



BIGHORN BASIN FIRESMART



BIGHORN BASIN FIREWISE COMMUNITIES

ISSUE #36 — FALL 2020

ADDRESSING THE COST OF WILDFIRE PROTECTION IN THE WILDLAND URBAN INTERFACE (WUI)

With the general increasing size and intensity of wildfires in parts of our country, and their impact on tax-supported agencies attempting to protect homes in the expanding Wildland Urban Interface (WUI), ideas are coming from the impacted parts of California. While you may not think that they could apply to Wyoming, next time you are out and about, take note of the new and expanding communities in rural Wyoming.

Some are proponents of outright bans on new construction within the highest high-risk wildfire “disaster zones,” or rebuilding on the same plot of land after wildfire damage. Presently, 1 in 4 Californians live in these high risk of wildfire sites, and people tend to want to rebuild in the same spot that was hit by a wildfire or other disaster. A related proposal is that residential fire safety requirements be **increased** for any homes being rebuilt following destruction by wildfires in these high-risk zones.

To some, a more acceptable proposal is that property taxes for the high-risk locations need to reflect the additional costs of public services like disaster relief that are often provided by county, city, and state authorities charged with wildfire protection. Governments could then use the extra revenue to finance disaster preparation and mitigation efforts, or other initiatives in the public interest, by creating a pricing system that pushes costs back onto the individual property owners. It has been proposed that this be done by increasing property taxes on properties in wildfire-prone areas. Economists term this “behavioral economics.”

The paragraph three proposal is similar to the approach being taken increasingly by those insuring properties in these high-risk locations. Their rates for protection are based not just on the values at risk, **but** factor in the probability of having to pay out for home and business damage or destruction as well. While it may not always be a factor in the pricing, ideally, the Firesmart condition of the home or community should be something considered. It has been reported that some insurance companies recognize designated and maintained **Firewise Communities** (See Pages 2, 4, and 5) and insure residents at lower rates.

FYI. The Bighorn Basin counties presently have three active Firewise Communities/USA®: Canyon Creek Country, Canyon Creek Village, and West Tensleep Creek Cabin Owners Association.

Firesmart information and all newsletter issues are available at:
www.bighornbasinfiresmart.com

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EXTERIOR SPRINKLER SYSTEMS

Are exterior sprinkler systems an option for protecting a home during a wildfire, after residents have evacuated the property?

Functionality and Installation

The function of an exterior sprinkler system is to minimize the opportunity for ignition by wetting the home and surrounding property. Sprinkler systems should be able to protect a home against the three basic wildfire exposures: wind-blown embers, radiant heat and direct flame contact.

Sprinkler systems can be mounted in one or more locations, including:

- The roof (Photo 1).
- Under the eave at the edge of the roof.
- On the property, in which case the sprinklers are directed at the home from multiple locations surrounding it.

Ember ignition of combustibles located on or near the home can result in a radiant and/or flame contact exposure (Photo 2). Water should reach all vulnerable areas for the system to have maximum effect both on and near the home (Photo 3).

Potential Issues

Post-fire assessments have shown exterior sprinkler systems can be effective in helping a home survive a wildfire, but potential issues exist with their use. These issues include:

- The water supply should be adequate to deliver water, when needed, for the time embers could threaten a home. This period could be up to 8 hours.
 - Check with your local fire department if your sprinkler system uses water from a municipal supply; they may have suggestions to help minimize water consumption.
- The effectiveness of a sprinkler system is questionable when a neighboring home is burning, since this would result in an extended radiant heat and/or contact exposure to the home.
- These systems can be activated manually or by an automated device, such as a sensor that detects heat or flame, or by an SMS-enabled cell phone. The ability of these systems to activate based strictly on an ember exposure has not been determined. Since wind-blown embers can be transported for up to a mile from the flame front of a wildfire, this may be a limitation.
- The most threatening wildfires occur during high-wind events and the homeowner should consider how the distribution/transport of water droplets may be influenced by elevated wind speeds.

