

FIRE PROOFING WITH CARE FOR THE NATURAL ENVIRONMENT

Wildfire is an important process for maintaining the health of many natural ecosystems in the Southern Interior of British Columbia. In the Okanagan and Similkameen valleys, wildfire shapes our natural landscapes by inhibiting tree encroachment in grasslands, creating open tree canopies in our dry coniferous forest and recycling nutrients from ground cover into the soil. Fire suppression has changed these critical processes, thereby reducing the quality of wildlife habitat and natural areas. It also increases the potential for catastrophic wildfire due to cumulative fuel loading and increased tree density and canopy closure.

Finding a Balance

Home construction in the highly desirable wildland-urban interface is increasing. These scenic natural areas provide a chance to experience wildlife first hand. However, living in these areas means living with the natural processes that maintain them, including fire.

Homeowners in the wildland-urban interface must find a balance between the safety of their property and the health of the ecosystem they live in. You can avoid unnecessarily impacting your property while providing adequate fire safety for your home by using ecologically friendly, preventative measures that mimic the natural processes.



Managing Vegetation to Reduce Wildfire Risk to Your Home

Wildfires occurring in areas with high fuel loads can burn at a high intensity. These fires can ignite homes by contact flames or falling embers, which may blow up to two kilometres in advance of the flame front. To reduce the risk of losing your home to a wildfire, appropriate precautions should be taken to remove fuels that can be easily ignited or contribute to the spread of a wildfire. However it is important to note that managing this vegetation will also change the composition of wildlife habitat. It is therefore important to identify any fragile habitat or vulnerable species within the ignition zone before fuel management is initiated.

Wildland-urban homeowners are challenged with finding a balance between the safety of their property and the health of the ecosystem they live in.

The first 10 meters immediately adjacent to your home and buildings are the most critical to consider for fuel reduction. This area should be kept free of highly resinous trees, deadfall and woodpiles. Instead you should consider incorporating shale, rock or cement sidewalks amongst fire resistant plants to slow or stop the spread of a fire. Within the next 10 meters, outside of the critical zone, trees should be spaced 3 to 6 meters apart and lower branches should be pruned to a height of 2 meters, or higher if still reaching the ground. Thinning and pruning trees is a cost effective option that also increases the amount of sunlight available for understory plants like shrubs, grasses and wildflowers, which provide food sources important to many wildlife species.

The goal of thinning is to reduce the flame front. This does not imply removing all vegetation. Such an extreme measure can actually increase your short-term wildfire risk by drying ground cover and promoting soil disturbance. This action favours colonization by invasive plants, many of which are highly flammable. It is more effective to retain the bulk of the native vegetation and reduce fine fuels, which ignite and spread quickly. Leaving some fallen logs, ground cover and snags (dead standing trees) will provide habitat for a variety of wildlife.

Steps to Fire Proofing With Care



Consider taking the following measures to protect your home from wildfire while maintaining wildlife habitat:

1. Reduce fuels prior to the onset of high fire hazard season.
2. Thin trees around home and outbuildings, especially young trees that provide ladder fuels that can cause canopy fires.
3. Prune the lower branches on remaining larger trees, which also form ladder fuels that can allow fires to climb into the canopy or reverse.
4. Retain snags and coarse woody debris as important wildlife habitat.
5. Remove invasive plants, especially highly combustible ones such as knapweed, Russian thistle and cheatgrass.
6. Retain native vegetation but remove fine dead material, especially around the bases of shrubs and trees.
7. Re-vegetate disturbed areas using native plants that are drought-tolerant, sparsely branched, thick and woody, and do not produce excessive fine fuels.
8. Maintain as many deciduous trees and shrubs as possible, especially in riparian thicket stands.
9. Choose plants that do not accumulate excessive dead vegetation and are not resinous.
10. Consider installing a cistern that can dispense water by gravity feed in the case of power outages and water shortages.
11. Conduct small, prescribed fires, if and when appropriate. Check your local bylaws to ensure a controlled burn is permissible. A permit will be required and the burn should be conducted by experienced persons only.

For further information, refer to the following resources:

The BC Ministry of Forests Protection Branch: *The Fire Smart Manual*.
<http://www.for.gov.bc.ca/protect/>

Wildland-Urban Fire Research Publications: produced by the United States Fire Lab <http://www.firelab.org/>

The United States National Fire Protection Agency
<http://www.firewise.org>

Nowicki, B. 2002. *The Community Protection Zone: Defending Houses and Communities from the Threat of Forest Fire*. Center of Biological Diversity.
<http://www.sw-center.org/swcbd/Programs/fire/wui1.pdf>

The Native Plant Society of BC: includes detailed native plant information and resources. Lists BC wholesale and retail native plant nurseries and seed suppliers by region <http://www.npsbc.org/>

Sarell, M., et. al. 1996. *Fire Ecology*. Living in Nature Series: South Okanagan-Similkameen Stewardship Program.

Support for this project was provided by:



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Canada

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Canadian Wildlife
Service

Service Canadien
de la faune

**The Government of Canada
Habitat Stewardship Program for
Species at Risk**

