

Community Wildfire Protection Plan

EAST CANYON

*Including Elk Stream Ranch and Elk Springs Ranch
Montezuma and La Plata Counties, Colorado*



Aerial view of East Canyon, looking South

December 2014

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Approval Signatures

East Canyon Community Wildfire Protection Plan

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



D. Kent Grant, District Forester

2/4/15

Date

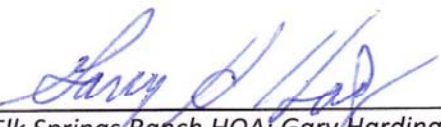
We, the undersigned, have read and reviewed this Community Wildfire Protection Plan and approve of its contents, including the community assessment, strategic recommendations, proposed treatment projects and associated implementation and action plans.



Elk Stream Ranch POA: Philip Walters, President

Dec 30, 2014


Date



Elk Springs Ranch HOA: Gary Harding, President

1/7/2015

Date



Mancos Valley Fire Protection District: Tony Aspromonte, Chief

2/9/15

Date



Montezuma County: Paul Hollar, Deputy Emergency Manager

1-8-15

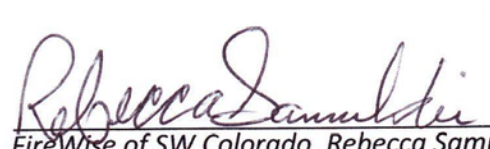
Date



Chris Barth, Fire Specialist: BLM Southwest District Fire Management

1/29/2015

Date



Fire Wise of SW Colorado, Rebecca Samulski,
Montezuma County Coordinator

1-16-15

Date

Executive Summary

East Canyon Community Wildfire Protection Plan

The purpose of this Community Wildfire Protection Plan is to assess the current wildfire vulnerability of East Canyon residents in order to identify how the community may continue its past success in supporting the Healthy Forests Restoration Act objectives and enhance protection of people, property and the environment within East Canyon.

This CWPP has been prepared by representatives of Elk Springs Ranch and Elk Stream Ranch, working in cooperation with the Colorado State Forest Service, Mancos Fire Protection District, San Juan Public Lands, and FireWise of Southwest Colorado.

The East Canyon community, located about 4 miles east of Mancos Colorado, includes residents and property owners of the Elk Springs Ranch and Elk Stream Ranch developments and adjacent neighbors in Montezuma and La Plata Counties, Colorado. The community, as considered in this CWPP, includes 50 private properties: 13 in Elk Springs Ranch, 35 in Elk Stream Ranch, and 2 adjoining properties. There are 24 homes in the canyon, of which 11 are primary residences and 13 are vacation or second homes. Both Elk Springs Ranch and Elk Stream Ranch are Colorado Common Interest Communities, with Homeowners Associations and compliant governing documents, including Covenants, Conditions and Restrictions, which provide guidance for fire-wise development and property maintenance. Community fire protection is by the volunteer Mancos Valley Fire Protection District.

The community extends about 5 miles south from US highway 160. The only access to the community is by Montezuma County Road 46. The 2012 Weber fire burned the canyon to the west of Road 46; however, the east side of the canyon has remaining heavy fuel loads on steep valley slopes. The Montezuma County wildfire risk assessment considered East Canyon to have extreme fire risk. Regional fire history of the past two decades provides stark evidence of the hazard.

Particular vulnerabilities for this community within the Wildland Urban Interface include:

- Access to the community is by a single gravel road with choke points;
- Lion's Head Ridge on the east side of the canyon presents extreme fire danger with heavy unbroken extents of fuel, limited access and rugged topography;
- There is a shortage of water in the canyon for fire suppression use;
- Some existing homes have inadequate defensible space and ignition hazards on the home and surroundings;
- Damage from the 2012 Weber fire and subsequent floods has filled ponds with sediment, damaged roads, and stretched community resources.

Vegetation fuel models in East Canyon include grasslands and limited riparian corridors along the valley bottom; extensive areas of shrub cover of dominantly Gambel oak; mixed piñon-

juniper forest with Gambel oak undergrowth; and limited areas of ponderosa pine forest with limited undergrowth, and Douglas-fir forest on predominantly east- and north-facing aspects, especially on the east side of East Canyon. Both the shrub and mixed piñon-juniper-oak vegetation types present extreme fire hazard. The large unbroken expanse of this vegetation along the steep eastern slopes of East Canyon is of particular concern.

Coordinated community action to reduce fire vulnerability in Elk Stream Ranch began in 2002. This community association completed the first CWPP in southwest Colorado in 2008. The 2008 CWPP identified securing safe access along Road 46 and creation of defensible space around all homes as priority needs. Significant results have been achieved, yet much remains to be done. Elk Springs Ranch started later but has been addressing fire hazard reduction aggressively. Because of the fuel break work completed over the past decade, fire-fighters were able to use Road 46 as a part of the fire line for the 2012 Weber fire and to protect the five homes which were within the burn perimeter. Planning for this current CWPP has brought the communities together to cooperatively address common risks.

This Community Wildfire Protection Plan identifies a number of desired conditions for our community and proposed actions to realize those conditions. ***Above all, we wish to make East Canyon a safe and healthful environment for all residents, visitors and emergency responders.***

Recommended desired conditions and proposed actions can be summarized:

- **ACCESS.** Secure access to the community with well-maintained and well-signed roadways. Actions emphasize fuel treatments and maintenance along roadways, with improved road and driveway signage.
- **DEFENSIBLE SPACE & THE BUILT ENVIRONMENT.** We seek to make all homes more fire-resistant with defensible space and fully accessible driveways. Actions include strengthening Association construction guidelines, improving fire-resistance of existing structures, development of defensible space around all homes and other structures, and increased involvement of non-resident owners with fuel reduction on their properties.
- **COMMUNITY FUEL BREAKS AND SAFE AREAS.** We wish to limit the size and intensity of wildfires on the east side of the canyon and strengthen the central meadow area as a fuel-break or shelter area. Actions include establishment of safe areas throughout the canyon, creation of community-scale fuel breaks, and sustained Homeowners' Association funding for fuel treatment in priority areas.
- **FIREWISE EDUCATION & COMMUNITY INVOLVEMENT.** We envision having all property owners engaged in securing the safety of our community. Actions include continued active participation in FireWise of Southwest Colorado by Ambassadors from both Associations, continuing education, outreach and property assessment within our East Canyon community, and maintaining FireWise Communities USA status with obligations that entails.
- **EVACUATION AND EMERGENCY RESPONSE.** All residents should have established evacuation and emergency communication plans, and community plans should be coordinated with Montezuma County and Mancos Fire Protection District. Actions include keeping community contact lists current, maintaining all-condition signage for

access, resources and hazards within the community, and regular effective communication with our emergency responders in Montezuma County.

I. INTRODUCTION

The East Canyon Community

The East Canyon community is located about 4 miles east of Mancos, Colorado, extending southward from US Highway 160 down East Canyon. The East Canyon community includes residents and property owners within the Elk Springs Ranch subdivision, the Elk Stream Ranch subdivision, and the Daulton families residing on properties adjacent to Elk Stream Ranch. East Canyon lies about midway between the cities of Durango and Cortez Colorado.

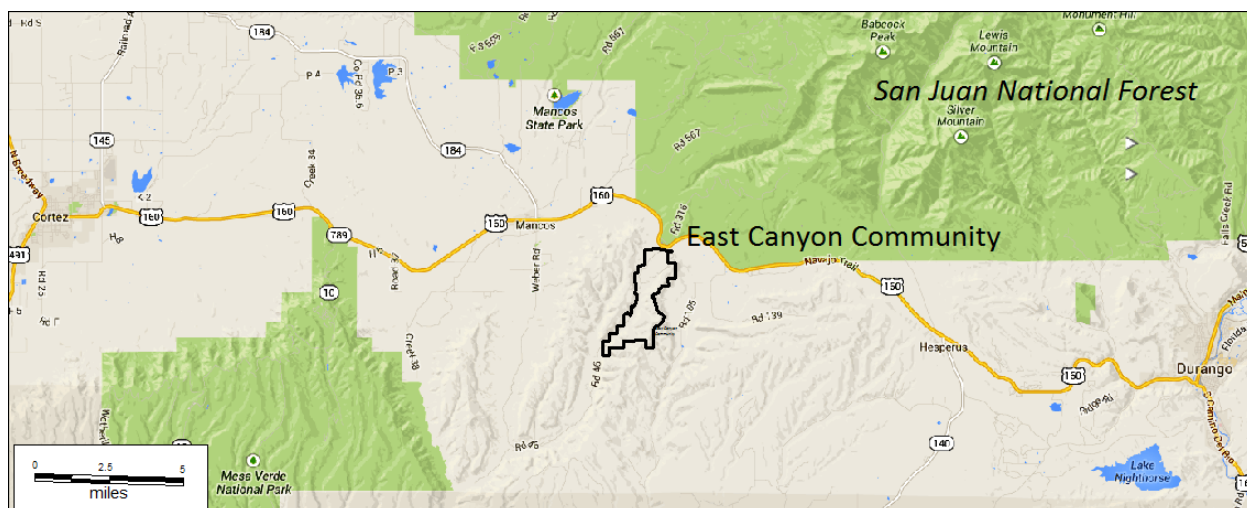


Figure 1 Location of the East Canyon community

East Canyon is typical of communities within the Wildland Urban Interface, with residences situated within wild lands and exposed to the risk of wildfire. Beginning in July 2013, representatives of the East Canyon community have engaged in a comprehensive review of community values at risk from wildfire and current conditions within the community. Working in cooperation with other organizations and agencies involved with reducing wildfire risk, this group has developed this Community Wildfire Protection Plan, an assessment of current conditions and plans for reducing vulnerabilities and strengthening preparations for future wildfire.

Community Wildfire Protection Plans

Community Wildfire Protection Plans (CWPP) are authorized and defined in Title 1 of the Healthy Forests Restoration Act (HFRA) passed by the United States Congress in November 2003 and signed into law by the President in December 2003. The HFRA places renewed emphasis on wildfire protection planning by providing benefits for communities with a CWPP in place. Critical among these benefits is establishing a definition and boundary for the wildland-urban interface (WUI) and the opportunity to shape fuels treatment priorities for federal and non-federal lands. Federal agencies are currently directed to spend some portion of their fuel hazard reduction dollars on defined WUI projects.

As defined in the HFRA, the CWPP process brings together local interests to discuss mutual concerns for public safety, community sustainability and natural resources. By Colorado Senate

Bill 09-001 and the HFRA, there are minimum standards and guidelines for the contents of the CWPP (Colorado State Forest Service, 2009, "*CWPP Minimum Standards*"). The process involved in plan development offers a positive, solution-oriented environment in which to address challenges such as local firefighting resources, the need for defensible space around homes and within the community, and where and how to prioritize wildfire mitigation efforts.

This East Canyon CWPP tiers to county and regional land management plans as well as Montezuma and La Plata County CWPPs. The San Juan National Forest and San Juan Resource Area Land and Resource Management Plan and associated Fire Management Plan describe the role of fire in the native ecosystems in Southwest Colorado. These plans outline the strategies that the USFS and BLM will utilize to manage wildland fire and fuels on these federal lands in southwest Colorado. The San Juan National Forest and San Juan Resource Area Fire Management Plan (2007) specifically describes objectives and strategies to manage fire and fuels on federal lands near communities within the wildland-urban interface. The East Canyon CWPP is consistent with the goals and strategies of the Montezuma County CWPP and provides strategic and tactical direction specific to wildfire protection and mitigation within our community.

This document represents a major revision of the original Community Wildfire Protection Plan prepared by Elk Stream Ranch in 2008. That document was the first CWPP prepared in southwestern Colorado. The CWPP process has advanced considerably in the past 5 years, and physical conditions have changed within East Canyon. This CWPP brings all residents of East Canyon together in a coordinated plan addressing current conditions and challenges.

After this plan receives approval from Elk Stream Ranch, Elk Springs Ranch, Colorado State Forest Service (CSFS), Mancos Fire Protection District (MFPD), and the Montezuma County Department of Emergency Management, it will be made publicly available on the CSFS website. This CWPP is a living document, to be reviewed and revised on a regular basis by all involved to reflect changing conditions.

II. THE EAST CANYON CWPP PLANNING PROCESS

Coordinating Committee

In response to a number of extreme wildfires in the years 2001-2002, Elk Stream Ranch prepared the first CWPP in Southwest Colorado in 2008. This plan has served the community well for a number of years, prioritizing fire-hazard-reduction activities and promoting community action. As years have passed and conditions change, however, Elk Stream residents recognized that the plan required revision. It was also evident that all residents of East Canyon have common interests and wildfire hazards, supporting our decision to develop a single CWPP addressing our common concerns. This East Canyon CWPP was developed by a committee representing the Elk Springs Ranch Homeowners Association and the Elk Stream Ranch Property Owners Association, working in cooperation with the Daulton Family, local resource specialists and representatives of agencies and organizations involved in fire-hazard reduction in

Southwest Colorado. The core committee, as a whole or in sub-committee, met numerous times between July 2013 and April 2014 to develop this plan. The planning process included close communication with the Boards of Directors of the two subdivisions, the Colorado State Forest Service, San Juan Public Lands, and FireWise of Southwest Colorado.

East Canyon CWPP core team

Gem Boone, President and FireWise Ambassador, Elk Stream Ranch
Linda Walters, FireWise Ambassador, Elk Stream Ranch
Philip Walters, FireWise Ambassador, Elk Stream Ranch
Jeff Schaffer, FireWise Ambassador, Elk Springs Ranch
Odin Christensen, FireWise Ambassador, Elk Stream Ranch
Rebecca Samulski, Montezuma County Coordinator, FireWise of SW Colorado
D. Kent Grant, District Forester, Colorado State Forest Service
Pam Wilson, Executive Director, FireWise of SW Colorado

Cooperating Participants

Tony Aspromonte, Chief, Mancos Fire Protection District
Chris Anderson, Chief, Fort Lewis Mesa Fire Protection District
Paul Hollar, Emergency Manager, Montezuma County
Chris Barth, USFS/BLM, Montrose Interagency Fire Unit
Jack Ott, Resident
Ben and Sarah Daulton, Residents
Joe Morris (FMO) and Jason Petruska (Fuels Specialist), USDI Bureau of Indian Affairs (BIA), Ute Mountain Agency

East Canyon Defined Community Area

The East Canyon community, as defined for this CWPP, includes the properties included within the Elk Springs Ranch and Elk Stream Ranch subdivisions, as well the properties of the Daulton families located adjacent to Elk Stream Ranch. All of these properties are accessed by Montezuma County Road 46 (Road 46). The community is shown on Figure 4. The East Canyon community covers an area of approximately 2240 acres. Of this approximately 1920 acres are privately owned, and approximately 320 acres, located along the Montezuma-La Plata county line, is public land managed by the USDI Bureau of Land Management (BLM) and USDA Forest Service (USFS). The community is surrounded largely by public land; the land south of Highway 160 is managed by the US Bureau of Land Management, Tres Rios Field Office, while that to the north is managed by the US Forest Service, San Juan National Forest.

The Wildland-Urban Interface

The Wildland-Urban Interface (WUI) is any area where human improvements are built close to, or within, undeveloped wildland, forest or vegetative fuel. The East Canyon WUI includes both large unbroken extents of heavy vegetation and fuels as well as steep slopes and sharp canyons aligned with predominant wind patterns that strongly influence wildfire behavior. Residential communities within and bordering a WUI are considered “at risk communities,” defined as a

group of homes and other structures within or adjacent to lands where conditions are conducive to a large-scale wildland fire, thereby posing a threat to human life or property.”

The extent of the East Canyon WUI is shown on Figure 3. The boundary established encompasses that area surrounding the East Canyon community in which fire events and fire hazards present a direct threat to this community. The WUI extends generally from the high-tension power lines to the north of the community, along La Plata County Road 105 down Cherry Creek to the east, along the northern boundary of the Southern Ute Tribal Lands, then generally along the western limit of Menefee Mountain. The WUI includes private lands, public lands administered by the USDI Bureau of Land Management (BLM) and by the USDA Forest Service (USFS), and lands belonging to the State of Colorado. Ownership within the East Canyon WUI area is summarized in Table 1, below:

Ownership	Percentage of area
Private owners	33.8
State of Colorado	6.3%
BLM	57.2%
USFS	2.7%
Total ~30,340 acres	100%

Table 1. Land ownership within the East Canyon WUI area.



