



Boulder County Small Acreage Management Newsletter

Fall 2010

<http://www.extension.colostate.edu/boulder/acreage.shtml>

From the SAM Coordinator

In response to the recent fires in the area, I decided to use this newsletter to rerun updated articles related to evacuation and disaster preparedness along with some information on the hazards related to a wildfire. I think that it is a good reminder of what we can do to be prepared whether in the home with our own valuable papers and items or on the property and with our livestock.

One comment that I thought was interesting that came out of the community fire meetings is that you need to know where your property is located. Know where the major roads are in relation to your road and learn them by both a number and a name. If you live in the foothills or mountains, know the gulches and landmarks around you that might be used in a Reverse 911 call. The day of the evacuation is not the time to be learning where you live. Also, identify several roads that you can use for evacuation if possible. Your primary route may be involved in the disaster and not available.

Sharon Bokan

Small Acreage Coordinator

SAM Newsletters Online

View previous newsletters via the SAM link above.

SAM Email Listserv

If you are receiving this newsletter for the first time and are not subscribed to the boco_small_acreage@colostate.edu listserv, you may request subscription on the SAM website (linked in header above). This quarterly e-newsletter and other timely info will be distributed via this email listserv.

Subscribers may use the listserv also as a SAM info gathering mechanism. For example, you may inquire about who is available in the area supply hay, to perform swathing/baling, etc. The listserv is not a marketplace, however. Because it is hosted on the CSU server, **NO COMMERCIAL EMAILS ARE ALLOWED. DO NOT ATTEMPT TO SELL ANYTHING VIA THE LISTSERV – THANKS.** Use the newsletter ad section for these purposes.

Currently, there are 216 subscribers to the listserv

Protect Your Home from Wildfire Before It Arrives Courtesy of the Colorado State Forest Service

Strong winds, low humidity and dry vegetation fueled the Four mile Canyon Fire in September, leading to the loss of many homes. Yet many structures survived because the homeowners had planned ahead for the possibility of a fire. Although there is no way to guarantee the protection of your home and property in a wildfire, the recent Boulder County incident highlights the importance of addressing fire protection before flames race toward your doorstep.

“The ability of your home to survive a wildfire largely depends on defensible space – the area around a structure where trees and other vegetation are treated, cleared or reduced to slow the spread of wildfire,” said Lisa Mason, outreach forester for the Colorado State Forest Service and Colorado’s “Are You FireWise?” program lead.

Mason suggests that landowners take the following actions to create defensible space around their homes in preparation for wildfire:

- Remove all flammable vegetation within 15 feet of any part of a home, including decks.
- Thin standing trees within 75-125 feet of all structures, and locate the wider buffer below homes on steep terrain.
- Allow at least 10 feet between the branches of standing trees.
- Prune up tree branches to a height of at least 10 feet.
- Dispose of slash (limbs and other woody debris) by chipping, or by piling and burning in winter (contact a CSFS district office about how to safely and legally burn slash).

- Keep grasses and weeds surrounding the home mowed to a height of less than six inches.
- Stack firewood and locate propane tanks at least 30 feet from and uphill of structures.
- Clear all vegetation within 10 feet of woodpiles, propane tanks, sheds and other structures.
- Remove pine needles from gutters and trim overhanging branches.

In addition to creating defensible space, the CSFS emphasizes the importance of having fire-resistant roofing materials, because wood or shake shingles ignite easily. The CSFS also encourages subdivisions to establish Community Wildfire Protection Plans (CWPP's) to effectively mitigate the risk of wildfire throughout entire neighborhoods.

A more comprehensive list of tips for creating defensible space and information on developing a CWPP is available on the Colorado State Forest Service website at csfs.colostate.edu.



Scott Roberts, Mississippi State University, Bugwood.org

Seedling Tree Program

By Nancy McIntyre, District Manager

The Boulder Valley and Longmont Conservation Districts sponsor a seedling tree program each year. The objective of the program is to provide low cost seedlings to landowners who have two or more acres. The seedlings can be used to establish a windbreak, provide wildlife habitat, establish a visual screen, control erosion by both

wind and water, or provide a noise barrier. They cannot be resold as a live plant.

The seedlings are grown by the Colorado State Forest Service at the Foothills Campus of Colorado State University. The bare root deciduous trees are 10" to 30" canes and include species such as chokecherry, lilac, native plum, wild roses, hackberry and bur oak. The bare root conifer are 5" to 12" top height and include Austrian Pine, Colorado blue spruce, and Ponderosa Pine. The bare root seedlings sell for \$44 for 50 seedlings of the same species. The regular potted trees are 5" to 12" top height and come in 2" x 2" square pots and are sold for \$56 for 30 seedlings. These potted species include Austrian Pine, Rocky Mountain Juniper, Douglas Fir, Colorado Blue Spruce and Ponderosa Pine. Smaller potted seedlings are also sold in a 1" round tube and are 3" to 6" in top height. These seedlings sell for \$36 per 30 seedlings and include many of the same species as the regular potted.

