



CHESAPEAKE BAY FOUNDATION
Saving a National Treasure

Michael Regan, Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460
Docket ID No. EPA-HQ-OAR-2019-0055

Submitted via regulations.gov

May 16, 2022

Re: *Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards*, Docket ID No. EPA-HQ-OAR-2019-0055

Dear Administrator Regan:

Chesapeake Bay Foundation, Inc. (“CBF”) submits the following comments on EPA’s proposed rule titled, *Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards* (“Proposed Rule”). 87 Fed. Reg. 17414 (Mar. 28, 2022).

CBF is a non-profit, non-partisan organization whose mission is to “Save the Bay” and keep it saved. CBF represents more than 200,000 members nationwide and has offices in Easton and Annapolis, Maryland; Richmond and Virginia Beach, Virginia; and Harrisburg, Pennsylvania. For 50 years, CBF has been working to restore the Chesapeake Bay and its tributary rivers and streams through education, advocacy, litigation, and restoration. In recognition of the interconnection between healthy water and healthy communities, CBF works to make the watershed and its natural resources safe for the people who earn a living from the Bay and those who live and recreate in and around the Bay.

EPA last updated the nitrogen oxides (“NOx”) standards for heavy-duty vehicles in 2001.¹ Since that time, a growing body of evidence has confirmed our understanding of the significant human health and environmental harm caused by air pollution from this sector. In addition, the devastating effects of climate change have solidified the need to drastically reduce greenhouse gas emissions (GHGs). This rulemaking is an opportunity to achieve considerable reductions in both NOx and GHG pollution, and their associated harms. CBF urges EPA to seize this

¹ *Control of Air Pollution from New Motor Vehicles: Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*, 66 Fed. Reg. 5002 (Jan. 18, 2001).

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opportunity by swiftly finalizing a rule that is a modified version of Option 1² requiring achievement of a 90% reduction of NO_x by model year 2027. CBF also urges EPA to quickly finalize a rule that accelerates the transition to an entirely zero-emissions heavy-duty fleet.

I. Background

NO_x, fine particulate matter (PM 2.5), and other air pollutants from heavy-duty truck emissions cause significant and well-documented harm to environmental resources and public health.³ Section 202(a)(1) of the Clean Air Act directs EPA to prescribe, and from time to time revise, emission standards for any class or classes of new motor vehicles or engines which, in the Administrator's judgment, cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare. 42 U.S.C. § 7521(a)(1). Public "welfare" includes effects on water, crops, vegetation, wildlife, and climate. 42 U.S.C. § 7602(h) ("welfare includes, but is not limited to, effects on soils, waters, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants.").

In 2001, EPA made an endangerment finding for NO_x emissions from heavy-duty trucks. 66 Fed. Reg. 5002, 5008/2 (Jan. 18, 2001) ("EPA believes that...emissions of NO_x, VOCs, SO_x and PM from heavy-duty trucks can reasonably be anticipated to endanger the public health or welfare."). Fifteen years later, in 2016, more than 20 organizations from across the country petitioned EPA to develop more stringent NO_x emission standards for heavy-duty truck engines. EPA responded to the petitions and acknowledged "a need for additional NO_x reductions from this category of vehicles and engines."⁴ EPA's Proposed Rule is an attempt to meet this need.

A) Tailpipe Pollution and Communities in the Chesapeake Bay Region

² 87 Fed. Reg. at 17417.

³ See 87 Fed. Reg. at 17441-17456; U.S. EPA, Integrated Science Assessment (ISA) For Oxides of Nitrogen—Health Criteria (Final Report 2016), EPA/600/R-15/068; U.S. EPA Integrated Science Assessment (ISA) For Ozone and Related Photochemical Oxidants (Final Report 2013), EPA/600/R-10/076F; Integrated Science Assessment (ISA) For Particulate Matter (Final Report 2009), EPA/600/R-08/139F.

⁴ EPA, "Memorandum in Response to Petition for Rulemaking to Adopt Ultra-Low NO_x Standards for On-Highway Heavy-Duty Trucks and Engines" at 11 (Dec 20, 2016), <https://19january2017snapshot.epa.gov/sites/production/files/2016-12/documents/nox-memorandum-nox-petition-response-2016-12-20.pdf>.

