USFS	As Possible
	Support NEPA efforts on fuel break area	VPHOA, USFS	As Possible
Road Improvement	Widen and improve the Cow Path road in Hidden Valley	Hidden Valley Owners	As Possible

2. Fuel Treatment Action Plan

Priority	Type	Activity	Responsible	Timeline
1	Fuel Treatment-Egress	ROW Mitigation	DCPW & Adjacent Owners	As Possible
1	Fuel Treatment-Egress	ROW Mitigation alongside of Cowpath Trail	Owners	As Possible
2	Fuel Treatment-Shaded Fuelbreak	Shaded Fuelbreak along western and southwestern edge of community (150 feet both side of community boundary)	Multiple see below	
		Lots adjacent to border	Owners	As Possible
		Douglas County Open Space Parcels -conditionally treat with adjoining landowners	DCOS	As Possible
		USFS lands via Good Neighbor Agreement	USFS	As Possible
3	Fuel Treatment-Zone 1	Mitigation around driveways and structures (Zone 1) defensible space.	Owners	As Possible
4	Fuel Treatment-Zone 2	Mitigation around structures (Zone 2) defensible space.	Owners	As Possible
5	Fuel Treatment-Zone 3	Mitigation (Zone 3) defensible space.	Owners	As Possible

I. Douglas County Lands and Right-of-Way

Douglas County recognizes its responsibilities as a landowner in the Valley Park community. The County has recently adopted the Douglas County Wildland Fire Protection Plan. The Valley Park community is included in the Larkspur Fire Protection District.

Requests for mitigation efforts on Douglas County roadway rights-of-way should be made to the Douglas County Public Works Operations (303-660-7480). The County will follow its plans and procedures regarding rights-of-way requests (see Appendix 2) and complete mitigation activities as time and funds permit. Roadway public safety concerns should also be referred to the Public Works Department or a request for service can be made on the County's web page at the **citizen CONNECT** link ON THE Douglas County webpage:

<http://www.douglas.co.us/>



Open space parcels within the Valley Park community will be mitigated pursuant to individual plans prepared for those lands. The preservation of the open space values will be a key element in the planning process. The Count will look at uses and mitigation treatments as part of its comprehensive planning process and its regulations (see Appendix 3).

J. Preparedness

Wildland fire is a significant disaster threat in Douglas County. Community wildland fire protection plans are an effective mitigation measure. Circumstances may arise where a wildfire event poses a significant threat to lives and property. In those instances an evacuation may be required.

Emergency preparedness notifications are issued by Douglas County using traditional reverse-911 calls, the news media, Citizen and email Alerts. If you utilize a cellular phone and/or VOIP communications systems at your homes or as your primary telecommunication system, please take the time to register for emergency notifications at the Douglas County Sheriff's Office website or the Douglas County webpage as noted below.

<http://www.dcsheriff.net/>



The Federal Emergency Management Agency maintains an emergency readiness program that residents within the wildland fire interface may wish to use to help prepare for disaster preparedness.



Specific information regarding wildfire preparedness is available at: <http://www.ready.gov/wildfires>

VIII. Appendix 1: Factors Influencing Fire Behavior in the Front Range

A. General Discussion:

1. Topography, weather, and fuels are the three major factors influencing fire behavior. It is these characteristics of the local area that must be examined in order to understand the options and capacity for response to wildland fires within and around Valley Park.
 - a) Topography within the LFPD is varied with elevations ranging from 6200 – 7800 feet above sea level. On the eastern edge of the LFPD, numerous buttes dot the rolling grasslands of the high plains which abut the steep and dramatic terrain of the Rampart Range - the base of which lies along the western edge of the LFPD. Slopes of up to and exceeding 100% are found within the Rampart Range formations. Several creeks and gulches provide for riparian ecosystems that transform in character as they flow from the upper elevations of Rampart Range down through the grasslands below.
 - b) The LFPD has many areas of terrain with steep slopes that can support the rapid development of wildland fire and promote extreme fire behavior. Dramatic changes in topography also influence the weather and can play a role in where precipitation will fall and in what quantities, influence the development of thunderstorms with the resulting lightning activity, result in variations in local humidity and affect the strength and direction of wind flow.
 - c) Topography can also impede the detection of fires by restricting visibility to and from some locations allowing the fire to expand substantially prior to being reported. Topography is also a major factor in defining the location of roadways, which can increase the response time to some locations due to circuitous routes around terrain features. Steep terrain with a substantial elevation increase can also reduce the capacity and increase the time frame to deliver water to a fire via hose conveyance or to totally preclude that tactic. The type, location and density of vegetation are affected by the steepness of terrain and the existence and type of soils that may be present.
 - d) Topography plays an important role in the prevalence of wildland fire, the detection and response times to wildland fire, and shades the palette of tactical options available for suppressing wildland fires or influencing the severity of wildland fire behavior. The ability of anyone to alter the topography is limited to very small changes in very limited areas and is generally not an effective method for wildland fire mitigation. However, due to its influence on wildland fire behavior, topography must be a primary consideration when planning wildland firefighting strategy and tactics.
2. Weather is the most variable and unpredictable element affecting wildland fire behavior. As such, it deserves an in depth discussion in order to gain an understanding of its influence on wildland fire and how it affects the ability to suppress a wildland fire event.

The following description of Colorado weather and climate is from the "Climatography of the United States No. 60" (updated January of 2003) by Nolan J. Doesken, Roger A. Pielke, Sr. and Odilia A.P. Bliss., shown below in quotes and italics. This information has been supplemented

with additional material from the LFPD regarding the implication of various weather and climate elements to wildland fire and weather information regarding the local environment.