If you already know what you would like to plant, then please contact Nancy McIntyre at the Conservation District Office at (303) 776-4034 x3 for an order form. A description and picture of each of the seedlings is available at <http://csfs.colostate.edu/pages/documents/08byrgd-www.pdf>. The last date to order seedlings is March 21, 2011. Seedlings will be available for pick up at the Exhibit Building on the Boulder County Fairgrounds on Friday, April 8 from 8:00 am to 5:00 pm or on Saturday, April 9 from 8:00 am to 11:00 am.

If you are interested in purchasing seedlings but don't know which would be best for your property, we are holding a planning and planting workshop on January 20 from 6:00 pm to 9:00 pm. Representatives from the State Forest Service, the State Forest Service Nursery, and the CSU Extension along with Natural Resources Conservation Service will be available to assist you with the planning, planting and care of your seedlings.

Emergency evacuation

By Meg Sitarik, SAM Volunteer

You answer your telephone. It's a reverse 911 call from the Sheriff's Department instructing you to prepare to evacuate your farm/ranch. Would you know what to do? How would you begin this process? The purpose of this article is to help large and small animal owners formulate a plan of action.

Animal owners must not try to "ride out" the situation. As soon as you receive the first bit of information that evacuation is a possibility is the time to activate your plan. Of course this means you may be ready and not have to leave. However the up side of this is that you will have had a practice drill which gives you the opportunity to assess your plan and make any revisions necessary.

Step One:

Assess your property's location and layout. Look for special problems that may exist such as limited access. This is especially true for homes located in the foothills. If you have this type of property, do some research on Fire Mitigation. This information is available on the Colorado State Forest Service web site <http://csfs.colostate.edu/>.

Determine the type of disaster most likely to affect your area. Are you in an area prone to forest fires, floods or tornados? Gather information; The Federal Emergency Management Agency's web site at www.fema.gov is a fascinating with a wealth of interesting and informative information addressing everything from how to survive a tornado to what to do in a terrorist attack, including specifics for pet owners.

Step Two:

Gather information for your written plan. When writing your rough draft, be sure the information is concise and easy to understand. Use as few words as possible. Do not jumble communication with notes about Sparky's personal quirks. The fact that Sparky likes a certain brand of treats is irrelevant and only serves to clutter the information. Think of it as statistic that just muddles the message. If Sparky doesn't survive the disaster he won't need treats.

Relay basic survival information only. In a high stress situation you need to be able to communicate information easily, clearly and effectively. Plan to post the evacuation plan in several locations easily available to all, such as near the telephone, in the tack room and in each vehicles glove compartment. Consider if this information needs to be posted in a second language. Also think about those of us who are “seasoned” and need reading glasses that we may not always have with us. Type this information using double spacing and a font size no smaller than 14 pts.

Select a reliable friend or relative, who is willing to be the central contact. If possible a person located within 2-10 miles. It’s wise to have an alternate person in case your primary is not available. Someone with the means to accommodate your animals is ideal, however not 100% necessary. This person will be a central communication point for everyone involved in your evacuation. Communicate any change of plans to this person who will notify others in your group that may not be in your immediate area. This will free you to focus on the evacuation. Fielding phone calls will be a waste

of your valuable time and will tie up your phone. If you need more than one trailer enlist another friend or relative, not the same as your central contacts, who are willing to help.

***Reverse 911 now can work on hard line numbers, as well as on cell numbers, e-mail and text messaging. However to receive the messages on systems other than your hard wired home phone number you must register with the Everbridge system. Here is the link to the registration <http://www.bouldercounty.org/sheriff/alert.htm>

Primary and secondary persons are recommended. Again these folks need to be located 2-10 miles away. Experienced drivers are best. Your contact and trailer folks need to have a copy of your contact phone numbers.

List all phone numbers at the top of each plan. The numbers needed are:

Your home and cell.

Name and number of central contact and alternate.

Name and number of extra trailer person and alternate.

Your Veterinarian.

Step Three:

Inventory your animals. Dogs, cats and chickens will need pet carriers. Each dog and cat needs a collar with ID. The tags need to include your last name, house and cell numbers along with veterinarian and contact person’s number. Tags are available at most of the “big box” pet stores in the area. Don’t waste precious space on the tags, aside from your last name only list phone numbers. For chickens tag the carrier. Carriers, tagged collars, and leashes should be kept together in one specific place. Horses and other large animals need halters with the same information. Dog tags can be easily attached to halters, in a pinch label halters with duct tape. Halters need to have lead ropes. Since it’s not practical to have a separate set of halters and leads assign someone to collect all tagged halters and leads at the first sign of disaster. Place these next to the area where the horses are located.

Excuse me for a moment while I climb up on my soapbox. **During an evacuation is not the time to teach your horse to trailer load.** Did everybody hear me?? As a horse

owner you have the responsibility to teach your horses to load calmly and consistently. Even the most well trained well-behaved horses are going to be nervous and “squirrely”. Do your self and your horses a favor and work on this ahead of time and practice, practice, practice.