Recommendations

Given the potential issues regarding performance, it's recommended that use be a supplement to, and not a replacement for, already proven mitigation strategies, such as the reduction of potential fuels throughout the home ignition zones, along with removal of roof and gutter debris, and use of noncombustible and fire/ember-ignition resistant building materials and installation design details.

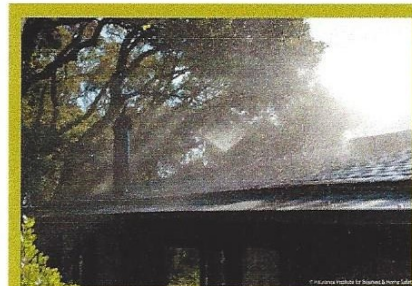


Photo 1. Roof mounted sprinkler.

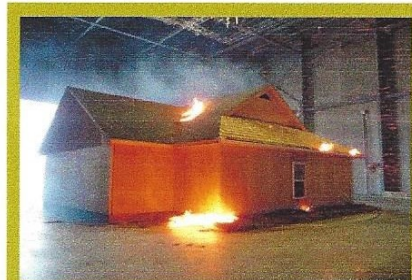


Photo 2. In order to be effective, external sprinklers must be able to wet all areas where ignition can occur, or be sufficiently effective in quenching embers that approach the home so they won't have enough energy to ignite combustible items.

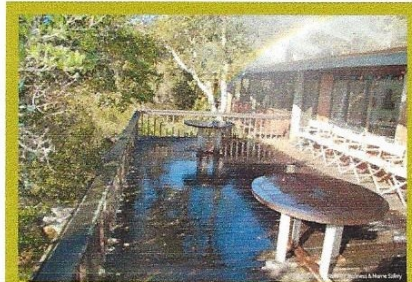


Photo 3. Roof-edge mounted sprinkler. Note these sprinklers did not deliver water in the near-home area. With this scenario, a sufficient number of wind-blown embers would have to be quenched in order to avoid ignition of the siding and decking in this zone, particularly at the deck-to-wall intersection.



FIREWISE USA®
RESIDENTS REDUCING WILDFIRE RISKS

Firewise Communities/USA® **Recognition Program**



By working together, residents can make their own property – and their neighborhood – much safer from wildfire. The **Firewise Communities/USA® Recognition Program** provides a number of resources and action steps homeowners can utilize to reduce their community’s risk of wildfire damage tomorrow.

If you are interested in becoming part of a designated Firewise Community after you have read these two pages, contact your county’s Firewise/Firesmart Coordinator to help you get started.

Program Criteria - You’ve discovered that you live in an area that may be at risk from brush, grass, or forest fires. Do you want to get started on action that can make a real difference in the survival of your home during a fire? Check out our simple steps to greater safety.

The six steps to Firewise Community recognition:

- 1- **Obtain a written wildfire risk assessment** from your state forestry agency or fire department. **All counties in the Bighorn Basin already have one of these.**
- 2- **Contact your county Firewise/Firesmart Coordinator** to assist in designating the community boundary. It need not be an entire municipality. Rural “neighborhoods” and mountain cabin areas may qualify.
- 3- Form a board or committee, and **create an action plan** based on the assessment.
- 4- **Conduct a “Firewise Day” event.**
- 5- **Invest** a minimum of \$2 per capita in local Firewise actions for the year.
- 6- **Submit an application** through your County Firewise/Firesmart Coordinator.

To maintain the recognition status over time, communities must continue to conduct annual Firewise Day events and document their local investments.

Program Benefits - Every community benefits in different ways from being recognized as a Firewise Communities/USA® site. Summarized below are the **Top Seven Benefits to Becoming a Firewise Community:**

- 1. Framework for Action** - Meeting the criteria for becoming a Firewise Communities/USA® site helps communities get organized and find direction for their wildfire safety efforts. Like the first rungs on a ladder, the criteria help get a community started toward annual, systematic action to reduce their risks from brush, grass and forest fires.
- 2. Learning About Wildfire** - As people go through the Firewise process, they learn about wildfire risks in the community and the simple things they can do to reduce them. They connect with experts (local fire fighters, state forestry professionals, and national researchers) to continue to learn about fire and find resources to accomplish Firewise actions.
- 3. Peace of Mind** - People who work with experts to learn about wildfire, and take action, start to see results quickly. Knowing that they are using the best information available and actually taking steps to reduce the risk of damage from fire helps people start to feel safer in their environment and in their homes. Having a plan for what to do in the event of a fire helps people become calmer and more prepared to act quickly.

