

APPENDIX C

WILDLAND-URBAN INTERFACE COMMUNITY HAZARD ASSESSMENTS & RECOMMENDED ACTION ITEMS

The purpose of this appendix is to examine, in greater detail, the communities (fire protection districts) in the study area. Most of the hazard assessments are derived from existing fire protection district CWPPs. Remaining WUI areas were delineated and assessed with a GIS weighted regression index.

Arvada

Description: Arvada Fire Protection District maintains 8 active stations throughout 41 square miles in the City of Arvada, the City of Wheat Ridge and unincorporated Jefferson County. The majority of the FPD is urban or developed, with a small portion of the district in the open plains just east of the Front Range foothills. The city of Arvada has a population of approximately 107,700, which comprises the majority of the FPD population. Lots are typically less than one acre, typical of suburban neighborhoods and subdivisions. The outlying areas extend to the west and north, and the district is surrounded by some no-man's lands and is adjacent to Rocky Flats. There are a few neighborhoods that extend into this WUI area, bordering and extending into grass fuels and relatively flat terrain.

Vegetation and fuels: The majority of the area is covered by non-wildland vegetation and fuels. Most properties have irrigated lawns and landscaping. The primary fire carriers in WUI areas are low-load grass fuels. These light, flashy fuels are easily ignited and can cause very fast-moving fires, but are relatively easy to contain with mowed fuelbreaks. A few parks and greenbelts have deciduous trees and grass and shrub understory; many of these areas also have riparian vegetation. These areas could burn under extreme fire weather conditions.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Reduce percentage of combustible siding and decking on homes.
- Improve or expand defensible space by mowing seasonally around structures
- Enclose open areas below decks and structures to prevent embers from collecting in ignitable areas.
- Add reflective address markers to driveways and homes.
- Homeowners adjacent to open space should incorporate Firewise landscaping that can serve as a fuelbreak.

Coal Creek Canyon

Description: CCCFPD is a rural area whose boundaries contain a number of county, state, and portions of various recreation areas. The District is home to 7,000 residents, which are served by four strategically positioned fire stations. The bulk of the population resides in subdivisions with forested lots consisting of one acre or less, but some residents own large tracts of land. Rapid increase in residential growth has occurred here in recent years. The entire District lies within the WUI. The eastern portion of the District contains a mixture of industry, grazing lands, and undeveloped portions west of the City of Arvada. The upper canyon areas have very rugged topography and thick forests. A significant portion of CCCFPD contains areas of high fire hazard with respect to wildland fire potential. There are dense, continuous fuels, steep terrain, and limited access.

There are 224 miles of roadway; those in the upper canyon are circuitous and slow to navigate, typical of mountain roads. Ten percent of the roads in the District are paved, 85% are unpaved, and 5% are passable only with 4x4 vehicles. Two major state highways cross through the District; Highways 93 and 72. A major railway, now used by several rail lines, was constructed on the heavily forested hillsides in the 1880's and contains 25 tunnels within the District. As many as 28 trains per day use the rail line, some carrying hazardous materials. The presence of this infrastructure raises ignition risk throughout this area.

Vegetation and fuels: The eastern portion of the District is covered primarily by short sparse grasses. Yucca and mountain mahogany are also common. Fire is easily ignited in these fuels, and can spread rapidly. Several recent fires in CCCFPD have burned in this eastern portion of the District. The western portion of the District is covered by a mixture of montane forest cover types, dominated by ponderosa pine, Douglas-fir, and mixed conifer. Steep rocky canyons cross through the entire area, and vegetation is determined largely by slope aspect. At the highest elevations of the District, there are stands of decadent lodgepole pine, which are beginning to be affected by the Mountain Pine Beetle. Communities and homes in these dense forest types require much more extensive fuels mitigation than those at lower elevations.

Coal Creek

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Develop and maintain shaded fuel breaks along primary evacuation routes, main roads, and secondary evacuation routes.
- Strategic forest treatment and thinning zones are recommended for several stands surrounding subdivisions and several stands within subdivisions.
- Survey and note condition of turnarounds switchbacks and improve where needed for apparatus access.
- Develop secondary egress routes where subdivisions have only one way in and out.
- Improve existing power line right-of-ways.
- Implement shaded fuel break along forested zone of Eastridge Drive.
- Seek necessary emergency access permissions through Brumm Road and implement necessary road and shaded fuel break improvements.
- Forest thinning recommended on the north slope north of Burke Road and behind structures along Twin Spruce Road.
- Investigate and formalize secondary emergency evacuation route to the Hilltop subdivision. Improve where necessary.
- Associated strategic forest treatment and thinning zones are recommended for stands upslope from railroad right-of-way along Chute Road and Tunnel 19 Road.
- Develop and maintain shaded fuel breaks along upper Spruce Canyon Drive and forested access in lower portions of the subdivision.
- Develop and maintain shaded fuel breaks along forested portions of Gross Dam Road.
- Strategic forest treatment and thinning zones are recommended for stands adjacent north and east of Spruce Canyon Drive and Butte Drive.
- Install planned cistern near Loomis and Butte Drive
- Develop and maintain shaded fuelbreaks along forested portions of Ranch Elsie Road and Hilltop Drive
- Develop and maintain shaded fuel breaks along upper and lower Miramonte Roads and along forested portions of the local railroad right-of-way to buffer fire spread potential from sparking train brakes.