Use a notebook binder and create an “animal book”. Include pictures of each of your animals. Be sure to include photos of any specific identifying marks. List pertinent information such as breed, name, age, amount of feed and any medications needed. Also include contact phone numbers. This serves two purposes, first it provides information for anyone that may be caring for your animals and it ensures that you have photos in case an animal is lost. This book can be left with your “house sitter” when you travel.



William M. Ciesla, Forest Health Management International, Bugwood.org

Step Four:

Identify and list specific steps to take as soon as you are notified of the possibility of evacuation.

1. Notify your contact and trailer persons.
2. Gather dogs, cats and other animals. Confine them to a limited area. For example, cats in the bathroom, dogs in the bedroom, horses, cows and pigs in pen near barn, chickens in the hen house. Place your “animal book” in your vehicle.
3. Tag all animals.
4. Move pet carriers near animals.
5. Hook up truck and trailer. As a precaution toss a few bales of hay in the back of the truck include a few water buckets and containers of water. If you live in a high-risk area you should try to keep a full tank of gas.
6. Park truck and trailer pointing towards the way out.
7. Make sure your cell phone is charged and that you have a charge cord in the truck. The type that plugs into the truck as well as the standard wall plug in.
8. Monitor news for any change in information.

The Boulder County Sheriffs Department will contact the major TV and radio channels of a pending evacuation. The reverse 911 system may also be implemented. Therefore it’s best to be near a phone or have a cordless phone that is connected to your house phone. You can also have your home number forwarded to your cell or register your cell phone with the

Everbridge system. Keep in mind that if there is a loss of power you will not be able to use your cordless phone.

9. Leave as soon as you are told.
10. Travel on designated route only. Do not use short cuts, they may be blocked by fire, flood etc.
11. Do not stop unless you absolutely have to. There will be many people behind you, do not block the evacuation.
12. Once you are away from the area, do not deviate from your plans. If you must, be sure to notify your contact person so she can relay the information to others in your group.
13. Once you have reached your destination safely get out of your truck, take several deep cleansing breaths exhale slowly and smile.

Evacuation is not an easy process. In any emergency situation it is extremely important for the person in charge to keep a cool head. Others around you will take cues from you. By keeping a cool head you will set the example for everyone else, if you are frantic and flailing around the rest of your group will be too. Remember a persons’ character is judged not by the way you react during good times, but how you react in the bad times.

If you are given the evacuation order and your horse won’t load you will have no choice but to leave him/her. Do not jeopardize the lives of other animals and people. If you must leave an animal behind, make sure they have water and hay for 48 to 72 hours. Use a water tank; some automatic watering systems will not function without power. Depending on the disaster water supplies may be interrupted. This brings us to the halter dilemma. Some information says remove the halters others say leave them on. At the Singing Heart Ranch the halters will be removed. Halters can get caught on debris; during a fire nylon halters can melt. The other side of the argument is that it the animal will be easier to catch. Leave the animal in an area you have

determined is appropriate for the disaster situation. I will leave these last two issues to your judgment and personal preference. If you must leave your large animal behind without a halter be sure to ID him. There are two ways to accomplish this. Use brightly colored spray paint to paint your cell phone number or other number on the animals' side. If you do not have spray paint or the animal will not stand still use duct tape. Duct tape comes in 3 neon colors. Blaze Orange, Island Lime and my favorite Funky Flamingo (bright neon pink), these are available at Wal-Mart. I have tested this method on my 2 horses. Use a long 18-24-inch piece and write the information on the tape (don't try to do it once it's on the horse). Then grab a small handful of mane and apply the tape so that the middle of the tape grips the mane and the 2 ends are pressed together. This will leave a visible "streamer" with your information on it. This is very secure. I placed one on my horse 3 days ago and it's still holding firm. I tried cleaning off a section of his coat with alcohol and applying tape, it only lasted 1 day.

I have a few last pieces of advice for you to consider. Keep an emergency kit stocked and ready to go. Include the standard first aid kit of bandages, tape, pressure dressings, thermometer and Phenylbutazone (Bute) paste. A word of warning: Bute can be given to horses, cow, dogs and pigs. ***Never*** give a cat any type of pain medicine without consulting a veterinarian. I also like to keep a half dozen cloth diapers. These are wonderful to help control bleeding. Also make up an Evacuation Kit. Things to include are a portable radio and batteries, high quality flashlight or spotlight, a \$20 bill and \$2 in change. I also have in mine 2 bottles of Fix-A-Flat, bottled water and ibuprofen (Advil/Motrin). There are many more items that you can include. I encourage you to look at the FEMA web site for more information.

The Boulder County Fairgrounds has covered stalls and pens for large animals. According to the Boulder County Sheriffs office these are available to anyone in an emergency situation. The stalls are usually unlocked if they happen to be locked the Sheriff's Department or a Fairgrounds employee can unlock them. In the

event of an evacuation in the area the Fairgrounds the Fairgrounds staff and the Sheriff's Department will ensure they are open. Water is available however feed is not.

Your evacuation plan is just that, your plan created to work for you. Each person's plan will be different depending on the needs of the farm. My goal is to stimulate your thoughts and give you a starting point.

