

WILDFIRE MITIGATION PLAN

For Micheal & Marta Dowell Residence
18685 Highway 7, Allenspark, CO 80510
Docket: SPR - 00 -210
Inspection date: 8/18/2006



Knowledge to Go Places

Prepared for:

Micheal & Marta Dowell
9384 W. Hinsdale Place
Littleton, CO 80128
Phone: 303-747-1717

Prepared by:

Nicole Palestro
Boulder District
Phone: (303) 823-5774

Boulder District

5625 Ute Highway
Longmont, Colorado 80503-9130
(303) 823-5774

PURPOSE OF A WILDFIRE MITIGATION PLAN

The purpose of a Wildfire Mitigation plan is to give guidelines to reduce wildfire hazards around a home or other structures through fuels reduction. It is a document to inform urban interface home owners of the dangers and responsibilities of living in the interface. This plan will help outline the initial and ongoing fuels reduction needed to create and maintain an effective wildfire defensible space. However, having a wildfire mitigation plan, implementation of a defensible space thinning, and following all the recommendations as outlined in this plan does not guarantee that your home will survive a wildland fire; however, in combination they will give your home the best potential probability to survive a wildland fire.

SITE LOCATION AND PROPERTY DESCRIPTION

The property is located at Section 33, Township 3N, and Range 72W, SW 1/4 of SE 1/4 of section. The fire protection district is the Allenspark Fire Protection District (303-747-2586). There is an existing house and shed on the site. There will be a new shed built on site. The lot is 38 acres in size and has a ~2-6% percent slope with a south aspect. The residence is at 8,100 feet in elevation, and has total of 1800 square feet. The proposed building site is mid-slope and it is a relatively dry site. There are no natural barriers that may help stop or slow the spread of a surface/crown fire on the site.

CONSTRUCTION DESIGN AND MATERIALS

The existing house has a relatively simple design with a simple roofline and is oriented with a southeast aspect. The roofing material consists of asphalt shingles. The exterior wall material is of cement siding. Soffits are 3/4" thick hardboard.

The structure has 16 medium to large sized windows with the primary viewing direction being toward the southeast. Windows are double-paned with low e-coating and frames are made of aluminum clad. Exterior doors are 1-3/4", fire-rated, and made of composite material. There are also a few sliding glass doors with tempered glass.

The one deck is constructed of redwood materials and supported by timber posts. The deck is open underneath and isolated from the surrounding landscape with gravel over a polyester weed barrier.

The new shed will be 192 square feet in size. It has a relatively simple design with a simple roofline and is oriented with a west aspect. The roofing material will be of asphalt shingles. The exterior wall material will be of hardboard siding. Soffits will be 3/4" thick plywood. The shed will have 3 small windows with primary viewing direction being to the west. Windows will be of tempered glass and frames will be made of aluminum clad. Exterior doors will be 1-3/4", fire-rated, and made of sliding glass.

The propane tank is located ~70 feet to the north of the residence. Utilities for the property are off grid solar with a generator backup. The septic field is located ~200 feet to the south of the residence. A well is located ~20 feet to the north of the residence.

DRIVEWAY ACCESS FOR EMERGENCY VEHICLES

Access to the property from Lyons take Hwy 7 west.

The new construction will create no additional site disturbance or soil compaction and will require the removal of a few trees. The driveway is 12 feet wide with a vertical clearance of 13'6" and a grade that is less than 12%. The driveway is approximately 1.25 miles long therefore turnarounds are in place. The driveway is greater than 400 feet therefore pull-outs are in place.

EMERGENCY WATER SUPPLY FOR FIRE FIGHTING

The water source is from a 1,800 gallon fire cistern located ~50 feet to the northeast of the residence. Another 600 gallon domestic cistern is located in the crawl space under the residence. The cistern has a dry hydrant connection with a 6 inch NH threaded connection and cap. Contact the Allenspark Fire Protection District (303-747-2586) for more information and specific details.

FUELS REDUCTION

All trees to be removed are marked with blue spray paint. All trees that are to remain within zones 1 and 2 will be unmarked. Harvested wood that remains on site will be stacked at least 30 feet from the house and at the same elevation when possible. Slash from the harvest will be chipped or burned. Note that if you decide to burn piles, you must obtain a valid Open Burning Permit from the Boulder County Environmental Health Department (303-441-1180) and notify your local fire protection district (Allenspark Fire Protection District (303-747-2586)).

DEFENSIBLE SPACE ZONES AND FOREST MANAGEMENT

The site has a dominant overstory consisting of Ponderosa pine (*Pinus ponderosa*) with a Douglas fir (*Pseudotsuga menziesii*) component. The understory consists of a sparse cover of native grasses, shrubs (mountain mahogany (*Cercocarpus montanus*)/ common juniper (*Juniperus communis*)/ kinnikinnick (*Arctostaphylos uva-ursi*)) and forbs. The area is predominantly fuel model 9 with ground fuels consisting of grasses, shrubs and forbs. This stand is represented by closed canopy stands of ponderosa pine and mixed conifer. Understory may consist of small trees and shrubs, grasses and moderate concentrations of down, dead woody litter. High amounts of needle litter may be present. This model can exist from foothills to subalpine. The area around the residence has been mitigated for fire creating a good defensible space. There is no sign of any current insect or disease problems on the property at the time of inspection.

There are three defensible space zones to be created around the structure(s) on the site. Please note that it is possible that one or more of these zones will cross over the subject property onto adjacent properties. Property boundaries must be respected; mitigation work is not required beyond immediate boundaries. However, landowners are encouraged to contact and work with neighbors if property lines limit the ability to mitigate within the prescribed area. Defensible space is a benefit, not only to the individual but also to the community as a whole.

