

WILDFIRE MITIGATION PLAN

For Gerald & Gertrude Rhoads Residence
187 Lynx Drive, Ward, CO 80481
Docket: SPR-05-042
Inspection date: 5/6/2005

Knowledge to Go Places

Prepared for:

Gerald & Gertrude Rhoads
187 Lynx Drive
Ward, CO 80481
Phone: 303-459-0235

Prepared by:

Cory Secher - Forester
Boulder District
Phone: (303) 823-5774
E-mail: csecher@lamar.colostate.edu

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

SITE LOCATION AND PROPERTY DESCRIPTION

The property is located at Section 21, Township 2N, and Range 72W Mattoons Highland, First Addition. The fire protection district is the Lefthand fire protection district (303-444-6063). There will be 2 existing structure located on site, including a residence and pump house. There will be a new garage/barn built on site. The lot is 5.0 acres in size and has a ~9% percent slope with a southern aspect. The residence is at 8,800 feet in elevation, and has total of 2,400 square feet. The proposed building site is mid-slope and it is a relatively dry site. Driveway with defensible space thinning will create a small barrier that may help stop or slow the spread of a surface/crown fire on the site.

CONSTRUCTION DESIGN AND MATERIALS

The proposed house has a relatively simple design with a simple roofline and is oriented with a southern aspect. The roofing material will consist of metal. The exterior wall material is to be plywood. Soffits are to be ¾" thick plywood. The structure has ~20 medium sized windows with the primary viewing direction being toward the southern side of the structure. Windows will be double glazed with e-coating and frames made of vinyl. Exterior doors are to be 1-3/4", fire-rated, and made of steel. The one deck will be constructed of cement materials and supported by steel. The deck will be open and isolated from the surrounding landscape. The propane tank is located approximately 75 feet to the north of the residence. Vegetation within 10 feet of the propane tank will be kept cleared. Utilities for the property will be buried and enter the residence from the northeast. The septic field is located 75 feet south of the residence. A well will be located 480 feet north of the residence.

DRIVEWAY ACCESS FOR EMERGENCY VEHICLES

Access to the property from Boulder take Highway 36 north to Lefthand Canyon Drive and go west, continue through the town of Ward to Overland Road and turn north on Crestridge, left on Bobcat and right on Lynx. The existing driveway will not create additional site disturbance or soil compaction and will require the removal of no 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 600 feet long therefore pullouts and turnarounds will be required (see plan for details).

EMERGENCY WATER SUPPLY FOR FIRE FIGHTING

The water source will be from an existing 1,800 gallon fire cistern, however debris must be removed from around the cistern before approval. The existing fire cistern should have a 6 inch NH thread connection with cap. Alternatively a contribution can be made to the fire protection district community cistern fund. Contact the Lefthand fire protection district (303-444-6063) 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. If the property is less than 1 acre it may not have zones marked due to boundary interference. 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 hauled. Note that if you decide to burn piles, you must obtain a valid Open Burning Permit from the Boulder County Environmental Health Department and notify your local fire protection district (Lefthand fire protection district (303-444-6063)).

DEFENSIBLE SPACE ZONES AND FOREST MANAGEMENT

The site has a dominant overstory consisting of ponderosa pine (*Pinus ponderosa*) with a Douglas fir (*Pseudotsuga menziesii*) understory component. The area is predominantly fuel model 9 with ground fuels consisting of forbs. Fuel model 9 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.

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 gravel and cement over a n/a 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
- 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.

Wildfire mitigation plan – A plan to reduce wildfire hazards around a home or other structure through fuels reduction. A document to inform urban interface home owners of the dangers and responsibilities of living in the interface. A plan to help outline the initial and ongoing fuels reduction needed to maintain an effective and healthy wildfire defensible space.

Property of Gerald A. & Gertrude A. Rhoads
187 Lynx Drive, Ward CO 80481
SPR # 05-042

Garage Site

LEGEND

- Zone 1 (0-15 ft from structure)
- Zone 2 (0-100 ft from structure)
- Driveway
- Cistern
- Well
- Propane tank
- Leach Field
- Large leave trees



EVACUATION

Evacuations are done to save lives,
and to allow responding personnel to focus on the emergency at hand.
PLEASE EVACUATE PROMPTLY WHEN REQUESTED!

Evacuation Orders

You will often hear the terms Voluntary and Mandatory to describe evacuation orders, however, local jurisdictions may use other terminology such as Precautionary and Immediate Threat. These terms are used to alert you to the significance of the danger and ALL evacuation instructions provided by officials should be followed immediately for your safety.

The Law

Whenever a menace to the public health or safety is created by a calamity such as flood, storm, fire, earthquake, explosion, accident, or other disaster, officers of the law may close the area where the menace exists. [Penal Code 409.5 (a)]

Any unauthorized person who willfully and knowingly enters an area that has been closed and who willfully remains within the area after receiving notice to evacuate or leave shall be guilty of a misdemeanor. [Penal Code 409.5 (c)]

Long Before A Fire Threatens

Create and Maintain:

- A Defensible Space around your home and other structures on your property.
- Be involved in fire safe planning in your community.

