

Comments at Federal EPA Hearing on the new Proposed Ground-Level Ozone Standard.

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Testimony of Craig Thomas, Conservation Director

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Thank you for the opportunity to speak at today's hearing on the new proposed rule on Ground-Level Ozone Standards.

Sierra Forest Legacy is a coalition of over 80 conservation organization focused on national forest management on the eleven National Forests of the Sierra Nevada and the approximately 11 million acres managed by the US Forest Service.

Sierra Forest Legacy understands and supports the public health concerns expressed in the new rule package and the need for clean air throughout the differing regions of the country.

Ecologically, elevated Ozone levels are also harming needle of important pine species in the Sierra Nevada.

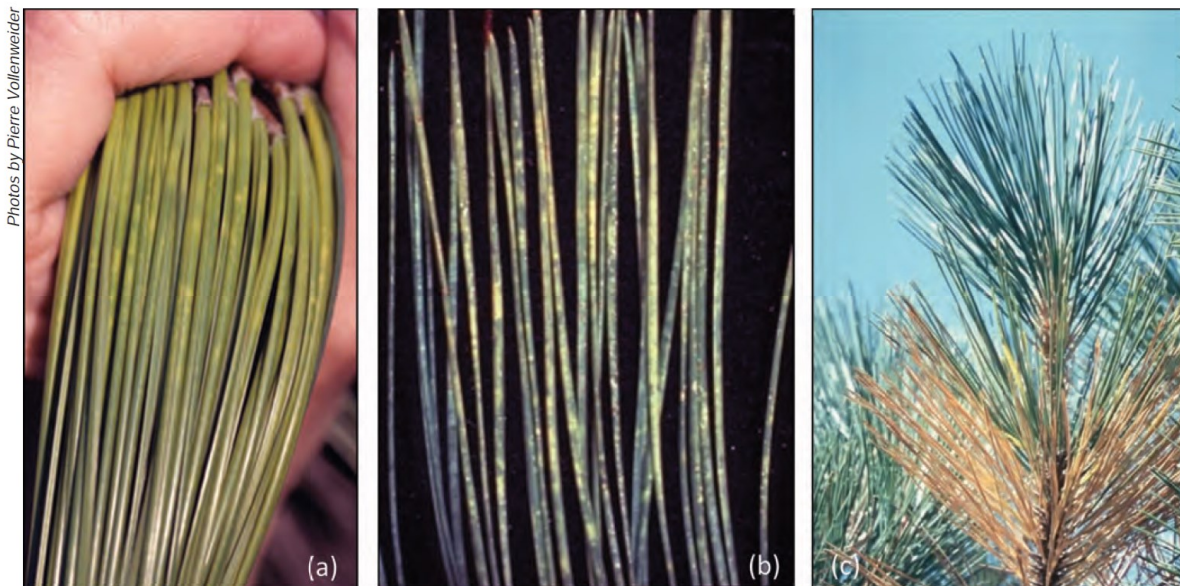


Figure 3—Symptoms of severe ozone injury in ponderosa pine foliage include chlorotic mottling of current-year foliage (a) and older foliage (b), senescence or yellowing (c), and premature falling off of older needles.

From: The Sierra Nevada Science Synthesis, PSW-GTR-247 Vol. II--Chapter 8.1

While we share and support the need for protection of public health, Conservation Organization, Research Scientists and Forest Service land managers share one significant concern regarding the Proposed Ground-Level Ozone Rule:

The concern is that the proposed regulations not limit the ability of land managers to use natural ignitions and prescribed fire as a critical land management tool.

Fire is the primary natural disturbance process that regulates fuel build-up, enhances biodiversity (snag creation, large logs, seed scarification, etc.), recycles nutrients, creates various patterns of vegetation heterogeneity that limits uncharacteristic fire, and many other functions.

Historical Fire (Natural Background)

In the pre-1800s landscape, fire had a much larger, natural role in ecosystem regulation. In a recent fire paper (Stephens et al. 2007) researchers noted that the “estimates of prehistoric annual area burned in California is 88% of the total wildfire area in the entire US during a decade (1994-2004) characterized as ‘extreme’ regarding wildfires”. Fire researchers noted that, “approximately 1.8 million ha (3.4 million acres) burned annually in California prehistorically (pre-1800).” The approximate fire estimate for the Sierra Nevada is 500,000 acres/year.

This historic or background natural disturbance level is what many scientists and natural historians characterize and the natural or pristine condition of the past. It is a condition that “delivered” the resilience that is missing from these vary landscapes today. Re-introducing fire to the Sierra Nevada is a key ecological restoration goal of the Forest Service in 2015.

Recent research suggests increased fire treatments are essential to maintain and increase forest resilience in the Sierra Nevada.

In recent research by forest ecologist **Dr. Malcolm North** and others (North et al. 2015) noted that, approximately 10.7 million acres of national forest ownership in the Sierra Nevada contain roughly 58% productive forest land. With 25% of those acres available for mechanical treatment. In other words, if we can only restore 25% of the Sierra Nevada using mechanical treatments (which then need fire as a follow-up treatments), the other 75% will either be “managed” by unplanned wildlife OR a thoughtful, science-based use of natural ignitions and prescribed fire. Planned prescribed fire use or the appropriate use of natural ignitions significantly limits the precursor emissions that contribute to ozone pollution.

In another recent 2015 paper **by Dr. Marc Meyer**, Forest Service Zone Ecologist for the southern Sierra Nevada, looked at fire severity indicators and at the effects of natural ignitions (fires used for resource objectives) verses effects of fire suppression compared to the science-based references of the natural range of variation (NRV) of fire effects, and found that “resource objective fires” . . . “were overwhelmingly within the natural range of variation.”

Meyer noted that most fires managed for suppression objectives fell outside the range of NRV for high severity fire effects (proportions and patch size).

Dr. Lee Tarnay, air quality expert for the National Park Service (now with the Region 5, PSW Research Branch) has also gathered ozone emissions information from burns in Yosemite National Park that demonstrate the limited duration of such emissions in the air shed. We will submit more information regarding ozone monitoring in the YNP in our written comments.

Burning and Protecting Public Health

Sierra Forest Legacy and the Forest Service in Region 5 (Sequoia National Forest-Hume Lake District) have recently partnered with the Fresno-Madera Medical Society and others to establish an Air Quality Alert Notification System to utilize timely and best available weather information to make direct contact with the air-quality challenged communities of the southern Sierra Nevada through their physicians, school nurses and the public health community. The purpose is to alert them to a pending prescribed fire, the ecological need for such fire as a restoration tool AND to give them advanced notification of the event so they can better protect themselves and their families from the impacts of short-duration smoke in their communities. There has been a very positive response from San Joaquin Air Board staff and the Fresno Area Lung Association in developing this notification system.

The Bottom Line: We request that while you consider new limits on ozone emissions for California to protect public health, do not limit the ability of land managers to use fire as a natural disturbance process and as a critical restoration tool. Treat the major ozone pollution sources (automobile and diesel exhaust, coal plants and other stationary sources) and recognize that fire suppression efforts have largely failed to limit resource damage in the Sierra Nevada and large uncharacteristic high severity fires have contributed to increased emissions. Fire is not a choice in the Sierra Nevada but it can be planned for and used for significant positive ecological benefits while limiting uncharacteristic fire effects and the increased emissions that these events are associated with.

Submitted referenced papers and this testimony at the Sacramento hearing.