Emissions from heavy-duty trucks—including NO_x and particulate matter—cause numerous, well-documented negative health impacts, including exacerbation of existing respiratory and cardiovascular conditions, increased asthma attacks and new cases of asthma, difficulty breathing, inflammation and irritation of the lungs, and decreased cardiac function, among many others.⁵ These negative health impacts are particularly damaging for communities and individuals who live, work, or attend school close to major roadways.⁶ Many of these communities are home to lower-income and/or minority populations who are already burdened by industrial air and water pollution sources located nearby.⁷

One recent study found that communities of color and lower-income neighborhoods are disproportionately impacted by NO_x emissions.⁸ Communities that are primarily composed of people of color and lower-income households experience, on average, 28 percent more nitrogen dioxide pollution than communities that are majority-white and higher income. Furthermore, millions of U.S. citizens live in areas burdened by high levels of ozone pollution fueled by NO_x emissions,⁹ and lower-income and minority communities are disproportionately impacted by ozone pollution.¹⁰

These trends are seen in communities throughout the Chesapeake Bay watershed. The Chesapeake Bay watershed is traversed by major interstate highways running up the Eastern Seaboard on which heavy-duty trucks regularly operate. Many of these major roadways are located directly adjacent to or within residential communities. According to 2014 National Emissions Inventory data, in

⁵ See U.S. EPA, Integrated Science Assessment (ISA) For Oxides of Nitrogen—Health Criteria (Final Report 2016), EPA/600/R-15/068; U.S. EPA Integrated Science Assessment (ISA) For Ozone and Related Photochemical Oxidants (Final Report 2013), EPA/600/R-10/076F; Integrated Science Assessment (ISA) For Particulate Matter (Final Report 2009), EPA/600/R-08/139F.

⁶ EPA, Office of Transportation and Air Quality, “Near Roadway Air Pollution and Health: Frequently Asked Questions” EPA-420-F-14-044 (Aug. 2014), <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100NFFD.PDF?Dockey=P100NFFD.PDF>.

⁷ See, e.g., Gregory C. Pratt *et al.*, Traffic, Air Pollution, Minority and Socio-Economic Status: Addressing Inequities in Exposure and Risk, *Int’l Journal of Env. Research and Public Health* 12(5): 5355-5372 (May 2015), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4454972/>.