B. Topographic Features

1. To understand the regional and local climates of Colorado, you must begin with a basic knowledge of Colorado's topography. Colorado lies astride the highest mountains of the Continental Divide. Nearly rectangular, its north and south boundaries are the 41° and 37° N. parallels, and the east and west boundaries are the 102° and 109° W. meridians. It is eighth in size among the 50 states, with an area of over 104,000 square miles. Although known for its mountains, nearly 40 percent of its area is taken up by the eastern high plains.
2. Of particular importance to the climate are Colorado's interior continental location in the middle latitudes, the high elevation of the entire region, and the mountains and ranges extending north and south approximately through the middle of the State. With an average altitude of about 6,800 feet above sea level, Colorado is the highest contiguous State in the Union. Roughly three-quarters of the Nation's land above 10,000 feet altitude lies within its borders. The State has 59 mountains 14,000 feet or higher, and about 830 mountains between 11,000 and 14,000 feet in elevation.
3. Emerging gradually from the plains of Kansas and Nebraska, the high plains of Colorado slope gently upward for a distance of some 200 miles from the eastern border to the base of the foothills of the Rocky Mountains. The eastern portion of the State is generally level to rolling prairie broken by occasional hills and bluffs. Although subtle when compared to the high mountains of the Rockies, there are also important topographic features across eastern Colorado. Two major river valleys dissect eastern Colorado - the South Platte River in northeastern Colorado and the Arkansas River to the southeast. Higher ground extends eastward from the Rockies between the river valleys. High ground also extends eastward along the New Mexico border to the south and along the Wyoming and Nebraska borders to the north. These features have an impact on temperatures, wind patterns and storm tracks in all season of the year.
4. Elevations along the eastern border of Colorado range from about 3,350 feet at the lowest point in the State where the Arkansas River crosses into Kansas to near 4,000 feet. Elevations increase towards the west to between 5,000 and 6,500 feet where the plains meet the Front Range of the Rocky Mountain chain. Here elevations rise abruptly to 7,000 to 9,000 feet. Backing the foothills are the mountain ranges above 9,000 feet with the higher peaks over 14,000 feet. The most dramatic feature is Pike's Peak near Colorado Springs where elevations rise abruptly from less than 5,000 feet near Pueblo in the Arkansas Valley to over 14,000 feet at the top of the mountain. During the summer months, this topographic feature becomes a "thunderstorm machine" as thunderstorms develop almost any day that humidity is sufficiently high.
5. West of these "front ranges" are additional ranges, generally extending north and south, but with many spurs and extensions in other directions. These ranges enclose numerous high mountain parks and valleys. Farther westward the mountains give way to rugged plateau country in the form of high mesas (some more than 10,000 feet in elevation) which extends to

the western border of the State. This land is often cut by rugged canyons, the work of the many streams fed by accumulations of winter snow.

6. Colorado is a headwater state. All rivers in Colorado rise within its borders and flow outward, with the exception of the Green River, which flows diagonally across the extreme northwestern corner of the State. Four of the Nation's major rivers have their source in Colorado: the Colorado, the Rio Grande, the Arkansas, and the Platte.

C. General Climate

1. The combination of high elevation, 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. During summer there are hot days in the plains, but these are often relieved by afternoon thundershowers. Mountain regions are nearly always cool. Humidity is generally quite low; this favors rapid evaporation and a relatively comfortable feeling even on hot days. The thin atmosphere allows 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, but sunburn and skin cancer is a problem due to the intense high-elevation sunlight. At night, temperatures drop quickly, and freezing temperatures are possible in some mountain locations every month of the year.
2. 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. The difference (35 degrees F) in annual mean temperature between Pikes Peak and Las Animas, 90 miles to the southeast, is about the same as that between southern Florida and Iceland. The annual snowfall at Wolf Creek Pass (elevation 10,850 feet) in the southern mountains averages nearly 400 inches and sometimes exceeds 600 inches while at Manassa in the San Luis Valley just east of Wolf Creek Pass annual snowfall is barely 40 inches. Statewide average annual precipitation is 17 inches but ranges from only 7 inches in the middle of the San Luis Valley in south central Colorado 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.
3. As a result of the State'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 Colorado from westerly 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. Eastern slope areas receive relatively small amounts of precipitation from these storms, particularly in mid-winter.
4. Storms moving from the north usually carry little moisture. The frequency of such storms increases during the fall and winter months, and decreases rapidly in the spring. The accompanying outbreaks of polar air are responsible for the sudden drops in temperature often experienced in the plains sections of the State. Occasionally these outbreaks are attended by

strong northerly winds which come in contact with moist air from the south; the interaction of these air masses can cause a heavy fall of snow and the most severe of all weather conditions of the high plains, the blizzard. This cold air is frequently too shallow to cross the mountains to the western portion of the State so while the plains are in the grip of a very severe storm, the weather in the mountains and western valleys may be mild.

5. Occasionally, when the plains are covered with a shallow layer of cold air, strong westerly winds aloft work their way to the surface. Warmed by rapid descent from higher levels, these winds bring large and sudden temperature rises. This phenomenon is the "chinook" of the high plains and temperature rises of 25 to 35°F within a short time are not uncommon. Chinook winds greatly moderate average winter temperatures in areas near enough to the mountains to experience them frequently. Due to these wind patterns, some locations in the eastern foothills are warmer than adjacent areas on the eastern plains on many days during the winter.
6. Warm, moist air from the south moves into Colorado infrequently, but most often in the spring, summer and early autumn. As this air is carried northward and westward to higher elevations, the heaviest and most general rainfalls (and sometimes wet snows) occur over the eastern portions of the State from April through early September. For southern and western Colorado, the intrusions of moist air are most common from mid-July into September associated with wind patterns sometimes called the Southwest Monsoon. Frequent showers and thunderstorms continue well into the summer. 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.