Figure 2. East Canyon homes in the Wildland-Urban Interface. Right photo during the 2012 Weber Fire

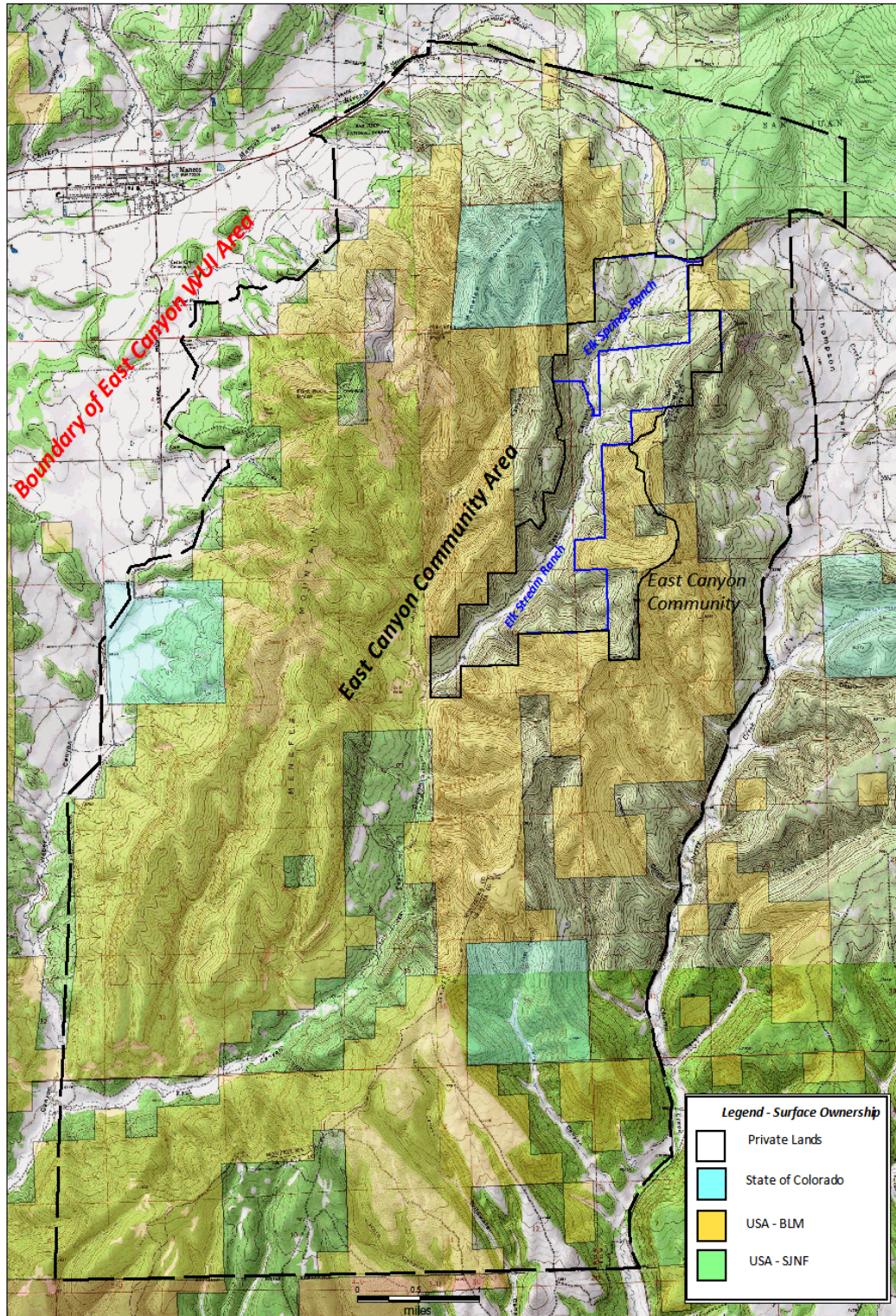


Figure 3. Location of the East Canyon community and boundaries of WUI area.

Geography and Terrain

East Canyon is a broad U-shaped valley, originally shaped by glaciers flowing from the peaks of the La Plata Mountains. The canyon is bounded on the west by Menefee Mountain, and on the east by Lion's Head Ridge, informally so named because the rock outcroppings at the north end resemble the head of a mountain lion. The current East Canyon drainage basin begins at US Highway 160 at the top of the community and extends down East Canyon, which in turn joins Weber Canyon and eventually drains to the San Juan and Colorado Rivers. East Canyon is approximately 1.75 miles wide at its upper end, extending from the crest of Menefee Mountain on the west to Lion's Head Ridge on the east. The canyon narrows to about 1.3 miles where it joins Joe's Canyon at the south end of Elk Stream Ranch.

Elevations within the community range from 7,950 feet at the Elk Springs Ranch gate on Highway 160, to a maximum of 8,450 feet along Lion's Head Ridge, to a minimum of 7,180 feet at the southern boundary of the community. The highest elevation in the immediate area is 8,824 feet at Menefee Peak to the west.

Topography varies from a gently-sloping central meadow area to precipitous sandstone cliffs along the canyon walls. Slopes vary from flat in the central canyon and the broad plateau tops of the flanking ridges, to more than 40% on the upper canyon walls. East Canyon has an overall southward gradient of about 2.5%.

There is an intermittent stream in East Canyon. Stream flow is seasonal and intermittent; short portions of the stream are active throughout the year, but most drainage is subsurface. Several ponds have been constructed along the stream course. One 9 acre-foot pond is present in Elk Springs Ranch. Two ponds on private properties in Elk Stream Ranch were completely filled with sediment by post-Weber Fire flooding in 2012 and 2013.

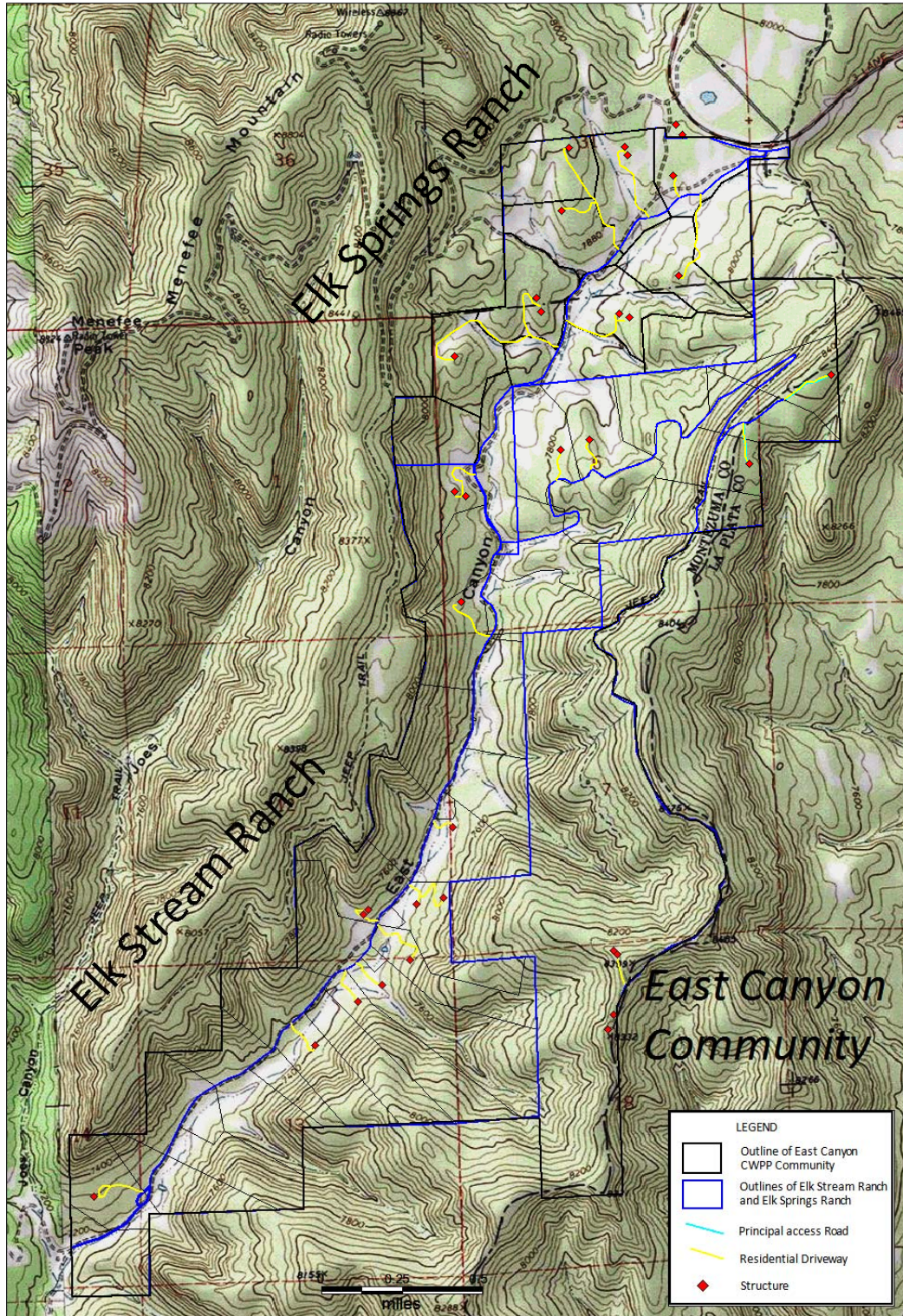


Figure 4. The East Canyon community.

History

East Canyon has a rich human history. This was home to Archaic hunter-gatherers before being settled by the Ancestral Puebloan peoples. Community residents today find evidence of the Ancient Pueblo in the flaked and ground stone artifacts they left behind. Target Tree Campground is located east of the community within the WUI area. Its name refers to the Ute Indians use of the area to harvest sap and bark of ponderosa pines as food supplements. They also used trees for target practice. Scarred trees remain; a short trail leads to one.

At the turn of the 20th century, East Canyon was still covered with large Ponderosa Pine forests. These were logged in the early years of the century for lumber, mine timbers and fuel. Logs were transported up the canyon to be loaded on the Rio Grande Southern rail, which ran just north of the current location of Highway 160. Evidence of the old-growth forests remain as giant stumps; evidence of logging remains as ponds, drainage ditches, old roadways, and scattered rusting metal hardware throughout the canyon. All remaining forest within East Canyon is second-growth forest.

Coal mining was an important and widely dispersed industry in Montezuma and La Plata Counties throughout the 20th century. Small abandoned coal mines are scattered along both Menefee Mountain and Lion's Head Ridge. Numerous mine spoil dumps and outcropping coal seams along Menefee Mountain were ignited during the 2012 Weber Fire, and burned for months thereafter.

During the latter half of the 20th century, East Canyon was used for ranching. Several ponds were constructed to retain water for livestock. Old roads and tracks, remnants of shacks, derelict fencing, and scattered hardware and vehicle parts remain today as evidence of this history.

Several old structures within East Canyon are identified as historic sites monitored and protected by the BLM. These are considered values at risk from wildfire.

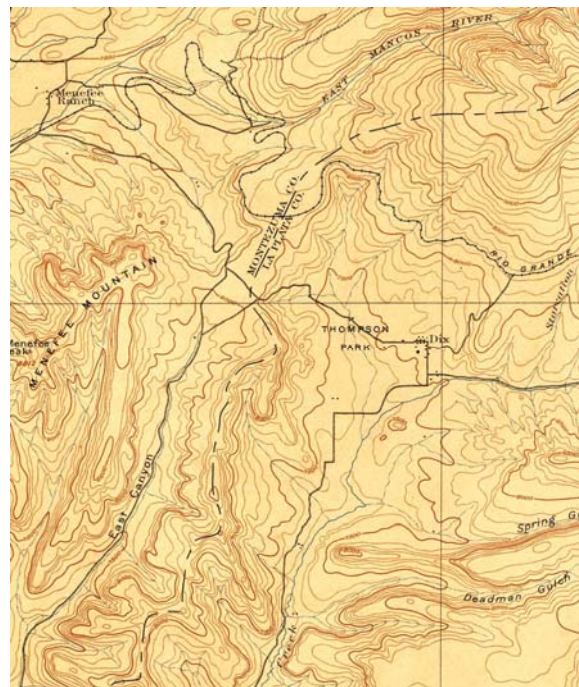


Figure 5. Topographic map of East Canyon 1895

Community

The East Canyon community includes members of the Elk Springs Ranch Homeowners Association, the Elk Stream Ranch Property Owners Association, and the Daulton families. Members of the community all live within or overlooking East Canyon and access their properties by Road 46.

Elk Springs Ranch covers an area of 477.75 acres, divided into 13 privately-owned properties. Eight of these properties have homes on them; 4 of these are currently primary residences.

Elk Stream Ranch covers an area of 1,291.80 acres, divided into 35 privately-owned properties. Homes have been built on 14 of the properties; 5 of these are currently primary residences.

The Elk Springs Ranch and Elk Stream Ranch subdivisions were both developed within a few years of each other. The communities have share similar property layout, community associations and governing documents.

The Daulton properties were developed privately, not as part of either Elk Springs Ranch or Elk Stream Ranch. There are currently 4 structures on the properties. Access to the Daulton property is through the two subdivisions by way of Roads 46, G.3 and 46.1, for which access the Daultons contribute to road maintenance costs.

Elk Stream Ranch Property Owners Association

Elk Stream Ranch is a Colorado Common Interest Community. Owners of the 35 properties within Elk Stream Ranch are members of the Elk Stream Ranch Property Owners Association, a Colorado Corporation established in 1995. Affairs of the Association are guided by Articles of Incorporation; By-laws and amendments thereto; Declarations of Covenants Conditions and Restrictions; and Directors Guidelines. All of these founding and guiding documents are available at the public website www.elkstreamranch.org. Governance of the Association is by a three-member Board of Directors, serving staggered three-year terms. The Board in turn appoints a Property Management Committee, which is responsible for the routine activities in the canyon such as snow removal, road maintenance, grazing animals, and wildfire hazard reduction activities. Members of the Association gather once a year for the Annual General Meeting conducted in August; attendance generally represents about 25% of the properties.

The Elk Stream Ranch subdivision was developed in three phases. The first two phases were developed extending down East Canyon along Road 46. Properties were laid out extending across the valley so that all properties have some portion of the central meadow area and the surrounding valley slope. Phase 3 extended the subdivision to the ridge east of East Canyon, with properties extending in a generally east-west orientation across the ridge, to maximize views.

Property use in Elk Stream Ranch is restricted to single-family residential use. There are residential structures on 14 of the properties; three of the properties also have a secondary guest house or garage structures. Five of these homes are primary residences. The other 21 properties are undeveloped. Many property owners reside out-of-state and several of the properties are currently for sale.

Underground electrical and telephone utilities extend to all lots. Domestic water for most properties is by private well. Waste water disposal is by private septic system. The Elk Stream

Ranch properties on Lion's Head Ridge are served by the private Lion's Head Water Company, with a common well located on lot 8 in Elk Springs Ranch.

Elk Springs Ranch Homeowners Association

Elk Springs Ranch is a Colorado Common Interest Community. Owners of the 13 properties within Elk Springs Ranch are members of the Elk Springs Ranch Homeowners Association, Inc., a Colorado Corporation established in 1993. Affairs of the Association are guided by; Articles of Incorporation; By-laws (and amendments thereto); Declarations of Covenants, Conditions & Restrictions (and amendments thereto); the Site Plan; Design Review Committee Rules (and amendments thereto); and an Enforcement Policy. All of these founding and guiding documents are available at the public website <https://sites.google.com/site/elkspringsranchhoa/home>. Governance of the Association is by a three-member Board of Directors, serving staggered three-year terms. The Board in turn appoints; (a) an Operations Committee which is responsible for the routine activities of life in the canyon such as snow removal, road maintenance, noxious weed management and wildfire hazard reduction activities; and (b) a Design Review Committee which is responsible to; manage improvements and alterations on individual Lots and on Elk Springs Ranch Property; and to assist Owners through the design review process described in the Declaration. Members of the Association gather once for the Annual Meeting conducted in early-July; attendance generally represents approximately 25% of the properties.

The Elk Springs Ranch subdivision was developed in a single phase in 1993. Ten of the 13 lots were laid out extending across the valley so that all had some portion of the central meadow area, watercourse and the surrounding valley slope. The remaining 3 lots are located higher up into the canyon slope and landlocked from Road 46, but are accessible by established 30' wide utilities & access easements on adjacent lots.

Property use in Elk Springs Ranch is restricted to single-family residential use. There are residential structures on 8 of the properties, 3 of which also include secondary structures such as barns, garages and garden sheds. Four of these homes are primary residences and 4 are vacation homes. The remaining 5 properties are undeveloped, with the majority of these property owners residing out-of-state. Several of these properties are currently for sale.

