

October 22nd, 2018

Dear California Air Resources Board (CARB):

We thank you for this opportunity to comment on the draft 2018 plan for the 1997, 2006, and 2012 PM2.5 NAQQS standards.

Since 1919, the National Parks Conservation Association (NPCA) has been the leading voice of the American people in protecting and enhancing our National Park System. NPCA is an independent, nonpartisan, nonprofit organization that, together with more than 1.3 million members and supporters, works to protect and preserve our nation’s national parks for present and future generations. Our members and supporters regularly visit and use national park sites within the San Joaquin Valley air district, including Yosemite, Sequoia, and Kings Canyon National Parks. It is on their behalf that I respectfully submit the enclosed comments.

1. **Yosemite, Sequoia, and Kings Canyon National Parks are severely impacted by PM2.5 air pollution originating in the San Joaquin Valley**

It is widely known that the San Joaquin Valley is the most polluted air basin in the nation, with the American Lung Association listing 4 valley communities as being in the top 6 dirtiest cities in the nation for fine particulate matter (PM2.5) air pollution. Less recognized, however, is the fact that air pollution originating in the valley often flows up into the Sierra Nevada—making National Parks like Yosemite, Sequoia, and Kings Canyon three of our country’s most polluted park units for air quality.[[1]](#footnote-1) Fine particulate matter air pollution is of particular concern for NPCA members and supporters because of its extensive impacts to human health, overall visibility, and the wellbeing of Sierra ecosystems.

* 1. Park Visitor and Employee Health

Visitors to Yosemite, Sequoia, and Kings Canyon travel to these parks expecting clean, breathable air, yet all-too-often are met by air quality worse than most major US cities.[[2]](#footnote-2) PM2.5 is a particularly dangerous air pollutant because, due to its size, it can be inhaled deep into the lungs and even enter the blood stream—leading to a variety of heath issues such as asthma, lung and heart disease, heart attacks and stroke, and even premature death.[[3]](#footnote-3) This is a major concern for the health of park visitors and staff, especially those taking part in the activities our parks have to offer, because when we exercise we can inhale up to 10 times as much polluted air deep into our lungs.

* 1. Visibility and Haze

As noted by EPA, “[p]article pollution also is the main cause of visibility impairment in the nation’s cities and national parks.”[[4]](#footnote-4) There are few places where PM2.5’s impact on national park visibility is more evident than in the Sierra Nevada. For instance, in Sequoia and Kings Canyon National Parks, manmade haze cuts down on an average of 90 miles of views when compared to natural visibility. In Yosemite, haze reduces visibility by an average of 59 miles. Because of its haze-forming properties, PM2.5 has an undeniable effect on the ability of visitors and employees to have a healthful experience and fully enjoy all these parks have to offer.

* 1. Sierra Ecosystem Impacts

Valley air pollution extends beyond the health and enjoyment of park visitors, it also directly impacts the wellbeing of vital Sierra ecosystems. Air pollutants found at elevated levels in the southern Sierra Nevada, including precursors to PM2.5 like nitrogen compounds and ammonia, have been linked to direct harms to plant life throughout the Sierra.[[5]](#footnote-5) For instance, according to researchers with the US Forest Service, “[n]itric acid at elevated levels may change epicuticular waxes and cause lesions on leaf cuticles; predisposing plants to the effects of droughts or pathogen attacks, while high concentrations of NH3 [ammonia] can also be phytotoxic.”[[6]](#footnote-6) Trees found throughout the Sierra, like the Jeffrey and Ponderosa Pine, are especially susceptible to the effects of air pollution. When coupled with impacts from other phytotoxic air pollutants, like ozone, these PM2.5 precursors may be a significant contributing factor in the ongoing tree mortality and wildfire crises facing the Sierra.[[7]](#footnote-7) Furthermore, these researchers note that nitric acid and ammonia from the San Joaquin Valley leads to excess nitrogen deposition in the Southern Sierra Nevada. This excess nitrogen deposition has been linked to negative effects on Sierra ecosystems “such as alteration of plant species composition, soil acidification; elevated concentrations of nitrate (NO3) in soils, streams, and groundwater; and increased the susceptibility of forests to drought and fires.”[[8]](#footnote-8) Nitrogen deposition stemming from air pollution has also been linked to increased algae blooms at high altitude lakes, with resulting impacts on Sierra aquatic life.[[9]](#footnote-9)

1. **The California Air Resources Board’s 2018 Draft PM2.5 Plan for Mobile Sources Relies Too Heavily on Aggregate Emissions that are not Concrete and Enforceable.**

NPCA thanks CARB staff for their continuing work on this complex and massive plan, and for their willingness to engage with advocates. NPCA also appreciates the level to which mobile sources account for the majority of emission reductions outlined in this plan. Unfortunately, similar to the District’s plan for stationary sources, we are concerned that CARB’s mobile source provisions do not go far enough to ensure compliance with CAA standards and to protect the health and well being of people and parks.