7. Climate Of The Eastern Plains

- a) The climate of the plains is comparatively uniform from place to place, with characteristic features of low relative humidity, abundant sunshine, infrequent rains and snow, moderate to high wind movement, and a large daily and seasonal range in temperature. Summer daily maximum temperatures are often 95°F or above, and 100°F temperatures have been observed at all plain stations. Such temperatures are not infrequent at altitudes below 5,000 feet; above that elevation they are comparatively rare. The highest temperatures in Colorado occur in the Arkansas Valley and lower elevations of South Platte and Republican Rivers. The hottest temperature ever recorded in Colorado was 114°F at Las Animas in July 1, 1933 and at Sedgwick on July 11, 1954. Because of the very low relative humidity accompanying these high temperatures, hot days cause less discomfort than in more humid areas. The usual winter extremes in the plains are from zero to -10°F to -15°F but have reached extraordinarily low readings of -30 to -40°F during some of the most extreme cold waves.
- b) An important feature of the precipitation in the plains is the seasonal cycle. A very large proportion (70 to 80 percent of the annual total) falls during the growing season from April through September. Cool season precipitation can be important for soil moisture recharge, but midwinter precipitation is light and infrequent. More

often, winter brings dry air and strong winds contributing to the aridity of the area. From early March through early June, periodic widespread storms bring soaking beneficial moisture that helps crops and grasslands. Summer precipitation over the plains comes largely from thunderstorm activity and is sometimes extremely heavy. Localized rains in excess of 4" sometimes fall in just a few hours contributing to local flooding. In late May 1935, nearly two feet of rain fell along the Republican River in eastern Colorado causing one of the worst floods in state history. June flash floods in 1965 were also devastating. The weather station at Holly in southeast Colorado measured 18.81" of rainfall in that extraordinarily wet month. It is more common, however, to be too dry. Annual average precipitation ranges from less than 12 inches in the Arkansas Valley between Pueblo and Las Animas to almost 18 inches in extreme northeastern and southeastern corners of the state. Many years are drier than average, and some years receive only half or less the long-term average. The region seems almost always in or on the verge of drought. Multi-year drought is common to the area such as the decade-long drought of the 1930s, the severe drought of the mid 1950s and 1970s and the recent intense widespread drought of the early 2000s.

- c) At the western edge of the plains and near the foothills of the mountains, there are a number of significant changes in climate. Average wind movement is less, but areas very near the mountains are subject to periodic, severe turbulent winds from the effects of high westerly winds over the mountain barrier. These winds are sometimes referred to as "Chinook Winds" when they warm, and "Bora Winds" when they are associated with a strong cold frontal passage down slope off of the mountains. Temperature changes from day to day are not quite as great; summer temperatures are lower, and winter temperatures are higher. Not surprisingly, this milder corridor close to the mountains is where the majority of Colorado's population now lives. Precipitation, which decreases gradually from the eastern border to a minimum near the mountains, increases rapidly with the increasing elevation of the foothills and proximity to higher ranges. The decrease in temperature from the eastern boundary westward to the foothills is less than might be expected with increasing altitude. This results from mountain and valley winds and greater frequency of the Chinook Winds. Below the Royal Gorge of the Arkansas River, the mountain and valley winds are persistent enough to modify the climate over a considerable area. Descending air currents frequently prevent the stratification of air necessary for the occurrence of excessive cold. As a consequence, the winter climate is milder near Canon City and Penrose than anywhere else in the State.

8. Severe Storms

- a) Thunderstorms are quite prevalent in the eastern plains and along the eastern slopes of the mountains during the spring and summer. These often become quite

severe, and the frequency of hail damage to crops in northeastern Colorado is quite high. With an average frequency of 6 or more hail days per year, some counties of eastern Colorado are among the most hail prone areas in the entire country.

- b) Tornadoes, once thought to be only a small threat to the residents of eastern Colorado, have been found to be quite common with the improvement in severe storm detection in recent decades. Tornadoes are relatively rare in the mountains and western valleys but do occur. In most years, at least 40 tornadoes are confirmed. Most of these tornadoes are small and short lived, usually classified in intensity as F0 or F1. However, occasional strong tornadoes have been reported. The number of tornado fatalities remains very low for Colorado, but much of this is due to the low population density of some of the most tornado prone areas of eastern Colorado.
- c) Lightning has emerged as one of the greatest weather hazards in Colorado. Each year there are typically several fatalities and injuries. Unlike tornadoes that are most common in selected areas of the state, lightning can and does occur everywhere. Lightning strike statistics indicate that the most lightning prone areas of Colorado are the high ground above tree line between Denver and Colorado Springs and the Raton Plateau south and southeast of Trinidad near the New Mexico border.
- d) Fall, winter and spring blizzards on the eastern high plains are another weather hazard deserving attention. While Colorado blizzards are less frequent and drop less snow than in areas further east and north, they can still be devastating. As recently as 1997 several fatalities were directly attributable to an October blizzard which caught many travelers unprepared.
- e) Heavy snows in the high mountains are much more common. Each year several lives are lost due to avalanches. Avalanches pose a serious problem to residents, road maintenance crews and back country travelers. Considerable effort is made each year to predict and manage avalanches.
- f) A spring flood potential results from the melting of the snow pack at the higher elevations. In a year of near-normal snow accumulations in the mountains and normal spring temperatures, river stages become high, but there is no general flooding. In years when snow cover is heavy, or when there is widespread lower elevation snow accumulation and a sudden warming in the spring, there may be extensive flooding.
- g) The greatest threat of flooding in Colorado is not snowmelt, however. It is flash flooding from localized intense thunderstorms. The most flash-flood prone regions of Colorado are found along the base of the lower foothills east of the mountains. Several extreme floods such as the infamous Big Thompson Canyon flood of July 31, 1976 have occurred in this vulnerable area. Flash floods occur on the western slopes as well, but with somewhat lower frequency and intensity due to a reduced supply of low level moisture to fuel such storms.

