

Homes Lost in Wildfires: Are Vents to Blame?

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There is mounting evidence that homes are igniting in wildfire events because embers and flames are getting into homes through vents. As home losses from wildfires have increased, so has the research into the ways these homes have ignited. The USFS Missoula Fire Sciences Laboratory, National Institute of Standards and Technology (NIST), the Insurance Institute for Business and Home Safety (IBHS), and the UC Berkeley Center for Fire Research and Outreach have been leading efforts to identify the most common causes of home ignitions and to propose best practices to reduce the likelihood of a home burning down in a wildfire. This research forms the backbone of Firewise and other wildfire preparedness programs.

Vents are designed to allow air flow through a structure, particularly attics and crawlspaces, but when the air is also full of embers, those embers can enter the building, land on combustible materials, and begin burning the home from the inside out. Gable end vents and eave vents in open eave construction are more vulnerable than eave vents in soffited eave construction. IBHS has been systematically testing homes for wildfire vulnerabilities in their South Carolina testing center. Fascinating videos and other resources are available on their website at disastersafety.org/wildfire/.



So what's a homeowner to do? At minimum, make sure your vents are screened with 1/8th inch metal mesh. This will reduce some of the ember intrusion into attics and crawl spaces. Make sure that flammable materials are not stored close to vents, and that debris that could ignite has not built up over time. Specially-designed vents are also available for new construction and for retrofits. While more expensive, they have been

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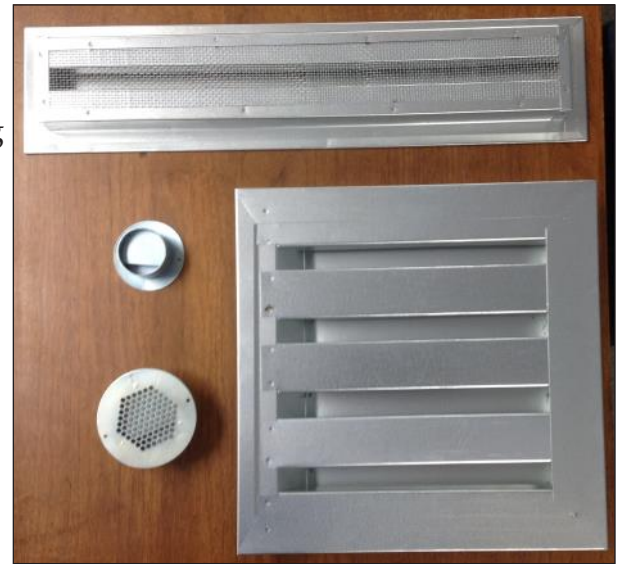
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created to balance ember exclusion with air flow. California has strict building codes for homes in the wildland-urban interface, and they have identified the following eave venting products which comply with the relevant WUI codes:

- Lomanco, Inc.
- Vulcan Technologies
- Vivico "FireGuardVent"
- Brandguard
- O'Hagin's, Inc.

More information on WUI codes and building materials can be found at the CalFire website osfm.fire.ca.gov. The website includes a searchable database of building materials to help you or your contractor find fire-resistant building materials.



Brandguard vents designed with baffles and screening to keep embers out during wildfires.

Embers can be a threat in other places too, such as mulch around landscaping plants, or pine needle-filled gutters and roof valleys. You can learn a lot about hardening your home and improving defensible space at www.firewise.org.

Here at the Okanogan Conservation District, we offer several services, free of charge, for homeowners concerned about wildfire:

- **Individual property risk assessments:** these take about 45 minutes and will provide you with an evaluation of your home's risk from wildfire, recommendations to reduce risks, and hard copy resources to help you plan and implement Firewise best practices. Pre-construction assessments are also possible, to help you plan the most fire-resistant construction possible for your site and budget.
- **Firewise workshops:** If you have a group of 10+, we can provide a 1-3 hour workshop on Firewise techniques and practical ways to prepare for and react to wildfire. It's not a matter of if, it's a matter of when in fire country!
- **Firewise Communities USA™ recognition:** Is your homeowners' association or neighborhood group ready to take the next step? We can introduce you to the program and its benefits, help you complete the steps to apply, and answer your questions along the way.



For information and scheduling for any of the above items contact Zach Day (x.102) or Kirsten Cook (x. 103) at 509-422-0855. Email: zach@okanogancd.org or kirsten@okanogancd.org.

