September 27, 2021

The Science is Clear, Catastrophic Wildfire Requires Forest Management

By Steve Ellis

Last year was a historically destructive wildfire season. While we haven't yet seen the end of 2021, nationally 64 large fires have burned over 3 million acres. The economic damage caused by wildfire in 2020 is estimated at $150 billion. The loss of communities, loss of life, impacts on health, and untold environmental damage to our watersheds—not to mention the pumping of climate-changing carbon into the atmosphere—are devastating. This continuing disaster needs to be addressed like the catastrophe it is.

We are the National Association of Forest Service Retirees (NAFSR), an organization of dedicated natural resource professionals—field practitioners, firefighters, and scientists—with thousands of years of on the ground experience. Our membership lives in every state of the nation. We are dedicated to sustaining healthy National Forests and National Grasslands, the lands managed by the U.S. Forest Service, to provide clean water, quality outdoor recreation, wildlife and fish habitat, and carbon sequestration, and to be more resilient to catastrophic wildfire as our climate changes. We are pleased that much of the American public and Congress seem supportive of action to alter our current terrible path to continuing wildfire disasters.

We are, however, dismayed at the proliferation of misinformation about what can be done about wildfires. More work is needed to address many issues within the wildland-urban interface (in which people live in proximity to forestlands) and, of course, the national and global priority of climate change. Alongside this work, reducing fuels by thinning forests followed by prescribed burning—especially in our western mixed conifer and ponderosa pine forests—is essential. Such work must be increased quickly on a landscape scale if we are to even begin to save our forests and communities.

Small treatment areas, scattered "random acts of restoration" across the landscape, are not large enough to make a meaningful difference. Decades of field observations and peer reviewed research both document the effectiveness of strategic landscape fuel treatments and support the

pressing need to do more. The cost of necessary treatments is a fraction of the wildfire damage such treatments can prevent. Today's wildfires in overstocked forests burn so hot and on such vast acreages that reforestation becomes difficult or next to impossible in some areas. Soil damage and erosion become extreme. Watersheds which supply vital domestic, industrial, and agricultural water are damaged or destroyed.

Restoring our forests to a more natural level of tree density does not mean clear-cutting and does not mean removing the largest trees. It does mean striving for and achieving forests which can withstand wildfire without massive damage to forests, wildlife, watersheds and communities. Research now shows that, in California before European settlement, most forest types contained around 60 trees per acre. Today it is 300 trees per acre, helping to make the incredible fire behavior and damage we now see more and more common.

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This summer, America watched with great apprehension as the Caldor Fire approached South Lake Tahoe. In a community briefing, wildfire incident commander Rocky Oplinger described how active management of forestlands assisted firefighters. "When the fire spotted above Meyers, it reached a fuels treatment that helped reduce flame lengths from 150 feet to 15 feet, enabling firefighters to mount a direct attack and protect homes," *The Los Angeles Times* quoted him.

And in a *Sacramento Bee* interview in which fire researcher Scott Stephens was asked how much consensus there is among fire scientists that fuels treatments do help, he answered "I'd say at least 99%. I'll be honest with you, it's that strong; it's that strong. There's at least 99% certainty that treated areas do moderate fire behavior. You will always have the ignition potential, but the fires will be much easier to manage." I don't know if it's 99% or not, but a wildfire commander with decades of experience recently told me this figure would be at least 90%. What is important here is that there is broad agreement among professionals that properly treated landscapes do moderate fire behavior.

During my career, I have personally witnessed fire dropping from tree crowns to the ground when it hit a thinned forest. So have many NAFSR members. This is an issue where scientist and practitioners agree. More strategic landscape treatments are necessary to help avoid increasingly disastrous wildfires. So, the next time you read or hear someone say that thinning and prescribed fire in the forest does not work, remember that nothing can be further from the truth.

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