Underground electrical and telephone utilities extend to all properties. Domestic water for each lot is provided by private well. A common well located on Lot 8 in Elk Springs Ranch also serves the Elk Stream Ranch Properties located on the Lion's Head Ridge. Wastewater disposal for all properties is by private septic system.

Fire Protection

East Canyon is within the service area of the volunteer Mancos Valley Fire Protection District. Residents of the canyon were not initially included within the district, even though they were covered by its service. In 2005, Elk Stream Ranch Property Owners Association petitioned Montezuma County to be included within the taxation district. As a result of several additional inclusions, most properties in Elk Stream Ranch and Elk Springs Ranch are now included within

the district. Although two of the homes in Elk Stream Ranch are within La Plata County, within the defined area of the Fort Lewis Mesa Fire Protection District, by mutual aid agreement between the two fire districts, Mancos Fire and Rescue will respond. Wildland fire response within the area is coordinated by the Durango Interagency Dispatch Center at the San Juan Public Lands Center in Durango, Colorado.

Access

Access to all properties in East Canyon is by way of Road 46. Several properties in Elk Springs Ranch have long driveways on access easements through other properties. Elk Stream Ranch and Daulton properties located on Lion's Head Ridge are then accessed by Roads G.3 and 46.1. There is an unimproved "jeep road" connecting Road G.3 to Highway 160, extending from Elk Stream Ranch lot 15 across mixed public and private property; this road is in such poor condition that it currently does not represent a reliable vehicle emergency escape route. At one time, Road 46 continued southward from the community approximately 5 miles to Weber Canyon. This once-possible secondary escape route was severed by the floods of 2012 and 2013 following the Weber Fire.

Wildlife

Wildlife is a treasured benefit of life in East Canyon. The recommendations of this plan aim to limit the scope of habitat-destructive wildfire for the people and wildlife that make East Canyon home. Consideration for wildlife habitat should also be made during fuel reduction activities. Wildlife present in the area includes mule deer, elk, black bear, coyote, bobcat, mountain lion, lynx, fox, skunk, ground squirrel, chipmunk, rabbit, and various other small rodents. Wild turkey, American crow, red-tailed hawk, golden eagle, kestrel, mountain and western bluebirds, mourning dove, robin, pine siskin, junco, lesser goldfinch, mountain chickadee, juniper titmouse, white-breasted nuthatch, Townsend's solitaire, red-winged blackbird, piñon jay, Steller's jay, Clark's nutcracker, black-billed magpie, downy woodpecker, broad-tail hummingbird, rufous hummingbird, black-headed grosbeak, yellow-rumped warbler and violet-green swallow are common bird species. Hunting is prohibited in both Elk Springs and Elk Stream Ranches.

Domestic Livestock

Elk Stream Ranch enters into leases each year to have grazing animals in the canyon during the summer months. The primary objective is to improve the quality of the central meadow area through appropriate grazing. In general, the plan is to rotate between cattle and sheep/goats every 4-5 years to vary the grazing impact. The Elk Stream Ranch Property Owners Association receives guidance from the USDA Natural Resources Conservation Service in making grazing decisions. Conversely, grazing contracts are not permitted within Elk Springs Ranch.

Individual property owners in both communities have horses. Many residents have dogs and cats, which need to be taken into evacuation considerations.

Geology and Hydrology

East Canyon is located within the Colorado Plateau geologic province. A gently south-dipping section of Cretaceous-age sedimentary rocks underlies the area. The ridges flanking East Canyon are formed by interbedded sandstone, shale, and coal of the Mesa Verde group. The lower slopes and valley bottom of East Canyon are underlain by Mancos Shale. Mancos Shale is a poor aquifer, and the quality of contained groundwater is poor. Most domestic water wells in the canyon extend into Mancos Shale, but largely produce water from the overlying alluvial gravel cover. Most wells in East Canyon have poor water quality and low yields. The alluvial aquifer is not present on Lion's Head Ridge; ridge property owners are members of the Lion's Head Water Company. The Daulton family hauls water. There are no wells in the canyon that can be considered adequate for fire suppression. Most homes have installed cisterns for water quality treatment and to provide limited water for domestic fire emergencies.

An approximately 9.0 acre-foot capacity pond located on Lot 7 in Elk Springs Ranch is full year round, thus providing a local water source for fire suppression within East Canyon (except when frozen over during the winter months). A secondary 7 acre-foot capacity pond located on Elk Springs Ranch lot 1 is located above the spring source and is thus dry most of the year, except during those rare occasions following ample snowmelt or generous monsoon rain events. Two ponds in Elk Stream Ranch, which have been used as a fire suppression water source in the past, were both filled with sediment in the post-Weber Fire floods of 2012 and 2013.

IV. COMMUNITY ASSESSMENT

Community Values at Risk

Community assets at risk from wildfires include both human improvements as well as natural assets considered of great value to residents.

Protection of life – of residents and emergency responders – is the highest priority. The community infrastructure, natural surroundings, and community activities should be maintained to provide protection for all.

There are currently homes on 24 of the 40 properties in the community; additional structures are present on 8 of the properties. Protection of these structures and associated infrastructure – electrical utilities, water systems, septic systems, and access drives – is of high importance.

Within the WUI area, public radio and telephone communication facilities are located on both Menefee Mountain and Lion's Head Ridge. High-tension electrical lines and a natural gas pipeline-compressor station run along the northern margin of the WUI area. US Highway 160 crosses the area. All are critical community infrastructure.

Protection of the canyon watershed and aquifer is important to residents, to downstream users, and to wildlife in the drainage. There are some historic features in the WUI area that

warrant protection. Residents, of course, place considerable value on the vegetation, wildlife, watercourses, and views within the canyon.

Community Vulnerabilities

Situated within the Wildland Urban Interface, East Canyon is a community at risk from wildfire. A number of particular vulnerabilities of this community have been identified:

- Access to the community, critical for emergency evacuation and emergency response, is by Road 46, Road G.3, and Road 46.1 only. There are “choke points” on these roads where flammable vegetation adjacent to the road presents potential to close the single access. Signage on the road network is insufficient.
- Along both sides of Lion’s Head Ridge, there is continuity of heavy vegetation fuel for miles along steep rugged topography. This presents an extreme fire hazard. Flooding following a fire extending the length of Lion’s Head Ridge would be destructive to homes, roads and other infrastructure on both sides.
- The properties located along Lion’s Head Ridge are considered by fire professionals to be non-defendable in a serious wildfire event. The location and access are too hazardous for fire fighters at this time.
- There is a shortage of water in the canyon for fire-suppression activities. Wells are low-yield, cisterns are of limited capacity, and only one small pond remains open.
- Many of the existing homes in the community present ignition hazards and have inadequate surrounding defensible space.
- The community has suffered the impact of severe flooding in 2012-2013 following the Weber Fire. This has damaged Road 46 and private driveways, filled ponds, and stretched community resources.



Figure 6. Community vulnerabilities: heavy fuel adjacent to the single access road, and juniper fuel adjacent to a flammable deck.

Montezuma County Risk Assessment

Montezuma County has completed a county-wide wildfire risk assessment on private lands, as summarized on Figure 5. All of East Canyon is considered to have EXTREME fire risk, due to the combined factors of location, restricted access, rugged topography, heavy fuel loads, and other factors.

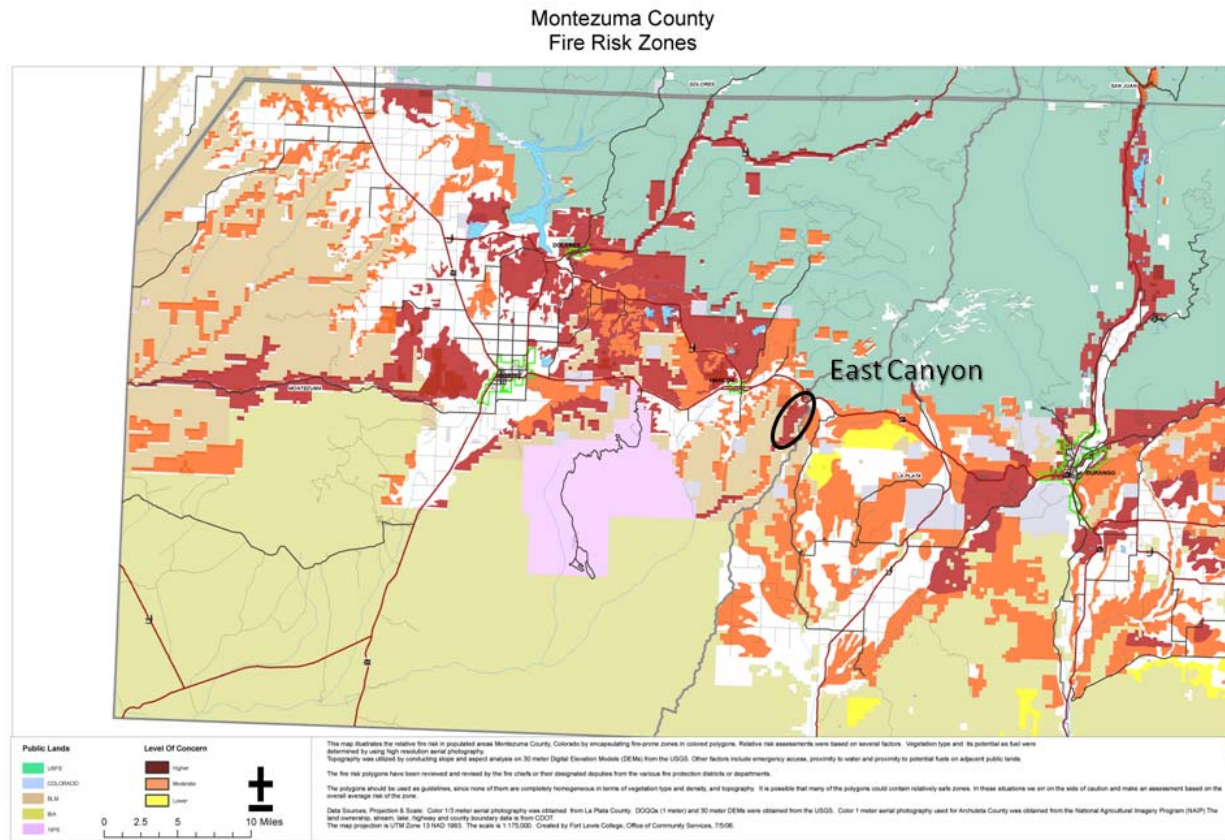


Figure 7. Map of Montezuma County Fire Risk Zones

Local Fire History

The location of East Canyon presents a high risk of wildfire, as evidenced by the history of fire within the area (Figure 9). The fire season of 2002 captured the attention of everyone in southwestern Colorado. The Missionary Ridge Fire erupted north of Durango on June 9, 2002. Over the next 39 days the Missionary Ridge and Valley Fires blackened some 73,000 acres including 56 homes. One firefighter lost his life. Skies over the region were darkened by smoke and nearly everyone had friends impacted by the event.

To the west of East Canyon, the Long Mesa Fire started on July 29, 2002, and strong winds pushed the flame directly toward the Mesa Verde National Park headquarters, the museum, offices, and park employee homes. Steep canyons with extensive rim rock and vertical slopes presented major obstacles to firefighting efforts. Fortunately, because of the extensive hazardous fuels reduction work that had been completed and the preparedness of park staff,

only two buildings were lost and all park employees and visitors were safely evacuated. The final size of the fire was 2,601 acres. Over the last fourteen years, five large wildfires have burned in Mesa Verde National Park. Just over 28,750 acres (more than 50 percent of the park) burned within park boundaries in these fires.

The first real test of the fire preparedness activities in East Canyon occurred in 2012. On the afternoon of June 22, the Weber Fire was set in Weber Canyon, approximately 4 miles southwest of Elk Stream Ranch. Within a few hours, flames had raced up the slope of Menefee Mountain and crossed into East Canyon. Residents were evacuated by nightfall.

Early fire control plans anticipated that the fire would probably be contained south of Highway 160 between Weber Canyon and Cherry Creek Canyon, expecting that East Canyon would be burned over. As the fire raced through Joe's Canyon and into upper East Canyon, fire crews were able to take advantage of fuel breaks created by residents along Road 46 to hold the fire along that line. When the smoke finally cleared, the Weber Fire had burned a total of 10,153 acres.



Figure 8. The 2012 Weber fire in East Canyon. Photo to left shows how Weber Fire was stopped at Road 46 in East Canyon; photo on right shows fire cresting Menefee Mountain and entering East Canyon.

Five homes in East Canyon on the west side of Road 46 – 4 in Elk Stream Ranch and 1 in Elk Springs Ranch – were closely threatened by fire. Fortunately, these were homes with fire-resistant construction for which the owners had prepared defensible space tied to clearing along Road 46. All five homes were saved, including some adjacent vegetation.

Out of the 1,770 total acres within Elk Springs Ranch and Elk Stream Ranch, about 325 acres or 18% of the area, were blackened. Of great importance, fuel reduction efforts by the community along Road 46 increased the safety of this access corridor for fire crews to stay with the threatened homes and establish a base from which to control the fire along the length of East Canyon.

Two weeks after the start of the Weber Fire, as residents were returning home and beginning to clean up fire damage, a torrential monsoon rain storm crossed the burn area, releasing debris flows from the bare slopes and causing flooding along the length of East Canyon and Joe's Canyon. Properties were covered with blankets of mud. Culverts plugged and roadways were either covered with mud and debris or deeply eroded. Several similar flood events impacted the community in both 2012 and 2013.

Over the past decade there have been numerous fires within the East Canyon WUI area, as shown on Figure 10. The overall immediate wildland fire danger to East Canyon has been somewhat reduced by the Weber Fire, which removed the fuel load to the west. The hazard to the community, however, remains high because of an unbroken expanse of heavy fuel on steep slopes of Lion's Head Ridge to the east. The fire and flood history of the past decade stands as a sharp warning to the community!

A chain is only as strong as its weakest link



This was one of the hard lessons of the 2012 Weber Fire in East Canyon. Several properties on which owners had prepared solid defensible space were seriously damaged by wildfire spreading from adjacent property that had been neglected. What happens on one property does not stay on that property. A safe Firewise community depends on everyone.



Figure 9. Flood impacts in East Canyon. Image to left shows debris covering Road 46; image to right shows new 25-foot deep gulley at the lower end of East Canyon (note person for scale)

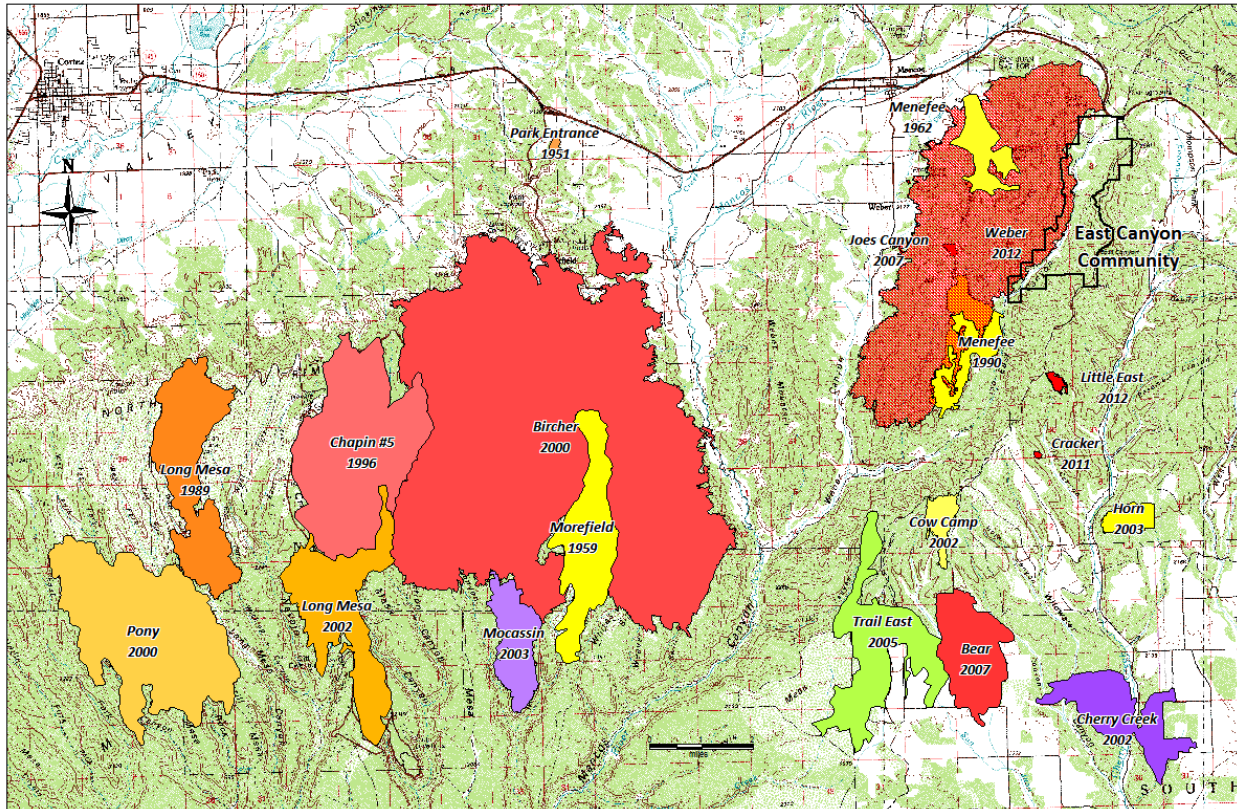


Figure 10. Fire history within the East Canyon WUI area.