Zone 1 - Starts at the foundation and extends out 15 feet in all directions from the outside edge of the structure(s). Zone 1 is broken down into three segments:

Zone 1A - Consists of the structure(s) themselves and the area immediately adjacent to and surrounding the structure(s) on all sides. A three-foot wide, non-flammable strip will be created using crushed gravel over a polyester weed barrier material. This strip will also extend back under, and out to, two feet past the drip line of any decks.

Zone 1B - Extends out from Zone 1A. In this zone, all highly flammable vegetation is to be removed. Any large dead woody material on the ground will also be removed. Firewise plants will be used for landscaping and re-vegetation. Grasses will be irrigated when possible and mowed to a maximum height of 6 to 8 inches twice per growing season to a distance of 30 feet from the structure.

Zone 1C - This zone extends out from Zone 1B to 15 feet from the house. All understory trees (ladder fuels) will be removed as marked. These are small seedling and sapling size trees that can be ladders for fire to get in the crowns of the larger trees. A few of the larger, healthy trees are to be retained for screening. All remaining trees in this zone will be pruned to a height of 10 feet. They must be well spaced so that the crowns are not touching (10 foot minimum crown spacing). No trees will overhang the house or decks, unless approved by Boulder County or CSFS as "part of the structure" with additional fuels reduction around those trees to insure the defensible space integrity. Trees should be at least 15 feet away from the house on all sides, and a minimum of 10 feet from chimneys.

Zone 2 - This zone extends out from Zone 1C, and acts as a transition zone between the heavily thinned areas near the house to the existing forest setting. It extends down slope between 100-170 feet depending upon slope steepness. Zone 2 also extends on either side of the structure a minimum of 100 feet and behind the house between 70-100 feet assuming no boundary restrictions. Tree spacing begins as in Zone 1C and gradually decreases as you approach the outer edge of the zone. Thinning and crown spacing becomes greater in areas of steep slopes. Ladder fuels and poor quality, suppressed and/or diseased trees, 6 to 8 inches in diameter, make up the majority of the removals. The remaining mature trees will be pruned to a height of 10 feet at the intersection of Zones 1 and 2 with limbing reduced in height to 6 feet as you approach Zone 3. If there are any questions pertaining to slope and the changes in thinning spacing and distance regulations please refer to www.colostate.edu/Depts/CSFS/ and find the Quick Facts 6.302 Creating Wildfire Defensible Space.

Zone 3 - This zone extends out from Zone 2 to the edge of the property. It may extend out to areas that are not part of the immediate mitigation efforts. In this zone, a few thicker clumps of trees are acceptable, as well as some unpruned trees near the outer edge. Thinning in this zone adds some protection, but is aimed more at forest health. Trees that are of poor quality or form, or have insect or disease infestations, should be removed. Slash in this zone can be lopped and scattered and/or piled for wildlife use.

- Thin suppressed trees and trees with disease and insect infestations and retain the larger, healthier trees.
- Snags should be retained for wildlife.
- Some slash in this zone can be lopped and scattered and/or piled for wildlife enhancement and shelter.
- Large amounts of slash should be disposed of by chipping, hauling to an approved site, or burning.
- For burning permits, check with your local fire protection district.

MAINTENANCE AND RECOMMENDATIONS

As detailed in fact sheet 6.302, Creating Wildfire Defensible Zones, an important factor that determines a structure's ability to survive wildfire is defensible space. Defensible space is a maintained area around a structure where fuels (flammable materials) are modified to slow the possible spread of wildfire to the structure, as well as from the structure to the surrounding areas. Defensible space provides a place where structure protection and fire suppression operations may occur. Wildfire hazard mitigation work breaks up fuel continuity, potentially decreasing a wildfire's intensity, and for more effectiveness should be completed beyond a home's defensible space, zone 1 and 2, area into zone 3.

In addition to the above recommendations, several other measures can be taken to make your home more fire safe and add an additional measure of safety for your family. While not required through site plan review, the following measures should be undertaken to maintain the home and defensible space in the future.

- Maintain your defensible space yearly; contact your local forester for a 5-year maintenance inspection
- Establish an escape route and safety zone with the aid of your local fire protection district
- Keep firewood at least 30 feet away from buildings; clear weeds and grass from around pile
- Do not stack fresh cut wood against live trees – this could invite unwanted insects
- When possible, maintain an irrigated green space; mow grasses 6" to 8" high
- Connect, and have available, a minimum of 50 feet of garden hose with an adjustable nozzle
- Have an emergency evacuation plan in place (included in wildfire mitigation plan)
- Be aware of fire danger; check the Boulder Fire Weather website at www.crh.hoaa.gov/den/fireindx.html
- Keep driveways and property address marked with reflective easy to see signs
- Maintain screens on foundations, soffit vents, roof vents, and attic openings
- Get rid of unnecessary accumulations of debris and trash from yards
- Keep tools such as shovels, rakes, ladders, and axes available and ready for use
- Clean debris from the roof and gutters at least two times annually
- Check screens and maintain spark arresters on chimneys annually
- Avoid storing combustibles under decks such as wood piles, scrap lumber, and fuels

DEFINITIONS

Aspect – Exposure. The direction a slope faces.

Canopy – The cover of branches and foliage formed collectively by crowns of adjacent trees.

Crown – Branches and foliage of a tree.

Dominant fuel type – Matter that would carry a fire, found on the ground.

Fuel Model – A number system that identifies the types of fuels found on the property that will directly influence fire behavior

Fire danger - An assessment of both fixed and variable factors of the fire environment, which determine the ease of ignition, rate of spread, difficulty of control, and the fire impact.