References:

<http://www.ext.colostate.edu/pubs/livestk/01814.html>

<http://www.ext.colostate.edu/pubs/livestk/01815.html>

<http://www.ext.colostate.edu/pubs/livestk/01816.html>

<http://www.ext.colostate.edu/pubs/livestk/01817.html>

What to expect at the Boulder County Fairgrounds during an evacuation

By Sharon Bokan, SAM Coordinator

It's been several years since we let you know what happens at the fairgrounds during an emergency evacuation so it's time for an update. This information is mainly written for cattle, horse, and llamas but you can still bring hogs, chickens, goats etc. to the Fairgrounds.

Where to enter the Fairgrounds and unload animals. You will enter the Fairgrounds off Nelson Road. There will be signage pointing you to the entrance on the road between the Fairgrounds and the Longmont Humane Society. There will be people at this point that will direct you and give you instructions. You will receive a map of the fairgrounds at the "check-in" point in front of Barn D. You will make a loop in front of Barn D and unload. You will be given an index card to fill out with your contact information. Fill out the index card and find a stall for your animal. In the case of livestock other than horses and cattle, you will be instructed where and what to do with them. There will be a limited number of poultry cages available so bring you own if possible. The card

will be placed in a holder on the stall, cage, etc. There will be people available to help you fill out the card and get you to the correct location. You can drop your trailer in the grassy lot north of the Humane Society. If you find animals by the road and decide to bring them to the grounds, you will still fill out a card with as much information as you can provide such as where the animal was found (street address or intersection).

What should you bring with you? Feed and a bucket for water. Although, they will have some buckets available and donations of feed if you could have some with you that will guarantee that your animal has food readily available. Leave the bales of hay in front of the stall. The large animals will only be fed hay. If you want your animal to have grain or other feed you will have to do this yourself.

During the emergency. While your animals are on the fairgrounds, you are still expected to care for them or make arrangements to care for them. If you are not able to bring feed, we are fortunate to have many generous people in the county who routinely donate feed during an emergency. Staff will direct you to the feed. A vet will be on call and you are encouraged to leave your vet's information on your stall ID card as well. Depending on the amount of animals received, arenas will be available to exercise your animal free of charge. This is also highly encouraged.

When the emergency is over. When the evacuation is over, any information that you can bring with you to positively identify your animal/s will help in claiming them such as ownership papers or brand inspections. If you don't have this information, the name on the index card will be used for identification so please have a photo ID. This is especially important in the case of animals brought in by someone other than their owners. Check out will be done with a sheriff's officer, brand inspector and county personnel present. Once you have entered, unloaded and boarded your animal you will not be able to leave with that animal until you have been properly checked-out. A photo of

the animal with the trailer license plate will be taken for security purposes.

During the evacuation there will be a veterinarian onsite. Medical treatment for people will be in Barn A. The office for the emergency will be in the indoor arena.

I would like to thank Joe LaFollette, Boulder County Fairgrounds Manager for taking time to review this information.

Wildfire

By Meg Sitarik, SAM Volunteer

Wildfire, most people think forest fire when they hear this word. In Boulder County, this is a reasonable assumption since the part of the county is in the foothills; however grassland fires can be more dangerous. This article will provide information and resources necessary to mitigate fire on farms located on the plains east of the foothills or in the forested foothill areas. Mitigation principles are the same for both.

Early on fire was used by Native Americans to clear land, expose enemies and hunt game. Fire suppression, started in the early 1900's. As the west became more "settled", fire frequencies were disrupted by settlers who saw fire as a threat to personal property, farmland, livestock, wildlife and human life. Settlers feared fire, with good reason because most buildings were built from wood, which became super dry due to the hot windy climate, and began suppressing natural and human caused fires. In the 2000's we have learned that suppression of small fires leads to bigger more dangerous fires. In 1910, "The Big Blowup" fire burned more than 3 million acres in the Northern Rockies of Idaho and Montana. Seventy-eight fire fighters lost their lives and the cost to the USDA Forest Service was more than \$20 million dollars (adjusted for inflation). This led to decisions to suppress all fires.

By suppressing low to moderate intensity fires that occur naturally every 10-20 years we have hurt the ecosystem. Think of fire as nature's lawn mower making the area healthy and strong by reducing fuel build-up, preparing the land for new growth, helping certain plants and trees germinate,

naturally thinning over crowded forests, and creating diversity needed by wildlife. It also prevents the establishment of invasive species like Cheatgrass. These invasive species changed seasonal growing patterns and the arrangement of fuels. Western United States rangelands have become much more vulnerable to severe catastrophic wildfires. For more information on the historical wildfire statistics and current wildfires go to csfs.colostate.edu/wildfire.

If you look at old pictures of areas around Boulder County you will see that there are far fewer trees than there are now, especially in the foothills. Dead trees, shrubs and grasses are fuel, as the amount increases so does the potential for catastrophic fires. Compare the effects of suppression versus nature.