Fuel Models

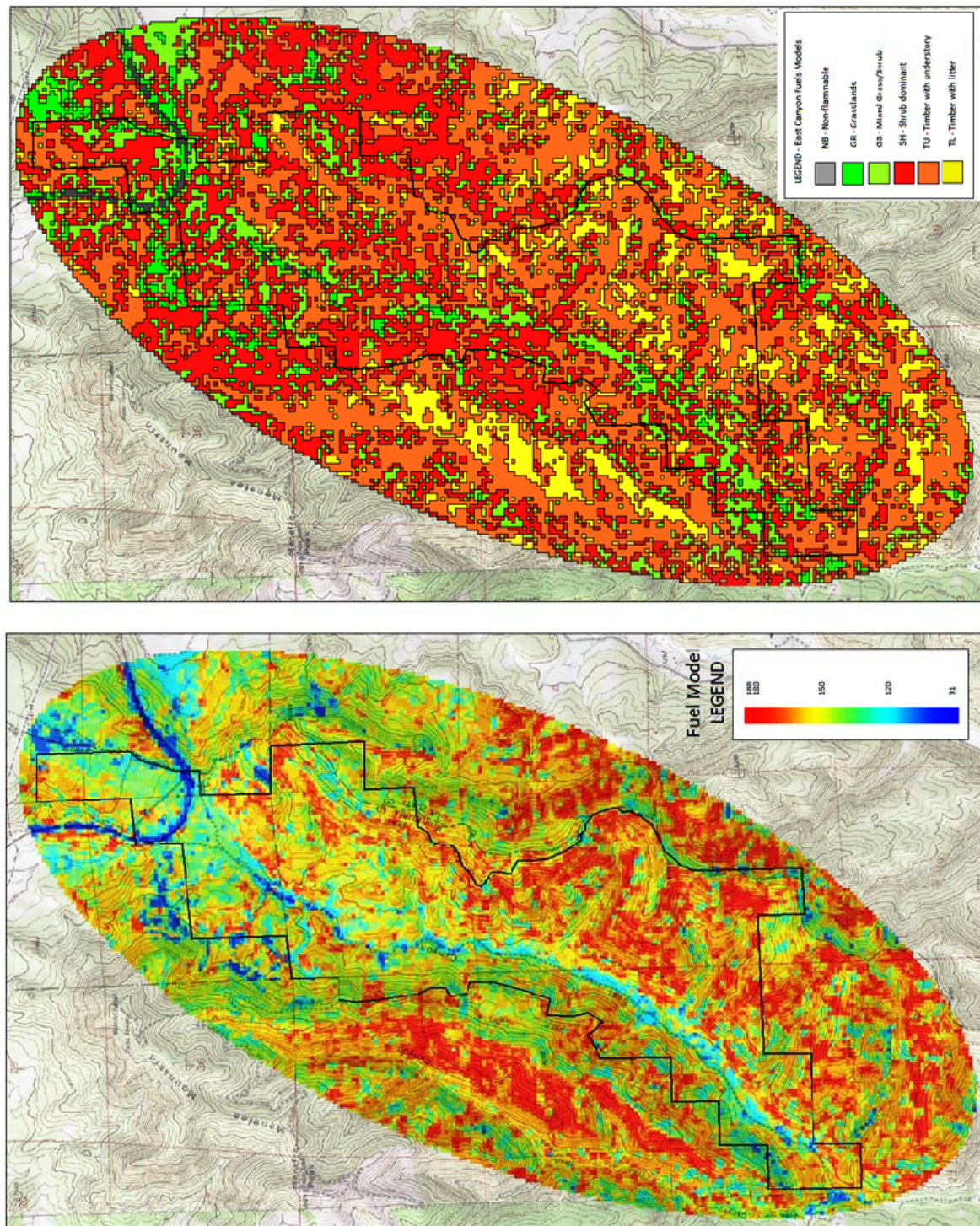
Fuel models are standardized means of describing a wide variety of fire fuel conditions found in the urban wildland environment (Scott and Burgan, 2005; Anderson, 1982). When assigning a fuel model to a specific tract of land, the fuel size class, fuel loading, fuel bed depth, and continuity across a landscape are all taken into consideration. Fuel models are most often combined by the percentage of an area that they cover. The distribution of fuel models within and immediately surrounding the East Canyon community is shown on Figures 11 and 12. Figure 11 shows the distribution from the LANDFIRE model, determined from spectral interpretation of satellite imagery for 30-meter pixels, both unclassified and classified. Figure 12 shows the distribution as interpreted from National Agriculture Imagery Program (NAIP) imagery. The fuel models found in East Canyon are summarized in Table 2. Note that ratings are based on area vegetation and topographic conditions alone and do not take into account existing fuel and structure ignitability reduction efforts of property owners. This is the base risk before treatment and construction design is taken into account. Planned home risk assessments and the community risk surveys will provide a more detailed picture of actual fire risk, taking homeowners' measures into account.

Model Type	Model	Model Name	Fire Behavior
NB	NB91	Urban/Developed	No fire spread
	NB99	Bare Ground (here including burned)	No fire spread
GR	GR102	Low Load, Dry Climate Grass	Dynamic, low-moderate fuel
	GR104	Moderate Load, Dry Climate Grass	Dynamic, low-moderate fuel
GS	GS122	Moderate Load, Dry Climate Grass-Shrub	Dynamic, spread rate high, flame length moderate
SH	SH141	Low Load Dry Climate Shrub	Dynamic, spread rate low, flame length very low
	SH142	Moderate Load Dry Climate Shrub	Spread rate low, flame length low
	SH145	High Load Dry Climate Shrub	Spread rate very high, flame length very high
TU	TU161	Low Load Dry Climate Timber-Grass-Shrub	Dynamic, spread rate low, flame length low
	TU165	Very High Load Dry Climate Timber Shrub	Spread rate moderate, flame length moderate
TL	TL183	Moderate Load Conifer Litter	Spread rate very low, flame length low
	TL188	Long-Needle Litter	Spread rate moderate, flame length low

Table 2. Primary fuel models found in East Canyon.

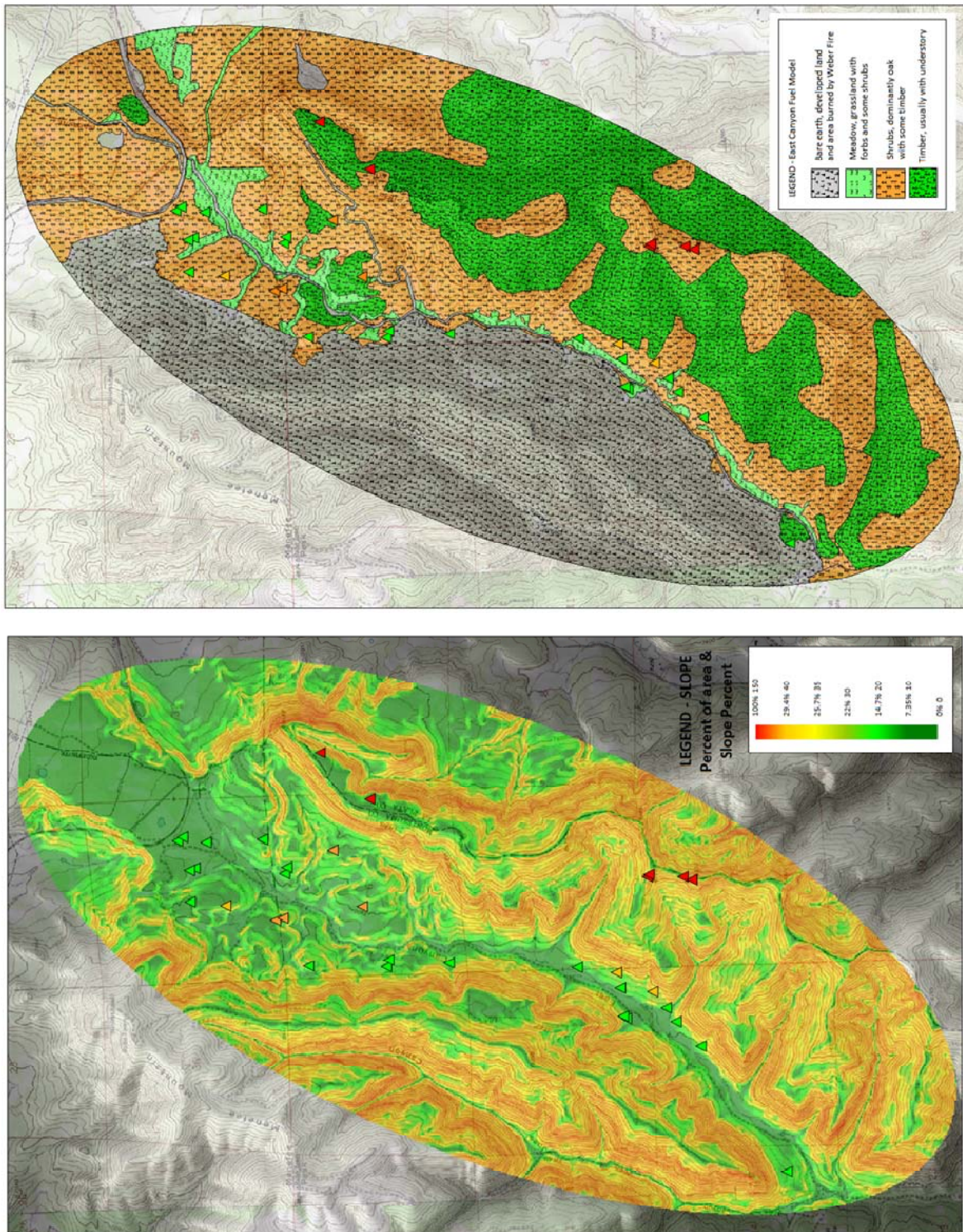
The vegetation fuel load in East Canyon can be generalized into five broad models:

- The roadways are barren of vegetation and serve as fuel breaks. The canyon was partly burned by the 2012 Weber Fire. Very little vegetation remains on the slopes on the west side of the canyon. Where the fire intensity was high, nothing remains but rock and hydrophobic soil. Where fire intensity was moderate, burned snags stand where trees were burned, and regrowth of oak and mahogany is emerging. There are isolated small clusters of trees, where the fire intensity was low. Subsequent flooding has stripped nearly all top-soil from the burned slopes. The burned area presents, for many years, a break for fire spread.
- Extending along the length of the canyon bottom is a meadow area, with a mixture of grasses and forbs. Where water comes to the surface, willow and cattails flourish. Several of these small wet riparian areas are federally classified wetlands. When grazed or mowed, these meadows present a low fire risk.
- Adjacent to much of the meadow, and extending along the upper canyon walls, particularly on the west-facing slopes, vegetation cover is a mixture of shrubs: Gambel oak, Western serviceberry, mountain mahogany, snowberry and skunkbush, with lower big sagebrush, rabbitbrush, yucca and forbs. Piñon pine, Utah juniper, Rocky Mountain juniper and Ponderosa pine stand isolated within this shrub association. Shrub heights are on the order of 8 feet. When dry, this shrub cover presents an extreme fire hazard.
- Along the sides of the lower canyon are mixed deciduous-conifer forest with shrub undergrowth. The timber is various mixtures of Piñon pine, Utah juniper, Rocky Mountain juniper, box elder, and narrowleaf cottonwood trees. Gambel oak is the dominant shrub understory. There is sparse low ground cover. The vegetation is typically dense – difficult to walk through. Tree heights are on the order of 40 feet. The fire hazard is high.



East Canyon – LANDFIRE 2010 Fuel Model

Figure 11. East Canyon fuel models from LANDFIRE, unclassified left and classified right. The LANDFIRE imagery was flown before the 2012 Weber fire.



East Canyon – Slope model and vegetation, showing structures

Figure 12. East Canyon Fuel Model – SLOPE to left and vegetation mapped from NAIP right.

- Higher on the canyon walls, and extending down the side canyons, are groves of larger conifers: dominantly ponderosa pine and Douglas fir, with some intermixed juniper and piñon, and occasional small groves of quaking aspen. Gambel oak is less abundant as an understory. The upper plateaus of the surrounding ridges are covered by more open forest of mainly ponderosa pine. Tree heights are up to 70 feet. The open ponderosa forest is a fire-adapted forest; the forest will burn, but traditional fire was restricted to the ground and not of extreme danger. Due to past fire suppression, there are now ladder fuels, heavier surface fuel loadings, and denser stands of brush and trees that represent a higher fire danger.

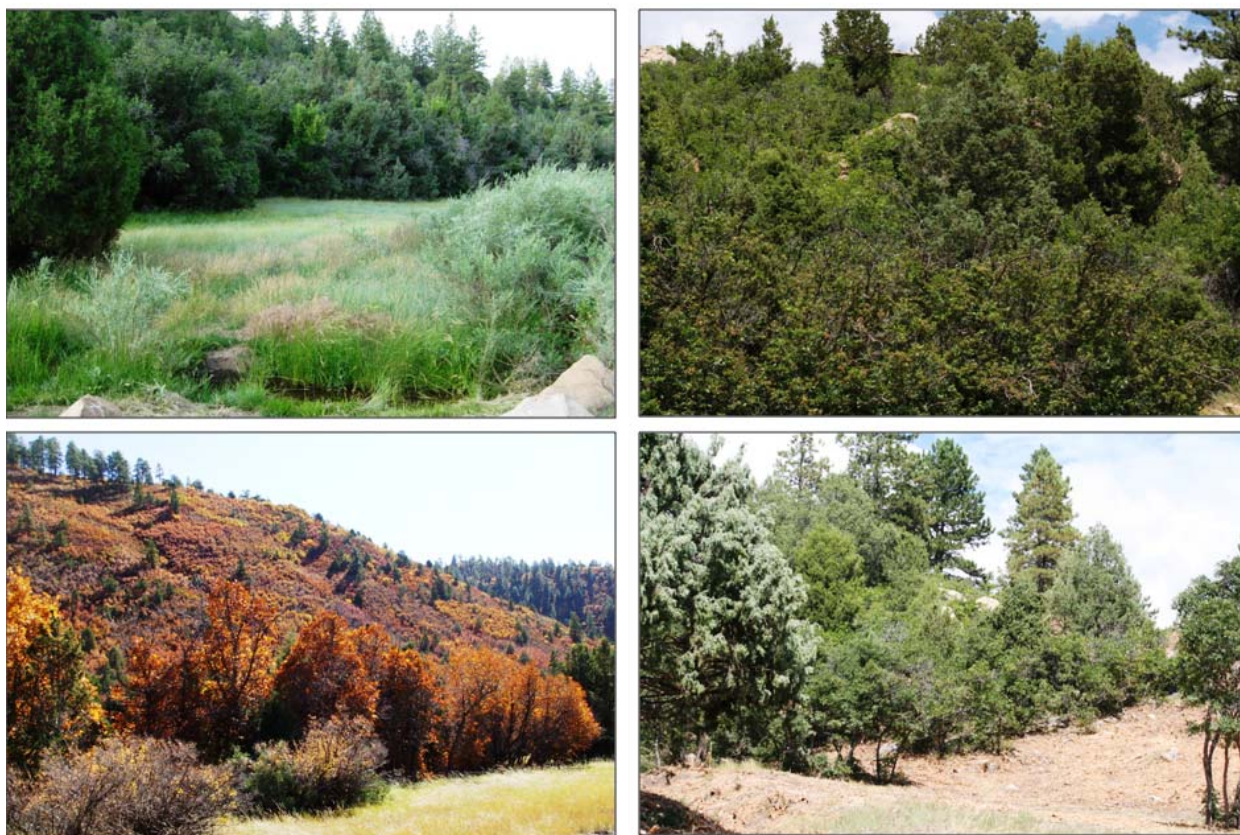


Figure 13. Typical fuel types in East Canyon. Clockwise from upper left are scenes of meadow with riparian area in foreground with mixed fuel behind; heavy mixed piñon-juniper-oak on steep rocky slope; mixed heavy fuel at margin of fuel treatment area; and Gambel oak on steep canyon slope and ponderosa pines on ridge line.