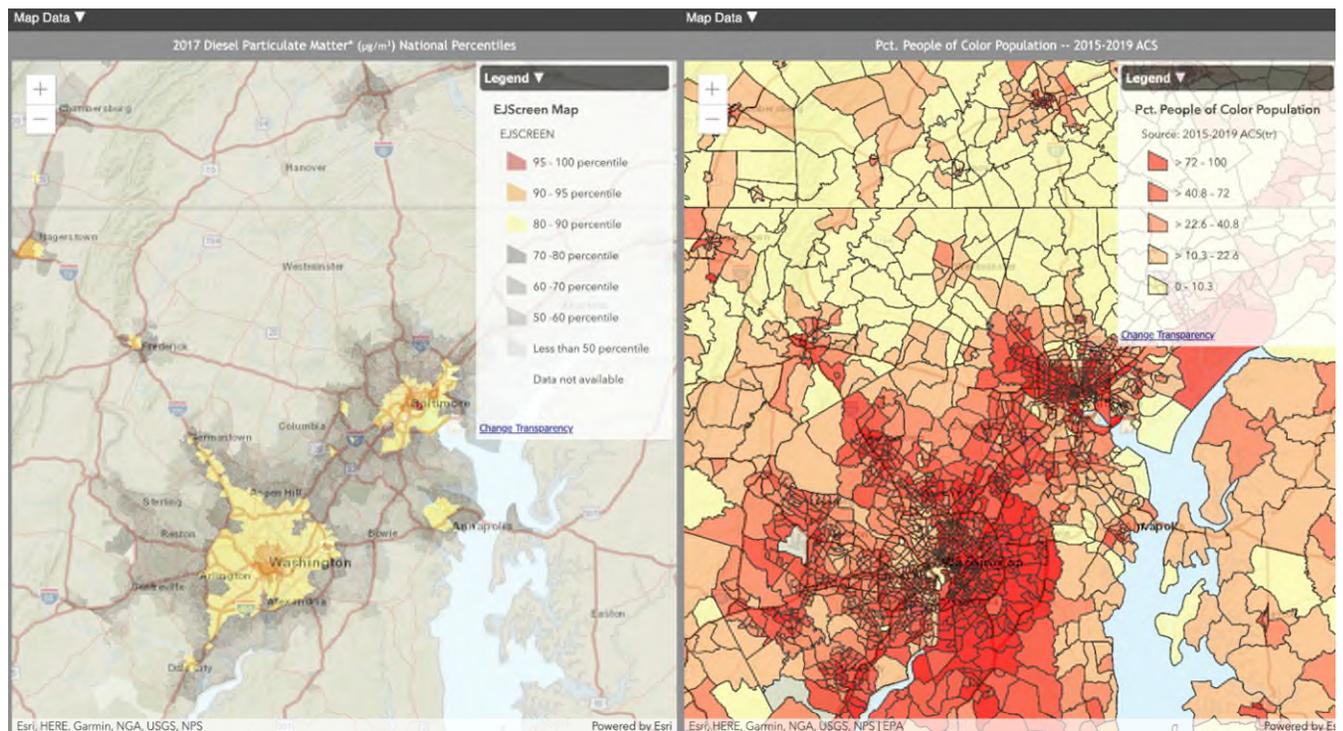
⁸ Mary Angelique G. Demetillo, *et al.*, Space-Based Observation Constraints on NO₂ Air Pollution Inequality From Diesel Traffic in Major US Cities, *Geophysical Research Letters* Vol. 48, Issue 17 (Aug. 2021), <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2021GL094333>.

⁹ See, e.g., Elizabeth Ridlington, *et al.*, *Trouble in the Air: Millions of Americans Breathed Polluted Air in 2018*, at 21 (Winter 2020), available at https://uspirg.org/sites/pirg/files/reports/EnvironmentAmerica_TroubleintheAir_scrn.pdf (“Thirty-two large and small urban areas and six rural counties—home to more than 21 million people—experienced more than 100 days of ozone pollution in 2018”); see also American Lung Ass’n, State of the Air Report: 2022, <https://www.lung.org/research/sota/key-findings>.

¹⁰ See Miranda M. L. *et al.*, Making the Environmental Justice Grade: The Relative Burden of Air Pollution Exposure in the United States. *Int’l Journal of Envntl. Research and Public Health*. 2011; 8(6):1755-1771, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3137995/>.

Maryland and Washington, D.C., 74 and 75 percent of NOx emissions are due to transportation, respectively.¹¹ In Virginia, 67 percent of NOx emissions are due to transportation.¹² The Bay watershed also hosts all or part of three nonattainment areas for the 2015 Ozone National Ambient Air Quality Standard: Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE (Marginal Nonattainment); Washington, DC-MD-VA (Marginal Nonattainment); and Baltimore, MD (Marginal Nonattainment).¹³

Figure 1 uses EJSCREEN, the 2017 National Air Toxics Screening Assessment, and the 2015-2019 American Community Survey to compare census block groups exposed to the highest amounts of diesel particulate matter, with those block groups that are largely comprised of minorities. The communities exposed to large amounts of diesel particulate matter are generally communities with large numbers



of people of color.

(Figure 1)

¹¹ Elizabeth Ridlington, *Trouble in the Air*, at 60-61.

¹² *Id.*

¹³ EPA, Greenbook: “8-Hour Ozone (2015) Designated Area/State Information” (current as of Apr. 30, 2022), <https://www3.epa.gov/airquality/greenbook/jbtc.html>.

The same study that found communities of color and lower-income neighborhoods experience as much as 28 percent more NOx pollution also found, of the 52 cities examined, that diesel trucks contributed up to half the nitrogen oxide emissions despite comprising 5 percent or less of all traffic.¹⁴ Furthermore, a 60 percent reduction in diesel-related pollution would lead to a 40 percent decline in "air pollution inequality".¹⁵ Reducing diesel-related pollution is an incredibly effective way to ensure all communities, but particularly those that suffer the most, are able to breathe clean air.