Prepare an *Evacuation Checklist* and Organize:

- Critical medications.
- Important personal papers, photos, etc.
- Essential valuables.
- Pet and livestock transport, limited amount of pet food.
- Change of clothing, toiletries, etc.
- Cell phone.
- Critical papers and effects in a fire proof safe.
- An Evacuation Route Map with at least two routes.*
- Drive your planned route of escape before an actual emergency.*

**During an evacuation law enforcement/ emergency personnel may determine your route.*

If Evacuation Is A Possibility

- Locate your *Evacuation Checklist* and assemble the items on it. **PLACE THEM IN YOUR VEHICLE.**
- Park your vehicle facing outward and carry your car keys with you.
- Locate your pets and keep nearby.
- Prepare farm animals for transport.
- Place a ladder outside for roof access.
- Place connected garden hoses and buckets full of water around the house.
- Assemble fire fighting tools near an outside door (shovel, rake, hoe, etc.).
- Move propane BBQ appliances away from structures.
- Cover up. Wear long pants, long sleeve shirt, heavy shoes/boots, cap, dry bandanna for face cover, goggles or glasses. 100% cotton clothing preferable.
- Leave lights on in the house - door unlocked.
- Leave windows closed - air conditioning off.

The Evacuation Process

- * Officials will determine the areas to be evacuated and the routes to use depending upon the fire's location, behavior, wind, terrain, etc.
- * Law enforcement agencies are typically responsible for enforcing an evacuation order. Follow their directions promptly!
- * You will be advised of potential evacuations as early as possible. **You must take the initiative to stay informed and aware. Listen to your radio/TV and for announcements from law enforcement/emergency personnel.**
- * You may be directed to temporary assembly areas to await transfer to a safe location.
- * When heavy smoke reduces visibility, movement may be restricted only to escorted convoys.

Returning Home

Fire officials will determine when it is safe for you to return to your home. This will be done as soon as possible considering safety and accessibility.

When you do return home:

- Be alert for downed power lines and other hazards.
- Check propane tanks, regulators, and lines before turning gas on.
- Check your residence carefully for hidden embers or smoldering fires.

If You Become Trapped

While in your vehicle:

- Stay Calm.
- Park your vehicle in an area clear of vegetation.
- Close all vehicle windows and vents.
- Cover yourself with wool blanket or jacket.
- Lie on vehicle floor.
- Use your cell phone to advise officials - 911.

While on foot:

- Stay Calm.
- Go to an area clear of vegetation, a ditch or depression if possible.
- Lie face down, cover up.
- Use your cell phone to advise officials - 911.

While in your home:

- Stay calm, keep your family together.
- Call 911 and inform authorities of your location.
- Fill sinks and tubs with cold water.
- Keep doors and windows closed, but UNLOCKED.
- Stay inside your house.
- Stay away from outside walls and windows.
- Note - it will get hot in the house, but it is much hotter, and more dangerous outside.

After the fire passes, and if it is safe, check the following areas for fire:

- The roof and house exterior.
- Under decks and inside your attic.
- Your yard for burning trees, woodpiles, etc.
- Extinguish embers and sparks.

BOULDER COUNTY LAND USE DEPARTMENT

Fire Mitigation Plan Approval Stamp Area

May 25, 2005

Mr. Eric Philips
Wildfire Mitigation Coordinator
Boulder County Land Use Department
P.O. Box 471
Boulder, CO 80306

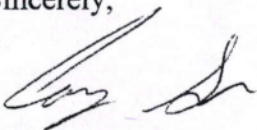
Dear Mr. Eric Philips,

Enclosed is a copy of the Wildfire Mitigation Plan for Docket # SPR-05-042, for the Gerald & Gertrude Rhoads property. The property address is 187 Lynx Drive, Ward, CO 80481. Kerry Dooley's initial inspection was on 5/6/2005.

Gerald & Gertrude Rhoads plans on building a garage/barn. The contact number is 303-459-0235. Gerald & Gertrude Rhoads has been informed to contact you for the final inspection once the work has been completed.

If you have any questions regarding the Fire Mitigation Plan please contact me at 303-823-5774.

Sincerely,



Cory Secher
Boulder District Field Forester
Forest Health & Fire Mitigation Consultant
State Programs & Cost-Share Coordinator
csecher@lamar.colostate.edu
(303) - 823 - 5774



Knowledge to Go Places

May 25, 2005

Gerald & Gertrude Rhoads
187 Lynx Drive
Ward, CO 80481

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

Dear Gerald & Gertrude Rhoads,

Upon your request the Colorado State Forest Service has completed your Wildfire Mitigation Plan per Boulder County Land Use regulations for your property located at 187 Lynx Drive, Ward, CO 80481. We have submitted a copy of this plan to Boulder County Land Use the day we sent this plan to you. **Please review the plan for changes that may have occurred due to Boulder County regulations.**

The next step in this process is to remove all trees marked with blue spray paint. Trees that do not have blue marking on them should be pruned 6-10 feet from base of tree or 1/3rd the height of the tree; which ever is less. Once trees have been removed and pruned please call for an appointment of inspection. Either Boulder County Land Use or the Colorado State Forest Service must inspect all Site Plan Review properties before final plan approval is granted.

