



# BIGHORN BASIN FIRESMART

## BIGHORN BASIN FIREWISE COMMUNITIES

### ISSUE #6—WINTER 2012

#### GREYBULL RIVERSIDE PROJECT MAKING PROGRESS

Work on the Town of Greybull river project started in November and was completed by Christmas. Some of the area treated had burned in the 2007 Dike Fire. The project thinned trees, eradicated Russian olive and salt cedar, and reduced fuels on both the burned and unburned acres. Work was done by a local contractor using State Fire Assistance Grant funds.



Some of the project area “jungle” before treatment.



After treating an area heavily infested with Russian Olive and salt cedar.

#### In this issue:

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#### Special points of interest:

- \* What is getting done with Firewise.
- \* New Park County Firewise Coordinator
- \* What to plant and not plant
- \* More successful Firewise work
- \* **Wildfire Evacuation Checklist**

**THE BIG HORN BASIN FIREWISE COORDINATORS ARE:**

**Big Horn County:** The County Fire Warden is Brent Godfrey (307) 568-2324. The Firewise Coordinator is Chris Weydeveld, [cweydeveld@wytfs.com](mailto:cweydeveld@wytfs.com), Technical Forestry Services, LLC, 6628 W. Riverside Dr. Casper, Wyoming 82604, or (307) 333-1098 (office), (307) 272-9533 (mobile).

**Washakie County:** Chris Kocher, Fire Warden, [ckocher@worlandfire.org](mailto:ckocher@worlandfire.org), P.O. Box 504, Worland, Wyoming 82401, or (307) 347-6379.

**Hot Springs County:** No Firewise Coordinator has yet been selected. Contact Jay Duvall, County Fire Warden, at (307) 921-1485, or [hscwarden@gmail.com](mailto:hscwarden@gmail.com)

**Park County :** **Bernie Spanogle** (see below) has been appointed as the County Firewise Coordinator. He can be reached at [wywc@tctwest.net](mailto:wywc@tctwest.net). or at 307-250-9387.

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**Bernie Spanogle** has been hired by the Cody Conservation District to implement a Firewise Community Program for Park County. That will complete Firewise coverage in Northwest Wyoming and the Big Horn Basin. Spanogle is retired from the US Forest Service where he was the Shoshone National Forest Resource Staff Officer which included the Fire Management program. He was also qualified as a prescribed fire specialist and a fire behavior analyst. Bernie spent 30 years as a wildland firefighter and was assigned to various positions on fire overhead teams.

Firewise coordinators from Bighorn, Washakie, Hot Springs and Fremont Counties are looking forward to coordinating and sharing their Firewise resources with Park County to better serve the public. A Bighorn Basin Firewise website is in the planning stages.

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**If you have general or specific questions about Firewise, two good online sources of answers are: [www.firewisewyoming.com](http://www.firewisewyoming.com) and [www.livingwithfire.com](http://www.livingwithfire.com).**

Do you have topics you would like included in future newsletters? Please submit your suggestions and comments to [gwynn@wytfs.com](mailto:gwynn@wytfs.com), [cweydeveld@wytfs.com](mailto:cweydeveld@wytfs.com), to Chris at any of the above phone numbers, or by mail to G. Wynn, 824 Country Club Road, Casper, Wyoming 82609.

Thanks for providing this newsletter go to the Wyoming State Forestry Division, the Big Horn County Fire Warden, the U.S. Forest Service, and the Bureau of Land Management. They provide the funding.

- **This newsletter is provided as a service of your county’s Firewise Coordinator. If you choose not to receive future issues, please respond to the E-mail address that delivered it, or to G. Wynn by mail.**

