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October 1, 2020

Andrew Wheeler, Administrator
US Environmental Protection Agency
Attention: Docket ID No. EPA-HQ-OAR-2015-0072
1200 Pennsylvania Avenue NW
Washington, DC 20460

**Re: Review of the Ozone National Ambient Air Quality Standards; 40
CFR Part 50; Docket ID No. EPA-HQ-OAR-2018-0279-0044**

Dear Honorable Administrator Wheeler:

The National Tribal Air Association (NTAA) has reviewed your agency's proposed Review of the National Ambient Air Quality Standards for primary and secondary ground-level ozone pollution, 85 Fed. Reg. 49830 (Aug. 14, 2020). The National Tribal Air Association does not believe this proposal goes far enough toward protecting human health and the environment from ozone. When these standards were issued by the EPA in 2015 the NTAA wrote a comment letter¹ stating their concerns. We noted from NTAA's letter that the Clean Air Scientific Advisory Committee (CASAC) had recommended lowering the existing standards to 60 ppb and that EPA's own studies, the Health Risk and Exposure Assessment (HREA) and the Policy Assessment for the Review of the Ozone NAAQS (PA), also concluded that 60 ppb was the appropriately protective standard consistent with the requirements of the Clean Air Act (CAA).

The NTAA is a member-based organization with 151 principle member Tribes. The organization's mission is to advance air quality management policies and programs, consistent with the needs, interests, and unique legal status of Indian Tribes. As such, the NTAA uses its resources to support the efforts of all federally recognized Tribes in protecting and improving the air quality within their respective jurisdictions. Although the organization always seeks to represent consensus perspectives on any given issue, it is important to note that the views expressed by the NTAA may not be agreed upon by all Tribes. Further, it is important to understand interactions with the organization do not substitute for government-to-government consultation, which can only be achieved through direct communication between the federal government and Indian Tribes.

Protecting the Health of Native People

The NTAA believes this lower standard is particularly needed because American Indian/American Native (AI/AN) individuals are disproportionately impacted by

¹ <https://7vv.611.myftpupload.com/wp-content/uploads/2020/08/NTAA-comment-letter-on-EPA-proposed-ground-level-ozone-standard.pdf>

exposure to ozone partly due to the disproportionate incidence of asthma, hypertension, and diabetes in AI/AN communities.²

In addition to human health concerns, AI/AN populations are also impacted by damage caused to the environment by high ozone levels. As stated in our comments on the EPA's 2015 ozone proposal, the adverse effects of ozone on sensitive vegetation and tree species has the potential to directly impact the traditional cultural practices and lifeways of AI/AN individuals who use those plant species for subsistence, medicines, and other traditional practices. Our concerns regarding the inadequacy of the primary and secondary standards are outlined in the following sections.

The Proposed Primary Standard is Inadequate to Protect Public Health

In NTAA's 2015 letter, they commented that the lowering of the primary standard from 75 ppb to 70 ppb did not go far enough. The reasons for this, and for NTAA's continued support for a lower standard, are given below.

- The NTAA's position was informed by the EPA's own 2014 HREA and PA documents, which concluded that 60 ppm was the appropriately protective standard consistent with the Clean Air Act (CAA). This is because findings from the 2013 Integrated Science Assessment (ISA) and draft PA indicated that adverse health responses are experienced even at levels below the current NAAQS and that adverse health responses are, in fact, larger and more widespread than previously thought.
- As explained previously, AI/AN individuals are disproportionately susceptible to the health effects of ozone. Further, as the nation has seen over the last six months, AI/AN populations are suffering disproportionately from the impacts of COVID-19. A recent article in the Albuquerque Journal reported that Native Americans in New Mexico "are dying of COVID-19 at rates 19 times higher than all other populations combined."³ The current proposal recognizes that:

With regard to an increased susceptibility to infectious diseases, the experimental animal evidence continues to indicate, as described in the 2013 ISA and past AQCDs, the potential for O₃ exposures to increase susceptibility to infectious diseases through effects on defense mechanisms of the respiratory tract (ISA, section 3.1.7.3; 2013 ISA, section 6.2.5). The evidence base regarding respiratory infections and associated effects has been augmented in this review by a number of epidemiologic studies reporting positive associations between short-term

²Wiecks, Joy, Dara Marks-Marino, Jaime Yazzie. "National Tribal Air Association's Supplement to 2019 Status of Tribal Air Report (STAR): A White Paper Detailing the Connections Between Air Pollution, Tribes, and Public Health." National Tribal Air Association, September 2019, <https://www7.nau.edu/itep/main/ntaa/>.

³Kaplan, Elise and Theresa Davis. "Huge Disparity' in COVID-19 death rates for Native Americans in NM". Albuquerque Journal, May 30, 2020. <https://www.abqjournal.com/1461218/huge-disparity-in-covid19-death-rates-for-native-americans-in-nm.html>.

O₃ concentrations and emergency department visits for a variety of respiratory infection endpoints (ISA, Appendix 3, section 3.1.7).

85 Fed. Reg. at 49846. With the marked impact that COVID-19 is having on Tribal populations, the EPA should reconsider whether the primary standard is adequate for protecting these individuals during this pandemic.

- With regard to metabolic disorders, the 2020 ISA found that short-term O₃ exposure can impair glucose tolerance, increase triglyceride levels and elicit fasting hyperglycemia, and increase hepatic gluconeogenesis (ISA, Appendix 5, section 5.1.8 and Table 5-3). The ISA found that exposure to increased ozone concentrations increases odds of being overweight or obese or having metabolic syndrome and with increased hazard ratios for diabetes incidence (ISA page 3-28). Since the AI/AN population is more susceptible to diabetes, this is of particular importance to the NTAA.
- Exposure to high levels of ozone can adversely impact AI/AN tribal member who gather and use plants of cultural significance while they are outdoors. With rising temperatures in many parts of the country, this puts these individuals at a higher risk for several different factors and in several different contexts.

For these reasons, NTAA advises the EPA to lower the primary standard to 60 ppb.

The Proposed Secondary Standard is Inadequate to Protect the Environment

The NTAA's 2015 letter also reflects our opposition to the proposed secondary standard for ozone, and our concerns remain the same regarding the EPA's 2020 proposal. The EPA recognizes that public welfare includes protection of sensitive plant species and trees, which can be adversely impacted by ozone pollution even at levels below the existing standard. Adverse effects to plant species directly impact the cultural practices and lifeways of AI/AN people who use those plants for economic benefit, personal subsistence and food sovereignty, medicines, and other traditional practices. High ozone levels can cause foliar injury, decreased photosynthesis, changes in reproduction, and decreased growth in many species of plants. Further impacts can include: reduced carbon sequestration, alteration of water cycling and alteration of plant community composition. In this proposal, the EPA again suggests keeping the secondary standard equivalent to the primary standard. This approach is unacceptable for the following reasons:

- Long-established scientific understanding dictates that cumulative exposures have greater impacts on vegetation than peak exposures. A cumulative, seasonal metric such as the W126 would be a more accurate way to reflect this cumulative nature of welfare effects than measures focused only on peak exposures, such as EPA is proposing.



