



# BIGHORN BASIN FIRESMART



## BIGHORN BASIN FIREWISE COMMUNITIES

### ISSUE #25 — FALL 2017

#### THE 2017 FIRE SEASON

Compared to some of the recent years, it was a mild one in the Bighorn Basin, with few acres burned, and no major threats to the forest, range or Wildland Urban Interface communities. Neighboring forests had some fire activity, but there were no **Firewise** success or failure stories reported.

In contrast, Oregon and Montana had thousands of firefighters working on a total of more than a million acres (1,900 square miles) in early September. And these fires threatened entire towns, with thousands of folks evacuated ahead of the flames.

By the middle of October, sources estimated that more than 2,500 single-family homes and commercial buildings, had been destroyed by wildfire, mostly in California. They also reported that almost a dozen firefighters had been killed; some of them in situations involving attempts to save homes and businesses.

One report mentioned a hopeful trend of individual home-owners taking **Firewise** steps to minimize fire damage to their homes.

**A GENERAL UPDATE:** The process of updating the Community Wildfire Protection Plans for Washakie and Big Horn counties continues, and funding has been obtained to continue much-needed timber thinning and fuels reduction work near forested Wildland Urban Interface communities, within areas of both counties. Cooperators in these efforts include not only the county governments and private landowners, but the Wyoming State Forestry Division, U.S. Forest Service, and the Natural Resource Conservation Service (NRCS). And the “structural ignitability” study for the two counties is well along (See Page 5), with a mid-winter completion date.

This and all future **Bighorn Basin Firesmart** issues will go only to E-mail recipients. All issues will also be available on Facebook, at: <https://www.facebook.com/bighornbasin.firewise>

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## THE BIG HORN BASIN FIREWISE COORDINATORS ARE:

**Big Horn County:** The County Fire Warden is Brent Godfrey (307) 568-2324.

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

**Hot Springs County:** Contact Dion Robbins, County Fire Warden, at (307) 431-2767, or [hscdwarden@rtconnect.com](mailto:hscdwarden@rtconnect.com).

**Park County :** Bernie Spanogle, Firewise Coordinator, can be reached at [pcfirerwise@gmail.com](mailto:pcfirerwise@gmail.com). or at 307-250-9387. The County Fire Warden is Russ Wenke, [rwenke@parkcounty.us](mailto:rwenke@parkcounty.us), 1131 11th Street, Cody, Wyoming 82414, or (307) 527-8551.

The basin Firewise website : [parkcountyfirewise.com](http://parkcountyfirewise.com) When you get there, surf the MENU to see what articles, photos, and short video clips are there. Check it out.

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 [firewise@wytfs.com](mailto:firewise@wytfs.com), or by mail to G. Wynn, 824 Country Club, Casper, Wyoming 82609.

Thanks for providing this newsletter go to the Wyoming State Forestry Division, the Washakie County Fire Warden, and the U.S. Forest Service. 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 [firewise@wytfs.com](mailto:firewise@wytfs.com), or to Big Horn/Washakie Firewise (6628 W. Riverside Drive, Casper, Wyoming 82604) by mail.



This handy information source comes from the Firewise Communities program that includes numerous websites related to Firewise and structure protection from wildfires. The information topics include these electronic files:

[Complete Firewise toolkit](#) (PDF)

[A Guide to Firewise Principles](#) (PDF)

[Firewise Tips Checklist for Homeowners](#) (PDF)

[Guidelines for Spelling/Usage of Firewise](#) (PDF)

[Tips for High Fire Danger Days](#) (PDF)

[Firewise Communities/USA® Recognition Program Checklist](#) (PDF)

[Firewise Communities/USA® Recognition Program infographic](#) (PNG)

[Residents and local fire department: Addressing wildfire risks together](#) (PDF)



You can now keep up on daily news and events with Bighorn Basin Firewise. Go to: <https://www.facebook.com/bighornbasin.firewise>