Manager's Note

By Craig Nelson

Spring is a time of renewal, fresh growth, and a time of change. We have experienced two consecutive years of large wildfires that have impacted many of our friends' and families' lives. We certainly hope this spring is the turning point in a positive direction for all of us.

That isn't to say we can ignore the potential for more challenges. Rather, let's have an open discussion about fire and other ways natural resources are impacted, and what we can do to prevent, mitigate, and recover from these events. We are more committed than ever to helping you, the individuals, neighborhoods, businesses, and even entire watersheds, to achieve your natural resource conservation objectives.

As always, our focus is on cooperative conservation. Our initial step is getting to know you and your land management goals first and foremost. Then, we will collaboratively investigate the resources you steward, and the challenges you face, so we have a shared understanding. With your goals and current conditions in mind, we can cooperatively formulate a custom plan to help you meet your needs. Each person we work with teaches us something new. One of the reasons we love our work at the District is the constant opportunity to learn right along with those we assist, which is a time for our own renewal and growth.



Spring Bird Walks Around Woody Island in Okanogan

Join Allisa Carlson, wildlife conservation planner at the Okanogan Conservation District, for these excursions sponsored by the North Central Washington Audubon Society. The diverse habitat of the island hosts a large variety of warblers and other spring migrants, as well as residents such as bald eagle, song sparrow, and woodpeckers. The route is about 1.4 miles (roundtrip) and is relatively flat.

The Woody Island Trail was created as an Okanogan High School service project. Students cleared paths & laid crushed rock with help from the City of Okanogan's maintenance crew. Two interpretive signs were recently added by the Ecology of the Okanogan science class to tell the story of the salmon rehabilitation projects in the side channels on the island.

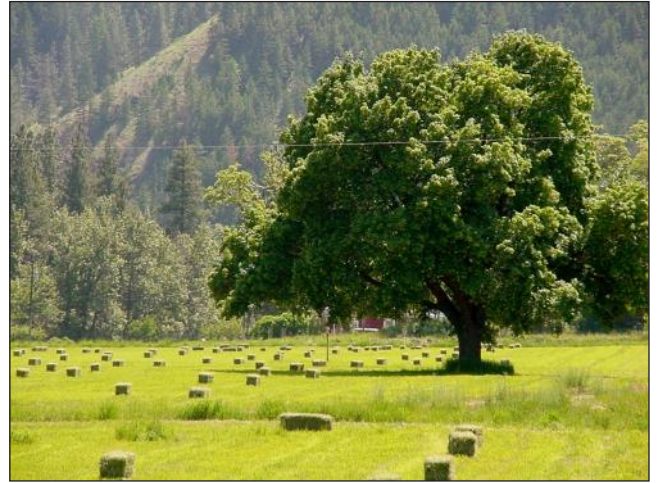
Two walks are scheduled: April 23rd and May 21st from 8:00-10:00 a.m. Meet at the Agriculture Service Center, 1251 South 2nd Ave. in Okanogan. We will walk or drive (~1/4 mile) to the trailhead. Please contact Allisa at 509-422-0855 ext. 111 or allisa@okanogancd.org if you have any questions and/or need a pair of binoculars (we may be able to obtain some for you to borrow).

Sign up is not required and the walk is free.

Emergency Feed Program Gives Ranchers a Lift

By Terri Williams, Conservation Planner

A rancher rode slowly across his rangeland, his shoulders slumped. In August 2015, the Okanogan Complex Fire had roared across his dry summer pastures, killing 40 head of cattle and eliminating any chance that the remaining cows would have feed for at least the next two years. His head bowed as he thought, "It comes down to this: if I can't find feed, and soon, I'll have to sell the breeding stock at very low prices at auction. I can't afford to buy hay to feed that many cattle that long. This may destroy the family ranch."



This rancher's story is not unique – over 100 landowners in Okanogan County reported losses to the staff at the Okanogan Conservation District after the 2015 fire season. Over 520,000 acres burned in the 2015 fires, in addition to the 240,000 acres that had burned in the Carlton Complex fire the year before. Twenty percent of Okanogan County is in some stage of fire recovery. Livestock producers reported needs for emergency livestock feed in the amount of \$3 million, just to get through to summer.

