

EPA-HQ-OAR-2015-0072

Comments submitted by the National Association of Forest Service Retirees on the EPA proposed rulemaking on fine particulate matter, PM_{2.5}

The National Association of Forest Service Retirees (NAFSR) is a national nonprofit membership organization that represents thousands of US Department of Agriculture (USDA) Forest Service retirees who are dedicated to: sustaining the heritage of caring for the National Forests and Grasslands, partnering with the Forest Service (FS), and helping understand and adapt to current and future challenges.

On January 6, 2023, the U.S. Environmental Protection Agency (EPA) announced a notice of proposed rulemaking to the national ambient air quality standards (NAAQS) for fine particle pollution, also known as fine particulate matter, or PM_{2.5}. The EPA is proposing to:

- Revise the level of the primary (health-based) annual PM_{2.5} standard from **12.0** micrograms per cubic meter (µg/m³) to a level within the range of **9.0 to 10.0 µg/m³**.
- The EPA is also soliciting comment on revising the level to as low as **8.0 µg/m³** and up to **11.0 µg/m³**.
- The EPA is proposing to retain the primary 24-hour PM_{2.5} standard at the level of 35 µg/m³.

The National Association of Forest Service Retiree's (NAFSR) is concerned that this proposed rulemaking will reduce the Nation's ability to implement strategies intended to reduce unwanted wildfire effects on communities and wildlands, including barriers to increasing the pace and scale of prescribed burning. NAFSR is also concerned that this rulemaking may be in conflict with the current direction to land management agencies to decrease wildfire risk across our landscapes and threats to our communities. The key to effectively reducing negative effects of wildfires and their smoke is reducing high fuel loadings in areas vulnerable to wildfires via managed or prescribed burning.ⁱ

The frequency and magnitude of wildfires continues to increase across our landscapes, driven in part by changing climatic patterns that are beyond land managers' control. Land management agencies, private landowners, and non-profit and public safety organizations are committed to implementing strategies to reduce the negative effects of these wildfires, which in turn reduces the impact wildfire smoke has on air quality and the public. The constituents and concentrations of wildfire smoke can vary considerably depending on what's burning—residential areas add more constituents and boost PM_{2.5} compared to fires burning just on forest or rangeland fuels.

Using managed or prescribed fire to reduce hazardous fuel loadings or accomplish essential resource management activities is choosing the best times, safest practices, and key areas to reduce high fuel levels. Wildfires, on the other hand, often happen at the worst times, take advantage of high fuel loadings, and exacerbate threats to safety of communities, residents, and firefighters.

Recent legislation¹ provided fresh direction and additional funding to the United States Department of Agriculture Forest Service and the Department of the Interior to work with State partners and community leaders to implement strategies, including the use of prescribed fire, to reduce the unwanted effects of wildfires.

NAFSR believes that the proposed rule change will:

1. Result in an increased number of non-attainment areas under EPA air quality (AQ) standards.
 - a. Lowering the annual PM_{2.5} standard will probably reduce the opportunities to conduct managed or prescribed burning by disallowing or significantly reducing the times when prescribed burning can be safely conducted, due to more stringent smoke management standards.
 - b. Air management agencies, in an effort to meet the more stringent EPA standards, are more likely to deny requests to waive the identified AQ standards during times when weather conditions are most conducive to prescribed burning.
2. Further complicate the “Exceptional Event” rule (EER) and associated data reporting.
 - a. Air agencies are already tasked with complicated data collection and reporting to effectively disregard smoke from wildland fires from the AQ standards; and, prescribed burners’ time is burdened with the required reporting and response to exceedance of the AQ standards.
 - i. Simplifying the EER reporting, for both air agencies and burners, is recommended.
 - ii. Developing and implementing exceedance prequalification processes, based on “trade-off” analyses, is recommended. (trade-offs analysis to include wildfire smoke vs. prescribed smoke and the benefits.)
 - b. In the past, EE adjustments for wildfires were sometimes refused by regional EPA offices, further limiting opportunities to used to burn piles of fuels and protect neighborhoods.
3. Reduce the number of days when prescribed burning (outside non-attainment area issues, as noted above) can be safely implemented.
 - a. Preliminary research suggests that some areas could see a reduction in available burn days of 70-80 percent.
 - b. The already-rigorous requirements to conduct prescribed burns result in less smoke with shorter and smaller geographic effects than wildfires and produce greater positive benefits for forests and communities.
 - c. Over 75 percent of prescribed fires nationally occur in southern states as a tool in forest management. However, the wildfire threats and impacts are more profound in the western states, and since prescribed fire is increasingly and exceptionally challenging in the west, any smoke approval challenges further exacerbate the problem.

¹Bipartisan Infrastructure Law; and Inflation Reduction Act

4. Increase particulate matter and carbon emissions from wildfire and reduce carbon sequestration:
 - a. Prescribed burning consumes less biomass than wildfires²; a reduction in prescribed burn opportunities will further increase acres burned by wildfires, resulting in increased emissions and particulate matter.
 - b. Reductions in acres of healthy forests leads to lower carbon sequestration opportunities.
5. Do little to restrain and reverse the recent significant increases in community and residential area damages from western wildfires—increases estimated at 250 percent in some recent studies.³
 - a. When wildfires burn through neighborhoods, the smoke generated from the combustion of synthetic products used in construction and home furnishings and in vehicles and equipment contains more harmful particulates and other chemicals than smoke from burning forest or rangeland vegetation.
 - b. Smoke from large-scale wildfires travels further and affects more people than smoke from prescribed or managed fires whose area is often measured in hundreds of acres.
 - c. By preventing and/or reducing significant wildfire events through the use of fuels treatments and prescribed fires has the ultimate benefit of improving air quality and reducing the release of more harmful pollutants.

¹Samuel L. Altshuler, Qi Zhang, Michael T. Kleinman, Fernando Garcia-Menendez, Charles Thomas (Tom) Moore, Merlyn L. Hough, Eric D. Stevenson, Judith C. Chow, Daniel A. Jaffe & John G. Watson (2020) Wildfire and prescribed burning impacts on air quality in the United States, Journal of the Air & Waste Management Association, 70:10, 961-970, DOI: [10.1080/10962247.2020.1813217](https://doi.org/10.1080/10962247.2020.1813217)

² Prescribed Fire as a Means of Reducing Forest Carbon Emissions in the Western United States, Wiedinmyer et al (2010)