Since 1990, EPA has repeatedly asserted the objective of addressing environmental justice concerns through the reduction of air pollution that disproportionately harms or cumulatively impacts such communities.¹⁶ EPA's Office of General Counsel, the Environmental Law Institute, and the National Environmental Justice Advisory Council have all observed that the Clean Air Act gives EPA ample authority to address such concerns through rulemaking.¹⁷ We therefore urge EPA to swiftly fulfill its mission and reduce heavy duty truck emissions to decrease negative health impacts to historically disadvantaged communities.

B) Excess Nitrogen and the Chesapeake Bay

As part of its mission, CBF is dedicated to saving the Bay—and keeping it saved—as defined by reaching a 70 on CBF's Health Index, which uses ecological indicators to measure pollution, habitat, and fisheries.¹⁸ One indicator for pollution is nitrogen, a primary pollutant causing the excess algal blooms that block sunlight for underwater grasses and use up life-sustaining oxygen when they decompose, leading to the Bay's dead zones.¹⁹ Since 2010, CBF has been dedicated to the

¹⁴ *Pollution from Freight Traffic Disproportionately Impacts Communities of Color Across 52 U.S. Cities*, American Geophysical Union (Oct. 7, 2021), <https://news.agu.org/press-release/pollution-from-freight-traffic-disproportionately-impacts-communities-of-color-across-52-u-s-cities>.

¹⁵ *Id.*

¹⁶ See J. Mueller, and T. Lilley, *Forty Years of Environmental Justice: Where is the Justice?*, *Richmond Public Interest Law Review*, Vol. 25, pg. 79- 87, May 5, 2022; *Environmental Equity- Reducing Risk For All Communities*, Vol. 1 (1992). Workgroup,

¹⁷ National Environmental Justice Advocacy Committee, *Memorandum on Integrating Environmental Justice Authority* (1996); Gary S. Guzy, *EPA Statutory and Regulatory Authorities Under Which Environmental Justice Issues May Be Addressed in Permitting*, 1 (2000).; *Env'tl. L. Inst., Opportunities For Advancing Environmental Justice: An Analysis of U.S. EPA Statutory Authorities*, 67-68 (2001) Office of Environmental Justice, *EPA Plan EJ 2014* (2011); EPA, *Guidance on Considering Environmental Justice During the Development of Regulatory Actions* (2015); *Off. Of Env'tl. Just., EPA, Technical Guidance for Assessing Environmental Justice in Regulatory Analysis in Regulatory Analysis*, June 2016 1 (2016).

¹⁸ CBF, *2018 State of the Bay Report*, <https://www.cbf.org/about-the-bay/state-of-the-bay-report/>.

¹⁹ CBF, *About the Indicators*, <https://www.cbf.org/about-the-bay/state-of-the-bay-report/sotb-about-the-indicators.html#nitrogen-phosphorus>; see also, 85 Fed. Reg. at 3310/1 ("Environmental

success of the Chesapeake Bay Total Maximum Daily Load (“Bay TMDL”), a federal-state partnership designed to reduce the nitrogen, phosphorus, and sediment pollution contributing to dead zones in the Bay.²⁰ The Bay TMDL sets a deadline of 2025, at which point “all pollution control measures needed to fully restore the Bay and its tidal rivers are in place.”²¹

Atmospheric deposition of nitrogen, often in the form of NO_x, from both mobile sources and stationary sources makes up about one-third—more than 85 million pounds—of the Bay’s total yearly nitrogen load.²² The Chesapeake Bay airshed is almost nine times larger than the watershed,²³ and this airborne nitrogen pollution travels from as far west as Indiana and Kentucky, and as far north as Quebec, Canada. These NO_x emissions drift into the Bay watershed and fall out of the air either dry or as precipitation.²⁴