## TIMBER THINNING FOR FIREWISE

Timber thinning is an important component of any Firewise strategy in a forested setting. When accompanied by appropriate (See below) disposal of slash (cut trees and limbs) it does these good things:

- Breaks up fuel continuity and total available fuel loading. This reduces fire intensity, and gives firefighters a better chance of safely stopping a wildfire.
- Reduces or eliminates fire spread through the tree crowns, keeping the flames near the ground where they can be attacked with a greater chance of success.
- Reduces fire killing of trees, by opening up the tree crowns to allow heat to escape.
- Allows establishment of ground-occupying vegetation that is important as wildlife and livestock forage.
- When done along roads, it provides a safer/cooler route for homeowner evacuation and fire equipment access.
- If done carefully as prescribed by an experienced forester, it can also be a step in returning the thinned forest to a sustainable insect- and disease-resistant condition that was there prior to the arrival of Euro-Americans.

Leave tree spacing and tree selection should:

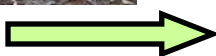
- Be wide enough to give crowns of individual trees, or occasional small clumps of 3-4 trees, a wide spacing from all other tree crowns. Actual desired crown spacing depends on the individual site and tree species.
- Remove all invasive non-native trees (i.e. Russian olive) and highly flammable tree species (i.e. juniper), and leave the largest tree when selection must be made. If thinning pure juniper stands, wide spacing is needed.
- Favor tree species that historically occurred on the site.
- For wildlife cover/shade, or personal privacy purposes, any unthinned groups of trees should be well away from all structures and access roads. For Firewise application, **100-200 feet is considered a minimum for “well away.”**
- Thinning of aspen is recommended to remove dense patches of the understory small trees, or within 100 feet of Firewise structures or roadways. The next page has more recommendations for aspen management.

Effective slash disposal removes (by piling and burning, or hauling from the thinned stand) all woody fuels larger than about 1 or 2 inches in diameter. If not near a structure or roadway, **large (12” diameter plus) old logs may be left for wildlife use.** Application of equipment for slash removal depends on available machinery, and resource protection needs (i.e. compactible soil).

Following the above thinning guidelines is a proven aid to structure protection and safer firefighting and road access.



Thinned riverside hardwood forest



## Aspen in the Bighorns



Aspen comprises only 1% of Bighorn National Forest cover. Found in scattered small pockets, it is not and was not historically a major cover component. Aspen is an ecologically important species, providing good snag cavity and downed dead habitat for wildlife, and it is a highly desirable browse species for big game. Most aspen in the Bighorns is healthy and doing at least OK. It is not suffering the decline that is occurring in Colorado, and other parts of Wyoming. However, there are occasional problems with aspen health & regeneration.

### A recent Bighorns aspen study found that:

- \* Aspen mortality was relatively low in most stands. The most common aspen damage agents observed were cankers and trunk rot. There were other diseases and insects observed, but none were a current concern as tree killers by themselves.
- \* Regeneration can be more of an issue than mortality. There was a lack of small young trees in areas with dense overstories of larger trees; underscoring the need to thin aspen stands to promote regen (more on aspen thinning below).
- \* Relationships between mortality and individual damage agents were weak because there were many damage agents collectively contributing to mortality, with a variety of damage frequencies in different forest stands, low overall aspen mortality, and varying site conditions.
- \* Aspen has a comparatively short lifespan, and much of the overstory is getting old and starting to break up.
- \* Aspen regeneration may be adequate in most stands, but where inadequate, the most important factors reducing “regen” included dense overstory, competition by other tree species, and reduced fire. However, browsing of small trees may play a role.
- \* While browsing itself may not significantly reduce aspen regeneration, except where big game populations are high, it may vector pathogens harming aspen and ultimately reduce regen.

