



BIGHORN BASIN FIRESMART



BIGHORN BASIN FIREWISE COMMUNITIES

ISSUE #41 — EARLY 2022

WASHAKIE COUNTY 2021 FIRESMART ACCOMPLISHMENTS

A Washakie Firesmart 2021 field report:

It would seem from the numbers that Washakie County and the Bighorn Basin got off easy in 2021. With only a handful of large fires, we had a below-average fire season in terms of both total fires and acres burned. Of course there was the Crater Ridge Fire in the northern Bighorns, which reminded us of just how difficult it can be to contain a wildfire when terrain and conditions are extreme. And unfortunately, that fire did destroy an historic cabin.

Regardless of the particular fire season, structures can be at risk from wildfire due to a number of factors that can be controlled – from fuelwood storage and building maintenance to vegetation management. This is what the Firesmart program is here to do, help landowners get this work done and make it easier for firefighters to protect their structures when a wildfire threatens.

Besides the individual projects below, defensible space was created for 10 structures as well as near the Worland municipal sewage treatment plant.

2017 CAFA Grant #17-DG-11020000-047, CFDA #10.664 : One hundred and fifty-nine (159) acres of fuels reduction was accomplished on the Annie Tolman Fuels Project (see Page 4 project photos). The grant application initially proposed a target area of 102 acres. Due to favorable bids and, after completion of the Onion Gulch Road Fuels Break Project in September 2021, the Annie Tolman Fuels Reduction Project has achieved 159 acres of fuels reduction constituting a net benefit of 57 acres treated.

2017 WSWUI Grant: a total of 11 acres of Defensible space treatments, **23.4 acres** of slash piled or removed, and 25 acres of fuels treatments occurred within communities-at-risk in Washakie County directly funded, with fully executed cost-share payments, signed during calendar year 2021. An additional approximately **10.0** acres of fuels were treated indirectly within CARs with the assistance of the Washakie County Firesmart program.

2018 WSWUI Grant “Calendar Year 2021 Accomplishment Report”: Completed **2 acres** of removal and herbicide treatment of Russian olive and dead and down woody materials along the Bighorn River south of Worland, and prepared 15 Wildfire Mitigation Plans (WMP) for private residences and cabins.

WASHAKIE COUNTY 2022 PLANNED FIRESMART ACTIVITIES

- 5 miles of fuelbreak along Bighorn Canal north of Worland.
- Wildfire mitigation work around private developments inside the Bighorn National Forest.
- Discussion and planning for a 100-acre fuelbreak incorporating wildlife improvements by the Bighorn River along the south Washakie county line.
- A summertime Firesmart picnic in the Bighorns, if allowed by COVID.

Firesmart information and all newsletter issues are available at:

www.bighornbasinfiresmart.com

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Special points of interest

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FIRE IN WYOMING FORESTS

Fire has been an important natural disturbance in the forests of Wyoming since the most recent ice age left parts of the state forested. In fact, most native plant and animal species in Wyoming's forest need occasional fire for continued healthy growth and survival. Periodic fires develop the habitat and food for animals, and many trees and other plants need fire's heat in order for seeds to sprout.

Until the First Americans came from Asia, fires were started by lightning, a natural ignition, and often burned large areas of forest before winter snows put them out. These fires burned some areas every 5 to 10 years with low-intensity fires. At intervals of up to 100 years in other areas, hot fires killed almost all of the trees, and made room for a new forest. The results were large areas that grew new healthy plants and a diversity of wildlife.



Hot fire killing almost all of the trees



For the next 10-13,000 years, these nomadic First American people lit the grasslands and forests on fire to promote growth of the plants that they ate or used for other purposes, as signals to other people, and to herd animals over cliffs in order to obtain meat. Once they had horses, they sometimes burned forests and prairies to improve the grass for their herds. If fire (natural or otherwise) threatened their homes, they moved away to another campsite.

When the European-Americans moved west and settled in Wyoming, fires were a fact of life in the forest. Besides those started by lightning and careless humans, fires were sometimes started to clear land for farming and grazing. Since their homes were not as portable as those of the Indians, they did fight some fires to protect their homes, crops, and livestock.

As the 19th Century ended, Wyoming residents started putting out more fires in order to protect their forest homes, the valuable timber resource, and the scenic vistas that they didn't want changed. For the next 100 years, humans put out all fires in the forest.

