A New Angle on Wildfire

Challenging longheld views and coexisting with wildfire in a fire-prone West

By Ralph Bloemers

The wildfires burning throughout the West in recent summers have captured the public's attention and heightened the call for solutions. Heat waves in the Pacific Northwest and hurricanes in the Gulf of Mexico and Atlantic Ocean have increased a feeling of vulnerability to natural disasters nationally.

Recent winters in the Pacific Northwest have delivered record amounts of rainfall and severe winter storms, while summers have been marked by the longest recorded periods without significant rainfall, leading to abnormally dry conditions in our forests.[1] The wildfire season in the West has lengthened from an average of five months to seven months, and the number of large fires of over 1,000 acres has nearly doubled.[2] Humans start more than 80 percent of wildfires nationwide, and an estimated 40 million homes are now in harm's way, resulting in skyrocketing suppression costs.[3]

So it's understandable that wildfire is a topic of major public concern in the West. People tend to associate fire with death and destruction and often assume that fire consumes every acre of forest in its path, leaving permanently barren earth behind. Media coverage tends to reinforce this picture, often using words like "catastrophic," "moonscape," and "destroyed" to describe the effects of fire on a burned forest, even if no harm has come to homes or communities.

Dominant cultural beliefs reinforce the public's misunderstanding of fire.[4] These immediate reactions are largely a result of being conditioned by popular cultural icons, like Smokey Bear, to think that all fire is bad, that it destroys forests and wildlife, and that it can be and must be put out. According to Roderick Nash, a prominent scholar of American wilderness values, the movie *Bambi* has done "more to shape American attitudes toward fire in wilderness ecosystems than all the scientific papers ever published on the subject."[5] Since the 1880s, federal fire management policy has been framed by the war metaphor: "fighting fire." Smokey Bear was, in fact, created by the War Advertising Council (now the Ad Council) working at the behest of the U.S. Forest Service, which promoted militaristic slogans on fire prevention posters. Since that time, federal agencies have waged a seemingly endless and escalating war against fire in our wild lands. Compounding the bind we find ourselves in today, the West enjoyed an extended wet period of less favorable conditions for fire from the late 1930s to the late 1980s, thus enhancing suppression of "good" fires and creating the perception that we have a greater ability to put out large fires than we in fact do.

Along with a fear of fire, our dominant desire is that our parks, scenic areas, and forested wilderness be preserved as we know and enjoy them now. While we treasure the Columbia River Gorge and Yellowstone National Park for their wildness and dynamism, the paradox is that we think disturbance, like fire, harms them. If we look carefully in our favorite green old-growth forests, however, we can find countless signs of past fires—standing dead trees, hollowed-out logs, charcoal in the soils, meadows of wildflowers and great views. And when we visit Mt. St. Helens, we find interpretative signs telling us about the prolific recovery of forests after the cataclysmic blast, even though at first people thought all was lost.

The dramatic example of the recovery of forests around Mt. St. Helens supports a very different way of understanding fire. Experts who have studied burned landscapes tell us that fire is a natural and inevitable force on western landscapes. Fires provide opportunities for renewal and new life. Old growth firs and Ponderosa pines have thick bark designed to withstand fires. Wildlife flees or takes cover, and there are many plants and animals that benefit from fire. Fire ecologists, wildlife biologists, and forest

The forests around Cascade Locks burned before, emerged gorgeously, and have burned again. The cycle continues. *Photos courtesy of Jurgen Hess*

The Eagle Creek fire burned in a patchy mosaic leaving many green trees behind.

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scientists tell us that fire helps restore forests and provides rich habitat favored by wildlife such as woodpeckers, owls, and elk. The forest is resilient and able to recover naturally, without intervention. Our wild places have coexisted with fire for millennia.

By focusing our energy where it matters, we too can coexist. Of course, when a fire happens near homes and communities, corralling the fire and keeping homes from burning is entirely necessary and appropriate. Fires destroy property and endanger lives, and we must defend our communities. But what is the best way to do that? While some policymakers continue to propose thinning broadly across the landscape far from homes, experts tell us that doing so releases more carbon than fire (the trunks of trees hold the majority of the carbon, and this carbon is released through logging) and that doing so is not likely to reduce the risk from, or incidence of, large fires, which are largely driven by wind and drought. Clearly though, fire is threatening our communities in ways that it did not before the West was settled. We now have millions of homes in the "fire plain," and we have yet to plan for or limit future development in these fire-prone areas. We don't have universal building codes requiring that homes be hardened against fire.

We have millions of acres of forestlands, grasslands, and shrublands that may burn, and scientists are telling us to prepare for increased drought. Recent fires force us to reconsider what policies we need and what resources we must deploy to ensure our communities are up to the challenges ahead. As we experience big fires in treasured landscapes like the Columbia River Gorge and the Methow Valley—places that inspire us and bring tourist dollars to the region—we worry about how the forest will emerge from the burn. We wonder whether there is anything we can do to help it recover. And as we suffer from the health impacts of smoke from fires burning across the West and Canada, it becomes harder to accept the benefits of lighting prescribed burns that help clear out fire fuels in other seasons.

Dominant cultural beliefs, financial interests in resource extraction, past mismanagement, and the development of homes in the fire plain have all converged to make moving from emotion to rational solutions for managing fires very challenging.

