Preparing Your Property for Wildfire in a Watershed Friendly Way

April 2020
“Watershed friendly” means that practices suggested within this presentation are intended to improve the wildfire safety of your property without being a detriment to the health of the Lake Whatcom Watershed.
Climate change is creating conditions that are more conducive to wildfire. Recent increases in fuel dryness are related to multiple climate factors. Adapted from Westerling et al. 2006
Effects of multiple drought years are shown in stressed & dying red cedars and other iconic PNW conifers.

Dying from the top down

Browning boughs and needles, defoliation
Wildfire risk in the Pacific Northwest is increasing

“We’re on the cusp of some big changes. We expect that droughts will become more common, and the interaction of climate and fire could look very different by the mid-21st century,” says David Peterson, professor at the School of Environmental and Forest Sciences.

Potential Ignition Sources

- **SURFACE FIRE**
- **CROWN FIRE**
- **BLOWING EMBERS**
RESEARCH SHOWS THAT HOMES IGNITE DUE TO THE CONDITION OF THE HOME AND EVERYTHING AROUND IT, UP TO 200’ FROM THE FOUNDATION. THIS IS CALLED THE HOME IGNITION ZONE
Home Ignition Zone (HIZ)

- IMMEDIATE ZONE – 0 to 5’
- INTERMEDIATE ZONE – 5’ to 30’
- EXTENDED ZONE – 30’ to 100’/200’
Create Defensible Space

Areas where construction and vegetation modifications have been made that reduce wildfire risk
THE ROOF

Class A-rated roofs have the highest resistance to fire. This includes metal, fiberglass asphalt composition shingle, concrete or clay tile.

Untreated wood shake roofs are extremely flammable.
THE ROOF

Roof ratings can change depending on the treatments and materials used in making the product and assembling them.

For example, chemical and pressure treated wood shake and shingle roofs can be Class-A if they have a fire-resistant underlayment when installed.

For more information on roof ratings and fire-resistance, visit the link below.

https://www.nfpa.org/-/media/Firewise/Fact-sheets/FirewiseFactSheetsRoofingMaterials.ashx
Roof & Gutter Maintenance is Key

Clear flammable debris from roof & gutters

Inspect shingles & roof tiles; repair and replace loose or missing

Pay special attention to heat trap areas like this
SIDING & WINDOWS

Fiber-cement, brick, stucco siding are more ignition-resistant than wood or vinyl

Dual-pane, tempered glass windows withstand more heat

Plastic skylights can melt. Maintain casing around skylights.
VENTS

Clear back flammable materials and install 1/8” metal screening on all vents
ELEVATED DECKS, PORCHES, FENCING

Never store flammable material underneath decks or porches.

Put gravel under raised decks, keep grass short.

A wood fence attached to the house can carry fire to the house.

For more information on fire-resistant decking, visit the link below.

https://www.nfpa.org/-/media/Files/Firewise/Fact-sheets/FirewiseFactSheetsDecks.ashx
Adjacent to the Home

Keep the first 3-5 feet around your home a non-flammable area

Rake dead leaves and pine needles back from house
YAY! MULCH!

- Helps maintain soil moisture
- Moderates soil temperatures
- Discourages weeds
- Prevents erosion & compaction
- Looks pretty
BUT...

DO NOT PUT ORGANIC MULCH WITHIN 5' OF A STRUCTURE

MULCHES TO AVOID
• Shredded rubber
• Shredded western red cedar
• Pine needles or sawdust-type mulches
MULCHING TIPS

- Use Low-Phosphorus mulch products

- Water mulch when watering plants (damp mulch is less likely to smolder)

- Recommended maximum mulch thickness = 4”

- Use non-flammable material against house & put organic mulch outside of that
Fire-Resistant Landscaping

Your landscape doesn’t have to look like the surface of the moon.

It can look like this!
USE FUEL BREAKS IN YOUR LANDSCAPE

This helps keep surface fire from spreading to your structures through continuous paths of landscaping.
DISCLAIMER!