- h) Within the LFPD the general weather pattern is similar to the weather pattern in the Denver area but, is influenced by a slightly higher elevation and prominent topographical features. The LFPD abuts the eastern base of Rampart Range and lies on the north side of the Palmer Divide. These topographic formations affect the general weather patterns and they influence the generation of micro-climates within the LFPD. Micro-climates in the LFPD can alter the humidity, precipitation and winds that may be present thereby changing the immediate surroundings of specific areas from the general weather conditions. These changes can be slight or dramatic, depending on location, season, time of day and perspective, but certainly have the ability to influence a wildland fire in a manner that is different from the surrounding general weather conditions. Awareness of these micro-climates and recognition of their potential to alter fire behavior are key to employing effective firefighting tactics, ensuring fire fighter safety and should be considered when developing and implementing fire mitigation techniques in order to optimize their effectiveness.
- i) The generally low (and sometimes extremely low) humidity level of the area is a key weather factor affecting the fuel moisture content of fuels and their susceptibility to ignition and ability to affect the rate of spread of fire. When humidity levels are very low and stay low for an extended period of time, the fuels quickly dry out, which results in a higher potential for ignition and promotes rapid rate of fire spread.
- j) The climate and the day-to-day weather are very volatile factors impacting wildland fire. In general, the climate determines the broad scope weather patterns, temperature ranges, and precipitation amounts for a given area. Over time, this is a factor in determining what types of soils will develop and what native plant materials that will grow at a location. It is the combination of climate, resulting seasonal weather patterns, and vegetation that is the major influence in establishing the fire regime for a particular area.

D. Assess Fuels (Vegetation) in the Local Area

1. General Discussion:

- a) Due to the variation in elevation within the LFPD and the abrupt change in topography at the eastern base of the Rampart Range and around the various buttes, there are a variety of ecological life zones (elevation dependent biomes) that support different vegetation types. It is prudent to assess the basic nature of the zones, the variety in vegetation types and density (fuel models), and how this relates to wildland fire behavior and our ability to successfully intervene during fire events.
- b) In a landscape scale context, the character of these ecological life zones is affected by: elevation, latitude, climate, geographical position relative to predominate weather patterns, and regional topological influences such as high mountain ranges. These ecological life zones generally occur within ranges of elevation particular to the latitude of the location, however, terrain generated micro-climates exist that allow vegetation

elements of a life zone to occur within lower or higher elevations than they might normally be found.

- c) Generally, latitude and elevation are inversely related when it comes to the location of life zones. At higher latitudes, a life zone will occur at lower elevations than it will at lower latitudes. Elements such as slope steepness and aspect, soil type, terrain generated micro-climates, riparian corridors and major topographical features influence the character and composition of the life zones on the local level.
 - d) In many locations, two or more of these zones merge within a transition environment and exhibit many or all of the vegetation characteristics of the zones involved. These areas often contain the highest degree of vegetation diversity and form some of the most complicated and intense wildland fire behavior environments.
2. The Plains Ecological Life Zone:
- a) The high plains short grass prairie is found throughout the eastern third of Colorado and comprises the Plains ecological life zone within the LFPD. It is also found as isolated elements and as understory in portions of the Foothills and lower Montane Zones as well, with the vegetation species mix transforming as elevation increases. Historically, it was a more common component within the Foothills and lower Montane Zones when wildland fire was unregulated within these zones. It is characterized by short, relatively sparse vegetation cover. Grasses and forbs are the most common plant life found in the high prairie and are known as fine or light fuels within the context of wildland fire. Woody plants such as sagebrush and rabbit brush are also common as are various species of cactus in more mature or climax prairie environments. These woody plant materials will increase the intensity and flame lengths of wildland fire and complicate fire control and suppression efforts.
 - b) Riparian ribbons that thread through the high plains add a variety of plant materials that depend on the greater availability of water and include many more woody plants such as cottonwood trees, willows and a diversity of brushy vegetation. In general, the plant materials found within the riparian corridors have higher moisture content than those outside the corridors, due to the increased available water supply. The higher moisture content of the fuels lessens the likelihood of ignition and can even function as a fire break under certain conditions. However, in severe drought times, the concentration of woody fuels within riparian environments will add substantial available fuel to a wildland fire. The fine fuels and open environment of the Plains zone make for readily ignited and fast moving wildland fires that are generally weather driven during periods of low relative humidity and strong winds.
 - c) Fires in this ecosystem generally occur more frequently, are of a shorter duration, exhibit less intense fire behavior and respond to control measures more readily than wildland fires in heavy brush or timber environments. However, it is the speed at which these fire events can progress that poses the greatest threat, due to a short or non-existent notification time to prepare for the event or to move out of harm's way. In

addition, the rapid rate of fire spread in this environment can contribute to many acres being burned in a single fire event. Notification and response times to these fire events, is a critical aspect of the fire suppression effort for fires in this environment.

3. The Foothills Ecological Life Zone:

- a) The Foothills zone is generally characterized by shrubs such as Mountain Mahogany, Gambel Oak, Three-leaf Sumac, American Plum, and Choke Cherry, although species composition can be highly diverse. In the north to central portions of the Front Range of Colorado, the species mentioned above generally dominate. Further south, juniper becomes more common as the annual precipitation is less and provides a climate more favorable for junipers and less favorable for some other species.
- b) The LFPD is within a transition zone of these vegetation types and has elements of both. Within the LFPD, the juniper variety is the Rocky Mountain juniper which generally occurs in rocky outcrop areas and can be found as secondary growth under Ponderosa and Douglas fir stands within rugged and exposed sites. At the higher elevations in the foothills region, forest vegetation becomes more predominate and Ponderosa pine becomes more common.
- c) The grasslands within the Foothills environment are infected with massive invasions of Gambel oak which also intrudes into the understory of the Ponderosa pine and Douglas fir forests of the higher elevations. This is primarily due to the suppression of wildland fire over the last one hundred or more years. There are locations where the forests are choked with a mix of Ponderosa pine, Douglas fir, Gambel oak and Rocky Mountain juniper. These areas are some of the most volatile natural venues for wildland fire behavior due to the density of the fuels and their ground to crown ladder fuel arrangement.
- d) The extensive, unbroken continuity of these fuels is also a factor that promotes large fire growth and complicates suppression strategy and tactics. Under very dry weather and fuel conditions along with high sustained winds, fires in this environment have the ability to grow large quickly and escape initial attack efforts.