Fire hazard - The potential fire behavior for a fuel type, regardless of the fuel type's weather-influenced fuel moisture content or its resistance to fireguard construction. Assessment is based on physical fuel characteristics, such as fuel arrangement, fuel load, condition of herbaceous vegetation, and presence of elevated fuels.

Fire management - The activities concerned with the protection of people, property and forest areas from wildfire and the use of prescribed burning for the attainment of forest management and other land use objectives, all conducted in a manner that considers environmental, social and economic criteria.

Fire risk - The probability or chance of fire starting determined by the presence and activities of causative agents.

Fire season - The period(s) of the year during which fires are likely to start, spread and do damage to values-at-risk sufficient to warrant organized fire suppression; a period of the year set out and commonly referred to in fire prevention legislation. In B.C. the fire season is considered to extend from April 1 to October 31.

Fuel continuity – The proximity of fuels to each other. Helps determine if a fire can sustain itself.

Forest ecology - The relationships between forest organisms and their environment.

Forest health - A forest condition that is naturally resilient to damage; characterized by biodiversity, it contains sustained habitat for timber, fish, wildlife, and humans, and meets present and future resource management objectives.

Ladder fuels - Fuels that provide vertical continuity between the surface fuels and crown fuels in a forest stand, thus contributing to the ease of torching and crowning.

Limb (verb) –To remove the branches from a tree.

New forestry - A philosophy or approach to forest management that has as its basic premise the protection and maintenance of ecological systems. In new forestry the ecological processes of natural forests are used as a model to guide the design of the managed forest.

Noxious weeds - Any weed so designated by the Weed Control Regulations and identified on a regional district noxious weed control list.

Overstory – The tree species that forms the uppermost forest layer (dominant and co-dominant).

Snag – Standing dead tree, often used by wildlife such as woodpeckers, owls, and other various mammals.



Annual fire safety checklist

- Thin trees and brush properly within defensible space.
- Remove trash and debris from defensible space.
- Remove trees growing through a porch or other portions of a structure.
- Clear leaves and debris from the roof and gutters of structures.
- Remove branches that overhang a chimney or roof.
- Stack firewood uphill from a home or on a contour away from the home.
- Use noncombustible roof materials.
- Place shutters, fire curtains or heavy drapes on windows.
- Place screens on foundation and eave vents.
- Enclose sides of stilt foundations and decks.
- Use a chimney screen or spark arrester in fireplaces.
- Clear vegetation from around fire hydrants, cisterns, propane tanks, etc.
- Make sure that an outdoor water supply is available with a hose, nozzle and pump.
- Post address signs that are clearly visible from the street or road.
- Make sure that driveways are wide enough for fire trucks and equipment.
- Check with appropriate highway agencies to make sure load limits are posted on bridges and for the appropriate protocol for posting load limits for bridges on private property.
- Install and test smoke detectors.
- Practice a family fire drill and evacuation plan.

Evacuation tips

- If a wildfire is threatening your area, listen to the radio for updated reports and evacuation information.
- Confine pets to one room and make plans to take care of them in the event of evacuation.
- Arrange for temporary housing with a friend or relative whose home is outside the threatened area. Leave a note in a prominent place in your home that says where and how you can be contacted.
- If your home is threatened by wildfire, you will be contacted and advised by law enforcement officers to evacuate. If you are not contacted or you decide to stay and help defend your home, evacuate pets and family members who are not needed to protect your home.
- Remove important documents, mementos, etc. from the possible fire area.
- Choose an evacuation route away from the fire if possible. Watch for changes in the speed and direction of the fire and smoke.

- Take a disaster supply kit containing:

- Drinking water.
- A change of clothing and footwear for each family member.
- Blanket or sleeping bag for each person.
- First-aid kit and prescription medications.
- Emergency tools including a battery-powered radio, flashlight and extra batteries.
- Extra set of car keys and credit cards, cash or traveler's checks.
- Extra pairs of eyeglasses or other special items for infants, elderly or disabled family members.

Defending your home

Whether you choose to stay to defend your home or to evacuate, complete as many of the following preparations as possible.

- DO NOT JEOPARDIZE YOUR LIFE. NO MATERIAL ITEM IS WORTH A LIFE.
- Wear fire-resistant clothing and protective gear.
- Remove combustible materials from around structures.
- Close or cover outside vents and shutters.
- Position garden hoses to reach the entire house, but do not turn the water on until it is needed. Hoses should have an adjustable nozzle.
- Place large, full water containers around the house. Soak burlap sacks, small rugs or large rags in the containers.
- Place a ladder against the roof of the house on the opposite side of the approaching wildfire. Place a garden hose near the ladder, prepared as described previously.
- Place portable pumps near available water supplies, such as pools, hot tubs, creeks, etc.
- Close all windows and doors. Do not lock them.
- Close all inside doors.
- Turn on a light in each room and all outside lights. Leave them on even during daylight hours.
- Fill tubs, sinks and similar containers with water.
- Shut off gas supplies to structures at outside meters. Shut off propane supplies at the outside meter of the tank.
- Remove curtains made of lace, nylon or other light materials. Close blinds, heavy drapes and fire resistant window covers.
- Move overstuffed furniture into the center of the house, away from windows and sliding doors.
- Cars should be parked in the garage, facing out. Close the windows of the vehicle but do not lock the doors. Leave the keys in the ignition.
- Close the garage door but leave it unlocked. Disconnect automatic garage door openers.

For additional copies of these checklists, visit www.colostate.edu and search for wildfire, view the Colorado State Cooperative Extension fact sheet on Forest Home Fire Safety, or contact the local Cooperative Extension office usually listed under the county government section of your local phone book.