Edgewater

Description: The City of Edgewater Fire Department is a small all-volunteer department that covers the urban city of Edgewater, on the edge of Wheat Ridge and West Metro FPD's. Denver Fire lies immediately to the east. The area only covers less than one square mile in Jefferson County.

Vegetation and fuels: Vegetation is characterized by irrigated landscaping and other "nonburnable" fuels.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Clear leaves and other burnable debris from gutters annually

Elk Creek

Description: The ECFPD is located west and south of Denver, and comprises approximately 98 square miles, in western Jefferson County and a small portion of eastern Park County. The District had four fire stations, serving approximately 15,000 residents. The area is generally surrounded by the Pike National Forest (South Platte Ranger District) to the south and west and private land to the north and east. Land ownership within the district is primarily private, but there are also large tracts owned by Colorado State Parks and Wildlife and Jefferson County Open Space. The local economy is dictated by the proximity and ease of access to the business and employment opportunities in the nearby Denver metro area. Most working residents commute daily to Denver, but several local businesses and tourism are economically important to the area. Numerous world-class hunting, climbing, cycling, camping, and fishing areas abound locally. US Highway 285 runs through this district, and is a critical thoroughfare from the Denver-metro area to the southwestern portion of the state. Locally, County Roads 73 and 126 are also major access roads. Many roads are unpaved and/or are only passable with four wheel drive vehicles. Remote, steep, and circuitous roadways are common, and increase response time to many communities. Communities are on or in close proximity to steep slopes and heavy fuels. The southern part of the District burned in the Hi-Meadow fire in 2000, and the area still bears the striking characteristics of the high-severity fire.

Vegetation and fuels: The vegetation in this District is characteristic of the montane and subalpine life zones. The majority of the area is covered by forest dominated by ponderosa pine. On north aspects, Douglas-fir is co-dominant with ponderosa pine. Open meadows and drier sites, as well as previously burned areas, are dominated by short prairie grasses and shrubs. In the upper montane and subalpine zones, dense mixed conifer and lodgepole pine stands are prevalent. Much of the area has gone undisturbed by logging, fire, or insect outbreaks for more than 100 years, which has resulted in a buildup of dense, heavy fuels, particularly in the western half of the District. Much of the area is rated as high fire hazard due to the combination of steep, rugged topography and heavy fuels.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Develop and maintain shaded fuel breaks along primary evacuation routes, main roads, and secondary evacuation routes.
- Strategic forest treatment and thinning zones are recommended for several stands surrounding subdivisions and several stands within subdivisions.
- Survey and note condition of turnarounds switchbacks and improve where needed for apparatus access.
- Develop secondary egress routes where subdivisions have only one way in and out.
- Improve existing power line right-of-ways.
- Add reflective addressing to all driveways and homes.
- Work with property owners to add apparatus pullouts on narrow access roads.
- Work with private property owner to improve and maintain emergency egress route between Swiss Village and Amerind Springs WUI communities.

Elk Creek

Recommendations (continued):

- Install shaded fuelbreak northwest of Buena Vista Drive and south of Sunlight Lane; tie fuelbreak to the meadows on the north and south sides of the Apache Springs WUI.
- Improve Evergreen Drive to create egress route into Conifer High School
- Complete shaded fuelbreak south of Snyder; tie to private roads and light fuels in the subdivision near the highway.
- Complete additional patch cuts in lodgepole west of Black Mountain Road and south of the end of Greening.
- Create small patch cut openings where Aspen saplings are growing, to encourage reestablishment of Aspen groves.
- Work with property owners to connect the end of Elk Haven Road to Calfee Gulch for a secondary emergency egress.
- Complete shaded fuelbreak north of Roman Nose to Pleasant Park Road.
- Complete shaded fuelbreak between Edward's Drive and Christopher Drive
- Complete shaded fuelbreak from Douglas Ranch Road east to the meadow that borders the Sunset WUI.
- Complete shaded fuelbreak to the west of Eagle Cliff Road, connecting the large meadows.
- Build emergency access/egress route between Eagle Cliff and Hillview WUI communities from the end of Wild Heart to Fairall Road.
- Complete emergency access/egress between Elk Falls Ranch and Woodside WUI communities through meadow off of Elk Creek Road.
- Complete shaded fuelbreak from the end of Elk and Deer Trails east to Conifer Ridge, in the Richmond Hill WUI.
- Complete shaded fuelbreak on the south end of Jubilee to Pine Valley Road.
- Extend shaded fuelbreak treatments to the adjacent Butterfield Ranch property.
- Complete shaded fuelbreak between Pine Junction and Mountain View WUI communities northwest of Iroquois Trail, from Parker Road to the meadows.
- Complete shaded fuelbreak from Pine Junction commercial area at Mount Evans Boulevard and US Highway 285, west across Wandcrest Avenue to the meadow in the Lion's Head subdivision.
- Complete shaded fuelbreak from Conifer Ridge Road west to Deer Trail in the Green Valley WUI.
- Build emergency egress road from Gold Spur to Upper Ridge Road in the Upper Ridge Road WUI.
- Connect private driveway off Sunset Drive (off Wamblee Valley Road in Wamblee Valley WUI) to the end of Sunset Drive to create an emergency egress for both communities.
- Initiate community effort to reach seasonal residents for fuels mitigation