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- The proposal goes against findings from the draft PA⁴, which is similar to the PA issued in the review of the 2015 ozone standards. The draft PA recommended using a maximum of 17 ppm-hours to protect against the effects of tree growth loss, but the EPA now proposes to relax this limit, without explanation. The draft PA supported the idea of a cumulative standard: “[a]s in the last review, the currently available evidence continues to support a cumulative, seasonal exposure index as a biologically relevant and appropriate metric for assessment of the evidence of exposure/risk information for vegetation, most particularly for growth-related effects.”⁵ The draft ISA also found that “[t]he cumulative weighted indices (W126 and AOT40) and exposure-response relationships presented in this section continue to be used in analyses in the scientific literature and are the best available approach for studying the effects of ozone exposure on vegetation in the U.S.”⁶
 - Despite all evidence for a weighted index, the EPA has chosen not to follow this path but rather recommends setting the secondary standard equal to the primary and in the same form—the annual fourth-highest daily maximum 8-hour average concentration, averaged over three consecutive years, even though geographic and temporal variation exists between these two techniques. In particular, the proposed three-year averaging period weakens the stringency of the standard – a one-year averaging period is advisable and has been supported by judicial findings in the Murray Energy ruling (*Murray Energy Corp. v. EPA*, 936 F. 3d 597, D.C. Cir. 2019). If a three-year averaging time must be used, the 2015 CASAC recommended adopting a standard no greater than 13 ppm-hrs.⁷
 - The analysis offered in Section 4A.3 Analysis of Multi-Year Relative Biomass Loss of the draft PA is flawed because the EPA ignored the fact that larger trees grow more quickly than smaller ones. The choice of aspen for this analysis was also flawed because it was not among the 11 species in the PA that showed threshold responses to ozone.
 - The previous CASAC disagreed with the EPA on the point of whether a standard in the same form as the primary standard (4th highest daily 8-hour max) would provide the same level of protection as a cumulative dose approach metric, especially for areas in the Western and Southwestern US. The *Murray* decision again supported the CASAC’s view.
 - Unfortunately, the current CASAC does not have any members with expertise in the fields of plant physiology, forestry, plant ecology, etc. Further, the CASAC does not appear to have been informed about any potential conflict between the draft PA and the

⁴https://www.epa.gov/sites/production/files/2020-05/documents/o3-final_pa-05-29-20compressed.pdf at 4-74

⁵Draft PA at 4-66.

⁶Draft ISA at 8-197.

⁷CASAC letter of June 26, 2014 at 15.

Murray decision. Therefore, any review of the secondary standard performed by the CASAC was inadequate and invalid.

- Among the secondary impacts to plants, increased ozone levels can be linked to changes in tropospheric O₃ concentrations and radiative forcing and impacts on climate, such as surface temperature responses, which can lead to further ozone formation. There is no evidence, however, that the EPA gave any further consideration to this problem.

Not only is the proposal deficient in terms of protections, it also mirrors some of the same shortcomings that the NTAA commented on in the EPA's recent proposal to retain the current PM NAAQS in our letter dated June 29, 2020. Both proposals suffer from being fast-tracked by the EPA, both were weakened by former EPA Administrator Pruitt's Back to Basics memo, and both were diminished by changes made by this administration to the Clean Air Scientific Advisory Committee (CASAC). The issues raised by these actions are detailed in the following paragraphs.

The Diminished Role of CASAC

- On October 31, 2017, Scott Pruitt issued a memo changing the membership of the CASAC such that scientists who have received grants from the EPA are no longer eligible to serve on this important committee. This action served to gut the CASAC by replacing academic researchers solely for political reasons, while allowing industry-affiliated scientists to remain. The Southern District of New York has since held that this action violated the law by issuing this directive and vacated the relevant language.⁸
- The EPA further gutted CASAC in October of 2018 by disbanding the independent particulate matter review panel that was historically convened to assist CASAC and refusing to convene a similar panel for the review of the ozone standard. This action goes against four decades of EPA practice and has not been well received, even with current members of CASAC—three of them urged EPA to reconvene the Ozone Review Panel in their comments on the EPA's draft Integrated Review Plan for ozone NAAQS.⁹
- Rather than trust CASAC review panels to review and answer questions from CASAC members, the EPA later selected 12 consultants to answer questions conveyed through the CASAC chair—the consultants were not allowed to meet face-to-face with the CASAC or communicate in any way other than in writing. This action reduced

⁸*Natural Resources Defense Council, Inc. v. EPA*, No. 1:19-cv-05174-DLC (S.D.N.Y. Apr. 15, 2020); *see also Physicians for Social Responsibility v. Wheeler*, No. 19-5104 (D.C. Cir. Apr. 21, 2020).