Fire and Topography

Fire behavior is influenced by many factors including fuel, weather (temperature, humidity, wind), and topography (Dennis, F.C., Fuel Break Guidelines for Forested Subdivisions & Communities, Colorado State Forest Service). Rate of fire spread increases as the slope of the land increases. Fuels above the fire are preheated by the rising heat from below, or they may

even come into contact with the flames themselves. At 30 percent slope, rate of fire spread doubles compared to rates at level ground, drastically reducing firefighting effectiveness. Areas near 30 percent or greater slopes are critical and must be reviewed carefully. Slopes within the East Canyon area are illustrated on Figure 10, from which it is noted that some 75% of the land within the community area has slopes in excess of 30%.

Certain topographic features influence fire spread and should be evaluated. Included are fire chimneys, saddles, and V-shaped canyons.

- Chimneys are densely vegetated drainages on slopes greater than 30 percent. Wind, as well as air pre-heated by a fire, tends to funnel up these drainages, rapidly spreading fire upslope. Saddles are low points along a main ridge or between two high points. Like chimneys, they also funnel winds to create a natural fire path during a fire's uphill run.
- Saddles act as corridors to spread fire into adjacent valleys or drainages.
- Narrow, V-shaped valleys or canyons can ignite easily due to heat radiating from one side to the other. For example, a fire burning on one side of a narrow valley dries and preheats fuels on the opposite side until the fire "flashes over." The natural effect of slope on fire then takes over and fire spreads rapidly up drainage and uphill along both sides of the valley.

Local topography on both sides of Lion's Head Ridge presents all of the above noted features. Coupled with a heavy unbroken fuel load, this presents an extreme risk for wildfire. East Canyon itself represents a potential channel for wildfire. Summer winds, normally from the southwest and often brisk, are directed up the canyon. Wildfire originating to the south of the community will advance quickly up the canyon.

Protection of Homes and Structures

Structure ignitability from ember intrusion is a principal cause of structure loss during wildland fire. Critical factors that increase the chances of structure loss are flammable roofing, decking and other construction materials, flammable vegetation and combustible household items (trees and shrubs, debris and wood piles, wood chip mulch, welcome mats, patio furniture etc.) near the structure. A wildland fire does not burn a structure unless it meets fuel and heat requirements sufficient for ignition and continued combustion. The flammability of the structure and its immediate surroundings can be readily managed to reduce the chance of ignition and loss. The primary and ultimate responsibility for structure protection before wildland fire rests with homeowners. The following are actions residents can take to greatly reduce structure ignitability. (More comprehensive information is available in Reference Documents included at the end of this CWPP.)

- Develop a defensible space around the structure that is at least 100-feet wide (see "Protecting Your Home From Wildfire: Creating Wildfire Defensible Zones," CSFS Publication FIRE 2012-1);
- Use low-combustible plant material for landscaping, and be attentive to maintenance;

- Remove wood piles or other flammable material from near the structure; remove flammable debris, such as pine needles, from within gutters, under decks and around structures (See “Fire Resistant Landscaping: Fact Sheet No. 6.303,” Colorado State University Extension);
- Use fire-resistant construction materials to the extent possible. Owners of existing homes should consider modifications for existing hazardous home features. (See “Firewise Construction: Site Design and Building Materials,” CSFS.
- Arrest sparks. Chimneys should have spark screens to avoid releasing sparks, and all outside openings on structures should be screened (vents) or closed (gaps beneath roof cap or beneath deck) to control ember intrusion.

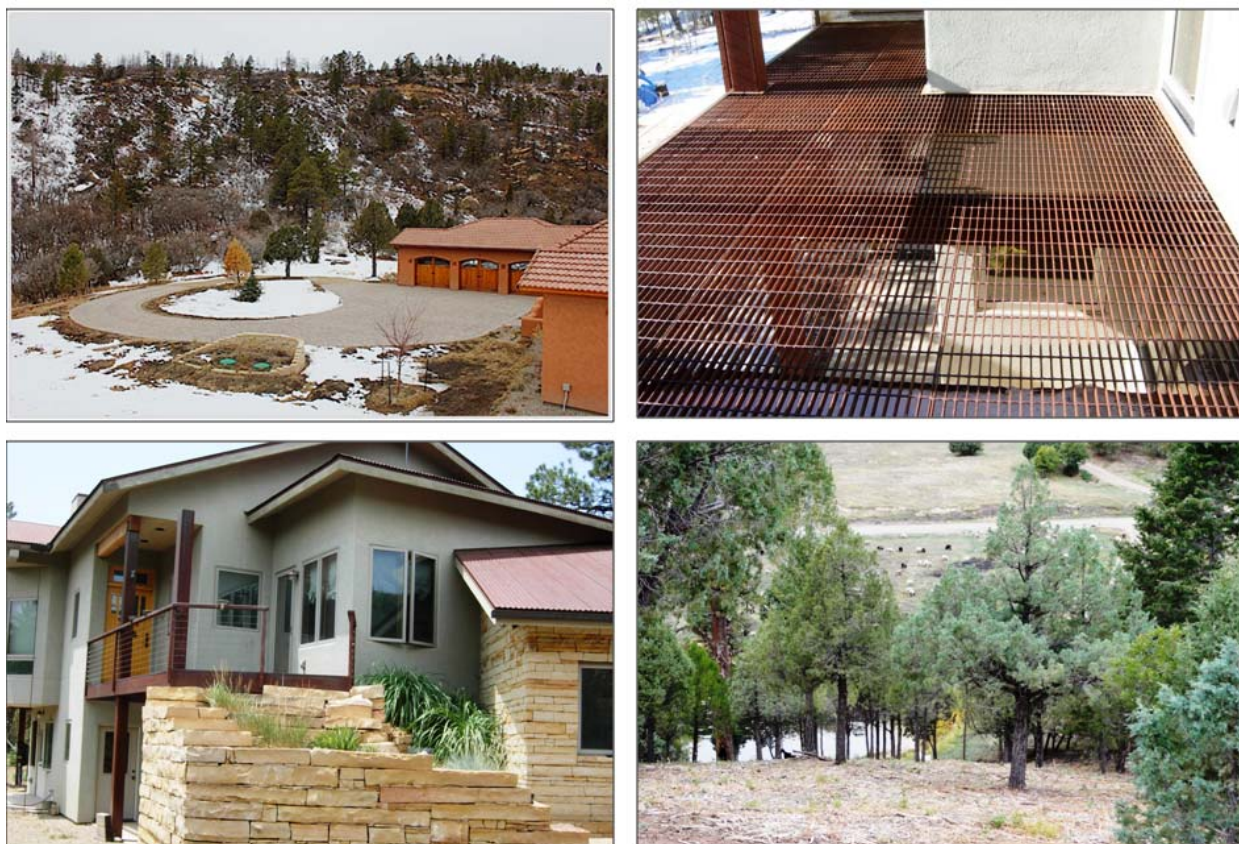


Figure 14. Examples of Firewise construction in East Canyon. Clockwise from upper left are is a home of fire-resistant material with good defensible space and a loop driveway; non-flammable steel deck; forest thinning surrounding a home, with sheep grazing to reduce meadow fuel; home of stucco, stone and steel.

Community Covenants for Fire Preparedness

Both Elk Springs Ranch and Elk Stream Ranch have governing documents that prescribe how properties may be developed and maintained. The governing documents of both Associations address many aspects of firewise construction and defensible space. The documents were

prepared at a time when there was greater concern for visual presentation than firewise construction. A recommendation of this CWPP is that both Associations review their guiding documents and strengthen them as appropriate to enhance homeowner and community safety. Following are abstracted summaries of the current Bylaws and Articles relevant to wildfire preparedness.

Elk Stream Ranch

The Elk Stream Ranch subdivision has governing documents, originally formulated in 1995 and amended numerous times since. In 2010, the Board of Directors revised the entire suite of documents, incorporating all amendments as well as effecting changes required by changes in Colorado law. The revised documents were approved by the membership of the Association.

Elements of the documents relevant to community wildfire preparedness include:

Bylaws Article 6 establishes a 3-member Design Review Committee (DRC) appointed by the Board of Directors. All construction and improvements and any alteration to the exterior appearance of any improvement on a parcel requires the written approval of the DRC. Subject to Board approval, the DRC is responsible for issuing design standards and review procedures, to be approved by the membership of the Association. The DRC is required to complete an annual inspection of Elk Stream Ranch each spring to assess the compliance of improvements with the governing documents.

Covenant 5.06 defines Duties and Obligations of the Association, which include:

“(a) Protection of Natural Resources. The Elk Stream Ranch contains many unique natural resources, including streams, meadows, forests and wildlife populations. The property is designed and developed to provide a limited number of single-family ranch home sites within the Property, and is intended to be managed to preserve and enhance these natural resources for the present and future benefit of all Parcel Owners. The Association shall act to protect the natural resources within the Elk Stream Ranch.” Wildfire hazard reduction falls within this duty and obligation.

Covenant 9.06 addresses *Nuisances, Hazardous Activities and Unsightliness*, and paragraph (d) within addresses *Trash and Waste Materials*:

“Refuse, garbage, and trash shall be kept at all times in a covered container and appropriately screened from view from the primary roads in Elk Stream Ranch. No lumber, grass, shrub or tree clippings, compost piles or plant waste, metals, bulk materials, unused building material, or refuse, trash, litter or other materials shall be kept, stored, or allowed to accumulate on any parcel except if appropriately screened from view from the primary roads in Elk Stream Ranch, except for slash piles intended to be burned in accordance with the CWPP. Firewood shall be stored on an Owner’s Parcel in a neat and orderly fashion. No burning of trash, garbage or other waste materials will be permitted on any Parcel or at the Property, except for weed and vegetation control in safe weather conditions, and the burning of slash piles in accordance with the CWPP.”

Covenant 9.14 addresses *Removal of Timber and Existing Vegetation*:

“ (a) Removal of mature timber and other native vegetation shall be prohibited within Elk Stream Ranch, with the following exceptions, provided they are made in accordance with the CWPP:

- (i) removal and cutting of Gambel Oak and other brush-type vegetation shall be liberally permitted to encourage the reduction of fire hazards by Owners, and prior to removal of such vegetation a brief sketch with description of the area to be cleared shall be submitted to the DRC for approval;
- (ii) mowing of grass in meadows shall be permitted;
- (iii) Owners are responsible for annual noxious weed or plant abatement on the Parcel. Musk weed, thistle or other noxious weeds and plants must be sprayed or eradicated to minimize the spread of such weeds and plants;
- (iv) plans for timber and existing vegetation removal for building construction, yards and gardens, driveway corridors, and view corridors must be submitted for review and approved by the DRC as Improvements prior to any removal activity, and shall comply with landscaping and revegetation requirements; and
- (v) other actions in accordance with the Elk Stream Ranch CWPP.”

Design Standards and Review Procedures are defined by the Association governing documents. In general, the standards encourage but do not dictate firewise construction.

“2.05 (e) Roof Surfacing Material. The following types of roofing materials are encouraged: copper, zinc, Kor-ten steel, Propanel, slate, clay or concrete tile, high-grade asphalt shingles. Other similar roof materials that reflect new technology and products may be allowed. The following roofing materials are not allowed to surface roofs: highly reflective metals, sod or wood materials. All roof flashing must be of a color harmonious with roof and upper wall surfacing.”

“2.06 (d) Siding Materials. All exterior siding material shall be of authentic appearance and durable quality. Materials encouraged as exterior siding include: redwood, cedar, stone, log, brick, and stucco. Brick-like fireplace flues are allowed. Exterior siding materials consisting of concrete block, log-like siding, and T-111 textured siding are not allowed.”

“2.09 Landscaping. Landscaping on Parcels that compliments the natural geographic setting of the Elk Stream Ranch is encouraged. Landscaping proposals shall be based on the following general parameters:

- (a) *Native Vegetation*. The native vegetation shall be preserved to the extent practical in all areas outside of the Building Envelope.
- (b) *Outside of Building Envelope*. Landscaping in open meadows is prohibited except for the use of native grasses, trees and shrubs. The addition of certain trees is encouraged, including species such as spruce, pine, fir, mountain ash, maple, aspen and birch. Trees such as Russian Olive, Tamarisk and Eucalyptus are considered noxious and undesirable and are not allowed. If any such species exist on a Parcel they should be eliminated. Temporary watering systems may be allowed until any allowed landscaping is stabilized subject to the terms of an approved landscaping plan.

(c) *Within Building Envelope*. Landscaping in areas within Building Envelopes shall be based on an approved landscaping plan. Landscaped areas within Building Envelopes should provide a gentle transition to the surrounding natural character of the Parcel. Changes in landscaping over time, in general accordance with the character of an approved landscaping plan do not require DRC approval.

(d) *Landscaping Materials*. The use of native trees, shrubs and grasses in landscaping plans is preferred and encouraged. Sod shall be allowed only within the Building Envelope areas. Sprinkler systems designed for agricultural use, above-ground sprinkler systems, and wheel lines or center pivot systems shall not be permitted.

(e) *Defensible Space*. Owners are encouraged to establish adequate defensible space around structures and other Improvements regarding the high forest fire potential in the area, in accordance with the provisions of the Elk Stream Ranch CWPP.

(f) *Solar Access*. Landscaping shall not reduce or block solar access or scenic views to adjacent properties.

In 2008, the Elk Stream Ranch Community Wildfire Protection Plan was completed and approved by the Property Owners Association. A significant commitment of the plan is that the Association will match owner expenditures for work identified to be a priority in the CWPP.

“Owners and the Association shall cooperatively develop fuel breaks along the roadways over a ten year period with Association providing financial assistance through prioritized cost sharing. A 50% reimbursement at prevailing contractor rates, up to a maximum of \$4000 per lot will be made for fuel break work within 150 feet of the centerline of the road. To qualify for cost share, the work should be on the Property Management Committee’s current priority list and shall be constructed according to the guidelines of “Fuelbreak Guidelines for Forested Subdivisions and Communities by Frank C. Dennis – Colorado State Forest Service”

This commitment remains effective.

Elk Springs Ranch

The Elk Springs Ranch subdivision is governed by Articles of Incorporation, By-Laws, Declaration of Covenants, Conditions & Restrictions, Design Committee Rules, Site Plan and an Enforcement Policy. Originally developed in 1993, these governing documents had been amended numerous times over the years. Between 2009 and 2012, the HOA Board and the DRC revised the entire suite of documents, incorporating all of the amendments as well as effecting revisions mandated by changes in the Colorado Common Interest Ownership Act (CCIOA). The revised documents were endorsed by a well-respected CCIOA law firm in Denver and approved by the membership of the Homeowners Association. Elements of the documents relevant to community wildfire preparedness include:

CC&R, Article 4.11 – No Hazardous or Offensive Activities: “... No open fires shall be lighted or permitted on any portion of any Lot except (a) controlled and attended fires required for clearing or maintenance of land performed only when applicable regulatory agencies do not have a burn ban in place and after the Owner has contacted Montezuma Dispatch to advise them of the Owner’s intent to burn, and (b) fires within a safe and contained area for cooking and recreational purposes”.

CC&R, Article 4.12 – Unsightly Articles: “... Refuse, garbage, and trash shall be kept at all times in a covered container and appropriately screened from view and in all events such containers shall not be visible from any Property or Lot except for the minimum time necessary for its collection. No lumber, grass, shrub or tree clippings, compost piles or plant waste, metals, bulk materials, unused building material, or refuse, trash, or other materials shall be kept, stored, or allowed to accumulate on any Lot except if appropriately screened from view. Firewood shall be stored in a neat and orderly fashion”.

CC&R, Article 10 – Design Review Committee (DRC): A 3-member Design Review Committee (DRC) is appointed by the Board of Directors. “All construction and improvements and any alteration to the exterior appearance of any improvement on a parcel requires the written approval of the DRC. Subject to Board approval, the DRC is responsible for issuing design standards and review procedures, to be approved by the membership of the Association.”

CC&R, Article 4.23 - Timber and Vegetation Removal: Provides for the laddering of lower limbs on timber, the thinning and removal of ladder fuels and the mowing of meadow grasses.