a. CARB’s Commitment to Aggregate Emission Reductions Lacks the Specificity Required for SIPs

While we are pleased to see the amount of tons per day NOx reductions expected from the “2016 state SIP strategy measures” and “proposed state measures for the valley,” we are concerned with the lack of certainty and specificity regarding several of the measures CARB seeks to claim credit for.[[10]](#footnote-10) For instance, NPCA is concerned that CARB is accounting for nearly a ton of NOx reductions per day from federal low-NOx standards that have not been enacted yet.[[11]](#footnote-11) CARB cannot reasonably rely on EPA to enact stricter regulations, especially considering that the current administration is actively seeking to undue clean air environmental regulations both here in California and across the nation. Similarly, CARB cannot depend on state legislative action, such as for the “heavy-duty vehicle inspection and maintenance program,” and should thus clarify their existing regulatory authority over this program in the final plan.[[12]](#footnote-12)

CARB’s mobile source plan also relies heavily on reductions from roughly $5 billion in incentives over the next 5 years. As it stands, a large percentage of those incentives do not have identified or secured sources of funding. We believe that in order for CARB’s incentive-based measures to meet CAA requirements they must be bolstered by stringent annual or biannual reporting requirements and potential regulatory backstops that will act as contingency measures to ensure reductions can be meet regardless of the future reliability of incentive funding sources.

CARB states that they will make up for any future shortcomings in their planned emission reductions through their “commitment to achieve aggregate emission reductions.” CARB claims that if necessary they “will look to achieve the necessary reductions from other source categories, such as stationary sources.”[[13]](#footnote-13) NPCA need not remind both agencies that CARB does not have direct jurisdiction over stationary sources, and therefore SJVAPCD action will likely be required. All in all, CARB’s commitment to aggregate emission reductions depends far too heavily on federal, state, and incentive-based actions that are not concrete and enforceable. We recommend that CARB work with the District to identify and clearly lay out a fully developed, concrete, and enforceable plan to reach their aggregate emission goal—whether that be through additional District actions on stationary sources (like the ones mentioned above), or through additional reductions from mobile sources.

1. **SJVAPCD and CARB Should Both Work to Improve Their Draft PM2.5 Plan and Finalize it in a Timely Fashion**

As it stands, we are now nearly two years past the date for when the first of the multiple attainment plans contained in this draft plan was required to be finalized. Because of this extreme delay, NPCA recently joined a coalition of public health and community groups in filing suit against the EPA Administrator for disregarding his nondiscretionary duty under the CAA to issue a finding that SJVAPCD and CARB did not submit these plans by the applicable deadlines. If ruled in our favor, this suit would create an 18 to 24-month timeline by which this draft plan must be finalized before federal sanctions are passed down or a Federal Implementation Plan (FIP) is required. While we are optimistic that this plan will be finalized in more than enough time to avoid such consequences, we also recognize that there are numerous ways in which this plan can and should be improved upon. We hope that in the coming months SJVAPCD and CARB staff will work to both improve this plan as well as to see it finalized as soon as practicable.

NPCA sincerely appreciates this opportunity and thanks you for your consideration of our comments. Please contact us if you have any questions.

Sincerely,



Mark Rose

Sierra Nevada Field Representative

1. National Parks Service (NPS), *Smog in the Central Valley*, *available at* https://www.nature.nps.gov/air/edu/someair/parks/seki/IIA2a.html. [↑](#footnote-ref-1)
2. David Keiser, et. al., *Air Pollution and Visitation at U.S. National Parks*, Science Advances Vol. 4, No. 7, at 1. [↑](#footnote-ref-2)
3. U.S. EPA, *Fact Sheet: Final Rule: Fine Particulate Matter National Ambient Air Quality Standards: State Implementation Plan Requirements*, (2016), *available at https://www.epa.gov/sites/production/files/2016-07/documents/fact-sheet-final-pm25-impl-rule.pdf.*  [↑](#footnote-ref-3)
4. *Id.*  [↑](#footnote-ref-4)
5. Ricardo Cisneros, et. al., *Ozone, nitric acid, and ammonia air pollution is unhealthy for people and ecosystems in southern Sierra Nevada, California*, Environmental Pollution 158, 3261-3271, 3262 (2010). [↑](#footnote-ref-5)
6. *Id.*  [↑](#footnote-ref-6)
7. *Id.*  [↑](#footnote-ref-7)
8. *Id.*  [↑](#footnote-ref-8)
9. Robert W. Derlet, M.D, et. al., *Algae in Sierra Nevada Mountain Wilderness Areas: Potential Health Hazards*, J Mountain Medicine and Ecology. Vol. 1 No. 1, 7 (2009). [↑](#footnote-ref-9)
10. *See generally* Draft 2018 PM2.5 plan, *supra note* 12, at 4-24 – 4-29. [↑](#footnote-ref-10)
11. *Id.* at 4-31. [↑](#footnote-ref-11)
12. *Id.* [↑](#footnote-ref-12)
13. *Id* at 4-28 [↑](#footnote-ref-13)