

CWPP Addendum C

Misty Pines

The Misty Pines Community Wildfire Protection Plan (CWPP) is a cooperative effort between the Misty Pines Homeowners Association (MPHOA), South Metro Fire Rescue Authority (SMFRA), Pinery Water & Wastewater District (PWWD), Douglas County Wildfire Mitigation Staff, and the Colorado State Forest Service (CSFS). The Core Team that developed this document, which includes the MPHOA Wildfire Mitigation Committee, devoted many hours to its completion and they stand committed to its implementation.

In conjunction with the SMFRA Umbrella CWPP, this document fulfills the requirements of the 2003 Healthy Forest Restoration Act and provides a roadmap to both short- and long- term education and mitigation efforts within this community. It also meets and in some cases exceeds the minimum standards for CWPPs as set by the CSFS. This CWPP assesses the community hazards, plans and prioritizes education and mitigation projects, and provides motivation for continued efforts. The plan identifies a path for the community to follow and will be reviewed annually and updated as needed to meet the needs of the dynamic community. The Core Team that created this plan, which consists of residents and representatives of associated entities, will continue to be inclusive and respectful and able to adapt its membership for future needs.

The information contained in this plan emphasizes grassroots-based risk reduction efforts including physical treatment of vegetation and homeowner education efforts. The recommendations described in this plan are provided as a resource to homeowners who voluntarily take an active role in reducing fire hazards on their property. The plan does not require homeowners or agencies to implement the recommendations on their respective properties. Information on SMFRA's capabilities, regional preparedness, print- and web-based resources, and fire behavior potential including modeling, flame length estimates, rates of spread estimates and potential crown fire activity can be found in the SMFRA Umbrella CWPP (completed in 2009), of which this plan is an addendum. Additional regional wildfire risk reduction information and mitigation efforts can be found in the Douglas County Umbrella CWPP that was scheduled for completion in the summer of 2011.

The goals of this plan are to identify and detail a long-term commitment to reducing the risk of wildfire to the community. Objectives include motivating homeowners from awareness to action, identification of fuel treatment projects and the means to complete them, providing the mechanism for the community to compete for grant funding, and providing mechanisms for the community to implement risk mitigation efforts. The outcomes of the plan will educate community members on ways to make their families and properties more resistant to wildfires and other disasters including the development of emergency plans, communication plans, and evacuation plans as well as how to make their homes and properties more ignition-resistant and accessible to firefighters and other emergency responders.

Although the Umbrella document includes Misty Pines as part of The Timbers, this community has a separate addendum because it is an independent homeowners association outside of the High Prairie Farms Metro District, which is the local governmental entity representing The Timbers in community wildfire protection planning. Additionally, this community, which was developed before The Timbers, has a different ecosystem due to the housing density than the surrounding neighborhoods of The Timbers (and The Pinery) as will be noted below. This plan will be reviewed and updated annually by the Misty Pines Core Team.

Community Description

The community of Misty Pines, all of which is wildland urban interface, earned a High hazard rating as part of The Timbers community because of its ecological context: rolling hills and ravines supporting native ecosystems of grasses, ponderosa pines and Gambel oak (See Map 1). Pines tend to be widely spaced while the oak is common and dense in the drainages that pass through the community. Many of the neighborhood's 62 homes, which sit on 2.3-acre lots, have insufficient defensible space and most have flammable native and ornamental vegetation growing beside them and under decks, vents, bay windows and other structural components. Yet they also tend to have irrigated lawns within 20 feet of the house. Siding and deck materials are a mixture of combustible and non-combustible materials. Unlike the surrounding communities, this one lacks commonly owned open space; all of the land is owned privately. While most addresses are posted along the roadways, few are reflective or visible at night.

The Misty Pines ecosystem has not changed much in the last 100 years based on aerial photography except for the construction of homes that began in the mid-1980s, which preceded the construction of The Timbers and High Prairie Farms (See Maps 2-5). The photographic survey also shows the growth of vegetation in the community.

The Misty Pines WUI consists of the 62 private lots in the Misty Pines Subdivision as registered with Douglas County. It is bordered on the south and east by The Timbers subdivision, which also belongs to the High Prairie Farms Metro District, and on the north by The Pinery subdivision. The northwestern land consists of two Douglas County Open Space parcels known collectively as The Pinery Preserve that are partially within Misty Pines. The southwestern neighbor, at 8363 South Pinery Parkway, is a private home on 40 acres of agricultural property. The Core Team invited the owners to participate via letter and telephone in the CWPP process, but was unable to reach them. As shown on Map 6, the Misty Pines wildland urban interface (WUI) is surrounded by a zone of immediate influence: The Pinery community to the north, Douglas County Open Space and a private home on a large lot to the west and The Timbers/High Prairie Farms to the south and east. Fires that begin in this zone could threaten Misty Pines and vice versa.

Landscaping on private properties could bridge a wildfire from the native vegetation to the structure. Because landscaping costs money, homeowners often are reluctant to

change it because they see the modifications as a lost investment. One component of the risk reduction education going forward will be teaching residents the difference between fire-prone and ignition-resistant plant species and the long-term benefits of replacing flammable ornamentals with ignition resistant species that are native to this area of Douglas County.

Sections of the Misty Pines ecosystem support dense native vegetation. The native ecosystems consist of moderate loads of open-canopy ponderosa pine (*Pinus ponderosa*) growing in stringers and patches with small stands of heavier growth. Small-diameter Rocky Mountain juniper (*Juniperus scopulorum*) is also present. A well-developed shrub layer of Gambel oak (*Quercus gambelii*), mountain mahogany (*Cercocarpus montanus*) and skunk brush sumac (*Rhus triloba*) are common in open areas and as an understory component to the ponderosas. The two dominant species – ponderosa pines and Gambel oak – are proof that the ecosystem evolved with regular wildfires because both are adapted to living in fire environments. Ponderosas, the namesake of Misty Pines, have thick bark and low sap content, both of which prevent them from igniting quickly during low- and moderate-intensity wildfires. Gambel oak sprouts vigorously from stem bases or from underground tubers and rhizomes following fire and other disturbances, including mitigation. Additional information regarding the vegetation and its impact on fire behavior is available in the umbrella document.

As mandated by the covenants, there is no livestock in the community: “Pigs, goats, cows and cattle, horses, fowl and poultry, and other livestock or other outdoor animals are expressly prohibited in the Subdivision.”

The impact to local wildlife is linked to habitat change, which in turn influences feeding, movement, reproduction and shelter for animals. For details about individual species, visit www.fs.fed.us/database/feis for resources from the Fire Effects Information System including the following reports: *Wildland Fire in Ecosystems: Effects of Fire on Fauna* (2000), *Wildland Fire in Ecosystems: Effects of Fire on Flora* (2000) and *Wildland Fire in Ecosystems: Fire and Nonnative Invasive Species* (2008).

SMFRA launched a survey in August 2011 to determine a baseline of resident awareness of wildfire risk and mitigation strategies among all of the communities it serves. Seventy-one residents had replied in the first week; seven of them were from Misty Pines. When asked to describe the risk that wildfire poses to their community, 43% of Misty Pines respondents considered the risk high, 43% considered it moderate and 14% considered it low. When describing the risk posed to their own homes, 14% said extreme, 14% high, 43% moderate and 29% considered it low.

Respondents were asked to rate the effectiveness of several strategies for reducing the risk of wildfire in their own community on a scale of 1 (effective) to 5 (ineffective). The average scores of each response were:

Reduce vegetation with controlled burning	3.29
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Reduce vegetation with mechanical means	2.86
Reduce vegetation along roadways	3.29
Increase firefighting equipment	3.00
Increase the number of firefighters	2.86
Increase water availability	2.43
Encourage homeowners to create defensible space	2.29
Hire a company to create defensible space	3.14
Change the covenants to mandate defensible space	2.43
Conduct community outreach and education	2.71

Although no answer was supported or rejected unanimously, the most effective strategies, according to respondents, were encouraging homeowners to create defensible space, increasing water availability, changing the covenants to mandate the creation of defensible space and community outreach through educational programming.

All but one of the Misty Pines respondents had performed mitigation work on their home or property; the one who hadn't indicated they had posted the address more clearly and developed a family evacuation plan.

Additionally, on August 15, 2011, an e-mail was sent to Misty Pines homeowners from Connie Bramer, Chair of the MPHOA Fire Mitigation Committee, asking whether they had completed any fire mitigation activities on their properties. Twenty-one (30%) of the homeowners responded. They had completed initial projects that included trimming trees, removing ladder fuels below trees, thinning stands of Gambel oak, removing leaves and pine needles, removing dead trees and bushes, spraying trees to prevent beetles, mowing tall grass, and removing junipers/cedar ground cover. Two homes that had cedar siding had been changed to stucco siding and one homeowner had recently replaced his shake roof with a tiled roof. Now only three homes have a cedar shake roof. In addition, several of the homeowners had replaced wood decking materials with composite, fire-resistant decking. Many of the homeowners acknowledged that this would be an ongoing process and as their budget permitted they would continue to make home improvements and landscaping changes to help mitigate fire danger. Several individuals suggested renting a mulching/chipper machine so homeowners could have periodic collaborative clean-up days.

Access

Access to this community is good from South Pinery Parkway and through the Pinery. Ponderosa Drive does switch to roadbase in the northeast part of Misty Pines, but it is maintained throughout the year. That road provides the primary evacuation route to North Pinery Parkway and South Pinery Parkway, but depending on where the fire is located and traffic congestion, evacuation to the northwest along Lt. William Clark Road through The Pinery may be an option. Practicing those routes and leaving early – as soon as the first emergency notifications come from Douglas County Sheriff's Office – will be

integral to safe passage especially because the neighborhoods surrounding Misty Pines also will be involved in the evacuation process.

Planning for and practicing evacuations, from determining what should be loaded in the vehicle to knowing alternate escape routes from the neighborhood and utilizing a family communications plan to make sure family members are safe and so that friends and family beyond the impacted area receive updates, are essential to overcoming the stress that accompanies such emergencies. An evacuation order may provide residents with several hours to leave or it may require immediate evacuation. This CWPP includes brochures from Ready Colorado to help create a family communications plan and to prepare for evacuations.

History teaches us to expect smoke so dense that headlights are needed to navigate roads during midday. Expect heavy traffic and frantic drivers. The stress that results from an evacuation can cause predictable physiological responses in humans. The process of reacting to crises such as evacuations occurs within seconds of the crisis occurring:

- **Recognition:** During this stage, an individual perceives cues (for example, seeing or smelling smoke, mass notification calls from the sheriff's office, breaking new stories on television) that indicate a threat but those cues may not indicate a serious threat. While many people may be tempted to reject those first cues as false, residents of high hazard neighborhoods must recognize them as true and act immediately.
- **Validation:** People seek validation of the threat and how serious it is when cues are ambiguous. Residents should learn to accept expert assessments from Douglas County Sheriff's Office, South Metro Fire Rescue and other agencies to determine the potential seriousness of a threat.
- **Definition:** In the related definition stage, individuals quantify what they know about a threat, such as trying to determine how much smoke there is or what color it is.
- **Evaluation:** During the evaluation stage, an individual assesses the available reactions, which generally relate to staying or fleeing (fight or flight). As the stress of the crisis increases, the process of evaluating the available options shortens, which can lead to dangerous or illogical reactions.
- **Commitment:** After evaluating the range of reactions, the individual must choose one and commit to it. If the decision results in success, stress and anxiety are relieved. If the decision results in failure, stress and anxiety increase.
- **Reassessment:** Reassessment only occurs when the decision results in failure. That individual must define the newer threat, evaluate which options remain – and the number of options often decreases rapidly in crises – and commit to another decision. Decisions become less rational as stress increases and the likelihood of injuries and deaths also increases.

Under normal circumstances, it's easy to second-guess irrational decisions and decision-

makers. During life-threatening circumstances, our bodies receive and process information differently. Those circumstances cause our bodies to be aroused and limit the amount of information our brains have to handle. When our heart rates reach 115-145 beats per minute, the arousal provides extreme visual clarity within a relatively short depth of field, diminished sound awareness and a slowing sense of time. This person remains functional and capable of performing skills and making decisions that have been practiced, such as dialing 9-1-1, packing a car, operating that car and driving out of a neighborhood. When our hearts beat more than 145 times per minute, we lose the ability to perform complex motor skills, which are skills requiring the use of three independent body parts moving in tandem. We also lose our fine motor skills such as dexterity and hand-eye coordination. At this point of arousal, driving isn't easy. Deteriorating conditions also can produce heart rates in excess of 175 beats per minute. The physiological consequences of this state of arousal are catastrophic:

- Cognitive processing breaks down (inability to concentrate and communicate)
- Peripheral vision deteriorates (as much as 70%)
- Loss of night vision
- The ability to focus is lost
- Loss of vision within four feet
- Inappropriately aggressive behavior
- Inability to walk as blood shunts away from limbs

At this point, the individual's mind is blind to reality and options to reach safer conditions. Consistent planning and practicing won't prevent the arousal, but they are remedies to the mind-blindness that can result from the bad arousal that too often results from life-threatening crises. (From Dave Grossman, *On Killing*, Malcolm Gladwell, *Blink* and www.actionagainstviolence.com)

Residents' pets must be a component of evacuation planning for Misty Pines. To integrate pets into an evacuation plan, keep pets up to date on preventive healthcare, keep copies of all vaccination/health records, record contact information for your veterinarian, identify your pets (microchip implantation, photographs of you with your pet or collars/harnesses with identification tags) and give copies of essential identification information to someone out of the area. Pets may not be welcome at the shelter opened for human residents, however Douglas County will let evacuees know where to take their pets. Friends and family also are potential shelter options for pets.

Infrastructure at Risk

Although Misty Pines is a rural community, it has a municipal water system operated by the Pinery Water & Wastewater District (PWWD). Established in 1965 as the Denver Southeast Suburban Water and Sanitation District, it changed its name to Pinery Water and Wastewater District to give some geographic connection between the name and the area it serves. That service area includes 4,000 residential customers as well as eighty-eight large irrigator and commercial customers. The PWWD has developed and

maintains the water system in Misty Pines and the surrounding communities to deliver 1,500 gallons of water per minute for two hours for firefighting efforts as well as regularly maintaining its hydrants that also meet minimum standards.

Other utilities also maintain critical infrastructure in Misty Pines. Intermountain Rural Electric Association provides electrical service, Qwest provides telephone service, Black Hills Energy provides natural gas and Comcast is the cable television provider. While most of this infrastructure is underground, a wildfire in Misty Pines (or the surrounding communities) could disrupt service delivery.

The first-due firefighting resources respond from SMFRA Station 43, which sits at 8165 North Pinery Parkway, Parker 80134. Details regarding SMFRA's capacity to suppress wildfires are available in the umbrella document.

Values at Risk

The residents of Misty Pines chose to move there for several reasons related to living in a rural setting, as one homeowner summarized in an email: "Most lots have a spectacular view of the mountains and Front Range. Many of the lots are covered by large ponderosa pine trees that are close to one hundred years old. The topography was a draw with the beautiful natural vegetation and rolling hills. There is an abundance of wildlife with a large population of native mule deer, foxes, coyotes, squirrels, rabbits and numerous bird species." Additionally, homeowners appreciate the space and distance between homes and the low vehicle traffic in their neighborhood.

The neighborhood's covenants, which are attached to this plan, were designed to protect those values. The Environmental Control Committee was tasked with preventing the alteration and destruction of natural vegetation unless the plan for that work was approved by the committee. The covenants, revised in the fall of 2010, also include language from Colorado Revised Statutes (§ 38-33.3-106.5) in Article VII designed to empower homeowners to reduce risk on their property:

...removal of trees, shrubs, or other vegetation to create defensible space around a dwelling for fire mitigation purposes will be allowed if such removal complies with a written defensible space plan created for the property by the Colorado state forest service, an individual or company certified by a local governmental entity to create such plan, or the fire chief, fire marshal, or fire protection district within those jurisdiction the Lot is located, and removal is no more extensive than necessary to comply with such plan. The Association shall be permitted to require changes to any Defensible Space removal plan if it obtains the consent of the person, official, or agency that originally created the plan.

Treatment Priorities

This CWPP identifies fuel treatment priorities that range from minor work to larger-scale projects. The goal of reducing risk for the entire community is contingent on all facets of the community collaborating. The question of whether integrated mitigation project-across private property boundaries are effective was answered during the 2011 Wallow Fire in Arizona. A report documenting the life and property saving impacts of mitigation is attached to this CWPP. Individual homeowners have the primary responsibility to participate in this effort. Thinning trees and oak will be more valuable and meaningful if homeowners also modify vegetation adjacent to their homes and improve the homes themselves by replacing wood-shake shingles, wood decks and wood siding with fire-resistant materials. This is referred to as the home ignition zone, a 100-200 foot radius around the structure as well as the structure itself, because its characteristics largely determine how the structure fares in a wildfire. Covenants, architectural and design guidelines, county regulations, the International Fire Code and state law all empower residents to conduct that mitigation and provide guidance on how to balance aesthetics and other values with wildfire risk reduction.

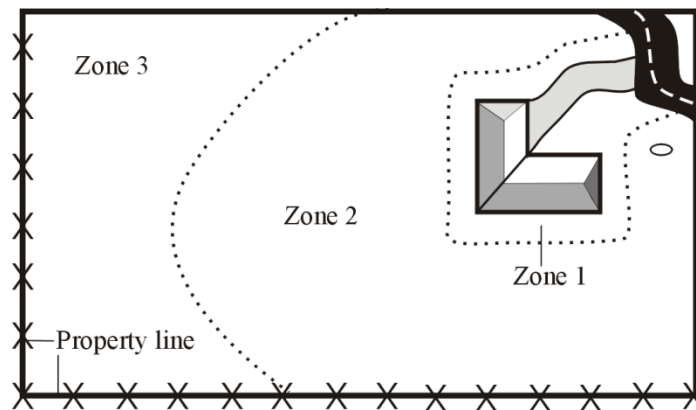
SMFRA personnel are able to conduct complementary home ignition zone assessments in which they explain how to improve properties to make them more resistant to wildfires based on several best practices including those listed in the Ready-Set-Go brochure attached to this plan. Colorado State Forest Service also publishes standards for creating defensible space; this series of publications such as *Creating Wildfire Defensible Zones* (6.302) and *Gambel Oak Management* (6.311) can be found at no charge at www.csfs.colostate.edu.

The daunting challenge of mitigation is easier when a property is considered as four integrated components: Community Protection, Access, Defensible Space and the Built Environment. Together, that area is the home ignition zone as conceptualized initially by Jack Cohen, research scientist at the Fire Sciences Laboratory in the Forest Service's Rocky Mountain Research Station in Missoula, MT.

- **Community Protection** involves reducing the amount of vegetation surrounding homes and other structures. For example, a fuelbreak is a strip of land where vegetation is thinned to slow a fire's spread and the length of flames. Fuelbreaks, which are designed based on the vegetation in the area, also provide safer areas for firefighters to operate. Shaded fuelbreaks feature thinning of trees and shrubs and removal of ladder fuels, while greenstrip fuelbreaks replace flammable vegetation with less flammable species. Community fuelbreaks are most effective when they are integrated with defensible space on adjacent private properties. The vegetation and topography in Misty Pines does not provide opportunities to develop fuelbreaks and were not identified as fuel treatment options.
- **Access** is an overlooked component of wildfire mitigation, but firefighters need safe access to your home much like you need safe access when evacuating from home. Thinning heavy vegetation along roadways and driveways is essential for maintaining access as are pruning branches that hide street signs, posting addresses so they are visible in all weather conditions

from the street, providing the fire department with access codes for electronic gates, building turnouts along narrow roads and considering the development of emergency access roads.

- The creation of **Defensible Space** is the responsibility of the property owner. The right to be rural includes the individual responsibility to protect those rural values. All homes and lots should be treated to a level sufficient to prevent home ignitions from both flame impingement and embers. Recommendations for defensible space are broken into three zones of treatment:



ZONE 1 (within 15 feet of the home): The recommendation for this zone is to eliminate all flammable materials (fire-prone vegetation, wood stacks, wood decking, patio furniture, umbrellas, etc.). Irrigated grass, rock gardens, non-flammable decking, or stone patios are desirable substitutions. While a few ponderosa pines and deciduous trees can grow here, flammable landscaping such as junipers, fitzers, pinions and Gambel oak should be removed because they ignite easily and burn intensely. Junipers and fitzers in particular stay green throughout the year, which makes them favorites among landscape architects, but firefighters refer to them as “little green gas cans” because of their explosive potential in wildfires. Pine needles and dead leaves also should be removed regularly. All ladder fuels should be removed. Choose wildfire resistant native plans, such as those listed in an attachment to this plan.

ZONE 2 (75 to 125 feet from the home depending on slope):

Within this zone, experts recommend thinning trees and large shrubs so there is at least 10 feet between tree tops (crowns). Crown separation is measured from the furthest branch of one tree to the nearest branch on the next tree. On steep slopes or areas

subject to high winds, allow at least 1.5 times more space between tree crowns. Remove all ladder fuels from under these remaining trees. Prune all trees to a height of at least 10 feet, or 1/3 of the live crown height, whichever is less. Small clumps of 2 to 3 trees may be occasionally left but leave more space between the crowns of these clumps and surrounding trees. Isolated shrubs may remain, provided they are not under tree crowns. Remove dead stems from trees and shrubs annually. Mow grasses to 6-8 inches.

Where Gambel oak is present it should be treated using the followings brush and shrub recommendations:

% slope	Brush and Shrub Clump Spacing
0 -10 %	2 1/2 x shrub height
11 - 20%	3 x shrub height
21 - 40%	4 x shrub height
> 40%	6 x shrub height

- Remove all oak from underneath residual trees and within 10 feet of the drip line of the residual trees.
- Because of vigorous sprouting of oak after treatment, it is imperative that oak regeneration is maintained by mowing or herbicide treatment.

ZONE 3 (beyond 125 feet to property line): The recommendations for this zone include much more limited thinning and pruning to the standards in Zone 2. The goal in this zone is to improve the health of the wildlands, which will also help to slow the approaching wildfire. Prune residual ponderosa pine 7 feet or 1/3 of the living tree crown, whichever is less. Tree thinning guidelines are found in *Creating Wildfire Defensible Zones* (6.302).

- The Built Environment is an essential component of a mitigation plan because it tends to be the value most prized on a piece of property and the potential haven for residents unable to evacuate. Contrary to popular culture, walls of flames aren't responsible for igniting homes during wildland urban interface fires. Embers – wind-blown chunks of burning debris – are the culprits. They can ignite spot fires as far as one or two miles downwind of the main wildfire. Thus the best way to make a home ignition-resistant is to reduce places embers can land and ignite your home, such as wood shake shingles, gutters packed with dead leaves and needles, piles of drying firewood, attic vents with mesh larger than 1/8 inch, cushions on deck furniture and piles of leaves left by eddies of wind along the walls.

Generally, the area's ponderosa pines would benefit from manual pruning of ladder fuels,

which are the low-lying branches that could allow a surface fire to climb into the tree canopy, as well as thinning to increase space between tree tops to break the horizontal continuity of the canopies. This can be accomplished by following the recommendations listed above for defensible space. Ladder fuels can include Gambel oak and other shrubs that provide vertical continuity between grasses and tree canopies. Removing such shrubs from underneath the drip-line of trees would be beneficial. Mowing also will make a difference in reducing the horizontal continuity. A sustained crown fire, where fire spreads through the tree canopy, is improbable in this neighborhood due to limited areas of dense ponderosa pine, but significant torching could occur where individual trees or groves of trees ignite and burn vertically. However, a crown fire could ignite and spread rapidly in the dense groves of Gambel oak surrounding and within Misty Pines, blocking access routes and igniting homes.

Gambel oak and other shrubs also flourish in the Misty Pines community. The typical prescription for mature brush reduces the vertical and horizontal continuity of this vegetation to prevent flames from growing in height and from spreading quickly. Successful mitigation of mature brush also reduces the potential for radiant heat. Mechanical mastication would be useful to isolate groves of oak while manual pruning can eliminate dead branches and ladder fuels within the oak grove. According to CSU Publication 6.311 *Managing Gambel Oak*, clumps should not be wider than twice their height and they should be separated by 2.5 times their height. Oak sprouts vigorously following disturbances including pruning and fires, so annual mowing of oak sprouts is recommended.

Mitigating either trees or shrubs produces debris, which is known as slash in the mitigation and firefighting worlds. Disposing of that slash is an essential component of wildfire risk reduction and ecosystem health. Douglas County operates a “Slash-Mulch Site” in Castle Rock. There is no cost for county residents to bring their slash to the site for conversion to mulch. The site is open on Saturdays from Memorial Day Weekend to Labor Day Weekend. Additional information is available at http://www.douglas.co.us/publicworks/Slash_and_Mulch.html. Residents also may purchase or rent their own chippers, hire private mitigation contractors or “lop and scatter” the slash around the property away from structures and roadways. Lop and scattering of slash involves cutting trees and shrubs into small pieces and scattering them on the ground to a depth of no more than 12 inches. A short-term fuel loading occurs over the first three years of treatment and then drops rapidly thereafter.

The grassland ecosystem within Misty Pines can support rapidly moving wildfires, as the March 2011 Burning Tree fire a few miles to the south demonstrated. Thus, residents have a responsibility to modify the grasses, too, through mowing and controlling noxious weeds as they did by spraying for leafy spurge in the spring of 2011. Timing of mowing is typically at time of grass curing/drying (July/August). Areas not mowed in late summer or fall should be mowed in the spring if insufficient snow was present to lay down grass. Mowing should also be timed to allow for adequate reseeding of native grasses and wildflowers.

Mechanical mastication, chipping, mowing and hand pruning are traditional fuel treatment strategies. These types of treatment are proven to improve wildlife habitat and nurture the long-term health of the woodland ecosystem by strengthening its resistance to insects, parasites and drought as well as wildfire.

Since this area does not have any commonly-owned lands fuel treatments will focus on landowners creating defensible space within their home ignition zones and Douglas County Open Space reducing fire hazards on its adjoining properties. The four areas below represent the priority treatment areas for Misty Pines. The goal is to have all homeowners within each treatment area working on their defensible space zones, starting with Zone 1 and working out towards Zone 3. The lines on the maps are approximate.

- A. This treatment area includes the homes on Ponderosa Drive and a private residence considered outside of Misty Pines. It is a concern because the slope could carry a wildfire into the heavier vegetation surrounding private homes along Ponderosa Drive (See Map 7). A wildfire ignited by lightning threatened to do just that before firefighters blocked its advance. SMFRA reached out to the private owner of that residence between those parcels and South Pinery Parkway. The approximate acreage for this treatment area is 20 acres. Treatment recommendations include:
- a) Follow recommendations for defensible space listed earlier in this section.
 - b) Break up contiguous stands of Gambel oak following guidelines in 6.311 *Managing Gambel Oak*.
 - c) Remove all oak from underneath residual ponderosa pine and keep oak 10 feet away from residual trees.
 - d) Increase the crown spacing between ponderosa pine trees.

Oak work can be done by hand or mechanical mastication. Tree thinning/pruning can be done by chainsaw with slash treated via chipper or mastication.

- B. This treatment area surrounds Angie Court and is bordered by North Pinery Parkway, homes along the southern edge of The Pinery, Selly Road and Ponderosa Drive (See Map 8). Trash dumping is a problem in the eastern portion of this treatment area as is illicit recreation; both can combine flammable fuels and ignition sources capable of endangering lives and property in Misty Pines and the surrounding neighborhoods. The approximate acreage for this treatment area is 49 acres. Treatment recommendations include:
- a) Follow recommendations for defensible space listed earlier in this section.
 - b) Break up contiguous stands of Gambel oak following guidelines in 6.311 *Managing Gambel Oak*.
 - c) Remove all oak from underneath residual ponderosa pine and keep oak 10 feet away from residual trees.
 - d) Increase the crown spacing between ponderosa pine trees.

Oak work can be done by hand or mechanical mastication. Tree thinning/pruning can be done by chainsaw with slash treated via chipper or mastication.

C. This area includes a shallow ravine and the homes between South Pinery Parkway and Selly Road (See Map 9). The potential for an ignition is high because of its proximity to the parkway and because it has dense grasses, oak and other shrubs. The approximate acreage for this treatment area is 34 acres. Treatment recommendations include:

- a) Follow recommendations for defensible space listed earlier in this section.
- b) Break up contiguous stands of Gambel oak following guidelines in *6.311 Managing Gambel Oak*.
- c) Remove all oak from underneath residual ponderosa pine and keep oak 10 feet away from residual trees.
- d) Increase the crown spacing between ponderosa pine trees.

Oak work can be done by hand or mechanical mastication. Tree thinning/pruning can be done by chainsaw with slash treated via chipper or mastication.

D. Douglas County Open Space (DCOS) manages a pair of parcels, which are known collectively as The Pinery Preserve, that straddle Lt. William Clark Road along the northwest edge of Misty Pines (See Map 10). The northern parcel contains more mountain mahogany and more grass than the southern piece. The southern piece includes more pines and oak and was treated in 2002 in a collaborative project between DCOS and Parker Fire Protection District. Due to the location of the vegetation in proximity to the homes this open space poses a greater threat to The Pinery than to Misty Pines (or High Prairie Farms Metro District for that matter), but all of the surrounding neighborhoods have a stake in collaborating with DCOS to reduce the wildfire risk on these 40 acres. These two parcels are identified as a priority in The Pinery's CWPP as well. DCOS has recommended that these parcels (SPN 234913200003 and SPN 234913200004) be treated as county resources become available.

DCOS has agreed to create a small demonstration site there to reduce the continuity of the Gambel oak by removing dead oak, breaking up some of the contiguous oak clumps, and thinning some pines. The work will involve a combination of handwork, chipping, and mastication. They determined the western edge is the top priority because of its proximity to homes in High Prairie Farms Metro District; currently structure fires are likely to ignite a wildfire and a wildfire is likely to ignite structures. This demonstration site will be visible and accessible. DCOS does not have a timeline for designing or implementing the site because it will rely on a mixture of volunteers and county resources when they become available. As with all mitigation efforts, its value will be greater if it is combined with efforts of private homeowners who own property adjacent to the open space.

Except for the pair of DCOS parcels, the remaining land in Misty Pines is all private property. Therefore, each property owner has a clear responsibility for managing the vegetation surrounding their homes (and the home itself) in order to reduce risk for the

community collectively. Start the defensible space at the home and working outward to the property boundaries. These areas are priorities for management because they pose threats to the residential structures and evacuation routes in Misty Pines. A wildfire that ignites within or outside the community could grow and spread quickly, especially during dry and/or windy periods, burning through the grassland, rangeland and yards that characterize the local environment as well as destroying homes.

At a community meeting in April 2011, residents decided to prioritize treatment strategies for the three privately-owned areas based on current best practices as outlined above. Their top priority is to remove ladder fuels from trees in order to reduce the vertical continuity that could carry a surface fire into the crowns of trees and mature Gambel oak. The Core Team proposed using a Fall 2011 Community Clean-up Day to initiate this effort. The second priority is reducing the horizontal continuity of oak groves and grass to reduce the rate or flame spread and the intensity of a wildfire, which will be initiated during a Spring 2012 Clean-up Day. Both treatment strategies also improve the health of vegetation, improve the aesthetics of the area and maintain privacy and security. SMFRA personnel will work with residents to promote and coordinate prescribed burning, preplanning and educational efforts during the winter of 2011/2012.

Risk Reduction Education

As the Core Team, we determined that a combination of physical mitigation and homeowner education will provide the desired protection from wildfire as well as other natural disasters and emergency situations. Continuing into the future, South Metro Fire Rescue Authority's Community Preparedness Bureau and other regional subject matter experts will provide presentations to the homeowners associations, home ignition zone assessments to individual homeowners and other information to homeowners about making homes more ignition resistant, ecosystem management, evacuation training and other forms of prevention and preparedness. SMFRA has adopted the nationally-recognized Ready Set Go program as one of its main vehicles for delivering those messages. A brochure from the 2011 rollout of this program is attached to this plan. Home ignition zone assessments are a superior component of the toolbox because they provide one-on-one time between a homeowner and a wildfire mitigation expert to discuss specific ways to reduce risk around a specific property. SMFRA's Community Preparedness Bureau personnel are able to conduct those assessments at no charge to residents because such educational outreach is part of their regular duties. They utilize a modified version of NFPA Form 1144, which is attached to this plan, to assess properties. They conducted one home ignition zone assessment in 2010 and 16 in 2011 as of August 15 (See Map 11).