4. The Montane Ecological Life Zone:

- a) The Montane zone is the highest elevation ecological life zone within the LFPD. The Montane zone can be divided into an upper and lower zone and it is the lower portion of this zone that is most prevalent where the Montane zone exists within the LFPD. Historically, the identifying characteristic of this zone was the open canopy Ponderosa pine woodlands.
- b) Within the LFPD, there are currently few examples of an open Ponderosa stand. Fire was and is an important component in maintaining the open canopy and grassy understory of these Ponderosa pine woodlands and the long-time suppression of low intensity ground fires have allowed a buildup of debris and an increased density of trees and shrubs within formerly open Ponderosa pine stands. On some sites, Ponderosa pine co-dominates with Douglas fir and in these areas a closed canopy forest is generally

formed. This type of forest is more prone to high intensity crown fires due to the close spacing of the tree crowns.

- c) Higher in the Montane zone, Douglas fir becomes the more dominant species due to an increase in precipitation and available water and generally forms a very dense forest. Douglas fir concentrations can also be seen on north aspect slopes of lesser elevations and in narrow canyon riparian environments with the largest specimens occurring there.
- d) The majority of the area burned in the 2002 Hayman Fire occurred in the Montane ecological life zone and burned in fuel types and fuel loading that is typically found within areas of the LFPD. This should be noted and is of concern. It is the amount and condition of the fuels in this environment, combined with the often very steep terrain inhibiting access that pose the fire suppression challenge here.

5. Changes within the Life Zones:

- a) Historically, the composition and more importantly, the density of the vegetation were much different along the Front Range of Colorado than they are today. Time, fire events, damaging insects, plant diseases, and human activities are the major factors for changes in character within the ecological life zones.
- b) Over the course of years, decades, and centuries, the composition, extent, and range of various ecologic life zones have changed and it is the consequences of this change that must be addressed when contemplating wildland firefighting and mitigation strategies.
- c) Climate modification is the major agent of change over the centuries for life zones. As temperature and precipitation shift gradually over time, it can affect the plant species composition and density of vegetation. These climate shifts may also influence the fire regime of the life zone and impact the local weather patterns affecting the frequency of lightning strikes and therefore fire starts.
- d) Fire events, insects and plant disease can cause modifications that are very wide in geographic scope and have impacts that last for decades. These changes will alter the balance of species composition and increase vegetative diversity as new growth that replaces the destroyed vegetation will likely be of different species and grow in different densities. This has implications for the fire regime of the affected areas, at least for a period of many decades.
- e) Along the Front Range within the lower Montane zone, it is estimated that the historic fire regime had a cycle of occurrence of approximately 60 years in Ponderosa pine / Douglas fir forests, depending on the location. There is research to support that there were more low-intensity ground fires and less stand replacement, high-intensity fires than what is seen today.
- f) Historically, there were fewer areas and acreage of dense forest susceptible to high-intensity stand replacement fire events, and larger areas comprised of less dense fuels than what is the reality today.
- g) Fires are started primarily due to lightning and the influences of humans, in both an anthropological and post-European settlement context. The incidence of lightning

strikes that start fires is likely to be very similar today as compared to pre-European settlement times.

- h) Within the LFPD, this is the primary source of ignition for wildland fires. In pre-European settlement times, there is evidence that indigenous humans started wildland fires in some areas to manage the vegetation for food production, in hunting techniques and as a battle tactic. Although it is confirmed that fire was used as a survival tool for aboriginal peoples, it must be supposed that there were some fires in pre-European settlement times that could also be attributed to escape of controlled fire and to arson. In pre-European settlement times, fires were probably not suppressed at any effective level by humans.
- i) Suppression of wildland fires would have been a natural process involving: time, location, weather, topography, and dispersion and state of the fuels. Therefore, it is likely that low intensity fires could have burned substantial acreage in any given fire event. Whereas today, low intensity wildland fires are more easily suppressed by fire crews than high intensity fire events and this generally results in a lower acreage of consumption per event than with high intensity fires. High intensity, stand replacement fires are far more difficult to control and suppress and generally consume the most acreage on a per event basis.

E. Threatened and Endangered Species and Species of Concern in the Area of the CWPP

1. The area is within the historic range of the Mexican spotted owl (*Strix occidentalis lucida*) and includes potential habitat areas.
 - a) In connection with a USFS mitigation project, the western boundary of Perry Park around Bear Creek has been surveyed twice in the last decade for the Mexican spotted owl.
 - b) Both surveys returned negative findings for that species.
 - c) The Mexican spotted owl is listed as a Federally Threatened and State Threatened species.
2. The Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*) has substantial areas of habitat along riparian corridors within the LFPD. The Preble's mouse is listed as a Federally Threatened and State Threatened species.
3. The Bald eagle (*Haliaeetus leucocephalus*) has been witnessed by residents on rare occasions within the LFPD and is listed as a State Threatened species.
4. The Ferruginous hawk (*Buteo regalis*) has also been sighted by district residents and is listed as State Special Concern status (not a statutory category).
5. The Swift Fox has been sited within the district and is of State Special Concern status (not a statutory category).

IX. Appendix 2: DC Open Space Parcels

A. Wildfire Hazard Assessment and Treatment Recommendations

The Douglas County Division of Open Space and Natural Resources manages 8 parcels within the Valley Park primary WUI boundary. Seven of these parcels reside in the lower elevation bottomland areas of the subdivision and are intermixed with private ownership. The 8th parcel is located on the southwest end of the subdivision, at a relatively higher elevation, and is bordered by the Pike National Forest to the west and private ownership to the north, east and south. Generally, the 7 lower elevation parcels are drainage tracts characterized by flat to gentle slope and vegetated with short, perennial grasses. Short riparian vegetation, including willow species, occupies several of these drainage tracts. Toward the west, the lower elevation parcels contain few, isolated clumps of conifers and Gambel oak. The parcels toward the east contain heavier Gambel oak and conifers. The vegetation on these parcels is part of a more continuous forest stand, but county ownership within this stand is limited as the parcels are very narrow in width (on average approximately 50 feet). The single higher elevation Open Space parcel on the southwest end of the subdivision can be characterized by steep topography and mixed conifer forest. It resides within the vast, continuous forest stands of the Front Range that are part of the Pike National Forest and also held by private ownership.