(Information provided by Colorado State University Cooperative Extension and the Colorado State Forest Service.)

Safety Zone Guidelines

A Safety Zone is an area that in the event of a wildland fire you could survive the passing fire without the aid of a fire shelter. A natural safety zone could be an area already burned clean by the fire (in the black), rock areas where flashy fuels are absent, or large bodies of water. A manmade safety zones could be pre-constructed sites such as clear cuts. It should be close enough to your home to consider escape time to reach the safety zone. They should not be located upslope or downwind of the fire or in heavy fuels.

1. Avoid locations that are downwind from the fire.
2. Avoid locations that are in chimneys, saddles, or narrow canyons.
3. Avoid locations that require a steep uphill escape route.
4. Take advantage of heat barriers such as lee side of ridges, large rocks, or solid structures.
5. Burn out safety zones prior to flame front approach.
6. For radiant heat only, the distance separation between you and the flames must be at least four times the maximum flame height. This distance must be maintained on all sides, if the fire has ability to burn completely around the safety zone. Convective heat from wind and/or terrain influences will increase this distance requirement.

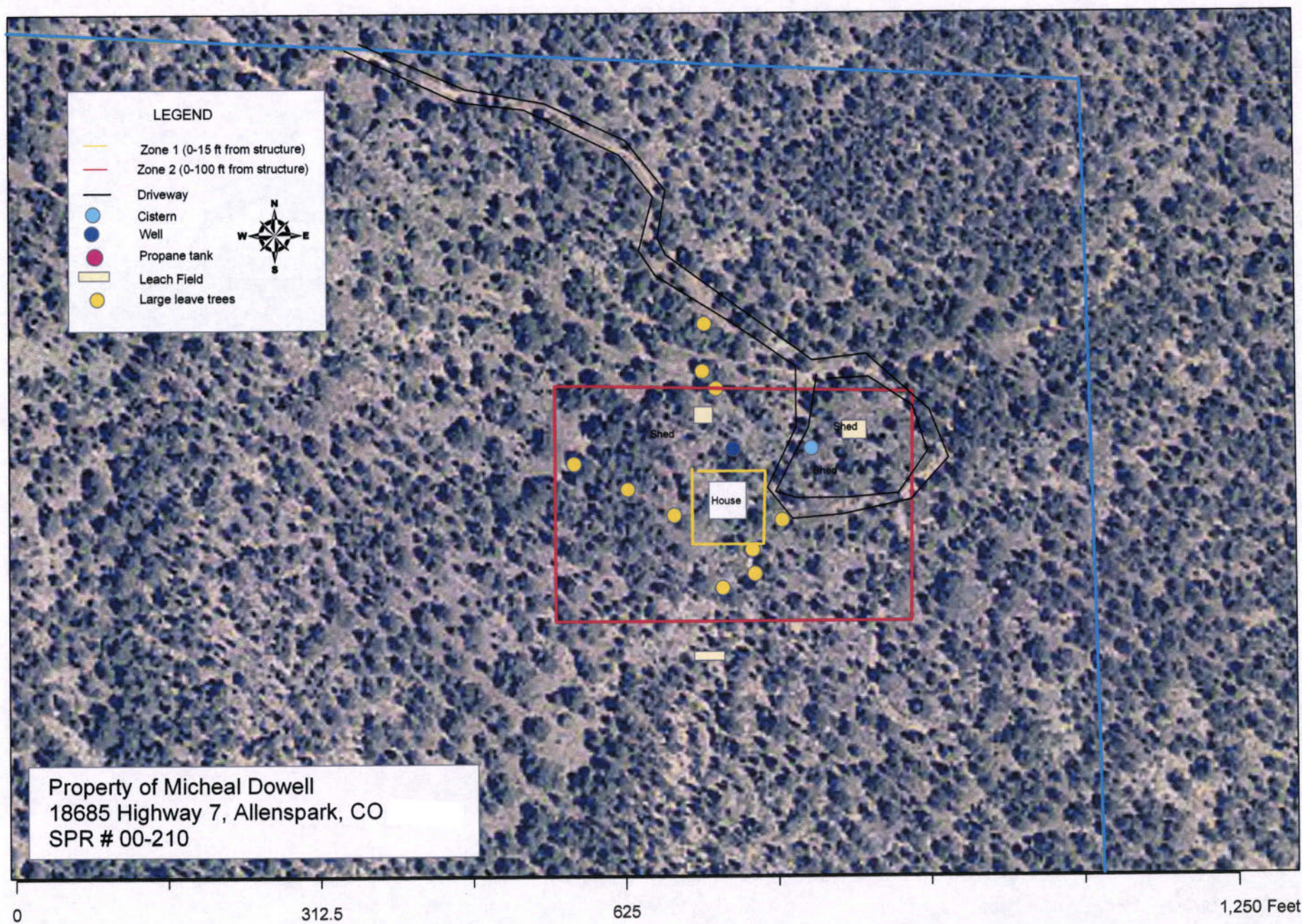
Calculations Assuming No Slope and No Wind

<u>Flame Heights</u>	<u>Distance separation</u>	<u>Area in Acres</u>
10 feet	40 feet	1/10 acre
20 feet	80 feet	1/2 acre
50 feet	200 feet	3 acres
75 feet	300 feet	7 acres
100 feet	400 feet	12 acres
200 feet	800 feet	50 acres

Note: Distance separation is the radius from the center of the safety zone to the nearest fuels. When fuels are present that will allow the fire to burn on all sides of the safety zone this distance must be doubled in order to maintain effective separation in front, to the sides, and behind the person.