Fossil-fuel-powered cars and trucks are one of the principal sources of NO_x pollution in the Bay region.²⁵ Indeed, when EPA conducted air modeling for the Bay TMDL, it modeled a 2030 scenario in which “emissions projections assume[d] continued stringent controls are in place, such as...Heavy Duty Diesel vehicle fleet fully replaced with newer heavy-duty vehicle (sic) that comply with new standards.”²⁶ Motor vehicles emit NO_x close to the ground, depositing nitrogen on plants and soils within tens of meters of the highway.²⁷ Additional nitrogen falls on impervious surfaces, such as roads and parking lots, where much of it is washed into waterways and, ultimately, the Bay.²⁸ A portion of motor vehicle NO_x remains airborne, where it either combines with sunlight to form ozone, or remains as nitrogen in one or more forms. Many of these NO_x compounds then make their way into the Bay and its tributaries.

impacts of concern are associated with [NO_x, ozone, and PM_{2.5}] and include light extinction, decreased tree growth, foliar injury, and acidification and eutrophication of aquatic and terrestrial systems.”)

²⁰ See U.S. EPA, Chesapeake Bay Total Maximum Daily load for Nitrogen, Phosphorus, and Sediment (Dec. 2010) (“Chesapeake Bay TMDL”), available at <https://www.epa.gov/chesapeake-bay-tmdl/chesapeake-bay-tmdl-document>.

²¹ Chesapeake Bay TMDL at ES-1.

²² CBF, *Air Pollution*, <https://www.cbf.org/issues/air-pollution/>; see also Chesapeake Bay TMDL, Section 4.6.2, Atmospheric Deposition, pp. 4-33 (Dec. 2010), https://www.epa.gov/sites/production/files/2014-12/documents/cbay_final_tmdl_section_4_final_0.pdf.

²³ Chesapeake Bay TMDL, Appendix L, at L-4, https://www.epa.gov/sites/production/files/2015-02/documents/appendix_l_atmos_n_deposition_allocations_final.pdf.

²⁴ Chesapeake Bay TMDL at Section 4.6.2, p. 4-33.

²⁵ Chesapeake Bay TMDL at Section 4.6.2, p. 4-33.

²⁶ Chesapeake Bay TMDL at Appendix L-15.

²⁷ Redling, K., E. Elliott, D. Bain, and J. Sherwell, Highway contributions to reactive nitrogen deposition: tracing the fate of vehicular NO using stable isotopes and plant biomonitors, *Biogeochemistry* 116:261-274, 2013.

²⁸ See Chesapeake Bay TMDL, at Appendix L-23.

Clean Air Act programs that reduce airborne nitrogen are a key component of protecting waterways from excess nitrogen pollution.²⁹ Reducing nitrogen inputs to the Bay airshed and watershed is a critical part of achieving *and maintaining* water quality goals in the Chesapeake Bay.

C) Chesapeake Bay Agreement, Chesapeake Bay Blueprint, and Clean Water Act Section 117(g)

In 1983, when the Chesapeake Bay Program partnership was formed, four Bay jurisdictions and EPA signed the Chesapeake Bay Agreement, which set goals and tracked progress to “hold[] partners accountable for their work” on Bay restoration.³⁰ In 2014, all seven Bay jurisdictions and EPA recommitted to Bay restoration in a new Chesapeake Bay Agreement, which incorporates the Blueprint targets and adds complementary goals for improving biodiversity, reducing pollution, increasing climate resiliency, conserving land, and engaging communities in Bay stewardship.³¹ While certain goals included in the 2014 Agreement set specific target dates, many others identify work that must be ongoing and sustained indefinitely in order to achieve the goals of the Agreement.³²

In 2009, President Obama issued an Executive Order which outlined the need for Bay restoration and protection and directed the federal government “to lead this effort.”³³ To this end, the Executive Order created a Federal Leadership Committee—chaired by the EPA Administrator and including senior representatives

²⁹ See Keith N. Eshleman, Robert D. Sabo, Declining nitrate-N yields in the Upper Potomac River Basin: What is really driving progress under the Chesapeake Bay restoration?, *Atmospheric Environment*, Vol. 146, pp. 280-289 (Dec. 2016), <https://doi.org/10.1016/j.atmosenv.2016.07.004>; see also, Linker, Lewis C., Robin Dennis, Gary W. Shenk, Richard A. Batiuk, Jeffrey Grimm, and Ping Wang, 2013. Computing Atmospheric Nutrient Loads to the Chesapeake Bay Watershed and Tidal Waters, *Journal of the American Water Res. Ass’n (JAWRA)* 1-17. DOI: 10.1111/jawr.12112, available at https://www.chesapeakebay.net/documents/Atmo_Dep_CB_TMDL_10-13.pdf.