A wildfire hazard assessment was conducted and treatment recommendations were made for the Open Space parcels within the Valley Park primary WUI boundary by the Douglas County Wildfire Mitigation Staff. The assessment was conducted as part of a larger effort to assess and make recommendations for all non-right of way lands deeded to the Douglas County Board of County Commissioners through the Douglas County CWPP planning process. The county-wide assessment assigned the following 5 treatment recommendation categories to non-right of way county lands:

1. **Treat:** Parcel is recommended for treatment. Fuels and topography are capable of supporting significant control problems (i.e. flame lengths not controllable by standard apparatus or equipment, generation of aerial embers likely, multiple tree torching, active crown fire, etc.) and/or pose a significant hazard to nearby values at risk. Parcels that would serve as effective demonstration sites were also recommended for treatment.
2. **Conditionally Treat:** Treatment on parcel alone will not significantly reduce hazard, usually because the treatable area owned by the county is too small. Benefit of treatment requires participation of treatment on neighboring ownerships. Treatment will be recommended with commitment from adjacent land owners.
3. **Management Plan:** Property has multiple and complex management objectives and hazard reduction treatments should be conducted as recommended in a land management plan for the property.
4. **Structure:** A structure is on site of the parcel, defensible space should be created around the structure if needed.

5. No Treatment: Fuels will not likely support significant control problems or pose a significant hazard to nearby values at risk.

Once parcels are recommended for treatment or conditionally recommended for treatment, Douglas County Division of Open Space and Natural Resources will work with the Wildfire Mitigation Staff and other applicable entities to develop annual priorities among those parcels. Priorities will be influenced by budget, impact to conservation values (wildlife, recreation, water quality, etc.), easement restrictions, stakeholder input, adjacent property owner commitment for conditionally recommended treatments, and other applicable factors. All treatments on Douglas County Open Space will be accomplished either by county staff or by contractors selected by county staff. Parks and Open Space rules and regulations, specifically R005-033 Sec. III B (i) prohibits anyone removing, destroying, or damaging anything on parks or Open Space, including vegetation. This is also covered in the broad context of CRS 18-9-117 Unlawful Conduct on Public Property which allows jurisdictions to restrict activities of the public in order to protect its resources. Douglas County Department of Open Space and Natural Resources is aware of the potential fire hazards on Open Space lands and is willing to work with the community reduce those hazards as opportunities arise following the treatment recommendations generated from the county assessment. Any issues related to Douglas County Open Space may be addressed by contacting the Douglas County Division of Open Space and Natural Resources at (303) 660-7495.

Initially, the Valley Park assessment resulted in 4 Open Space parcels being conditionally recommended for treatment and 4 parcels not recommended for treatment. At the request of the Valley Park CWPP Core Team, a reassessment was conducted by Douglas County Wildfire Mitigation and Douglas County Division of Open Space and Natural Resources in conjunction with Larkspur Fire Protection District. As a result, one parcel (SPN 277106001010) was re-classified from a no treatment recommendation to a conditional treatment recommendation changing the assessment results to 5 parcels being conditionally recommended for treatment and 3 parcels not recommended for treatment. The following descriptions summarize the treatment recommendations made for Open Space parcels in Valley Park. For locations of Open Space Parcels please see accompanying map:

SPN: 276901002001

Compartment: B

Size: 6.4 Acres

Recommendation: No Treatment.

Comments: Fuel type short grass. Slope gentle. Potential fire type is surface fire only. Potential flame length is low to moderate, increasing with wind. Potential rate of spread is low to high, increasing with wind. Potential flame duration is low. Potential burn severity (post burn affect to above ground vegetation) is low. Potential for ember generation is low. Fuels on parcel are not in close enough proximity of private structures or other values at risk to affect ignition.

SPN: 276901001001

Compartment: B

Size: 11.3 Acres

Recommendation: No Treatment.

Comments: Fuel type short grass. Riparian vegetation is present. Few small, isolated oak clumps exist but are insignificant to potential fire behavior. Slope gentle. Potential fire type is surface fire only. Potential flame length is low to moderate, increasing with wind. Potential rate of spread is low to high, increasing with wind. Potential flame duration is low. Potential burn severity (post burn affect to above ground vegetation) is low. Potential for ember generation is low. Riparian vegetation is valuable for wildlife forage and cover, soil stabilization, and maintaining water quality. Fuels on property are not in close enough proximity of structures or other values at risk to affect ignition.

SPN: 277106001010

Compartment: B

Size: 2.3 Acres

Recommendation: Conditionally Recommended for Treatment.

Comments: Fuel type short grass. Few isolated clumps of oak are present near road. Slope gentle. Potential fire type is surface fire only. Potential flame length is low to moderate in grass and low to high in oak, increasing with wind. Potential for oak to become an available fuel is highly dependent on live fuel moisture, except for dead component. Potential rate of spread is low to high, increasing with wind. Potential flame duration is low in grass and moderate in oak clumps. Potential burn severity (post burn affect to above ground vegetation) is low. Potential for ember generation is low in grass and moderate in oak clumps. Oak clumps are in close proximity to road creating some potential for spotting over road compromising the road's effectiveness as a fire break. Conditional treatment restricted to oak. Treatment of this parcel is recommended to be in conjunction with treatment of oak on privately held parcel west of road and oak on adjacent parcel to the east to make treatment fully effective.