⁹U.S. Env'tl. Prot. Agency, Office of the Admin. Sci. Advisory Bd., Consultation on the EPA's *Integrated Review Plan for the Review of the Ozone National Ambient Air Quality Standards (External Review Draft – October 2018)*, EPA-CASAC-19-001 A-2, A-18, A-23 (Dec. 10, 2018)

[https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebReportsLastMonthCASAC/A286A0F0151DC8238525835F007D348A/\\$File/EPA-CASAC-19-001.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/LookupWebReportsLastMonthCASAC/A286A0F0151DC8238525835F007D348A/$File/EPA-CASAC-19-001.pdf)

transparency and the effectiveness and the opportunity for discussion and follow-up questions that would have occurred in a face-to-face meeting. Further, the pool of 12 consultants didn't cover the scope of expertise that is needed to conduct a review of this nature. They were also chosen by the EPA Administrator, without input from EPA career staff or with public comment on their nominations. Reports state that the choice of consultants was very industry heavy (6/10) with only a few of the nominated academics chosen (6/43).¹⁰

- These changes are inappropriate and short-sighted. Not only were they sudden and unannounced, they occurred in the middle of the review cycles for these pollutants. As stated above, there was no need or justification shown for these changes, and no input was sought from EPA career staff, CASAC, or the public before eligibility requirements changed. The EPA also neglected to inform or engage with these groups before deciding not to form an ozone review panel of the CASAC, as detailed in a letter written to EPA Administrator Wheeler on December 2, 2019, by the former US EPA CASAC Ozone Review Panel on EPA's Integrated Science Assessment for Ozone and Related Photochemical Oxidants. This letter is a chilling account of how badly flawed this review process has become and how inadequate the current CASAC is for a review of this sort.¹¹
- The official response to comments made by the CASAC, even in its diminished role, has been disappointing. In his reply to these comments, "Administrator Wheeler noted 'for those comments and recommendations that are more significant or cross-cutting and which were not fully addressed, the Agency will develop a plan to incorporate these changes into future Ozone ISAs as well as ISAs for other criteria pollutant reviews.'" (ISA, p. 10-28; Wheeler, 2020). This response improperly and irresponsibly pushes the most substantive comments off until the next five-year review.
- As admitted in the Proposal, the full CASAC was unable to agree on its findings with regard to the draft ISA. "Another part of the CASAC indicated its agreement with the previous CASAC's advice, based on review of the 2014 draft PA, that a primary standard with a level of 70 ppb may not be protective of public health with an adequate margin of safety, including for children with asthma." 85 Fed. Reg. at 49868. There is even more

¹⁰Harvard Law School, Env'tl. and Energy Law Program, Ongoing Changes to the Air Quality Standards Review Process (Dec. 9, 2019) <https://eelp.law.harvard.edu/2019/12/ongoing-changes-to-the-air-quality-standards-review-process/>; Sean Reilly, Documents Expose Ties Among EPA Panel's Experts, E&E News, Feb. 7, 2020) <https://www.eenews.net/stories/1062289617>.

¹¹Advice from the former U.S. EPA Clean Air Scientific Advisory Committee Ozone Review Panel on EPA's Integrated Science Assessment for Ozone and Related Photochemical Oxidants (External Review Draft –September 2019), and EPA's Policy Assessment for the Review of the Ozone National Ambient Air Quality Standards (External Review Draft –October 2019) (Dec. 2, 2019) [https://yosemite.epa.gov/sab/sabproduct.nsf/B2AF0B23ABE6A60E852584C4007312E3/\\$File/EPA+CASAC+O3+Review+ISA+PA+Letter+191202+Final.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/B2AF0B23ABE6A60E852584C4007312E3/$File/EPA+CASAC+O3+Review+ISA+PA+Letter+191202+Final.pdf).

evidence in this review that ozone is harmful, including research published in 2017 in the Journal of the American Medical Association that suggests that ozone pollution causes greater rates of mortality at levels below the current standard of 70 ppb¹².