Future programming, as requested by the community, will include materials for the local schools regarding fireworks regulations and the danger to both humans and property of using illegal fireworks. Additional messages will include explanations on how burn restrictions apply to private property, steps to mitigate risk around homes, information on fire-resistant gardening and FireWise plants that are native to this ecosystem.

In order to implement work in this area, the internal stakeholders will conduct ongoing community meetings in cooperation with external stakeholders to educate residents on mitigation strategies and benefits as well as to track efforts starting in the summer of 2011. Working together, the partners will research and identify funding opportunities for that work and begin reducing the vegetation as the funds become available. These pocket demonstration sites will offer the same benefits as a larger scale site:

- Raise awareness of the local wildfire risk
- Raise awareness of local hazardous fuels
- Illustrate what hazardous fuels reduction resembles in two ecosystems: native and non-native/landscaped
- Gain additional community support (both within and external to Misty Pines) for hazardous fuels reduction/wildfire mitigation As residents work on their properties, each project will become a demonstration project to which neighbors can refer for inspiration and ideas.

Additionally, the Core Team identified other action items as existing and ongoing outputs of this CWPP process as steps toward becoming a wildfire-adapted community:

- Educating residents on how to evacuate efficiently and safely
- Educating residents on the importance of posting addresses better
- Educating residents about the dangers posed by fireworks in advance of Independence Day of each year (2011 flyer is attached).
- Scheduling semi-annual homeowner forums to discuss wildfire risk reduction
- Promoting SMFRA's home ignition zone assessment program
- Encourage MPHOA to have guest speakers from Core Team entities to address wildfire risk reduction
- Host community clean-up days in the fall and spring

Implementation Plan

*The due dates listed in the implementation plan are for planning purposes only and are subject to change based on community needs.

Planning Efforts				
Task	Due	Responsible	Status	Notes
Planning for seasonal Community Clean-up Days	Target Spring 2012; goal is on annual basis	MPHOA		Deciding whether to rent a chipper or dumpster since the county slash collection site is closed for both target seasons.

Planning for DCOS Open Space	2012/2013	DCOS		This project will develop as county resources become available
Planning for an evacuation drill	Fall 2012	SMFRA; MPHOA Wildfire Committee		
Review CWPP and Update as needed	Annually	Core Team		

Mitigation				
Task	Due	Responsible	Status	Notes
Community Clean-up Day	Target Spring 2012; goal is on annual basis	Homeowners		
Zone 1 of defensible space within treatment areas A-C	2013	Homeowners		
Zone 2 of defensible space within treatment areas A-C	2016	Homeowners		
Zone 3 of defensible space within treatment areas A-C	2020	Homeowners		
Maintenance of treated areas	Ongoing	Homeowners		
Treatment Area D (DCOS parcels)	TBD	DCOS		Treatment of this area will depend on timelines and resources set by the DCOS planning process.

Education				
Task	Due	Responsible	Status	Notes
Home Ignition Zone Assessments	Spring 2013	Einar Jensen, SMFRA	17 of 62 complete in August 2011	
Fireworks Flyers to local schools, residents	Summer 2012	Einar Jensen, SMFRA; MPHOA	Completed in 2011	
Evacuation Drill	Summer 2012	Einar Jensen, SMFRA; MPHOA; DCSO; DCOEM		
Improving address posting	Winter 2012	Einar Jensen, SMFRA; MPHOA		
Homeowner Meeting Presentations	Ongoing	MPHOA		Will conduct as needed

Collaboration

Because the Misty Pines Fire Mitigation Committee recognizes the importance of gathering public feedback on the plan, its members decided to email a draft of the CWPP to their neighbors. The committee shared the draft one week after the Burning Tree Fire of March 24, 2011. They hosted a community meeting at Sagewood Middle School in April 2011 to generate interest in the plan and allow residents time to ask questions of SMFRA. Approximately 30 residents attended that meeting and offered their feedback. The detailed minutes are included in Appendix E-01. The major decisions in that meeting included dividing the fuel treatment work into two categories (removing ladder fuels and reducing oak continuity/density) and encouraging homeowners to host home ignition zone assessments. They are moving forward with both efforts while the CWPP is in its draft form.

The development process for this CWPP began officially in April 2010 although South Metro Fire Rescue Authority (and Parker Fire Protection District) personnel had attended meetings and functions in this neighborhood for many years. It consisted of several meetings of the Core Team and a meeting of the entire community following the Burning Tree fire in March 2011.

The table below lists the names, organizations and responsibilities of the Stakeholders who participated in developing this CWPP to show the collaborative nature of this project.

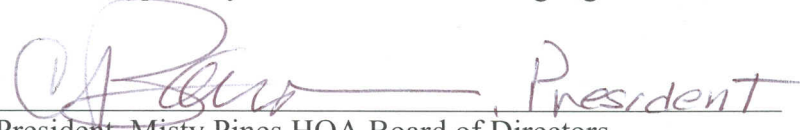
Name	Position	Organization	Role/Responsibilities
Connie Bramer, Carolyn Meyer, Alecia Porras, James Porras, Ellen Bartlett	Misty Pines Fire Mitigation Committee Members	Misty Pines HOA	Provided local expertise, including identifying local values at risk, and identified areas of hazardous vegetation.
Einar Jensen	Life Safety Educator	South Metro Fire Rescue Authority	Coordinated the planning process, wrote the plan and served as a subject matter expert on fire department capabilities
Kristin Garrison	District Forester	Colorado State Forest Service	Served as subject matter expert on ecosystem health, CSFS minimum standards and wildfire mitigation strategies; can write prescriptions for mitigation

Jill Alexander	Wildfire Mitigation Specialist	Douglas County	Served as subject matter expert on wildfire mitigation strategies, identified DC Open Space plans; can write prescriptions for mitigation
Charles Krogh	District Manager	Pinery Water & Wastewater District	Served as subject matter expert on water supply issues and PWWD interests

The Core Team kept the MPHOA residents informed about the CWPP process through meetings, emails and the MPHOA website: www.mistypineshoa.org. Since the website was created in the summer of 2010, there have been 556 visits and each visit generated an average of two views of pages inside the website. As the attached screenshot from September 2011 demonstrates, the website includes minutes from the November 2010 annual meeting and the April 2011 wildfire mitigation meeting as well as updates on fire restrictions from Douglas County Sheriff's Office, the mitigation tax deduction opportunity and the covenants. The final Misty Pines CWPP will be posted there as well.

Together with the South Metro Fire Rescue Authority Community Wildfire Protection Plan, this addendum provides Misty Pines with a completed CWPP. We are seeking your recognition of the plan and your commitment to move from awareness to action in the future as opportunities arise.

We, the undersigned, recognize the importance of both the South Metro Fire Rescue Authority Community Wildfire Protection Plan and our own as well as their intent to educate our community about the wildfire risk in our area and our opportunities to reduce that risk, especially if we continue working together toward this common goal.


President, Misty Pines HOA Board of Directors

11-16-11
Date


Assistant Chief, South Metro Fire Rescue Authority


11/22/11
Date


District Forester, Colorado State Forest Service

12-1-11
Date

NA
Douglas County Representative

Date


District Manager, Pinery Water & Wastewater District

11/16/11
Date

Map 1: Overview of Misty Pines
(The Misty Pines WUI is within the yellow border)



Map 2: Misty Pines, ca. 1937



Map 3: Misty Pines, ca. 1956



Map 4: Misty Pines, ca. 1993



Map 5: Misty Pines, ca. 2002



Map 6: Overview of Misty Pines and its WUI Zones of Influence

A—The Pinery

B—DC Open Space

C—Private home

D—The Timbers



Map 7: Treatment Priority A



Map 8: Treatment Priority B



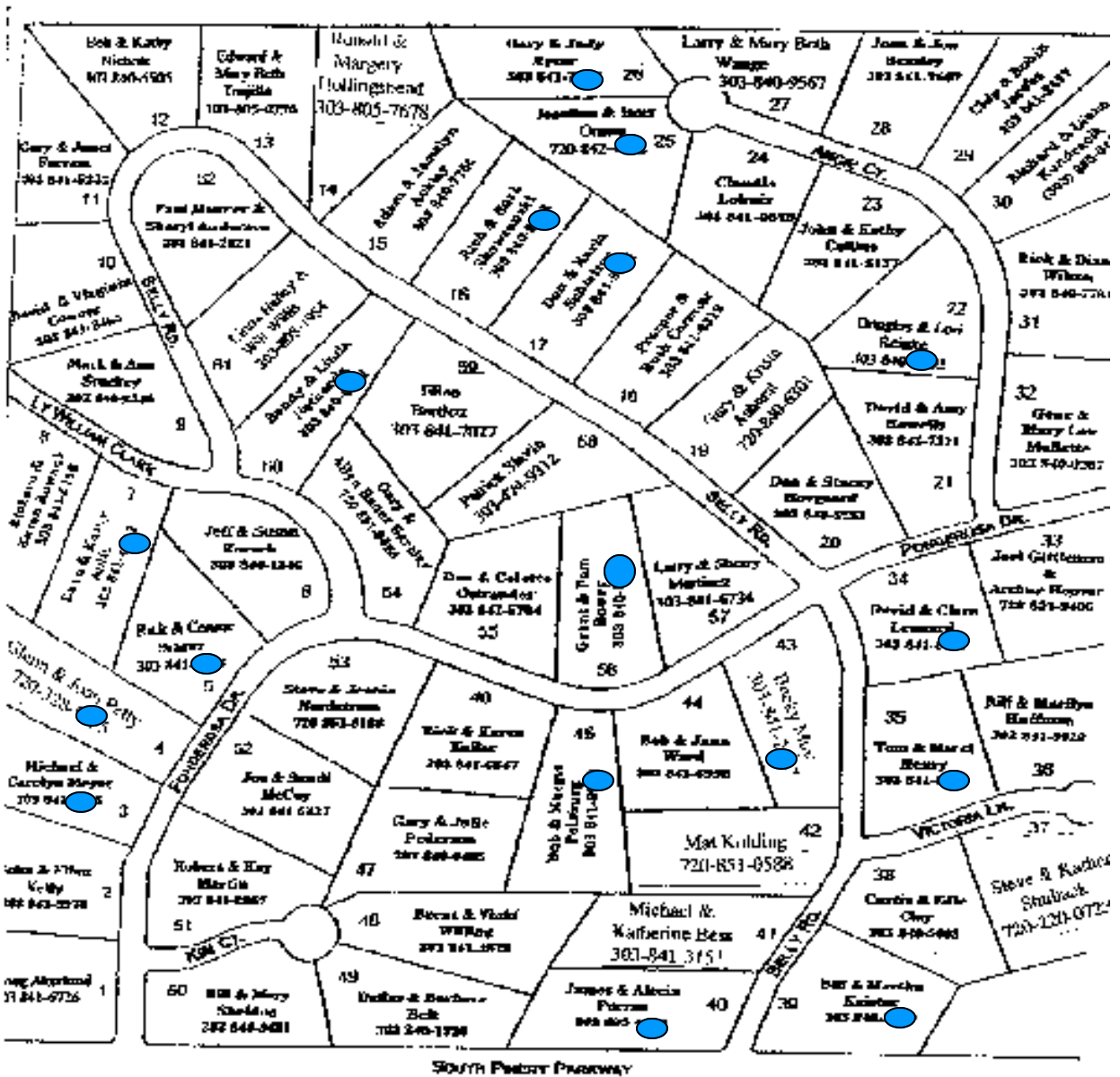
Map 9: Treatment Priority C



Map 10: Treatment Priority D



Map 11: Misty Pines homes by lot number and owner, 2010
 (Blue Circle denotes that SMFRA conducted a Home Ignition Zone Assessment in 2011)



MPHOA 2010 Annual Meeting Minutes

MPHOA 2010 ANNUAL MEETING

November 10, 2010, 7:00p.m.

Sagewood Middle School

I. The meeting was called to order by President Rick Bramer at 7:10 p.m..

II. Roll Call

- a. Residents representing 20 lots were in attendance.
- b. Twenty nine proxies were certified by the secretary.
- c. A quorum of 49 homeowners was verified (32 were required).

III. Minutes - Minutes of the 2009 annual meeting had been distributed with the meeting notice and were available to those in attendance. A motion to accept the minutes was made, seconded, and approved unanimously.

IV. Reports

a. Compliance with CCIOA - Rick Bramer brought the group up to date on our compliance with CCIOA. Our next task will be to develop rules and procedures, as required by law, for implementing the revised by-laws and covenants. Jeff Korach will chair a committee to develop the rules and procedures. Sheryl Anderson discussed the need to monitor annually for changes in the law and to update our documents as necessary. She will identify an attorney who specializes in that field to do any updating for us. We also need to develop a process for enforcement of our covenants and dues payments. There are several residents who have not paid annual dues for quite some time and we need to develop procedures to place a lien on those homes for dues payment. The board will develop those procedures. The 2011 budget includes an estimate of the costs for these legal services.

b. ECC activities - Rick Bramer read Jeff Korach's report of ECC activities this past year. (Attached)

c. Entrance Signs - Because people are dissatisfied with the logos used on the current signs, the logos will be replaced with a larger logo of Ponderosa Pine trees. Ann Stuckey's company is designing the new logos. Solar lights will also be purchased for the signs. It was suggested that the large Gamble Oak stand in front of the sign at Ponderosa and South Pinery Parkway needs to be trimmed back so the sign is more visible.

d. Poaching Fund - Since the suspected poacher is no longer in the area and poaching has not been a problem for a long time, we will leave the signs up for the rest of this year, then take them

down. We will then contact the people who contributed to the fund and ask them if they want their money back. The donar group's collective wishes for the disposition of these finds will be carried out.

e. Security Coalition - We are currently paying \$75 per month for extra patrols through Misty Pines by marked patrol cars as a deterrent to crime in the community. The coalition includes other neighborhoods and property owners in the area. There was a lengthy discussion of security in the neighborhood and the recent vandalism of mailboxes. It is hard to measure the effectiveness of the program when we have no data available. When asked if we wanted to discontinue the program only one homeowner spoke up. Most of those in attendance felt that it couldn't hurt and that anything that might help with security issues was well worth the money. A motion was made by Steve Shuback and seconded by Mary Beth Trujillo to continue the program. The motion carried unanimously. It was also suggested that we look into a Neighborhood Watch program for added crime deterrence. The Board will look into it. It was also suggested that a sign be put up telling people that the community is patrolled regularly.

f. Picnic/Social Event - Kathy Nicolls volunteered to plan a social event for Misty Pines residents next year. A line item has been added to the 2011 budget for this purpose.

g. Weed Control - We sprayed for leafy spurge and other noxious weeds, including Canadian thistle, in 2004 and 2005. The program was successful and we suspended spraying. The weeds have now returned. Because these are noxious weeds, homeowners are responsible to remove them because they are harmful to animals and children. The chemical used, Krenites S. The cost to spray would be about \$6000 to spray the entire neighborhood. This is similar to the amount we spent for the initial spraying in 2004. Homeowners would be notified prior to the spraying and could opt out of having their property sprayed. A motion was made by Ed Trujillo and seconded by Ron Hollingshead that we conduct a special assessment of \$100 per homeowner to spray for the weeds next spring. The motion passed unanimously. A 2011 budget line item has been added for this purpose. Sheryl Anderson also mentioned that she has some leftover spray in her garage and if anyone wanted some of it, they should contact her.

Rick Bramer has contacted Douglas County regarding their spraying of the County Park area bordering Misty Pines. But they can't do it because of lack of funds.

h. Fire Mitigation - Because of growing fire concerns raised by the recent fires in Boulder, there was a high level of interest in this topic. We have been invited to join a group to develop a fire mitigation plan for the area including and surrounding the Pinery. Connie Bramer has attended meetings to learn about the process. Although a plan for the entire neighborhood would be developed, individual homeowners' participation is strictly voluntary. If we develop a plan we might be eligible for grant money to offset part of the costs. Connie asked for other volunteers to work with her on this project. Rick will send out an email with additional information and to ask for volunteers. Although the covenants restrict removal of natural trees and bushes, the Board would develop a simple way to approve recommended fire mitigation actions.

i. Vols - Vols have become a problem to many in the area. Rick has a trap that works effectively and will send out that information in an email.

j. Website ~~Ã¢â¬â¢~~ The Board is looking into setting up a website to better communicate with homeowners. The cost to develop and maintain a simple website would be covered by savings on printing and mailing. A line item has been added to the 2011 budget for this purpose.

V. Budget ~~Ã¢â¬â¢~~ Rick Bramer reviewed the 2010 expenditures and proposed budget for 2011. (Attached) The budget as presented has been updated to include the weed spraying program and money for a social event. Any money left over in the budget will go toward building the contingency fund required by our By Laws.

VI. Covenant Issues ~~Ã¢â¬â¢~~ The following violations of covenants were discussed:

- i. Residents were reminded of the need to keep dogs indoors or to stop excessive barking and to keep dogs within the homeowners' property.
- ii. Landscape debris left out on the roadside has been a problem.
- iii. Dogwalkers and joggers have been crossing through private property.
- iv. Vehicles parked out on the street are a violation of covenants.
- v. For safety, walkers were reminded to wear reflective clothing at night.

Neighborhoodly protocol is to try to resolve the issue by speaking directly to the person causing the problem. If that doesn't work, refer the matter to the Board for further action.

VII. Open Discussion ~~Ã¢â¬â¢~~

- a. The group expressed their desire for the Board to enforce payment of dues and assessments by those who have not been paying for the services provided by member payments.
- b. Trash has been being dumped along the unpaved section of Ponderosa rd.. Rick will see what he can do about it.

VIII. There being no further business, the meeting was adjourned at 8:45 p.m..

Respectfully Submitted,

Ellen Bartlett, Secretary

MISTY PINES HOMEOWNERS FIRE MITIGATION MEETING

April 14, 2011

Homeowners Present: Lot 2—Ellen Kelly

Lot 3—Carolyn Meyer

Lot 4—Glenn & Joan Petty

Lot 5—Connie Bramer

Lot 7—Dave & Kathy Aplin

Lot 10—Dave & Virginia Conner

Lot 14—Ronald & Margery Hollingshead

Lot 16—Rich & Barbara Skowronski

Lot 24—Claudia Lohuis

Lot 26—Gary Ryser

Lot 34—David & Clare Leonard

Lot 35—Tim Henry

Lot 40—James & Alecia Porras

Lot 44—Bob Ward

Lot 52—Joe McCoy

Lot 54—Gary & Allyn Barclay

Lot 60—Randy Netherda

Lot 62—Paul Maurer & Sheryl Anderson

Einar Jensen, Life Safety Educator, from the South Metro Fire Rescue Authority gave an overview of the Burning Tree Fire. He indicated that it was caused by humans but did not release the details. The wind shifted in many directions as a result of a front rolling through. Einar was asked the months of the fire season in Colorado and he responded “January 1 through December 31 in an extremely dry year.” Fires happen every month of the year! If dry and windy conditions continue Einar cautioned that there will not be enough firefighters.

It is extremely important that each homeowner take responsibility to prepare their properties to make them defensible in case of wild fire. It should be noted that Misty Pines does not have shared property or open space that is maintained by the HOA. All of the native portions of Misty Pines are privately owned lots that are maintained by each individual homeowner.

He said that statistics show that 30% of homeowners stay with their property and will not evacuate even when they are asked to do so. This is why it is important to create a defense and “prepare to stay.”

However, each homeowner must be reasonable and know when it is time to leave. Everyone should have a GO KIT. Decide ahead of time what should be in your GO KIT and locate the KIT in a place that is easily accessible. If you have pets you should consider leaving extra food and water when you leave the house in case they cannot be retrieved in a timely manner in an emergency situation.

The Colorado State Forest Service has conducted a general assessment of risk of wildfire in each area for the Community Wildfire Protection Plan (CWPP). Misty Pines has earned a **High** hazard rating because of its rolling hills and ravines supporting ponderosa pines, native grasses and Gambel oak. **The first step is what can we do ourselves to mitigate this risk?** Einar stressed that mitigation is **not** clear cutting! Consider thinning the trees and oak and removing growth beneath the trees to limit the ladder effect of a climbing fire. Doing so will make the trees more resistant to disease and fire. Pine needles should be removed down to the dirt to prevent fire snaking through the layers. Einar, also, suggested planting fire resistant plants. He will share the list of native, fire-resistant plants with the homeowners.

The question was asked if Misty Pines covenants allowed the removal of native trees and bushes. Sheryl Anderson, our legal counsel, indicated that our covenants are in compliance with new state statutes and that removal for fire mitigation would be allowed. She will research and check the new covenants to make sure we are in compliance on this issue. Einar said that state statutes protected the homeowner with regard to removing trees and bushes for fire mitigation.

Einar, also, indicated that he has been meeting with the Pinery, Timbers and High Prairie Farms in developing their fire mitigation plans. High Prairie Farms Metro District has applied for a \$50,000 grant to supplement \$100,000 of their own money to do fire mitigation on over 50 acres. In addition, Einar felt that the county would do additional mitigation on the Douglas County Open Space that we have pinpointed as a vulnerable area for Misty Pines. He felt the Timbers will be cleaning up their property that is adjacent to Misty Pines as well. The Timbers and High Prairie Farms will be meeting with Einar in May to continue work on their fire mitigation draft that will become part of the CWPP. He will keep us updated as the plans are developed.

Einar will be contacting the homeowner of over 40 acres which is adjacent to Misty Pines and lies east of Ponderosa Drive. This is another vulnerable area that has been identified by the homeowners of Misty Pines. A wildfire has already happened in this location and luckily was successfully extinguished. This private homeowner somehow must be included in fire mitigation as this property could be a real threat to Misty Pines in a wildfire.

Einar asked the homeowners how they wanted to proceed. It was decided that those homeowners who wanted to participate should take individual responsibility to actively prepare their property for defense in case of wildfire. It was suggested that grasses be mowed at least 30 feet from each home. Einar will be available on May 3 to schedule 30-minute assessments to provide guidance for fire mitigation. Please contact Connie Bramer if you would like to schedule an inspection.

There were numerous suggestions on how to proceed such as the HOA renting a chipper to grind limbs and debris for each homeowner. In addition, we could solicit volunteer help from church youth groups, scouts, and teenagers looking for community service. This is going to be labor intense. It was suggested that we have five lots as demonstration sites to conduct fire mitigation. Einar would lend expertise in what needs to be removed, trimmed, thinned, etc., etc. Fire Department equipment would not be available for this process. The HOA will have to brainstorm and solicit help or have a volunteer day with homeowners assisting each other in this endeavor.

For those individual who have additional questions or concerns the following is the contact information for Einar:

Einar Jensen, Life Safety Educator

South Metro Fire Rescue Authority

Direct: 720-989-2273

Cell: 303-598-0421

Fax: 720-989-2073

Request Line: 720-989-2271

Einar.jensen@southmetro.org

**DECLARATION OF PROTECTIVE COVENANTS
AND RESTRICTIONS OF MISTY PINES**

KNOW ALL MEN BY THESE PRESENTS:

WHEREAS, the undersigned, PSC Development, Inc., a Colorado corporation, (hereinafter referred to as the "Developer"), is the owner of real property which is a Subdivision known as Misty Pines, Douglas County, Colorado, described as the NE 1/4 of Section 13, Township 7 South, Range 66 West of the 6th P.M. (hereinafter sometimes referred to as the "Subdivision"); and

WHEREAS, the Developer desires to create within the Subdivision a residential community with permanent equestrian and pedestrian trails and other Drainage Easements for the benefit of the said residential community; and

WHEREAS, the Developer desires to provide for the preservation of the values and amenities in said Subdivision and for the maintenance of said equestrian and pedestrian trails and other Drainage Easements; and, to this end, desires to subject said real property, together with such additions as may hereafter be made thereto (as provided in Article II) to the covenants, restrictions, assessments, easements, charges and liens, hereinafter set forth, each and all of which is and are for the benefit of said real property and each Owner thereof, their heirs, successors, administrators, grantees, and assigns; and

WHEREAS, the Developer has deemed it desirable, for the efficient preservation of the values and amenities in said Subdivision, to create an entity which shall have the obligation and powers set forth in this Declaration of Protective Covenants and Restrictions of Misty Pines (hereinafter sometimes referred to as "Declaration"), including, but not limited to maintaining and administering the Drainage Easements and facilities and administering and enforcing the covenants and restrictions and collecting and disbursing the Assessments and charges hereinafter created; and

WHEREAS, the Developer has incorporated under the laws of the State of Colorado, as a non-profit corporation, the Misty Pines Homeowners' Association, for the purpose of exercising the functions aforesaid.

NOW, THEREFORE, the Developer declares that the real property described above, and such additions thereto as may hereafter be made pursuant to Article II hereof, is and shall be held, transferred, sold, conveyed and occupied subject to the restrictions, limitations, uses, covenants, conditions, Assessments, charges and liens hereinafter set forth, which are for the purpose of protecting the value and desirability, and which shall run with the real property and be binding on all parties having any right, title or interest in the said real property or any part thereof, their heirs, successors, and assigns, and shall inure to the benefit of each Owner thereof.

ARTICLE I

DEFINITIONS

The following words when used in this Declaration or any Supplemental Declaration (unless the context shall prohibit) shall have the following meanings:

1. "Association" shall mean and refer to the Misty Pines Homeowners' Association, hereinafter referred to as the "Association" and formed for the purpose of managing, maintaining, repairing, and administering the Drainage Easements of the Subdivision and any improvements which form a part of the Drainage Easements; of assessing, collecting and applying common expenses; and enforcing this Declaration.

2. The "Subdivision" shall mean and refer to Misty Pines and such additions thereto, as may hereafter be brought within the jurisdiction of the Association, as provided in Article II.

3. "Drainage Easements" shall mean and refer to those areas of land shown on any recorded subdivision plat(s) of the Subdivision, dedicated to the Misty Pines Homeowners' Association, and intended to be devoted to the common use and enjoyment of the Owners of the Subdivision including, but not limited to, certain equestrian and pedestrian trails.

4. "Lot" shall mean and refer to any plot of land shown upon any recorded subdivision plat(s) of the Subdivision and described by a lot number, with the exception of Drainage Easements as heretofore defined.

5. "Owner" shall mean and refer to the record owner, including Developer, whether one or more persons or entities, of the fee simple title to any Lot situated upon the Subdivision but, notwithstanding any applicable theory of the mortgage, shall not mean or refer to the mortgagee unless and until such mortgagee has acquired title pursuant to foreclosure or any proceeding in lieu of foreclosure.

6. "Member" shall mean and refer to all those who are members of the Association as provided in Article III hereof.

7. "Assessments" shall mean all monies due the Association from Members as duly assessed against the membership by the Board of Directors of the Association in accordance with this Declaration, the Association's Articles and By-Laws. Assessments shall be used to meet the expenses of the Association which include, but are not limited to, the following: The expenses of repair and maintenance of any improvements, signs or fences located on any Drainage Easements or other Easements or Common Area; caring for the grounds of the Drainage Easements; providing a reserve for repair, maintenance, taxes and other charges including fire and other hazard insurance premiums; to pay for a liability insurance policy and a public liability policy in an amount as determined by the Board of Directors of the Association. Said common expenses shall be paid in amounts and at times to be determined reasonable and necessary by the Association for the best good and convenience of all the Members as more fully defined in this Declaration.

8. "Board of Directors" shall mean the Board of Directors of the Association.

ARTICLE II

ADDITIONS OF PROPERTY SUBJECT TO THIS DECLARATION

ADDITIONS TO EXISTING PROPERTY. Additional lands may from time to time become subject to this Declaration upon recording in Douglas County, Colorado of (i) Subdivision plat(s) setting forth the Lots and Drainage Easements to be dedicated to the Association, and (ii) an annexation document. Upon the occurrence of (i) and (ii) above, any Lots, Drainage Easements, easements or other interests set forth on the Subdivision plat(s) shall be subject to the conditions, restrictions, stipulations, agreements, Assessments, charges, liens, covenants and terms of the Declaration with the following conditions:

A. Each Lot in the annexed Subdivision plat(s) shall be at least one and one-half (1-1/2) acre in size unless the Denver Southeast Suburban Water and Sewer District provides sewage service. Those Lots, which have sewage service provided by the Denver Southeast Suburban Water and Sewer District, shall be at least one (1) acre in size.

B. The commencement date of annual Assessments and any subsequent special Assessments shall be nine (9) months after the recording of the Subdivision plat(s) on those Lots within said added Subdivision plat(s).

ARTICLE III

MEMBERSHIP AND VOTING RIGHTS IN THE ASSOCIATION

1. **MEMBERSHIP.** Every person or entity who is a record owner of a fee, or an undivided fee, interest in any Lot which is within the Subdivision or within any additional lands made subject hereto shall be a Member of the Association, provided that any such person or entity who holds such interest merely as a security for the performance of an obligation shall not be a Member. Membership shall be appurtenant to and may not be separated from ownership of any Lot, which is within the Subdivision or within any additional lands made subject hereto. Ownership of such Lot shall be the sole qualification of such membership.

2. **VOTING RIGHTS.** The Association shall have two (2) classes of voting members.

Class A. Class A Members shall be all those Owners as defined in Article III, Paragraph 1 with the exception of the Developer. Class A Members shall be entitled to one (1) vote for each Lot in which they hold the interests required for membership by Article III, Paragraph 1. When more than one person holds such interest or interests in any Lot, all such persons shall be Members, and the vote for such Lot shall be exercised as they, among themselves, determine, but in no event shall more than one (1) vote be allowed or cast with respect to or held by any such Lot.

Class B. The Class B Member shall be the Developer. The Class B Member shall be entitled to two (2) votes for each Lot in which it holds the interest required for

membership by Article III, Paragraph 1, provided that the Class B membership shall cease and become converted to Class A membership when the total votes outstanding in the Class A membership equal the total votes outstanding in the Class B membership.

ARTICLE IV

PROPERTY RIGHTS IN THE COMMON PROPERTIES

1. MEMBERS' EASEMENTS OF ENJOYMENT. Subject to the provisions of Article IV, Paragraph 2 hereof, every Member shall have a right and easement of enjoyment in and to the Drainage Easements and such easement shall be appurtenant to and shall pass with the title to every Lot.

2. EXTENT OF MEMBERS' EASEMENTS. The rights and easements of enjoyment created hereby shall be subject to the following:

A. The right of the Association to limit the number of guests of Members; and

B. The right of the Association to take such steps as are reasonably necessary to protect the Drainage Easements against foreclosure; and

C. The right of the Association to suspend the enjoyment rights of any Member for any period during which any Assessment remains unpaid, and for any period not to exceed thirty (30) days for any infraction of its published rules and regulations; and

D. The right of the Association to charge reasonable admission and other fees for the use of Drainage Easements so long as such fees are uniformly applied to Owners; and

E. The right of the Association to dedicate or transfer all or any part of the Drainage Easements to any public agency, authority, or utility for such purposes and subject to the conditions as may be agreed to by the Members. No such dedication or transfer shall be effective unless an instrument agreeing to such dedication or transfer signed by at least sixty-seven percent (67%) of the Owners has been recorded.

ARTICLE V

COVENANTS FOR MAINTENANCE ASSESSMENTS

1. CREATION OF THE LIEN AND PERSONAL OBLIGATION OF ASSESSMENTS. The Developer, for each Lot owned within the Subdivision, hereby covenants, and each Owner of any Lot, by acceptance of a Deed therefor, whether or not it shall be so expressed in any such Deed or conveyance, is deemed to covenant and agree to pay to the Association: (1) annual Assessments or charges, and (2) special Assessments for capital improvements, such Assessments to be fixed, established and collected from time to time as hereinafter provided. The annual and special assessments, together with such interest thereon and costs of collection thereof, as hereinafter provided, shall be a charge on the Lot and shall be a continuing lien upon the real property against which each such Assessment is

made. Each such Assessment, together with such interest, costs, and reasonable attorneys' fees, as allowed by law, shall also be the personal obligation of the person who was the Owner of such real property at the time when the Assessment became due and payable. The personal obligation shall remain a personal obligation of the Owner or Member until paid. A minimum of Fifty Dollars (\$50.00) of said Assessment shall be allocated to a special fund, which shall be designated as "Declaration Enforcement Fund." Said fund shall be utilized exclusively for the purpose of defraying expenses incurred, or which may be incurred, by the Association and the Environmental Control Committee in enforcing this Declaration, as herein provided. Each Lot subject to this Declaration shall be assessed once for the \$50.00 fee and thereafter Lots shall be assessed on a "need" basis to maintain a minimum balance of \$3,000.00 in said "Declaration Enforcement Fund," but not to exceed Two Hundred Dollars (\$200.00) annually.