Evergreen

Description: Evergreen is an unincorporated community of approximately 40,000 people, and is located in the Front Range of west-central Jefferson County. The EFPD serves 126 square miles of suburban and rural WUI. The majority of the WUI is within the Jefferson County portion of EFPD. Fifty-two square miles of the EFPD lie within east Clear Creek County. The EFPD is mountainous and heavily forested, and also relatively densely populated. Elevation is approximately 6,720 to 10,500 feet. The three major highways in the District are I-70, CR73, and CR 74 (Evergreen Parkway). Evergreen attractions include Evergreen Lake, downtown Evergreen with historic buildings, miles of hiking trails, the Evergreen and Hiwan Golf courses, and the close proximity to Mount Evans and Echo Mountain Park. Evergreen is surrounded by thousands of acres of forested land in the Denver Mountain Parks, Jefferson County Open Space, and Arapahoe-Roosevelt National Forest. WUI delineations focus on neighborhoods, and detailed hazard ratings are located in the EFPD CWPP that was completed in 2007.

Vegetation and fuels: The vegetation in this District is characteristic of the montane and subalpine life zones. The majority of the area is covered by forest dominated by ponderosa pine. On north aspects, Douglas-fir is co-dominant with ponderosa pine. The area is also interspersed with open meadows and drier sites that are dominated by short prairie grasses and shrubs. In the upper montane and subalpine zones, dense mixed conifer and lodgepole pine stands are prevalent. Much of the area has gone undisturbed by logging, fire, or insect outbreaks for more than 100 years, which has resulted in a buildup of dense, heavy fuels, particularly in the western half of the District. Much of the area is rated as high fire hazard due to the combination of steep, rugged topography and heavy fuels.

Evergreen

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Develop and maintain shaded fuel breaks along primary evacuation routes, main roads, and secondary evacuation routes.
- Strategic forest treatment and thinning zones are recommended for several stands surrounding subdivisions and several stands within subdivisions.
- Survey and note condition of turnarounds switchbacks and improve where needed for apparatus access.
- Develop secondary egress routes where subdivisions have only one way in and out.
- Improve existing power line right-of-ways.
- Complete shaded fuelbreaks west of Beaver Brook on saddles between Saddleback Mountain and Santa Fe Mountain
- Emergency access W. Beaver Brook Road to Santa Fe Mt. Road; E. Beaver Brook Road to Elm Green Road; High School to Elm Green Road; out-of-district with Clear Creek County-Sawmill Creek Rd to I-70 corridor
- Develop and maintain emergency access from Meadow to Old Squaw Pass
- Develop and maintain emergency access between Ruby Ranch and Humphrey
- Develop and maintain emergency access to Old Squaw Pass Road through Castlewood Gulch
- Develop and maintain emergency access routes between Troutdale Scenic Drive and Wildflower and Upper Bear Creek; and between Upper Bear Creek and Stagecoach
- Develop and maintain emergency access routes from Fern Gulch to Independence and Hilltop to Independence
- Develop and maintain emergency access options for Brook Forest to Bluebell (Buffalo Park) and/or Fawn Path/Weasel to Stransky Ranch
- Develop and maintain a emergency access between Gray Hawk, Lynx Lair and Frog Hollow
- Fuel reduction in identified Frog Hollow treatment area (see EFPD CWPP)
- Develop and maintain a emergency access between South Keystone and Kittredge Park

Fairmount

Description: The FFPD serves approximately 24 square miles of primarily suburban and rural interface at the westernmost edge of the greater Denver metro area. The district is bounded by the City of Arvada to the northeast, Wheat Ridge to the east, and the City of Golden to the south. Open foothills extend past the western district boundary. Elevation ranges from 5,500 to 7,000 feet. 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. The Dakota Hogback, which runs along the District's western margin, is another significant topographic feature of the area. Major industrial infrastructure includes Coors Brewing facilities, Coors Technical Center, aggregate mining operations, and a variety of commercial manufacturing and warehousing facilities with supporting transportation infrastructure of highways and railroads. The district is characterized by suburban expansion into rural agriculture and open prairie. Several neighborhood margins are directly adjacent to open prairie where potential fire behavior is characterized by rapid rates of spread. As is typical of Colorado Front Range WUI zones, neighborhoods often extend into foothill valleys, canyons, and mountain slopes with restricted access and limited emergency water supplies. In the FFPD, these neighborhoods are located on the district's western margins where topography, access, fuels, and available resources may impact suppression efforts in the event of a wind-driven wildfire ignition.

Vegetation and fuels: The predominant wildfire fuels in the FFPD are grass and shrubs. Short grass prairie species comprise the predominant vegetation. Native shrubs, such as Yucca and mountain mahogany, are intermixed with grasses on higher slopes in the western part of the District. Fire is easily ignited in these fuels, and can spread rapidly. Several recent fires in FFPD have burned in these fuel types in the District. Deciduous species, such as aspen and cottonwood, are found in riparian drainages and ponderosa pine stands are found only along the district's higher western boundary.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Reduce percentage of combustible siding and decking on homes.
- Improve or expand defensible space by mowing seasonally around structures
- Enclose open areas below decks and structures to prevent embers from collecting in ignitable areas.
- Homeowners adjacent to open space should incorporate Firewise landscaping that can serve as a fuelbreak.
- Complete shaded fuelbreak along upper portion of Indian Head Road.
- Complete fuel reduction in prairie areas where shrubs are encroaching on access routes and structures. Mowing and Grazing are both effective methods of mitigation in these areas.