MOVING TO SOLUTIONS

While the science may be hard to hear, we really have no choice but to heed it and learn to coexist. Firefighting and fire suppression resulted in fewer fires during the 20th century, but as we move into a hotter climate, we must be proactive. According to Commissioner of Public Lands Hilary Franz, we must do more prescribed burning in Eastern Washington forests to catch up on the deficit resulting from decades of suppression.[6]

Recent scientific studies from top forest experts in the Pacific Northwest measure the costs and benefits of our land management activities on fire, water supplies, and carbon storage. Researchers recently completed and published studies showing that tree plantations burn hotter than natural forests, suggesting that heavily logged and managed private lands pose greater risks than wild forests. Studies have also been published showing decreased water storage capacity and less carbon in intensively managed plantation forests. A large-scale analysis of fire-severity patterns in the West from 1984 to 2014 found that national parks, wilderness, and others areas with the most restrictions on logging tended to burn at lower severity than national forest lands with fewer restrictions on logging.[7]

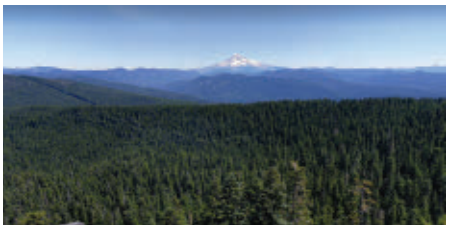
Despite what the scientists and thoughtful reporting might tell us, people are impatient for forests to come back: we want to speed up recovery to meet human timelines. American narratives and stories of people managing the forests also drive responses based on short-term thinking. Common responses include: "Don't let it rot and go to waste," and "salvage-log the dead trees to provide much-needed jobs, replant, and get our forests back quicker." However, the Pacific Northwest's most knowledgeable scientists have stated unequivocally that logging forests after a fire sets back forest recovery and increases fire risk.[8]

EMERGING GORGEOUSLY AFTER THE FIRE

Since the Eagle Creek fire burned in the Columbia River Gorge late in the summer of 2017, I have spent countless hours visiting and talking with people in the communities directly affected by the fire. I have observed fire-burned areas from the air and visited them on the ground. I have talked at length with forest scientists and reviewed all manner of policy options. Here is what I have witnessed firsthand and learned

from the experts:

While firefighters fought valiantly to defend homes in Cascade Locks, Hood River, and Corbett from the fire, it was ultimately the weather that drove the fire (drought and wind) and weather again (heavy rain and no wind) that put the fire out. The media described the fire as consuming nearly 50,000 acres of forest, yet experts have surveyed the forests from the air and the ground and determined that only 17 percent (approximately 8,000 acres) burned at high intensity. Even the forests that burned intensely were not destroyed. Instead, these forests now provide a free-for-all environment for young animals and plants to thrive. Nature is constantly moving forward.



The forests of the Gorge burned in the 1930s and became the green forests we enjoy today. This is the view from Sherrard Point on Larch Mountain looking east to Mt. Hood.

Historic photo courtesy of United States Forest Service and present day Wikimedia commons

Many of our treasured trails have been seriously impacted and remain closed. I have volunteered on trail crews organized by the Washington Trails Association, Pacific Crest Trail Association, and Trailkeepers of Oregon to rebuild the Pacific Crest Trail, the Angel's Rest Trail, McCord Creek, and others. Although the trails are in need of significant repair, the forests around them are alive and well. We have enjoyed wildflowers and wildlife as we worked, clearing back young vegetation from the trails. We have enjoyed interesting geology not previously visible and new views. The forest is emerging gorgeously.

All the forests we enjoy today have burned at one time or another. I have visited historical museums in Stevenson, Hood River, and Cascade Locks and dug through the archives to find photos to document the extent of fires in the Gorge. I have located photos showing extensive burns throughout the Gorge and in the Gifford Pinchot and Mt. Hood National Forests, places where today we enjoy old-growth green forests. And I have worked with a *National Geographic* filmmaker to document the prolific and rapid emergence of new plants after the fire through time-lapse cameras set to take a handful of photos every single day since the fire was extinguished.

This year, I was invited to spend time with elementary school kids and science teachers to help them address the trauma of the recent fires on their community and to help the kids develop a sense of agency about the future. The kids told us their evacuation stories, learned about the actual extent of the fire, and viewed early footage from the time-lapse cameras. We spent three hours in the charcoal forest and witnessed first-hand the prolific recovery, which served as a perfect metaphor for the kids' own resilience and healing.[9]

While Washingtonians face big challenges ahead as snowpack declines, temperatures rise, and the fire season lengthens, we can do a lot to prepare ourselves and to develop a sense of agency to meet the challenges posed by wildfire, for our communities and our children. By vigorously confronting the legacy of fire suppression and following the best available science, we can make smart decisions going forward about how we deploy our resources to build resilience in priority areas.

There are at least three very practical things that we need to do more of to protect communities.

First, we must support the retrofitting of homes in the fire plain to withstand the primary cause of structure loss: wind-driven embers setting homes ablaze. Some local governments in California have made such home retrofitting mandatory and have achieved great success in preventing structure loss.

Second, we must increase community safety by strategically thinning within 100 feet of houses in the wildland urban interface, not logging the backcountry.[10]

Third, we must increase the use of prescribed fire and controlled burns to thin forests without removing the medium- and large-size old trees. And while meeting these challenges, we must not forget to get out and enjoy the forests, whether they are verdant old growth or young forests emerging after a burn.

By reconsidering our relationship with fire and coming to terms with our limited ability to control it, we will be better able to plan for and spend our resources wisely to face the challenge. NWL

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The young forest rapidly emerges within just six months after the Eagle Creek fire.

Photos courtesy of the author

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