³⁰ Chesapeake Bay Watershed Agreement, https://www.chesapeakebay.net/what/what_guides_us/watershed_agreement.

³¹ The 2014 Agreement included the goals and outcomes established for water quality in the Bay TMDL. One of the key goals of the Agreement is to “reduce pollutants to achieve the water quality necessary to support the aquatic living resources of the Bay and its tributaries and protect human health. *Chesapeake Bay Watershed Agreement*, p. 7 (2014), https://www.chesapeakebay.net/documents/FINAL_Ches_Bay_Watershed_Agreement.withsignature-HIres.pdf.

³² See, e.g., Chesapeake Bay Agreement at 6 (“continually increase the capacity of forest buffers to provide water quality and habitat benefits”); at 8 (“Continually improve practices and controls that reduce and prevent the effects of toxic contaminants below levels that harm aquatic systems and humans”); at 9 (“100 percent of state-identified currently healthy waters and watersheds remain healthy.”); at 14 (“Continually monitor and assess the trends and likely impacts of changing climatic and sea level conditions on the Chesapeake Bay ecosystem...”).

³³ Exec. Order No. 13,508, *Chesapeake Bay Protection and Restoration*, 74 C.F.R. 23099 (2009).

from at least six other federal agencies—to draft reports on Bay challenges and determine a restoration strategy that federal agencies could implement under existing law. The Federal Leadership Committee is also responsible for publishing annual action plans and progress reports.

The following year, EPA established the Bay TMDL. The Bay TMDL creates enforceable pollution limits for nitrogen, phosphorus, and sediment in the Bay watershed. These limits were set by EPA, and the states within the Bay watershed are responsible for and have committed to achieving the necessary pollution reductions to meet those limits. The Bay jurisdictions—Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia, and the District of Columbia—are required to have all pollution control measures necessary to meet the pollution limits in place by 2025 (with at least 60% completion by 2017). To ensure states are on track to meet the Bay TMDL targets, the Bay states have designed three phases of Watershed Implementation Plans (“WIPs”), that detail state efforts to implement the Bay TMDL. Together, the Bay TMDL and the state WIPs are known as the Chesapeake Bay Blueprint. EPA maintains oversight of the Blueprint, which includes authority to take enforcement measures if states do not provide reasonable assurance in their WIPs that they will meet reduction targets.³⁴

Both the Blueprint and the Chesapeake Bay Agreement are part of the Chesapeake Bay Program, over which EPA has management authority. Section 117(g) of the Clean Water Act charges the EPA Administrator with overseeing the Bay states’ plans and progress toward “achiev[ing] and maintain[ing]...the nutrient goals of the Chesapeake Bay Agreement for the quantity of nitrogen...entering the Chesapeake Bay and its watershed.”³⁵ The “Chesapeake Bay Agreement” in this context refers to the 2014 Chesapeake Bay Agreement, and thus, by direct reference, the 2010 Bay TMDL. Therefore, while the Bay TMDL imposes a 2025 deadline for controls to be in place, the obligations to implement and maintain water quality and ensure Bay restoration endure.

D) Climate Change and Chesapeake Bay

The increasingly dramatic impacts from climate change have begun and will continue to add stress to the Bay.³⁶ In November 2018, Volume II of the Fourth National Climate Assessment found “that climate change is affecting the natural

³⁴ Chesapeake Bay TMDL at ES-1.

³⁵ 33 U.S.C. § 1267(g).

