DRAFT
Fairmount
Fire Protection District
Community Wildfire
Protection
Plan

WALSH Project Number: 7404-060
March 9, 2007

DRAFT
FAIRMOUNT
FIRE PROTECTION DISTRICT
COMMUNITY WILDFIRE PROTECTION PLAN

March 9, 2007

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LIST OF ACROYNMS AND ABBREVIATIONS

AFOP	Annual Fire Operating Plan
ARES	Amateur Radio Emergency Services
ASTER	Advanced Spaceborne Thermal Emission and Reflection Radiometer
BLM	Bureau of Land Management
CAPCD	Colorado Air Pollution Control Division
CSFS	Colorado State Forest Service
CWPP	Community Wildfire Protection Plans
EMT	Emergency Medical Technician
ERC	Energy Release Component
ETA	Estimated Time of Arrival
EV	Existing Vegetation
FBFM	Fire Behavior Fuel Model
FDO	Field Duty Officer
FEMA	Federal Emergency Management Agency
FPD	Fire Protection District
FRCC	Fire Regime Condition Class
gpm	gallons per minute
HART	High Angle Rescue Team
HFRA	Healthy Forests Restoration Act
HOA	Homeowners Association
IC	Incident Commander
ICT	Incident Command Team
IMT	Incident Management Team
JFDRS	Jefferson County Fire Danger Rating System
JEFFCO	Jefferson County
mph	miles per hour
NEPA	National Environmental Protection Act
NFDRS	National Fire Danger Rating System
NFPA	National Fire Protection Association
NIFC	National Interagency Fire Center
NWCG	National Wildfire Coordinating Group
OEM	Office of Emergency Management
PNV	Potential Natural Vegetation
USFS	US Forest Service
WALSH	Walsh Environmental Scientists and Engineers, LLC
WFU	Wildland Fire Use
WFAS	Wildland Fire Assessment System
WUI	Wildland-Urban Interface

EXECUTIVE SUMMARY

The Community Wildfire Protection Plan (CWPP) is essentially a strategic plan that identifies wildland fire issues facing the community and outlines prioritized mitigation actions designed to reduce those risks. Once the CWPP is adopted, it is the community's responsibility to move forward and implement the action items. This may require further planning at the project level, acquisition of funds, or simply motivating community members.

This CWPP is not a legal document. There is no legal requirement to implement the recommendations herein. Actions on public lands will be subject to federal, state, and county policies and procedures such as adherence to the Healthy Forest Restoration Act (HFRA) and National Environmental Protection Act (NEPA). Action on private land may require compliance with county land use codes, building codes, and local covenants.

The HFRA of 2003 provides the impetus for wildfire risk assessment and planning at the county and community level. HFRA refers to this level of planning as Community Wildfire Protection Plan (CWPP). The CWPP allows a community to evaluate its current situation with regards to wildfire risk and devise ways to reduce risk for protection of human welfare and other important economic or ecological values. The CWPP addresses such issues as community wildfire risk factors, structure flammability, hazardous fuels, non-fuels mitigation recommendation, community preparedness, and emergency procedures. A Core Team needs to be locally organized to provide oversight to the process and ultimately to project implementation.

This CWPP provides wildfire hazard and risk assessment for selected neighborhoods and subdivisions within the Fairmount Fire Protection District (FFPD), located in Jefferson County, Colorado. Continual development in the region, combined with the buildup of hazardous fuels, limited access, and mountainous topography, creates a significant wildfire threat to human life and welfare, as well as to property, local economy, recreation, ecology, historic and cultural sites, and critical infrastructure.

Natural resource management policies and changing ecological conditions have converged to create hazardous fuel situations throughout the assessment area. Decades of aggressive fire suppression practices have resulted in very dense and weakened timber stands. Years of drought have further stressed the forests, setting the stage for the devastating insect and disease infestations we are experiencing today. Shrublands have grown dense and expanded into traditional grasslands, at the same time accumulating hazardous amounts of woody ground fuel. The diversity of native grasses has succumbed to more aggressive non-native species and noxious weeds. In many areas these fire-dependent ecosystems have grown unchecked by fire for over a century. The net result is any wildfire has the capacity to become catastrophic.