By the end of the 20th Century, the forest that hadn't burned for a hundred years had many more trees than had been there before fires were all put out. The results of this higher tree density were:

- Overcrowded trees subject to insect attacks that killed trees over large areas.
- Increased fuel for fires when they did burn. Fires burned hotter, and were hard to put out.
- The shade from dense trees killed many of the smaller plants used as food by wildlife, and prevented growth of some of the tree species important to a natural forest.
- Trees and plants that need fire to reproduce, died, and disappeared from parts of the forest.

And all of this was complicated by more people building homes in and near the forest, and a bigger need to protect them from fire. To reduce the damage to forest homes, home-owners are now being taught how to prepare their homes to resist wildfire damage.

Presently, to return some of the forest to a "natural" and healthy condition, foresters have begun letting lightning fires burn in a few wilderness areas where there are no human buildings that can burn. They have also started lighting a few intentional fires to reduce the tree density, and encourage the growth of plants needed for a healthy forest. The future will see more of these "prescribed" fires in Wyoming forests, but only when lit by specially trained foresters.

There will be fires in the future Wyoming forest—Being Firesmart will be important.

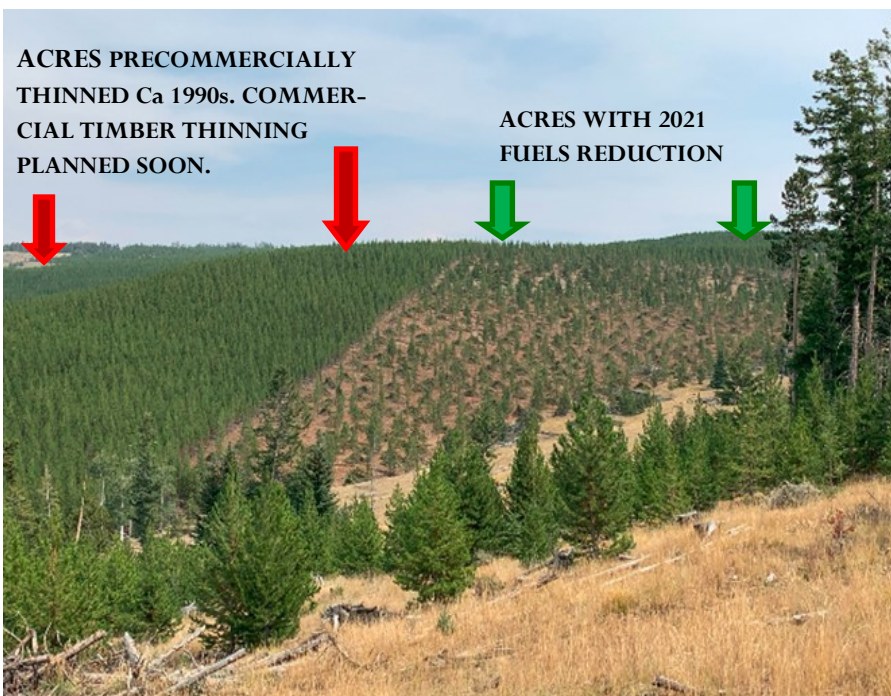
A FEW BEFORE AND AFTER VIEWS OF COMPLETED 2021 FIRESMART PROJECTS



BEFORE FUELS REDUCTION



AFTER FUELS REDUCTION



Some of the 159 acres of fuels reduction on the Annie Tolman Fuels CFDA #10.664 Project. Treatment included a combination of mechanical and conventional forest harvest, a sequence of thinning and hand-piling, and the use of a skid-steer with mastication cutting head resulting in a mulch layer. This project area is bordered by a Firewise USA Community-at-risk with over 30 structures in the Wildland-urban Interface (WUI).