DRC Rules, Article 3.1.13 – Site Survey / Site Plan Submittal: A site plan submittal for building construction requires a provision for a wildfire mitigation / defensible space plan.

DRC Rules, Article 5.6.3 – Roofing Materials: “ ... All roofing must be constructed authentic to typical architectural styles of the high desert and Rocky Mountain Region of non-combustible materials. Only the following roofing materials shall be permitted: architectural-grade composition shingles and shakes, copper, slate, stone-coated steel or concrete “terra cotta” barrel vault tile, steel roofing (R-panel, Western rib and standing seam) with applied factory finishes or “weathering steel” and corrugated steel with “weathering steel” finish only). The following roofing materials are *prohibited*; wood shakes and shingles ... and thatch.”

DRC Rules, Article 5.75 - Siding Materials: “All exterior wall materials shall be authentic and commensurate with typical architectural design found in the surrounding alpine meadows and high desert environment of the Rocky Mountains. Materials that are permitted include; log, redwood clapboard, cedar clapboard, aspen clapboard, adobe brick, non-polished stone, adobe and stucco.” (HardiPlank® wood-like fiber cement lap siding is not currently listed, but is approved by the DRC in specific wood-tone finishes)

DRC Rules, Article 5.10 – Timber & Existing Vegetation Removal: The following mitigation work is encouraged; (a) Removal and culling of Gambel Oak (scrub oak / oak brush), fallen timber and other brush type vegetation shall be permitted to encourage a reduction of fire hazards; (b) Lot Owners may routinely remove ladder fuel limbs of trees to improve fire safety; (c) Mowing of grass in meadows to reduce fire fuels shall be permitted.

DRC Rules, Article 5.11 – Landscaping: “New landscaping on individual Lots shall harmonize with and be of indigenous specimens reflecting the natural character of the Property and

surrounding areas, and be planned in such a manner to control erosion, reduce water consumption and minimize the threat of wildfire. Xeriscaping (the use of appropriate drought-resistant tree, shrub, grass and flower species for the local area, mulches and efficient irrigation) is encouraged. Indigenous species of grasses, flowers, plants, shrubs and trees are required. Turf grass shall be permitted only in limited and practical amounts within the confines of the designated building envelope. *Non-native species and artificial turf are not permitted.* Landscaping in open meadow areas is permitted for pasture grasses appropriate to Southwest Colorado, indigenous shrubs and trees, and regional wildflowers.”

DRC Rules, Article 5.12 – Wildfire Mitigation: This article discusses; (a) creating defensible space around structures and the driveway corridor, (b) firewood storage, (c) 360-degree driveway turnaround or a “hammerhead T” at the residence that provides adequate clearance for fire and rescue equipment, (d) cistern and dry hydrant, (e) and provides a link to: <http://southwestcoloradofires.org>

DRC Rules, Article 5.13 – Driveways: This article discusses; (a) minimum requirements for driveway width and turnout width at Road 46 in order to facilitate ingress and egress of fire / rescue equipment, and (b) 360-degree driveway turnaround or a “hammerhead T” at the residence that provides adequate clearance for fire / rescue equipment.

DRC Rules, Article 5.16 – Temporary Construction Facilities, Site Management and Maintenance: “... A construction office trailer, storage container, portable toilet and a dumpster are permitted only within the building envelope. The general contractor shall maintain the construction site in an orderly condition at all times, and all construction materials shall be located within the building envelope during the construction process. All litter and building debris are to be collected *daily* and placed in a dumpster or removed from the Lot.”

The governing documents of both Elk Springs Ranch and Elk Stream Ranch address many aspects of firewise construction and defensible space. The documents were prepared at a time when there was more concern for visual presentation with less appreciation for firewise construction. For example, currently permitted siding types include particularly flammable materials. A recommendation of this CWPP is that both Associations review their guiding documents and strengthen them as appropriate to enhance homeowner and community safety.

Community Fire Preparedness Activities

East Canyon residents and owners have been actively engaged in fire preparedness activities for the past decade. While much remains to be done, the work completed presents an effective demonstration of what can be achieved, and the impact that this work has on fire control.

Elk Stream Ranch

The fire events of 2002 focused the attention of East Canyon residents, and clearly demonstrated the value of firewise construction, defensible space preparation, and forward planning for the protection of property and life. Well aware that East Canyon had already been

designated at one of 14 “at risk” areas for wildfire in Montezuma County (Figure 7), members of the Elk Stream Ranch community responded.

Activities over the past decade include:

- 2002 – Elk Stream Ranch begins participation in the FireWise Ambassador Program, with Philip Walters as its first Ambassador.
- 2002 – Individual property owners begin serious and continuing work to create defensible space around their homes. This activity continues to the present.
- 2003 – The Elk Stream Ranch Board of Directors asked the Association Property Management Committee to take the lead with fire mitigation activities.
- 2003-2013 – FireWise educational materials were distributed to all property owners and made available on the Association website. A FireWise presentation has since been a part of every Elk Stream Ranch Association annual general meeting.
- 2003-2004 – The Property Owners Association contracted with Fire Ready of Durango to remove fuel along Road 46 in areas where heavy fuel accumulation near to the roadway could jeopardize access to or escape from the community in a fire event.
- 2003 – The Elk Stream Ranch Property Management Committee prepared and distributed a “Wildfire Hazard Mitigation and Emergency Response Plan” to all members. This document contained many of the elements of a CWPP, including emergency contact numbers, community contact information, recommended firewise actions for property owners, a policy statement for open burning, and checklist guidelines for fire, medical, wild animal and storm emergencies.
- 2005 – Elk Stream Ranch petitioned for inclusion within the Mancos Fire Protection District tax levy. Maintenance of defensible space for structures is a requirement for inclusion within the District.
- 2006 – Work began in April on the original Elk Stream Ranch CWPP, which was finally adopted by the Association and approved by CSFS in August 2008.
- 2006 – The Elk Stream Ranch Property Owners Association completed a demonstration fuels thinning project within heavy Gambel oak vegetation along Road 46.
- 2006 – The Colorado Wildfire Academy used Elk Stream Ranch as a training area for a simulated strategic triage activity. Observations from this event were distributed to property owners.
- 2008 – Elk Stream Ranch completed the first CWPP in southwestern Colorado. The plan identified community wildfire vulnerabilities, prioritized hazard reduction activities, ignited interest in FireWise activities among residents, and secured a financial commitment for annual fire-hazard-reduction work from the Property Owners Association.
- 2008 – Elk Stream Ranch received a \$16,000 grant, administered by the Colorado State Forest Service, to share costs for fuel reduction along the primary access roads in the community. Property owner expenses for approved fuel reduction work within 150 feet of the centerline were shared 25% by the owner, 50% by the grant, and 25% by the Property Owners Association. Twelve property owners took advantage of the program,

with out-of-pocket expenditures of \$32,674 to treat approximately 48 acres, as shown on Figure 16.

- 2009 – In response to homeowner fuel thinning at the south end of Elk Stream Ranch, the BLM completed fuel reduction across the fence. This proved to be an important part of the Weber Fire containment line in 2012.
- 2009 – A second resident joined FireWise of Southwest Colorado as a Neighborhood Ambassador.
- 2012 – Two additional members of the Association become FireWise Ambassadors. Now, two Association Board Directors are also Ambassadors.
- December 2013 – Elk Stream Ranch received recognition as a FireWise Community – the first in Montezuma County.
- April 2014 – Three more residents are trained as FireWise Neighborhood Ambassadors, bringing the total to 7 Ambassadors in Elk Stream Ranch.
- Current – Elk Stream Ranch maintains a website for Association members. This site has posted a number of key FireWise educational documents and links to other sources of information. The Association Directory, distributed to all members, has emergency contact information as the first page.

Elk Springs Ranch

Elk Springs Ranch fire preparation activities began later but are advancing quickly:

- 2005 to 2012 – Lots 4, 5, 7, 10 and 11 begin serious and continuing work to create defensible space around their homes and driveways. This effort continues to the present.
- 2012 – One member of the Homeowners Association volunteers and is trained as FireWise Ambassador.
- 2013 – Mitigation work begins on the portions of Road 46 adjacent to land with heavy Gambel oak, piñon, ponderosa pine and other vegetation. Proposed budgeting for subsequent years shall extend fire mitigation work within Elk Springs Ranch.
- April 2014 – One additional resident received orientation to be a FireWise Neighborhood Ambassador, bringing the total to 2 for this Association and 9 within East Canyon.
- Current – A FireWise Ambassador continues aggressive mitigation work on his property including brush clearing, tree thinning and limbing, landscaping, noxious weed control and re-vegetation in an effort to serve as a FireWise “demonstration Lot” in Elk Springs Ranch. The initial work was completed in 2014, with a regimen of perpetual maintenance to follow.
- Current - Elk Springs Ranch maintains an HOA website. This site has posted a number of key FireWise educational documents and links to other sources of related information.

Figures 15 and 16 are maps showing the extent of fuel treatment work completed within the East Canyon WUI area by homeowners, community associations, and federal agencies.

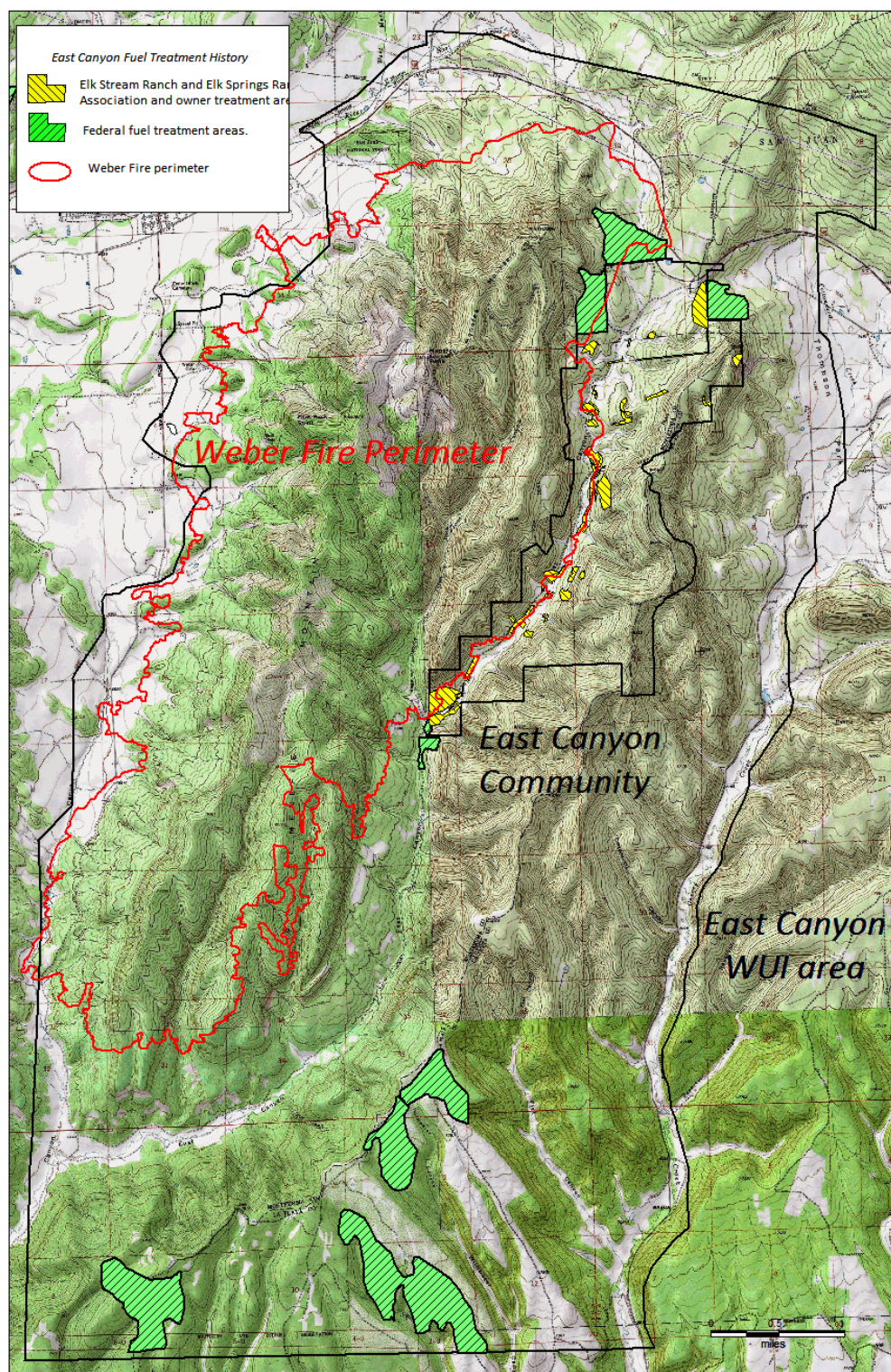


Figure 15. Fuel reduction completed within the East Canyon WUI area.

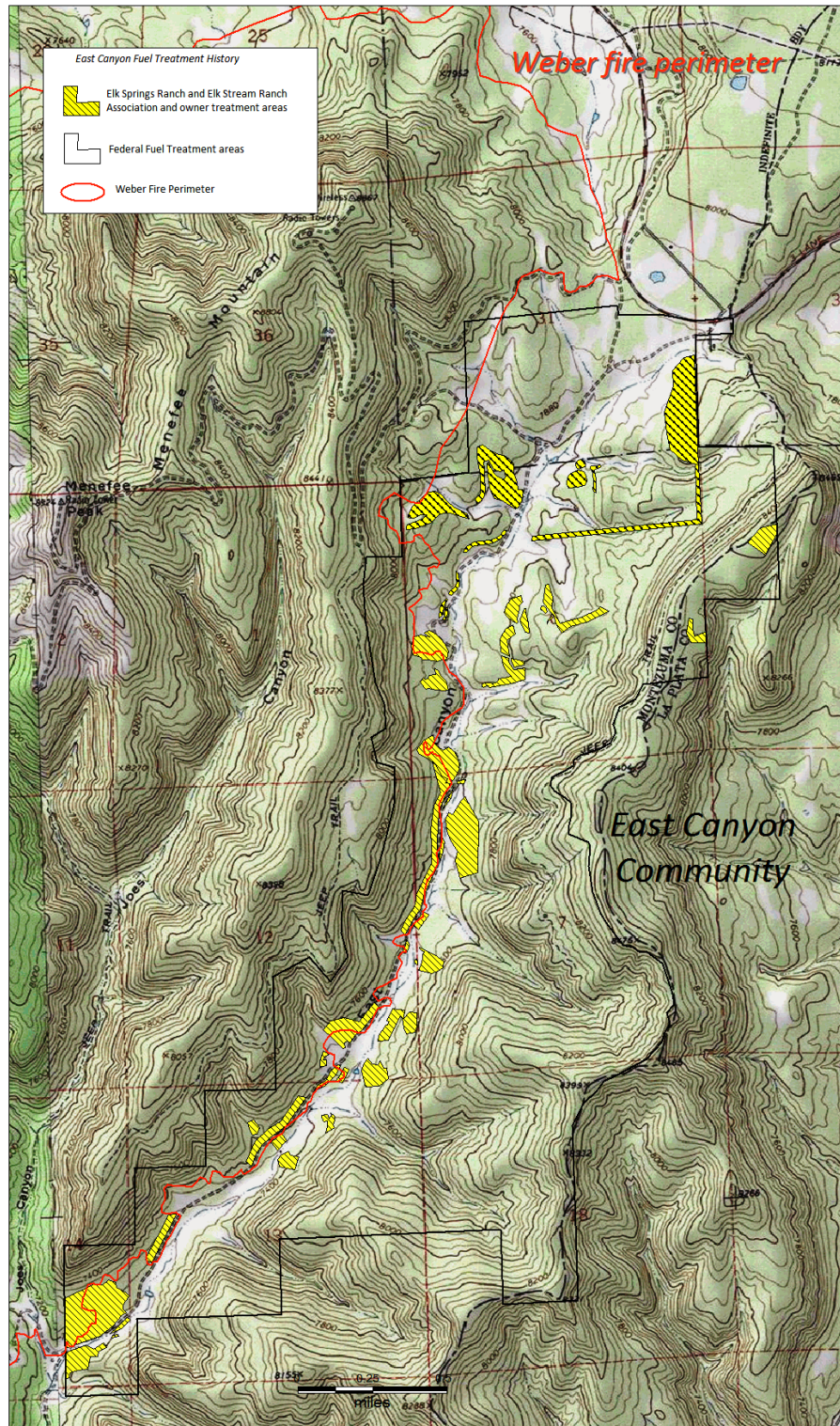


Figure 16. Fuel reduction completed within the East Canyon community area.



