The Nature Conservancy
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Oregon Smoke Management Review Committee
2600 State Street
Salem, Oregon 97310

To the members of the Oregon Smoke Management Review Committee:

On behalf of The Nature Conservancy, I am writing to urge the Oregon Department of Forestry and the Oregon Department of Environmental Quality to carefully consider a more holistic approach to managing smoke emissions from prescribed fire.

After nearly a century of aggressively suppressing fires, many of our fire-adapted forest ecosystems are overly-dense and in need of restoration. As a science-driven organization, The Nature Conservancy's team of forest scientists and fire managers are focused on understanding and applying the best available science to the challenge of restoring Oregon's fire-adapted ecosystems. And the science is clear: to effectively reduce wildfire severity and effects, forest restoration ***must*** include a combination of thinning and prescribed fire. Neither treatment alone is sufficient.

Like all Oregonians, we care deeply for clean, healthy air, particularly for members of our communities who are medically-sensitive or vulnerable to smoke. Yet, we also recognize that to stem the tide of increasingly severe wildfire and wildfire smoke in the long run, we need meaningful reforms to Oregon's Smoke Management Plan that provide greater flexibility and opportunity to increase the safe and effective use of prescribed burning.

We believe both goals – public health and increased use of prescribed fire – can be accomplished with the following strategic revisions to the state's smoke management rules and directives:

1. The Oregon smoke management rules and directives should **include three distinct forest regions** (Eastern, Northwest, and Southwest). Like the Oregon Forest Practices Act, which distinguishes three forest regions within the state, we believe a parallel classification would better reflect differences between dry and wet forests and allow key stakeholders within each region the opportunity to collaborate on locally-appropriate prescribed burning that better account for the important ecological, economic, and social reasons for using prescribed fire in each forest region.

2. The Oregon smoke management rules and directives should **redefine smoke incidents and intrusions to be consistent with the federal Environmental Protection Agency's 24-hour National Ambient Air Quality Standard and Air Quality Index for PM2.5**. The EPA's science-based thresholds for public health concerns posed by PM2.5 exposure should be utilized in Oregon's definition of smoke incidents and intrusions so it accurately reflects the public health impacts of smoke exposure. Measuring smoke impacts and mitigating exposure could be further improved with additional metrics capturing the spatial extent and timing/time of day of smoke

incidents and intrusions. The following table illustrates how a redefinition of smoke intrusions could be linked to the EPA's NAAQS and AQI framework.

Air Quality Index	Level of Health Concern	National Ambient Air Quality Standard (24-hour Average)	Recommended Oregon Smoke Management Plan Intrusion Level
When the AQI is in this range…	*…air quality conditions are…*	*…corresponding to a PM2.5 range of…*	*…and the following intrusion definition.*
0-50	Good	0-12 $\mu g/m^3$	None
51-67	Moderate	13-20 $\mu g/m^3$	Light
68-84		21-28 $\mu g/m^3$	Moderate
85-100		29-35 $\mu g/m^3$	Heavy
101-150	Unhealthy for Sensitive Groups	36-55 $\mu g/m^3$	NAAQS Violation
151-200	Unhealthy	56-150 $\mu g/m^3$	NAAQS Violation
201-300	Very Unhealthy	151-250 $\mu g/m^3$	NAAQS Violation
301-500	Hazardous	>250 $\mu g/m^3$	NAAQS Violation

3. The Oregon smoke management rules and directives should **better reflect the essential use of prescribed fire in identified priority areas** within local landscapes and ownerships, and **provide maximum flexibility to accomplish essential forest burning in these priority areas**. We believe that increased allowance for smoke impacts at levels up to, but not exceeding, the federal 24-hour NAAQS threshold (i.e., 35 $\mu g/m^3$) is warranted if that smoke is generated by prescribed burning in pre-identified areas with high wildfire risk to locally-identified ecological, economic, and social/community values. We also believe this can be done safely when implemented in tandem with the public health mitigation/protection strategy suggested in the fourth recommendation.

4. The Oregon smoke management rules and directives should include a new component to **develop and implement a prescribed fire smoke and public health information strategy focused on mitigation and protection measures to reduce exposure to and impacts of short-duration prescribed fire smoke**. We recognize that with increased flexibility and opportunity to implement prescribed fire there may be an increase in short-duration smoke in our communities. However, we also recognize the importance of prescribed fire use in the long-term to sustain community health more broadly defined, particularly in communities where health and wellbeing are directly tied to forest health and resilience. We believe there are new and existing tools and tactics that could be better leveraged to allow for increased prescribed burning while still protecting public health.

In closing, we all need to work together to find a more holistic solution to prescribed fire and smoke management than what is currently provided. This summer's wildfires forced us all to consider a dire new reality: that while we may be reducing near-term exposure to smoke by limiting prescribed fire now, it comes at the expense of future Oregonians who will face increasingly severe wildfires and wildfire smoke. The solution to this problem can be found through the increased use of prescribed fire to reduce the severity of wildfires (and their smoke) and their far-reaching negative impacts on public health, local economies, community values, and the long-term resilience of our forests.

Respectfully,

Jim Desmond
Oregon State Director