Part of an individual Wildfire Mitigation Plan with completed implementation



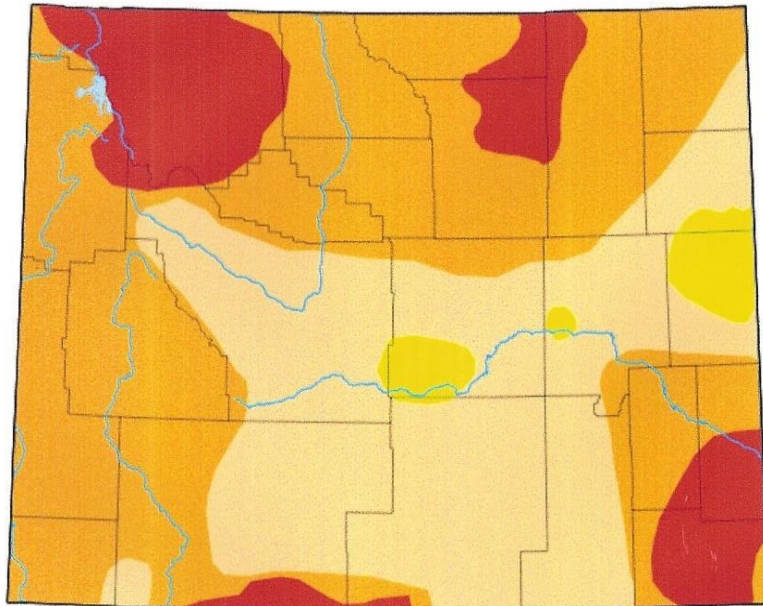
BEFORE PLAN COMPLETION



AFTER PLAN IMPLEMENTED

A DROUGHT PREDICTION MAP FOR WYOMING

There are no expectations that this will improve soon.



Map released: Thurs. December 30, 2021

Data valid: December 28, 2021 at 7 a.m. EST

Intensity



Authors

United States and Puerto Rico Author(s):

Brad Pugh, NOAA/CPC

Slash pile burning on the 2017 CAFA GRANT acres on the Annie Tolman Fuels Reduction Project



SOMETHING TO THINK ABOUT THIS WINTER

The late December 2021 wildfire in Northern Colorado that burned hundreds of homes in towns and rural subdivisions is a reminder that being Firesmart should be a year-round attitude, even during winter.



WELL-PLANNED HOME LANDSCAPE CAN REDUCE WILDFIRE DANGER

Many Wyoming families have homes or cabins in forested areas, which provide a get-away from the heat and cares of lower-elevation towns.

The defensible tips given here can help protect a cabin or home and the many memories these family gathering places hold; however, few want to go away for the weekend to a place with nothing around the building to beautify the site and make the structure seem part of the natural landscape.

A well-planned home landscape can reduce fire danger, protect your investment, and help the cabin fit in with the natural vegetation.

As mentioned, landscape plants, if not selected and placed well, can actually increase the fire hazard to a house. Evergreen trees are the most common plants around cabins and mountain homes. Unfortunately, these

are some of the most flammable plants. Even their needles are highly flammable after they fall from the trees at the end of the growing season.

What makes one plant less flammable than another?

Some characteristics of less flammable plants include: high moisture content, low growing, and lack of very flammable chemicals. Herbaceous plants (grasses, bulbs, annual and perennial flowers, and some ground covers) tend to contain the most moisture. Of the shrubs and trees, deciduous varieties (ones that lose leaves in fall) tend to contain the most moisture and lack many of the flammable chemicals found in evergreens. Many of the native plant species found in mountainous areas, such as sagebrush or ground juniper, are very flammable. Water plants well during the fire season to maximize their fire resistance. Inspect regularly for any dry or dead material

Some native plants for use in Wyoming landscapes

Scientific Name	Common Name	Water Needs	Sun/Shade	Height
Flowers and Groundcovers				
<i>Antennaria parvifolia</i>	Small leaf pussytoes	Low – Moderate	Sun	3"– 8"
<i>Antennaria rosea</i>	Rosy pussytoes	Low – Moderate	Sun	3"– 8"
<i>Aquilegia</i> spp.	Columbine	Low – Moderate	Part Shade/Shade	18"– 24"
<i>Arabis</i> spp.	Rockcress	Low	Sun/Part Sun	6"
<i>Campanula rotundifolia</i>	Common harebell	Low – Moderate	Part Sun/Part Shade	4"– 5"
<i>Claytonia lanceolata</i>	Spring beauty	Moderate	Part Sun/Part Shade	6"
<i>Echinacea purpurea</i>	Purple coneflower	Moderate	Sun	2'– 3'
<i>Erigonum umbellatum</i>	Sulphur flower	Low – Moderate	Sun/Part Shade	6"–12"
<i>Gaillardia aristata</i>	Blanket flower	Low – Moderate	Sun/Part Shade	12"– 20"
<i>Geum triflorum</i>	Prairie smoke	Moderate	Sun/Part Shade	8"– 18"
<i>Ipomopsis aggregata</i>	Scarlet gilia	Low – Moderate	Sun/Part Sun	18"– 24"
<i>Liatris punctata</i>	Dotted gayfeather	Low – Moderate	Sun/Part Sun	6"–18"
<i>Penstemon</i> spp.	Penstemon	Low – Moderate	Sun/Part Shade	6"– 36"
<i>Sedum</i> spp.	Stonecrop	Very Low – Low	Sun	1"– 6"
Shrubs				
<i>Mahonia repens</i>	Creeping grape holly	Low – Moderate	Sun/Part Shade	4"– 6"
<i>Philadelphus microphyllus</i>	Little-leaf mockorange	Low – Moderate	Sun/Part Shade	18"– 40"
<i>Rosa woodsii</i>	Wood's rose	Moderate	Sun/Shade	2'– 3'
Trees				
<i>Amelanchier alnifolia</i>	Saskatoon alder-leaf serviceberry	Moderate	Sun/Part Shade	6'– 8'
<i>Crataegus</i> spp.	Hawthorn	Moderate	Sun	6'– 8'
<i>Acer grandidentatum</i>	Bigtooth maple	Low	Moderate Sun/Part Shade	10'– 20'
<i>Populus tremuloides</i>	Quaking aspen	Moderate	Sun	8'– 25'