Foothills

Description: Foothills FPD stretches from Clear Creek Canyon south to Bear Creek Canyon and is bisected by 8 miles of I-70. Approximately 5,000 residents live within the 25.2 square miles of the District. It lies in the foothills to the west of the Denver metropolitan area, with elevations between 6,000 and 8,200 feet. The district is characterized by a decentralized network of neighborhoods and roads running through the mountainous forest and shrublands. Communities within the district include Mount Vernon, Paradise Hills, Cody Park, and Idledale. Many Denver television and radio stations have transmission towers located on Lookout Mountain and Mount Morrison, but there is little other commercial or industrial development within the district. The FFPD is largely surrounded by over 20,000 acres of city and county parks and open space lands. These parks are important local assets as well as a draw for visitors. The Denver Mountain Parks (DMP) located within or adjacent to the FFPD include Genesee, Corwina, O'Fallon, Little, and Red Rocks Parks. The Jefferson County Open Space Parks include Lair O' the Bear, Mount Falcon, Matthews/Winters, Apex, Windy Saddle, and Clear Creek. Other local attractions include the Mother Cabrini Shrine, Buffalo Bill's Gravesite, and bison and elk herd pens. FFPD also responds to an additional 7,552 acres outside of its district in the surrounding "no-man's lands".

Vegetation and fuels: The easternmost portion of the District is covered primarily by short sparse grasses with little tree cover. The majority of the District is primarily covered by ponderosa pine woodlands. On north aspects, Douglas-fir is co-dominant with ponderosa pine, and forests are denser. Overall, forest vegetation is broken by open meadows and shortgrass prairies. Although fuels are lighter and less continuous than in districts at higher elevations farther west, fire can ignite and spread rapidly in the dominant fuel types in this District.

Foothills

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Reduce percentage of combustible siding and decking on homes.
- Improve or expand defensible space by mowing seasonally around structures and clearing woody vegetation.
- Enclose open areas below decks and structures to prevent embers from collecting in ignitable areas.
- Widen turnarounds and pullouts for emergency vehicles on access roads where needed.
- Develop and maintain shaded fuel breaks along primary evacuation routes, main roads, and secondary evacuation routes.
- Strategic forest treatment and thinning zones are recommended for several stands surrounding subdivisions and several stands within subdivisions.
- Improve access and egress for Cody Park
- Develop secondary egress routes where subdivisions have only one way in and out.
- Complete shaded fuelbreak between Lower Moss Rock and Summit Ranch
- Develop emergency egress route linking Cold Springs Road to Holy Court.
- Complete shaded fuelbreak from Spruce Road east to Silver Willow.
- Create small patch cut openings where Aspen saplings are growing, to encourage reestablishment of Aspen groves.

Genesee

Description: The GFPD is relatively small, covering 10 square miles, but densely populated by county standards. Population is approximately 3,700 with a per square mile density of 555.5 and 234.6 housing units per square mile. The district is covered by a lattice of paved roads that connect the neighborhoods to I-70 along the area's northern perimeter. Genesee is known for its predominance of upscale homes and the majestic conifers that surround them. Denver Mountain Parks and Jefferson County Open Space manage adjacent public lands on the northwest and south district margins. The town of Evergreen lies just to the west of this community.

Vegetation and fuels: The majority of the District is primarily covered by ponderosa pine woodlands with grassy understory. Some areas have old-growth ponderosa pine trees that exceed three feet in diameter. On north aspects, Douglas-fir is co-dominant with ponderosa pine, and forests are denser. Overall, forest vegetation is broken by open meadows and shortgrass prairies.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Improve or expand defensible space by mowing seasonally around structures and clearing woody vegetation.
- Develop and maintain shaded fuel breaks along primary evacuation routes, main roads, and secondary evacuation routes.
- Strategic forest treatment and thinning zones are recommended for several stands surrounding subdivisions and several stands within subdivisions.
- Survey and note condition of turnarounds switchbacks and improve where needed for apparatus access.
- Install reflective, fire-resistant address numbers and road signs.
- Clearly mark all fire hydrants
- Develop secondary egress routes where subdivisions have only one way in and out.
- Improve existing power line right-of-ways.
- Thinning in existing and potential treatment zones identified in the Streamside Open Space and Genesee Vista, Trail and Ridge intersections.
- Maintain and improved existing shaded fuel breaks to include extending treatment zones (see Genesee FPD CWPP), surface fuel reduction, and reducing conifer reproduction.
- Complete shaded fuelbreak in stands south of Montane Drive, and east on the slopes leading to Sawmill Gulch.