ALWAYS DOUBLE CHECK LAKE WHATCOM WATERSHED CODES & RESTRICTIONS PRIOR TO MAKING LANDSCAPE CHANGES

https://www.codepublishing.com/WA/WhatcomCounty/html/WhatcomCounty20/WhatcomCounty2051.html
Cluster Plantings

Landscaping areas should be broken up into clusters

Keep lawn and native grasses mowed to 4” height
CREATE VERTICAL SPACE BETWEEN PLANTS

Continuous vegetation from the ground up to large trees creates a path for to burn from the ground up into the tops of trees where it becomes much more dangerous and difficult to put out.

To reduce the chance of fire climbing a tree, remove the lower tree limbs 6-15ft from the ground (or the lower 1/3 of branches on smaller trees).

Source: Riverside County Fire

Having varying canopy layers is important for bird and wildlife habitat; but this can still be achieved with adequate vertical separation.
USE NATIVE PLANTS IN YOUR LANDSCAPE

Native plants thrive in our conditions. A plant that is thriving also tends to be less flammable.
USE NATIVE PLANTS IN YOUR LANDSCAPE

Native plants help improve water quality by filtering pollutants. They capture phosphorus in runoff before it reaches the Lake.
Fire –Resistant Native Plants

- have higher moisture content in their leaves
- have little build-up of dead vegetation
- are more resistant to drought
- low-compact growth form

### Plant Types

<table>
<thead>
<tr>
<th>Succulents</th>
<th>More Fire Resistant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Covers</td>
<td></td>
</tr>
<tr>
<td>Turf</td>
<td></td>
</tr>
<tr>
<td>Vines</td>
<td></td>
</tr>
<tr>
<td>Annuals</td>
<td></td>
</tr>
<tr>
<td>Perennials</td>
<td></td>
</tr>
<tr>
<td>Deciduous Trees</td>
<td></td>
</tr>
<tr>
<td>Shrubs</td>
<td></td>
</tr>
<tr>
<td>Grasses</td>
<td></td>
</tr>
<tr>
<td>Conifers</td>
<td>Less Fire Resistant</td>
</tr>
</tbody>
</table>
Plants: Flammable plants

• are water-stressed
• accumulate dry, dead material
• are evergreen
• have loose or papery bark
• have stiff leathery, small, or fine lacy leaves
• high oil or resin content

Juniper

Arborvitae

Scotch broom

Blackberries
Examples of fire-resistant native plants

*Great for attracting pollinators & birds*

- Oregon White Oak
- Golden Currant
- Quaking Aspen
- Sea Pink/Thrift
- Beargrass
- Pacific Rhododendron
Propane Tanks

Remove vegetation from underneath and around propane tanks

Ensure that they are maintained properly so the venting feature works
Other Considerations

Dispose of heavy accumulation of dead plant material – slash or blowdown

Manage/reduce invasive species

Thin unhealthy understory trees to reduce competition during drought

Consider timing and caution of activities that could affect bird nesting. March to August is prime nesting time.
Other Considerations

Keep canopy cover to provide shade, reduced soil temperatures and retain soil moisture.

Incorporate paths that can be used by firefighters for access and to lay hose.
Whatcom Conservation District Resources

- FREE wildfire risk assessments
- Firewise USA® guidance
- Presentations & outreach events
- Assistance with neighborhood-level risk assessments

www.whatcomcd.org/wildfire
Lake Whatcom Watershed Resources

Lake Whatcom Management Program Resources
http://www.lakewhatcom.whatcomcounty.org/resources

Lake Whatcom Homeowner Incentive Program (HIP)
Find out if your property is eligible for the program!
https://www.lakewhatcomhip.org/

Lake Whatcom Watershed Residents’ Guide
https://www.cob.org/services/environment/lake-whatcom/Pages/lw-residents-guide.aspx
Forestry Resources

Forest Stewardship Program - DNR
Matt Provencher
Western WA Stewardship Forester
360-902-1494
360-819-7143
www.dnr.wa.gov

WSU Extension Forestry
www.forestry.wsu.edu
THANK YOU!

Jenny Coe
Community Wildfire Resilience Coordinator
Skagit & Whatcom Conservation Districts
jcoe@whatcomcd.org
360-526-2381 x106
Whatcomcd.org/wildfire