

## Are You Ready for a Wildfire? April 2022

“It’s not a question of IF we’re going to have a devastating wildfire west of the Cascades that rages into Fall City, but WHEN.” Fall City Fire Chief Culp and this garden-climate change writer agreed on this inevitability at our first meeting in fall 2021. Then in mid February, the U.N. Environmental Program reported “Communities are not prepared for the escalating damage of destructive blazes that were once rare and now are occurring more often, burning longer, hotter, and more intensely.”

King Conservation District’s Wildfire and Forestry Resiliency Coordinator, Matt Axe, visited my property to explore how to achieve the balance between wildfire survival at my King County home and preserving as much of my garden as possible. (Call Matt for a free property evaluation at (425) 282-1931.

Matt walked the property with me along with Chief Culp of the Fall City Fire Department, who came to observe. I learned a lot and share this wise advice, dear readers, to help us all prepare mentally, physically, and even financially for the worst situation. Consider the value of your property as a motivator because in an uncontrollable blaze your house can burn to ashes in minutes.

We each have to create a “Defensible Space” around our homes to increase our chances of surviving a wildfire event. One way to start is to replace our wood siding with non-combustible products such as stucco, concrete, or Hardie-plank.

Roofs are the part of the house most vulnerable to wildfire because can fine fuels like dead leaf litter, twigs, and needles accumulate there. Clean your gutters and roof valleys so rainwater can flow freely starting in November, our rainiest month, and again in late spring to remove fine fuels. Let no windblown ember have the chance to start a fire on your rooftop. We recently re-roofed our house with a poly vinyl material,

which may not be fire retardant; so we've asked our roofer for advice. Most of our outbuildings have metal roofing, which is relatively safe. Matt says roofs with cedar shingles should be replaced with fire-resistant Class A asphalt, slate, metal, clay tile, gypsum, or synthetic composite. There is no such thing as fire PROOFING your roof, only making it fire resistant. I realize as I type that fire mitigation may be costly or even prohibitive. Still, we may need to make these hard safety calls.

A less costly way to start is by managing vegetation within 30 feet from our homes and structures. Here, you should focus on your planting removal, thinning, blowing and chipping.

Zone 1 is your immediate first 5' of Defensible Space around your entire house and decks. Fill this space with rocks, stones, gravel paths, cement sidewalks and occasional low, water-filled groundcover. Fall City generally has abundant medium and large round river rock in our soil that looks natural in our environment. I grit my teeth just thinking about clearing out most of my plants in my own Zone 1. If you are lucky enough to have a firebreak or gravel path within that 5' of Zone 1 around your house, the gravel will protect a few lower, fire resistant plants (under 2' tall) within that 5' perimeter.

Next, make your leaf blower your best friend: use it in Zones 1 and Zone 2 (the perimeter between 5' and 30' from the dwelling) to keep all fine fuels blown clear on a scheduled basis. Fire burns through anything dead on the ground: dead trees, downed branches, leaves, dried grass, and log piles too close to the house; so locate wood piles fully 30' away from dwellings. Schedule regular bi-annual pruning up and raking anywhere you can imagine fire burning in Zones 1 and 2. Good Firewise communities may even extend the clean-up of forest debris beyond their own property lines if neighbors agree and share in the work.

Firewise programs often have and rent chippers to reduce woody debris into manageable biomass. Damp wood chips burn slowly, if at all; and

wood chips break down into carbon when spread around the base of trees. Keep them moist during hot weather.

More about the Zone 2 Defensible Space extending 30' around your house: Any gravel or paved paths or driveway you have within Zones 1 and 2 serve as effective firebreaks. Zone 2 Defensible Space should be "lean, clean, and green." Small trees planted with 18' distance from crown to crown should be pruned 8-10' above the ground. Plant acceptable\* groupings of low, fire resistant plants away from these trees. Turfgrass, some species of ornamental grasses, evergreens, and deciduous shrubs are all good choices. Pathways, rock walls, and hardscape features also provide firebreaks if a fire does break out. Dry streambeds and streams for water features are also beautiful and can provide nonflammable surfaces.

\*Librarians from the U.W.'s Center for Urban Horticulture Elisabeth Miller Library agreed to send horticultural fire resistant plant lists of groundcover, succulents, shrubs and trees which will be posted. Look on [www.fallcity.org](http://www.fallcity.org) or at [www.kingcd.org](http://www.kingcd.org) for fire resilient plant lists. Native Americans used to burn forests regularly to rid forests of fire debris. Since native plants have accommodated to periodic wildfires and preventive burns, they have evolved as thinly branched, non-resinous, deciduous trees, making them a good choice. Also look for a list of nearby native plant nurseries posted at [www.fallcity.org](http://www.fallcity.org).

If you are fortunate enough to have an in-ground irrigation system, it is most effective to use at night. Keep in mind you want moist -- not soaking -- soil and root systems for your grass, plants, and trees.