Golden

Description: Although not a fire protection district, the City of Golden and the surrounding FPD encompasses 9 square miles west of the Denver metropolitan area. Golden Fire is a municipal combination of fire departments. Golden is a rapidly growing city of over 17,160 people, with numerous businesses large and small, as well as numerous schools including the Colorado School of Mines. As the county seat, it is also home to county offices and facilities including the jail. The landscape rises steeply from the rolling open grasslands to mesas and peaks ranging from 6,200 to 7,500 feet. The District is surrounded by more than 7,500 acres of city and county open space, including North Table Mountain, South Table Mountain, Mount Galbraith, Windy Saddle, Apex, Matthews/ Winters Park, and Lookout Mountain Nature Center. Lakewood's 2,500 acre Green Mountain Park is adjacent to the southern end of the area. Outdoor recreation is an important draw for residents and visitors, in addition to the historic downtown area.

Vegetation and fuels: Large portions of the area is covered by non-wildland vegetation and fuels. Most residential properties have irrigated lawns and landscaping. The primary fire carriers in WUI areas are low-load grass fuels. These light, flashy fuels are easily ignited and can cause very fast-moving fires, but are relatively easy to contain with mowed fuelbreaks. A few parks and greenbelts have deciduous trees and grass and shrub understory; many of these areas also have riparian vegetation. These areas could burn under extreme fire weather conditions. The open space areas are mostly characterized by open shortgrass prairie mixed with shrubs. Fire is easily ignited in these fuels, and can spread rapidly. Several recent fires in Golden Fire District have burned in these fuels.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Clear leaves and other burnable debris from gutters annually.
- Reduce percentage of combustible siding and decking on homes.
- Improve or expand defensible space by mowing seasonally and removing woody debris from around structures.
- Mow along public walking paths to maintain fuel breaks.
- Enclose open areas below decks and structures to prevent embers from collecting in ignitable areas.
- Homeowners adjacent to open space should incorporate Firewise landscaping that can serve as a fuelbreak.

Golden Gate

Description: The GGFPD is located 5 miles west of Golden, CO, and comprises approximately 49 square miles, in northern Jefferson County. Approximately 500 homes and about 1200 residents are served by two fire stations. The district is bordered on the east by the City of Golden and rural Gilpin County to the west. Elevation ranges from 6500 to 9000 feet. Land ownership within the district is primarily private, but there are also large tracts owned by Colorado Parks and Wildlife and Jefferson County Open Space. The primary access to the district is via Golden Gate Canyon Road. Outdoor recreation is an important draw for residents and visitors, particularly in Golden Gate State Park. The area is home to several historic ranch and mining sites, in addition to modern upscale subdivisions and ranchettes. The local economy is dictated by the proximity and ease of access to the business and employment opportunities in the nearby Denver metro area. Most working residents commute daily to Denver, as there is little commercial development in this district.

Vegetation and fuels: Vegetation in this district is highly variable, and typical of the montane zone of the Front Range of the Rocky Mountains. The majority of the District is primarily covered by ponderosa pine woodlands. On north aspects, Douglas-fir is codominant with ponderosa pine, and forests are denser. Overall, forest vegetation is broken by open meadows and shortgrass prairies. Although fuels are less continuous than in neighboring districts at higher elevations and farther west, fire can ignite and spread rapidly in the dominant fuel types in this District. In the highest elevations of GGFPD, very dense mixed conifer and lodgepole pine stands are prevalent. Many of these stands have gone undisturbed by logging, fire, or insect outbreaks for more than 100 years, resulting in a buildup of dense, heavy fuels.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Develop and maintain shaded fuel breaks along primary evacuation routes, main roads, and secondary evacuation routes.
- Strategic forest treatment and thinning zones are recommended for several stands surrounding subdivisions and several stands within subdivisions.
- Survey and note condition of turnarounds switchbacks and improve where needed for apparatus access.
- Develop secondary egress routes where subdivisions have only one way in and out.
- Improve existing power line right-of-ways.
- Install reflective, fire-resistant road signs and address numbers where they are lacking; improved, consistent signage is needed throughout most of GGFPD
- Assign road names to private roads that provide access to more than three private properties, as is dictated by County Planning and Zoning.

Golden Gate

Recommendations (continued):

- On smaller parcels, create small patch cut openings where Aspen saplings are growing, to encourage the reestablishment of Aspen groves.
- Complete patch cuts on the west side of Bear Paw Road.
- Complete shaded fuelbreak on the west side of Douglas Mountain Drive.
- Thin in gullies below Douglas Mountain Drive to protect access.
- Complete shaded fuelbreaks on the ridge south of Drew Hill Road.
- Complete shaded fuelbreak north of Spirit Ranch Road, parallel to the large meadow, and tie to private access road off of Drew Hill Road.
- Thin vegetation along Spirit Horse Trail; extend thinning into open meadows where possible.
- Complete shaded fuelbreak from Golden Gate Canyon Road north along Horseradish Gulch Road, on the north side of the draw.
- Complete secondary access/egress from private drive at the northern end of the WUI to the end of Summer Star Lane in the Window Rock WUI.
- Complete shaded fuelbreak on the north side of Misty Road; tie thinned areas to meadows and previously completed mitigation work areas.
- Complete access road improvement on private road that connects Misty Road with Homestead Road, to create a passable loop.
- Thin slopes below homes on Calle Louisa and along the steep driveways off the eastern portion of Robinson Hill Road.
- Complete shaded fuelbreak in the northeast corner of the WUI, on the north aspect of the drainage, south of Golden Gate Canyon Road.
- Improve the secondary access to Guy Hill Road.
- Complete shaded fuelbreak at the intersection of Golden Gate Canyon Road and Rye Gulch Road; tie into open meadows.
- Clear and maintain private road loop at the end of The Gulch Road to provide additional emergency egress route to spur of Crawford Gulch Road.