4. Community-Building - As neighbors get together to do Firewise work, often meeting one another for the first time, they build a stronger bond with each other. This strengthens community ties, benefiting residents in many ways, that are helpful during an emergency.

5. Citizen Pride - While Firewise work can be fun, it isn't always easy. Neighbors work hard in Firewise communities to remove brush and debris, clean up common areas, and dispose of green waste. They are rightly proud when they achieve national recognition for their efforts.

6. Publicity - The national Firewise program provides communities with metal signs, a plaque and other materials that can be presented publicly to honor their status as a Firewise Communities/USA® recognition site. News media find this to be a great story to cover, and the national program features community stories regularly on the website and in its publications. All this publicity results not only in satisfaction for the residents involved, but also provides one more way to reach large numbers of people with information about wildfire safety.

7. Access to Funding and Assistance - Preference is often given to Firewise Communities/USA® sites over other candidates when allocations of grant money are made for wildfire safety or fuel mitigation. If requests are equally worthy, some officials tend to have more confidence in communities that have demonstrated the foresight of becoming a recognized Firewise Communities/USA® site.

Talking to Your Neighbors About Firewise - Behavioral science research shows that once people understand there is something they can do to reduce their vulnerability to wildfire, they are more apt to act. NFPA's Firewise Communities/USA® program is an important step to teaching homeowners how to adapt to living with wildfire.

Neighbors helping neighbors - The program goal is to reduce the loss of lives, properties, and resources to wildland fire by building and maintaining communities in a way that is compatible with our natural surroundings. One of the most important things Firewise Communities/USA® participants learn is neighbors can help neighbors, and they are often inextricably linked together in their wildfire safety solutions.

Landowners understandably prefer to make their own choices related to their surroundings. But we often believe there's nothing we can do, that wildfire mitigation is too difficult or prohibitively expensive. Firewise Communities/USA® provides up-to-date information for homeowners and communities to help change this situation. Residents who participate in the Firewise process create an action plan that commits them to a sustained program of wildfire mitigation, which is generally both physically doable and cost-effective. Ultimately, by creating your own plan, you'll be able to develop unique solutions to your wildfire mitigation challenges.

Resources - Firewise provides a discussion template to assist you in starting a dialogue with neighbors about the benefits of adopting the Firewise program in your area. The [User Reference Guide to the Firewise Communities/USA® Recognition Program](#) (PDF, 1.5 MB) provides additional facts about Firewise participation and community benefits. It also provides applications, references and resources you need to begin the process. This and other brochures and materials can be found in our online catalog. In addition, the Firewise Communities Program publishes a quarterly, informative newsletter called Firewise Communities: The How To Newsletter and plant lists are filled with great tips and tools to help generate landscaping ideas for around your home.

The primary website for the Firewise Community program can be accessed at

<http://www.firewise.org/communities.aspx>

THE NEXT NEWSLETTER WILL ADDRESS GRANTS, FUNDING, & FIREWISE PROJECT IDEAS.

A COMPLETED FIRESMART PROJECT IN WASHAKIE COUNTY

Tolman Sheep Co.—Mountain Shop Defensible Space—WMP. Washakie County, WY 2017
WSWUI Firesmart Grant # 17-DG-11020000-040

TREATMENT: Reducing the tree stocking, treating the thinning slash, and pruning to remove the lower limbs on the remaining trees. The result is a healthy Firesmart forest stand.



Photo #1 before treatment



Photo #2 before treatment



Photo #1 after treatment



Photo #2 after treatment

Note the placement of the fuel tank outside of the 30-foot zone around any structures.

Another project that is contracted and ready is the 73 acre Onion Gulch Fuelbreaks. Work on that project has been delayed by the contractors COVID-19 and immigration issues.