Within Zone 2's 30' defensible space, limb up the fire-tolerant, deciduous trees to 8'-10' with no greenery under their branches that could serve as burning "ladders" to the raised limbs and tree canopy. Fire ladders like vines will serve as quick upward paths for flames to ignite lower branches, and any plants 3' or higher, woody debris, low hanging branches, leaning dead trees, or wooden fences near the base of the tree should be removed.

Bear in mind that one size does not fit all when it comes to managing trees. For example, Matt inspected our huge, signature double-trunked cedar tree, which I dreaded removing. Matt pointed out that its location 30-feet from the house and between a gravel path and road, and flanked by a sand horse-arena would protect it from fire. Matt told me to limb it up 10' and to maintain foliage at that height.

Zone 3 is the 30 to 100 feet from the house and requires annual maintenance. Between-tree-spacing should be even more generous. You can add space between shrubs with acceptable pruning practices along with removal of loose grasses, weeds, and leaves from beds to reduce fire fuel. Tree canopies should be kept 15' apart ideally, but if winds are high, embers can ride hundreds of yards ahead, and all bets are off.

Properties that don't have the full 30-to-100 foot perimeter should look to the neighboring properties to determine what the planting plan looks like there. Neighborhood awareness is important so that everyone can get on the same management plan. Many Firewise communities develop group efforts to encourage Firewise plantings and even award prizes for inspirational efforts.

On a recent ski trip in Bend, OR, along the road to Mt. Bachelor ski area, I saw a well-spaced forest on bare ground, with fire debris deliberately removed. I could have spotted a deer or dog 200 feet away through those woods. Lazy smoke rose slowly from deliberately set debris piles still burning next to a few trees. People are taking action.

I'm a horse owner with a truck and trailer rig parked facing uphill; so Matt suggested that I turn my trailer around to point downhill to speed loading and driving off property. My horse acreage has a 1.3 acre pasture and small sand arena that can serve as fire break areas where animals could be moved safely.

If you live on hilly property, remember fire travels upward, and property generally burns up from any fire started by a car spark or cigarette butt at the bottom. That's all it would take to ignite dry, woody debris. Require at least limbing-up and/or removal of trees too close (10-15') to buildings as well as leaning, dead trees uphill of major roads that are typically at the foot of the hill. Forest floor debris such as accumulated leaves, twigs, branches, bushes over 3' tall will need to be cut, blown out, and removed.

Farms can have multiple structures from small woodsheds, to barns, to the main residence. The main residence is the only building Firewise aims to protect. The other structures are generally deemed sacrificial buildings unless the same planting practices of non-burnable gravel paddocks, paths, driveways and low grass pastures are present.

Firewise plants have these characteristics:

1. They have a low volume of total vegetation.
2. They have low sap or resin content. These conifers are resinous: juniper, pine, cedar, spruce, and arborvitae.
3. The moisture content of leaves is the single most important factor, followed by open branching habits, fewer total branches and no tendency to collect and hold dead material. Deciduous tree leaves have higher moisture content and their basic chemistry is less flammable.

For starters\* here is a list of fire resistant plants: yarrow, coreopsis, lavender, yucca, monkey flower, daylily, Western redbud, sea thrift, Stonecrop, California lilac, manzanita, red hot poker, bugleherb or ajuga, sage, agave or aloe and bergenia, geranium, coral bells, penstemon, Rosemary, stone or ice plants California fuscq, lamb's ears, lily of the Nile, river birch or betula nigra.

4. A plant may shed its leaves or needles during extreme drought. Smaller leaves or thick water-filled leaves such as succulents are drought tolerant.

I watched a Firewise video of a gardener who grew hundreds of succulents around her house in Northern California and gave her neighbors on either side their offspring or “pups”, which they planted. When a huge wildfire engulfed their neighborhood, a firefighter was thanking this gardener whose house and two neighbors’ homes were the only standing structures as the camera panned around a desolate burned-to-the-ground neighborhood, which included charred cars.

There are many plant resources available for homeowners. [Firewise USA Program](#) is a project of the National Fire Protection Association, with information about firewise gardens available in Oregon, Washington, and Idaho. The [Washington State University Extension](#) program has a lot of information including plant lists and methods. British Columbia has good information available from [BC FireSmart Committee](#). [Firescaping and Wildlife Recovery: An Interview with Douglas Kent](#).

The librarians at the Center for Urban Horticulture’s Elisabeth Miller Library will send several Firewise plans with extensive horticultural lists. Look for these lists at [www.fallcity.org](http://www.fallcity.org)

Above all, if this article raises questions about your property, do call Matt Axe at (425) 282-1931 out for a visit to assess your particular situation with respect to wildfire risk, forest resiliency, and your defensible space. He is an amazingly valuable resource.

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