SPN: 277106001008

Compartment: B

Size: 5.2 Acres

Recommendation: No Treatment.

Comments: Fuel type short grass. Riparian vegetation is present. Slope gentle. Potential fire type is surface fire only. Potential flame length is low to moderate, increasing with wind. Potential rate of spread is low to high, increasing with wind. Potential flame length duration is low. Potential burn severity (post burn affect to above ground vegetation) is low. Potential for ember generation is low. Fuels on property are not in close enough proximity of structures or other values at risk to affect ignition. Riparian shrubs are generally not readily combustible except in extreme cases. Riparian vegetation is valuable for wildlife forage and cover, stabilizing soil, and maintaining water quality.

SPN: 277106003006

Size: 6.8 Acres

Compartment: B/C

Recommendation: Conditionally Recommended for Treatment.

Comments: Primary fuel type short grass. Patches of oak with significant dead component are present and adjacent to private parcels. Riparian vegetation is present. Slope gentle. Potential fire type is surface fire only. Potential flame length is low to moderate in grass and low to high in oak, increasing with wind. Oak availability as fuel is highly dependent on live fuel moisture except for dead component. Potential rate of spread is low to high, increasing with wind. Potential flame duration is low in grass and moderate in oak clumps. Potential burn severity (post burn affect to above ground vegetation) is low. Potential for

ember generation is low in grass and moderate in oak. Riparian shrubs are generally not readily combustible except in extreme cases. Riparian vegetation is valuable for wildlife forage and cover, stabilizing soil, and maintaining water quality. Conditional rating restricted to oak. Oak on north side of parcel is a narrow edge of a larger stand mostly held by private ownership. Treatment of oak on privately held parcels (between structures and open space parcel) is necessary for treatment of oak on Open Space parcel to be effective in reducing hazard to nearby structures. Treatment of this parcel is recommended to complement efforts completed on the adjacent privately held parcels.

SPN: 277107003004

Size: 0.7 Acres

Compartment: C

Recommendation: Conditionally Recommended for Treatment.

Comments: Primary fuel types timber litter, oak with conifer over story. Ladder and crown fuels present. Slope gentle. Potential fire types are surface, passive crown, and active crown. Potential flame length is low to high, increasing with wind and dependent on fire type. Potential rate of spread is low to high, increasing with wind. Potential flame duration is high. Potential burn severity (post burn affect to above ground vegetation) is high. Potential for ember generation is high. Fuel is the edge of a larger forest stand that is held almost entirely by private ownership. Conditional treatment limited to large dead/down woody fuels, oak, and conifers. Due to the extreme narrowness of this Open Space parcel, causing limited county ownership of the hazardous fuels, treatment on this parcel alone would not likely reduce potential fire behavior. Treatment of private parcels to the east is first necessary to cause any significant reduction in fire behavior. Treatment of this parcel is recommended to complement efforts completed on the adjacent privately held parcels.

SPN: 277106003007

Size: 2.7 Acres

Compartment: C

Recommendation: Conditionally Recommended for Treatment.

Comments: Primary fuel types grass, timber litter, and oak with conifer over story. Ladder and crown fuels present. Slope gentle. Potential fire types are surface, passive crown, and active crown. Potential flame length is low to high, increasing with wind and dependent on fire type. Potential rate of spread is low to high, increasing with wind. Potential flame duration is high. Potential burn severity (post burn affect to above ground vegetation) is high. Potential for ember generation is high. Fuel is the edge of a larger forest stand that is held almost entirely by private ownership. Conditional treatment limited to large dead/down woody fuels, oak, and conifers. Due to the extreme narrowness of this Open Space parcel, causing limited county ownership of the fuels, treatment on this parcel alone would not likely reduce potential fire behavior. Treatment of private parcels to the north and/or south is necessary to cause any modifications to fire behavior. Treatment of this parcel is recommended to complement efforts completed on the adjacent privately held parcels.

SPN: 277107004021

Area: 17 Acres

Compartment: A

Recommendation: Conditionally Recommended for Treatment.

Comments: Primary fuel types grass, timber litter, and oak. Most of the parcel contains a conifer over story. Slope gentle to steep. Potential fire types are surface, passive crown, and active crown. Potential

1. CSFS 6.302 – Defendable Zones; a link to CSFS HIZ document
<https://csfs.colostate.edu/wildfire-mitigation/protect-your-home-property-from-wildfire/>
 2. CSFS 6.303 – Fire-Resistant Landscaping;
 3. CSFS 6.304 – Forest Home Fire Safety;
 4. CSFS 6.305 – Fire Wise Plant Materials;
 5. CSFS 6.306 – Grass Seed Mixes to Reduce Wild Fire Hazards;
- D. Early Warning Systems:
1. Register for CodeRED online at <http://www.douglascountyCodeRED.com> or text DRCC to 99411 to receive a direct link to the enrollment form on your mobile device.
 2. Radio Stations that carry warnings.

XI. Appendix 4: Home Address Sign Standards

- A. Location
1. The address sign should be located at the intersection of the drive and the street.
 2. If the mailbox is on the other side of the street from the drive, then an address sign post should be placed at the intersection of the drive and the street with the address number.
 3. Drives that service more than one home should have all the addresses shown at the drive/street intersection and each individual drive should have an address posted at the intersection with the common drive.
 4. For drives servicing multiple homes and using "gang mailboxes" where the mailboxes are mounted close together on individual posts or on a common structure, the addresses shall be posted as stated above and not obstructed from view by adjoining mailboxes or support structure.
- B. The Address Sign
1. The address number should be on the both sides of the sign or mailbox.
 2. The numbers should be perpendicular to the traveled road so they can be read from either direction of travel.
 3. The numerals should be a minimum of 4 inches in height, have a minimum stroke width of ½ inch.
 4. The numerals should be made of reflective material and should contrast with the background of the post or mail box during daylight.
 5. The address sign should be constructed of fire proof materials.