Firesmart work is also being done near individual residences south of Worland. Here is a **BEFORE** and **AFTER** pair of one of the individual Wildfire Mitigation Plans being implemented.



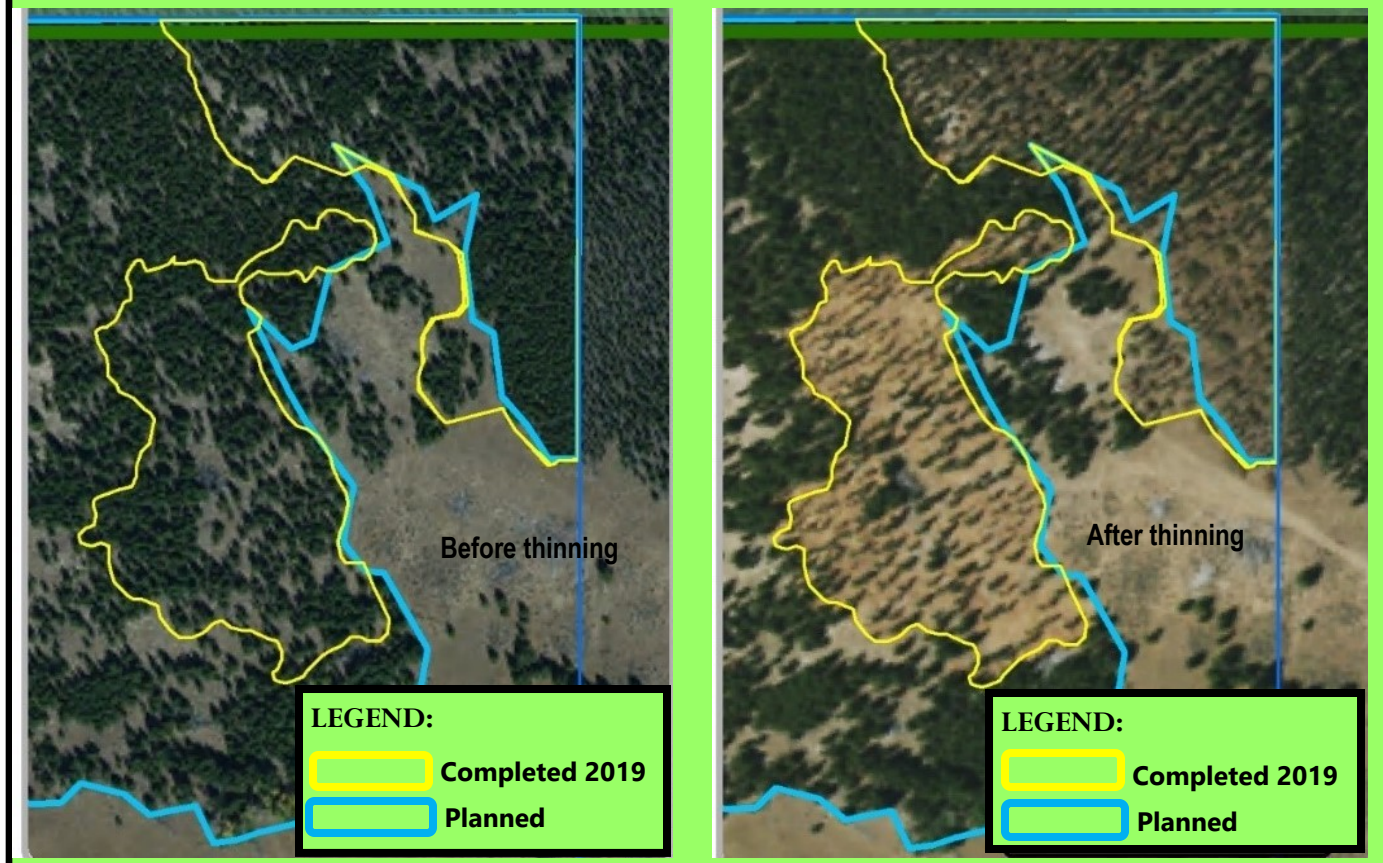
Before treatment



After treatment

FALL REMINDERS: It's time to evaluate your trees and shrubbery, and do fall pruning where they have grown limbs that need to be removed to get a head start on Firesmart for the 2021 season. It's also time to check your chimney screen, and make sure no tree limbs are within ten feet of your chimney

Before and after aerial views of the Tolman thinning project.