2. **PURPOSE OF ASSESSMENTS.** The Assessments levied by the Association shall be used exclusively for the purpose of promoting the recreation, health, safety, and welfare of the residents of the Subdivision and in particular for the improvement and maintenance of properties, services, and facilities devoted to the purpose of and related to the use and enjoyment of the Drainage Easements or other Easements or Common Area owned or maintained by the Association for the benefit of the Lot Owners of Misty Pines, including, but not limited to, the payment of taxes and insurance thereon and repair, replacement, and additions thereto, and for the cost of labor, equipment, materials, management and supervision thereof, and for any similar purpose approved by the Board of Directors.

3. **BASIS OF ANNUAL ASSESSMENTS.** Each Lot shall, as of the date set under Article V, Paragraph 7 hereof, be subject to a yearly Assessment. Payment for said Assessments shall be due either quarterly, semi-annually, or annually as designated by the Board of Directors of the Association. The Board of Directors of the Association shall fix the amount of the annual Assessment and may raise or lower said annual Assessment amount as they may deem necessary in their discretion.

4. **SPECIAL ASSESSMENTS FOR CAPITAL IMPROVEMENTS.** In addition to the annual Assessments authorized above, the Association may levy in any calendar year a special Assessment applicable to that year only, for the purpose of defraying, in whole or in part, the cost of any construction or reconstruction, unexpected repair or replacement of a described capital improvement upon the Drainage Easements, including the necessary fixtures and personal property related thereto, provided that any such Assessment shall have the assent of at least sixty-seven percent (67%) of the votes of each class of members who are voting in person or by proxy at a meeting duly called for this purpose, written notice of which shall be sent to all owners at least ten (10) days but not more than sixty (60) days in advance of the meeting setting forth the purpose of the meeting.

5. **UNIFORM RATE OF ASSESSMENT.** Both annual and special Assessments must be fixed at a uniform rate for all Lots.

6. **QUORUM FOR ANY ACTION AUTHORIZED UNDER ARTICLE V, PARAGRAPH 4.** The quorum required for any action authorized by Article V, Paragraph 4 hereof shall be as follows:

At the first meeting called, as provided in Article V, Paragraph 4 hereof, the presence at the meeting of Members or of proxies, entitled to cast at least sixty-seven percent (67%) of all votes of each class of Membership shall constitute a quorum. If the required quorum is not present at any meeting, another meeting may be called, subject to the notice requirements set forth in Article V, Paragraph 4 hereof, and the required quorum at any such subsequent meeting shall be at least sixty percent (60%) of the required quorum at the preceding meeting, provided that no such subsequent meeting shall be held more than sixty (60) days following the preceding meeting.

7. **DATE OF COMMENCEMENT OF ANNUAL ASSESSMENTS - DUE DATE.** The annual Assessment provided for herein shall commence as to all Lots one (1) year following the completion of all roads shown on the Subdivision plat and the water system serving the Subdivision by the Developer. Prior to that date, the Developer shall be solely responsible for maintenance of the Drainage Easements. The Board of Directors shall fix the amount of the annual Assessment at least thirty (30) days in advance of said commencement date and any change in the annual Assessment must be fixed by the Board of Directors at least thirty (30) days in advance of the Assessment date of the changed Assessment amount. Written notice of the annual Assessment and any change thereof as provided in Article V, Paragraph 3 hereof shall thereupon be sent to every Owner subject thereto. The due dates of such annual Assessments shall be established by the Board of Directors. The Association shall upon demand at any time furnish to any Owner or his mortgagee a certificate in writing signed by an officer or director of the Association indicating the then current status of the Assessment for such Lot. Such certificate shall be conclusive evidence as against the Association of the facts stated thereon.

8. **EFFECT OF NON-PAYMENT OF ASSESSMENT; THE PERSONAL OBLIGATION OF THE OWNER; THE LIEN.** If the Assessments are not paid on the date when due (as specified by the Association), then the Association may cause notice thereof to be recorded in the Douglas County, Colorado, real estate records whereupon such Assessments, together with such interest thereon and costs of collection thereof as hereinafter provided, shall become a continuing lien on the real property which shall bind such real property in the hands of the then Owner, his heirs, devisees, personal representatives, and assigns. The personal obligation of the then Owner to pay such Assessment, however, shall remain his personal obligation. If the Assessment is not paid within thirty (30) days after the due date, the Assessment shall bear interest from the due date at the rate of eighteen percent (18%) per annum, and the Association may bring an action at law against the Owner personally obligated to pay the same or to foreclose the lien against the property subject thereto, and there shall be added to the amount of such Assessment all attorneys' fees incurred by the Association, as allowed by law, and in the event a judgment is obtained, such judgment shall include interest on the Assessment as above provided and a reasonable attorneys' fee to be fixed by the court together with the costs of the action.

9. **SUBORDINATION OF THE LIEN TO FIRST MORTGAGES.** The lien of the Assessments provided for herein shall be subordinate to the lien of any first mortgage or first mortgages hereafter placed upon a Lot subject to Assessment, provided, however, that such subordination shall apply only to the Assessments which have become due and payable prior to a sale or transfer of such real property pursuant to a decree of foreclosure, or any other

proceeding in lieu of foreclosure of such first mortgage. Such sale or transfer shall not relieve such real property from liability for any Assessments thereafter becoming due, nor from the lien of any such subsequent Assessment.

ARTICLE VI

ENVIRONMENTAL CONTROL COMMITTEE

1. **ENVIRONMENTAL CONTROL COMMITTEE.** The Initial Environmental Control Committee (the "Committee") shall be composed of Neal M. Price, or in the event of his death, incapacity or resignation, an officer or director of Neal Price Construction Co., Inc., Jonathon F. Clark, or in the event of his death, incapacity or resignation, an officer or director of Country Living Homes, Inc., and Floyd Tanaka, or in the event of his death, incapacity or resignation, an officer or director of THK Associates, or such other members as the aforesaid individuals shall determine. The total membership of the Committee shall not exceed three (3) in number until the earlier to occur of such time as is designated in Article VI, Paragraph 10 or such time as voting control changes as is set forth in Article III, Paragraph 2. The Committee shall have the responsibility, power, and authority to act hereunder in the exercise and control of the terms herein. Neal M. Price, Jonathan F. Clark and Floyd Tanaka shall serve until such time as voting control changes as is set forth in Article III, Paragraph 2.

2. **GENERAL REQUIREMENTS.** The Committee shall require that all improvements, including, but not limited to, dwelling houses, exterior lighting, swimming pools, tennis courts, flag poles, mail and newspaper boxes, address signs, walls, garages, driveways, parking areas, curbs and walks shall not be constructed or altered nor natural vegetation altered or destroyed nor landscape development be performed on any Lot, unless complete plans for such construction or alteration be approved in writing by the Committee prior to commencement of work. If the Committee fails to take action within thirty (30) days after complete plans for such work have been submitted, then all such submitted plans shall be deemed to be approved. The Committee shall protect the seclusion of each home from others insofar as possible. Approval by the Committee shall not be deemed to constitute compliance with the requirements of any local building codes, fire codes, zoning codes, etc., and it shall be the responsibility of the Owner or other person submitting plans to the Committee to comply therewith.

3. **ESTOPPEL CERTIFICATE.** The Committee shall be authorized to, and shall, upon the reasonable request of any interested person, furnish a certificate with respect to approval or disapproval by the Committee or any change in the existing state of a Lot and any person, without actual notice to the contrary, shall be entitled to rely on said certificate with respect to all matters set forth therein.

4. **ENVIRONMENTAL COMMITTEE NOT LIABLE.** The Committee shall not be liable for damages to any person submitting any plans for approval, or to any Owner or Owners of Lots within the Subdivision by reason of any action, failure to act, approval, disapproval, or failure to approve or disapprove, with regard to such plans. Any person submitting plans to the Committee for approval, by so doing, agrees and covenants that he will not bring any action or suit to recover damages against the Committee, its members or individuals, advisors, employees, agents or the Developer.

5. **VARIANCES.** Where circumstances, such as topography, location of trees, vegetation or other physical interference require, or when the Committee believes in its discretion that a variance from the requirements set forth herein is desirable and in conformity with the preservation of the value of the Subdivision, the Committee may, by a sixty-seven percent (67%) vote of its members, allow reasonable variances to the requirements set forth herein; however, the Committee shall reserve the right, if it deems it necessary, to mail notices of any variances to each Owner or Owners of Lots in the Subdivision at the time the request is so made. In the event such notice is given and either (i) the majority of adjacent Lot Owners of the Lot seeking a variance or (ii) any twenty-five percent (25%) of the total Owners notify the Committee in writing within fifteen (15) days after the notices are served by the United States Mail, objecting to the variance so requested, the Committee shall set a hearing date within thirty (30) days to determine whether or not to grant said variance. Notice of such hearing date shall be mailed to all Owners in the Subdivision no less than ten (10) days prior to the date thereof specifying the date and time of such hearing. Any variance request that requires a hearing shall have the assent of at least sixty percent (60%) of the votes of each class of Members who are voting in person or by proxy at the hearing called to grant said variance.

6. **WRITTEN RECORDS.** The Committee shall keep for at least five (5) years complete records of applications submitted to it (including one (1) set of all architectural and landscape plans so submitted) and actions of approval or disapproval and other actions taken by it under the provisions of this instrument.

7. **PLAN SUBMITTAL.** All applications shall be submitted in accordance with a "Plan Submittal Form" to be established by the Environmental Control Committee.

8. **PLAN APPROVAL.** A simple majority of the voting members of the Committee shall be necessary for plan approval.

9. **PRELIMINARY APPROVAL.** Persons who contemplate the purchase of Lots within the Subdivision may submit a preliminary design of improvements to the Committee for informal review. The Committee shall not be bound by any informal review until complete design plans are submitted and approved or disapproved but shall act in good faith.

10. **DURATION AND NUMBER OF MEMBERS ON COMMITTEE.** The Environmental Control Committee shall be in compliance, as to the duration and number of members, as set forth in the By-Laws of Misty Pines Homeowners' Association, Inc., Article VII, Section D.

11. **STANDARDS.** [To be Developed.]

ARTICLE VII

GENERAL RESTRICTIONS ON ALL LOTS AND TRACTS

1. **ZONING REGULATIONS.** No land within the Subdivision shall be occupied, used by, or for, any structure or purpose, which is contrary to the zoning regulations of Douglas County, Colorado, or any other governmental unit having jurisdiction over the Subdivision.

2. SIGNS. One (1) Lot entrance address gate sign of a style and design approved by the committee shall be permitted. One (1) "For Rent" or "For Sale" sign shall be permitted if no larger than 20 x 26 inches. One (1) political sign per political office or ballot issue that is contested in a pending election shall be permitted if placed within the lot boundaries or a window of the home. Such sign or signs shall be no larger than 36 X 48 inches and may only be displayed within forty-five (45) consecutive days before an election and seven (7) consecutive days after an election. Otherwise, no advertising signs, billboards, unsightly objects, or nuisances shall be erected, altered, or permitted on any tract or Lot.

3. ANIMALS. No animals shall be raised or bred on any Lot for commercial purposes.

A. Domestic household pets, for non-commercial purposes, will be allowed; provided, however, no more than two (2) of a kind of any adult animal will be allowed. No pet shall be allowed off the Lot of its owner except under strict control of its owner or in compliance with any county leash laws.

B. Pigs, goats, cows and cattle, horses, fowl and poultry, and other livestock or other outdoor animals are expressly prohibited in the Subdivision.

4. LANDSCAPE DEVELOPMENT.

A. Native trees or brush growing on any Lot or Common Area shall not be removed, trimmed and/or cleared nor shall any native rocks be removed, or extensive grading be performed unless first approved, in writing, by the Committee.

B. Any landscaping, either initial or in addition to existing landscaping, shall conform with the following requirements:

(1) Irrigation of sod, trees, bushes, and gardens shall not exceed 10,000 square feet per Lot, No family garden shall exceed 1,000 square feet, and no additional ground shall be broken for any farming purposes.

(2) Plans for landscaping shall be submitted to and approved in writing by the Committee and shall conform with its minimum standards provided herein.

(3) The landscaping plan shall include assurances that at least two (2) evergreen trees with a minimum height of ten (10) feet and at least two (2) deciduous trees with a minimum caliper of two (2) inches shall be planted within nine (9) months after the residence constructed on the Lot is first occupied.

(4) No tree or trees, whether now growing or hereafter grown upon any part of the Subdivision shall be cut down without prior written approval of the Committee, provided, however, that this restriction shall not apply unless such tree is more than two (2) inches in caliper as measured one (1) foot above grade, and provided further that this restriction shall not be construed to limit in any way reasonable trimming of any trees within the Subdivision.

(5) All surface drainage, whether off Lot or on Lot shall always be permitted to freely pass through all Lots as required in order to reach its natural destination.

(6) Landscaping materials used and sprinkler systems shall be designed so as to conserve the amount of water used to maintain the landscaping.

(7) Landscaping plans and sprinkler system permit applications must be submitted to and approved by the Denver Southeast Suburban Water and Sanitation District before any landscaping can commence.

5. NO RESUBDIVISION. No Lot or tract, as described on the recorded plat(s), shall be resubdivided into smaller tracts or lots nor conveyed or encumbered except as permitted on said recorded plat. However, conveyances or dedications of easements for utilities or private lanes or roads may be made for less than all of one (1) tract.

6. DEFENSIBLE SPACE / DISTURBED VEGETATION. It shall be the responsibility of every Owner to use his land in such manner as to disturb as little natural vegetation as possible, leaving said natural vegetation for natural beauty and erosion protection. In the event any portion of any Lot should be disturbed through construction, erosion, or any other cause, the Owner shall seek assistance from the Douglas County Soil Conservation District as to the method and manner of reseeding such disturbed area. Additionally, any ground disturbed by construction shall be either restored to a natural state or landscaped as provided in this Article VII.

Notwithstanding any provision to the contrary herein, removal of trees, shrubs, or other vegetation to create defensible space around a dwelling for fire mitigation purposes will be allowed if such removal complies with a written defensible space plan created for the property by the Colorado state forest service, an individual or company certified by a local governmental entity to create such plan, or the fire chief, fire marshal, or fire protection district within those jurisdiction the Lot is located, and removal is no more extensive than necessary to comply with such plan. The Association shall be permitted to require changes to any Defensible Space removal plan if it obtains the consent of the person, official, or agency that originally created the plan.

7. ANTENNAS. Radio, short wave, television, dish, or other type of antenna shall be enclosed within the structure of the house. A variance for dish antennas will be considered by the Committee if fully concealed by landscaping.

8. ACCESSORY STORAGE. All equipment, garbage cans, service yards, wood piles, outside storage or storage piles shall be kept screened by adequately planned and approved fencing so as to conceal them from view of equestrian and pedestrian trails, neighboring residences and streets. All rubbish, trash or garbage shall be regularly removed from the Lot, and shall not be allowed to accumulate thereon. Burning of trash will not be permitted.

9. TANKS. No above ground tanks shall be allowed.

10. WIND GENERATORS. All wind generators shall require prior approval by the Environmental Control Committee, subject to any Environmental Control Committee Standards and in compliance with applicable law.

11. HEATING AND COOLING UNITS. Heating and cooling units, with the exception of solar panels, shall not be permitted on the roof of any structure within the Subdivision. All solar panels shall be placed on the roof only and shall be required to be flush with the roof surface.

12. CLOTHES LINES. All outdoor clotheslines shall require prior approval by the Environmental Control Committee, subject to any Environmental Control Committee Standards and in compliance with applicable law.

13. VEHICLES. Boats, campers, trailers, recreational vehicles, commercial vehicles, and trucks in excess of 3/4 tons shall be concealed within the normal structure of the residential dwelling and/or garage, unless such vehicle is required to be available at designated periods at a Member's residence as a condition of the occupant's employment. This exception applies only if the vehicle has a gross weight rating of ten thousand pounds or less, the Member is a bona fide member of a volunteer fire department or is employed by a primary provider of emergency fire fighting, law enforcement, ambulance or emergency medical services, the vehicle bears an official emblem or other designation of the emergency service provider and the parking of the vehicle can be accomplished without obstructing emergency access or interfering with the reasonable needs of Members and occupants to use street, driveways and guest parking spaces within the community.

14. UNDERGROUND UTILITY LINES. All utility lines, water, gas, telephone lines, cable television lines, electrical lines, etc., within the limits of the Subdivision, must be underground and may not be above ground, except transformers, meters, or light standards.

15. EXTERIOR LIGHTING. All exterior lighting and standards in the Subdivision shall be approved by the Committee. Each dwelling shall have an outside lighting post, which shall be located no further than twenty (20) feet from the constructed dwelling, and be equipped with a photocell. No lighting shall be emitted from any Lot, which is unreasonably bright or causes unreasonable glare.

16. GARAGES. Any dwelling constructed in the Subdivision must include an attached and approved, minimum two (2) car garage. The minimum square footage for the garage shall be 450 square feet. The maximum size for an attached and approved garage shall be four (4) stalls with a maximum square footage of 1,200 square feet. The doors shall not be permitted to face towards the public roadway side of the dwelling site and shall remain closed when not in use. The Committee shall be able to grant a variance by a sixty-seven percent (67%) vote of the members due to location or drainage problems that may arise on the Lot.

17. OFF-STREET PARKING. Each dwelling shall be constructed with an adequate off-street parking area for at least two (2) automobiles per dwelling and said off-street parking shall be constructed of either asphalt or concrete. No parking shall be allowed within the road right-of-way.

18. CINDERBLOCK OR CONCRETE FOUNDATIONS. No foundation of cinderblock or concrete shall be exposed. With the exception of windows, all exposed horizontal surfaces of any improvement constructed in the Subdivision shall consist of wood, brick, or stone and shall be of natural as opposed to artificial or composite materials except with the written approval of the Committee.

19. ROOFS. All roofs must be constructed of natural wood cedar, tile, or trilaminate shingle with a weight of at least 400 lbs. per square and a minimum warranty of 30 years, samples of which are in the possession of and approved by the Misty Pines Homeowners Association.

20. FENCING. All fences will be decorative in nature and must be of wood, brick and/or stone construction approved, in writing, by the Committee. Fencing will be limited to the landscaped areas of the Lot as described in Article VII, Paragraph 4. No fencing may be placed across or upon any bridle easement or road right-of-way or any other easement as shown on the recorded plat(s).

21. OCCUPANCY LIMITATIONS. No residential structure on any Lot shall be occupied by more than a single family, its servants, and occasional guests.

22. NO NOXIOUS OR OFFENSIVE ACTIVITY. No noxious or offensive activity shall be carried on upon any Lot or within the Subdivision nor shall anything be done or placed on any Lot or any other portion of the Lot, which is or may become a nuisance or cause embarrassment, disturbance, or annoyance to others. Habitually barking, howling, or yelping dogs shall be deemed a nuisance. Patios and balconies shall not be used for storage other than of patio furniture.

23. NO HAZARDOUS ACTIVITIES. No activities shall be conducted on the Lot and no improvements shall be constructed on the Lot, which are or might be unsafe or hazardous to any person or property. Without limiting the generality of the foregoing, no firearms shall be discharged upon the Lot and no open fires shall be lighted or permitted on the Lot except in a contained barbecue unit while attended and in use for cooking purposes or within a safe and well-designed interior fireplace.

24. TIME OF CONSTRUCTION. During the course of construction, nothing shall be done which (1) will result in a violation of any of the provisions of this Declaration upon completion of construction; or (2) will constitute a nuisance or unreasonable interference with the enjoyment by other Owners of their Lots. Notwithstanding anything herein to the contrary, no construction work during any day shall be performed on any Lot prior to 7:00 a.m.

25. NO DRILLING OR MINING. No oil or gas drilling, water drilling (with the exception. of the Denver Southeast Suburban Water and Sanitation District), oil or gas development operations, oil refining, quarrying or mining operations of any kind shall be permitted upon or in any Lot, nor shall oil or gas wells, tanks, tunnels, mineral excavations, or shafts be permitted upon or in any Lot. No derricks or other structure designed for use in boring for oil or natural gas shall be erected, maintained, or permitted on any Lot.

26. BUSINESS. No commercial business of any kind shall be conducted or permitted in the Subdivision except for sales by Developer of Lots.

27. SALES OFFICE. Developer or any Owner of more than five (5) Lots shall have the right to allow sales offices to be maintained within the Subdivision for the purpose of selling Lots and/or residential dwellings within the Subdivision so long as said sales office is within a single family dwelling .as described herein.

ARTICLE VIII

RESTRICTIONS ON RESIDENTIAL TRACTS

1. COUNTY REGULATIONS. Zoning ordinances, rules and regulations of the County of Douglas, State Of Colorado, are considered to be a part hereof, and to the extent that these Restrictions might establish a minimum requirement which conflicts with the minimum requirements established by said zoning ordinances, rules and regulations, the most restrictive shall apply.

2. RESTRICTIONS. Whether or not any provision is specifically stated in any conveyance or acceptance of title to any tract or Lot in the Subdivision, the Owner of said tract or Lot covenants and agrees that no building, wall, fence, swimming pool, tennis court, landscaping, or other structure or improvements of any kind shall be placed upon said tract or Lot unless and until the plans and specifications therefor and the plot plans have been approved in writing by the Committee. All plans, specifications, and plot plans will be submitted to the Committee in accordance with the requirements and the information required in the Application to the Misty Pines Environment Control Committee to be established by the Environmental Control Committee. Each such building, wall, swimming pool, tennis court, landscaping and other structure shall be placed on the Lot only in accordance with the plans and specifications and plot plans so approved. No corrugated type metal building, no metal building, and/or earth sheltered house shall be allowed in the Subdivision. In addition, no alteration or repainting involving different colors to the exterior of a structure shall commence without written approval of the Committee

The appearance of any building to be constructed on any Lot must enhance the environmental surroundings and the Committee must approve or disapprove the structure and the exterior of any ancillary buildings. No alterations in the exterior appearance of the building or structure shall be made without like approval. The issuance of a building permit or license, which may be in contravention of these Restrictions, shall not prevent the Committee from enforcing these provisions.

3. NUMBER AND LOCATION OF BUILDINGS. No building or structure shall be placed, erected, or altered or permitted to remain on any Lot other than:

A. One (1) single-family dwelling house and a minimum of two (2) car attached garage; and

B. Service type shed of similar construction as outlined in Article VIII, Paragraph 2 A above.

4. **BUILDING ENVELOPE.** Each Lot of the Subdivision shall contain a Building Envelope. Said Building Envelope shall be identified by the erection of one (1) white post no taller than eight (8) feet and seventy-five percent (75%) of the building footprint shall be within a seventy-five (75) foot radius of said post. In no event shall the minimum set backs as outlined in the Douglas County Building or Zoning Codes be violated.

5. **DWELLING HOUSE CONSTRUCTION.** All construction and alteration work on any residential dwelling shall be completed within nine (9) months after commencement of construction. This period of construction may be extended by an additional three (3) month period if said extension is made necessary by reason of inclement weather, inability to obtain materials, strikes, acts of God, etc. The exterior construction on all buildings must be completed, including the treating and/or painting of wood, before occupancy. Unless otherwise approved by the Committee, no building shall be erected or maintained on any Lot nearer than forty (40) feet from the front property line of said Lot. No building shall be erected or maintained on any Lot nearer than twenty-five (25) feet from any side or rear property line. In no event shall the minimum set backs as outlined in the Douglas County Building or Zoning Codes be violated. If any dispute arises as to what constitutes a front, rear, or sideline, the decision of the Committee shall be final. However, the decision must be consistent with the ruling of the County of Douglas, State of Colorado.

6. **DWELLING SIZE.** Any residential dwelling erected wholly or partially on any of the Lots or part or parts thereof, herein described, shall contain a minimum living area in the main structure, exclusive of garages, porches, or terraces, as follows: Single level - 1,800 square feet; bi-level - 2,400 square feet; multi level - 2,400 square feet; and two-story - 2,500 square feet.

7. **DRIVEWAYS AND ACCESS ROADS.** All driveways and access roads shall be asphalted or concrete paved prior to occupancy of the residential dwelling. No driveway shall be dirt, gravel, or any other material except asphalt or concrete. The entrance of the driveway or access road to the residential dwelling shall be constructed with either a culvert or concrete pan of suitable specifications as determined by the Committee.

8. **TEMPORARY STRUCTURES.** No temporary house, trailer, tent or other outbuilding shall be placed or erected on any Lot and no residential dwelling shall be occupied in any manner at any time prior to completion.

ARTICLE IX

DRAINAGE EASEMENT

1. No Owner shall construct any residential dwelling, structure, fence, or wall or make any excavation within the Drainage Easement as shown on the recorded plat of the Subdivision.

2. No Owner shall conduct any gardening or landscaping nor shall any Lot Owner allow the grazing of horses or any disturbance of natural vegetation within the Drainage Easement as shown on the recorded plat of the subdivision.

3. No Owner shall permit the storage of any material, vehicles, or other sundry items within the Drainage Easement as shown on the recorded plat of the Subdivision.

4. Each property Owner, under the supervision of the Committee, Douglas County, and the Douglas County Soil Conservation District shall be responsible for the maintenance of such portions of the Drainage Easement as may lie within the boundaries of his Lot. Such maintenance shall include, but not be limited to, control and monitoring of headworks, removal of debris, erosion control and prevention, and such other routine cleanup and service work as may be deemed necessary for the protection of such easements. Each Lot Owner shall promptly notify the Douglas County Soil Conservation District Board of each and every change and condition occurring within the Drainage Easement as shall come to the attention of the Lot Owner. Such easements are restricted in use for the peaceable enjoyment and recreational use of the Lot Owner such as will not disturb the natural state of the land.

5. No variance of this Article IX may be granted unless such variance is properly requested in writing and approved by all of the following:

- A. The Subdivision's Environmental Control Committee.
- B. The Douglas County Soil Conservation District Board of Directors.
- C. The Douglas County Commissioners.

ARTICLE X

EASEMENTS

1. **UTILITY EASEMENTS.** Developer reserves for itself, its successors and assigns, perpetual easements as shown and described on the recorded plat(s) of the Subdivision for the purpose of constructing, maintaining, operating, replacing, enlarging, and repairing power, telephone, water, irrigation, storm drainage, gas and similar lines, pipes, wires ditches, conduits, walking, jogging, bridle, and riding trails. Such easements as are disclosed on the plat(s) as combination (i) walking, jogging, bridle and riding trails and (ii) utility easements shall remain open and unfenced. Such easements as are described as ten (10) foot utility easements only may be fenced but not excavated or built upon. Additionally, Developer hereby reserves for itself and its assigns combination easements twenty (20) feet wide along each side of all road rights-of-way for the purpose of constructing slopes, snow storage areas, and for general road maintenance and utilities, which easements shall not be fenced, excavated or built upon except for a driveway.

2. **EASEMENTS FOR PRIVATE ROADS AND LANES.** Developer hereby reserves unto itself, its successors or assigns, perpetual easements across all Drainage Easements of the Subdivision for the construction of private roads or lanes. Said private roads and/or lanes shall not be constructed in the Subdivision's Drainage Easements without the prior written consent of the Committee.

3. EQUESTRIAN AND. PEDESTRIAN TRAILS. Each Lot or tract in the Subdivision shall be subject to an easement by the Equestrian and Pedestrian Trails shown upon the plat of the Subdivision, which Equestrian and Pedestrian Trails shall be for the use and enjoyment of the property owners and their guests in accordance with the normal use of riding trails. Motorized vehicles are expressly prohibited from all Equestrian and Pedestrian Trails except as may be reasonably necessary for construction, maintenance and repair of utility and/or drainage easements. In no event shall any Equestrian and Pedestrian Trails be enclosed, fenced, excavated, or in any other manner encumbered or restricted by any property owner. Dogs, cats, and all other household animals shall be allowed in the Equestrian and Pedestrian Trails only under the direct control and supervision of their owners.

ARTICLE XI

ENFORCEMENT

1. ENFORCEMENT. Whenever the Board of Directors of the Association or the Environmental Control Committee shall find and determine that there shall have been erected on any tract or residential Lot any structure which is in violation of these Restrictions, the Board of Directors, Environmental Control committee, or its designees may obtain a court order in order to enter upon the Lot where such violation has been found to exist, and to summarily abate and remove at the expense of the Owners thereof, any structure, situation or condition that may exist on said tract or Lot contrary to the situation or condition that may exist on said tract or Lot contrary to the intent and meaning of these Restrictions. Neither the Association, Environmental Control Committee, nor their agents, assigns or designees shall be deemed guilty in any manner of trespass for such entry, abatement or removal, and by acceptance of a Deed for any Lot in the Subdivision, the Owner of any such Lot expressly consents to such entry. Costs and expenses of such entry, abatement, and removal shall be and remain a lien upon the Lot as if the same were annual Assessments as provided in Article V.

Without limiting the foregoing remedy, if any Owner shall suffer or permit a violation or threaten to violate any Restriction herein contained, any other Owner of a Lot in the Subdivision may institute proceedings at law or equity to enforce the provisions of this Declaration, to restrain the person violating or threatening to violate them and to recover all damages allowed by law, together with reasonable attorneys' fees for such violation. Upon approval of the bringing such action by the Board of Directors of the Association, the Owner seeking to enforce these Restrictions shall be entitled to reimbursement of any attorneys' fees not otherwise recovered in connection with such action from the Declaration Enforcement Fund. The Board of Directors of the Association, upon finding that a violation of these Restrictions exists and upon failure or refusal of the Owner of the Lot upon which such violation exists to comply herewith, shall institute proceedings at law or equity to recover all damages, as allowed by law, for the violation or to restrain such violation or threatened violation or to modify or remove structures or landscaping fully or partially completed in violation of these Restrictions, and to recover all damages allowed by law, together with reasonable attorneys' fees and costs incurred in connection with enforcing these Restrictions. Costs of maintaining any such action shall be obtained from the Declaration Enforcement Fund. Failure of the Association or Committee or any Owner to enforce any Restriction herein appearing shall in no event be deemed a waiver of the right to do so thereafter.

2. LIMITATIONS OF ACTIONS. In the event any construction, alteration or site landscape work is commenced upon any portion of the Subdivision in violation of these Restrictions and no action is commenced within thirty (30) days thereafter to restrain such violation, then injunctive or equitable relief shall be denied, but an action for damages shall still be available to any party aggrieved. Said thirty (30) day limitation shall not apply to injunctive or equitable relief against other violations of the Restrictions.