Wildfires are a common occurrence in Jefferson County. FFPD recorded 177 wildfire ignitions since 1995, averaging 14 to 15 starts per year. Most of these were suppressed during initial attack. FFPD responds to other local extended attack fire through mutual

aid agreements with neighboring districts and Jefferson County. Several of these fires include:

- Lyden Fire ~180 acres, 2005
- Ralston Creek Fire ~ 18 acres, 2006
- Plainview Fire ~ 2,000 acres, 2006
- North Table Mountain Fire ~ 300 acres, 2005

Other large regional fires impacting local resources include:

- Buffalo Creek fire ~ 12,000 acres, 1996
- Hi Meadow fire ~ 11,000 acres, 2000
- Snaking fire ~ 2,500 acres, 2002
- Schoonover fire ~ 4,000 acres, 2002
- Hayman fire ~ 138,000 acres, 2002

The Fairmount Protection District (FFPD) is located at the western-most edge of the greater Denver metropolitan area, north of and adjacent to the city of Golden, Colorado. The FFPD serves approximately 24 square miles of primarily suburban and rural interface. The district is characterized by rapid suburban growth into former rural agriculture and open prairie areas as well as a significant presence of commercial industrial enterprises. WUI delineations focus on neighborhoods and neighborhood margins that are adjacent to open space or rural developments that represent a common emergency response zone with similar assets, risks and hazards. North Table Mountain, managed by Jefferson County Open Space, dominates the central portion of the district, covering over 2,100 acres at its base and over 1,000 acres of summit plateau. Open foothills extend past the western district boundary district boundary. Industrial infrastructure is rather significant in the district and includes Coors Brewing facilities, Coors Technical Center, as well as a variety of commercial manufacturing and warehousing facilities. Supporting transportation infrastructure includes highway and rail.

Field surveys, interviews with public lands managers and close collaboration with the FFPD and other stakeholders are all utilized for data collection, hazard assessments and treatment recommendations. All information was gathered, analyzed, and prepared in the CWPP format by Walsh Environmental Scientists and Engineers, LLC (WALSH). A project website is maintained by the Jefferson County Division of Emergency Management and project updates and information to promote public awareness and outreach were provided (http://www.co.jefferson.co.us/emerg/index.htm).

Public awareness and involvement is an important component of any CWPP. Meetings with the public provide a means to share information as to the community's prioritization of values and gauges receptiveness to mitigation recommendations. The first public meeting was held on February 7. Second public meeting is scheduled for April 4, 2007 at FFPD Station No. 2. The purpose of the first meeting was to introduce the CWPP process and overall goals and objectives. The meeting introduced the CWPP core team and provided an opportunity for the public to participate in the process, review the findings

and comment on proposed mitigation possibilities. 1st meeting feedback was limited to the attending core team but productive in that it provided a collaborative setting for public agencies to review project goals and objectives and recommend additional areas of concern. The purpose of the second meeting is to present the findings and recommendations of the CWPP core team and to further solicit public input for the final report.

Questionnaires were distributed at meetings to obtain information on public opinion on the level of wildfire risk in the FFPD, evaluate values at risk, and assess mitigation practices needed to reduce risk (Appendix D). Wildland urban interface (WUI) safety pamphlets and brochures that explained proper home construction and landscaping practices to reduce the risk of wildfire loss were also handed out at the meetings (Appendix F). A draft report of the CWPP was posted on the County's emergency website to encourage public review and comment.

The National Fire Protection Association (NFPA) Form 1144, Standard for Protection of Life and Property from Wildfire 2002 Edition, was utilized to assess the level of risk and hazard to individual neighborhoods. Field surveys of 6 subdivisions and neighborhoods identified by the FFPD as areas of concern were conducted during February and March of 2007 to assess specific wildfire hazard and risk factors. Surveys assess predominant characteristics within individual neighborhood communities as they relate to structural ignitability, fuels, topography, expected fire behavior, emergency response, and ultimately human safety and welfare. Scores are assigned to each element and totaled to determine the overall level of risk. Low, moderate, high, and extreme hazard categories are determined based on the total score. A summary of the community hazard ratings and contributing factors are provided in Table ES 1. Community survey summaries are located in Appendix C.

Table ES 1. Community Hazard Rating and Contributing Factors

Community	Hazard Rating	Contributing Factors
Indian Head	TBD (moderate)	• (+) broad prairie expanse broken by major irrigation canal on approach; cistern and stand pipe located near ends of both primary roads. • (-) Single ingress/egress, unpaved, narrows to single lane with moderate slope; above ground utilities; ponderosa encroachment onto roadway; restricted turnaround on saddle with heavy FBFM 6 below in chimney. Fire return frequency.
Pine Ridge	TBD (low)	• (+) South subdivision; dual access paved 2-way ingress/egress; good road condition, low slope/grade; no predominant construction mixed low grade for building slopes; turnaround present. • (-) South subdivision; no water supply; above ground utilities. • (+) North subdivision; paved 2-way access; good road condition, low slope/grade; low grade for building slopes; stucco and class A roofing; turnaround present; buried utilities; grazed meadow or mowed yards. • (-) North subdivision; no emergency water supply;