Birds' nest atop outdoor light ignites a fire in Oregon

While removal of bird's nests from houses and other structures is a standard Firesmart practice, this story is slightly different.

Recently in Redmond, Oregon, fire investigators traced ignition of a \$35,000 duplex fire to a bird's nest sitting atop an outdoor light fixture on a porch. The non-LED light bulb had dried out the bird nest, and the heat was enough to ignite the nest!

The investigating fire official implied that this would not have happened if the light fixture had used an LED bulb. He also suggested that homeowners make sure they keep outdoor light fixtures clear of leaves and litter that could be ignited.

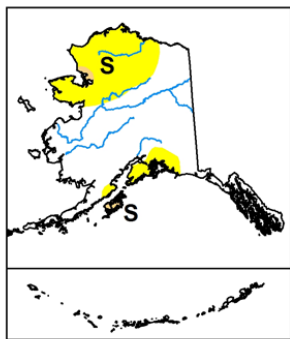
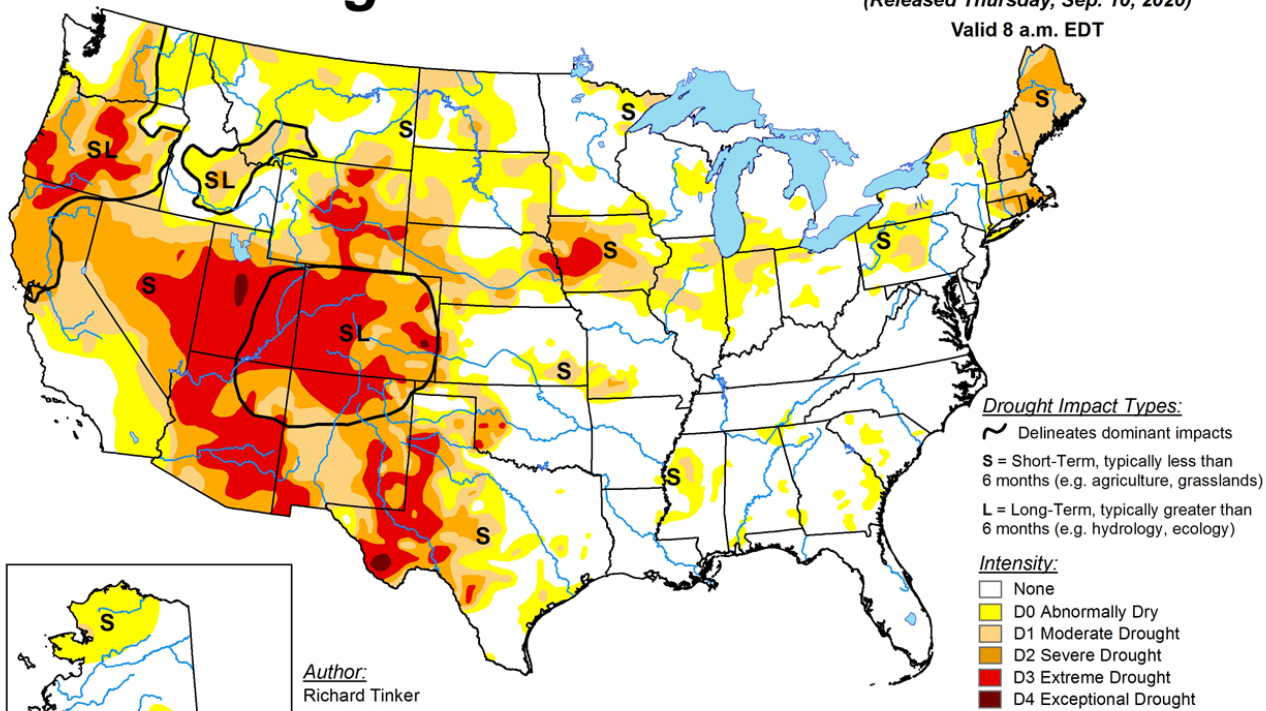
FIRESMART OFFERS HIZ TREE PRUNING WITHIN WASHAKIE COUNTY