ARTICLE XII

GENERAL PROVISIONS

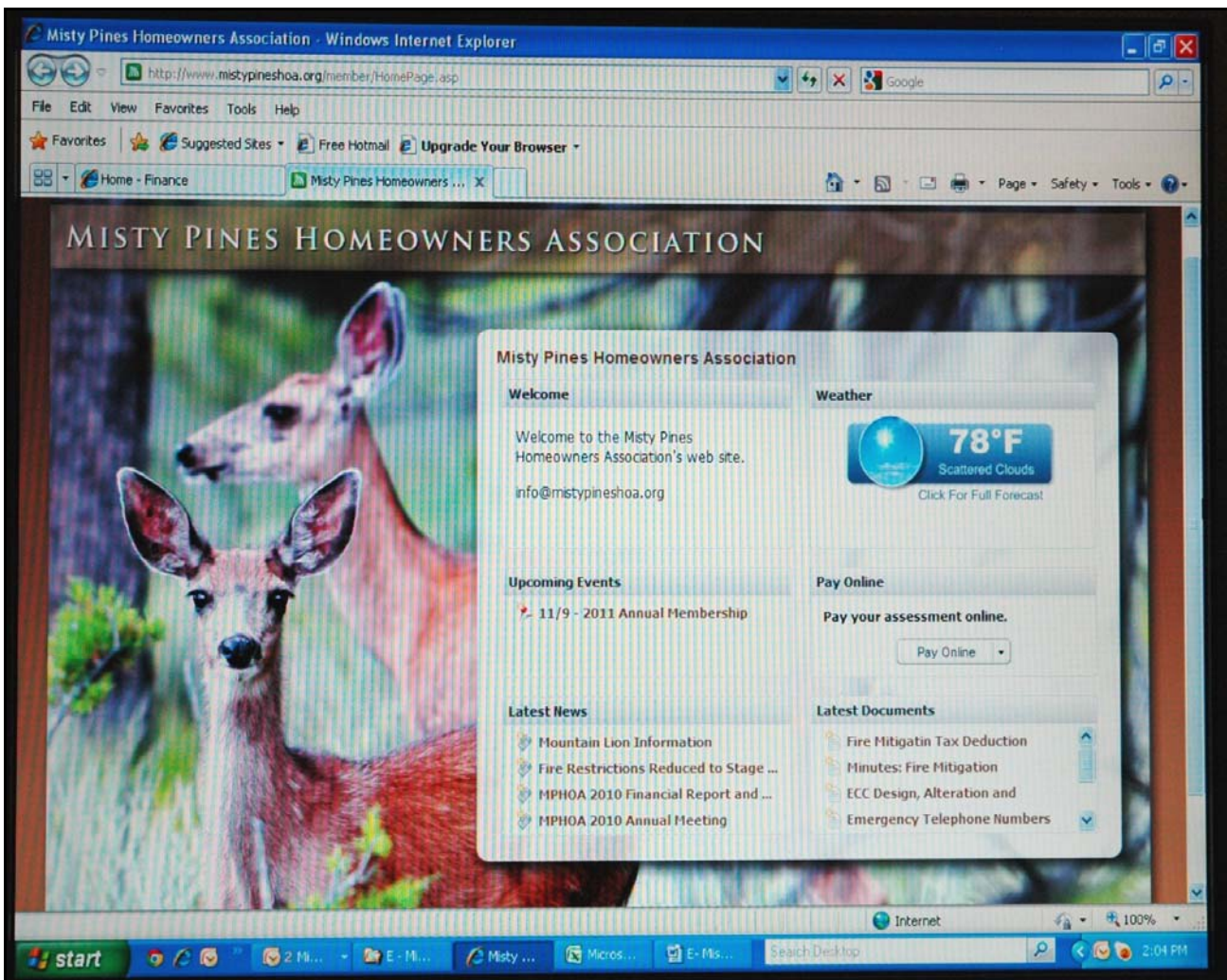
1. SEVERABILITY. Should any part or parts of these Restrictions be declared invalid or unenforceable by any court of competent jurisdiction, such decision shall not affect the validity of the remaining covenants.

2. EFFECT AND DURATION OF COVENANTS. The conditions, restrictions, stipulations, agreements, and covenants contained herein shall be for the benefit of and be binding upon each Lot or tract in the Subdivision, and each Owner of property therein, his successors, representatives and assigns, and shall continue in full force and effect until January 1, 2000, at which time they shall be automatically extended for five (5) successive terms of ten (10) years each.

3. AMENDMENT. The conditions, restrictions, stipulations, agreements and covenants contained herein shall not be waived, abandoned, terminated, or amended except by written consent of the Owners of at least sixty-seven percent (67%) of the Lots within the Subdivision, as the same may then be shown by the plat(s) on file and records in the office of the Clerk and Recorder of Douglas County, Colorado, unless otherwise set forth herein.

This document restates the Declaration of Protective Covenants and Restrictions of Misty Pines (the "Declaration") executed on October 1, 1984, and recorded on October 17, 1984, in Book 543, Page 699 of the records of the Clerk and Recorder of Douglas County, Colorado and further incorporates the Amendment to the Declaration executed on June 17, 1996 and recorded on June 19, 1996, in Book 1349, page 1988 of the records of the Clerk and Recorder of Douglas County, Colorado.

DO NOT RECORD THIS DOCUMENT



Misty Pines Homeowners Association

Page 1 of 1

MISTY PINES HOMEOWNERS ASSOCIATION

Misty Pines Homeowners Association

Welcome

Welcome to the Misty Pines Homeowners Association's web site.
info@mistypineshoa.org

Weather



Upcoming Events

11/9 - 2011 Annual Membership

Pay Online

Pay your assessment online.

[Pay Online](#)

Latest News

Mountain Lion Information
Fire Restrictions Reduced to Stage ...
MPHOA 2010 Financial Report and ...
MPHOA 2010 Annual Meeting

Latest Documents

Fire Mitigatin Tax Deduction
Minutes: Fire Mitigation
ECC Design, Alteration and
Emergency Telephone Numbers



Community Feedback and Input

Date	Medium	Comment	Response
11/17/10	Email	<p>Thank you so much for volunteering to serve on the Fire Mitigation Committee. As I reported at the HOA meeting, I met with Einar to develop our first steps in the process. He has asked that we take the first steps in identifying our concerns. Please make note of any open space or other properties adjacent to your assigned area. The observations should be made from the street. We are looking for overall concerns. Please note areas of long grass, weeds, dead trees, dead wood on oak, pine trees and other natural bushes, wood piles, growth of bushes under pine trees, overgrowth, etc., etc. Also, please note any water hydrants and their locations. Are there any power lines above ground? We should, also, be sensitive to whether emergency vehicles have accessibility to each lot and if addresses can be easily identified (reflective street signs & addresses) in case emergency personnel need access in time of crisis. Locate street lights. Do they provide appropriate light when needed in an emergency situation? Identify adjacent areas to Misty Pines that could be potential risks or hazards to our subdivision as well. I will arrange a meeting time the first week in December at my home one evening where we can debrief with Einar. Therefore, please make your observations by the end of November. I will let you know the date once I have contacted Einar to determine his schedule. Once again, thank you for joining the committee. This is an extremely important task to formulate a plan for our safety.</p>	<p>Early email that created the Misty Pines Core Team. This initial assessment provided the fodder for the CWPP.</p>

03/26/11 Email

First, on behalf of Misty Pines, I would like to thank you and your fellow firefighters for the great job in protecting lives and homes during the Burning Tree fire. This recent disaster is, indeed, a wake-up call for all the residents to participate in fire mitigation. Rick and I just returned from the Big Island of Hawaii on Sunday. While in Hawaii we were evacuated for the tsunami and now the wildfire. The orderly evacuation in Hawaii pointed to the fact that we need to educate our fellow neighbors about the importance of having a workable plan in time of disaster here in Douglas County and specifically Misty Pines. The draft looks great. We definitely want to hold a meeting for our homeowners to discuss the draft and the urgency of implementing a plan before another "event" occurs. If you will give me some dates that you are available to meet with us after April 4, I will proceed to schedule a room at Sagewood Elementary School. In preparation for that meeting I will share the draft that you have compiled with our Fire Mitigation Committee as well as every homeowner in Misty Pines.

A meeting was set for April 14, 2011.

03/27/11 Email

I have attached a draft of the addendum for Misty Pines that will become part of the Community Wildfire Protection Plan. Einar Jensen, Life Safety Educator, for the South Metro Fire Rescue Authority developed the draft from a list of concerns identified by our Fire Mitigation Committee here in Misty Pines. The committee members include: Ellen Bartlett, Connie Bramer, Carolyn Meyer and Alecia Porras. Please read the attached document. Einar would like us to schedule a meeting for Misty Pines homeowners to give input and discuss the recent Burning Tree Fire. In light of the near disaster we consider this a high priority for the safety of our homeowners, property and pets.

No response needed

04/14/11 Email	<p>One resident expressed concern about the draft plan because the earlier version had alluded to commonly held land, which does not exist in Misty Pines; all of the land is private property. Otherwise, the resident was open to wildfire mitigation so long as plans respected private property rights.</p>	<p>The verbiage of the plan was adjusted, but later research found references to drainage easements in the covenants that might qualify as commonly-held land.</p>
04/15/11 Email	<p>Thank you for meeting with the Misty Pines Homeowners last night to spread the important message of fire mitigation! I will send you the notes from the meeting in the hope that I captured all the important points. We will look forward to reviewing the revised draft after you have met with all the other stakeholders in the CWPP. I would like to remind you to put May 3 on your calendar to meet with our homeowners who will sign up to have you visit their lots to provide guidance/suggestions for fire mitigation. I will followup with an e-mail to all HOA members to get the sign up started and will forward the list to you once it is complete. Would you please add the names of James Porras, Alecia Porras and Ellen Bartlett as members of our Fire Mitigation Committee on Page 4 of the Draft document. Our committee has a total of five members including Carolyn Meyer and Connie Bramer. Also, would you please forward me the list of native fire resistant plants so that I can share this information with our homeowners who may want to plant this spring.</p>	<p>The meeting notes are attached to this plan, the names were added as requested and the plant list was sent.</p>

South Metro Fire Rescue Wildfire Risk Assessment Survey









Results Overview

Date: 8/11/2011 9:37 AM PST





Responses: Completes

Filter: No filter applied





1. South Metro Fire Rescue's Community Wildfire Protection Plan has identified several communities within our jurisdiction that face a wildfire risk. Which of these communities do you live in or live closest to?

Black Forest		0	0%
Castle Pines (City of)		0	0%
Castle Pines Village		0	0%
Charter Oaks		0	0%
Chatfield/Chatfield Estates		0	0%
Colorado Golf Club		0	0%
Grandview Estates		0	0%
Happy Canyon		0	0%
Hidden Village		0	0%
High Prairie Farms/The Timbers		9	21%
Homestead Hills		5	12%
Livengood Estates		0	0%
Louviers		0	0%
McArthur Ranch		1	2%
Parker East		1	2%
Parker View Estates		0	0%
The Pinery		20	47%
Plum Valley Heights		0	0%
Ponderosa East		0	0%
Ponderosa Hills		0	0%
Surrey Ridge/Surrey Ridge Estates		0	0%
Windy Hills		0	0%
Other, please specify		7	16%
Total		43	100%





2. How many years have you lived in your current home? (Choose one)

0-5 years		5	11%
6-10 years		18	41%
11-20 years		16	36%
21 years or more		5	11%
Total		44	100%





3. How would you describe the risk that wildfire poses to your community?

5 - Extreme Risk		4	9%
4 - High Risk		18	41%
3 - Moderate Risk		21	48%
2 - Low Risk		1	2%
1 - No Risk		0	0%
Total		44	100%

4. How would you describe the risk that wildfire poses to your home?


5 - Extreme Risk		1	2%
4 - High Risk		14	32%
3 - Moderate Risk		24	55%
2 - Low Risk		5	11%
1 - No Risk		0	0%
Total		44	100%

5. How likely are you to leave your home if the threat of wildfire is imminent?


Definite		19	43%
Likely		17	39%
Maybe		3	7%
Unlikely		5	11%
Not At All		0	0%
Total		44	100%

6. How likely are you to leave your home during a wildfire if authorities tell you to evacuate?




Definite		30	68%
----------	---	----	-----

Likely		9	20%
Maybe		1	2%
Unlikely		4	9%
Not At All		0	0%
Total		44	100%






7. How capable are you of leaving your home?

Extremely Capable		43	100%
Will Require Assistance		0	0%
Not Capable		0	0%
Total		43	100%

8. Does your household have any of the following?

Pets		30	97%
Livestock		1	3%
Vulnerable Family Members (elderly, young, disabled)		5	16%

9. To what extent do you think your community has reduced the risk of wildfire?

Excellent		1	2%
Good		12	27%
Average		19	43%
Somewhat		10	23%
Not At All		2	5%
Total		44	100%

10. To what extent do you think the following components contribute to the risk of wildfire in your community?







Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Low	2	Moderate	4	High	N/A
Wood Shake Shingles	4 10%	4 10%	12 29%	7 17%	15 36%	0 0%

Wood Siding	2 5%	2 5%	15 36%	9 21%	14 33%	0 0%
Wood Decks	0 0%	0 0%	12 28%	17 40%	14 33%	0 0%
Landscaping	0 0%	4 9%	18 42%	7 16%	14 33%	0 0%
Utilities	10 23%	18 42%	13 30%	1 2%	0 0%	1 2%
Open Space	2 5%	4 9%	10 23%	10 23%	18 41%	0 0%
Roads (size and number)	14 33%	11 26%	16 37%	1 2%	1 2%	0 0%
Address Signage	15 35%	11 26%	10 23%	4 9%	2 5%	1 2%











11. Please rate the following ways to mitigate or reduce the risk of wildfire in your community:





Top number is the count of respondents selecting the option. Bottom % is percent of the total respondents selecting the option.	Effective	2	Neutral	4	Not effective
Reduce vegetation on public lands with controlled burning	9 20%	7 16%	17 39%	5 11%	6 14%
Reduce vegetation on public lands with mechanical treatments	9 21%	8 19%	17 40%	6 14%	3 7%
Reduce vegetation along roadways	11 26%	12 28%	9 21%	10 23%	1 2%
Increase firefighting equipment	6 14%	15 34%	17 39%	6 14%	0 0%
Increase the number of firefighters	7 16%	14 32%	19 43%	3 7%	1 2%
Increase water availability	12 27%	15 34%	13 30%	3 7%	1 2%
Encourage private land owners to create defensible space on their own property	22 51%	11 26%	3 7%	5 12%	2 5%
Hire a private company to create defensible space on private property	7 17%	9 21%	14 33%	8 19%	4 10%
Change covenants or laws to mandate the creation of defensible space	5 11%	15 34%	14 32%	6 14%	4 9%
Conduct community outreach and	15 34%	15 34%	7 16%	5 11%	2 5%

education
programs**12.** How willing are you to participate in a mitigation activity?









Very Likely		19	43%
Somewhat Likely		14	32%
Likely		8	18%
Unlikely		1	2%
Not Interested		1	2%
Unable		1	2%
Total		44	100%

13. Which of these wildfire mitigation activities have you completed?





Personally created defensible space on your property		20	47%
Hired a company to create defensible space on your property		4	9%
Maintained defensible space with annual effort		17	40%
Replaced the wood shake shingles with fire-resistant roofing material		20	47%
Replaced wood siding with fire-resistant siding		9	21%
Replaced a wood deck with fire-resistant decking		14	33%
Posted your address so it can be seen from the road in all conditions		18	42%
Developed a family evacuation plan		19	44%
Practiced a family evacuation plan		9	21%
Developed a family communication plan		7	16%






Participated in a Community Wildfire Protection Plan		7	16%
Attended a community meeting to learn about mitigation strategies		15	35%
Participated in a community mitigation event		2	5%
Other, please specify		3	7%

14. Which of the following actions have been taken in your community to reduce the risk of wildfire?

Individual property owners creating defensible space		26	60%
Community work days to reduce hazardous fuels		2	5%
Developing a Community Wildfire Protection Plan		18	42%
Changing covenants to encourage defensible space		1	2%
Community slash collection events		2	5%
Reducing vegetation on public lands within or adjacent to the community		7	16%
None that I am aware of		12	28%
Other, please specify		2	5%

15. Which of the following wildfire prevention programs have occurred in your community?

Local fire department presentations		22	54%
Colorado State Forest Service presentations		1	2%
Douglas County presentations		9	22%
Evacuation planning		1	2%

Emergency preparedness		2	5%
Wildfire mitigation		16	39%
Home Ignition Zone Assessments		4	10%
None that I am aware of		10	24%
Other, please specify		1	2%

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1. South Metro Fire Rescue's Community Wildfire Protection Plan has identified several communities within our jurisdiction that face a wildfire risk. Which of these communities do you live in or live closest to?

Other, please specify
Misty Pines

2. How many years have you lived in your current home? (Choose one)

11-20 years

3. How would you describe the risk that wildfire poses to your community?

3 - Moderate Risk

4. How would you describe the risk that wildfire poses to your home?

3 - Moderate Risk

5. How likely are you to leave your home if the threat of wildfire is imminent?

Likely

6. How likely are you to leave your home during a wildfire if authorities tell you to evacuate?

Likely

7. How capable are you of leaving your home?

Extremely Capable

8. Does your household have any of the following?

9. To what extent do you think your community has reduced the risk of wildfire?

Somewhat

10. To what extent do you think the following components contribute to the risk of wildfire in your community?

Wood Shake Shingles

4

Wood Siding

4

Wood Decks

5 High

Landscaping

3 Moderate

Utilities

2

Open Space

4

Roads (size and number)

2

Address Signage

2

11. Please rate the following ways to mitigate or reduce the risk of wildfire in your community:

Reduce vegetation on public lands with controlled burning

3 Neutral

Reduce vegetation on public lands with mechanical treatments

3 Neutral

Reduce vegetation along roadways

4

Increase firefighting equipment

4

Increase the number of firefighters

3 Neutral

Increase water availability

3 Neutral

Change covenants or laws to mandate the creation of defensible space

3 Neutral

Conduct community outreach and education programs

5 Not effective

12. How willing are you to participate in a mitigation activity?

Very Likely

13. Which of these wildfire mitigation activities have you completed?

Personally created defensible space on your property

Maintained defensible space with annual effort

Replaced the wood shake shingles with fire-resistant roofing material

Replaced wood siding with fire-resistant siding

Developed a family evacuation plan

Developed a family communication plan

Attended a community meeting to learn about mitigation strategies

14. Which of the following actions have been taken in your community to reduce the risk of wildfire?

Individual property owners creating defensible space

15. Which of the following wildfire prevention programs have occurred in your community?

Local fire department presentations

16. Please use this space to share additional comments regarding the wildfire risk in your community.

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Completion Time: Aug 9, 2011 7:13AM

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1. South Metro Fire Rescue's Community Wildfire Protection Plan has identified several communities within our jurisdiction that face a wildfire risk. Which of these communities do you live in or live closest to?

Other, please specify
Misty Pines

2. How many years have you lived in your current home? (Choose one)

21 years or more

3. How would you describe the risk that wildfire poses to your community?

4 - High Risk

4. How would you describe the risk that wildfire poses to your home?

4 - High Risk

5. How likely are you to leave your home if the threat of wildfire is imminent?

Definite

6. How likely are you to leave your home during a wildfire if authorities tell you to evacuate?

Definite

7. How capable are you of leaving your home?

Extremely Capable

8. Does your household have any of the following?

9. To what extent do you think your community has reduced the risk of wildfire?

Somewhat

10. To what extent do you think the following components contribute to the risk of wildfire in your community?

Wood Shake Shingles
5 High

Wood Siding
3 Moderate

Wood Decks
4

Landscaping
4

Utilities
2

Open Space
5 High

Roads (size and number)
1 Low

Address Signage

3 Moderate

11. Please rate the following ways to mitigate or reduce the risk of wildfire in your community:

Reduce vegetation on public lands with controlled burning

2

Reduce vegetation on public lands with mechanical treatments

2

Reduce vegetation along roadways

1 Effective

Increase firefighting equipment

2

Increase the number of firefighters

2

Increase water availability

1 Effective

Encourage private land owners to create defensible space on their own property

1 Effective

Hire a private company to create defensible space on private property

1 Effective

Change covenants or laws to mandate the creation of defensible space

2

Conduct community outreach and education programs

1 Effective

12. How willing are you to participate in a mitigation activity?

Very Likely

13. Which of these wildfire mitigation activities have you completed?

Hired a company to create defensible space on your property

Replaced the wood shake shingles with fire-resistant roofing material

14. Which of the following actions have been taken in your community to reduce the risk of wildfire?

Individual property owners creating defensible space

15. Which of the following wildfire prevention programs have occurred in your community?

16. Please use this space to share additional comments regarding the wildfire risk in your community.



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1. South Metro Fire Rescue's Community Wildfire Protection Plan has identified several communities within our jurisdiction that face a wildfire risk. Which of these communities do you live in or live closest to?

Other, please specify
Misty Pines

2. How many years have you lived in your current home? (Choose one)

11-20 years

3. How would you describe the risk that wildfire poses to your community?

3 - Moderate Risk

4. How would you describe the risk that wildfire poses to your home?

3 - Moderate Risk

5. How likely are you to leave your home if the threat of wildfire is imminent?

Likely

6. How likely are you to leave your home during a wildfire if authorities tell you to evacuate?

Definite

7. How capable are you of leaving your home?

Extremely Capable

8. Does your household have any of the following?

Pets

9. To what extent do you think your community has reduced the risk of wildfire?

Good

10. To what extent do you think the following components contribute to the risk of wildfire in your community?

Wood Shake Shingles

1 Low

Wood Siding

3 Moderate

Wood Decks

4

Landscaping

4

Utilities

N/A

Open Space

4

Roads (size and number) 2
Address Signage 2

11. Please rate the following ways to mitigate or reduce the risk of wildfire in your community:

Reduce vegetation on public lands with controlled burning 4
Reduce vegetation on public lands with mechanical treatments 4
Reduce vegetation along roadways 4
Increase firefighting equipment 4
Increase the number of firefighters 4
Increase water availability 3 Neutral
Encourage private land owners to create defensible space on their own property 1 Effective
Hire a private company to create defensible space on private property 5 Not effective
Change covenants or laws to mandate the creation of defensible space 2
Conduct community outreach and education programs 1 Effective

12. How willing are you to participate in a mitigation activity?

Very Likely

13. Which of these wildfire mitigation activities have you completed?

Personally created defensible space on your property

Replaced a wood deck with fire-resistant decking

Attended a community meeting to learn about mitigation strategies

14. Which of the following actions have been taken in your community to reduce the risk of wildfire?

Individual property owners creating defensible space

15. Which of the following wildfire prevention programs have occurred in your community?

Local fire department presentations

Wildfire mitigation

16. Please use this space to share additional comments regarding the wildfire risk in your community.

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44

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1. South Metro Fire Rescue's Community Wildfire Protection Plan has identified several communities within our jurisdiction that face a wildfire risk. Which of these communities do you live in or live closest to?

Other, please specify
Misty Pines

2. How many years have you lived in your current home? (Choose one)

11-20 years

3. How would you describe the risk that wildfire poses to your community?

4 - High Risk

4. How would you describe the risk that wildfire poses to your home?

2 - Low Risk

5. How likely are you to leave your home if the threat of wildfire is imminent?

Unlikely

6. How likely are you to leave your home during a wildfire if authorities tell you to evacuate?

Unlikely

7. How capable are you of leaving your home?

Extremely Capable

8. Does your household have any of the following?

Pets

9. To what extent do you think your community has reduced the risk of wildfire?

Average

10. To what extent do you think the following components contribute to the risk of wildfire in your community?
--

Wood Shake Shingles

1 Low

Wood Siding

3 Moderate

Wood Decks

4

Landscaping

3 Moderate

Utilities

1 Low

Open Space

5 High

Roads (size and number)

1 Low

Address Signage

1 Low

11. Please rate the following ways to mitigate or reduce the risk of wildfire in your community:
--

Reduce vegetation on public lands with controlled burning
--

5 Not effective

Reduce vegetation on public lands with mechanical treatments

1 Effective

Reduce vegetation along roadways

4

Increase firefighting equipment
--

3 Neutral

Increase the number of firefighters
--

3 Neutral

Increase water availability

3 Neutral

Encourage private land owners to create defensible space on their own property

5 Not effective

Hire a private company to create defensible space on private property
--

4

Change covenants or laws to mandate the creation of defensible space

2

Conduct community outreach and education programs

5 Not effective

12. How willing are you to participate in a mitigation activity?

Very Likely

13. Which of these wildfire mitigation activities have you completed?

Personally created defensible space on your property

Maintained defensible space with annual effort

Replaced the wood shake shingles with fire-resistant roofing material

Participated in a Community Wildfire Protection Plan

Attended a community meeting to learn about mitigation strategies

14. Which of the following actions have been taken in your community to reduce the risk of wildfire?

Individual property owners creating defensible space

Community work days to reduce hazardous fuels

Developing a Community Wildfire Protection Plan

15. Which of the following wildfire prevention programs have occurred in your community?

Local fire department presentations

Wildfire mitigation

16. Please use this space to share additional comments regarding the wildfire risk in your community.

  18 / 44   18 

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South Metro Fire Rescue Wildfire Risk Assessment Survey

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[|<](#) [<](#) 27 / 44 [>](#) [>|](#) 27 [GO](#)

Deployment Type: Web

Completion Time: Aug 9, 2011 6:15PM

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1. South Metro Fire Rescue's Community Wildfire Protection Plan has identified several communities within our jurisdiction that face a wildfire risk. Which of these communities do you live in or live closest to?

Other, please specify
misty pines

2. How many years have you lived in your current home? (Choose one)

6-10 years

3. How would you describe the risk that wildfire poses to your community?

3 - Moderate Risk

4. How would you describe the risk that wildfire poses to your home?

3 - Moderate Risk

5. How likely are you to leave your home if the threat of wildfire is imminent?

Likely

6. How likely are you to leave your home during a wildfire if authorities tell you to evacuate?

Definite

7. How capable are you of leaving your home?

Extremely Capable

8. Does your household have any of the following?

Pets

9. To what extent do you think your community has reduced the risk of wildfire?

Good

10. To what extent do you think the following components contribute to the risk of wildfire in your community?

Wood Shake Shingles

5 High

Wood Siding

4

Wood Decks

4

Landscaping

3 Moderate

Utilities

3 Moderate

Open Space

3 Moderate

Roads (size and number)

3 Moderate

Address Signage

3 Moderate

11. Please rate the following ways to mitigate or reduce the risk of wildfire in your community:

Reduce vegetation on public lands with controlled burning

3 Neutral

Reduce vegetation on public lands with mechanical treatments

3 Neutral

Reduce vegetation along roadways

4

Increase firefighting equipment

3 Neutral

Increase the number of firefighters

3 Neutral

Increase water availability

2

Encourage private land owners to create defensible space on their own property

1 Effective

Hire a private company to create defensible space on private property

2

Change covenants or laws to mandate the creation of defensible space

3 Neutral

Conduct community outreach and education programs

2

12. How willing are you to participate in a mitigation activity?

Somewhat Likely

13. Which of these wildfire mitigation activities have you completed?

Maintained defensible space with annual effort

Developed a family evacuation plan

14. Which of the following actions have been taken in your community to reduce the risk of wildfire?

Individual property owners creating defensible space

Developing a Community Wildfire Protection Plan

15. Which of the following wildfire prevention programs have occurred in your community?

Local fire department presentations

Colorado State Forest Service presentations

Wildfire mitigation

16. Please use this space to share additional comments regarding the wildfire risk in your community.



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South Metro Fire Rescue Wildfire Risk Assessment Survey

[Edit & Review](#)[Invite & Deploy](#)[Analyze Results](#)[Share Results](#)[» Results](#)[Individual Responses](#)[» Raw Data Export](#)[» Manage Presentation](#)

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Options

Show Responses:

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[|<](#) [<](#) 17 / 44 [>](#) [>|](#) 17 [GO](#)

Deployment Type: Web

Completion Time: Aug 9, 2011 7:51AM

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1. South Metro Fire Rescue's Community Wildfire Protection Plan has identified several communities within our jurisdiction that face a wildfire risk. Which of these communities do you live in or live closest to?

Other, please specify
Misty Pines

2. How many years have you lived in your current home? (Choose one)

11-20 years

3. How would you describe the risk that wildfire poses to your community?

2 - Low Risk

4. How would you describe the risk that wildfire poses to your home?

2 - Low Risk

5. How likely are you to leave your home if the threat of wildfire is imminent?

Likely

6. How likely are you to leave your home during a wildfire if authorities tell you to evacuate?

Likely

7. How capable are you of leaving your home?

Extremely Capable

8. Does your household have any of the following?

Pets

9. To what extent do you think your community has reduced the risk of wildfire?

Good

10. To what extent do you think the following components contribute to the risk of wildfire in your community?

Wood Shake Shingles

3 Moderate

Wood Siding

3 Moderate

Wood Decks

3 Moderate

Landscaping

3 Moderate

Utilities

3 Moderate

Open Space

3 Moderate

Roads (size and number)

1 Low

Address Signage

1 Low

11. Please rate the following ways to mitigate or reduce the risk of wildfire in your community:

Reduce vegetation on public lands with controlled burning

4

Reduce vegetation on public lands with mechanical treatments

4

Reduce vegetation along roadways

4

Increase firefighting equipment

3 Neutral

Increase the number of firefighters

3 Neutral

Increase water availability

3 Neutral

Encourage private land owners to create defensible space on their own property

4

Hire a private company to create defensible space on private property

4

Change covenants or laws to mandate the creation of defensible space

3 Neutral

Conduct community outreach and education programs

3 Neutral

12. How willing are you to participate in a mitigation activity?

Unable

13. Which of these wildfire mitigation activities have you completed?

Posted your address so it can be seen from the road in all conditions

Developed a family evacuation plan

14. Which of the following actions have been taken in your community to reduce the risk of wildfire?

Developing a Community Wildfire Protection Plan

15. Which of the following wildfire prevention programs have occurred in your community?

Douglas County presentations

16. Please use this space to share additional comments regarding the wildfire risk in your community.

17 / 44

READY, SET, GO!

Your Personal Wildfire Action Plan



Steve "Smitty" Smith



Steve "Smitty" Smith



Einar Jensen



READY, SET, GO!

Wildfire Action Plan

Saving Lives and Property
through Advance Planning



Colorado Springs Fire Department

The fire season is now a reality throughout the year in Colorado, which means that both firefighters and residents have to be on heightened alert for the threat of wildfire at all times.

Colorado's firefighters take every precaution to help protect you and your property from a wildfire. Residents need to do the same. Successfully preparing for a wildfire requires you to take personal responsibility for protecting yourself, your family and your property. During a major wildfire, there simply will not be enough fire engines or firefighters to defend every home, so residents must become part of the solution.

If your home borders or sits with a mile or two of a natural area, what firefighters call the Wildland Urban Interface, you are at risk from a wildfire. And, if you live within one mile of a natural area, you live in the Ember Zone. Homes in the Ember Zone are at risk from wind-driven embers from a wildfire. Recent fires across the nation have resulted in entire neighborhoods being destroyed by fires started by embers, not the wildfire itself.

This publication will help guide you through the process of making your home resistant to wildfires and your family ready to leave early and safely. We call this process, "Ready, Set, Go!"

You will learn about the Ember Zone and how to retrofit your home with ignition resistant features. We'll show you the importance of having defensible space around your home and the preparations you need to make so you can leave early, evacuating well ahead of the fire.

Fire is, and always has been, a natural part of the beautiful area where we've chosen to live. Wildfires, fueled by a build-up of dry vegetation and driven by hot, dry winds, are extremely dangerous and almost impossible to control. Many residents have built their homes and landscaped without fully understanding the impact a fire could have on them. This publication will help you prepare your home so you can leave early, confident that you've done everything you reasonably can to protect your home.

It's not a question of if, but when, the next wildfire will occur. That's why the most important person protecting your life and property is you. With advance planning and preparation, you can dramatically increase your safety and the survivability of your property.

Now, Get Ready, Get Set, Go!

This publication was prepared by the Fire & Life Safety Educators of Colorado, Fire Marshals Association of Colorado and Colorado State Fire Chiefs Association so that Colorado's fire departments and life safety professionals could have a common resource for educating their citizens about wildfire prevention, mitigation and reaction. Many agencies will supplement this information with programming geared specifically for their communities.

Colorado: Ready, Set, Go!
also is supported by:

**Pikes Peak Wildfire Prevention Partners
West Region Wildfire Council**

Living in the Wildland Urban Interface and the Ember Zone

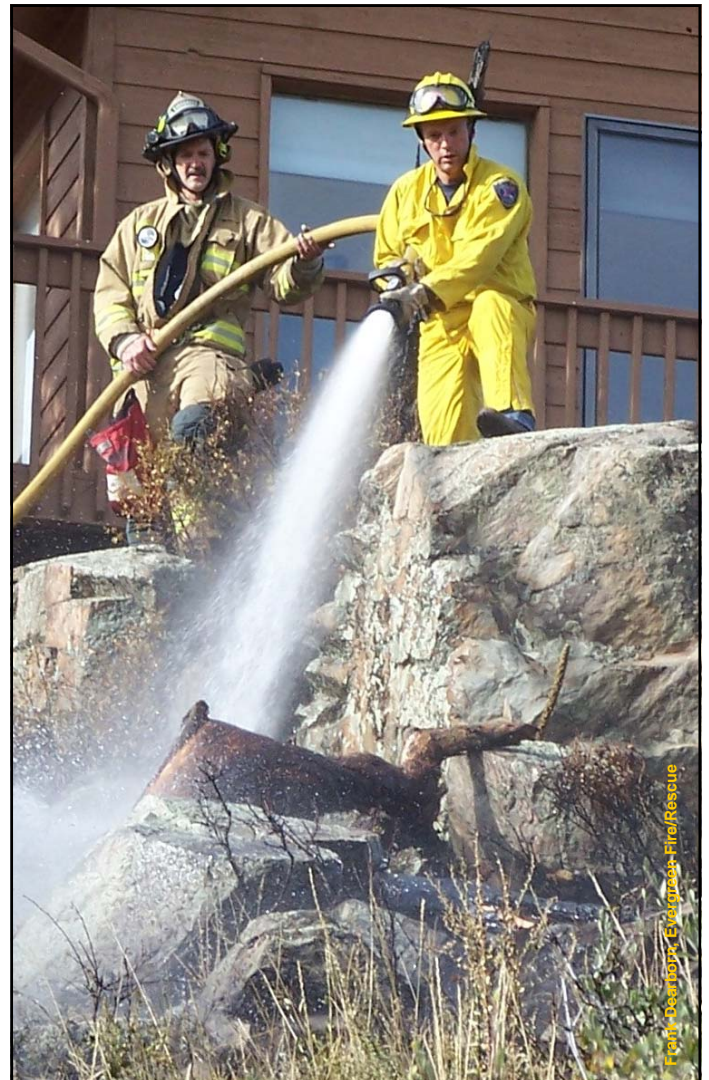
Ready, Set, Go! begins with a house that firefighters can defend.