### Management to encourage aspen:

- \* Discourage older aspen. Cankers and rots are more common in trees older than 100 years. Encourage regeneration in older tree stands by clearcutting, fire, or cutting a few big trees so the sun can shine in.
- \* Consider exclosure fencing, where feasible, to discourage big game browsing, especially in stands with foliage within reach of elk, moose, and deer. Regular monitoring and maintenance would be required.
- \* When thinning:
  - ◆ Remove all live conifer trees and introduced species under the aspen crowns and within twice the crown width outside the aspen stand. Consider leaving large “old-growth” conifers as future snags and large downed woody debris for wildlife.
  - ◆ Favor trees with little decay, trim out cankers, and remove scale-infested trees.
  - ◆ Mow or cut sprouts. Do not spray them with herbicides. This may harm trees with connected roots.
  - ◆ Remove or pile and burn cut trees and limbs; leaving only limbs less than 2 inches in diameter, and cut tree boles larger than 10-12 inches in diameter on the small end.
  - ◆ Avoid wounding trees to reduce vectoring disease and the risk of attracting boring insects.



Conifers invading aspen

## ***STRUCTURE IGNITABILITY IN WASHAKIE AND BIG HORN COUNTIES***

The structure ignitability assessment mentioned on Page 1 of Firesmart #24 (Summer 2017), is nearing completion for the communities in and near the Bighorn Mountains. Field visits have been made to a sampling of almost 200 structures, and reports will be prepared over the 2017-2018 winter for each of the thirty Wildland Urban Interface (WUI) communities included in this project.

Each home and cabin visited was evaluated for these factors in the immediate Home Ignition Zone (HIZ) within 100 feet of structures, and a summary ignitability rating was assigned:

- ◇ Vegetation type (plant species, flammability, density, etc.), total fuel loading, and fuel laddering.
- ◇ Structure resistance to ignition from embers and nearby flames.
- ◇ Safe access for firefighting equipment, and posted address signs.
- ◇ Presence or absence of more than one access road to the cabin/home.
- ◇ Risks to firefighters.
- ◇ Other standard Firewise factors that would influence home/cabin survivability in the event of a wildfire. Some of these are mentioned in every issue of Firesmart, and generally listed in the Firewise checklist included in each spring issue.



Other factors ledgered were those effecting the entire community during a wildfire:

- ◇ Surrounding topography and terrain.
- ◇ General vegetation (forest, rangeland, shrubland).
- ◇ Distance and travel time from the nearest fire station or firefighting equipment.
- ◇ Availability and distance of water sources for firefighting.



A preliminary review of the raw data sheets for Big Horn and Washakie County mountain cabins, homes, and ranch buildings, shows a full range of structure ignitability potential from wildfires, as observed and recorded by the Technical Forestry Services (LLC) assessors contracted by the two counties for this project. Based on the above observations, some locations are presently considered a LOW risk of ignition by a nearby wildfire, and could be protected with a minimum of action by firefighters. Other cabins/homes would be at HIGH risk of destruction by a wildfire, and it is unlikely that firefighter lives would be risked to same them. Those rated as MODERATE risks fit in between the LOW and HIGH risk ratings.

When summarized and consolidated, the results of this project will be used in the in-progress revisions to the Washakie and Big Horn County Wildfire Protection Plans to make recommendations for the future of the wildfire protection planning in each county.

**As a general observation by Technical Forestry Services evaluators/assessors, on average, homes and cabins with a completed and implemented Wildfire Mitigation Plan (WMP) have the best chance of surviving a wildfire.** WMPs can be requested through each of the county fire wardens, or directly to the County Firewise Coordinator (listed on Page Two), and would be prepared at no cost to the home or cabin owner, when funds are available for that county. Page 8 is a WMP request form and instructions for submission.

## JUNE 17 FIREWISE PICNIC AT WILLOW PARK

About 20 Bighorn Mountain cabin owners attended the picnic. The USFS representative spoke a little about upcoming road projects and a notification that the dam at Meadowlark Lake will be under re-construction in 2018. Chris Kocher shared Washakie County Fire preparedness and Fire District news. Big Horn/Washakie County Firewise Coordinator Chris Weydeveld briefed the group about the structure assessment work going on through the summer.