Area in Acres is calculated to allow for distance separation on all sides for a three person family and a vehicle. One acre is approximately the size of a football field or exactly 208 feet x 208 feet.

Example: Given a fire with 10 foot flame heights (no wind or slope). You would need a minimum of 40 feet between you and the flames. So your total safety zone should be 80 feet x 80 feet. If you are settled into the middle of the safety zone you will have a minimum distance of 40 feet to each edge of the zone.



4833

DIRECTIONS FOR FILLING OUT FORM:

Please fill out as complete as possible and fax to Nicole Palestro at 303-823-5768 or mail to 5625 Ute Highway, Longmont CO 80503-9130, or bring to scheduled marking appointment.

Any **Bolded** categories will be filled in by the CSFS representative at the time of initial site visit and tree marking for the defensible space. If you have any questions about this form please contact Nicole Palestro at 303-823-5774.

Wildfire Mitigation Plan
FIELD DATA FORM

Inspection Date: 08-18-06

Landowner name: Michael N and Marta S Dowell

Mailing address: 9384 W Hinsdale Pl

City, State. Zip: Littleton, CO 80128

Site address: 18685 Highway 7 Allenspark, CO 80510

Phone number: {303-747-1717 Or 303-972-0560

50
50
303/000
2/5
4/5
12/5
50
50

Road access: Follow signs posted on road to Dowell site (Directions from main access road)
HWY 7 west of Lyons

Docket Number: I didn't bring the SPR # home to Littleton with me. The Building Permit # is BP-06-1151. Can you work without until Monday morning? (SPR, LU, Etc.)

SPR - 00-210

Section: 33

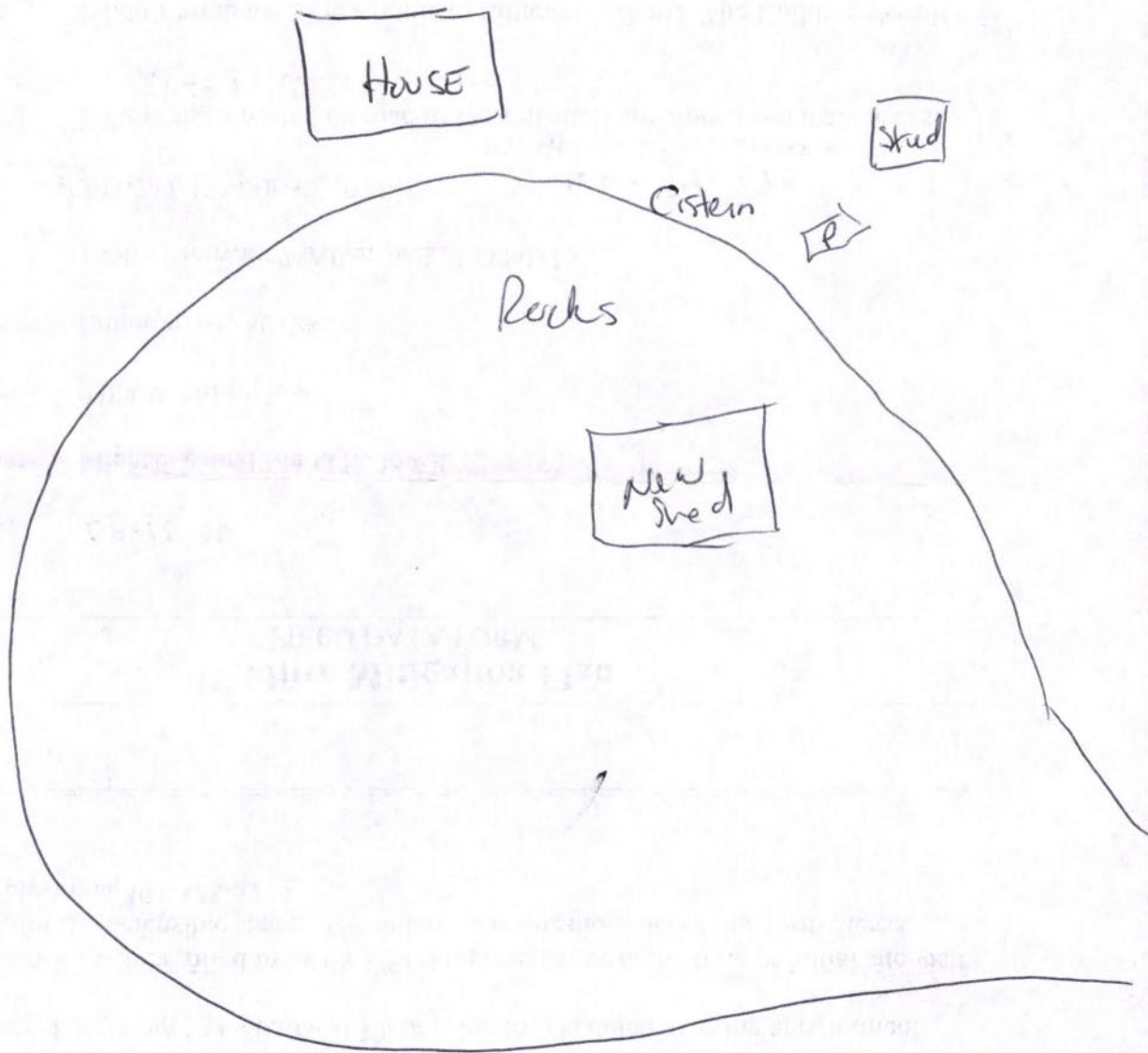
Township: 3 North

Range: 72 West

Will
mail
extra

668-4077
mndowell@comcast.net

walter-



Legal Description: Being the SW ¼ of the SE ¼ of Section 33, Township 3 North, Range 72 West