Defensible space works!

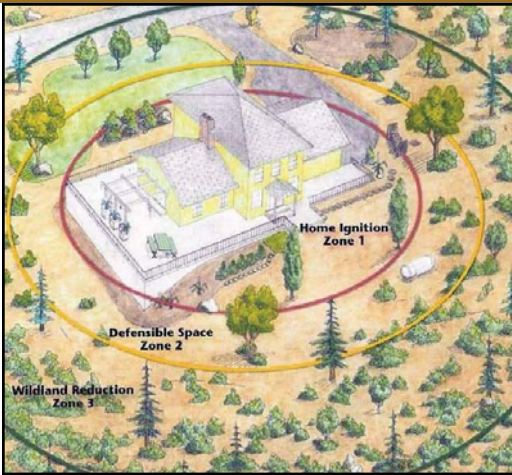
If you live next to a natural area, the Wildland Urban Interface, you must provide firefighters with the defensible space they need to protect your home. The buffer zone you create by removing weeds, brush and other vegetation helps to keep the fire away from your home and reduces the risks from flying embers.



A home within one mile of a natural area is in the Ember Zone. Wind-driven embers can attack your home. You and your home must be prepared well before a fire occurs. Ember fires can destroy homes or neighborhoods far from the actual flame front of the wildfire.



What is Defensible Space?



Defensible space is the space between a structure and the wildland area that, under normal conditions, creates a sufficient buffer to slow or halt the spread of a wildfire to the structure. It protects the home from igniting from direct flame, radiant heat and embers. Defensible space is essential for structure survivability during wildfires.

Zone 1

This zone, which consists of an area of 15 feet around the structure, features the most intense modification and treatment. This 15 feet is measured from the outside edge of the home's eaves and any attached structures, such as decks. Limit vegetation within this zone to species on Colorado's FireWise list. Do not plant directly beneath windows or next to foundation vents. Frequently prune and maintain plants in this zone to ensure vigorous growth and a low growth habit. Remove dead branches, stems and leaves.

Do not store firewood or other combustible materials in this area. Enclose or screen decks with metal screening. Extend gravel coverage under the decks. Do not use areas under decks for storage.

If ponderosas, aspens or blue spruces are growing in this zone, consider them part of the structure and extend the distance of the entire defensible space accordingly. Isolate the tree from any other surrounding trees. Prune low-lying branches (ladder fuels that would allow a surface fire to climb into the tree) and any branches that interfere with the roof or are within 10 feet of the chimney. In all other areas, prune all branches of shrubs or trees up to a height of 10 feet above ground (or 1/2 the height, whichever is the least).

Zone 2

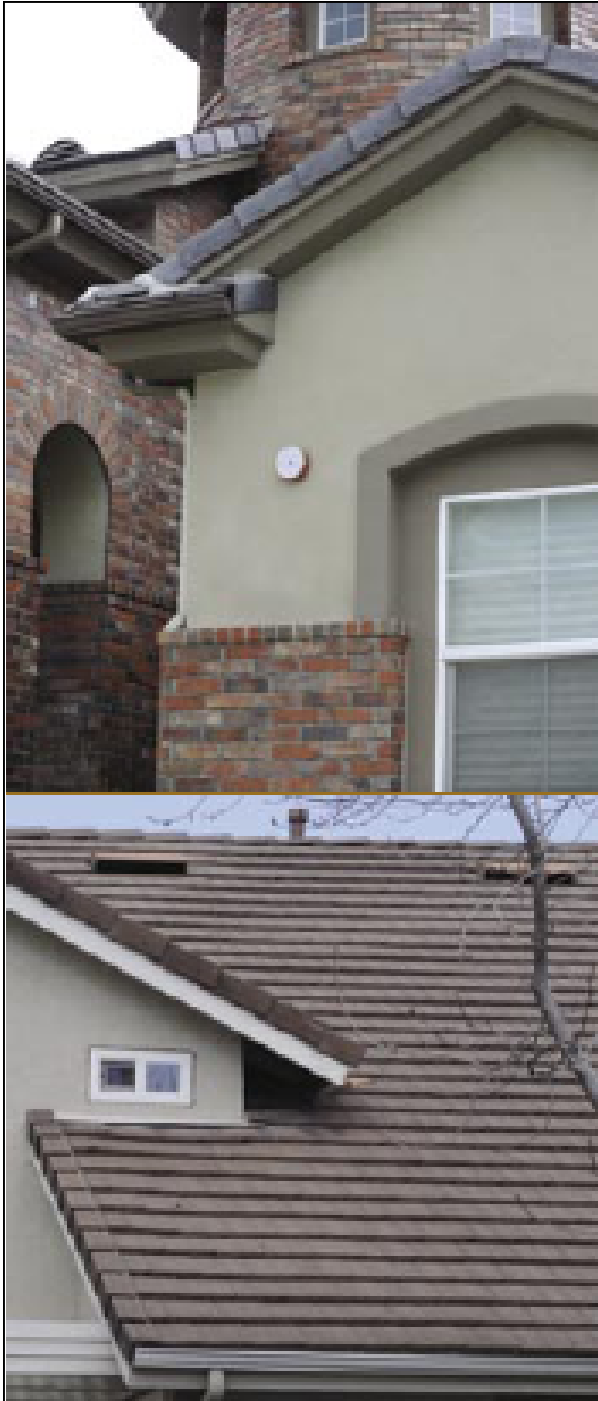
This zone features fuel reduction efforts and serves as a transitional area between Zones 1 and 3. The size of Zone 2 depends on the slope of the ground where the structure is built. Typically, the defensible space should extend *at least* 75 to 125 feet from the structure. Remove stressed, diseased, dead or dying trees and shrubs. Thin and prune the remaining larger trees and shrubs. Be sure to extend thinning along either side of your driveway all the way to your main access road. These actions help eliminate the continuous fuel surrounding a structure while enhancing homesite safety and the aesthetics of the property.

Zone 3

This area of traditional forest management extends from the edge of your defensible space to your property boundaries. The healthiest forest is one that has multiple ages, sizes, and species of trees where adequate growing room is maintained over time. Remember to consider the hazards of ladder fuels. A greater number of wildlife trees can remain in Zone 3. Make sure that dead trees pose no threat to power lines or fire access roads.

What is a Hardened Home?

Construction materials and the quality of the defensible space surrounding it are what gives a home the best chance to survive a wildfire. Embers from a wildfire will find the weak link(s) in your home's fire protection scheme: a small, overlooked or seemingly inconsequential factor with enormous potential consequences. However, there are measures you can take to safeguard your home from wildfire. While you may not be able to accomplish all the measures listed below, each will increase your home's, and possibly your family's, safety and survivability during a wildfire.



ROOFING

Roofs are the most vulnerable surface where embers land because they provide nooks for embers to lodge and ignite a fire. Roof valleys, open ends of barrel tiles and rain gutters are all vulnerable to ember accumulation.

EAVES

Embers can gather under open eaves and ignite exposed wood or other combustible material.

VENTS

Embers can enter the attic or other concealed spaces and ignite combustible materials through vents. Vents in eaves and cornices are particularly vulnerable, as are any unscreened vents.

WALLS

Combustible siding or overlapping materials provide surfaces and crevices for embers to nestle and ignite walls.

WINDOWS and DOORS

Embers can enter a home through gaps in doors, including garage doors. Plants or combustible storage near windows can be ignited from embers and generate enough heat to break windows and/or melt combustible frames.

BALCONIES and DECKS

Embers that collect in or on combustible surfaces or the undersides of decks and balconies can ignite that material and enter the home through walls or windows.

MORE

To harden your home further, consider protecting it with a residential fire sprinkler system. In addition to extinguishing or at least containing a fire started by an ember that enters your home, it also protects you and your family throughout the year from any fire that may ignite inside.

Tour a Wildfire Ready Home

Garage: Have a fire extinguisher and tools such as a shovel, rake, bucket and hoe available for fire emergencies.

Install a solid door with self-closing hinges between the garage and living area. Install weather stripping around and under doors to prevent ember intrusion.

Store all combustibles and flammable liquids away from ignition sources.

Vents: Vents on homes are particularly vulnerable to flying embers. All vent openings should be covered with 1/8-inch or smaller mesh. Do not use fiberglass or plastic mesh because those materials can melt and burn.

Attic vents in eaves or cornices should be baffled or otherwise protected to prevent ember intrusion (mesh is not enough).

Deck/Patio: Use heavy timber or non-flammable construction material for decks.

Enclose the underside of balconies and decks with fire-resistant materials to prevent embers from blowing underneath.

Remove combustible items such as baskets, dried flower arrangements and other debris as well as furniture from the deck if a wildfire approaches.

Driveways and Access Roads: Driveways should be designed to allow fire and other emergency vehicles and equipment to reach your home.

Access Roads should have a minimum 10-foot clearance on either side of the traveled section of the roadway and should allow for two-way traffic.

Ensure that all gates open inward and are wide enough to accommodate emergency equipment. Locked gates should be equipped with a Knox Box or similar entry system that can be accessed by emergency responders quickly and safely.

Trim trees and shrubs overhanging the road to a minimum of 15 feet to allow emergency vehicles to pass.

Home Site and Yard: Ensure you have at least a 100-foot radius of defensible space (treated vegetation) around your home. Note that even more treatment may be needed for homes in severe hazard areas. Look beyond what you own to determine the impact a common slope or neighbors' yard will have on your property during a wildfire.

Cut dry weeds and grass before noon when temperatures are cooler to reduce the chance of sparking a fire.

Landscape with fire-resistant plants that have a high moisture content and are low-growing.

Keep woodpiles, propane tanks and combustible materials away from your home and other structures such as garages, barns and sheds.

Ensure that trees are far away from power lines.

Roof: Your roof is the most vulnerable part of your home because it can easily catch fire from wind-blown embers. Homes with wood-shake or wood shingle roofs are at high risk of being destroyed during a wildfire.

Build your roof or re-roof with fire-resistant materials such as composition, metal or tile. Block any spaces between roof decking and covering to prevent ember intrusion.

Clear pine needles, leaves and other debris from your roof and gutters.

Cut any tree branches within 10 feet of your roof.

Address: Post your address with 4" reflective numbers that can be seen from the road in all weather conditions.

Chimney: Cover your chimney and stove-pipe outlets with a non-flammable screen or 1/4-inch wire mesh or smaller to prevent embers from escaping and igniting a fire.

Make sure that your chimney is at least 10 feet away from any tree branches.

Gutters: Screen or enclose rain gutters to prevent an accumulation of plant debris and ember intrusion.

Non-Combustible Fencing: Make sure to use non-combustible fencing to protect your home and other structures during a wildfire.

Non-Combustible Boxed-in Eaves: Box in eaves with non-combustible materials to prevent an accumulation of embers.

Windows: Heat from a wildfire can cause windows to break before the home ignites. Broken windows allow burning embers to enter and start fires inside the home. Single-paned and large windows are particularly vulnerable.

Install dual-paned windows with the exterior pane of tempered glass to reduce the change of breakage during a fire. Limit the size and number of windows in your home that face large areas of vegetation because windows also allow radiant heat to pass into the home to ignite combustible materials such as curtains and upholstery.

Walls: Wood products, such as boards, panels or shingles, are common siding materials. However, they are combustible and not good choices for fire-prone areas.

Build or remodel with fire-resistant building materials such as brick, cement, masonry or stucco. Be sure to extend those materials from foundation to roof.

Water Supply: Have multiple garden hoses that are long enough to reach any area of your home and other structures on your property.

If you have a pool or well, consider installing a pump.

Inside: Keep working fire extinguishers on hand in accessible locations.

Install smoke alarms on each level of your home and near bedrooms. Test them monthly and change the batteries each year.

When remodeling, install residential sprinklers in your home and maintain the system as suggested by the installer.

READY, SET, GO!

Create Your Own Wildfire Action Plan

Now that you've done everything you can to protect your house, it's time to prepare your family. Your **Wildfire Action Plan** must be prepared with all members of your household well in advance of a fire.

Use these checklists to help you prepare your Wildfire Action Plan. Each family's plan will be different, depending on their situation.

Once you finish your plan, rehearse it regularly with your family and keep it in a safe and accessible place for quick implementation.

GET READY | Prepare Your Family

- ☐ Create a **Family Disaster Plan** that includes meeting locations and communication plans and rehearse it regularly. Include in your plan the evacuation of large animals such as horses.
- ☐ Have fire extinguishers on hand and train your family how to use them.
- ☐ Ensure that your family knows where your gas, electric and water main shut-off controls are and how to use them.
- ☐ Plan several different evacuation routes.
- ☐ Designate an emergency meeting location outside the fire hazard area.
- ☐ Assemble an emergency supply kit as recommended by the American Red Cross.
- ☐ Appoint an out-of-area friend or relative as a point of contact so you can communicate with family members who have relocated.
- ☐ Maintain a list of emergency contact numbers posted near your phone and in your emergency supply kit.
- ☐ Keep an extra emergency supply kit in your car in case you can't get to your home because of fire.
- ☐ Have a portable radio or scanner so you can stay updated on the fire.



GET SET

As the Fire Approaches

- ☐ Evacuate as soon as you are set!
- ☐ Alert family and neighbors.
- ☐ Dress in appropriate clothing (i.e., clothing made from natural fibers, such as cotton, and work boots). Have goggles and a dry bandana or particle mask handy.
- ☐ Ensure that you have your emergency supply kit on hand that includes all necessary items, such as a battery powered radio, spare batteries, emergency contact numbers, and ample drinking water.
- ☐ Stay tuned to your TV or local radio stations for updates, or check the fire department Web site.
- ☐ Remain close to your house, drink plenty of water and keep an eye on your family and pets until you are ready to leave.

INSIDE CHECKLIST

- ☐ Shut all windows and doors, leaving them unlocked.
- ☐ Remove flammable window shades and curtains and close metal shutters.
- ☐ Remove lightweight curtains.
- ☐ Move flammable furniture to the center of the room, away from windows and doors.
- ☐ Shut off gas at the meter. Turn off pilot lights.
- ☐ Leave your lights on so firefighters can see your house under smoky conditions.
- ☐ Shut off the air conditioning.

OUTSIDE CHECKLIST

- ☐ Gather up flammable items from the exterior of the house and bring them inside (e.g., patio furniture, children's toys, door mats, etc.) or place them in your pool.
- ☐ Turn off propane tanks.
- ☐ Don't leave sprinklers on or water running - they can waste critical water pressure.
- ☐ Leave exterior lights on.
- ☐ Back your car into the driveway. Shut doors and roll up windows.
- ☐ Have a ladder available.
- ☐ Patrol your property and extinguish all small fires until you leave.
- ☐ Seal attic and ground vents with pre-cut plywood or commercial seals if time permits.

IF YOU ARE TRAPPED: SURVIVAL TIPS

- ☐ Shelter away from outside walls.
- ☐ Bring garden hoses inside house so embers don't destroy them.
- ☐ Patrol inside your home for spot fires and extinguish them.
- ☐ Wear long sleeves and long pants made of natural fibers such as cotton.
- ☐ Stay hydrated.
- ☐ Ensure you can exit the home if it catches fire (remember if it's hot inside the house, it is four to five times hotter outside).
- ☐ Fill sinks and tubs for an emergency water supply.
- ☐ Place wet towels under doors to keep smoke and embers out.
- ☐ After the fire has passed, check your roof and extinguish any fires, sparks or embers.
- ☐ Check inside the attic for hidden embers.
- ☐ Patrol your property and extinguish small fires.
- ☐ If there are fires that you can not extinguish with a small amount of water or in a short period of time, call 9-1-1.



Go! | *Early!*

By leaving early, you give your family the best chance of surviving a wildfire. You also help firefighters by keeping roads clear of congestion, enabling them to move more freely and do their job.

WHEN TO LEAVE

Leave early enough to avoid being caught in fire, smoke or road congestion. Don't wait to be told by authorities to leave. In an intense wildfire, they may not have time to knock on every door. If you are advised to leave, don't hesitate!

WHERE TO GO

Leave to a predetermined location (it should be a low-risk area, such as a well-prepared neighbor or relative's house, a Red Cross shelter or evacuation center, motel, etc.)

HOW TO GET THERE

Have several travel routes in case one route is blocked by the fire or by emergency vehicles and equipment. Choose an escape route away from the fire.

WHAT TO TAKE

Take your emergency supply kit containing your family and pet's necessary items.



EMERGENCY SUPPLIES

The American Red Cross recommends every family have an emergency supply kit assembled long before a wildfire or other emergency occurs. Use the checklist below to help assemble yours. For more information on emergency supplies, visit the American Red Cross Web site at www.redcross.org.

- ☐ Three-day supply of water (one gallon per person per day).
- ☐ Non-perishable food for all family members and pets (three-day supply).
- ☐ First aid kit.
- ☐ Flashlight, battery-powered radio, and extra batteries.
- ☐ An extra set of car keys, credit cards, cash or traveler's checks.
- ☐ Sanitation supplies.
- ☐ Extra eyeglasses or contact lenses.
- ☐ Important family documents and contact numbers.
- ☐ Map marked with evacuation routes.
- ☐ Prescriptions or special medications.
- ☐ Family photos and other irreplaceable items.
- ☐ Easily carried valuables.
- ☐ Personal computers (information on hard drives and disks).
- ☐ Chargers for cell phones, laptops, etc.

Note: Keep a pair of old shoes and a flashlight handy in case of a sudden evacuation at night.



Write up your Wildfire Action Plan and post it in a location where every member of your family can see it. Rehearse it with your family.

My Personal Wildfire Action Plan

During High Fire Danger days in your area, monitor your local media for information on brush fires and be ready to implement your plan. Hot, dry and windy conditions create the perfect environment for a wildfire.

Important Phone Numbers:

Out-of-State Contact: _____ Phone: _____

Work: _____

School: _____

Other: _____

Evacuation Routes: _____

Where to go: _____

Location of Emergency Supply Kit: _____

Notes: _____

Colorado's Partners in Wildfire Prevention & Safety



**If you have an emergency,
Call 911**

Tax credit available for mitigation work

As authorized by §39-22-104(4)(n), C.R.S., for income tax years 2009 through 2013 individuals, estates and trusts may subtract from federal taxable income 50% of the costs incurred in performing wildfire mitigation measures that meet the following qualifications and limitations:

- The taxpayer must own the property upon which the wildfire mitigation measures are performed.
- The property upon which the wildfire mitigation measures are performed must be located in Colorado.
- The property upon which the wildfire mitigation measures are performed must be located in a wild land-urban interface area.
- The wildfire mitigation measures must be authorized by a community wildfire protection plan adopted by a local government within the interface area.
- The total amount of the subtraction may not exceed \$2,500.

An approved community wildfire protection plan identifies and prioritizes areas for hazardous fuel reduction treatments and recommend the types and methods of treatments. It also must recommend measures to reduce structural ignitability.

Additional information regarding community wildfire protection plans can be found online at www.csfs.colostate.edu.



Costs

Costs include any actual out-of-pocket expense incurred and paid by the landowner and documented by receipt for performing wildfire mitigation measures. The following expenses are specifically excluded within statute and do not qualify for this subtraction:

- Inspection or certification fees;
- In-kind contributions;
- Donations;
- Incentives;
- Cost sharing;

Wildfire mitigation measures include the following activities to the extent that they meet or exceed any Colorado State Forest Service standards or any other applicable state rules:

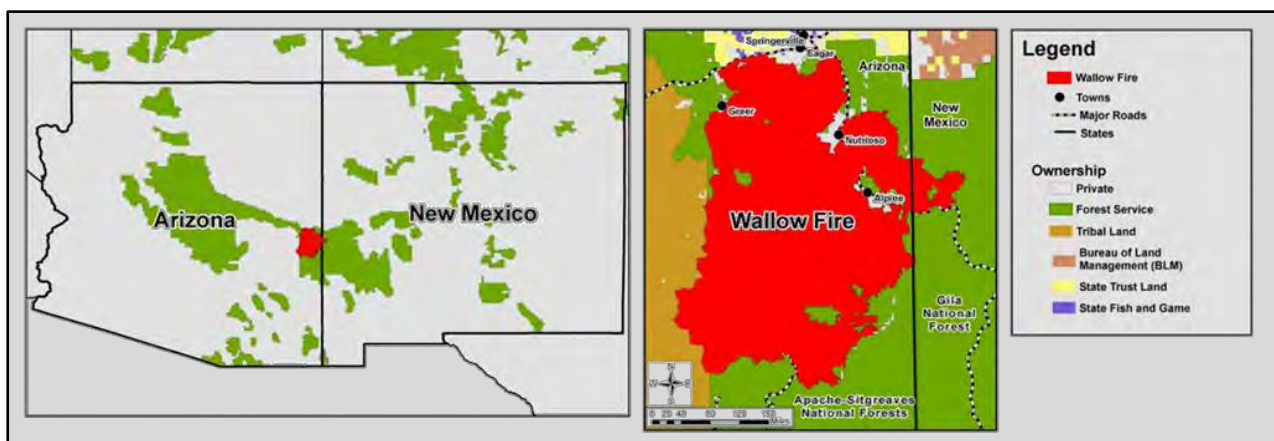
- Creating and maintaining a defensible space around structures;
- Establishing fuel breaks;
- Thinning of woody vegetation for the primary purpose of reducing risk to structures from wildland fire;
- Secondary treatment of woody fuels by lopping and scattering, piling, chipping, removing from the site or prescribed burning.

For information regarding these and other wildfire mitigation measures, visit www.csfs.colostate.edu; for information about the tax credit, check www.taxcolorado.com.



How Fuel Treatments Saved Homes from the 2011 Wallow Fire

Huge smoke column from the rapidly spreading, high-intensity Wallow Fire as it moves toward threatened communities.





Influenced by strong winds and low humidity, the high-intensity Wallow Fire burns toward communities.

Without Fuel Treatments: ‘Many of the Houses Would Have Caught Fire and Burned to the Ground’

The **Wallow Fire** starts on Sunday, May 29, 2011. On the fire’s first and second day—and for three of the next five days—“Red Flag” (windy and dry) conditions thrive. By the morning of the fire’s sixth day—June 3—the Wallow Fire has burned 40,000 acres—almost 63 square miles. The fire has now moved north to the junction of Forest Roads 26 and 24. Adding to the severe intensity of the fire’s spread, the winds have increased and relative humidity has decreased.

By noon on June 3, fire behavior becomes even more intense as the Wallow Fire makes an extended “crown fire” charge toward the community of Alpine, Arizona. Within three hours, this crown fire crests the ridge above Alpine. The blaze quickly moves downslope toward numerous homes located along the southwest outskirts of town.

Soon, this crown fire threatening these Alpine homes starts showering embers as far as one mile downwind—igniting numerous spot fires out ahead of the main fire.

Fuel Treatment Units Slow the Wallow Fire– Allow Firefighters to Safely Attack

As the main fire enters the ½ mile-wide White Mountain Stewardship Fuel Treatment units located above Alpine, the blaze drops from up in the tree crowns down to the surface level. The fire’s rate-of-spread dramatically slows. Thanks to the influence of these previously developed treatment units—implemented beginning in 2004—flame lengths are now low enough to allow firefighters to safely attack the fire and protect homes and property.

How Fuel Treatments Saved Homes from the Wallow Fire

“When the fire came over the ridge toward Alpine it sounded like a freight train. The smoke column was bent over making it difficult to see. Without the fuel treatment effects of reducing flame lengths and defensible space around most houses, we would have had to pull back our firefighters. Many of the houses would have caught fire and burned to the ground.”

**Jim Aylor, Fire Management Officer
Alpine Fire District**

Engines and crews successfully extinguish the spot fires. To further protect residents’ houses, these firefighters also conduct low-intensity “firing operations” from roadways and other fuel breaks. These aggressive firefighting suppression actions continue throughout the evening—successfully halting the spread of the Wallow Fire into the community of Alpine. In fact, all of this community’s structures—but one—are saved from the fire’s attack. (Actually, this single structure burned several days later when an ember—most likely transported downwind during the June 3 crown fire run—smoldered for several days before flaring up.)

Even though they experienced ember showers and low-intensity surface fires, many of the other Alpine structures that survived the Wallow Fire did so because of these prior fuel treatments, as well as “Firewise” construction and landscaping completed by the land owners. There’s no question that these previous fuel reduction actions allowed the firefighters to safely and aggressively fight the Wallow Fire.

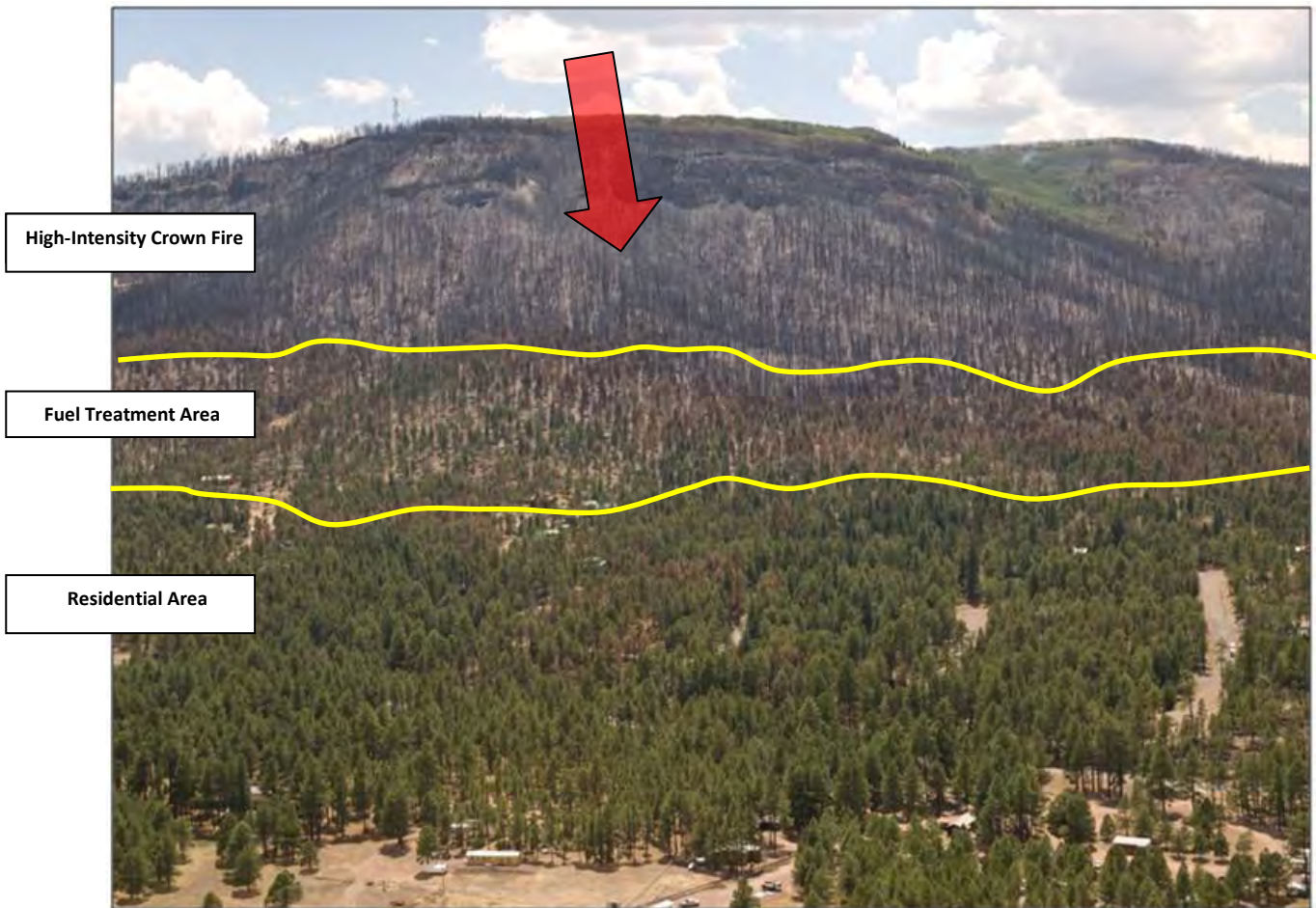
Green tree area is the residential zone where Alpine homes are located.



The Colors Tell the Success Story

The black, bottom area in this photo shows where the Wallow Fire moved downslope toward the community of Alpine and various homes on the outskirts of town (the green tree area in this photo) when it entered the White Mountain Stewardship Fuel Treatment Area’s Alpine Wildland-Urban Interface Unit 2. Here, the fire transitioned from a crown fire to a surface fire—exhibiting far less burning intensity as it moved on downslope. Notice how the blackened tree crowns (totally consumed by the fire) diminish and turn to brown (fire singed) and then to green (unburned)—where the homes are located—as the fire moved through the protective fuel treatment unit area with its wider spacing of tree crowns and less “ladder fuels” in the timber stand’s understory.

How Fuel Treatments Saved Homes from the Wallow Fire



Homes Saved

Red arrow indicates the direction of the crown fire's spread toward the Alpine community's homes. Yellow lines delineate the approximate location of the Alpine Wildland-Urban Interface Unit 2 Fuel Treatment Area. As the fire raced downslope, numerous Alpine houses were at risk from the crown fire. (While only a few of the house roofs can be seen in this photo, approximately 40 homes are located in this area—and a total of 100 homes were threatened in south Alpine.) Just as was illustrated in the photo on the previous page, this photo also shows how the fuel treatment area slowed and diminished the Wallow Fire's intensity, helping to save these homes.



Defensible Space Defends House

Note the open space around this Alpine community house as well as the space between tree crowns in the fuel treatment unit upslope (to the left) of the house—toward the crown fire area. The Wallow Fire burned to within about 20 feet of this house. (See the black—fire burned—surface upslope and to left of the house.)

How Fuel Treatments Saved Homes from the Wallow Fire

“The White Mountain Stewardship has been a really good thinning project. The Forest Service did a good job getting everything cleaned up. When fire comes, you need something that creates an opportunity for protection. We all knew that it was not a matter of ‘if’, but ‘when’ fire was going to come and threaten our homes.”

Wink Crigler, rancher and lifelong resident
of the X Diamond Ranch, located northeast of Greer



Success Story:

Fuel Treatment Work and Firefighters Combine to Save Homes From Intensive Crown Fire

Due to the prior fuel treatments, firefighters are able to stay and fight the Wallow Fire and successfully protect homes. This photo illustrates how, as the crown fire (blackened area on the slope in the background) entered the Alpine Wildland-Urban Interface Unit 2 Fuel Treatment Area, the tree crowns were too widely spaced for the blaze to continue moving from treetop to treetop. As a result, the fire lost its power and intensity and dropped to the ground.

This fuel treatment area can be clearly seen—where trees are widely spaced and many tree crowns remain green.

The background shows the untreated areas on the steeper slopes where the fire burned intensely as a crown fire.



On June 8, the Wallow Fire enters the community of Greer.

‘Without Fuel Treatments, I Would Never Have Had a Firefighter There’

On June 8, the 11th day of the Wallow Fire—with dry and windy conditions continuing to fuel this inferno—the blaze approaches the community of Greer (about 21 miles WNW of Alpine). Greer weather station

observations that afternoon include a temperature of 73 degrees F., 7 percent relative humidity, and winds from the southwest blowing 19 mph at 20 feet above treetops.