Past

Live Trees less than 50 trees per acre

Dead & Down 2-3 tons per acre

Present Day

Live Trees 200-300 trees per acre

Dead & Down 10-15 tons per acre

Lightening is the cause of the majority of wildfires. Lightening season is April through September with the majority occurring in July and August. Other sources are a hot exhaust system in contact with dried vegetation, sparks from a brush hog blade striking a rock, ditch burning on a hot, dry, windy day, careless smokers and irresponsible humans. Government lands are currently being managed to increase forest health and vigor while mitigating for wild land fire. Mitigation differs from suppression, to mitigate is to make the effect from the fire milder or less severe. Fire mitigation of your property, either grassland or forest, is the process of creating a defensible space on your property. This is an area around your home, barns, out buildings and haystacks where vegetation and fuels are treated, reduced or cleared to slow the spread of wildfire toward the structures. Defensible space has been proven to be a key factor in determining whether a building will survive. While this is not a 100% guarantee it gives you the best chance to prevent fire damage.

There is a misconception that mitigation is the process of clear-cutting the area around the home. This has led to resistance from the public. While bare ground is effective in reducing wildfire threat, it is unnecessary and unacceptable mainly due to soil erosion and appearance. Mitigated homes can

have attractive well-vegetated landscapes that also serve as effective defensible space.

The rural homeowner must be aware that grasses are dry during much of the year and will ignite and burn quickly. A farm is at risk if it surrounded by or adjacent to abundant dry fuels. It's important to know what can be done to reduce the risk of wildfires. An article called The Forgotten Wildland Fire from the International Chiefs Association states, "grass fires can be more destructive, deadly and they often move too fast for even prepared fire companies to control." Grass fires move fast and can change from a fire with 3 foot flames to one with 15 foot flames quickly with a wind speed increase of only 4 miles per hour add to that a change in wind direction which is a frequent occurrence and suddenly a very lethal situation faces the fire fighters. Never underestimate the danger of a grassland fire.

Statistically these are the most costly fires. The long-term effects of a wildfire are numerous. The financial losses include, the cost of fire fighting efforts, evacuation, property loss, restoration and rehabilitation. On the plains, farmers will experience loss of grazing lands and crops leading to disastrous financial loss. Non-financial losses are more devastating, risk of life, and loss of human life, loss of wild and domestic animal life, soil erosion and a decrease in air and water quality. Fire department response times may be longer in rural areas. Many of the rural fire stations are staffed by volunteers, full time fire fighters are usually not present at the fire station meaning that fire fighters need to reach the fire station from home or work and then drive to the fire thus increasing the response time.

Access

Roads to the property must be clearly marked and the address must be clearly visible. Often fire fighters from surrounding counties arrive to assist and are not familiar with the area. Addresses need to be posted at the entrance to the drive in letters at least 4" tall printed on a sign with a contrasting color, for example black letters on a white or yellow background. Signs should also be fire resistant.

Narrow roads, dead ends and weak bridges can hamper fire truck access. Bridges should be built to carry at least 40,000 pounds, which is the average weight of a fire truck; the average pickup truck weighs about 4,000 pounds. The road to the

property should be two lanes each a minimum of 10 feet. This allows a fire truck and car to pass. Curves also need to be large enough to accommodate these mammoth vehicles. Dead-end roads and long driveways need to have an area where the trucks can turn around without problem. If the fire department can't get in and out safely, they will not attempt to enter the property this is especially true in the foothills.

Water

If you do not have access to adequate community water system emergency water storage of 2,500 gallons is recommended. Cisterns, lakes, ponds and stock tanks are all options for storage. If a pump is needed to access the water a gasoline-powered generator is best because it can operate during a power failure. The location needs to be clearly marked. Contact your local fire department for specific outlet, valve design and thread requirements.

Defensible Space

Creating defensible space may seem overwhelming at first. However if it is broken up in to steps it is much easier to manage. Start with the easiest and least expensive actions. Begin closest to the structure and move outward. The 2 main factors that influence structure survival are roofing material and the quality of the defensible space. Roofing material needs to be fire-resistant. Vegetation fuels need to be broken up. Horizontal fuel (across the ground) and vertical fuels (from the ground to the crown or top of the tree/shrub) need to be separated to decrease spreading of the fire. Ladder fuels, fuels that will spread a ground fire to a tree, for example tall grasses that touch the branches under a pine, must be trimmed out. Additional distance between fuels is needed on slopes.

Defensible space is divided into 3 zones.

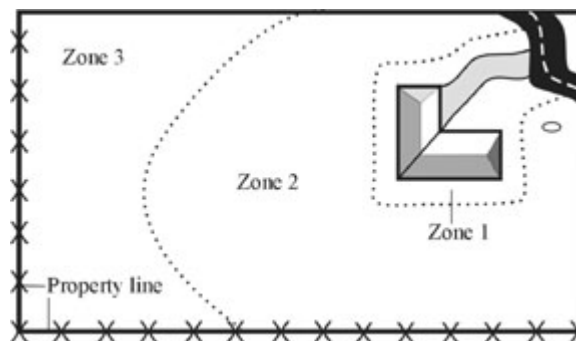
Zone 1 is the area closest to the structure, a 15-foot perimeter measured from the outer edge of the eaves and any porch or deck connected to the structure.