Indian Hills

Description: The IHFPD encompasses approximately 11 square miles (7040 acres) in central Jefferson County. The population of Indian Hills is approximately 1,500 or just over 600 homes. Elevation ranges from 6,000 and 8,050 feet along the Parmalee Gulch road between US 285 and CR 74. Sixty five percent of the district is private land. The remainder is public land, predominantly Jefferson County open space and Denver Mountain Parks land. This district is bounded by over 7,000 acres of public lands and is within 10 miles of both the Pike and Arapaho National Forests. While most residents of this community commute to jobs in nearby Denver, several businesses, churches, a summer camp, and an elementary school lie within this valley. Recreation is also economically important to the surrounding area.

Vegetation and fuels: Vegetation in this district is highly variable, and typical of the montane zone of the Front Range of the Rocky Mountains. The majority of the District is primarily covered by ponderosa pine woodlands. On north aspects, Douglas-fir is codominant with ponderosa pine, and forests are denser. Overall, forest vegetation is broken by open meadows and shortgrass prairies. Although fuels are less continuous than in neighboring districts at higher elevations and farther west, fire can ignite and spread rapidly in the dominant fuel types in this District. In the highest elevations of IHFPD, very dense mixed conifer stands are present, many of which have gone undisturbed by logging, fire, or insect outbreaks for more than 100 years, resulting in a buildup of dense, heavy fuels in some areas.

Indian Hills

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Develop and maintain shaded fuel breaks along primary evacuation routes, main roads, and secondary evacuation routes.
- Strategic forest treatment and thinning zones are recommended for several stands surrounding subdivisions and several stands within subdivisions.
- Survey and note condition of turnarounds switchbacks and improve where needed for apparatus access.
- Develop secondary egress routes where subdivisions have only one way in and out.
- Improve existing power line right-of-ways.
- Install reflective, fire-resistant road signs and address numbers where they are lacking.
- Visibly mark hydrants where obscured.
- Work with property owners to add apparatus pullouts on narrow access roads.
- Create small patch cut openings where Aspen saplings are growing, to encourage reestablishment of Aspen groves.

Inter-Canyon

Description: The Inter-Canyon FPD is located in central Jefferson County covering approximately 55 square miles. The district is bounded on the east near the Dakota Hogback, and extends west of US Highway 285. The northern boundary is just south of Marshdale. The district extends south to within a few miles of Waterton Canyon and the South Platte River. Elevation ranges from 5,600 to 8,900 feet. A few small businesses, churches, and camps are located within the district but most working residents commute to the Denver area. Recreation is also economically important to the area with numerous outdoor recreation getaways on nearby county, federal, and private lands.

Vegetation and fuels: The vegetation in this District is characteristic of the montane and subalpine life zones. Vegetation varies from shortgrass prairie and oakbrush shrublands in the easternmost portion of the District to montane forest. The majority of the area is covered by forest dominated by ponderosa pine. On north aspects, Douglas-fir is codominant with ponderosa pine. Open meadows and drier sites, as well as previously burned areas, are dominated by short prairie grasses and shrubs such as Gambel oak. In the upper montane and subalpine zones, dense mixed conifer and lodgepole pine stands are prevalent. Much of the area has gone undisturbed by logging, fire, or insect outbreaks for more than 100 years, which has resulted in a buildup of dense, heavy fuels, particularly in the western half of the District. Much of the area is rated as high fire hazard due to the combination of steep, rugged topography and heavy fuels.

Inter-Canyon

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Develop and maintain shaded fuel breaks along primary evacuation routes, main roads, and secondary evacuation routes.
- Strategic forest treatment and thinning zones are recommended for several stands surrounding subdivisions and several stands within subdivisions.
- Survey and note condition of turnarounds switchbacks and improve where needed for apparatus access.
- Develop secondary egress routes where subdivisions have only one way in and out.
- Improve existing power line right-of-ways.
- Install reflective, fire-resistant road signs and address numbers where they are lacking.
- Complete shaded fuelbreak between Andrea Lane and North Turkey Creek Road.
- Complete shaded fuelbreak on slope west of US 285, behind ICFPD Station 3.
- Complete shaded fuelbreak mid-slope along City View Drive Complete shaded fuelbreak along east side of Denver Mountain Parks property just west of Hilldale Pines subdivision.
- Improve secondary evacuation access from Trappers Mountain to Sunburst Road/Sampson Road
- Improve secondary evacuation access from Lockheed Martin via primary drainage and 4WD trail to the east.
- Establish and improve secondary evacuation routes to Hilldale Pines (Goins Rd) and South Jennings Road
- Establish and improve secondary evacuation route north from Oak View Trail to West Ranch Trail.
- Implement forest stand thinning downhill and northeast of upper Starlight Drive and Ridgeview Drive.
- Secondary evacuation route development/ improvement from Sunburst to Trapper's Mountain and Sunburst to water tank above Lockheed Martin.
- Complete shaded fuelbreak along the lower portion of Sampson Road and east of Hunter's Ridge.