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**BIG HORN COUNTY FIREWISE ACTIVITIES BEING PLANNED FOR 2012:**

**HOUSEHOLD IGNITION ZONE WORKSHOP\***

**MOUNTAIN CABINOWNERS FIELD TRIP (POSSIBLY TWO)\***

**DEVELOPMENT OF A BIGHORN BASIN FIREWISE WEBSITE**

**EXPANSION OF COST-SHARE FUNDING TO INCLUDE SOME MOUNTAIN CABIN LEASES**

**\*DATES AND LOCATIONS WILL BE ANNOUNCED IN THE SPRING NEWSLETTER**

## Driveway fuel break

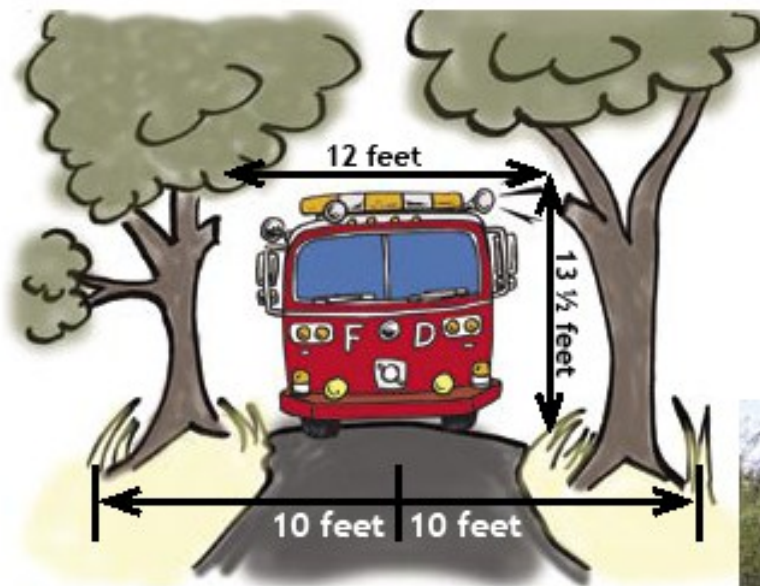
The driveway fuel break is intended to create clearance for a fire truck, as well as to slow the rate of spread and intensity of a wildland fire. It also is where fire suppression may more safely occur.

The clearance space in the driving area must meet these specifications:

- the horizontal clearance must be at least 12 feet
- the vertical clearance must be at least 13 ½ feet

The fuel break can be natural or man-made and must have these characteristics:

- the fuel break must extend 10 feet from each side of the driveway's centerline, creating an area that is at least 20 feet wide, including the driving surface
- the ground cover must be substantially nonflammable
- healthy trees and shrubs must be thinned and pruned to minimize a wildfire's spread
- the plants must be substantially free of dead material



A properly developed driveway fuel break has plenty of horizontal and vertical clearance.



Standards for driveways apply to driveways longer than

150 feet. If you have a long driveway,

you'll need to make sure a fire truck can fit beneath limbs and

between trees and shrubs, and create a roadside fuel break so firefighters will have a safe place in which to set up and work.



The above illustration was provided by the Oregon Department of Forestry. Their Firewise program has created several illustrations that are appropriate for the Firewise program in our area, and has given permission to use them for Bighorn Basin Firesmart.

This information was developed by Montana State University for Montana, but is applicable to Wyoming lands in the Bighorn Basin.



# Fire-Resistant Plants for Montana Landscapes

## Fires can damage soil and reduce its capacity to hold moisture.

This can affect plants' ability to survive. However, there are a number of groundcovers, herbaceous plants, shrubs and trees that are fire-resistant. Plants that do well in Montana are on the back page.

### ANY PLANT WILL BURN

if it is dry enough and the fire is slow enough and/or hot enough. The ability of a plant to survive a fire depends upon the speed and type of fire, the time of year, the moisture-holding capacity of the plant, and the plant species.

### CROWN FIRES

that travel from the crown of one tree to another are often more damaging than other types because they destroy the foliage and thus reduce the plants' capacity to photosynthesize. This inability to manufacture carbohydrates weakens the plant and makes it more susceptible to subsequent winter damage and pest infestations. Young trees are often more severely affected by this type of fire than older trees.

### SLOW-MOVING FIRES

can do damage to the cambium (part of the plant responsible for its growth), often girdling or partially girdling the plant, which can lead to the death of the plant.

### HOWEVER,

new tissue grown in the following spring can allow many damaged trees to survive. Succulent plants and those full of water (for instance, in the spring), survive fires better than trees with low moisture contents. Shrubs often survive by their ability to resprout from their base.

### BURNED ORGANIC MATTER

reduces the soil's capacity to store water and fosters compaction. Fires can accelerate erosion and increase the magnitude of changes in soil temperatures.

### NUTRIENTS

such as nitrogen and some others are lost by volatilization, ash convection, and subsequent leaching after hot fires. However, the nitrogen is often replaced quickly by rain, increased soil microbial activity, and nitrogen fixation. Some nutrients are also released from burned organic matter, often making the total availability of mineral nutrients to the plants higher after the fire than before. Site quality deteriorates more on coarse sands and heavy soils than on sandy and loamy soils.

### FOLLOWING A FIRE,

prune out dead branches and be sure the remaining plants are watered well. There may be no reason to add huge quantities of fertilizer.

### ON THE BACK PAGE

is a list of plant species adapted to Montana that have been noted to be fire resistant. Not all species on this list will grow in all parts of the state. Refer to "Choosing Trees and Shrubs for Montana Landscapes" (Montana Extension Bulletin EB 123), "Choosing Herbaceous Perennials and Biennials" (MontGuide 9903) and "Growing Annual Flowers" (MontGuide 9501) for more information on growing site conditions for selected species. We have also avoided categorizing plants as "fast-growing" or "slow-growing" since this can be misleading. There are too many variables that can affect the rate of growth of a plant.