Zone 2 should extend 75 – 125 feet from the edge of zone 1. The distance depends on the slope of the property. See

www.ext.colostate.edu/PUBS/NATRES/06302

page 2 figures 2 for a table to figure necessary distance.

Zone 3 is an area of traditional management and is measured from the edge of zone 2 to the property boundary.



Recommended Actions in Each Zone

Zone 1: A 3-5 foot perimeter around the structure should not have any vegetation in it. This can be a border of gravel, decorative rock or a sidewalk. Extend the gravel underneath any deck connected to the structure and never use the underneath space for storage of anything including firewood. If the structure has non-combustible siding there are exceptions. These are found at the above web link. From 5 foot to 15 feet is an area of limited vegetation to prevent flames from reaching the structure. Mowing is a must in this area.

Zone 2: This is an approximately 100-foot area of fuel reduction. This area is designed to reduce the intensity of the approaching fire. Trees need to be thinned to 15 feet between crowns, which are measured from the longest horizontal branch of one tree to the longest horizontal branch of another tree, and 10 feet crown to crown on the outer edge near zone 3. This distance increases with slopes (see above web link). Remove all ladder fuel from under remaining trees and prune each tree from the bottom to a level of 6-10 feet. Small clumps of 2-3 trees may be left in this zone but it is necessary to leave more room between the clump and other trees. All grasses need to be kept mowed. This zone forms an aesthetic buffer and transition space between zone 1 and 3. Firewood should be stacked in this zone and must be at least 30 feet away from structure. If the structure is on a slope, stack the wood on the up hillside.

Propane tanks should be located at least 30 feet from any structure, preferably on the same level as the structure. If a down hill tank explodes it will send fire up towards the structure. The tank also should not be located above the structure. LP gas is

heavier than air and will flow down hill into the home. Always keep a 10-foot vegetation free perimeter around propane tanks. Do not screen with shrubs or vegetation.

Zone 3: This zone is of no particular size. Beginning at the edge of zone 2 and ending at the edge of the property. The areas specific requirements are dictated by your objectives for the area, such as crop production, livestock pasture, recreation or natural area. Fire mitigation principles are the same for forest and flat land areas. Defensible space dimensions are subjective and may change depending on site and vegetation characteristics. A 70-foot defensible space is recommended for flat sites. Zone 1 will still be 15 feet the remaining 60 feet can be divided into zones 2 and 3 depending on the type of vegetation.

For complete instructions on these zones go to the links listed in the resource section.

List of rules specifically for the flat land farm.

- Dry grasses and weeds should be mowed to a maximum height of 6 inches within 30 feet of all structures.
- Maintain a 10-foot vegetation free area around grills, burn barrels, propane tanks and welding projects.
- Never store flammable material such as chemicals, fuel, lumber, slash etc in an open exposed area where it will be vulnerable to heat or flames.
- Skirting around mobile homes can prevent burning debris from blowing under and spreading fire.
- Keep trash and vegetation cleared from around barns, out buildings and haystacks.
- Haystacks should not be shoulder-to-shoulder, leave room in between to prevent fire spreading from one to another.
- Keep grasses and weeds mowed to 3 inches in areas used to park vehicles and equipment. This will reduce the risk of a hot exhaust system igniting the dry vegetation.

- Delay outdoor burning until the area starts to green up and weather permits.
- Never burn on hot, dry or windy days. For a detailed fire weather forecast go to www.crh.noaa.gov/den/fir3znft
- When burning always use a metal barrel or something similar placed on a vegetation free area. Cover the top with wire mesh to prevent embers from floating away. Never leave any fire unattended.

Ditch and Field Burning

Never burn if there is a fire ban in place.

Ditch burning is important, it assures that the irrigation water will run efficiently and incidental loss will be minimal. I have to admit that I love ditch burning, the intoxicating mixture of quiet fascination with the beauty of fire and that terrifying panic lurking just under the surface fearing it might “take off”. Spring is always a wild time on the plains with seemingly never ending ditch fires that have “gotten away”. A few years ago I burned an area between my fence and the road. I thought I had completely extinguished the fire, I didn’t realize that even though I had soaked the wood fence posts the fire was smoldering inside 13 of the posts. In the morning all that was left were the u-shaped nails hanging from the wire fencing that was sagging mournfully. I was lucky that it was springtime and the nearby pastures had started to green, the outcome could have been very different. I received a lot of good-natured ribbing about it, but it taught me a valuable lesson about fire safety.

Safety Rules for Ditch/Field Burning: according to the Living With Fire, A Guide for the Homeowner. Colorado State Forest Service, USDA-Forest Service, Bureau of Land Management, National Park Service, Bureau of Indian Affairs, and the US Fish and Wildlife Service.

- **Acquire an open burn permit from the Boulder County Health Department Contact your local fire department 3 days prior to the burn Contact Boulder County Communications the day of the burn at 303-441-4444**

- Check the weather report. (see above web site for fire weather forecast)
- Try to burn first thing in the morning when there is less chance of wind.
- Have a reliable water source and shovel with you.
- Never burn if the weather is questionable.
- If the area has a heavy dead vegetation load have someone help you.
- Carry a phone.
- Never allow the ditch to finish burning by itself.
- Depending on the area have an escape plan.
- You cannot out run a grassland fire.
- Remember that the safest place to be is in the area that has already burned.