As the fire activity increases on the fire’s north and west flanks, a crown fire run moves directly toward both the communities of Greer and Eagar.

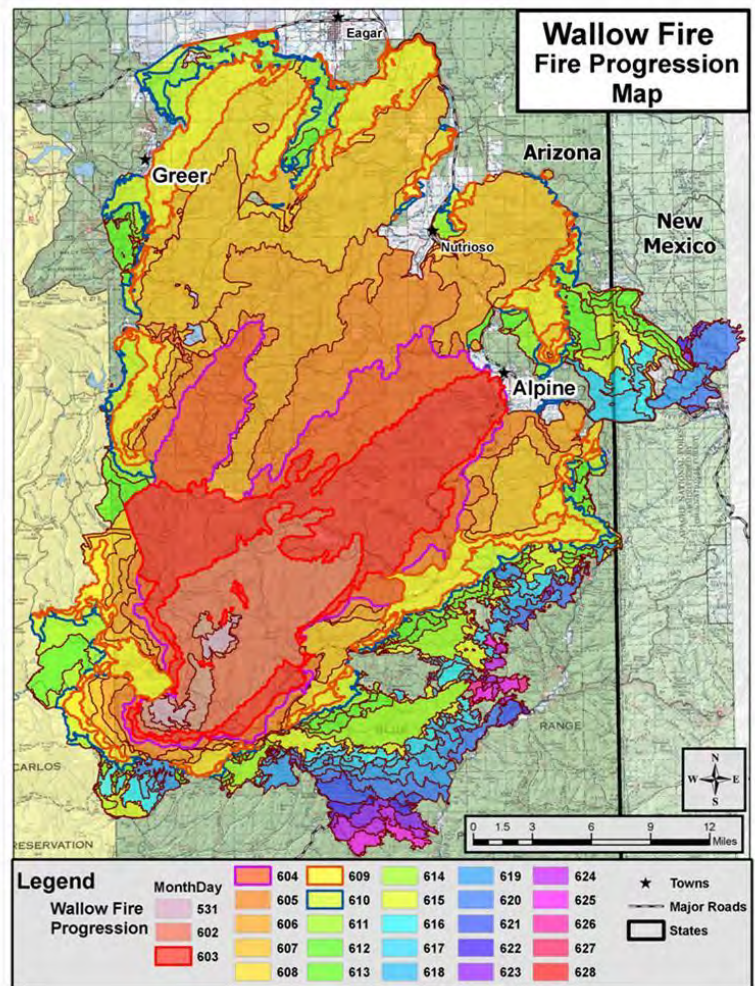
The main fire is burning in Butler Canyon’s mixed conifer and ponderosa pine forest along the southeast side of Greer. By 12:30 p.m., spot fires—flaring up out ahead of the main fire—ignite on the northeast side of Greer.



Photo taken on June 8 at 12:39 p.m. (by the U.S. Forest Service Region 3 Air Tactical Group Supervisor), shows the smoke from two spot fires (on far left) burning out in front of the main Wallow Fire as the fires approach the northeast side of Greer.

How Fuel Treatments Saved Homes from the Wallow Fire

Fire progression map shows how the Wallow Fire charged toward Alpine—moving eight miles in one afternoon. Fuel treatment areas allowed firefighters to hold the fire at Alpine’s wildland perimeter as the fire burned around the community. Likewise, at Greer, thanks to the prior fuel treatments, firefighters are able to contain the spreading Wallow Fire at the community’s wildland boundary.



Firefighters Suppress Wallow Fire from Pivotal Fuel Treatment Area

As the afternoon progressed, the main fire moves to the eastern ridge above Greer. A small, strategically placed fuel treatment on the south side of Greer at Amberon Point serves as a successful and effective “anchor point” to protect many structures in this community. Rob Lever, Springerville District Fire Management Officer, confirms that this and other completed fuel treatments allowed firefighters to actively suppress the fire in this pivotal area. *“Without the fuel treatments,”* Lever says, *“I would never have had a firefighter there.”*

*“Without the fuel treatments,
I would never have had a
firefighter there.”*

Rob Lever
Springerville District
Fire Management Officer

The trigger point to evacuate for Greer residents occurred earlier than it had for Alpine residents. This provided more time for Greer homeowners to prepare their houses. Just as importantly, this extra time allowed firefighters to prepare and conduct more burnout operations prior to the Wallow Fire’s arrival.

The fire continues moving along the canyon, burning down into the saddles—where more “fuel loading” existed—then flanks along the hillsides above Greer. Firefighters begin conducting burnout operations in the adjacent fuel treatment areas. These fire suppression actions enable the firefighters to move out in front of the head of the fire—successfully protecting multiple homes and various structures.

How Fuel Treatments Saved Homes from the Wallow Fire



Crown Fire at Amberon Point

Before/After – White arrow extends from the post-fire location to the upper photo that was taken when the crown fire was consuming the hillside in this same area.

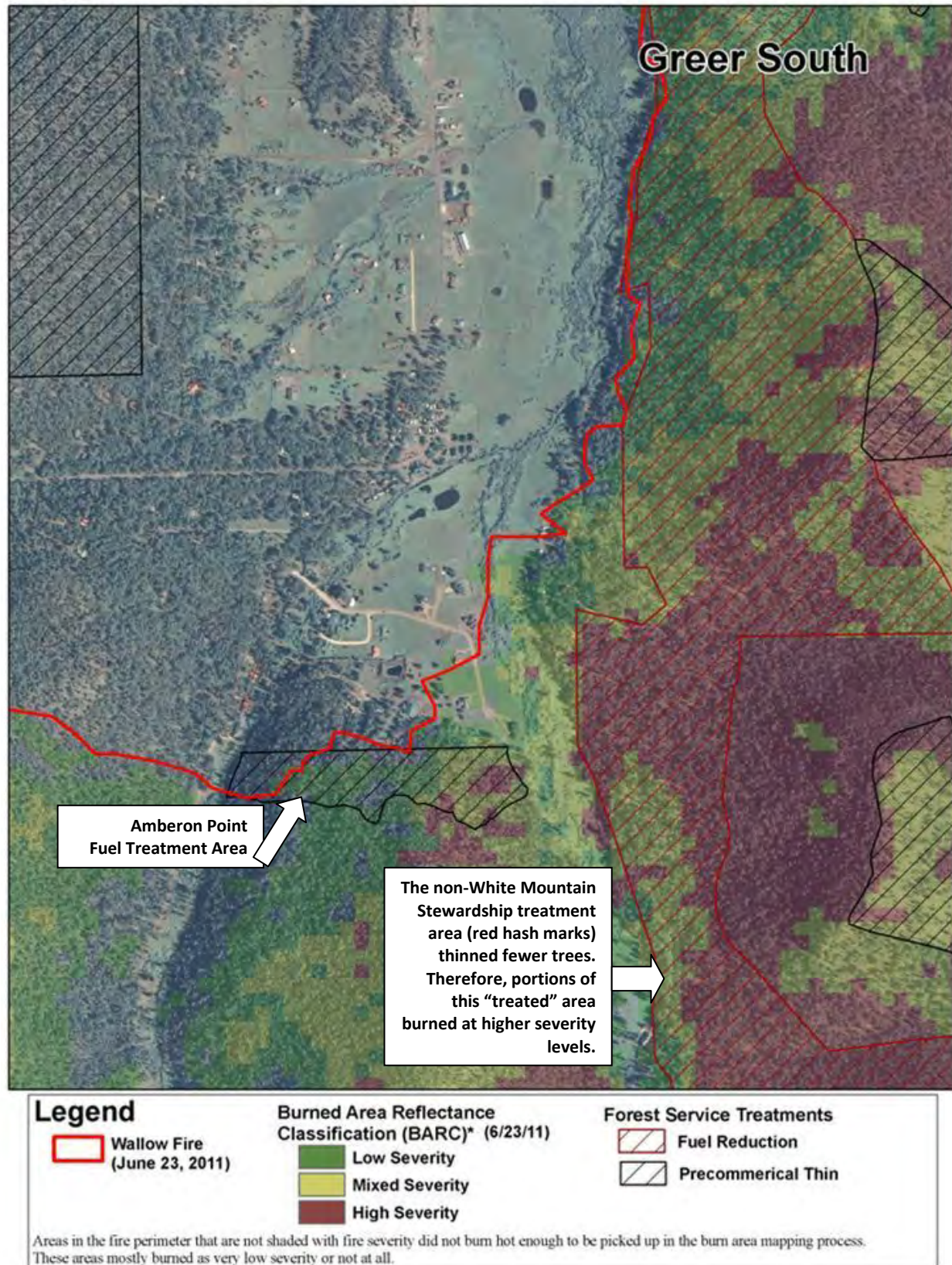
Fuel Treatment Area Slows Fire

The Amberon Point fuel treatment area that successfully knocked down the fire spread and intensity is indicated by the yellow border.

On opposite page (p. 9), the white arrow points to the cross-hatching that presents another overview of where this Amberon Point fuel treatment area is located on the slope above Greer's homes.

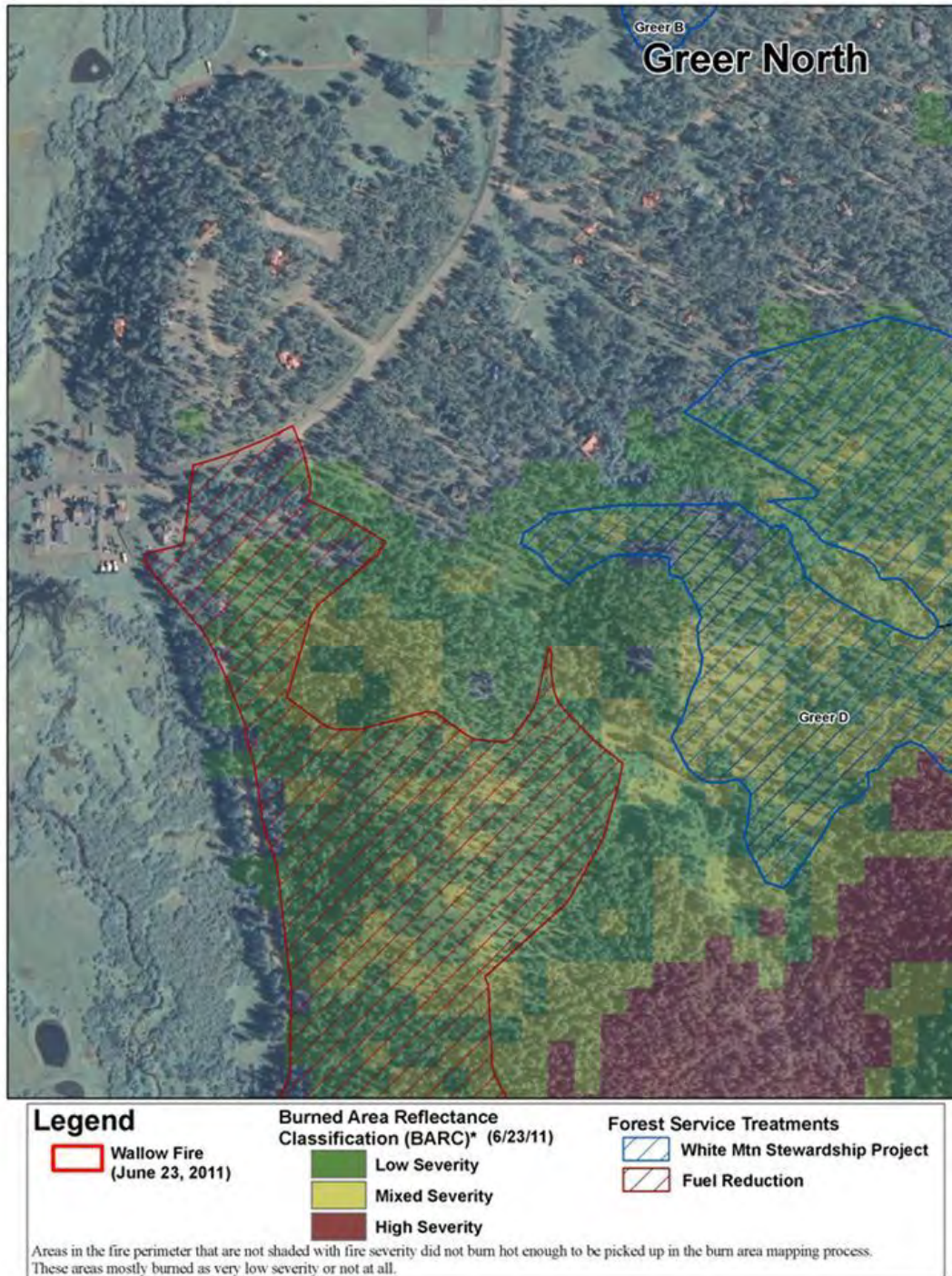


How Fuel Treatments Saved Homes from the Wallow Fire



Saving Greer

The White Mountain Stewardship Project fuel treatment area is displayed in blue slashes. Note how the high-severity fire (shaded red on map) did not reach treatment area. This was due to “firing operations” that firefighters were able to accomplish by utilizing these treated areas—applying low-intensity fire here that then burned back toward main fire, depriving it of fuel. In fact, the main fire was crowning until it ran into this backfire—where it halted. At the same time, crews continued to successfully extinguish spot fires—ignited by embers that had carried up and over the backfire and fuel treatment area—around houses.



How Fuel Treatments Saved Homes from the Wallow Fire



Anchor Point

Yellow line shows the boundary of the U.S. Forest Service North Greer Fuel Treatment Area. When the high-intensity crown fire burned downhill into this treatment area, the flames reduced and diminished to a surface fire—enabling firefighters to actively engage in fire suppression operations. In addition, some of the area above the line was treated by private landowners, often with grants from state and local government.



How Fuel Treatments Saved Homes from the Wallow Fire



Firefighters Able to Stay and Protect Houses

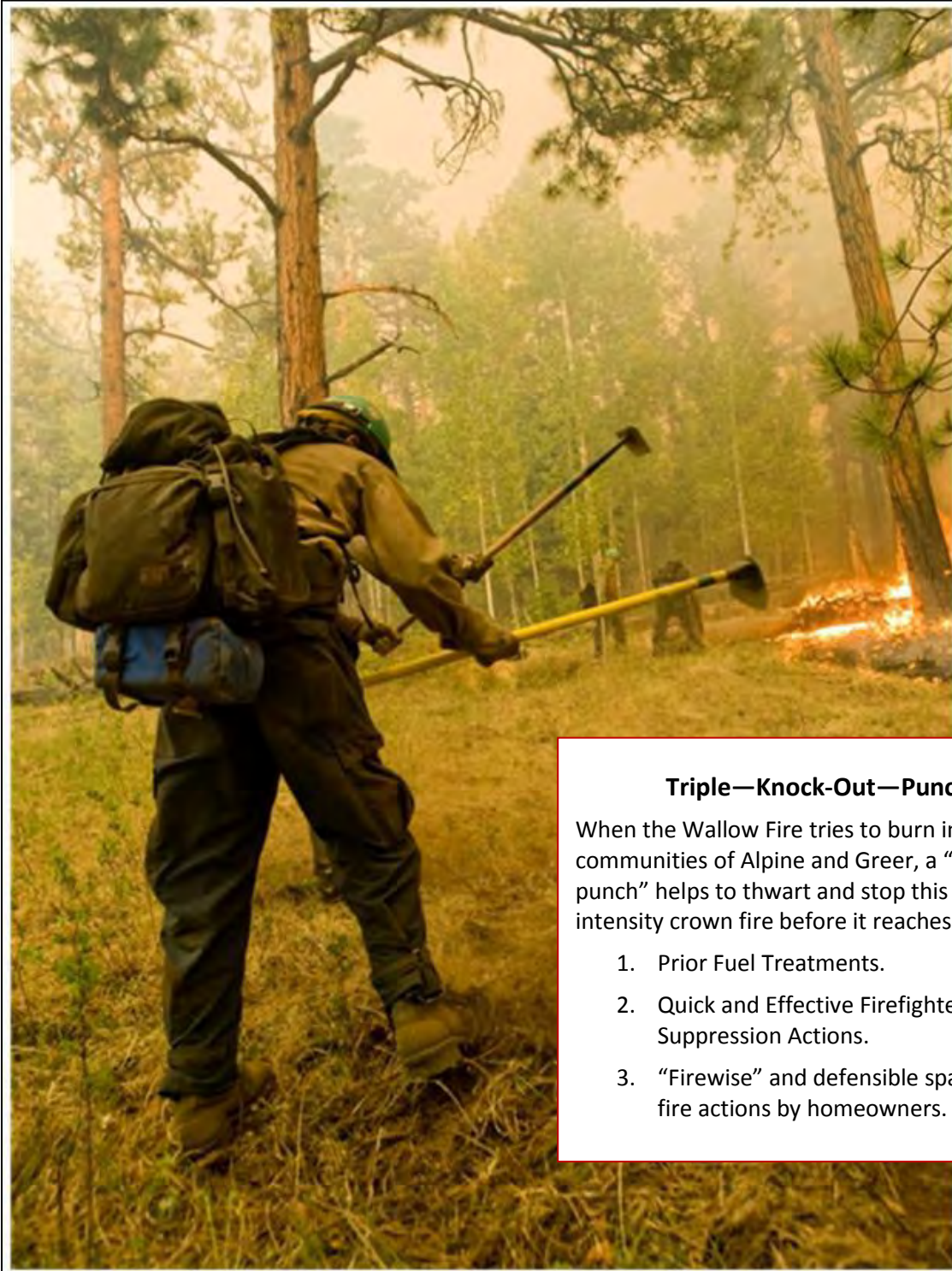
Just as when the Wallow Fire threatens the community of Alpine, when it burns into Greer, firefighters are able to stay and protect houses adjacent to prior fuel treatments—as well as where these homes were also protected by “defensible space”.

“We do appreciate what the Forest Service is trying to do, both to protect and to utilize this amazing natural resource. And we appreciate the assistance offered to us to help protect our land and the adjoining community.”

Russell Crosby
Springerville resident

Ground firefighting resources include interagency hotshot crews, hand crews, wildland and structural fire engines, and bulldozers. Aviation resources include numerous air tankers and heavy helicopters.

How Fuel Treatments Saved Homes from the Wallow Fire



Triple—Knock-Out—Punch

When the Wallow Fire tries to burn into the communities of Alpine and Greer, a “triple punch” helps to thwart and stop this high-intensity crown fire before it reaches homes:

1. Prior Fuel Treatments.
2. Quick and Effective Firefighter Suppression Actions.
3. “Firewise” and defensible space pre-fire actions by homeowners.

How Fuel Treatments Saved Homes from the Wallow Fire



To learn more
about the fuel treatments
that successfully saved homes and communities
from the 2011 Wallow Fire, please contact:

**Judy Palmer, Forest Fuels Specialist,
Apache-Sitgreaves National Forest
Telephone – 928-333-6320**

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Pages 3 and 4 – US Forest Service/Tim Sexton
All other photos: US Forest Service/Kari Greer (karikbrown@earthlink.net)



South Metro Fire Rescue

Wildland Urban Interface Risk Reduction Program

Home/Structure Wildfire Hazard Assessment

Address: _____

Homeowner Name(s): _____

Subdivision/Community: _____

Evaluator: _____ Date Evaluated: _____

SITE HAZARD RATING	RATING	
HOME IDENTIFICATION		
Address is clearly marked with 4" reflective numbers	0	
Address is difficult to read (small numerals, obstructed view, visible in one direction, not all-weather)	5	
Address is not marked	10	
DRIVEWAY CHARACTERISTICS		
Is private driveway at least 12' wide with 15' vertical clearance?		
Yes	0	
No	10	
Is private driveway gated?		
No	0	
Yes	10	
If private driveway is gated, is it locked?		
Gate is not locked	0	
Gate locked but able to be unlocked by responders	3	
Gate locked, unable to be unlocked by responders	10	
Driveway Length		
<150 feet with turnaround	0	
>150 feet with turnaround	2	
<150 feet without turnaround	4	
>150 feet without turnaround	5	
STREET SIGNAGE		
Noncombustible, reflective signage, 4" lettering	0	
Combustible, not reflective or not present	5	
MEANS OF ACCESS		
Ingress & Egress		
Two or more roads in/out from home	0	
One road in/out from home	7	
Road Width		
At least 24 feet wide	0	
Less than 24 feet wide	3	
All-Season Road Conditions		
Surfaced Road, Grade <5%	0	
Surfaced Road, Grade >5%	2	
Non-surfaced Road, Grade <5%	2	
Non-surfaced Road, Grade >5%	5	
Other than All-Season Road	7	

TYPE OF GROUND COVER (Primary Type within 30' of Structure)		
Sand, Gravel, Etc.	0	
Grasses up to 6 inches tall	2	
Grasses 6-12 inches tall	4	
Grasses greater than 12 inches tall	6	
Shrubs with leaves	3	
Shrubs with needles	5	
SURROUNDING TREES (How many and what type surround the home?)		
Select the ONE that best describes the tree community		
Hardwoods (trees with leaves)		
No trees within 30 feet	0	
10 trees within 30 feet	2	
10-20 trees within 30 feet	3	
20+ trees within 30 feet	4	
Conifers (trees with needles)		
No trees within 30 feet	0	
10 trees within 30 feet	3	
10-20 trees within 30 feet	6	
20+ trees within 30 feet	10	
Mixed Hardwoods and Conifers		
No trees within 30 feet	0	
10 trees within 30 feet	3	
10-20 trees within 30 feet	4	
20+ trees within 30 feet	6	
LANDSCAPING		
Are plants clear of the structure?		
Shrubs are at least 5 feet from structures	0	
Shrubs are less than 5 feet away or directly contact structure	10	
Mulch		
Non-flammable type (pea gravel, lava rock, chunky bark)	0	
Flammable material	10	
Overhanging Limbs		
Trimmed at least 8 feet above structure	0	
Less than 8 feet above structures	10	
Ladder Fuels (low-lying branches and tall shrubbery)		
Are ladder fuels trimmed at least 8 feet above ground?	0	
Are ladder fuels untreated or lower than 8 feet above ground?	10	
PERIMETER		
Firewood		
At least 30 feet away from structure and on a lateral contour	0	
At least 30 feet away from structure and above or below structure	5	
Stacked on porch or against home	10	
Propane/Gas Tanks (excluding grill tanks)		
More than 30 feet away from home	0	
Less than 30 feet away from home	5	
Tank is obstructed with overgrown brush	10	
Electrical Supply		
Lines above ground	3	
Lines below ground	0	

TOPOGRAPHY within 300 feet of structure		
Slope <9%	1	
Slope 10-20%	4	
Slope 21-30%	7	
Slope 31-40%	8	
Slope >41%	10	
ADDITIONAL ENVIRONMENTAL CONTEXT		
Chimney, Saddle or other Topo that influences fire	2	
History of burning from lightning, arson, highway, railroad	5	
Severe winds, dry conditions typical	5	
Proximity of adjacent structures could influence fire spread	6	
BUILDING CONSTRUCTION		
Roofing		
Class A - slate, concrete tile, fiberglass shingles	0	
Class B - metal, aluminum shingles	3	
Class C - felt-tar based shingles, asphalt shingles, asphalt/tar/gravel	8	
Nonrated - Wood shakes	20	
Siding		
Non-combustible siding	0	
Combustible siding	10	
Decks		
Non-combustible material	0	
Combustible material	5	
Space under deck is free of litter, debris	0	
Space under deck has litter, debris	5	
Attic Vents - Covered with 1/8 mesh screening?		
Yes	0	
No	5	
Gutters and Eaves		
Gutters are cleaned of debris and Eaves are covered	0	
Gutters are not cleaned, but Eaves are covered	5	
Gutters are not cleaned, and Eaves are uncovered	10	
Fencing		
Non-combustible material in contact with structure	0	
Combustible material in contact with the structure	5	
Structure Setback Relative to Slope		
>30 feet from structure to slope	0	
<30 feet from structure to slope	5	
LOCAL FIRE PROTECTION		
Water Source Availability		
Pressurized Hydrants within 1,000 feet of structure	0	
Pressurized Hydrants >1,000 feet but in subdivision	2	
Cistern or dry hydrant (maintained) within 1,000 feet	3	
Cistern or dry hydrant (maintained) >1,000 feet but in subdivision	5	
Ponds, creeks capable of all-season sustaining drafting in subdivision	7	
No water available	10	
Organized Response Resources		
Station <5 miles from structure	0	
Station >5 miles from structure	3	
Fixed Fire Protection (if known)		
Residential sprinkler system	0	
Monitored fire alarm	2	
None	5	

Hazard Assessment

Low Hazard

0-72

Moderate Hazard

73-102

High Hazard

103-163

Extreme Hazard

163-247

What does the Wildfire Hazard Rating Mean?

Low Hazard:

Your home has a **STRONG** chance of surviving a low to moderate intensity wildfire without the influence of firefighters, which ultimately enables those firefighters more time to evacuate residents with special needs and fight the fire directly.

Moderate Hazard:

Your home has a **FAIR** chance of surviving a low to moderate intensity wildfire on its own or with the influence of firefighters. Minor improvements will increase your home's resistance to wildfire.

High Hazard:

Your home is **VULNERABLE** to igniting during a low to moderate intensity wildfire. Firefighters may not be able to commit resources to save your home because of its vulnerabilities.

Extreme Hazard:

Not only is your home **VULNERABLE** to ignition during a low to moderate intensity wildfire, its condition make it **UNSAFE** for firefighters to attempt to defend it. Remember that even small modifications can make the difference between losing or saving your home.

Most structures **DON'T** ignite from direct flame contact. Most structures ignite from radiant heat (heat that doesn't warm the intervening air but does warm objects) and embers (airborne cinders, sparks, burning pine cones, etc.).

Radiant heat will quickly warm a fuel such as fencing, decks, siding or the roof to a temperature in which it automatically ignites. Flames from the actual wildfire may be several dozen or hundreds of feet away, but the house is now burning. Radiant heat also passes through windows and may ignite materials inside a home, bypassing the exterior walls altogether.

Embers (also known as fire brands) also ignite structure fires. As fires burn, they suck in oxygen and push heated air upward. That column of rising air contains embers and tosses them in all directions, often several miles away from the main fire. If an ember lands on a combustible surface such as pine needles in a gutter, dry grass or wood shake shingles, then it could ignite a spot fire away from the main fire capable of growing into a new wildfire or burning a structure.

For information on making your home more resistant to wildfires, contact a Life Safety Educator from South Metro Fire Rescue (720-989-2271, LifeSafetyEducator@southmetro.org or www.southmetro.org).

38-33.3-106.5. Prohibitions contrary to public policy - patriotic and political expression - emergency vehicles - fire prevention - renewable energy generation devices - affordable housing - definitions.

(1) Notwithstanding any provision in the declaration, bylaws, or rules and regulations of the association to the contrary, an association shall not prohibit any of the following:

(a) The display of the American flag on a unit owner's property, in a window of the unit, or on a balcony adjoining the unit if the American flag is displayed in a manner consistent with the federal flag code, Pub.L. 94-344; 90 stat. 810; 4 U.S.C. secs. 4 to 10. The association may adopt reasonable rules regarding the placement and manner of display of the American flag. The association rules may regulate the location and size of flags and flagpoles, but shall not prohibit the installation of a flag or flagpole.

(b) The display of a service flag bearing a star denoting the service of the owner or occupant of the unit, or of a member of the owner's or occupant's immediate family, in the active or reserve military service of the United States during a time of war or armed conflict, on the inside of a window or door of the unit. The association may adopt reasonable rules regarding the size and manner of display of service flags; except that the maximum dimensions allowed shall be not less than nine inches by sixteen inches.

(c) (I) The display of a political sign by the owner or occupant of a unit on property within the boundaries of the unit or in a window of the unit; except that:

(A) An association may prohibit the display of political signs earlier than forty-five days before the day of an election and later than seven days after an election day; and

(B) An association may regulate the size and number of political signs in accordance with subparagraph (II) of this paragraph (c).

(II) The association shall permit at least one political sign per political office or ballot issue that is contested in a pending election. The maximum dimensions of each sign may be limited to the lesser of the following:

(A) The maximum size allowed by any applicable city, town, or county ordinance that regulates the size of political signs on residential property; or

(B) Thirty-six inches by forty-eight inches.

(III) As used in this paragraph (c), "political sign" means a sign that carries a message intended to influence the outcome of an election, including supporting or opposing the election of a candidate, the recall of a public official, or the passage of a ballot issue.

(d) The parking of a motor vehicle by the occupant of a unit on a street, driveway, or guest parking area in the common interest community if the vehicle is required to be available at designated periods at such occupant's residence as a condition of the occupant's employment and all of the following criteria are met:

(I) The vehicle has a gross vehicle weight rating of ten thousand pounds or less;

(II) The occupant is a bona fide member of a volunteer fire department or is employed by a primary

provider of emergency fire fighting, law enforcement, ambulance, or emergency medical services;

(III) The vehicle bears an official emblem or other visible designation of the emergency service provider; and

(IV) Parking of the vehicle can be accomplished without obstructing emergency access or interfering with the reasonable needs of other unit owners or occupants to use streets, driveways, and guest parking spaces within the common interest community.

(e) The removal by a unit owner of trees, shrubs, or other vegetation to create defensible space around a dwelling for fire mitigation purposes, so long as such removal complies with a written defensible space plan created for the property by the Colorado state forest service, an individual or company certified by a local governmental entity to create such a plan, or the fire chief, fire marshal, or fire protection district within whose jurisdiction the unit is located, and is no more extensive than necessary to comply with such plan. The plan shall be registered with the association before the commencement of work. The association may require changes to the plan if the association obtains the consent of the person, official, or agency that originally created the plan. The work shall comply with applicable association standards regarding slash removal, stump height, revegetation, and contractor regulations.

(f) (Deleted by amendment, L. 2006, p. 1215, § 2, effective May 26, 2006.)

(g) Reasonable modifications to a unit or to common elements as necessary to afford a person with disabilities full use and enjoyment of the unit in accordance with the federal "Fair Housing Act of 1968", 42 U.S.C. sec. 3604 (f) (3) (A).

(h) (I) The right of a unit owner, public or private, to restrict or specify by deed, covenant, or other document:

(A) The permissible sale price, rental rate, or lease rate of the unit; or

(B) Occupancy or other requirements designed to promote affordable or workforce housing as such terms may be defined by the local housing authority.

(II) (A) Notwithstanding any other provision of law, the provisions of this paragraph (h) shall only apply to a county the population of which is less than one hundred thousand persons and that contains a ski lift licensed by the passenger tramway safety board created in section [25-5-703](#) (1), C.R.S.

(B) The provisions of this paragraph (h) shall not apply to a declarant-controlled community.

(III) Nothing in subparagraph (I) of this paragraph (h) shall be construed to prohibit the future owner of a unit against which a restriction or specification described in such subparagraph has been placed from lifting such restriction or specification on such unit as long as any unit so released is replaced by another unit in the same common interest community on which the restriction or specification applies and the unit subject to the restriction or specification is reasonably equivalent to the unit being released in the determination of the beneficiary of the restriction or specification.

(IV) Except as otherwise provided in the declaration of the common interest community, any unit subject to the provisions of this paragraph (h) shall only be occupied by the owner of the unit.

(1.5) Notwithstanding any provision in the declaration, bylaws, or rules and regulations of the association to the contrary, an association shall not effectively prohibit renewable energy generation devices, as defined in section [38-30-168](#).

(2) Notwithstanding any provision in the declaration, bylaws, or rules and regulations of the association to the contrary, an association shall not require the use of cedar shakes or other flammable roofing materials.

Source: **L. 2005:** Entire section added, p. 1373, § 2, effective June 6. **L. 2006:** (1)(a), (1)(b), (1)(c), IP (1)(d), (1)(d)(II), (1)(d)(IV), and (1)(f) amended and (2) added, p. 1215, § 2, effective May 26. **L. 2008:** (1)(g) added, p. 556, § 1, effective July 1; (1.5) added, p. 620, § 3, effective August 5. **L. 2009:** (1)(h) added, ([HB 09-1220](#)), ch. 166, p. 732, § 1, effective August 5.