Joy Hill, Big Horn County Planner, spoke at the picnic about the installation of address markers at structures throughout the County (pictured in the blue coat and arctic mittens). In addition to the red and white signs to be installed by County officials, Joy advises home and cabin owners to install their own sign or marker with their name somewhere visible on the structure itself.



This sign should be placed so that it can be easily seen from an emergency vehicle entering the property on the primary access road

### AERIAL DETECTION FLIGHT RESULTS FOR THE BIGHORN NATIONAL FOREST

Each summer, the Forest service and their cooperating agencies, fly aerial detection flights over the forest areas of Wyoming and other states, to track old and new pest infestations and trends. Recent detection flights for forest insect and disease showed very little concerns for the Basin side of the Bighorn Mountains. There were small localized areas of increases in mountain pine beetle, and Douglas-fir beetle, but none significant when compared to infestations in the past decade.

### LITTLE THINGS THAT MATTER

← This small utility shed has several items that would threaten the building *and* other surrounding structures if a wildfire is near:

- The log slab siding is weathered, and easily ignited by flying embers.
- The roof is covered with tree needles.
- Wooden material is leaning against the wall.
- Flammable liquids are stored against the building wall .
- The foundation is surrounded by forest litter.

**All are correctable with a few hours of effort, and a little paint to seal the siding.**



**Harry's trash fire got away.  
Don't let yours.**



**A REMINDER FROM THE U.S. DEPARTMENT OF AGRICULTURE**



If your Big Horn or Washakie County cabin or Wildland Urban Interface (WUI) rural home needs a WILDFIRE MITIGATION PLAN, contact your County Firewise Coordinator at [firewise@wytfs.com](mailto:firewise@wytfs.com), (307) 333-1098, or 6628 W. Riverside Drive, Casper, Wyoming 82604. Requests will be kept **on file, if funding is not available in 2018. Here's a plan request form for Big Horn and Washakie counties.**



**BIG HORN BASIN FIREWISE MITIGATION PLAN APPLICATION**

PROPERTY/CABIN OWNER: \_\_\_\_\_

PROPERTY/CABIN PHYSICAL LOCATION/ADDRESS: \_\_\_\_\_

PROPERTY/CABIN OWNER MAILING ADDRESS: \_\_\_\_\_

PROPERTY/CABIN OWNER TELEPHONE: \_\_\_\_\_

PROPERTY/CABIN OWNER E-MAIL ADDRESS (OPTIONAL): \_\_\_\_\_

PROPERTY PRIMARY USE – CHECK ALL THAT APPLY:

- YEAR-ROUND RESIDENCE/RENTAL
- SEASONAL OCCUPANCY RESIDENCE
- COMMERCIAL OR BUSINESS
- AGRICULTURE

NUMBER AND KIND OF STRUCTURES ON THE PROPERTY: \_\_\_\_\_

CHECK THOSE WHICH APPLY:

- PLEASE CONTACT ME TO ARRANGE A MITIGATION PLAN FOR MY PROPERTY
- I WANT MORE INFORMATION ON THE FIREWISE PROGRAM
- OTHER: \_\_\_\_\_

COMMENTS: \_\_\_\_\_

If your property is included in the Firewise program, would you allow Technical Forestry Services to use photos of it in future Bighorn Basin Firesmart newsletter, and promotional programs? Photos would not be identified with addresses or homeowner's names. Please check the one that applies.

YES. You may use photos of my property/cabin

NO. Do not use photos of my property/cabin

LANDOWNER/CABINOWNER SIGNATURE: \_\_\_\_\_

LANDOWNER/CABINOWNER PRINTED NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

Submit directly to Technical Forestry Services, LLC, 6628 W. Riverside Drive, Casper, Wyoming 82604