In December 2015, Okanogan CD Manager Craig Nelson received a phone call. It was Mark Clark from the Washington State Conservation Commission. Some funds had been made available by the Washington Department of Ecology, and the Commission would be passing the dollars on to Okanogan CD to assist livestock producers with emergency hay purchases. Craig agreed to manage the project, and staff members Terri Williams and Zach Day began working to get the money out to producers.

Okanogan County Cattlemen's Association helped develop the program, and an independent advisory committee was formed to evaluate the applications. During January 2016, \$500,000 was distributed to reimburse 56 livestock producers for emergency hay purchases. Thanks to the partnership and action of these organizations, livestock producers in Okanogan County will breathe a little easier.

WARNING
FLASH
FLOOD
AREA

Heads up! If you've experienced runoff in the past that has impacted your home or other infrastructure, recent fires will make flooding much more likely. Do a quick evaluation of your situation and prepare for increased flood risk by asking yourself the following questions: where have I noticed runoff patterns in the past? What would happen if that runoff was 3-5 times the volume I've seen before? What is the layout and slope of land uphill from my property? Is there a lot of slope that funnels down to my home or infrastructure? Are the plants beginning to recover or is there still mostly bare ground? If these questions seem overwhelming, our planning staff are ready to help you with a site visit to help you evaluate your flooding risk factors. Contact us at 509-422-0855.

Mimicking Beavers to Heal Damaged Streams

By Julie Ashmore, Conservation Coordinator, Okanogan Highlands Alliance

The Okanogan Highlands Alliance (OHA) is working with partners to benefit water quality and quantity, and to increase habitat for fish and wildlife, by reducing severe stream channel incision that disconnects Myers Creek (north of Chesaw) from its floodplain. These changes will facilitate the growth of native vegetation on the historical and new floodplains, providing resources to encourage beavers to recolonize the area and improve the hydrology of the project sites into the future.

The restoration approach mimics beavers by installing “beaver dam analogues” to slowly raise the water table and capture sediment to help build the streambed back up. Establishing riparian plants will help support beaver in the long term.

OHA installed beaver dam analogues at the Myers Creek mitigation site in September 2014. This approach of mimicking beavers can be very effective, and is radically less expensive than other restoration techniques, while still providing local jobs. At the Triple Creek wetland site, OHA is collaborating with Trout Unlimited and the US Fish and Wildlife Service (USFWS), who together will install beaver dam analogues in fall of 2016. Funding sources include Department of Ecology water quality funds, USFWS Partners program, the penalty settlement agreement between Ecology and Kinross Gold, and in-kind contributions from all collaborators. In-kind support has also been provided by the National Oceanic and Atmospheric Administration (Northwest Fisheries Science Center) and the WA Department of Fish and Wildlife.



The above photos show the incised channel in the Myers Creek watershed. The streambed has dropped, and as a result, the stream is disconnected from its floodplain.



A beaver dam analogue: vertical pilings placed across the stream were woven with live cuttings to slow flows and to provide beavers with a stable starting place for dam building.

Emulating the effect of beavers in slowing flows, capturing sediment, and connecting the water with the land will improve water quality and increase the water storage capacity of the Myers Creek watershed. Re-establishing beavers, and the plant life needed for their long-term presence, can be an important component of local drought and fire response. Learn more at: okanoganhighlands.org/restoration.

Attracting Wildlife to Your Property

Allisa Carlson, Wildlife Conservation Planner

One of the best (and sometimes challenging) part of living in Okanogan County is being surrounded by wildlife. Whether it is moose browsing on shrubs, horned larks picking up scraps in the feedlot, butterflies visiting your flower bed, or northern flickers pounding on the side of your house, wildlife is a big part of what we enjoy (and learn to live with) in the Okanogan!

To attract wildlife, you need to meet three basic needs; food, shelter, and water. The exact types of food, water, and shelter you will need depend on the species you are trying to attract. For example, if you are interested in attracting songbirds to your property, you might meet their needs by including:

- ❑ **Food:** Bird Seed Feeder, Nectar Feeder, Native Vegetation
- ❑ **Water:** Bird Bath, Pond, Plants (some species meet their water needs through plants)
- ❑ **Shelter:** Trees, Shrubs, Nest Boxes, Brush Piles, Snags (standing dead trees)

The most important thing you can do for your yard is to use native plants whenever possible. Native plants can be an attractive addition to your garden, and, when planted in the right place, can be less maintenance. You will be most successful if you work in harmony with the surrounding landscape. For example, if you live in a shrub-steppe area, think about how you can enhance it with native grasses and wildflowers rather than introducing plants that require more water and may not survive. Sometimes, making habitat improvements might include doing nothing – such as leaving a clump of shrubs or dead tree in place for woodpeckers and cavity-nesting species.