Home- and cabin-owners in Washakie County with approved Wildfire Mitigation Plans (WMP) can get some assistance in doing the tree pruning included in their WMP. Weather permitting, Washakie Firesmart will prune the trees in your Home Ignition Zone (HIZ) **within 30 feet** of your home/cabin, as recommended in your WMP. All you need to do is submit a request to Washakie County Firesmart at firesmart@wytfs.com, 6628 W. Riverside Dr. Casper, Wyoming 82604, or (307) 333-1098 (office), (307) 272-9533 (mobile). Your request should include your name and the location/physical address of your home or cabin.

Removing the cut limbs will be the responsibility of the cabin- or home-owner.

U.S. Drought Monitor

September 8, 2020
 (Released Thursday, Sep. 10, 2020)
 Valid 8 a.m. EDT



Author:
 Richard Tinker
 CPC/NOAA/NWS/NCEP

Other than Southern California, the major 2020 wildfires have been in the mapped red and brown areas of the west.

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>



droughtmonitor.unl.edu

TEN YEARS OF FIRES LARGER THAN 300 ACRES, BY COUNTY

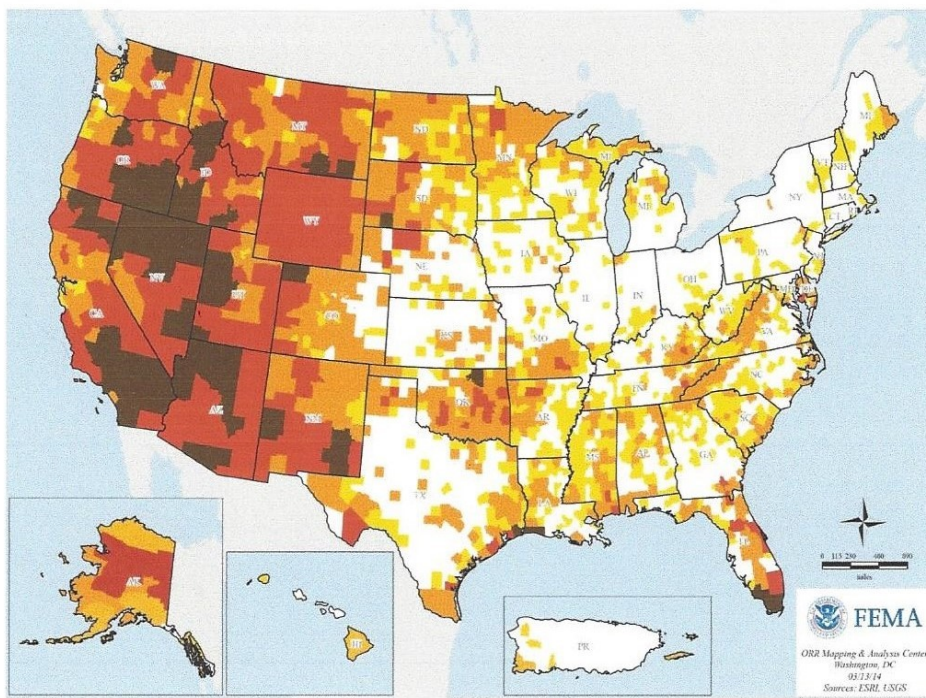
Note that most Wyoming counties averaged at least two fires per year over 300 acres.

Frequency of Wildfires Greater or Equal to 300 Acres

- 101-1,308
- 21-100
- 1-20

Counties where largest wildfires were less than 300 acres

Counties with no recorded wildfires



FEMA
 ORR Mapping & Analysis Center
 Washington, DC
 03/13/14
 Sources: ESRI, USGS