Some entries include an entire genus (ash, for example) followed by some individual species. This is because some references list only a genus while others list particular species as being resistant.



# Fire-Resistant Plants for Montana Landscapes

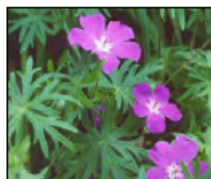
## Groundcovers and Herbaceous Plants

### Common Name

Alfalfa  
Bergenia  
Blanket Flower  
Bluegrass, Kentucky  
Buffalograss  
Candytuft, Evergreen  
Carpet bugle  
Cinquefoil, Spring  
Columbine  
Coral Bells  
Coreopsis  
Cotoneaster  
Cotoneaster, Rock  
Cotoneaster, Bearberry  
Daisy, Shasta  
Daylily  
Drosanthemum  
Dusty Miller  
Fescue  
Fescue, Blue  
Fescue, Tall  
Fescue, Creeping Red  
Flax  
Fleabane  
Four O'clock  
Geranium, Hardy  
Geranium, Bloodred  
Geranium  
Ginger, Wild  
Hen and Chicks  
Iris  
Kinnickinnick  
Lamb's Ear  
Lavender  
Lupine  
Mahonia, Creeping

### Genus and Species

*Medicago sativus*  
*Bergenia* spp.  
*Gaillardia x grandiflora*  
*Poa pratensis*  
*Buchloe dactyloides*  
*Iberis sempervirens*  
*Ajuga reptans*  
*Potentilla tabernaemontanii*  
*Aquilegia* spp.  
*Heuchera sanguinea*  
*Coreopsis* spp.  
*Cotoneaster* spp.  
*Cotoneaster horizontalis*  
*Cotoneaster dammeri*  
*Leucanthemum x superbum*  
*Hemerocallis* spp.  
*Drosanthemum speciosum*  
*Artemisa stelleriana*  
*Festuca* spp.  
*Festuca cinerea*  
*Festuca arundinacea*  
*Festuca rubra*  
*Linum* spp.  
*Engerion hybrids*  
*Mirabilis* spp.  
*Geranium cinereum*  
*Geranium sanguineum*  
*Geranium* spp.  
*Asarum caudatum*  
*Sempervivum tectorum*  
*Iris* spp.  
*Arctostaphylos uva-ursi*  
*Stachys byzantina*  
*Lavandula* spp.  
*Lupinus* spp.  
*Mahonia repens*



Geranium sanguineum



California Poppy



Hen and Chicks

### Common Name

Mock Strawberry  
Mountain Spray  
Myrtle, Dwarf Periwinkle  
Orchardgrass  
Penstemon, Rocky Mtn.  
Pinks  
Poppy  
Poppy, California  
Potentilla  
Primrose, Mexican Eve.  
Primrose  
Pussytoes  
Red Hot Poker  
Ryegrass  
Sage  
Sedum, Goldmoss  
Silver Spreader  
Snow-in-Summer  
Stonecrop  
Stonecrop, Green  
Strawberry, Wild  
Sunrose  
Thrift, Common  
Thyme, Woolly  
Thyme, Creeping  
Valerian, Red  
Violet, Canadian  
Virginia Creeper  
Wheatgrasses, Western  
Wheatgrass, Crested  
Winterfat  
Yarrow  
Yarrow, White  
Yarrow, Fernleaf  
Yarrow, Woolly  
Yucca

### Genus and Species

*Duchesnea indica*  
*Holodiscus* spp.  
*Vinca minor*  
*Dactylis glomerata*  
*Penstemon strictus*  
*Dianthus plumarius*  
*Papaver* spp.  
*Eschscholzia californica*  
*Potentilla* spp.  
*Oenothera bielandieri*  
*Oenothera* spp.  
*Antennaria* spp.  
*Kniphofia uvaria*  
*Lolium* spp.  
*Salvia* spp.  
*Sedum acre*  
*Artemisia caucasica*  
*Cerastium tomentosum*  
*Sedum spathulifolium*  
*Sedum album*  
*Fragaria chiloensis*  
*Helianthus mummularium*  
*Armeria maritima*  
*Thymus pseudolanuginosus*  
*Thymus praecox arcticus*  
*Centranthus ruber*  
*Viola canadensis*  
*Parthenocissus quinquefolia*  
*Agropyron cristatum*  
*Agropyron cristatum*  
*Eurotia* spp.  
*Achillea* spp.  
*Achillea millefolium white*  
*Achillea filipendulina*  
*Achillea tomentosa*  
*Yucca filamentosa*