Creating a rich wildlife habitat is a dynamic process that requires time. Keep a journal of changes you make and notes of wildlife you observe at different times of year. The more you observe and research the various species that visit, the more you can plan to develop the needed habitat qualities on your property. Washington Department of Fish and Wildlife has free wildlife and habitat information on their website: <http://wdfw.wa.gov/living/landscaping/index.html>. The Okanogan Conservation District is available to assist you with habitat improvements, whether it's determining the appropriate plants for your property, locating habitat structures, or preparing wildlife-friendly plans to enhance your piece of the Okanogan. Contact Allisa at 509-422-0855 x. 111 or allisa@okanogancd.org.



*Milkweed is a vital plant for Monarchs: the caterpillars only eat milkweed and the butterflies need milkweed to lay their eggs. Showy Milkweed (*Asclepias speciosa*) is our native species.*



Sharp-tailed grouse depend on native grasses and wildflowers in the spring/summer and water birches in the winter.

Riparian Grazing: Less is More

By Amy Martin, Conservation Planner

In October, Okanogan CD Conservation Planners Terri Williams and Amy Martin attended an informative workshop sponsored by WSU Extension: **Grazing and Water Quality for Natural Resource Professionals**. Several grazing experts shared research and proven management tools that maximize grazing productivity **and** reduce risks to water quality. The purpose of the workshop was to identify water quality risks, and discuss site-specific solutions to prevent future pollution and economic impacts to producers.



Tip Hudson of WSU Extension highlighted several important points for natural resource professionals and professionals to consider when reviewing potential water quality risks:

Riparian (creekside) degradation has economic consequences for producers:

- Exposed, eroding soil has low productivity and indicates loss of valuable top soil.
- Channel down-cutting can lower the water table in surrounding uplands, reducing soil moisture for forage vegetation.

Direct access by cattle to surface water is a significant risk factor when animal density is high or residence time is long.

- Minimizing direct inputs of manure reduces risk that pollutants like bacteria will enter the stream. Nutrients in manure can also increase algae growth.
- Prolonged access to streams impairs riparian vegetation, which is important for good water quality and soil stability.

A high-functioning riparian area will reduce erosion by dissipating stream flow energy, improve water quality by filtering out sediment, and improve ground-water recharge. Many of the erosion and productivity problems on grazing land arise from long-ago decisions, before the current state of knowledge. However, many legacy pollution problems can be solved. The full article by Tip Hudson is available on our website at www.okanogancd.org. It includes how to assess water quality risk, and tools to protect riparian areas and improve grazing productivity.

One key message from the workshop that the Okanogan Conservation District heartily endorses is that different problems require different solutions. **There is no one-size-fits-all solution to riparian and water quality problems.** Site evaluation and tailored solutions are required, and our conservation planning staff are ready to work with you to address any livestock and/or water quality concerns you have related to your property. Contact Amy or Terri at 509-422-0855 or by email: amy@okanogancd.org or terri@okanogancd.org.



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Conservation Celebration Award Recipients

We are grateful to everyone who worked alongside us in 2015. In particular, we would like to recognize these individuals and organizations for their hard work and commitment to conserving our natural resources:

- ♥ **Conservation Partner** – Awarded to the **DNR Northeast Region Landowner Assistance Office** for their outstanding teamwork and enduring commitment to natural resources conservation and education.
- ♥ **Sustainability Star** – Awarded to **Noble and Peggy Kelly** for their work in establishing the first Firewise Community in the county and for making their property a model of Firewise action.
- ♥ **Cutting Edge Cooperator** – Awarded to **Michael Sarratt** for his exemplary cooperation in implementing extensive restoration practices on his property.
- ♥ **Norm McClure Lifetime Conservation Achievement Award** – Awarded to **Dale Swedberg** for his enduring commitment to the principles and practices of natural resource conservation.

This newsletter

is published by the Okanogan Conservation District with partial funding from Washington State Conservation Commission, Washington State Department of Ecology, and various other sources.