³⁶ See, e.g., Najjar, R. G., C. R. Pyke, M. Beth Adams, D. Breitburg, C. Hershner, M. Kemp, R. Howarth, M. R. Mulholland, M. Paolisso, D. Secor, K. Sellner, D. Wardrop, and R. Wood, 2010: Potential climate-change impacts on the Chesapeake Bay. *Estuarine, Coastal and Shelf Science*, 86, 1-20, <https://doi.org/10.1016/j.ecss.2009.09.026>.

environment, agriculture, energy production and use, land and water resources, transportation, and human health and welfare across the U.S. and its territories.”³⁷ The Bay region has already experienced several of these impacts, including increased temperatures and sea level rise.³⁸ Like excess nitrogen, warm waters contribute to dead zones due to their decreased capacity to hold dissolved oxygen. Rising sea levels have submerged islands and coastline, including CBF property. Some scientists predict that the Bay region could see as much as a three- to four-foot sea level rise this century.³⁹ The 2014 Chesapeake Bay Agreement sets a goal to improve climate resiliency in the Bay, and EPA is charged with ensuring states make progress toward achieving and maintaining this goal.⁴⁰

Climate change will also make it more difficult to reduce nitrogen loads to the Bay as rainfall becomes increasingly extreme and sporadic, pouring nutrients and sediment into Bay waterways.⁴¹ In 2018, the Bay experienced record-setting rainfall, which was followed by one of the Bay’s largest dead zones in 35 years.⁴² The impacts from climate change threaten the Bay’s recovery and future, and will require even greater pollution reduction efforts to maintain the progress made through the Bay TMDL.

EPA must finalize a rule that accelerates the transition to a zero-emission truck fleet that will drastically reduce the sector’s emissions of greenhouse gases and its contribution to the devastating impacts of climate change.

II. The Rule Must Maximize Reductions of Nitrogen Oxides and Greenhouse Gases to Fulfill EPA’s Duty to Protect Public Health and the Environment, Including Chesapeake Bay.

While NO_x emissions have decreased since the 1990s, EPA acknowledges that “[h]eavy-duty engines will continue to be one of the largest contributors to mobile

³⁷ *New Federal Climate Assessment for U.S. Released*, NOAA (Nov. 23, 2018), <https://www.noaa.gov/news/new-federal-climate-assessment-for-us-released>.

³⁸ *Climate Change*, Chesapeake Bay Foundation, <https://www.cbf.org/issues/climate-change/>.

³⁹ *Id.*

⁴⁰ 2014 Chesapeake Bay Agreement at 14.

⁴¹ 2014 National Climate Assessment, U.S. Global Change Research Program, “Northeast” Chapter, available at <https://nca2014.globalchange.gov/report/regions/northeast> (describing impacts from “increasingly intense precipitation events” and that in the Northeast “rainfall events have increased more than in any other region of the country”) (citing Groisman, P. Y., R. W. Knight, and O. G. Zolina, 2013: Recent trends in regional and global intense precipitation patterns. *Climate Vulnerability*, R.A. Pielke, Sr., Ed., Academic Press, 25-55).

⁴² Scott Dance, Record Rain + Heat = Chesapeake Bay Dead Zone Among Biggest in Decades: Crabs, Fish Are Suffocating, *Baltimore Sun* (Aug. 29, 2020), <https://www.baltimoresun.com/news/environment/bs-md-chesapeake-dead-zone-20190829-5vjzwb3ine7rlgscndd6ucvta-story.html>.

source NOx emissions nationwide in the future, representing 32 percent of the mobile source NOx emissions in calendar year 2045.” 87 Fed. Reg. 17418. Pursuant to the Clean Air Act, EPA must finalize a rule that protects public health, especially disproportionately impacted communities near major roadways and in areas with high levels of ozone pollution. 42 U.S.C. § 7521(a)(1); *see also* Exec. Order No. 14,008, 86 Fed. Reg. 7,619 (Jan. 27, 2021) (“Agencies shall make achieving environmental justice part of their missions by developing programs, policies, and activities to address the disproportionately high and adverse human health, environmental, climate-related and other cumulative impacts on disadvantaged communities, as well as the accompanying economic challenges of such impacts.”).