FPD: Allenspark Fire

Dominant fuel type: Ground Juniper (Grass/forbs/shrubs/slash/etc)

Dominant overstory: Ponderosa

Co-dominant overstory: Douglas Fir

Fuel model type: 9-2

Slash disposal: burn or chip _____ (Chipped/hailed/burned/lop-scatter)

☒ Aspect: South (Direction of slope)

Slope: ~ 5-10%

Elevation: 8100 (feet)

☒ Building site: rating mid slope (Chimney/saddle/valley/ridge/mid-slope)

Site moisture: dry

☒ Natural fire barrier: NONE

☒ Insect & Disease Diagnosis: DMT (02)

Lot size (acres): 38 (Acres)

Number of Structures: 3 (All structures to be present)

Existing Structures: 1800 sq. ft. house, 120 sq. ft. Shed (House/barn/garage/etc.)

New Structure: 192 sq. ft. shed (House/Barn/new addition/etc..)

Driveway length: 1.25 miles from highway to house (Actual length in feet from road to home)

Driveway trees removed: few (few/many/none)

Home buffer material: crushed gravel (Stone/crushed gravel/decorative stone)

House design: simple (simple/complex)

Roof Design: simple (simple/complex)

Roof material: asphalt shingles(shed/house) (Asphalt shingles/concrete tiles/metal)

Soffits type: plywood/hardboard(S/H) (Plywood/hardboard/cement board)

Siding material: hardboard/cement siding (S/H) (Cement/hardboard/log/stucco/stone/wood)

Windows (#): 3/16 (S/H) (approximate number of windows)

Windows Size: small/medium to large (S/H) (On average: small/medium/large)

Windows Frames: aluminum/Aluminum clad (S/H) (Wood/aluminum/aluminum clad)

Windows Aspect: West/Southeast (S/H) (Dominant viewing direction)

Window Construction: tempered glass/2&3paned e-coating (S/H) (Tempered glass/e-coating/etc.)

Door Material: Sliding glass/Sliding glass and composite (S/H)
(Wood/steel/fiberglass/composite)

Deck material: none/redwood (S/H) (Wood/composite materials)

Deck Description: N/A/open (S/H) (Enclosed/open)

Deck support type: N/A/timber posts (S/H) (Timber posts/logs/steel/concrete/stone)

Deck buffer material: gravel (Crushed rock/gravel)H

Deck weed barrier: polyester H (Fiberglass/polyester)

Structure SQR. FT.: 192/1800 (S/H) (Total square feet of structure)

Utility Location: H none off grid solar w/generator backup (Pole/buried: Direction from structure)

Structure aspect: west/southeast (S/H) (Dominant facing direction/view)

Leach field: 200 ft south (Distance from house, and direction)

Cistern: ⁵⁰~~25~~ ft NE/crawl space ^H (Distance from house, and direction)

Cistern Type: fire/domestic (Domestic Cistern or Fire Cistern)

Cistern size: 1800/^H600 ~~4/8~~ (gallons)

Well (if applicable): 20 ft North (Distance form house, and direction)

Propane Tank location: 70 ft. North (Distance from house and direction)

22 acres Ned -

MPB -

David Foed

PO 1569

Nederland 80466

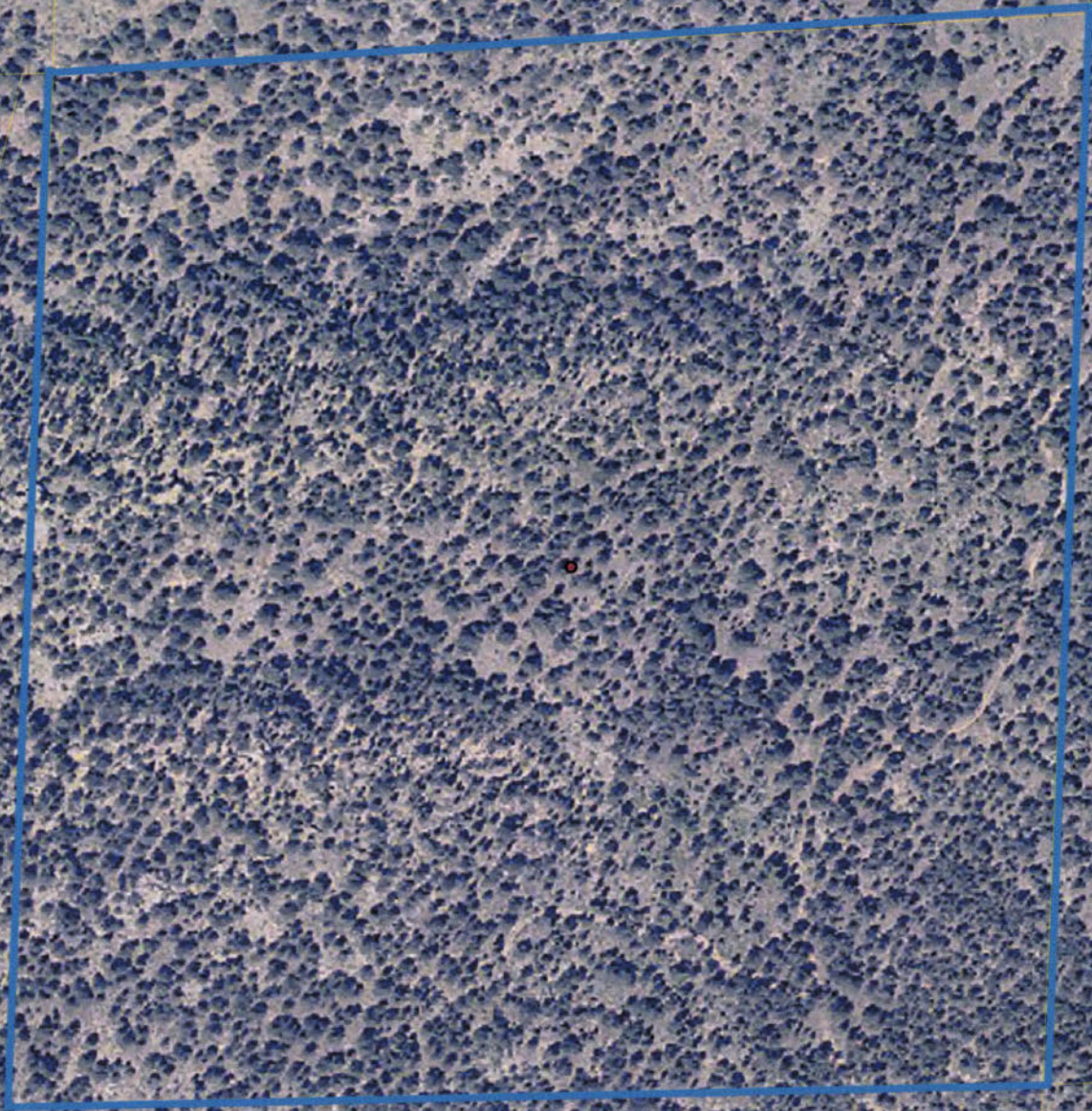
Forest Ag - 37 Acres Conservation Easement Gilpen County