A Rushed Process

- Former Administrator Pruitt issued his Back to Basics memo on May 9, 2018, modifying and accelerating the NAAQS review process. This memo directed the EPA to complete their review of the ozone NAAQS by October 2020 even though experts argued that this schedule would not allow for a thorough scientific review. Typically, the CASAC doesn't review a draft PA until after the ISA has gone through as many drafts as necessary and has been finalized. After all, it only makes sense to defer policy decisions until the scientific foundation has been established. This way science can inform policy, rather than attempting to squeeze the desired policy into the parameters of the scientific findings.
- The EPA further rushed the process by developing and publishing the Integrated Science Assessment (ISA) and the Policy Assessment (PA) simultaneously and without review from the CASAC, again making the decision to do so without input from career staff and in disregard for “the precedent of a well-designed and well-executed review process.”¹³ On December 2, 2019, 18 former CASAC members sent a letter to the EPA stating that the changes made to the NAAQS review process “are collectively harmful to the quality, credibility, and integrity of EPA’s scientific review process and to CASAC as an advisory body.”¹⁴ The letter further states that “[t]he NAAQS review for ozone should be suspended until these deficiencies are corrected.”¹⁵ The letter highlights the following steps as being missing from the review process: no REA planning document(s); no second external review draft of the ISA; no external review drafts of the REAs; no provision for a second external review draft of the PA; no final REA as a separate document; and no final ISA until after the CASAC has completed its review of the draft ISA.
- In early December of 2019, only days after this letter was sent, the remaining CASAC members met to discuss the ISA and PA for both particulate matter and ozone at the same time, which decreased the amount of time spent on each of these pollutants. This action also led to the CASAC reviewing policy assessments before they had finished reviewing the scientific data.

¹² <https://jamanetwork.com/journals/jama/fullarticle/2667069>

¹³ *Id.* at 3.

¹⁴ *Id.* at 2.

¹⁵ *Id.*

- At the December, 2019 meetings, the CASAC was unable to reach consensus on the adequacy of the existing ozone standard. A February, 2019 CASAC follow-up teleconference led to the issuance of a final report recommending that the existing ozone standard be retained, but also urging EPA to restore the ozone review panel along with in-person meetings between this panel and CASAC. Any further opportunity for CASAC to weigh in on EPA's review of the standards did not occur because on April 1, 2020, EPA Administrator Wheeler sent a letter to the CASAC chair letting the committee know that EPA would stick to its 2020 deadline for finalizing its decision. In this letter, Wheeler acknowledged that this deadline meant that many of CASAC's comments on the Integrated Science Assessment that are "more substantial or cross-cutting" will not be addressed in this review cycle. No valid reason was given for this decision other than the desire to issue the decision in a timely manner. Although the EPA is supposed to review the standard every five years, there are often delays—in this case, the delay was entirely at the choosing of the EPA, which waited until only two years of the five-year cycle remained before beginning its consideration process. The NTAA supports a delay in the completion of the process if it means a more informed, and ultimately more protective, decision is made.