When Wildfire Approaches

If you decide to stay, which is not recommended, follow this list of actions.

- Evacuate all family members not essential to protecting structures. Evacuate pets.
- Contact someone, friend or relative, to relay your plans.
- Make sure everyone in the family is aware of a prearranged meeting place.
- Tune in to local radio or TV channel and listen for instructions. Put new batteries in the portable radio.
- Charge your cell phone and locate charger cord that can be used in a vehicle.
- Place vehicles in garage facing out. Roll up the windows.
- Place valuable papers and mementos in vehicle, or send these with anyone who is leaving before the fire arrives.
- Close garage door, leave it unlocked. Be aware that if the power goes out you will need to disconnect the door open before you can open the door.

- Put combustible patio furniture in the house or garage.
- Shut off propane at the tank or natural gas at the meter.
- Wear only cotton or wool clothing. Wear long pants, long sleeved shirt or jacket and boots. Carry heavy leather gloves, a handkerchief to cover face, water to drink and goggles. Man made material such as polyester and nylon will melt to your skin and should not be worn.
- Close all exterior vents.
- Prop a ladder against the house so fire fighters have easy access to the roof.
- Make sure that all garden hoses are hooked up and spray nozzles are attached to each and set on spray.
- Soak rags, towels, or small rugs with water to use in beating out embers or small fires.
- Inside fill bathtubs, sinks and other containers with water. Outside do the same with trashcans, buckets and stock tanks.
*Remember that the water heater and toilet tank are other sources of water.
- Close all exterior doors and windows. Close all interior doors.
- Open the fireplace damper, but place the screen over the hearth to prevent sparks and embers from entering the house.
- Leave a light on in each room.
- Remove lightweight and non-fire resistant curtains and other combustible material from around windows.
- Attach pre-cut plywood panels to the exterior of windows and glass doors.
- Turn off all pilot lights.
- Move overstuffed furniture (couches, easy chairs etc.) to the center of the room.
- Keep shake or shingle roofs moist by spraying water, but do not wastewater. Consider placing a lawn sprinkler on the roof if water pressure is adequate. Do not turn on until burning embers start falling.
- Continually check the roof and attic for embers, smoke, or fire.
- If a fire should occur within the house contact the fire department immediately.
- **Most importantly, STAY CALM.**

In summary, wildfires are dangerous. Being proactive by doing fire mitigation on your property is the best way to ensure a positive outcome. There are multiple resources available to assist with an assessment of your property for fire safety and mitigation. *For a fee, Colorado State Forest Service will help you develop a fire mitigation plan. The Boulder District is located at 5625 Ute Highway, Longmont, CO 80503, 303-823-5774. For a complete list of services available go to:

csfs.colostate.edu/localforester .

Some fire departments will do a fire safety assessment of your home. It's never too soon to start this project.

Information Resources:

csfs.colostate.edu/wildfire.

www.rockymountainwildlandfire.info

www.ext.colostate.edu/PUBS/NATRES

Fact sheets:

Creating Wildfire-Defensible Zones, #6.302

<http://www.ext.colostate.edu/pubs/natres/06302.html>

Fire-Resistant Landscaping, # 6.303

<http://www.ext.colostate.edu/pubs/natres/06303.html>

Forest Home Fire Safety, #6.304

<http://www.ext.colostate.edu/pubs/natres/06304.html>

Fire-Wise Plant Materials, #6.305

<http://www.ext.colostate.edu/pubs/natres/06305.html>

csfs.colostate.edu/library/pdfs/RUFire/plains-FW.

csfs.colostate.edu/localforester

www.iafc.org

The Forgotten Wildland Fire

www.coloradofirecamp.com



Dave Powell, USDA Forest Service, Bugwood.org

Wildfires and livestock

Sharon Bokan, Small Acreage Coordinator

With the wildfires we have been experiencing, I thought it would be a good time to write about the effects of wildfires on livestock. The first thing to be prepared for a wildfire whether it is forest or grasslands is to have an evacuation plan. You not only need one for your family but one for your animals. Having your animals identified by tags, brands or micro chipping is important when you move your animals to an evacuation shelter. Know where the local evacuation shelter is for both livestock and pets.

If you do not have to evacuate during a fire but are experiencing smoke, here are some things to limit the effect on your animals. Like humans they can experience respiratory problems from the smoke. Limit their physical activity during the smoky times. While they are in a barn, use fans to move the smoke away from the animals. Misters can help remove particulates from the air. Make sure that the animals have plenty of water and that it is near the hay. The water helps to keep airways moist and assists in the clearance of particulates from the lungs. You might want to consider wetting down the hay especially if it is dusty so that you don't expose them to both dust and smoke. Feed them in feeders off the ground.