## Trees

### Common Name

Alder, White  
Ash  
Ash, Green  
Aspen, Quaking  
Birch  
Cottonwood  
Hackberry  
Locust, Black  
Maple  
Maple, Big-toothed  
Maple, Boxelder  
Maple, Rocky Mountain  
  
Poplar  
Narrowleaf Cottonwood  
Prunus

### Genus and Species

*Alnus rhombifolia*  
*Fraxinus* spp.  
*Fraxinus pennsylvanica*  
*Populus tremuloides*  
*Betula* spp.  
*Populus* spp.  
*Celtis occidentalis*  
*Robinia pseudoacacia*  
*Acer* spp.  
*Acer grandidentatum*  
*Acer negundo*  
*Acer glabrum*  
  
*Populus* spp.  
*Populus angustifolia*  
*Prunus* spp.



Green Ash



Box Elder

## Shrubs

### Common Name

Antelope Brush  
  
Buffaloberry  
Buffaloberry, Russett  
Buffaloberry, Silver  
Cherry  
Cherry, Sand  
Cherry, Nanking  
Chokecherry  
Cinquefoil, Shrubby  
Deerbrush (Buckbrush)  
Dogwood, Red-osier  
Gooseberries and Currants  
Honeysuckle  
Lilac, Common  
Mahogany, Mountain  
Mockorange  
Plum, Native  
Pyracantha  
Raspberry  
Rose  
Saltbush  
Sumac, Skunkbush

### Genus and Species

*Fendlera rupicola*  
  
*Shepherdia* spp.  
*Shepherdia canadensis*  
*Shepherdia argentea*  
*Prunus* spp.  
*Prunus besseyi*  
*Prunus tomentosa*  
*Prunus virginiana*  
*Potentilla fruticosa*  
*Ceanothus* spp.  
*Cornus sericea (C. stolonifera)*  
*Ribes* spp.  
*Lonicera* spp.  
*Syringa vulgaris*  
*Cercocarpus* spp.  
*Philadelphus* spp.  
*Prunus americana*  
*Pyracantha* spp.  
*Rubus* spp.  
*Rosaceae*  
*Atriplex* spp.  
*Rhus trilobata*



Quaking Aspen



Lilac

Reprinted and adapted with permission of Montana State University from a publication. Dr. R.E. Gough, Professor and Horticulture Extension Specialist and Jason Lamb, Senior Undergraduate Horticulture Major, Department of Plant Sciences and Plant Pathology Montana State University, Bozeman.

These two pages from the Montana State University have a good explanation of the types of plantings that thrive in the Bighorn Basin, and are Firewise options to some of the highly-flammable plantings and native plants around homes and cabins.

### TOWN OF LOVELL GLOBE CANAL BEFORE AND AFTER SCENES

To the right is a shot of the hillside below the Shoshone Avenue water tank, **AFTER** completion of the Firewise thinning and slash treatment.

Below is the same slope last winter **BEFORE** treatment was started.



Treatment consisted of cutting down all dead trees, and most shrubs and small trees to increase spacing between tree crowns. Remaining trees were pruned of small limbs. Cut trees, limbs, and shrubbery were piled and burned.

<— Is a **BEFORE** picture of a private lot that is also above the Globe Canal. Below is an **AFTER** shot of the same hillside following treatment. This landowner wanted more clearing than was recommended by Firewise.



A long string of Globe Canal homeowners have approved plans for treating the slope below their homes. Progress will be reported in future newsletters.

## Being Firewise Around Your Home

### ... WHEN A WILDFIRE THREATENS ...

*Here are some important tasks you can do when a wildfire is imminent:*

-  *Collect up your pets, and confine them for transport. **DO THIS FIRST!***
-  *Be sure gutters, roof and valleys are clear of leaves and dead branches.*
-  *Remove combustible materials, lawn furniture, doormats, garden accessories, and tarps, etc. from decks and around the house and other buildings.*
-  *Close attic, basement, outside & pet doors, vents, and windows.*
-  *Remove flammable drapes from windows, and close shutters and blinds.*
-  *Connect garden hose and fill large containers with water inside and outside.*
-  *Wet down vegetation within 30 feet of home.*
-  *Leave doors and windows unlocked, and disconnect garage door openers for fire-fighter access.*
-  *Shut off natural gas, propane, or fuel oil supplies at the source.*
-  ***Obey Evacuation Orders**, and evacuate early with your valuable papers.*



Light on the ground machinery piling cut brush and trees in the Greybull riverside project.

## MORE LITTLE THINGS THAT MATTER



**Weathered wooden walkway**



**Exposed uncoated access hatch**

**Either of these could be ignited by flying embers.**

*Big Horn County Firewise  
6628 W. Riverside Drive  
Casper, Wyoming 82604*