Lakeside

Description: Lakeside Fire District covers 0.2 square miles in the suburban west Denver-metro area. There are only 20 residents in this district, on small developed lots less than one acre. The area also contains historic Lakeside Amusement Park, which has been in operation since 1908.

Vegetation and fuels: Vegetation is characterized by irrigated landscaping and other “nonburnable” fuels.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Clear leaves and other burnable debris from gutters annually.

Littleton

Description: Littleton Fire Rescue serves a 92 square-mile area including the City of Littleton, the Littleton Fire Protection District, and Highlands Ranch Metro District. This suburban area comprises much of the southwest Denver-metro area. The population is approximately 220,000 people. In 2010, LFR responded to more than 12,000 calls for service from eight fire stations located throughout the service area; seventy percent of those calls were medical emergencies. Major roadways in the District are C-470, US 85, and CR 121. The densely populated suburban neighborhoods here are bordered to the south by Deer Creek Canyon Open Space Park, Roxborough State Park, and Chatfield State Park. These popular recreation sites near Denver draw thousands of visitors to the area.

Vegetation and fuels: The predominant wildland vegetation in the LFPD is shortgrass prairie and shrubland. Short native grasses and Gambel oak (scrub oak) cover large areas in the westernmost portion of the district. These light, flashy fuels are easily ignited and can cause very fast-moving fires. Parks and greenbelts have deciduous trees and grass and shrub understory; many of these areas also have riparian vegetation. These areas could burn under extreme fire weather conditions. A large portion of the area is covered by non-wildland vegetation and fuels. Most properties have irrigated lawns and landscaping.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Reduce percentage of combustible siding and decking on homes.
- Improve or expand defensible space by mowing seasonally around structures.
- Mow along public walking paths to maintain fuel breaks.
- Clear leaves and other burnable debris from gutters annually.
- Enclose open areas below decks and structures to prevent embers from collecting in ignitable areas.
- Homeowners adjacent to open space should incorporate Firewise landscaping that can serve as a fuelbreak.
- Complete fuelbreaks on hillsides where Gambel oak is encroaching onto access roads and structures.

North Fork

Description: North Fork Fire Protection District covers 306 square miles in Southern Jefferson and Northwest Douglas Counties. It is the largest FPD in the County, and Pike National Forest composes 80% of the District. It is mostly rural, with small isolated communities scattered throughout. It contains the historic town of Pine Grove, as well as the communities of Buffalo Creek, Spring Creek, Deckers, and North Rainbow Falls. The population is approximately 1700, but it is estimated that Pike National Forest has over one million visitors to the South Platte National Forest District, which is located here, every year. North Fork Volunteer Fire Department maintains three stations, and the majority of homes in the district are located less than five miles from a fire station. Numerous homes are also located along the South Platte River, and scattered private inholdings are interspersed throughout the National Forest. The burn areas of the Hayman and Buffalo Creek Fires are major features of this area.

Vegetation and fuels: The vegetation in this District is characteristic of the montane and subalpine life zones. The majority of the area is covered by forest dominated by ponderosa pine. On north aspects, Douglas-fir is co-dominant with ponderosa pine. Open meadows and drier sites, as well as the large previously burned areas, are dominated by short prairie grasses and shrubs. In the upper montane and subalpine zones, dense mixed conifer and lodgepole pine stands are prevalent. Much of the area has gone undisturbed by logging, fire, or insect outbreaks for more than 100 years, which has resulted in a buildup of dense, heavy fuels. Much of the area is rated as high fire hazard due to the combination of steep, rugged topography and heavy fuels.

North Fork

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Develop and maintain shaded fuel breaks along primary evacuation routes, main roads, and secondary evacuation routes.
- Strategic forest treatment and thinning zones are recommended for several stands surrounding subdivisions and several stands within subdivisions.
- Survey and note condition of turnarounds switchbacks and improve where needed for apparatus access.
- Develop secondary egress routes where subdivisions have only one way in and out.
- Improve existing power line right-of-ways.
- Initiate community effort to reach seasonal residents for fuels mitigation
- Complete ½-mile long shaded fuelbreak along Crystal Ridge Road
- Thin trees along Park Ave. from S. Elk Creek Road to Pine Valley Road
- Complete shaded fuelbreak/roadside thinning between the east side of Pine Valley Road (CR 126) and the private access roads within the rural intermix boundary south of Eagle's Gate Road to Crystal Lake Road
- Install reflective, fire-resistant street signs and house numbers where they are lacking.
- Complete shaded fuelbreaks west of Buffalo Creek Road and south of Logan Ave.; connect these fuelbreaks with those completed by USFS.
- Thin trees and remove hazard trees from along Hilltop Road, tie-in to USFS treatments where possible
- Complete shaded fuelbreaks north of Platte River Road, tie into planned USFS treatment areas and private roads.
- Complete shaded fuelbreak along the Spring Creek Trail, on the southern portion of the loop, where fuels are denser. Where possible, tie treatments on private property to completed USFS mastication treatments.
- Complete planned USFS fuel break on west side of CR 126, parallel to completed fuelbreak on other side of road.
- Complete shaded fuelbreak planned by USFS on south side of Platte River Road at Riverview
- Remove large slash pile from downhill side of Rainbow Falls Road by scattering, chipping, or burning in piles.
- Complete additional thinning along Rainbow Falls Rd, at the edge of the prescribed burn area, to the eastern boundary of the WUI zone.
- Complete shaded fuelbreak between Skyline Drive and Canon Drive.