Dave Lewis 303-642-1323

Fax

✓ Mit Plan - Email Denise belk@gmail.com

5205 Ridge Road Friday 9:30



Dowel

SPR MITIGATION PLAN FORM

TODAY'S DATE: 2/15/02 *marking complete*
 LANDOWNER'S NAME: Mike Dowell
 MAILING ADDRESS: 30 Tecoma Cir
Littleton CO 80127

SITE ADDRESS: 18685 HWY 7
Allenspark

SPR# _____ SECTION 33 ^{SW 1/4 SE 1/4} TOWNSHIP 3 RANGE 72 W

DOMINANT FUEL TYPE PP OVERSTORY PP

ASPECT Spacing SLOPE 5-10% % TOTAL ACERAGE 38

FUEL MODEL _____

I&D/FOREST HEALTH _____

SITE MAP INCLUDED? Y N County has map

VISIBLE SIGNAGE? Y N

DRIVEWAY (length, width, location) _____ ROAD ACCESS 1.25 mile

BUILDING/STRUCTURE: MATERIALS Comp. roof.

SQ. FT. _____

HEIGHT/STORIES _____

DECK wood

ROOFING class A WINDOWS _____

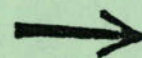
LEECH FIELD _____

→ CISTERN (capacity) 1800

PROPANE _____

FPD _____

COMMENTS/RECOMMENDATIONS:



To Mike Dowell
30 Tecoma Cir.
Littleton, CO 80127

Invoice No. 58358

**Colorado
State**
FOREST
SERVICE

Date: 3/5/02

Item	Unit Cost	Total
1 <u>SPR plan/markings</u>		<u>150.00</u>
2 <u>inspection</u>		<u>45.00</u>
3		
4		
5		
6		
7		
8		
9		
Tax Exempt No. _____		Sales Tax _____

Total		<u>195.00</u>
CK-CA-MO Amount Paid:		
Amount Due		<u>195.00</u>
Ck#	Dated	
Rcv'd By	F.Y. <u>01-02</u>	
Funding		Amount
<u>223530</u>	<u>0615</u>	<u>195.00</u>

[Signature]
CSFS Originator

Payment Due By 4/5/02

Remit to:

COLORADO STATE FOREST SERVICE
BOULDER DISTRICT
5625 UTE HIGHWAY
LONGMONT CO 80502-9130

Deposit No.

Date



Knowledge to Go Places

Boulder District
5625 Ute Highway
Longmont, Colorado 80503-9130
(303) 823-5774

February 15, 2002

Mike Dowell
30 Tecoma Circle
Littleton, CO 80127

Dear Mike,

I hope all is well. Enclosed is a copy of your Wildfire Mitigation Site Plan Review.

When you have completed the work, please call me so we can set up an inspection. If you have any questions about the SPR process or any concerns about forest management issues, please feel free to contact me.

Enjoy the winter and good luck cutting.

Sincerely,

A handwritten signature in cursive script, appearing to read "H. Asmus". The signature is written in dark ink and is positioned above the printed name.

Holly Asmus
Forester

WILDFIRE HAZARD MITIGATION PLAN - SPR # 00-210

Prepared for:

Mike Dowell
30 Tecoma Circle
Littleton, CO 80127

Prepared by:

Holly Asmus
Forester
Colorado State Forest Service

On February 15, 2002

SITE LOCATION AND DESCRIPTION OF PROPERTY

The property is located in Allenspark, off of Highway 7, in Boulder County, S33, T3N, R72W. The address of the property is **18685 Highway 7**. Access to the home site is via a driveway, approximately 1.25 miles long.

The dominant fuel type is litter and small shrubs. The dominant overstory is ponderosa pine, with occasional Douglas fir throughout the stand. Dwarf mistletoe was observed on the north, northwest neighboring property, but was not observed on the Dowell property. There were no indications of observed mountain pine beetle on the Dowell property. The landowner was advised to limit cutting during the mountain pine beetle flight times to reduce risk of infestation of trees on the property. The home site has a south aspect and a slope of 5-10%. The property is located within the Allenspark Fire Protection District.