We have enclosed an invoice for our services and would like payment within one month of the date it was written.

We thank you for your compliance and look forward to assisting you in the future. If you have any questions regarding the Site Plan Review process please contact your local Land Use Department, Eric Philips – Wildfire Mitigation Coordinator at 720-564-2625 or if you have question regarding the Wildfire Mitigation Plan or forest health please call Cory Secher at 303-823-5774.

Sincerely,

A handwritten signature in black ink, appearing to read "Cory Secher".

Cory Secher
Boulder District Field Forester
Forest Health & Fire Mitigation Consultant
State Programs & Cost-Share Coordinator
csecher@lamar.colostate.edu
(303) – 823 - 5774

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DIRECTIONS FOR FILLING OUT FORM:

Please fill out as complete as possible and fax to Cory Secher at 303-823-5768 or mail to 5625 Ute Highway, Longmont CO 80503-9130.

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 Cory Secher at 303-823-5774 or by email at csecher@lamar.colostate.edu.

Wildfire Mitigation Plan
FIELD DATA FORM

Inspection Date: 5/6/05

Landowner name: RHODOS, GERALD A. & GERTRUDE A.

Mailing address: 187 LYNX DR

City, State, Zip: WARD CO CO 80481

Site address: 187 LYNX DR

Phone number: 303-459-0235

Road access: (R) ^{NORTH} CRESTMERE ^{WEST} @ BOBCAT ^{NORTH} (R) LYNX (Directions from main access road)

Docket Number: SPR-05-042 (SPR, LU, Etc.)

Section: 21

Township: 2N

Range: 72

Legal Description: MATTOONS HIGHLAND FIRST ADDITION

H₂O supply - (existing cistern ~1200 gallon)

FPD: Left Hand Canyon

Dominant fuel type: juniper, forbs (Grass/forbs/shrubs/slash/etc)

Dominant overstory: ponderosa (Pinus ponderosa)

Co-dominant overstory: Douglas fir (Pseudotsuga menziesii)

Fuel model type: 9

Slash disposal: Gilpin County (Chipped/hailed/burned/top-scatter)

Aspect: South (Direction of slope)

Slope: 9%

Elevation: 8,800 Ft (feet)

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

Site moisture: medium

Natural fire barrier: Driveway w/ space cutting

Insect & Disease Diagnosis: None 1 tree w/ MPB evidence

Lot size (acres): 5.0 (Acres)

Number of Structures: 2 (All structures to be present)

Existing Structures: House, Pump House (House/barn/garage/etc.)

New Structure: GARAGE/BARN (House/Barn/new addition/etc..)

Driveway length: 600 FT (Actual length in feet from road to home)

Driveway trees removed: 0 (few/many/none)

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

House design: SIMPLE (simple/complex)

Roof Design: SIMPLE (simple/complex)

Roof material: METAL (Asphalt shingles/concrete tiles/metal)

Soffits type: FIRETREATED PLYWOOD (Plywood/hardboard/cement board)

Siding material: FIRETREATED PLYWOOD (Cement/hardboard/log/stucco/stone/wood)

Windows (#): 20 (approximate number of windows)

Windows Size: 4x4 (On average: small/medium/large)

Windows Frames: VINYL (Wood/aluminum/aluminum clad)

Windows Aspect: SOUTH (Dominant viewing direction)

Window Construction: E-COATING (Tempered glass/e-coating/etc.)

Door Material: STEEL (Wood/steel/fiberglass/composite)

Deck material: CEMENT (Wood/composite materials)

Deck Description: OPEN (Enclosed/open)

Deck support type: STEEL (Timber posts/logs/steel/concrete/stone)

Deck buffer material: N/A (Crushed rock/gravel)

Deck weed barrier: N/A (Fiberglass/polyester)

Structure SQR. FT.: 2400.00 (Total square feet of structure)

Utility Location: BURIED - N.E. (Pole/buried: Direction from structure)

Structure aspect: SOUTH (Dominant facing direction/view)

Leach field: SOUTH 75 FT (Distance from house, and direction)

Cistern: N/A (Distance from house, and direction)

Cistern Type: N/A (Domestic Cistern or Fire Cistern)

Cistern size: N/A (gallons)
NORTH

Well (if applicable): 480 FT SOUTH (Distance from house, and direction)

Propane Tank location: NORTH 75 FT (Distance from house and direction)

Other:

proposed
garage

o
Douglas fir
about 15' away

house