North Metro

Description: North Metro FPD covers an area of 115 square miles with a population of approximately 90,000 people. The District maintains seven operating fire stations. Major highways in the area are E-470, US 36, and I-25. These roadways are major thoroughfares for the Denver-metro area. The District consists of the towns of Broomfield and Northglenn, and extends to the north into the City and County of Broomfield. This District also covers Rocky Mountain Airport, which covers 633 acres. Housing is mostly in new planned subdivisions that extend into the open prairies to the west.

Vegetation and fuels: The predominant wildland vegetation in the NMFPD is shortgrass prairie and shrubland. Short native grasses are the most common species. The primary fire carriers in WUI areas are low-load grass fuels. These light, flashy fuels are easily ignited and can cause very fast-moving fires, but are relatively easy to contain with mowed fuelbreaks. Much of the area is covered by non-wildland vegetation and fuels. Most properties have irrigated lawns and landscaping. A few parks and greenbelts have deciduous trees with grass and shrub understory.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Reduce percentage of combustible siding and decking on homes.
- Improve or expand defensible space by mowing seasonally around structures
- Mow along public walking paths to maintain fuel breaks.
- Enclose open areas below decks and structures to prevent embers from collecting in ignitable areas.
- Homeowners adjacent to open space should incorporate Firewise landscaping that can serve as a fuelbreak.
- Clear leaves and other burnable debris from gutters annually

Rocky Mountain

Description: The majority of this FPD lies within Boulder County, at the northernmost edge of Jefferson County. There are no homes in the Jefferson County portion of the FPD, although there is a large subdivision just to the north of 120th and east of McCaslin Boulevard. Rock Creek South Trail is located here, which runs through Rocky Flats National Wildlife Refuge, near Great Western Reservoir. At this time, RMFPD has a contract for the management of a portion of Rocky Flats NWR.

Vegetation and fuels: The primary fire carriers in WUI areas are low-load grass fuels. These light, flashy fuels are easily ignited and can cause very fast-moving fires, but are relatively easy to contain with mowed fuelbreaks.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Reduce percentage of combustible siding and decking on homes.
- Improve or expand defensible space by mowing seasonally around structures.
- Mow along public walking paths to maintain fuel breaks.
- Enclose open areas below decks and structures to prevent embers from collecting in ignitable areas.
- Homeowners adjacent to open space should incorporate Firewise landscaping that can serve as a fuelbreak.

West Metro

Description: West Metro Fire Protection District lies west of Denver, and covers over 110 square miles from the city of Lakewood, parts of Wheat Ridge and Morrison, and six rural, unincorporated communities: Ken-Caryl North Ranch, Ken-Caryl Ranch, Willow Brook, Willow Springs South, Willow Springs North, and Red Rocks. There are 15 stations that serve 247,648 residents, approximately half of the population of Jefferson County. The major roadways of C-470, US 285, and State Highways 8 and 93 run through this district. The Dakota Hogback formation runs roughly along the western edge of the District, and is a conspicuous feature of the area.

Vegetation and fuels: The predominant wildland vegetation in the WMFPD is shortgrass prairie and shrubland. Short native grasses, yucca, and Mountain Mahogany cover large areas in the westernmost portion of the district, particularly in the areas around Green Mountain Open Space Park. These light, flashy fuels are easily ignited and can cause very fast-moving fires. Several recent fires in WMFPD have burned in this eastern portion of the District. A few parks and greenbelts have deciduous trees and grass and shrub understory; many of these areas also have riparian vegetation. These areas could burn under extreme fire weather conditions. A large portion of the area is covered by non-wildland vegetation and fuels. Most properties have irrigated lawns and landscaping.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Reduce percentage of combustible siding and decking on homes.
- Improve or expand defensible space by mowing seasonally around structures
- Mow along public walking paths to maintain fuel breaks.
- Enclose open areas below decks and structures to prevent embers from collecting in ignitable areas.
- Homeowners adjacent to open space should incorporate Firewise landscaping that can serve as a fuelbreak.
- Clear leaves and other burnable debris from gutters annually.

Wheat Ridge

Description: Wheat Ridge is a suburban municipality on the west side of Denver. The FPD covers approximately 9 square miles, served by two staffed fire stations. The population is approximately 31,000. Interstate 70 runs through this district, and therefore has heavy continuous traffic through the area. Property lots are typically less than one acre, typical of suburban neighborhoods and subdivisions.

Vegetation and fuels: The majority of the area is covered by non-wildland vegetation and fuels. Most properties have irrigated lawns and landscaping. A few parks and greenbelts have deciduous trees with grass and shrub understory. There are also patches and stringers of riparian vegetation throughout the district, near creeks, ponds, and lakes. The more heavily vegetated areas could burn under extreme fire weather conditions, but are generally low fire hazard under most conditions.

Recommendations:

- For all homes, make improvements within the home ignition zone to reduce structure ignitability.
- Clear leaves and other burnable debris from gutters annually.
- Remove wildland fuels where greenbelt vegetation encroaches on homes and other structures.