FYI – For Your Information

Wildfire Mitigation Measures Subtraction

GENERAL INFORMATION

As authorized by §39-22-104(4)(n), C.R.S., for income tax years 2009 through 2013 individuals, estates and trusts may subtract from federal taxable income 50% of the costs incurred in performing wildfire mitigation measures that meet the following qualifications and limitations:

- The taxpayer must own the property upon which the wildfire mitigation measures are performed.
- The property upon which the wildfire mitigation measures are performed must be located in Colorado.
- The property upon which the wildfire mitigation measures are performed must be located in a wild land-urban interface area.
- The wildfire mitigation measures must be authorized by a community wildfire protection plan adopted by a local government within the interface area.
- The total amount of the subtraction may not exceed \$2,500.

MARRIED TAXPAYERS

In the case of two individuals filing a joint return, the amount subtracted from federal taxable income shall not exceed \$2,500 in any taxable year. In the case of two married individuals who file separate returns, only one of the individuals may take a subtraction for wildfire mitigation expenses.

TENANTS IN COMMON

In the case of real property owned by tenants in common, the subtraction may only be taken by one of the individuals in the ownership group.

DEFINITIONS

Community Wildfire Protection Plan

Community wildfire protection plan means a plan that meets the following requirements:

- It must be approved by a local government entity, local fire department and the Colorado State Forest Service in accordance with guidance established by the Wildland Fire Leadership Council.
- It must identify and prioritize areas for hazardous fuel reduction treatments and recommend the types and methods of treatments.
- It must recommend measures to reduce structural ignitability.

Additional information regarding community wildfire protection plans can be found online at <http://www.csfs.colostate.edu/>



Colorado Department
of Revenue
Taxpayer Service Division
1375 Sherman St.
Denver, Colorado 80261

Forms and other services:
(303) 238-FAST (3278)
Assistance:
(303) 238-SERV (7378)
Fuel Tax: (303) 205-5602
www.taxcolorado.com

Costs

Costs means any actual out-of-pocket expense incurred and paid by the landowner and documented by receipt for performing wildfire mitigation measures. The following expenses are specifically excluded within statute and do not qualify for this subtraction:

- Inspection or certification fees;
- In-kind contributions;
- Donations;
- Incentives;
- Cost sharing;
- Expenses paid by the landowner from any grants awarded to the landowner for performing wildfire mitigation measures.

Landowner

Landowner means any owner of record of private land located within the state, including any easement, right-of-way or estate in the land and includes the heirs, successors and assignees of such land and shall not include any partnership, S-corporation or other similar entity that owns private land as an entity.

Wildfire Mitigation Measures

Wildfire mitigation measures mean the following activities to the extent that they meet or exceed any Colorado State Forest Service standards or any other applicable state rules:

- Creating and maintaining a defensible space around structures;
- Establishing fuel breaks;
- Thinning of woody vegetation for the primary purpose of reducing risk to structures from wildland fire;
- Secondary treatment of woody fuels by lopping and scattering, piling, chipping, removing from the site or prescribed burning.

Additional information regarding wildfire mitigation measures can be found online at <http://www.csfs.colostate.edu/>

FURTHER INFORMATION

FYIs and commonly used forms are available on the Web at www.taxcolorado.com

For additional income tax information visit the “Tax Information Index” which covers a variety of topics including links to forms, publications, regulations, statutes and general questions and answers. The “Tax Information Index” is located at www.taxcolorado.com

FYIs provide general information concerning a variety of Colorado tax topics in simple and straightforward language. Although the FYIs represent a good faith effort to provide accurate and complete tax information, the information is not binding on the Colorado Department of Revenue, nor does it replace, alter, or supersede Colorado law and regulations. The Executive Director, who by statute is the only person having authority to bind the Department, has not formally reviewed and/or approved these FYIs.



FORESTRY

Gambel Oak Management

no. 6.311

by N. Jester, K. Rogers, and F.C. Dennis¹ (7/08)

Quick Facts...

Gambel oak is commonly found throughout western Colorado between 6,000 and 9,000 feet in elevation.

Recurring fires often cause oak stands to develop into large thickets; younger thickets created in this way can become exceptionally dense and almost impenetrable for livestock and wildlife.

Control, or eradication, of Gambel oak requires physically removing the stem and as much of the root system as possible.

Gambel Oak Ecology

Gambel oak (*Quercus gambelii*), commonly found throughout western Colorado between 6,000 and 9,000 feet in elevation, generally dominates the region between the lower piñon-juniper zone and the aspen or ponderosa pine zone above. This shrub can be found throughout southern Colorado and along the Front Range almost to Denver. Gambel oak is usually found in conjunction with serviceberry (*Amelanchier alnifolia*), snowberry (*Symphoricarpus oreophilus*), mountain mahogany (*Cercocarpus montanus*), chokecherry (*Prunus virginiana*) and a variety of forbs and grasses. In south-central Colorado, oak brush is often associated with sumac and New Mexico locust.



Figure 1. Typical oak brush growth in Colorado.

Gambel oak rarely reproduces from acorns; most reproduction is vegetative with sprouts occurring from a deep, extensive root system. Clones of oak brush spread slowly but stubbornly persist in previously colonized areas.



Figure 2. Oak brush sprouting after fire.

Recurring fires often cause oak stands to develop into large thickets; younger thickets created in this way can become exceptionally dense and almost impenetrable for livestock and wildlife. Older stands tend to form clumps with a lush understory of grass and forbs, often attaining tree-like form with heights up to 20 feet.

Oak brush provides cover and nesting habitat for many forms of wildlife (birds, mammals, amphibians, etc.). The foliage and acorns offer valuable food for many of these wildlife species, such as wild turkey, mule deer, and black bear. Acorns produced by the larger stands of oak brush are critical for turkey.

Although not highly palatable, the availability and abundance of Gambel oak, particularly on winter ranges, make this an important wildlife plant. Oak brush is especially important to mule deer; on some summer ranges it reportedly provides more deer forage than all other species combined. Elk generally rely on

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Gambel oak during the spring and winter. Acorns of Gambel oak are an important mast crop in many areas, particularly for black bears in the fall.

Oak brush makes excellent firewood and is used extensively for this purpose. Occasionally, this species is used for fence posts but, as a rule, does not grow to the size necessary to produce sawn wood products.

Standard Treatment Methods for Oak Brush

Various treatment methods have been used to control oak brush in western Colorado, including herbicide, mechanical treatment, and prescribed burning. In many cases, the objective of these treatments is to increase available forage for wildlife or livestock. Managed grazing of goats is also an effective treatment to reduce or eradicate oak.

Appropriate treatment is tied directly to land management objectives. As a general rule, a diversity (mosaic) of brush species, size, and densities can often accomplish multiple objectives (i.e., reducing wildfire hazards, enhancing aesthetics, screening, stabilizing soil and watershed outputs, increasing forage production, and enhancing various elements of wildlife habitat, food, cover, etc.).

Control, or eradication, of Gambel oak requires either physically removing the stem and as much of the root system as possible (typically not practical or desired) or continued top-killing of the plant so that stored energy in the root system is depleted to a greater degree than energy is restored through photosynthesis. The second option requires commitment and persistence.

Chemical Treatment

Most studies using herbicides report significant above-ground stem kill, but subsequent sprouting. In recent years, applications with Garlon have shown to be effective at completely killing oak brush when applied as either a foliar spray or as a stump treatment. For greatest effectiveness, stump treatments must be applied before the wood dries, usually within one hour of cutting.

Mechanical Treatment

Thinning oak brush by hand can be time consuming and labor-intensive due to the density of the vegetation. Prolific sprouting follows cutting unless herbicides are applied to the cut stumps. Mechanical treatments such as chaining, root plowing, dozing, and roller-chopping are somewhat expensive and cannot be used on steep slopes. Various forms of mastication equipment can also be used on oak brush such as a Hydroaxes®, Bull Hog® mowers, timberaxes, or Fecon® rotary cutting heads. Sprouting also follows these mechanical treatments even when the overstory is completely removed and additional action is needed if oak control is desired. Mechanical treatment can also make the site susceptible to weed invasion.



Figure 3. Mechanical treatment using a Hydroaxe®.



Figure 4. Mechanical treatment using a timberaxe.



Figure 5. Oak brush resprouting after fire.

Prescribed Burning

Fire readily kills the above-ground portions of oak brush. However, intense sprouting follows almost immediately and usually causes the stands to become even denser. With prescribed burning, a commitment to repeated burning on the same site is necessary to effectively reduce the oak brush over the long term.

However, prescribed fire also can be an effective tool to produce younger plants that are more palatable to wildlife.

Treating Gambel Oak for Wildfire Safety

Gambel oak does not burn readily except under favorable conditions such as during continued drought or in the fall or early spring when vegetation dries out. Late spring frosts that kill the leaves can cause extreme fire behavior later in the summer; the dead leaves have a tendency to cling to the stem and act as dry aerial fuels. Under certain conditions, fires in oak brush can spread quickly and fire behavior can be similar to fuel models in southern California (e.g., the Battlement Creek and South Canyon fires in western Colorado where a number of firefighter fatalities occurred in the oak brush fuel type).

Fuel Hazards

Fuel hazard measures refer to the **continuity**, both horizontal (across the ground) and vertical (from the ground up into the vegetation crown). Fuels with a high degree of vertical and horizontal continuity are the most hazardous, particularly when they occur on slopes. Heavier fuels (brush and trees) are more hazardous, producing more intense fires than light fuels (grass). Mitigation of wildfire fuel hazards focuses on breaking up the continuity of fuels. Increasing distances between fuels is necessary on slopes.

Standards for Fuel Mitigation

Trees: woody perennials, usually having one dominant vertical trunk and a height greater than 15 feet at maturity. Spacing requirements between trees are a *minimum* of 10 feet from the edges of the crowns. (This does not apply to mature stands of aspen trees where ladder fuels have been removed as described below. Follow the spacing requirements in areas with young aspen.)

Brush and Shrubs: woody plants, smaller than trees, often formed by a number of vertical or semi-upright branches arising close to the ground. Brush is smaller than shrubs and can be either woody or herbaceous vegetation. Thinning of brush and shrubs can often be accomplished by separating clumps rather than individual stems. *Spacing requirements* between clumps of brush and/or shrubs are $2\frac{1}{2}$ times ($2\frac{1}{2}X$) the height of the vegetation. The maximum diameter of clumps is 2 times ($2X$) the height of the vegetation. (Make all measurements from the edges of vegetation crowns.)

Example: Spacing between shrub clumps 6 feet in height is 15 feet or more. The diameter of shrub clumps is less than 12 feet (measured from the edges of the crowns). Branches are pruned to a height of 3 feet. Certain brush species, such as Gambel oak, serviceberry, and snowberry re-sprout vigorously following cutting. Applying herbicide to stumps immediately following cutting may be necessary to effectively reduce long-term fire hazards. An alternative to herbicide treatment is to mow sprouts annually.

Ladder Fuels: vegetative materials with a vertical continuity that allows fire to burn from ground level up into the branches and crowns of trees. While potentially very hazardous, ladder fuels are relatively easy to mitigate. The first step in fuel mitigation is to remove all ladder fuels *beneath* tree canopies. In the remaining areas, prune all branches of shrubs or trees up to a height of 10 feet above ground (or one-half the height of the plant, whichever is least). Lastly, chip and/or remove pruned material from the site.

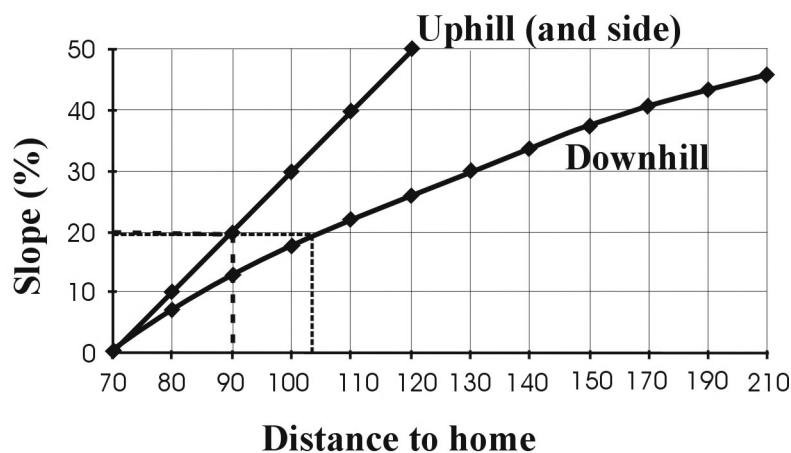
For More Information

From Colorado State Forest Service,
Colorado State University, Fort Collins,
CO 80523-5060; (970) 491-6303; csfs.colostate.edu:

- FireWise Construction - Design and Materials
- Home Fire Protection in the Wildland Urban Interface
- Landowner Guide to Thinning

From Colorado State University
Extension, 115 General Services
Building, Fort Collins, CO 80523-
4061; (970) 491-6198; E-mail:
resourcecenter@ucm.colostate.edu:

- 6.303, Fire-Resistant Landscaping
- 6.304, Forest Home Fire Safety
- 6.305, FireWise Plant Materials
- 6.306, Grass Seed Mixes to Reduce Wildfire Hazard



Grasses: mow dead, dry grass to a height of less than 6 inches.

Slope Adjustment Factors

The minimum distance from a structure for brush, shrub, and tree fuel treatment is **75 feet on level ground**. (Where only grasses exist and no additional vegetative landscaping is planned, the minimum distance is 30 feet.)

On slopes *downhill* from structures, complete defensible space thinning according to the distances in Table 1. Uphill and side distances remain 75 feet, unless the property slopes in multiple directions.

Table 1. Defensible space thinning guidelines.

1 percent to 20 percent slopes =

Brush/shrubs	75' from structure; 3X height separation distance between vegetation.
Trees	75' from structure; 10-foot crown separation distance between trees.
Grass	30' from structure; mow dead, dry grass to 6 inches or less in height.

21 percent to 40 percent slopes =

Brush/shrubs	150' from structure; 4X height separation distance between vegetation.
Trees	150' from structure; 20-foot crown separation distance between trees.
Grass	50' from structure; mow dead, dry grass to 6 inches or less in height.

Greater than 40 percent slopes =

Brush/shrubs	200' from structure; 6X height separation distance between vegetation.
Trees	200' from structure; 30-foot crown separation distance between trees.
Grass	75' from structure; mow dead, dry grass to 6 inches or less in height.

For more information or professional assistance in managing your forest, contact your local Colorado State Forest Service district office.



This fact sheet was produced in cooperation with the Colorado State Forest Service.

¹Colorado State Forest Service foresters.

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Colorado MASTER GARDENER

Pruning Evergreens

no. 7.827*by D. Whiting, J. Bousselot, R. Cox, and C. O'Meara'*

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Most types of evergreen trees and shrubs need little to no pruning. Pruning may make the new growth bushier, but will not effectively control size. Select plants based on mature size to minimize pruning needs. If frequent pruning is necessary to keep plant growth in bounds and prevent interference with a walk, driveway or view, consider replacing the plant. Evergreen trees and shrubs are pruned according to species growth characteristics.

Pruning Evergreen Trees

On evergreen trees, avoid pruning the central leader (trunk). This results in the development of multiple leaders that are prone to wind and snow damage. If the central leader is killed back, select one branch to become the new leader and remove potential competing leaders. Never allow co-dominant trunks (trunks of similar size) to develop. If multiple trunks begin to develop, select one and remove others.

For structural integrity on evergreen trees, all side branches should be less than half the diameter of the adjacent trunk (less than one-third is preferred). If the diameter of a side branch is too large, prune back part of the needled area to slow growth or remove the branch entirely back to the trunk. For additional details on training of young evergreen trees, refer to fact sheet 7.822, *Structural Training: Trees with a Central Leader*.

Removing a Large Branch

New needles will not grow from branches without needles. When a side branch is removed on an evergreen, cut back to the trunk just outside of the **branch collar** (the enlarged connecting area on the trunk around the limb). Do not cut into or otherwise injure the branch collar. Do not make flush cuts. Remove the branch in a three cut method.

- Cut 1. Coming out 12 to 15 inches from the trunk, make an undercut a third to half way through the branch.
- Cut 2. Moving a couple inches out past the first cut, make the second cut from the top, removing the branch. This double cut method prevents the weight of the branch from tearing the branch below the branch collar.
- Cut 3. Make the third and final cut just outside the branch bark collar. Take extra caution to not cut into or otherwise injure the branch bark collar.

For additional information on pruning cuts, refer to fact sheet 7.821, *Pruning Cuts*.

*Putting Knowledge to Work*

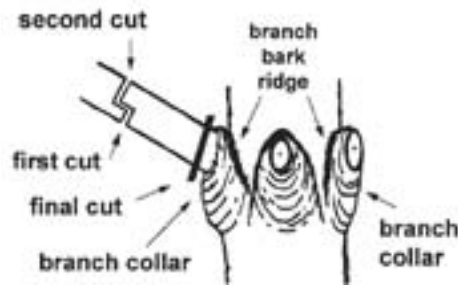


Figure 1. On evergreen trees, remove large branches back to the trunk in a three cut method. Make the final cut just outside the branch collar. Needles only grow from the growing tips out and will not develop on the interior branch wood without needles.



Figure 2. Pruning spruce and fir back to a side bud or side branch will encourage growth of side branches.

Spruce, Fir, and Douglas-Fir

Spruce, fir, and Douglas-fir generally need little to no pruning.

On young trees, pruning is useful in situations where bushier new growth is desired. Since these species produce some side buds, branch tips can be removed encouraging side bud growth. Prune late winter or early spring.

Spruce, fir and Douglas-fir that are overgrowing their space are somewhat tolerant of being pruned back as long as it is not pruned back past the needles. However, with constant pruning, the branches may begin to show needle browning and dieback. In situations where the branch must be pruned back past the needles, remove it back to the trunk.

In landscape design small to mid-size evergreen trees, with their pyramidal form, generally look best with their lowest branches allowed to drape to near ground level.

On large trees, primary growth occurs at the top with minimal growth at the lower levels. Due to slow growth, pruning of the lower branches may give a “pruned look” for a long time. On large trees, limb-up lower branches only if they are in the way.

Very slow growing species, like the Dwarf Alberta Spruce and Nest Spruce, are rather intolerant of pruning.

Pine

Pines generally need little to no pruning.

On young plants, if a more compact new growth is desired, pinching may be helpful. Using the fingers, snap off one-third of the new growing tips while in the candle stage (in the spring when young needles are in a tight cluster). Avoid using pruners or a knife, since it will cut the remaining needles, giving a brown tip appearance.

Since pines produce few side buds, they are intolerant of more extensive pruning. If the terminal bud on a branch is removed, growth on that shoot is stopped with additional growth occurring only from existing side branches. Do not shear pines.

Like other evergreen trees, small to mid-size pine trees look best (from the landscape design perspective) with their lowest branches allowed to drape down near ground level. When a lower branch has to be pruned back for space issues, remove it back to the trunk.

Juniper and Arborvitae

Junipers and arborvitae generally need little to no pruning.

They may be pruned anytime except during sub-zero weather. The best time is early spring prior to new growth.

The best pruning method is to cut individual branches back to an upward growing side branch. This method of pruning is time consuming, but keeps the plant looking young and natural.



Figure 3. On pines, for bushier new growth pinch growing tips by snapping off 1/3 of the “candle” tips with fingers. Since pines produce few side buds, they are intolerant of more extensive pruning.

While shearing is quick and easy, it is not recommended, especially after mid-summer. Shearing creates a dense growth of foliage on the plant’s exterior. This in turn shades out the interior growth and the plant becomes a thin shell of foliage. Frequently sheared plants are more prone to show needle browning and dieback from winter cold and drying winds.



Figure 4. Pruning junipers and arborvitae back to a side shoot hides the pruning cut.

Any pruning that tapers in towards the bottom of the plant will lead to thinning of the lower branches due to shading. To keep the bottom full, the base of the shrub needs to be wider than the top portion.

It’s common to see junipers and arborvitae that have overgrown their space. Since new growth comes **ONLY** from the growing tips, branches cannot be pruned back into wood without needles. If the shrub is pruned back to bare wood, it will have a permanent bare spot.

For shrubs that are getting too large, it is better to prune them back as they begin to overgrow the site. Pruning back of severely overgrown shrubs generally gets into wood without needles. Consider replacing severely overgrown plants with smaller cultivars or other species.

Junipers and arborvitae growing in the shade are rather intolerant of pruning due to slow growth rates.

Additional Information

Colorado Master Gardener training is made possible, in part, by a grant from the Colorado Garden Show, Inc.

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Fact Sheets on Pruning

- 7.820, *Tree Growth and Decay*
- 7.821, *Pruning Cuts*
- 7.822, *Structural Training: Trees with a Central Leader*
- 7.823, *Structural Training: Trees with Multiple Scaffold Branches*
- 7.824, *Structural Training of Trees – Pruning Flow Chart*
- 7.825, *Pruning Mature Shade Trees*
- 7.826, *Pruning Flowering Shrubs*
- 7.827, *Pruning Evergreens*

Books

Edward F Gilman. *An Illustrated Guide to Pruning*, Second Edition. Delmar. 2002

Web

<http://hort.ifas.ufl.edu/woody/pruning/>



Fireworks cause dozens of wildfires in our fire district every year. They may be illegal in your neighborhood; check with local authorities. You and your family are responsible for preventing these fires.

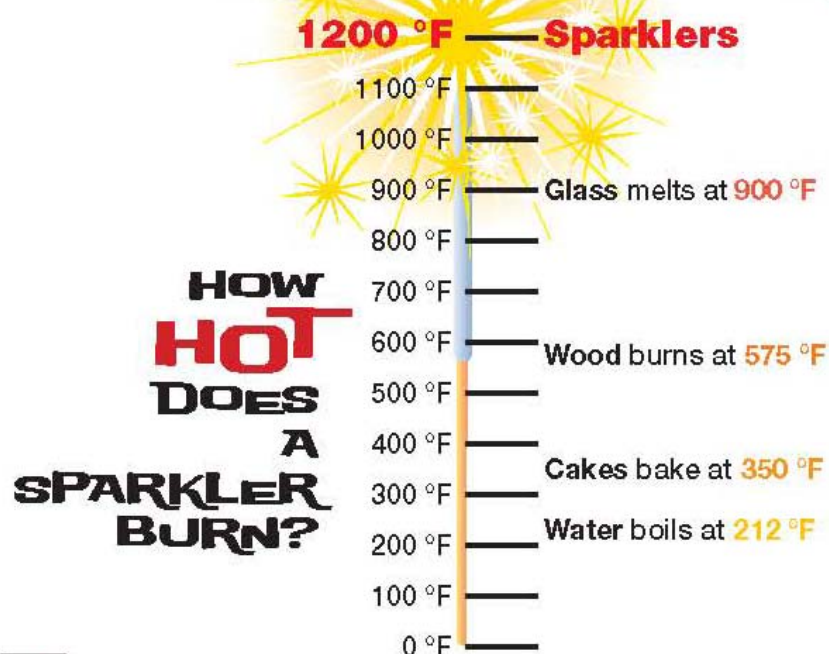
Fireworks during the Fourth of July are as American as apple-pie, but did you know that more fires are reported on that day than any other day of the year in the United States? More than half of these fires are caused by fireworks. The good news is you can enjoy your holiday and the fireworks, with just a few simple safety tips:

PROCEED WITH CAUTION!

- Leave fireworks to the professionals. Do not use consumer fireworks.
- The safest way to enjoy fireworks is to attend a public display conducted by trained professionals.
- After the firework display, children should never pick up fireworks that may be left over, they may still be active.

CONSUMER FIREWORKS

include sparklers and firecrackers. The tip of a sparkler burns at a temperature of more than **1,200 degrees Fahrenheit**, which is hot enough to cause third-degree burns.



FACTS

- Each July Fourth, thousands of people, most often children and teens, are injured while using consumer fireworks.
- The risk of fireworks injury was two-and-a-half times as high for children ages 10–14 as for the general population.



Your Source for SAFETY Information

NFPA Public Education Division • 1 Batterymarch Park, Quincy, MA 02169

www.nfpa.org/education

www.southmetro.org ~ 720-989-2271 ~ LifeSafetyEducation@southmetro.org

SECTION 17 WILDFIRE HAZARD - OVERLAY DISTRICT

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1701 Intent (Amended 10/31/07)

To identify Wildfire Hazard Areas and to protect the health, safety, and welfare of residents by minimizing the potential for the loss of life and property by the ignition and spread of wildfires in the Wildland/Urban Interface and the Wildland/Urban Intermix.

Douglas County is very diverse in character with land areas ranging from grasslands and shrublands, to steep, forested Slopes. These areas are often viewed as highly desirable development sites due to their unique scenic qualities. By identifying potential hazard areas, and requiring mitigation measures as part of the land planning and development process, the current and future risk of wildfires can be reduced.

Specific purposes are as follows:

- To develop and maintain a map of Douglas County that allows for preliminary identification of Wildfire Hazard Areas.
- To identify the process for assessing and mitigating the Wildfire Hazard concurrent with the land planning process.
- To identify specific types of development to be subject to wildfire mitigation measures and the provisions of the Douglas County Wildfire Mitigation Standards.
- To identify the standards with which development proposed in Wildfire Hazard Areas must comply.
- To set forth the procedures for identifying, describing, and mitigating wildfire risk during the land development process.
- To design wildfire mitigation prescriptions which facilitate overall stewardship by the landowner or other appropriate entity.

1702 Definitions (Amended 10/31/07)

The following definitions pertain to the Wildfire Hazard - Overlay District. Additional definitions relating to wildfire mitigation are found in the provisions of the Douglas County Wildfire Mitigation Standards. In the case of conflict, the Director of Community Development, or a designee, shall determine the appropriate definition.

- 1702.01 Access Route - Principal vehicular ingress and egress to a structure or through a development, crossing more than one parcel, including public and private roads, streets, and lanes that extend to and intersect with a publicly maintained road, street, or lane.
- 1702.02 Aspect - Direction toward which the Slope faces.
- 1702.03 Brush - Shrubs and scrub vegetation or other vegetative growth heavier than grass but not full tree size.
- 1702.04 Combustible - Any material that, in the form in which it occurs or is used, and under the conditions anticipated, will ignite and burn.

- 1702.05 Defensible Space - A natural or man-made area, where vegetation capable of carrying a fire has been sufficiently treated, modified, or removed to slow the rate of spread and reduce the intensity of a fire; provide a safe area for fire suppression operations; and slow or prevent a fire from traveling – in either direction – between a structure and the vegetation.
- 1702.06 Douglas County Wildfire Mitigation Standards – Appendix Chapter 58 of the International Building Code (IBC) as adopted by Douglas County. These standards are based on the National Fire Protection Association's (NFPA) standards for protection of life and property from wildfire.
- 1702.07 Fire Break – An area, usually a long strip of undetermined width, wherein all flammable fuels have been removed to the mineral soil layer for the purpose of stopping a fire's spread.
- 1702.08 Emergency Access Route - A maintained vehicular Roadway for ingress and egress designed to allow for access and/or evacuation of residents and visitors only during crisis situations. The route may cross more than one parcel, including private roads, streets and lanes.
- 1702.09 Forest Management Plan – A plan prepared by a Professional Forester that describes the current condition of the subject site and the proposed management activities to be conducted by the applicant. The plan shall describe how these activities improve forest health and reduce Wildfire Hazards. The plan shall address all components of site vegetation, as identified by the Douglas County Professional Foresters. Elements of the plan may include, but are not limited to, insect and disease, wildlife values, aesthetics, and other multiple resource objectives.
- 1702.10 Forester, Professional - An individual with a bachelor's degree or equivalent in forestry or a closely related field from a college or university accredited by the Society of American Foresters (SAF), eligible for professional membership with SAF, and, for purposes of this Chapter, two years experience with representative fuel types of the Rocky Mountain Region. The term Douglas County Professional Forester shall refer to a Professional Forester employed by Douglas County.
- 1702.11 Fuel Break - An area, usually a long strip strategically located, wherein vegetative fuels are reduced in volume and maintained to cause a reduction of fire intensity if ignited by a Wildland fire.
- 1702.12 Fuel Loading - The volume of fuel in a given area, generally expressed in tons per acre.
- 1702.13 Fuel Modification - The removal of Fuels, increase in spacing of individual plants, or reduction of Fuel Loading.

- 1702.14 Fuel - All Combustible materials within the Wildland/Urban Interface or Wildland/Urban Intermix, including vegetation and structures.
- 1702.15 Roadway - Any surface improved, designed or ordinarily used for vehicular travel.
- Public - A Roadway dedicated for public use and improved to the standards required by Douglas County in accordance with the Roadway Design and Construction Standards Manual (current edition).
- Private - A Roadway intended for limited use and constructed to the standards approved by the Douglas County Public Works Department and the provisions of the Douglas County Wildfire Mitigation Standards.
- 1702.16 Slope - Upward or downward incline or slant, usually calculated as a percent of slope (rise or fall per 100 feet of horizontal distances).
- 1702.17 IBC - The International Building Code as currently amended and adopted by Douglas County. (Amended 6/14/06)
- 1702.18 Wildland - An undeveloped area in its natural state containing vegetation characteristic of the region and undisturbed topographical conditions.
- 1702.19 Wildland/Urban Interface - An area where development and Wildland Fuels meet at a clearly defined boundary.
- 1702.20 Wildland/Urban Intermix - An area where development and Wildland Fuels meet with no clearly defined boundary.
- 1702.21 Wildfire - An unplanned and unwanted fire requiring suppressive action; an uncontrolled fire, usually spreading through vegetative Fuels but often threatening structures.
- 1702.22 Wildfire Hazard - The condition of the natural and built environment creating a Wildfire opportunity that is so adverse to past, current, or foreseeable construction or land use as to constitute a significant hazard to public health, safety or property. The term incorporates the combined effects of Slope, Aspect, topography, climatic conditions, weather, Wildfire behavior, existing vegetation, and state of the vegetation; and may also incorporate additional factors such as evacuation conditions, density of structures, history of fire occurrence, and local emergency service availability.
- 1702.23 Wildfire Hazard Area - An area containing or directly affected by a Wildfire Hazard as shown on the Wildfire Hazard - Overlay Map and as determined by Douglas County.

- 1702.24 Wildfire Mitigation Plan - A plan prepared by a Professional Forester that describes the current condition of the subject site and the proposed management activities to be conducted by the applicant. The plan shall describe how these activities reduce Wildfire Hazard levels. The plan shall address all components of site vegetation, as identified by the Douglas County Professional Foresters. While elements of the plan may address insect and disease, wildlife values, aesthetics, and other multiple resource objectives, the primary objective of the plan is hazardous Fuel reduction and how it meets the goal of a reduction in Wildfire risk levels.

1703 Applicability *(Amended 10/31/07)*

Upon the adoption of the Wildfire Hazard - Overlay District, the regulations contained in this Section shall apply to all land areas identified on the Douglas County Wildfire Hazard - Overlay Map and any land areas field-verified as potential hazard areas.

- 1703.01 Any area assigned a hazard rating of 16 or higher in accordance with the hazard rating system adopted by Douglas County shall be subject to the provisions of this Overlay District. *(See Section 1705)*
- 1703.02 The land-use activities subject to the provisions of the Wildfire Hazard - Overlay District are as follows:
- 1703.02.1 Building permits (for all residential and non-residential structures)
 - 1703.02.2 Exemptions (including rural site plans and clustered 35 - acre splits)
 - 1703.02.3 Rezoning
 - 1703.02.4 Site Improvement Plans
 - 1703.02.5 Subdivision
 - 1703.02.6 35 or larger - Acre Development
 - 1703.02.7 Use by Special Review
- 1703.03 The provisions of this Overlay District shall apply in addition to the applicable requirements of the underlying zoning district.
- 1703.04 The provisions of this Overlay District shall supersede otherwise applicable requirements of the underlying zoning district where those requirements are inconsistent with the provisions herein.

1704 Wildfire Hazard - Overlay District Map (Amended 10/31/07)

The Douglas County Wildfire Hazard - Overlay District Map is hereby incorporated by reference and shall be deemed an overlay on any zoning district now or hereafter enacted to regulate the use of land in Douglas County.

- 1704.01 The Wildfire Hazard - Overlay Map shall be maintained by the Community Development Department, Building Division.
- 1704.02 The Wildfire Hazard - Overlay Map is intended to serve as a guide to identify lands potentially at risk for Wildfire. All land areas in the Overlay District shall be subject to field investigation to confirm actual level of risk. The degree of mitigation required will depend on the results of the field investigation.

1705 Wildfire Hazard Rating Inspection (Amended 10/31/07)

Land proposed for development shall be subject to on-site inspection by the Douglas County Professional Foresters for the purpose of determining a Wildfire Hazard rating in accordance with Section 1707.