XII. Appendix 5: Slash Disposal Options

- A. Douglas County currently operates a "Slash-Mulch Site", located in Castle Rock. The site is currently cost-free for Douglas County residents and is open on Saturdays
http://www.douglas.co.us/publicworks/Slash_and_Mulch.html

1. Site is located 18 miles from the community
- B. Black Forest also operates a slash and mulch program. While this site is further from our community, its extended days and hours make it another alternative. <http://www.bfslash.org>.
 1. Site is located 26 miles from the community.
- C. Onsite Chipper – These units can be rented either by individuals or groups of owners.
- D. Mitigation Contractors – There are many companies that specialize in mitigation of property or will work with the owner in the removal or chipping of the slash.
 1. Contractors may also recommend the use of a mastication machine to deal with slash or as a very cost effective way to address mitigation on the property.
 2. Mastication of slash piles is recommended when material is a significant distance from roadways. Slash can be piled adjacent to treated areas and masticated by driving the machine to the piles of debris. This option is typically limited to slopes less than 40%.
- E. “Lop-and-scatter” of slash can be done in areas away from structures and roadways. A short-term fuel loading occurs over the first three years of treatment and then drops rapidly thereafter. This has limited value on smaller lots.

XIII. Appendix 6: Record of Activity

All owners are encouraged to retain the chipped material on their properties as mulch in their landscaping. This will avoid having material end up in landfills

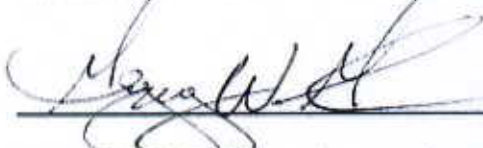
Year	Activity
2012	-Douglas County commissioner paid for 2 community chipping days. There was excellent participation on both chipping days.
2013	-Met with Douglas County Public Works to discuss signage, specifically dead end and national park access. Valley Park Drive dead end signs placed, north and south ends. -Met with Larkspur Fire Department, ponds are not of sufficient size to use as fire protection water supply. Cistern to adequately support fire protecting needs to be minimum 33,000 gallon. No community property is available for a cistern and it is cost prohibitive.
2014	-Community applied for and received a matching grant from state of Colorado for chipping, which was matched with labor hours. State paid \$900, 24 residents participated in the chipping. -Four land owners participated with CUSP to mitigate properties funded by a grant. -LFPD did a wild fire protection workshop on May, 13, 2014 attended by residents.
2015	-Chipping day was organized in September. Eight land owners participated, each had to pay \$75. -LFPD wild fire protection workshop in the spring attended by Valley park residents. -Larkspur fire marshal provided a wild fire briefing at the annual HOA meeting.
2016	-Instead of chipping Community tried a hauling program, 20 pickup loads hauled to slash site from several properties. -Tussock moth infestation hit. Home owners donated funds to pay for material and aerial spraying hoping to arrest the damage. -LFPD wild fire protection workshop in the spring attended by Valley park residents.

	-Larkspur fire marshal provided a wild fire briefing at the annual HOA meeting.
2017	<ul style="list-style-type: none"> -Chipping day was organized June 17th, eight participants paid \$75 each. -LFPD wild fire protection workshop April 22, 2017 was attended by residents. -Home owners donated funds to pay for another round of material and aerial spraying for Tussock moth control. -State of Colorado started work on 50-50 Grant to mitigate damage done by tussock moth. -Larkspur fire marshal provided a wild fire briefing at the annual HOA meeting.
2018	<ul style="list-style-type: none"> -LFPD wild fire protection workshop April 14, 2018 was attended by residents. -Residents met for initial plans on livestock and pet evacuation. -Home owner mitigation activity logs showed 68 hours labor and hauled 120 cubic yards of slash and spent \$1,580 on mitigation activity. More work was done than was reported and logged. -Chipping day September 8th, 6 owners participated and paid \$75 each. -CSFS Franktown Field Office administered 50-50 grant paid out \$73,956 for mitigation on 12 parcels mitigating a total of 47.5 acres. -Larkspur fire marshal provided a wild fire briefing at the annual HOA meeting.
2019	<ul style="list-style-type: none"> -LFPD wild fire protection workshop in the spring attended by Valley park residents. -Larkspur fire marshal provided a wild fire briefing at the annual HOA meeting. -Home owner mitigation logs for activity in 2019 have been lost.
2020	<ul style="list-style-type: none"> -No educational workshops due to covid precautions. -Installed signage "NO PUBLIC ACCESS TO NATIONAL FOREST" at entry to Valley Park and Hidden Valley as part of Sandstone Ranch Open Space development. -Home owner mitigation activity logged: 347 work hours, 175 cubic yard of slash removed and \$3,600 spent on mitigation. More work was done than was reported and logged.
2021	<ul style="list-style-type: none"> -No educational workshops due to covid precautions. -Home owners mitigation activity logged 286 hours and paid out \$3,600 for mitigation work, more work was done but logs were not received.
2022	<ul style="list-style-type: none"> -Home owner mitigation activity logged 68 hours, paid out \$27,551.25 to contractor for mitigation work. -TR (Team Rubicon) did mitigation work on May 27th and Oct 12-14 and logged 458 hours. Work involved removal of dead, over topped, and crown separation on five lots -Larkspur fire marshal provided a wild fire briefing at the annual HOA meeting. -LFPD put on a fire protection workshop that was attended by some residents.

XIV. Appendix 7: Approval Signatures

 01/16/23


Bill Diershow Fire Marshal Larkspur Fire Protection District

 15 JAN 23

Greg Glover President Valley Park Home Owners Association

 Jan 15, 2023

Hilde Simco CWPP Committee Secretary Valley Park Home Owners Association

 1/11/2023

Jim Gagnon CWPP Committee

 1/9/23

Brad Horner CWPP Committee

 1/19/23

Spencer Weston Supervisory Forester Colorado State Forest Service, Franktown Field Office