Deficiencies in the Policy Assessment

In contrast with the PA written when setting the 2015 standards, this PA failed to adequately analyze the expected impacts on sensitive populations. The 2020 PA looked only at individuals with asthma; completely neglecting others listed in the 2014 PA who may show increased sensitivity based on: genetic variation; COPD; diets low in vitamins C and E; other lung or respiratory diseases; and obesity. No explanation was given for this omission. While the 2020 PA mentioned individuals with lower socio-economic status, it did not go in-depth on how the standard can protect these people. The 2020 PA also ignored a number of factors or symptoms of exposure to high ozone levels that were studied in the 2014 PA. These include: increased use of medication; increased airway inflammation and airway hyperresponsiveness; increased bronchial reactivity due to exposure to inhaled allergens; enhanced damage to previously injured lungs, and increased wheezing or coughing. The 2020 PA also ignored potential long-term damage that could occur in children with asthma due to exposure to high levels of ozone, such as problems with growth or development—the 2014 PA notes that animal studies show that early life exposures resulted in conducting airway changes at the cellular, functional, ultra-structural, and morphological levels. The 2020 PA also failed to look at different responses among different individuals suffering from asthma, based on types of medication being used. Lastly, the 2020 PA failed to look at averting behavior in response to high ozone levels. Studying these actions could provide evidence on some of the benefits of improving air quality.¹⁶

Lack of Tribal Focus

The EPA didn't attempt to look at AI/AN populations in particular, even when it would have been easy to do so. Statistics in the 2020 PA listing occurrence of asthma and other underlying health conditions by ethnicity do not include AI/AN individuals. Section K of the Federal

¹⁶C. Mansfield et al. / Resource and Energy Economics 28 (2006) 215–228.

Register proposal states that E.O. 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) does not apply and that this action does not have disproportionately adverse impacts in Tribal people. It is unclear how the EPA came to this conclusion and makes a mockery of the EPA's duties under federal trust responsibility.

Inadequate Time for Review

The EPA should have offered a longer period for review of this proposal. Many Tribes are still operating on a reduced basis due to the COVID-19 crisis and many Tribes struggle under the best of circumstances to review items of this length and complexity.

No Environmental Justice Analysis

In this proposal, as in most proposals from this Administration, the EPA has not adequately considered environmental justice and equity concerns. As stated above, Tribal populations are more vulnerable than the general population to the impacts of ozone levels, as well as socio-economic impacts. Yet no allowance or analysis has been made for these considerations.

Tribal Implications

The EPA claims there are no tribal implications for this proposed action. 85 Fed. Reg. at 49914. The NTAA strongly disagrees with this conclusion. As described in the paragraphs above, AI/AN populations in America suffer disproportionately from health discrepancies that leave them more vulnerable to impacts from pollution than the general public. Not only did the EPA ignore these implications, but it also has not offered Tribal consultation on this proposal, in direct disregard for Executive Order 13175. Lastly, it is not for EPA to determine whether Tribes are impacted by this rule, only Tribes can make that determination. The cost to Tribes from the loss or diminishment of culturally significant species due to the impacts of ozone or other pollutants is immeasurable. Similarly, great are the benefits to the entire Tribe and to each individual of being able to exercise hunting, fishing, and gathering rights as guaranteed by treaties with the United States.

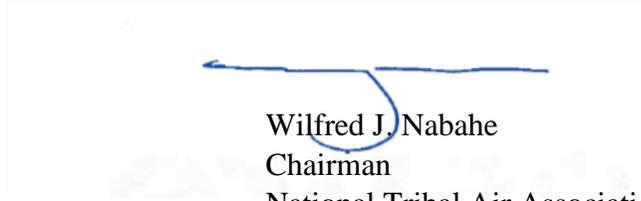
Conclusions

The EPA must conduct further review of the PA with the benefit of a wider range of subject experts. This review must take place with an eye to the decisions in the *Murray* case. The agency must make a recommendation for the secondary standard that more closely aligns with the available science as well as the *Murray* decision. To this end, NTAA recommends adopting a new primary standard of 60 ppb and a secondary standard in the range of 7-15 ppm-hours.

If you have any questions or require clarification of these recommendations, please contact the NTAA's Project Director, Andy Bessler at 928-532-0526 or Andy.Bessler@nau.edu.



Sincerely,



Wilfred J. Nabahe
Chairman
National Tribal Air Association
Executive Committee

cc: Anne Idsal, Principal Deputy Assistant Administrator, OAR
Pat Childers, EPA OAR
Scott Jenkins, EPA OAR