- 1705.01 If a Douglas County Professional Forester is not available to perform the assessment and/or rating in a timely manner, Douglas County may require that the applicant contract with a Professional Forester for the on-site inspection to determine the Wildfire Hazard rating. In this instance, the applicant is responsible for the costs associated with such inspection.
- 1705.02 In the event of a conflict pertaining to the outcome of the assessment and the subsequent rating prepared by Douglas County Professional Foresters, Douglas County reserves the right to contract with a Professional Forester as defined to assist with the review of the rating and assessment submitted on behalf of the applicant. The cost of this additional review shall be paid by the applicant.

1706 General Standards (Amended 10/31/07)

Development determined to be subject to the provisions of the Wildfire Hazard - Overlay District shall be required to mitigate identified hazards through compliance with and utilization of the Douglas County Wildfire Mitigation Standards, and may require the implementation of a Wildfire Mitigation or Forest Management Plan. Additional measures aimed at reducing the risk of Wildfire may be imposed at the discretion of the Chief Building Official. The types of mitigation measures required are as follows:

1706.01 Wildfire Mitigation and Forest Management

Identification of Fuel Modification and vegetation management measures may be required in order to reduce the threat of Wildfire. If Fuel

Modification, vegetation management, or other Forest Management practices are determined to be necessary, a plan shall be prepared by a Professional Forester, as defined herein. Required elements shall be specified by the Douglas County Professional Foresters and shall include but are not limited to the following:

- 1706.01.1 Identification of fuel type, condition, and loading, in conjunction with an assessment of Slope and Aspect, to determine the ability for a Wildfire to spread.
- 1706.01.2 Reduction of Fuel Loading, modification of fuel types to reduce the risk to structures or adjacent vegetation, and resource values on and around the project including the creation of Fuel Breaks and Fire Breaks.
- 1706.01.3 Identification of current forest conditions at the time of application such as species composition, the presence of insect and disease, stocking levels, significant numbers of standing dead and/or down trees, and any other conditions that may affect current or future forest health or sustainability. The Wildfire Mitigation or Forest Management Plan shall contain a prescription that will decrease the spread or intensity of Wildfire and improve forest health. Any short-term or temporary conditions affecting the existing vegetation shall be noted in the mitigation or management plan with an explanation of its relative importance and how, or if, it changes the prescription.

1706.02 Road and Street Design

All Roadways in a Wildfire Hazard Area shall be required to comply with the Douglas County Roadway Design and Construction Standards or Chapter 4 of the Douglas County Wildfire Mitigation Standards. Public and private roads, streets, and ways shall allow for safe access for emergency fire equipment and civilian evacuation during an emergency. Requirements may include, but are not limited to, the following:

- 1706.02.1 Two separate and distinct points of access; an Emergency Access Route and/or evacuation route may qualify as a second access. Entries divided by a median shall not qualify as two separate access points.
- 1706.02.2 Roads, shoulders and easements of sufficient width, grade and surface composition to support emergency vehicles.
- 1706.02.3 Dead end roads limited in length shall provide cul-de-sac or hammerhead "T" turnaround area.

1706.03 Driveway Design

All driveways located in Wildfire Hazard Areas shall comply with the applicable provisions of the Douglas County Wildfire Mitigation Standards, as determined by the Chief Building Official.

1706.04 Road, Street and Building Signage

Changes in signage may be necessary for development proposed in Wildfire Hazard Areas in order to facilitate locating a fire and avoiding response delays. Road, street and building signage shall comply with Chapter 5 of the Douglas County Wildfire Mitigation Standards, and the Manual on Uniform Traffic Control Devices, as amended. Design requirements shall include, but are not limited to, the following:

- 1706.04.1 Road and street signs of a sufficient height, size, and location to allow for adequate visibility in the event of a Wildfire.
- 1706.04.2 Building signage and addresses of sufficient size and reflectivity to be clearly visible from the road.
- 1706.04.3 Emergency Access Routes may require specific signage and use restrictions.

1706.05 Emergency Water Supply

An emergency water supply shall be required to be identified as a condition for development in a Wildfire Hazard Area. Emergency water supplies shall comply with Chapter 6 of the Douglas County Wildfire Mitigation Standards. The Chief Building Official shall conduct any evaluation required to determine emergency water supply needs. Additional requirements may include, but are not limited to, the following:

- 1706.05.1 Demonstrated compliance with Appendix 59: Standard for Water Supplies for Rural Fire Fighting, of the International Building Code, as amended and adopted by Douglas County. *(Amended 6/14/06)*
- 1706.05.2 Demonstrated compliance with the Water Supply - Overlay District contained in Section 18A of this Resolution.

1706.06 Structural Design

Buildings, structures, and other forms of development in or adjacent to Wildfire Hazard Areas shall be located, designed, and constructed in a manner to minimize the possibility of ignition from a Wildfire and the spread of a structural fire to the Wildland.

All buildings and structures allowed to be located in a Wildfire Hazard Area shall be required to comply with the design standards specified in the Douglas County Wildfire Mitigation Standards.

1707 Application Requirements, Hazard Rating, and Assessments *(Amended 10/31/07)*

- 1707.01 Prior to the processing of any application for a land use activity referenced in Subsection 1703.02, a Wildfire Hazard rating shall be obtained from the Douglas County Professional Foresters, and where required, a Wildfire Mitigation or Forest Management Plan shall be prepared and submitted to the Douglas County Professional Foresters for review and approval.
- 1707.02 Douglas County Professional Foresters may assist the applicant at the pre-submittal stage to determine the field inspection requirements necessary to obtain a Wildfire Hazard rating in accordance with the provisions of Section 1705.
- 1707.03 If the Wildfire Hazard rating is 16 or greater, an assessment shall be prepared by the Douglas County Professional Foresters assessing relevant factors. If Douglas County requires that the applicant contract with a Professional Forester for a Wildfire Hazard rating determination, the individual responsible for the determination shall also be responsible for preparing the rating and assessment. The rating and assessment shall, at a minimum, include the following:
- 1707.03.1 A description of the existing site characteristics including vegetative, topographical, and other pertinent environmental conditions
- 1707.03.2 A determination as to whether the site characteristics constitute a hazard
- 1707.03.3 An assessment of the severity of the hazard and its implications relative to the protection of life-safety and resource protection for future development
- 1707.03.4 An analysis of the intensity and character of existing and proposed development and its effect on the hazard
- 1707.03.5 An analysis of the relationship between the development and the hazard, both inside and outside the proposed development
- 1707.03.6 Recommendations pertaining to the form, type and extent of the required mitigation measures as outlined in the Douglas County Wildfire Mitigation Standards and the provisions of this Overlay District

- 1707.04 The assessment shall be evaluated in conjunction with the land use application to determine if a Wildfire Mitigation or Forest Management Plan is required prior to approval.

1708 Review Procedures *(Amended 10/31/07)*

- 1708.01 The review procedure for the provisions of this Section will coincide with the review procedure established by Douglas County for the type of development or use proposed and the requirements of the underlying zoning district.

- 1708.02 In deciding whether to approve a land-use activity, the Board of County Commissioners shall consider the evidence and information required by this Section. Based on this evidence and information the Board may approve, approve with conditions, or deny the requested development activity. Additional conditions for approval may include, but are not limited to, the following:

- 1708.02.1 Alteration of the physical characteristics of the land
- 1708.02.2 Alteration to the vegetative features of the land
- 1708.02.3 Construction standards required of structures proposed
- 1707.02.4 Construction standards of roads intended to serve the development
- 1708.02.5 Design and density within the area proposed for development
- 1708.02.6 Location of structures, uses, or other improvements within the area proposed for development

SOUTH METRO FIRE RESCUE AUTHORITY
FireWise Education Groundcover Species List

Elevations between 5,300 and 7,000 feet

Common Name	Latin Name	Watering	Lighting	Bloom Month
Creeping grape holly	<i>Mahonia repens</i>	Low	Shade	March-May
Kinnikinnick	<i>Arctostaphylos uva-ursi</i>	Medium	Either	N/A
Mat penstemon	<i>Penstemon caespitosus</i>	Low	Sun	June
Mouse ear chickweed	<i>Cerastium strictum</i>	Medium	Partly Shaded	May-June
Northern bedstraw	<i>Galium boreale</i>	Medium	Shade	May-June
Pinemat manzanita	<i>Arctostaphylos nevadensis</i>	Medium	Partly Shaded	N/A
Rosy pussytoes	<i>Antennaria rosea</i>	Medium	Partly Shaded	June
Small-leaf pussytoes	<i>Antennaria parvifolia</i>	Medium	Partly Shaded	June

SOUTH METRO FIRE RESCUE AUTHORITY

FireWise Education Low Shrubs Species List

Elevations between 5,300 and 7,000 feet

Common Name	Latin Name	Watering	Lighting	Bloom Month
Adam's needle	<i>Yucca filamentosa</i>	Medium	Partly Shaded	June
Antelope bitterbrush	<i>Purshia tridentata</i>	Low	Sun	June-Aug
Apache Plume	<i>Fallugia paradoxa</i>	Low	Sun	June-Oct
Banana/broad-leaf yucca	<i>Yucca baccata</i>	Very Low	Partly Shaded	June
Bog birch	<i>Betula glanulosa</i>	High	Partly Shaded	N/A
Buckbrush/Mtn. Lilac	<i>Ceanothus fendleri</i>	Medium	Sun	July
Golden currant	<i>Ribes aureum</i>	Low	Filtered	April-May
Greenleaf manzanita	<i>Arctostaphylos patula</i>	Medium	Partly Shaded	N/A
Little-leaf mockorange	<i>Philadelphus microphyllus</i>	Medium	Sun	June
Little-leaf mtn. mahogany	<i>Cercocarpus intricatus</i>	Very Low	Sun	N/A
Mountain ninebark	<i>Physocarpus monogynus</i>	Low	Sun	June
Native wild rose	<i>Rosa woodsii</i>	Medium	Partly Shaded	June-July
Ocean spray/rock spirea	<i>Holodiscus dumosus</i>	Low	Partly Shaded	June
Rabbitbrush	<i>Chrysothamnus</i> spp.	Very Low	Sun	July-Aug
Redtwig dogwood	<i>Cornus stolonifera</i>	High	Either	N/A
Shrubby cinquefoil	<i>Potentilla fruticosa</i>	Medium	Partly Shaded	May-Sept
Spanish bayonet	<i>Yucca glauca</i>	Very Low	Partly Shaded	June
True mtn. mahogany	<i>Cercocarpus montanus</i>	Low	Sun	N/A
Wax flower	<i>Jamesia americana</i>	Medium	Either	June
Western sand cherry	<i>Prunus besseyi</i>	Low	Sun	May

SOUTH METRO FIRE RESCUE AUTHORITY

FireWise Education Flower Species List

Elevations between 5,300 and 7,000 feet

Common Name	Latin Name	Watering	Lighting	Blooming
Aspen sunflower	<i>Helianthella quinquenervis</i>	Medium	Sun	
Black-Eyed Susan	<i>Rudbeckia hirta</i>	Medium	Sun	July-Sept
Blanket Flower	<i>Gaillardia aristata</i>	Low	Sun	July-Sept
Blue mist penstemon	<i>Penstemon virens</i>	Medium	Filtered	May-June
Broom groundsel	<i>Senecio spartioides</i>	Very Low	Sun	Sept-Oct
Colorado blue columbine	<i>Aquilegia caerulea</i>	Medium	Shade	June-July
Columbian monkshood	<i>Aconitum columbianum</i>	Medium	Sun	June-July
Common harebell	<i>Campanula rotundifolia</i>	Low	Filtered	May-Oct
Dotted gayfeather	<i>Liatris punctata</i>	Very Low	Sun	Aug-Oct
Fringed sage	<i>Artemisia frigida</i>	Low	Sun	N/A
Germander penstemon	<i>Penstemon teucrioides</i>	Low	Sun	June-July
Geyer onion	<i>Allium geeyeri</i>	Low	Partly Shaded	June
Leafy potentilla	<i>Potentilla fissa</i>	Medium	Filtered	
Mariposa lily	<i>Calochortus gunnisonii</i>	Medium	Sun	July-Aug
Missouri iris	<i>Iris missouriensis</i>	Medium	Sun	May
Narrow-leaf chiming bells	<i>Mertensia lanceolata</i>	Medium	Filtered	May-June
Native beebalm	<i>Monarda fistulosa</i>	Medium	Filtered	July-Oct
Native yarrow	<i>Achillea lanulosa</i>	Low	Partly Shaded	July
Nodding onion	<i>Allium cernuum</i>	Low	Partly Shaded	June
Pasque flower	<i>Pulsatilla patens</i>	Medium	Filtered	March-May
Pearly everlasting	<i>Anaphalis margaritacea</i>	Low	Sun	August
Porter aster	<i>Aster porteri</i>	Low	Sun	Aug-Sept
Prairie coneflower	<i>Ratibada columnifera</i>	Low	Sun	July-Sept
Prairie sage	<i>Artemisia ludoviciana</i>	Low	Sun	N/A
Purple Coneflower	<i>Echinacea purpurea</i>	Low	Sun	July-Aug
Sand lily	<i>Leucocrinum montanum</i>	Low	Sun	May
Scarlet gilia	<i>Ipomopsis aggregata</i>	Medium	Filtered	June-Aug
Skullcap	<i>Scutellaria brittonii</i>	Medium	Filtered	Aug-Sept
Small sunflower	<i>Helianthus pumilus</i>	Medium	Sun	June-July
Smooth aster	<i>Aster laevis</i>	Low	Partly Shaded	Aug-Sept
Smooth goldenrod	<i>Solidago missouriensis</i>	Low	Sun	July-Aug
Spreading golden banner	<i>Thermopsis divaricarpa</i>	Medium	Filtered	May
Spring beauty	<i>Claytonia lanceolata</i>	Medium	Shade	March-April
Sulphur flower	<i>Eriogonum umbellatum</i>	Medium	Filtered	June-July
Western spiderwort	<i>Tradescantia occidentalis</i>	Medium	Filtered	June-Aug
Western wallflower	<i>Erysimum asperum</i>	Medium	Filtered	June-July
Wh. Stemless ev. primrose	<i>Oenothera caespitosa</i>	Low	Sun	June-Aug
Whiplash daisy	<i>Erigeron flagellaris</i>	Low	Sun	June-July
Wild blue flax	<i>Linum lewisii</i>	Low	Filtered	May-Sept
Wild geranium	<i>Geranium caespitosum</i>	Medium	Filtered	May-Oct
Yellow columbine	<i>Aquilegia chrysantha</i>	Low	Filtered	June-Aug
Yellow stonecrop	<i>Sedum lanceolatum</i>	Medium	Filtered	July-Aug



Family Communications Plan

*Your family may not be together when disaster strikes,
so plan how you will contact one another and
review what you will do in different situations.*

Make a Plan. Make a Difference.

Out-of-Town Contact Name _____ Phone _____
E-mail _____ Phone _____

Fill out the following information for each family member and keep it up to date.

Name _____	Social Security Number _____
Date of Birth _____	Important Medical Info. _____
Name _____	Social Security Number _____
Date of Birth _____	Important Medical Info. _____
Name _____	Social Security Number _____
Date of Birth _____	Important Medical Info. _____
Name _____	Social Security Number _____
Date of Birth _____	Important Medical Info. _____
Name _____	Social Security Number _____
Date of Birth _____	Important Medical Info. _____
Name _____	Social Security Number _____
Date of Birth _____	Important Medical Info. _____

Where to go in an emergency. Write down where your family spends the most time: work, school and other places you frequent.
Schools, daycare providers, workplaces and apartment buildings should all have site-specific emergency plans.

Home

Address _____
Phone _____
Neighborhood Meeting Place _____
Regional Meeting Place _____

School

Address _____
Phone _____
Evacuation Location _____

School

Address _____
Phone _____
Evacuation Location _____

School

Address _____
Phone _____
Evacuation Location _____

Work

Address _____
Phone _____
Evacuation Location _____

Work

Address _____
Phone _____
Evacuation Location _____

Other place you frequent:

Address _____
Phone _____
Evacuation Location _____

Other place you frequent:

Address _____
Phone _____
Evacuation Location _____

Make a note of important contacts, phone numbers and policy numbers. Dial 9-1-1 for emergencies!

Important Information	Name	Telephone #	Policy #
Doctor			
Doctor			
Pharmacist			
Medical Insurance			
Homeowner's/Rental Insurance			
Veterinarian/Kennel			
Other			
Other			
Other			

Every family member should carry a copy of this important information.

1-800-639-READY (7323)



READYColorado

Make a Plan. Make a Difference.

www.readycolorado.com

Meeting Place Telephone:

Neighborhood Meeting Place:

Telephone:

Out-of-Town Contact Name:

Telephone:

Contact Name:

COMMUNICATIONS PLAN

1-800-639-READY (7323)



READYColorado

Haga un Plan. Haga una Diferencia.

www.readycolorado.com

Teléfono del lugar de reunión:

Lugar de reunion del vecindario:

Teléfono:

Nombre de la persona con quien ponerse en contacto fuera de la ciudad:

Teléfono:

Nombre de las personas con quien ponerse en contacto:

PLAN DE COMUNICACIONES

My READY Pets Important Info

Keep this form in your family
preparedness kit.



Emergency Contacts

Veterinarian.....
Animal Control.....
Owner's Cell Phone.....
Owner's Work Phone.....
.....



Evacuation Plan Details

1.....
2.....
3.....
4.....



Pet Shelter Options

Local Animal Shelter.....
Friends & Family.....
Pet Friendly Hotels.....
.....
.....



Neighbors & Friends with Pet Care Permission

.....
.....
.....



Out of Town Contact with Pet Information

Name.....
Phone.....
E-mail.....
Relationship.....

For more information

American Red Cross Mile-High Chapter
prepareColorado.org

American Veterinary Medical Association
avma.org/disaster/default.asp

Animal Emergency Management Program
cvmf.org/aemp

Colorado Division of Animal Industry
colorado.gov/ag/animals

Colorado Veterinary Medical Foundation
cvmf.org

CSU Extension
coloradodisasterhelp.colostate.edu

Dept. of Homeland Security Pet Preparedness
ready.gov/america/getakit/pets.html

Pet Friendly Hotels
petswelcome.com

The Extension Disaster Education Network
eden.lsu.edu



Make a Plan. Make a Difference.
readycolorado.com



Governor's Office
of Homeland Security
colorado.gov/homelandsecurity



readycolorado.com

Plan for PETS

in Advance of an Emergency

Animals need emergency
supplies too. Make a
plan for evacuating and
taking care of pets in the
event of a disaster.



Make a Plan. Make a Difference.

readycolorado.com

Questions & Answers About READY Pets

You should always plan to evacuate with your pets. Pack a kit to sustain yourself, family members and pets for at least 72 hours, and remember to rotate kit stock often.

Why is it important to have a plan for both people and pets?

Pet owners have additional challenges when an evacuation is required, and share a natural instinct to not leave pets behind. Personal, community and state plans to support animal evacuation and sheltering are essential in protecting both people and pets.

Who is responsible for your pets?

You are the person responsible for your pets.

Where can I take pets if I'm evacuated?

Make a list of friends and family who would be willing to take your pets on a temporary basis. Other locations include veterinary hospitals, boarding kennels and public evacuation shelters. Some hotels allow pets (www.petswelcome.com).

Can my pet stay with me if I go to a public evacuation shelter?

Pet owners should evacuate with their animals whenever possible. Many communities are working on plans to co-locate temporary emergency animal shelters near public evacuation shelters. This means that in some cases, depending on resource availability, animals would be staying near their owners, but not sharing the same space. Owners may be expected to help care for their animals at such shelters. Depending on circumstances, it may be more feasible for the community to shelter pets at local animal facilities, such as animal shelters, kennels or veterinary hospitals.

What if I have a service animal?

Service animals are animals that provide assistance for a medical disability. They are not considered to be pets and will be allowed to stay with their owners.

What if I'm not at home when my area is evacuated?

- Create a "buddy plan" with nearby relatives, friends or neighbors to help each other with animal evacuation. Make sure your "buddy" has written permission to care for your animals and access to your pet emergency kit and kennels.
- If you need assistance with pet evacuation you may contact the local animal control agency or humane society to request evacuation assistance for your pets as soon as possible.

- Place a clearly visible window sticker to indicate the type and number of pets. Make sure to keep this up to date as inaccurate information could endanger fire/emergency personnel.

How should I prepare my pets?

- Keep pets up to date on preventive healthcare.
- Keep copies of all vaccination/health records.
- Record contact information for your veterinarian.
- Identify your pets:
 - ~ Microchip implantation is an excellent way to identify pets, but make sure the chip is registered to your current address.
 - ~ Photographs of you with your pet.
 - ~ Collars or harnesses with identification tags.
- Give copies of essential identification information to someone out of the area.

How should I transport my pets?

Have one airline kennel or cage per pet. Mark the kennel with your name, address, phone and an alternate contact. Make sure kennels are large enough to allow your pet to stand up and turn around, and to accommodate the pet and food and water bowls. Familiarize your pets with sleeping in the kennel/cage. Kennels for cats should be large enough to accommodate a small litter box. Pillow cases will work for transporting cats in an emergency.

What if I have pets other than dogs and cats?

Pets such as rabbits, rodents, ferrets, hedgehogs, birds, reptiles, amphibians, fish and others will have specific needs. Make sure you have appropriate travel cages, bedding, special foods, along with environmental controls for those pets needing special heat and humidity conditions.



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READY Pets CHECKLIST



- ☐ **Pet food and water for at least three days**
- ☐ **Can opener, spoons**
- ☐ **Treats**
- ☐ **Medications**
- ☐ **Copies of up-to-date vaccination records**
- ☐ **Collars with tags and/or microchip information**
- ☐ **Photos of you with your pet (both digital and paper)**
- ☐ **Current sticker on house window with pet list for fire/emergency personnel**
- ☐ **Bowls**
- ☐ **Cat litter and litter pan**
- ☐ **Poop scooper**
- ☐ **Pet first aid kit**
- ☐ **Bedding**
- ☐ **Toys**
- ☐ **Leashes or harnesses**
- ☐ **Muzzle** (if needed)
- ☐ **Leather gloves and towels** (for handling upset pets)
- ☐ **Grooming supplies**
- ☐ **Paper towels, plastic trash bags and a bottle of spray cleaner/disinfectant**
- ☐ **Alcohol based hand sanitizer**
- ☐ **List of important animal emergency contacts** (animal control, animal shelter, veterinarians, etc.)
- ☐ **Other** (add your unique items to the list)



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Choosing a Forestry Contractor and Consultant

If you are one of the more than 186,000 forest landowners in Colorado, you are acutely aware of the challenges ahead for Colorado's forests. Private forests comprise approximately 7.1 million acres of Colorado's 24.4 million total acres of forest land. The Colorado State Forest Service (CSFS) recently completed a statewide forest resource assessment and strategy that identified threats to our forest resources. Many of these threats, including declining forest health, fragmentation of ownership and wildfire risk, can be addressed through forest management.

As a forest landowner, you might want to consider hiring a forestry contractor or consultant in the near future to provide professional guidance to help you manage your forest. Examples of professional forestry services include insect-infested tree removal, creation of a defensible space around structures and development of a management plan for your forested land. Following are some important considerations when selecting a contractor or consultant. Choosing a reputable contractor or consultant will help ensure a productive business relationship that offers some legal protection and safety while protecting natural resources. It also will help preserve aesthetic and property value.

References: Request and check at least three references from past customers. It is advisable to obtain references for work conducted over the last one to three years in order to ensure company stability and good hiring and work practices. It also is a good idea to request references for work that is similar to the work being proposed for your property. Check the CSFS website <http://csfs.colostate.edu> for contractor and consultant lists for specific districts, or contact your local CSFS district office for lists and other educational resources. Some counties also maintain contractor and consultant lists for forestry services. Be informed, remember that agencies cannot make recommendations, and be aware that not all contractors and consultants are insured.



Crew working on defensible space.

Factors to remember when selecting a contractor:

- *References*
- *Insurance*
- *Credentials*
- *Quotations*
- *Contract*



Insurance: Make sure the contractor is fully insured and in compliance with local, state and federal laws. At a minimum, contractors should have automotive liability, commercial general liability and comply with workers' compensation laws. Consultants should carry Errors and Omissions (professional liability) insurance. For large, long-term projects, it may be advantageous to consult a lawyer regarding specific insurance concerns.



Timber sale near Salida.

Colorado state law requires employers who employ one or more persons to carry workers' compensation insurance. Statutory limits for coverage and general guidelines for insurance carriers are established by the Colorado Department of Labor and Employment—Division of Workers' Compensation. Hiring a contractor and/or subcontractor without insurance could mean you will be held personally liable for an accident and/or loss on your property, a risk that many landowners may not be able to take.

Credentials: Check on the contractor's certifications. Is the contractor a Certified Arborist, Certified Forester or Master Logger, etc.? In some areas of Colorado, specific licenses are required to perform certain types of forestry work. Does the contractor have a business license? If you have trees sprayed or use pheromones, the contractor should have a Commercial Pesticide Applicator's License. Does the company have a profile and/or website that you can peruse?



Creation of defensible space.

Are the contractors you're considering members of organizations such as the Association of Consulting Foresters, Better Business Bureau (BBB), local Chamber of Commerce, Colorado Timber Industry Association, International Society of Arboriculture or the Society of American Foresters? Some of these organizations require members to follow a code of ethics or membership guidelines. The BBB allows you to check a company's background on its website at www.bbb.org. The Colorado Secretary of State's website, www.sos.state.co.us, also allows you to check a company's "Certificate of Good Standing."

As you are researching your candidate contractors' credentials, you will develop an overall profile and "feel" for each company. Pay particular attention to the condition and type of equipment/technology that the contractor advertises and uses. The contractor's equipment will affect operating costs, efficiency, production and, ultimately, the resource impacts on your land. A reference check should help you determine each operator's level of experience.

Quotations: Get at least three written estimates. Make sure you provide all contractors with the same information so they can estimate costs. Be as specific as possible in the scope of the work. To save time, try to arrange for all contractors to meet together at the project area so everyone receives identical information.

Remember, this is only one aspect of the contractor selection process. One of the biggest mistakes is to settle for the “bottom line” (i.e. take the lowest quote). At this point, your research on references, insurance and credentials should be considered. Sometimes, a higher quote may reflect that a contractor pays higher wages and benefits in order to retain a more stable, quality workforce, or perhaps the contractor uses higher-cost, lower-impact equipment to provide a better end result with less environmental damage or impact. In some cases, operating costs may be high simply due to the fact that one contractor’s equipment is newer.

Contract: Get everything in writing before signing any written agreement or contract. The contract does not need to be detailed; it will depend on the scope of the project. The size of the contract can range from a one-page project estimate to a multi-page timber sale agreement. If you are not comfortable with any aspect of the contract, seek legal counsel or speak with a consulting or CSFS forestry professional familiar with forest operations.

When you consider each of these points in the contractor/consultant selection process, you will know what to expect. In turn, your contractor will understand what you, the customer, expect, which will achieve the desired outcome.



Loading logs after thinning.



Crews masticating forest biomass.

*This document was
produced by the Colorado
State Forest Service to promote
knowledge transfer.*

*October 2010
www.csfs.colostate.edu*

Helicopter Water Dip Site Briefing Paper

Interagency Helicopter Operations Guide - June 2009
Chapter 8

Exhibit 8-1: Example Of A Two-Way Helispot

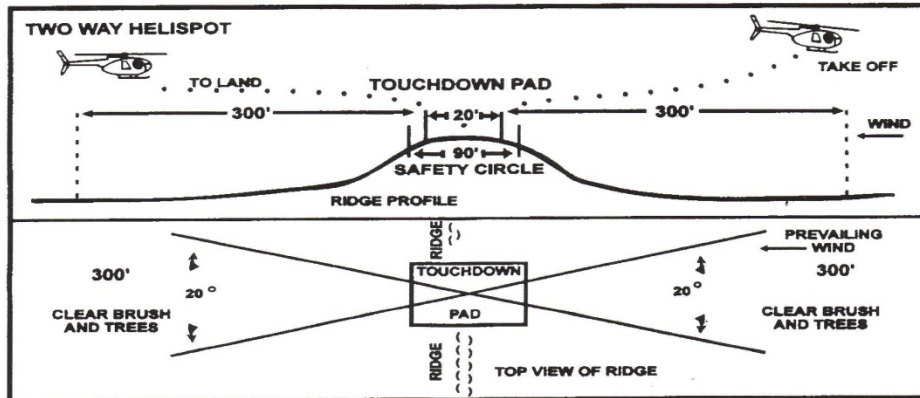
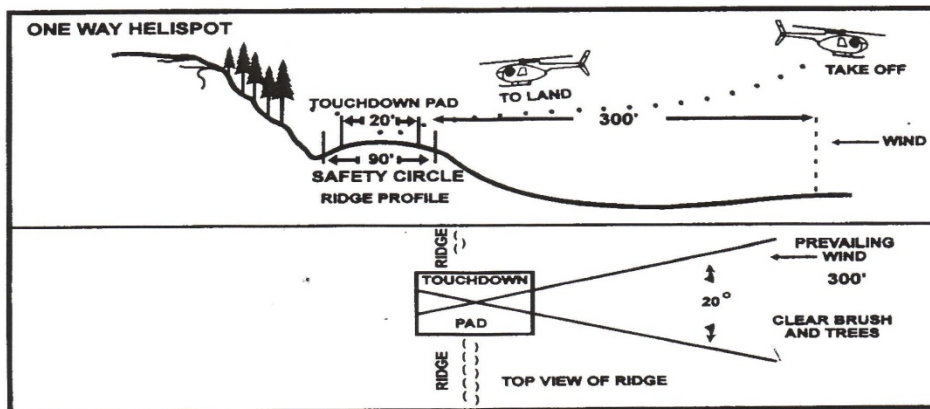


Exhibit 8-2: Example Of A One-Way Helispot



The above diagrams identify the ideal requirements for helicopter landing areas. A Two-Way Helispot is better than a One-Way Helispot because the helicopter can approach and depart into the wind. These diagrams also identify those requirements for an acceptable dip site.

Some items to consider when determining if a dip site may be appropriate for helicopter water access:

- Surrounding terrain and vegetation allows appropriate clearance from the aircraft's rotor diameter
 - As defined in the Interagency Helicopter Operations Guide, a Safety Circle consists of an obstruction-free area on all sides of the touchdown pad or water

Helicopter Water Dip Site Briefing Paper

source. The size of the safety circle depends on the size of the helicopter. For example:

- Large Type 1 Helicopter (Sikorsky S-64, Chinook BV-234, Kamax Sky Crane) – 110'
- Medium Type 2 Helicopter (Bell UH-1, Bell 205/212/214) – 90'
- Light Type 3 Helicopter (Aerospatiale AS350, Bell 407/206L4) – 75'
- If terrain or vegetation does not allow a typical helicopter to hover directly above the water source (approximately 25 feet), a helicopter equipped with a longline and water bucket still may be able to access this dip site. Longlines typically are 150 to 200 feet in length.
- The approach and departure paths must be clear, especially when longline equipment is involved. Pilots prefer to approach and depart into the wind.
- In terms of water depth, for medium or light helicopters equipped with a water bucket, 3 to 5 feet deep would be adequate. For large helicopters equipped with a water bucket, 8 to 10 feet deep would be adequate. Large helicopters equipped with a tank and snorkel could use water 5 feet deep.
- Water source should be free of debris and underwater hazards such as fence material, underwater logs, or anything that could potentially snag a bucket or snorkel.
- Strong rotor wash can damage facilities or improvements close to the water site both with the air movement and with debris carried in the wind. Also, debris or lightweight materials that could be blown about or transported into the aircraft rotors must be considered as well as any need for dust abatement.
- Public access and livestock access while operations are ongoing must be minimized.
- Establish an agreement for the utilization of the water (monetary compensation, any rehabilitation concerns) before the incident begins.
- Power lines and other aerial hazards
- Is the water source supplied with water from a stream, spring or pump?
- Are there any known aquatic invasive species issues with the water source?
- The proposed dip site should not be located within heavily congested areas. Also, the aircraft flight route should not cross any major roadways.

Another option for homeowners would be to allow firefighters to set up a portable tank and draft water from the pond, lake, stream, river etc..... This dip tank could be placed on an acceptable level with all-weather access and easy escape.