As the federal signatory to the 2014 Chesapeake Bay Agreement, and as discussed above, EPA also has an ongoing requirement to ensure that the goals of the Agreement are achieved. NOx emissions from heavy-duty trucks contribute algae-fueling nitrogen to the Bay watershed and therefore interfere with the Agreement’s water quality and habitat goals. Because heavy-duty trucks travel nationwide, it is critical that EPA implement a standard that will reduce NOx from interstate, heavy-duty trucks travelling within the Bay airshed and watershed.

EPA’s obligation to protect water quality also stems from the Clean Air Act’s directive to issue emission standards for pollutants that threaten environmental resources, including water quality. *See* 42 U.S.C. § 7521(a)(1) (directing Administrator to prescribe standards for pollutants from motor vehicles which endanger public health or welfare); *see also* 42 U.S.C. § 7602(h) (defining effects on welfare to include effects on “waters”). In July 2020, six Chesapeake Bay jurisdictions—Virginia, Pennsylvania, New York, Maryland, and the District of Columbia—signaled the importance of reducing NOx and GHG from the heavy-duty vehicle sector by signing the Multi-State Zero Emission Medium- and Heavy-Duty Vehicle Memorandum of Understanding (“MOU”).⁴³ In an effort to reduce harm to public health and the devastating impacts of climate change, signatories to the MOU agreed to “strive to make sales of all new medium- and heavy-duty vehicles” in their jurisdictions “zero emission vehicles by no later than 2050.”⁴⁴

In the Proposed Rule, EPA notes that “Option 1 may be a more appropriate level of stringency as it would result in a greater level of achievable emission reduction for the model years proposed, which is consistent with EPA’s statutory authority under Clean Air Act section 202(a)(3).” 87 Fed. Reg. at 17417. While CBF agrees that Option 1 is more stringent and because these human health and environmental benefits are urgently needed, long overdue, promote the administration’s

⁴³ Multi-State Zero Emission Medium- and Heavy-Duty Vehicle Memorandum of Understanding (July 2020), <https://www.nescaum.org/documents/mhdv-zev-mou-20220329.pdf/>.

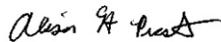
⁴⁴ *Id.*

environmental justice priority, and are technically and economically feasible⁴⁵, we urge EPA to swiftly adopt a modified Option 1 requiring reductions of 90% NOx in model year 2027.⁴⁶

III. Conclusion

CBF is encouraged by this opportunity to dramatically reduce NOx and greenhouse gas emissions from heavy duty vehicles and better protect the health of the Chesapeake Bay watershed and its residents. We urge EPA to swiftly finalize a rule that maximizes NOx and greenhouse gas emission reductions and accelerates the transition to zero-emission, electrified trucks and buses on our roads and in our watersheds.

Sincerely,



Alison Prost
Vice President
Environmental Protection & Restoration
Chesapeake Bay Foundation
6 Herndon Ave.
Annapolis, MD 21403
aprost@cbf.org

Cc:

Ariel Solaski, Litigation Staff Attorney, Chesapeake Bay Foundation
Lauren Stettz, Litigation Fellow, Chesapeake Bay Foundation

⁴⁵ See, e.g., Energy.gov, DOE Projects Zero Emissions Medium- and Heavy-Duty Electric Trucks Will Be Cheaper than Diesel-Powered Trucks by 2035 (Mar. 7, 2022), <https://www.energy.gov/articles/doe-projects-zero-emissions-medium-and-heavy-duty-electric-trucks-will-be-cheaper-diesel> (“by 2030, nearly half of medium- and heavy-duty trucks will be cheaper to buy, operate, and maintain as zero emissions vehicles than traditional diesel-powered combustion engine vehicles.”).

⁴⁶ This standard is achievable. See, e.g., California Air Resources Board, Heavy-Duty Omnibus Regulation, <https://ww2.arb.ca.gov/rulemaking/2020/hdomnibuslownox>; California Air Resources Board, Facts about the Low NOx Heavy-Duty Omnibus Regulation, at 2, https://ww2.arb.ca.gov/sites/default/files/classic/msprog/hdlownox/files/HD_NOx_Omnibus_Fact_Sheet.pdf.