Community	Hazard Rating	Contributing Factors
		single gated ingress/egress. • (+) Prairie grasses, yucca, grazed meadow grasses; some mountain mahogany. Open ponderosa west side of valley; FBFM 1 and FBFM 6. • (-) Fire return frequency
Dunhaven	TBD (low)	• (+) Lower subdivision; dual access paved 2-way ingress/egress; good road condition, low slope/grade; Predominant mixed brick/siding 2 story; hydrants; low grade for building slopes; turnarounds present; buried utilities. • (+) Prairie grasses, yucca, some mountain mahogany. FBFM 1 and FBFM 6. • (-) Fire return frequency
Station 2	TBD (low)	• (+) Dual access paved 2-way ingress/egress; good road condition, low slope/grade; Predominant mixed brick/siding 2 story; hydrants; low grade for building slopes; turnarounds present; buried utilities. • (-) Wood sided 3 story mutli-family attached housing present at interface margin. • (+) Prairie and meadow grasses; grazed; some riparian deciduous zones. FBFM 1 and FBFM 6. • (-) Fire return frequency
53rd	TBD (low)	• (+) Lower subdivision; dual access paved 2-way ingress/egress; good road condition, low slope/grade; Predominant mixed brick/siding 2 story; hydrants; low grade for building slopes; turnarounds present. • (-) Lower subdivision above ground electric utilities, <60% wood shake roofing. • (+) Upper subdivision; 2-way paved access; stucco & class A roofing predominant construction; hydrants; buried utilities; turnarounds present. Low to moderate grade for building slopes < 10%. • (-) Upper subdivision; deadend ingress/egress • (+) Prairie grasses, yucca, some mountain mahogany. FBFM 1 and FBFM 6. • (-) Fire return frequency
South Easley Way	TBD (low)	• (+) Lower subdivision; dual paved 2-way ingress/egress, good road condition, low slope/grade. Predominant brick single story asphalt roof construction. Hydrants • (-) Lower subdivision above ground electric utilities, • (+) Upper subdivision; 2-way paved access; stucco & class A roofing predominant construction; hydrants; buried utilities; turnaround present. • (-) Upper subdivision; deadend ingress/egress,

Community	Hazard Rating	Contributing Factors
		road grade ~ 10%, building sites > 30% slope • (+) Prairie grasses, yucca, some mountain mahogany. FBFM 1 and FBFM 6. • (-) Fire return frequency

The most effective hazardous fuels reduction project starts right at the home, the most important first line of defense in the event of a wildfire. The creation of defensible space around homes, the utilization of fire resistant construction materials, combined with some common sense practices around the home and property will significantly reduce the risk of life and property loss in the event of a wildfire. When these Firewise practices become the predominant model in a neighborhood the entire community benefits.

The predominant wildfire fuels in the FFPD are grass and shrubs. In neighborhood margins that interface with these habitats, effective hazard reduction can be as straight forward as establishing a mowed perimeter between yards and prairie. Other priority action items should include;

- Improving and maintaining defensible space
- Phasing out wood shake roofs
- Utilizing fire resistive building materials for remodels or new construction
- Implement neighborhood improvement oversight committees
- Fire prevention education

Familiarization and coordination with the Jefferson County Annual Operating Plan is also recommended. This provides important information concerning county and regional fire operations, policies and procedure definitions. Information may be available through the through the Jefferson County Office of Emergency Management web site (Appendix I).

The following Table ES2 summarizes the proposed mitigation project schedule for the FFPD.

Table ES 2. Proposed Wildfire Mitigation Project Schedule

Year	Project	Actions
1	Annual spring outreach	▪ Contact and/or organize homeowners
	Annual spring mitigation (Defensible Space)	• Basic yard clean-up and disposal: ▪ Clean roofs and gutters ▪ Trim limbs/bushes within 3-5 feet of home ▪ Rake yard ▪ Help a neighbor ▪ Organize debris disposal
2	Annual spring outreach	▪ Contact and/or organize homeowners
	Annual spring mitigation (Defensible Space)	▪ Brush clean-up along property lines ▪ Repeat basic yard clean-up ▪ Organize debris disposal
3	Annual spring outreach	▪ Contact and/or organize homeowners

Year	Project	Actions
		▪ Advise individual home owners on needed improvements to construction features
	Annual spring mitigation (Defensible Space)	▪ If necessary, coordinate defensible space efforts between homeowner groups who have created defensible space, and adjacent open space land managers.
4	Annual spring outreach	▪ Contact and/or organize homeowners ▪ Follow-up on construction feature recommendations
	Annual spring mitigation (Defensible Space)	▪ Complete any outstanding projects from previous years ▪ Begin maintenance phase ▪ Initiate construction feature improvements

Implementing, sustaining, and monitoring the CWPP is key to success. Building partnerships among community-based organizations, fire protection authorities, local governments, public land management agencies, and private landowners is necessary in identifying and prioritizing measures to reduce wildfire risk. Maintaining this cooperation is a long-term effort that requires the commitment of all partners involved. The CWPP encourages citizens to take an active role in the CWPP process by identifying needs, developing strategies, and implementing solutions.