Other or more extensive plant lists are available from local extension, USDA Forest Service, or Wyoming State Forestry Division offices. Plant lists are also available on the Internet but be sure plants are cold hardy enough for your location.

Remember, fire-resistant landscaping requires annual maintenance to be effective! Pine needles should be raked away from the house in the closest zone, gutters cleaned, plants pruned or thinned, dead material removed, and slash piles disposed of by legal means.

By taking these steps, time spent at mountain cabins or rural homes can be much safer. Nothing can guarantee a cabin or house will survive a wildfire, but steps to modify the natural vegetation and create an attractive, less-flammable landscape near your forest sanctuary will help.



Is your home a fire hazard? Part Two From the American Red Cross



[Part One was in the Fall 2021 issue of Bighorn Basin Firesmart]

Don't Forget Electronics and Outlets - All those appliance and electronic cords have to plug in somewhere, so your electrical outlets should be next on your home inspection list.

Are any overloaded or showing signs of wear?

Rearrange things so as many appliances as possible have their own outlets, and use extension cords to reach more distant outlets.

This option may be a bit unsightly, but avoid running extension cords under rugs.

Make sure your lamps are all using bulbs with wattage equal to or less than what the manufacturer recommends as well.

When it comes to electronics, unplug them when they're not in use whenever possible.

Lastly, keep in mind that items like televisions and computers need space from anything flammable because they can overheat!

Inspect Storage Areas - Your garage, basement and yard can present hazards as well — in fact, they have the potential to be even more dangerous.

Avoid cluttering debris or junk near your furnace or heater.

Old newspapers piled in damp, warm places can actually self-combust — they don't even have to be close to a heat source.

If you have gasoline or other flammable liquids at home, keep them tightly sealed in metal containers and make sure they're far away from heat sources, including the gas or charcoal grill you love to use in the summer.

The grill itself should be at least 10 feet from your home and placed away from any overhead branches or structures.

Practice Your Escape Plan - Despite your best efforts, something may go unexpectedly wrong, so you and your family should have a [plan](#) for what to do in case of emergency.

Create an escape route that provides two possible exits from each room, such as a window and a door.

Avoid using any windowless rooms as bedrooms.

Keep escape routes as clutter-free as possible so no one trips and falls on the way out during an emergency.

Practice your plan at least twice a year and make sure everyone can safely escape in less than 2 minutes.

Keep in mind that members of your household may need extra assistance — have a plan for who will help them and practice!

References - The American Red Cross and its partners have launched an initiative that aims to reduce deaths and injuries caused by home fires by 25% in five years with the Home Fire Campaign. Learn more at redcross.org/fire »



Where To Put Smoke Alarms

Ideally, you should have a smoke detector on every level of the house, including the basement. It is recommended to place your detectors at the top of each stairway, outside, and inside the bedrooms. Now, whether you hang them on the wall or on the ceiling, that depends on which type you buy. Be sure to read the manufacturer's recommendations on where to place. Be sure not to place them near anything that will interfere with their sensing. Do not place near a furnace, heating appliance, anything that exudes humidity or excess moisture, or near windows and vents.

LITTLE THINGS THAT MATTER



Behind this gate is a cabin not visible from the road, and surrounded by trees and shrubs. There is no address sign to let firefighters know it is there, and the driveway is filled with flammable vegetation. Firefighters would not risk their lives to protect this structure, even if they knew it was there.



This crawl space screen has 1/4 to 3/8 inch holes that would allow embers to enter. 1/8-inch screen, or a solid flame-resistant cover is recommended.



Firewood against the shed, and tree limbs touching the roof. Firewood needs to be moved 30 feet away, and limbs need to be pruned to 10 feet in all directions.



Flammables against the wall

Open door allows embers in the cabin

Flammables against the wall