Figure 17. Effective fuel treatment in East Canyon. Clockwise from upper left show fuel treatment along Road 46; fuel treatment extending back from the roadway; a home and surrounding thinned vegetation saved during the Weber fire; another home with defensible space which survived the Weber fire. The black delta is post-fire flood debris. Note that the fire was stopped along the Road 46 fuel break.

Evacuation and Access Planning

The only practical access and evacuation road to East Canyon is Road 46. Maintaining this access road in good repair, with a right-of-way free from excessive fire fuel, and with clear signage is a very high priority.

There are several road intersections in the community that lack adequate signage, and many driveways to homes lack adequate address numbers. This plan recommends that signage within the community be improved with non-combustible, reflective, standardized signs prominently posted.

Road grades and widths along Roads 46, G.3 and 46.1 within Elk Springs Ranch and Elk Stream Ranch are suitable for emergency vehicle use. Road G.3 does have a hair-pin turn that may exclude a large structure engine from accessing the properties on the ridge, but entrapment is a greater concern for wildfire events. There is one large-vehicle loop on Road 46 at lot 34.

Locations where large vehicles may turn are present at several intersections throughout the canyon.

Several of the private driveways have steep grades, narrow widths and tight corners that preclude use by large structural fire equipment. Others are surrounded by heavy vegetation that presents entrapment risk. Property owners are encouraged to improve access to their property. A recommendation of this plan is that the Associations strengthen the safety of access roadways by treating those sections of roadway with heavy adjacent fuel buildup. Priority areas are indicated on Figure 18. Also shown on this figure is the already-planned fuel treatment along the boundary between the Elk Springs Ranch and Elk Stream Ranch communities.

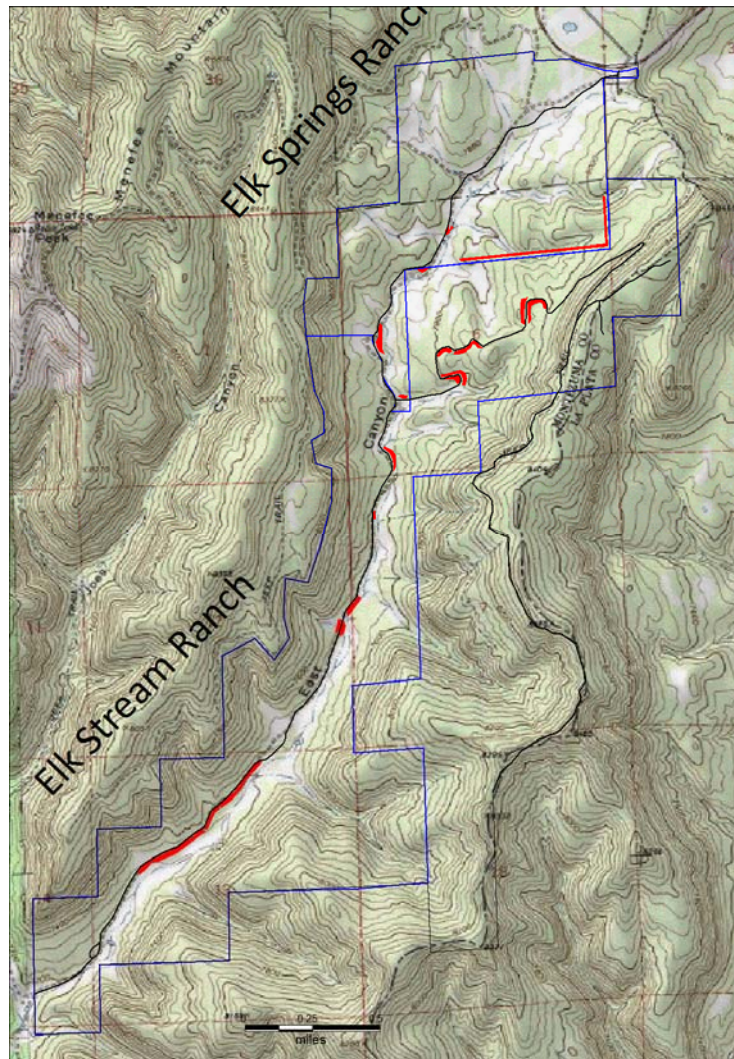


Figure 18. Priority areas for fuel treatment marked in red.

Should wildfire in the upper section of the canyon close Road 46 to emergency escape, there are a number of wide meadow areas that can serve as refuge areas for residents (Figure 19). Residents with homes on Lion's Head Ridge face greater danger. If evacuation by Road G.3 is closed, there currently are no robust refuge locations prepared. Establishing refuge locations throughout the community, and a large safe area on Lion's Head Ridge that may also be suitable as a helicopter landing are a priority recommendation of this plan. Ridge homeowners should also have homes and selves prepared to shelter in place.

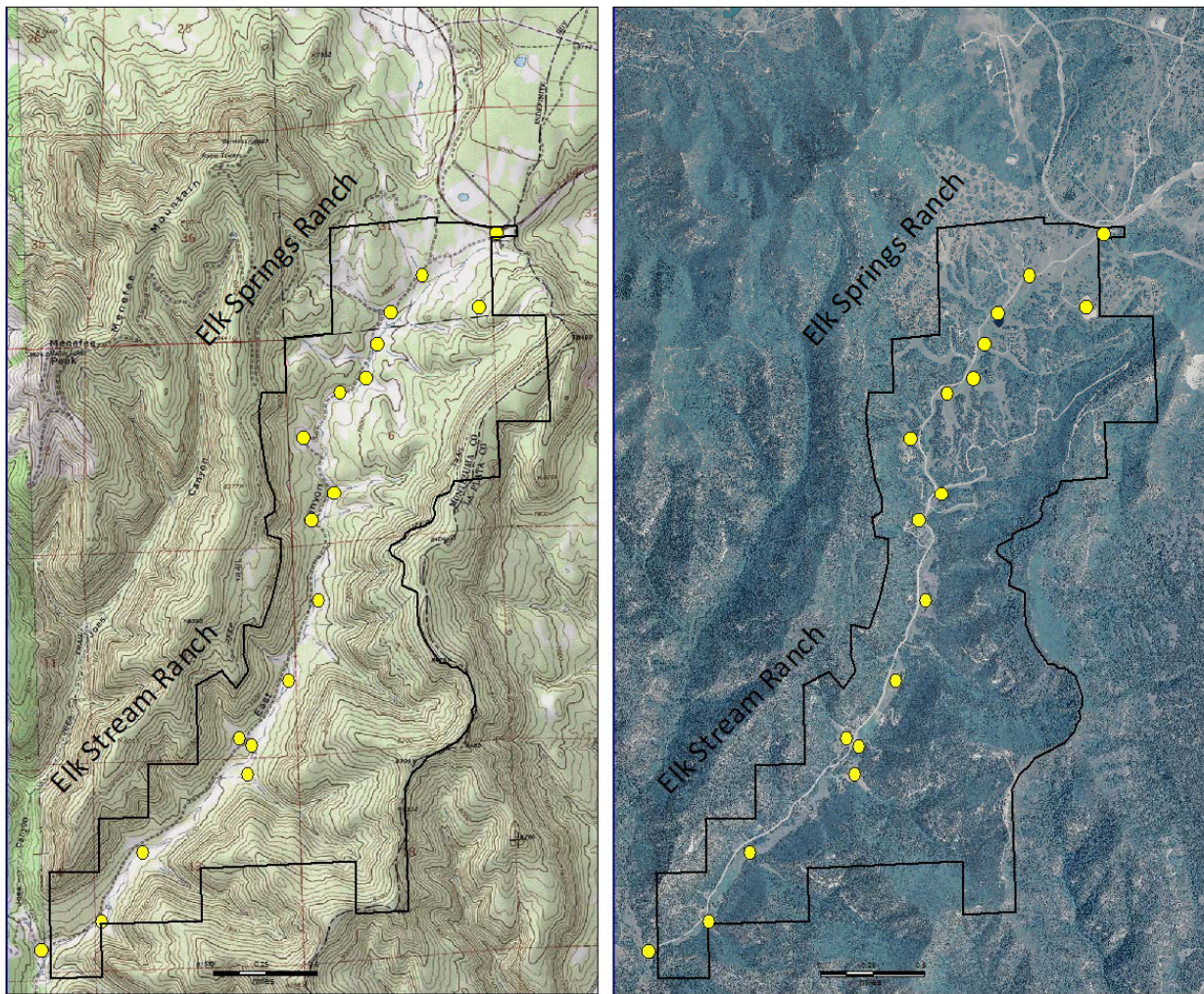


Figure 19. Location of possible refuge areas in East Canyon. All are >100 feet diameter.

Residents of East Canyon present during the Weber Fire learned first-hand how quickly a fire event can develop and how quickly evacuation may be required. Preparation is critical. A recommendation of this plan is that all community residents share a telephone tree and develop a community evacuation plan describing safe areas, address and hazard markers, and community liaisons that is communicated well to all residents and responders. Ensure that all residents have the resources and support to prepare for a quick and effective evacuation.

Local Preparedness and Protection Capability

East Canyon is within the Mancos Fire Protection District service area. Mancos Fire is an all-volunteer fire department, operating out of a station at the east side of the Town of Mancos. The size of the force varies, but is typically about 18. The response time varies, depending upon the availability of department personnel, who must first muster to the station, then mobilize to the fire or emergency. The station is located some 5 miles from the intersection of Highway 160 and Road 46. Response times can be lengthy.

The Mancos Fire department is well-trained and well-equipped. Fire personnel are familiar with East Canyon. They did an exceptional job during the early hours of the Weber Fire. Crews responding to a fire usually have no more than an address and a paper map in the vehicle to guide them - no GPS units or database describing characteristics of the location. It is therefore extremely important for all roadways, intersections, and driveways to be clearly marked and for information relevant to the home (location of electrical and gas connections, leach fields, location of cistern or other water sources, emergency contact information for owners) to be readily available within the community or at each individual property.

In emergency events in Montezuma County, typically the first responders will be from the Montezuma County Sheriff's Department. Sheriff's Deputies were responsible for implementing evacuation during the 2012 Weber Fire. At present, there is no Reverse 911 service in Montezuma County. A recommendation of this plan is to encourage the county to develop such an emergency communication system. In the meantime, it is recommended that all community homeowners and landowners enroll in www.nixle.com for real-time emergency alerts on mobile devices and computers from the Montezuma County Sheriff's Office.

The Durango Interagency Dispatch Center coordinates wildfire response on federal lands in Southwest Colorado. The Dolores Public Lands Office (USFS Dolores Ranger District/BLM Tres Rios Field Office) has primary suppression responsibility for fires on National Forest and BLM lands in Montezuma County. It has 4 wildland fire engines, three type 3 and one type 4, each requiring a 3 person crew. There is only funding to staff 3 of the 4 engines. The engine crews also do fuels treatments including preparation work and controlled burns. The federal agencies conduct prescribed fire and other treatments on approximately 2,500 to 3,000 acres of National Forest System lands and 500 acres of BLM-managed lands per year.

During the summer, outside resources are brought in, usually two type 3 or type 4 engines with 5 person crews. The 20-person San Juan Interagency Hotshot Crew is stationed in Durango but often works elsewhere across the nation. The crew is considered a national resource and in addition to fires in the local area, is assigned to fires outside of the area.

The Durango Interagency Fire Dispatch Center helps to make fire response quick and effective. The USFS, BLM, BIA, Mesa Verde National Park and Colorado Department of Fire Prevention and Control each contribute staff and resources to operate the full-time facility, located in the San Juan Public Lands Center in Durango. An air tanker base is located at the Durango-La Plata County airport that provides aerial firefighting capabilities when aircraft are stationed there.

Community Triage

As part of the planning process, the coordinating committee has developed a form with which homeowners can complete a self-evaluation of their property and structures, with the assistance of the Association-designated FireWise Neighborhood Ambassador. The Property Assessment form is attached as Appendix A.

East Canyon is also one of the communities selected to participate in a study that will assess home wildfire risk and compare it to surveys of perceived wildfire risk by homeowners. This will take place in 2015 in partnership with the Rocky Mountain Research Station and FireWise of Southwest Colorado.

Details from individual home and property risk assessment will not be used to support individual property owner wildfire preparedness efforts and will not be shared outside of the community and its first responders. Findings from the study will not be affiliated with any property addresses.

V. RECOMMENDATIONS FOR ACTION

This section outlines the desired future conditions and actions to be taken to enhance and maintain our fire-adapted community. Desired future conditions for each section are listed in *italics*. Specific actions we plan to take to achieve our goals are outlined in the table. Figure 11 depicts the proposed community fuel break and access improvements.

Above all, we wish to make East Canyon a safe and healthful environment for all residents, visitors and emergency responders.

To achieve this overarching goal, we recommend the actions summarized in Table 3.

Table 3 Desired conditions and recommendations for action

ACCESS: Secure access to the community with well-maintained and well-signed roadways		
Objectives: <ul style="list-style-type: none"> Roads 46, G.3 and 46.1 are well marked with well-maintained all-condition signage, and rights-of-way of free of hazardous fuel. Secondary access for Road 46.1 from Highway US-160 is improved for safe emergency ingress/egress. 		
Action	Partners	Priority
Thin remaining clusters of thick fuels along road rights of way (Fig 15)	Elk Springs Ranch HOA, Elk Stream Ranch POA	High
Clearly mark all residential driveways and road junctions with uniform, all-condition address markers.	Elk Springs Ranch HOA, Elk Stream Ranch POA	High
Place a distance to Road 46.1 sign at intersection of Roads G.3 and 46.	Elk Stream Ranch POA	High
Rehabilitate the -secondary evacuation road to US 160 with road repair, fuel treatment, access agreements, and appropriate gate control	Private property owners within and outside of community, BLM	Medium - 2° to shelter in place for ridge residents
Enhance and maintain existing fuel treatments along all roads	Elk Springs Ranch HOA, Elk Stream Ranch POA	Medium
Investigate requirements to make Road 46 a through-road to Weber Canyon – continually reevaluate.	Elk Stream Ranch POA, Private land owners below East Canyon Community, FEMA	Low
DEFENSIBLE SPACE & THE BUILT ENVIRONMENT: We seek to make all homes more fire-resistant with defensible space, attention to detail, and fully accessible driveways.		
Objectives: <ul style="list-style-type: none"> All homes and driveways have appropriate, well-maintained defensible space. New homes are of fire-resistant construction and existing homes have had appropriate modification to strengthen their fire-resistance. All driveways are accessible to emergency response vehicles, clear of fire-fuels, with adequate turn-around area and prominent, uniform, marked all-condition address signage. All property owners complete some fuel treatment on their properties, whether there are structures or not. 		
Action	Partners	Priority
Homes on Lion's Head Ridge are specifically notable as needing additional clearing attention to reduce potential for ember ignition to allow survival without the support of firefighters and shelter in place capability as residents could become trapped on the ridge-top (Fire shutters on exposed windows recommended).	Residents on Road 46.1, Neighborhood Ambassadors	High
Place focus on ember ignition in the Home Ignition Zone; continue defensible	All residents	High

space education.		
Invite owners of undeveloped properties to participate in mitigation opportunities.	Neighborhood Ambassadors	High
Notify residents of available financial incentives to fuel reduction.	Neighborhood Ambassadors	High
Include driveway access in all defensible space treatments.	Property owners	High
Design codes for both Associations should be reviewed annually and modified for compatibility with Firewise Construction best practices.	Boards of Directors, Neighborhood Ambassadors	Medium
COMMUNITY FUEL BREAKS AND SAFE AREAS: We wish to limit the size and intensity of wildfires on the east side of the canyon and strengthen the central meadow area as a fuel break.		
Objectives: <ul style="list-style-type: none"> Limit the size and intensity of future wildfires on the East Side of the canyon to reduce forest damage and impact of post-fire flooding. Strengthen the central meadow area as a fuel-break by eliminating fuel bridges and maintaining the meadow through field-mowing or grazing. 		
Action	Partners	Priority
Establish Safe areas on Lion's Head Ridge with fuels treatment and flat safety zone.	Ridge residents and Elk Stream Ranch POA	1
Maintain meadows as fuel breaks and secure safe areas using grazing, thinning, mowing and appropriate marking of these safe areas.	Elk Springs Ranch HOA, Elk Stream Ranch HOA	2
Elk Springs Ranch and Elk Stream Ranch Associations financially assist with mitigation in identified community fuel break areas.	Elk Springs Ranch HOA, Elk Stream Ranch POA	3
Enhance fuel break straddling Elk Springs East and South Fence Lines	Elk Springs Ranch, Elk Stream Ranch POA, BLM	4
Further study to determine most appropriate fuel break for breaking up the east side fuels.	Elk Springs Ranch HOA, Elk Stream Ranch POA, BLM, Daultons	5
Create fuel break along Lion's Head Ridge from south end of community across BLM into Cherry Creek valley.	BLM	6
Thin canyon sides on Lot 24 to reduce fire intensity and potential post-fire flooding to Lot 24 home. From proposed lot 24 thinning, extend 30-foot shaded fuel break across ridge-line from lots 24 & 25 and just south of Daulton Property across BLM land into Cherry Creek;	Lot 24 owners, Elk Stream Ranch POA, BLM, CSFS	Further study
Develop 300-foot shaded fuel break from treatments in Lot 9 (or Lot 3) around historic Wildden Mine across ridge into Cherry Creek.	Elk Stream Ranch POA, BLM, CSFS	Further study
FIREWISE EDUCATION & COMMUNITY INVOLVEMENT: We envision having all property owners engaged in securing the safety of our community from wildfire.		
Objectives: <ul style="list-style-type: none"> All property owners are FireWise aware and engage in some level of fuels mitigation, whether there are structures or not. 		