Dave Powell, USDA Forest Service, Bugwood.org

After exposure to heavy smoke, you will want to continue to limit exercise to allow healing. If your animal is experiencing coughing, watery eyes or a nasal discharge, please contact your veterinarian for advice. For mild exposures it can take 2 to 6 weeks for recovery. For more

severe exposures, it can take months. In some cases, scarring can occur causing permanent damage.

If you are in an area that burned, to keep dust down you can wet down areas to reduce ash becoming air born again. You can also put down wood chips. Do not use hay, as the animals will only consume it and breath in the ash. The ash is higher in potassium and when combined with water forms an alkaline compound, which is caustic. So it is best to limit animal's exposure to consume or breath in the ash. Fire retardants are made of fertilizers, thickeners, corrosion inhibitors and iron oxide for coloring. If animals get it on them, wash them off. Skin exposure to the retardants is not as much of a problem as ingestion. Keep them out of areas where it was dropped. Consuming the retardant may cause ammonia toxicity, gastrointestinal irritation, colic and diarrhea. Horses are more susceptible to health problems from the retardants than other livestock.

So think and be prepared not only in the home but for your livestock.

References:

C:\SAM\Fire\Fire Resources
CD\Livestock\Caring for Livestock After
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Horse Owners.mht

Fire Home Safety and Preparation

By Sharon Bokan, Small Acreage Coordinator

Whether you live on a small acreage or in a townhouse in town there are steps you can take to be prepared for a fire, disaster or other unexpected event. Some of these steps can even be useful if you have your identity stolen.

Before purchasing or building a home or renting an apartment, consider what the construction materials are and potential escape routes out of the home and from the property (you'll want at least 2 in each case). Consider the accessibility of your property for the large fire trucks. Most fire departments are willing to advise you, look at your plans and even come look at your property to help you have a design that they can access easily. Make sure that your address signage is made of non-combustible material and legible. If you have a gate, it should open inward and is wide enough for a fire truck to enter. Discuss with your fire department how to handle it if you want your gate locked most of the time. Obviously concrete, plaster, stucco, masonry and metal will not burn. Exterior walls made of these materials will survive far better than wood or vinyl siding. Roofs especially in fire prone areas should be metal or tile rather than untreated shake shingles. Decks are a great place to relax on but can add to the vulnerability of your home. Do not store fuel (such as firewood, barbeques with propane tanks) under your deck. Clean out any debris that may accumulate under the deck. Enclosing under the deck will keep you from using the area for storage and debris from collecting as well as keeping sparks from a fire from getting under the deck. Are your soffits and eaves made of wood, vinyl or metal? Of course metal is the most resistant to fire.

Having large windows bring in lots of natural light and beauty into our homes but they are yet another avenue for fire to enter. A single pane window is the most vulnerable when exposed to the heat of a fire, with double and triple only slightly more resistant. During the heat of a fire,

windows shatter allowing sparks and debris into the home igniting curtains and furniture. If you are remodeling or changing windows consider going to a tempered glass. When decorating, consider window treatments that present less of a fire hazard (i.e. metal shades) or can be taken down quickly prior to evacuation. Also consider keeping upholstered furniture away from windows or moving them prior to evacuation. If you have time, cover windows with >1/2" plywood or have shutters that you can close.

Know where the shutoffs are to your gas, electric and water mains are and how to turn them off. Have at least one fire extinguisher handy and fully charged.

Periodically go over your insurance policy with your agent and make sure that you know what your policy covers in the way of temporary cash, housing and car rental, debris removal, landscape replacement.

Coordinate with neighbors to help evacuate animals and other items of value. Find out the skills and strengths of neighbors and how you can work together to survive. Do you have neighbors with special needs or disabilities or children?

Have an emergency kit ready with medications, first aid kit, water and non-perishable food, flashlights, radio, batteries, tools, spare clothing (preferably for 3-5 days), cell phone chargers, credit cards, and cash (travelers checks and coins). Consider having a safety deposit box for valuables and important papers. Otherwise have them in a central spot in a metal container so that they are easy to grab as you evacuate. Back up the vital files from your computer on a separate hard drive. Do not store the hard drive in your home but either in a safety deposit box or with a trusted friend or relative. Consider scanning valuable and vital papers and storing them on the hard drive also. This will help in replacing the documents if destroyed or your identity is stolen.

Keep a list of valuables and large appliances/electronics in your home. If possible

videotape the inside and outside of your home and your vehicle. At least have photos of both and keep those stored offsite either in the separate hard drive or in a safety deposit box.

Documents to take or have stored off your property

Birth certificates	Passports
Drivers license	Insurance policies
Medical records	Investment documents
Bank documents	Address book
Trust documents	Family photos, videos
Immigration papers	Tax information
Wills	Deeds
Titles to cars, boats, etc.	
Adoption papers	Marriage license
Social Security cards	
Photographs and/or video of vehicles, boats, motor home, house and landscaping	

References:

<http://www.ext.colostate.edu/pubs/natres/06304.html>

<http://www.extension.org/surviving%20wildfire>

Place your SAM related classified ad or print advertisement here!

Classified Advertising Rates are as follows:

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Full Page Ad: \$100.00

Email Sharon Bokan for more details

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