The property is characterized by **Fuel Model 9**. Fuel Model 9 is represented by closed canopy stands of ponderosa pine, and mixed conifer. Under story consists of small trees and shrubs, grasses, and moderate concentrations of down, dead woody litter.

The initial property inspection for a wildfire hazard mitigation consultation occurred on February 15, 2002. The property was marked with blue tree marking paint for thinning and clearing recommendations. The boundary for zone 2 is marked with red flagging. A final inspection will be completed when implementation is completed and the threat of attracting mountain pine beetle has subsided (mid-September). Payment for marking and written plan was received on _____, for the amount of \$150. Payment for the final inspection was received on _____, for the amount of \$45.

RECOMMENDATIONS

As detailed in fact sheet 6.302, *Creating Wildfire Defensible Zones*, an important factor that determines a structure's ability to survive wildfire is defensible space. Defensible space is a maintained area around a structure where fuels (flammable materials) are modified to slow the possible spread of wildfire to the structure, as well as from the structure to the surrounding areas. Defensible space provides a place where structure protection and fire suppression operations may occur. Wildfire hazard mitigation work breaks up fuel continuity, potentially decreasing a wildfire's intensity, and for more effectiveness should be completed beyond a home's defensible space area.

It is recommended that access driveway, as well as the property address, be marked with visible signage.

There are three zones of protection to be created around the homesite for defensible space. Zone 1 is the most critical and affords the most protection to the site. Zones 2 and 3 are extensions of this protection.

ZONE 1

Zone 1 is the area of maximum modification. It starts at the foundation or outer edge of the structure (i.e. from the "footprint" of the home site, which may include decks, balconies, and character trees accepted by the inspecting forester) and extends out 15 feet in all directions. All flammable vegetation should be removed in this zone. As per Boulder County Land Use Department, create a 3-foot wide strip of nonflammable groundcover immediately adjacent to the structure. This can be accomplished by using decorative rock or gravel. This strip should surround the house and extend under any decks to 2 feet out past the drip line of the decks.

Thinning and pruning are necessary to create defensible space at the site. **All trees marked in blue should be removed.** Trees for removal were selected because of their poor form and/or lack of vigor in addition to their close spacing. Tree removal will improve the health of the remaining trees in addition to mitigating wildfire hazards.

Remove ladder fuels from beneath trees. Ladder fuels are small shrubs, trees, tree limbs, etc. that allow a fire to climb into a tree's crown. **Limb trees to a height of ten feet on the remaining trees in this zone.** For young, small trees in this zone, limb the lower third of the tree's height.

ZONE 2

Zone 2 extends out from zone 1; it is a transition zone between the heavily thinned areas near the house to a more traditional forest setting. In this zone, some clusters of trees are acceptable if there is adequate spacing between clusters.

Zone 2 may extend 40-90 feet from the structure depending on the slope and aspect of the site. On your property we have considered Zone 1 and 2 to extend approximately 45 feet each, from all sides of the structure. In zone 2, **limb remaining trees to a height of eight feet.** As you approach the outer edge of zone 2, reduce limbing height to six feet. Lower branches of young, small trees in this zone should be limbed to one third of the tree's height.

ZONE 3

Zone 3 extends out from zone 2, and is of no set shape or size. At your site, zone 3 extends into the remaining portion of the 38-acre parcel. Forested land in this zone could be thinned for increased overall forest health and wildfire hazard reduction. The following guidelines apply if you (and your neighbors) decide to work in these areas.

- Thin suppressed trees and trees with disease and insect infestations and retain the larger, healthier trees.
- Snags should be retained for wildlife.
- Some slash in this zone can be lopped and scattered and/or piled for wildlife enhancement and shelter.
- Large amounts of slash should be disposed of by chipping, hauling to an approved site, or burning.
- For burning permits, check with your local fire protection district.

All cutting, limbing and slash treatments must be completed prior to scheduling an inspection. Contact me to set up an inspection date at least two weeks before you need the approval.

Implementing this wildfire mitigation plan and maintaining your defensible space will help reduce the threat of wildfire to your home, but does not guarantee its safety.

In addition to the above recommendations, several other measures can be taken to make your home and family more prepared for and adapted to life in a fire prone ecosystem. While not required through Site Plan Review, other measures are recommended for those who live in the wildland-urban interface. These include:

1. Be aware of fire danger. Signs are posted at the entrances of most major canyons.
2. Clean roof and gutters at least twice a year.
3. Stack firewood uphill at least 15 feet from buildings.
4. Do not store combustibles under decks.
5. Screen off foundations, roof and attic openings.
6. Screen and maintain spark arresters on chimneys.
7. When possible, maintain an irrigated greenbelt around the home.
8. Connect and have available at least 50 feet of garden hose during fire season.
9. Post lot and house numbers so that they are clearly visible.
10. Maintain the site's defensible space annually. Contact the Colorado State Forest Service for a 5-year maintenance inspection.

DEFINITIONS

Aspect – Exposure. The direction a slope faces.

Canopy – The cover of branches and foliage formed collectively by crowns of adjacent trees.

Crown – Branches and foliage of a tree.

Dominant fuel type – Matter that would carry a fire, found on the ground.

Fuel continuity – The proximity of fuels to each other. Helps determine if a fire can sustain itself.

Limb (verb) – To remove the branches from a tree.

Overstory – The tree species that forms the uppermost forest layer.

Snag – Standing dead tree, often used by wildlife such as woodpeckers, owls, and sometimes squirrels.

Wildfire mitigation plan – A plan to reduce wildfire hazards around a home or other structure through fuels reduction and landowner awareness.