Action	Partners	Priority
Include a FireWise component of all Association annual meetings.	Elk Springs Ranch HOA, Elk Stream Ranch POA	Mandatory
Stress importance of the built environment through Ember Aware and HIZ information sharing.	Neighborhood Ambassadors, HOA web masters	Association Meeting Topics
Share evacuation experiences to heighten awareness of the challenges and promote evacuation preparedness.	Neighborhood Ambassadors, Residents	
Promote findings that forest thinning improves forest health as well as property value and marketability.	Neighborhood Ambassadors, HOA web masters	
Maintain active participation in FireWise of Southwest Colorado Neighborhood Ambassador Program.	Elk Springs Ranch HOA, Elk Stream Ranch POA	High
Educate community members using this CWPP.	Neighborhood Ambassadors	High
Complete detailed property and structure level assessments for each property in the community. Utilize modified assessment form for vacant properties.	All residents, Neighborhood Ambassadors	High
Educate residents on how to create and use evacuation and emergency communications plan. Remind them to call 911 first when reporting a fire and Montezuma County dispatch for conducting prescribed burns.	Neighborhood Ambassadors	High
Secure and annually maintain FireWise Communities USA status.	Neighborhood Ambassadors	High
Establish a regular community wildfire newsletter sharing timely information and personal stories.	Neighborhood Ambassadors, HOA Web Masters	Medium
Encourage county to set up a more comprehensive emergency notification system.	Associations, Emergency Management, Fire Districts, FireWise of Southwest Colorado	Low
Provide comprehensive wildfire preparedness information to all community members.	Neighborhood Ambassadors, HOA web masters	Ongoing
EVACUATION PLANNING AND EMERGENCY RESPONSE: All residents should have established evacuation and emergency communication plans, and community plans should be coordinated with Montezuma County and Mancos Fire Protection District. Emergency Response should be aided by more readily accessible water and well-marked resources and hazards.		
Objectives: <ul style="list-style-type: none"> <i>All residents have established evacuation and emergency communication plans, which are shared with any fire-season visitors.</i> <i>Have coordinated response plans with Montezuma County and Mancos Fire Protection District</i> <i>Enable responders to more easily find homes, hazards, and firefighting resources within the community.</i> 		
Action	Partners	Priority
Combine community phone tree(s) and update at least annually.	Neighborhood Ambassadors	High
Outline a community evacuation plan and make sure ALL residents and responders understand the details of the plan.	Neighborhood Ambassadors, Mancos Fire, Emergency Manager, BLM, FireWise	High
Restore holding capacity of Elk Stream Ranch ponds	Private pond owners, Habitat Partnership Program	High

Develop Fire Department Access to East Canyon Ponds.	Mancos Fire, Private owners	High
Include driveway assessment in property level assessments.	Neighborhood Ambassadors	High
Clearly mark all emergency response hazards and resources with uniform all-condition signage.	All residents, with assistance of Associations	High
Maintain engagement with Mancos Fire Protection District and other area fire management agencies by inviting them to conduct training exercises in the community.	Association Boards and Neighborhood Ambassadors	High
Meet at least annually with Mancos Fire and Montezuma County Emergency Management to review community conditions and plans.	Association Boards, Neighborhood Ambassadors, Mancos Fire, County Emergency Management.	High
Promote registration for Montezuma County Nixle text message alert	Neighborhood Ambassadors	High

Above all, we wish to make East Canyon a safe and healthful environment for all residents, visitors and emergency responders.

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ACKNOWLEDGEMENTS

The East Canyon CWPP core committee gratefully acknowledges the tremendous support we received from Ms. Rebecca Samulski, Montezuma County coordinator for FireWise of Southwest Colorado. Becca gracefully guided a group of easily distracted individuals to create a plan with which we all proud and in agreement.

Odin Christensen drafted the document and created all of the figures.

APPENDICES

Appendix A: East Canyon Residents and Landowners Wildfire Risk & Defensible Space Assessment

East Canyon Homeowners Wildland Fire Risk & Defensible Space Assessment

STREET ADDRESS: _____

CONTACT(S)

Please provide any
additional contacts on
the back of this form

Contact Name: _____
 Telephone - Residence: _____
 Telephone - Business: _____
 Telephone - Mobile: _____
 e-mail: _____

OCCUPANTS

Enter Quantity of Each >>>

Adults	Minors	Horses	Cattle	Dogs	Cats	Other*
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

* Please specify:

**INDIVIDUALS WITH
SPECIAL NEEDS**

	Adults	M/F	Minors	M/F
Limited Mobility / Disabled:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Hearing / Speech Impaired:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Mentally Impaired:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Blind:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

ACCESSIBILITY

	YES	NO
Street sign is clearly visible reflective material <i>(Numbers are 4 inches tall reflective material, visible along road from all directions for at least 150 feet)</i>	<input type="text"/>	<input type="text"/>
Address sign is clearly visible reflective material <i>(Numbers are 4 inches tall reflective material, visible along road from all directions for at least 150 feet)</i>	<input type="text"/>	<input type="text"/>
Address signage at all driveway junctions is clearly visible reflective material <i>(Numbers + directional arrows are 4 inches tall reflective material, visible at least 150 feet from junction)</i>	<input type="text"/>	<input type="text"/>

**DRIVEWAY
INFORMATION**

Length	Width	Driveway Surface Material(s)	Maximum Grade	Turnaround at House (Y/N)	Pullouts Along Route (Y/N)	Brush/Tree Thinning		
						<30'	30'-50'	>50'
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**SITE
INFORMATION**

Please circle the house symbols that best reflects the location of each structure on your property.

Please circle slope grade at each structure.

Within 30 feet of any building, tree crowns are: (circle one) **Contiguous** **Separated** **N/A**
 From 30-100 feet of any building, tree crowns are: (circle one) **Contiguous** **Separated** **N/A**

Touching / Contiguous Tree Crowns

Separated Tree Crowns

**EMERGENCY
WATER SUPPLY**

	Pond	Cistern	Hot Tub	Pool
Water Capacity:	9 acre feet	<input type="text"/>	<input type="text"/>	<input type="text"/>
Location on Site:	Elk Springs Lot # 7	<input type="text"/>	<input type="text"/>	<input type="text"/>

GARDEN HOSE CONNECTIONS

Qty	Location(s)
Hose Bibs:	
Yard Hydrants:	

FDC FIRE HOSE CONNECTION

Fire Department Connection (FDC) available at cistern + clearly flagged with a reflective sign: ☐ YES ☐ NO
(2-1/2" NH x 2-1/2" NPT double-male fitting installed onto a cistern standpipe)

UTILITIES LOCATIONS

Propane Tank:	
Electric Service Disconnect:	
Backup Generator:	
Photovoltaic Panels + Batteries:	
Septic Tank:	
Septic Drain Field:	

STRUCTURES

Residence	Guest House	Garage	Barn	Greenhouse	Shed	Other
Please specify quantity:						
Do any outbuildings have guest quarters? (Y/N):						

STRUCTURE IGNITABILITY

	YES	NO	N/A
Are fire-resistant roofing materials installed on all structures?			
Are fire-resistant exterior siding materials installed on all structures?			
Is the fireplace/wood stove chimney cap screened or have a spark arrestor?			
Do attic and crawlspace vents have 1/8" grid (min.) metal mesh?			
Are windows thermo-pane, tempered glass or glass block?			
Is flammable fencing attached to any building(s)?			
Are flammable materials stored on or underneath a deck or covered porch?			
Is the space underneath all decks screened with 1/8" grid (min.) metal mesh?			
Are leaves/pine needles removed from inside corners, decks, roofs and gutters?			
Is hay/straw stored inside an enclosed structure?			

FUEL HAZARDS: ZONE 1

First 30' from all structures

	YES	NO	N/A
Is there flammable ground cover within the first 5' of any structures?			
Are there plants or flammable materials underneath any windows?			
Are there any plants or flammable materials next to the foundation vents?			
Are grasses mowed 6" or less beyond the first 5' from all structures?			
Are plantings pruned + maintained, dead vegetation removed?			
Does the defensible space extend 15' or more beyond tree limbs?			
Are there any branches overhanging the roof?			
Are fuels are present within 10 feet of the fireplace/wood stove chimney?			
Is the propane tank located greater than 10 feet from any building?			
Has vegetation been cleared 10' or greater from the propane tank?			

FUEL HAZARDS: ZONE 2

30' to 100' from all structures

	YES	NO	N/A
Have diseased/dead trees and shrubs been removed?			
Is there greater than 10' between the edges of all tree crowns?			
Is there greater than 30' maintained between the crowns of tree groups?			
Have ladder fuels been removed from underneath trees?			
Are tree branches pruned 10' from ground level? <OR>			
Have tree branches pruned 1/3 of the height of the tree crown?			
Are shrubs greater than 10' from the edge of tree branches?			
Are shrubs spaced at least 2 1/2 times their mature height?			
Are slash and chips less than 4" deep within Zone 2?			
Is firewood stored in a cleared area that is at least 30' away from any structure?			
Is firewood stored either level to or uphill from all buildings?			
Has vegetation been cleared 10' or greater from stored firewood?			

East Canyon Vacant Land Parcels Wildland Fire Risk & Defensible Space Assessment

STREET ADDRESS: _____

CONTACT(S)

Please provide any additional contacts on the back of this form

Contact Name: _____
 Telephone - Residence: _____
 Telephone - Business: _____
 Telephone - Mobile: _____
 e-mail: _____

ACCESSIBILITY

Street sign is clearly visible reflective material
(Numbers are 4 inches tall reflective material, visible along road from all directions for at least 150 feet) YES NO N/A
☐ ☐ ☐

Address sign is clearly visible reflective material
(Numbers are 4 inches tall reflective material, visible along road from all directions for at least 150 feet) YES NO N/A
☐ ☐ ☐

Address signage at all driveway junctions is clearly visible reflective material
(Numbers + directional arrows are 4 inches tall reflective material, visible at least 150 feet from junction) YES NO N/A
☐ ☐ ☐

DRIVEWAY INFORMATION

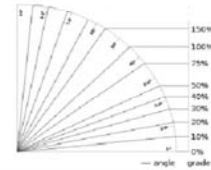
Length	Width	Driveway Surface Material(s)	Maximum Grade	Turnaround (Y/N)	Pullouts Along Route (Y/N)	Brush/Tree Thinning		
						<30'	30'-50'	>50'

SITE INFORMATION

Please circle the house symbols that best reflects the proposed location of each structure on your property.



Please circle slope grade at each proposed structure.

**VALUES AT RISK**

List resources and any other values at risk (i.e. heritage trees, water resources, property improvements, etc.)

- 1) _____
- 2) _____
- 3) _____
- 4) _____
- 5) _____
- 6) _____
- 7) _____
- 8) _____

FUEL HAZARDS:

Does overgrown vegetation on your land pose a threat to adjacent properties?
 Have diseased/dead trees and shrubs been removed?
 Is there *greater than 10'* between the edges of all tree crowns ?
 Is there *greater than 30'* maintained between the crowns of tree groups?
 Have ladder fuels been removed from underneath trees?
 Are tree branches pruned 10' from ground level? **<OR>**
 Have tree branches pruned 1/3 of the height of the tree crown?
 Are masticated slash beds *less than 4"* deep?
 Are brush and trees cleared at least 30' from the road?
 Are brush and trees cleared at least 30' from either side of the driveway route?

YES	NO	N/A
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix B: Montezuma County CWPP. The Montezuma County Community Wildfire Protection Plan can be found at: [http://montezumacounty.org/web/wp-content/uploads/2013/11/Montezuma County CWPP.pdf](http://montezumacounty.org/web/wp-content/uploads/2013/11/Montezuma_County_CWPP.pdf)

Appendix C: Elk Stream Ranch Property Owners Association Open Burn Guidelines

(Revised August 11, 2007)

Elk Stream Ranch Property Owners Association discourages open burning except under carefully controlled circumstances and appropriate weather conditions. In the spring of each year, the Association will post a Fire Ban. The Fire Ban will run until conditions are such that open burning is again safe. A Fire Ban will also be put into place should Montezuma County issue a Fire Ban. Notice of a Fire Ban will be posted at the gate.

Although a wildfire may occur at anytime, the danger is normally lowest during the winter when snow is on the ground. Property owners needing to burn slash are encouraged to perform the open burn during the winter. Chipping is the preferred method of slash disposal during the remainder of the year. Responsibility and any subsequent liability for an open burn lies solely with the property owner.

Any resident/property owner conducting an open burn must comply with the following procedure:

1. Call Cortez Dispatch at 970-565-8441 each day prior to beginning the burn. Let them know the place and time of the burn. Dispatch will ask for your name and telephone contact number. Request dispatch to advise you of any adverse burn conditions.
2. Keep the burn pile to a size that can be quickly extinguished if the need arises.
3. Have sufficient personnel, equipment and water on hand to ensure that you will be able to control the burn. The burn must have adult supervision on site until the burn is out. Proper equipment includes garden hose, fire extinguishers, rakes, shovels, etc. Have a cell phone at the burn site to call for help if necessary.
4. As blowing embers are the greatest threat, open burning must be extinguished prior to the winds coming up, in East Canyon winds typically come up late morning at approximately 11:00 A.M. Start the burn as early as possible in the morning when it is safest to burn. Extinguish the fire completely if windy conditions occur. All fires must be completely extinguished by nightfall. A fire is out when no embers exist and the fire materials are cool to the touch.
5. Keep abreast of weather forecasts. Do not burn if windy conditions are forecast. Be aware that approaching thunderstorms can cause strong and erratic winds, which will blow hot embers long distances potentially creating spot fires.
6. Do not conduct open burning within 35 feet of any structure or tree. Use a rake to remove forest litter and organic soil to establish a fire line or control line around the burn area. Use a shovel to scoop mineral soil onto any flare-ups.
7. Do not burn tires, rubbish or trash.
8. Be safe. Call for assistance immediately if the fire gets out of control. East Canyon is an isolated area; response from emergency agencies will take time.
9. After conducting an open burn, check the area for several days following the burn to make sure there is no smoldering material that could rekindle the fire.
10. Property owners are responsible for communicating the open fire guidelines to builders, subcontractors and guests.

Appendices A-K may be found by clicking on the link or going to the Colorado State Forest Service Web site at: www.colostate.edu, and looking under Resources for Homeowners. Appendix L comes from the University of Nevada Cooperative Extension Office.

Appendix C: CSFS QUICK GUIDE SERIES, FIRE 2012-1 – [Protecting Your Home From Wildfire: Creating Wildfire-Defensible Space Zones](#)

Appendix D: CSFS QUICK GUIDE SERIES, FM 2011-1 - [Piñon –Juniper Management](#)

Appendix E: CSFS #6.303 – [Fire-Resistant Landscaping](#)

Appendix F: CSFS #6.304 – [Forest Home Fire Safety](#)

Appendix G: CSFS #6.305 – [Fire Wise Plant Materials](#)

Appendix H: CSFS #6.306 – [Grass Seed Mixes to Reduce Wildfire Hazard](#)

Appendix I: CSFS #6.310 – [Cheatgrass and Wildfire](#)

Appendix J: CSFS #6.311 – [Gambel Oak Management](#)

Appendix K: CSFS – [Mastication Operational Guidelines](#)

Appendix L: CSFS – [Firewise Construction Design and Materials](#)

Appendix M: CSFS - [Fuelbreak Guidelines for Forested Subdivisions and Communities](#)

Appendix N: University of Nevada Cooperative Extension – [Be Ember Aware!](#)