

# Transportation and Environmental Justice

President Biden has directed the entire federal government and the Environmental Protection Agency (EPA) to prioritize protecting and investing in overburdened and underserved communities across America. EPA plays a leading role in delivering environmental and public benefits for communities with environmental justice (EJ) concerns through our policies, programs, and activities.

Pollution from the transportation sector has been a long-standing obstacle to advancing environmental justice, as many communities of color and low-income families live near areas where pollution from vehicles and engines is abundant, and therefore experience disproportionate exposures to this pollution.

EPA has a number of efforts underway to address pollution from the transportation sector.

## **EPA's Comprehensive Approach to New Criteria and Greenhouse Gas Standards for Medium- and Heavy-Duty Trucks**

As identified in President Biden's Executive Order 14037, *Strengthening American Leadership in Clean Cars and Trucks*, over the next three years EPA plans to issue a series of regulations to reduce pollution from trucks and buses and to harness improvements in vehicle technologies. EPA's "Clean Trucks Plan" would result in significant emissions reductions from new medium- and heavy-duty vehicles and will be a major step towards improving air quality and addressing the climate crisis.

The regulatory actions that make up the Clean Trucks Plan are as follows:

- Setting more stringent nitrogen oxide (NO<sub>x</sub>) standards for heavy duty trucks beginning in model year (MY) 2027 and tightening the “Phase 2” greenhouse gas (GHG) emissions for MY 2027 and beyond. A separate fact sheet provides an overview of the proposal EPA is announcing today to address this first action. This proposal would result in widespread air quality improvements, with the largest benefits in areas with the worst baseline air quality, and where higher percentages of people of color reside. It would also help jump start the transition to zero-emission vehicles in the heavy-duty fleet.
- Setting more stringent emissions standards for medium-duty commercial vehicles for MY 2027 and later. This category of vehicles includes many “last mile” delivery vehicles which deliver products to people’s door steps every day across the country, and which are rapidly electrifying. These revised standards will be proposed in combination with new multipollutant standards for light-duty vehicles for MY 2027 and beyond.
- Setting “Phase 3” GHG standards for heavy-duty vehicles beginning as soon as MY 2030 that are significantly stronger than the MY 2027 GHG standards and promote the transition to electrification of the heavy-duty truck industry.

In this first action, EPA is proposing two regulatory options and is requesting comment on both, as well as considering the full range of options between them. Both options would set more stringent standards for NO<sub>x</sub> emissions beginning in MY 2027 (with Option 2 achieving fewer emissions reductions than Option 1), increase regulatory useful life, and increase emissions-related warranty periods.

As described in the proposal, lower NO<sub>x</sub> emissions would result in improved health outcomes attributable to lower ozone and particulate matter concentrations in communities across the United States. The largest air quality improvements are predicted to occur in areas with the worst baseline air quality, where larger numbers of people of color are projected to reside.

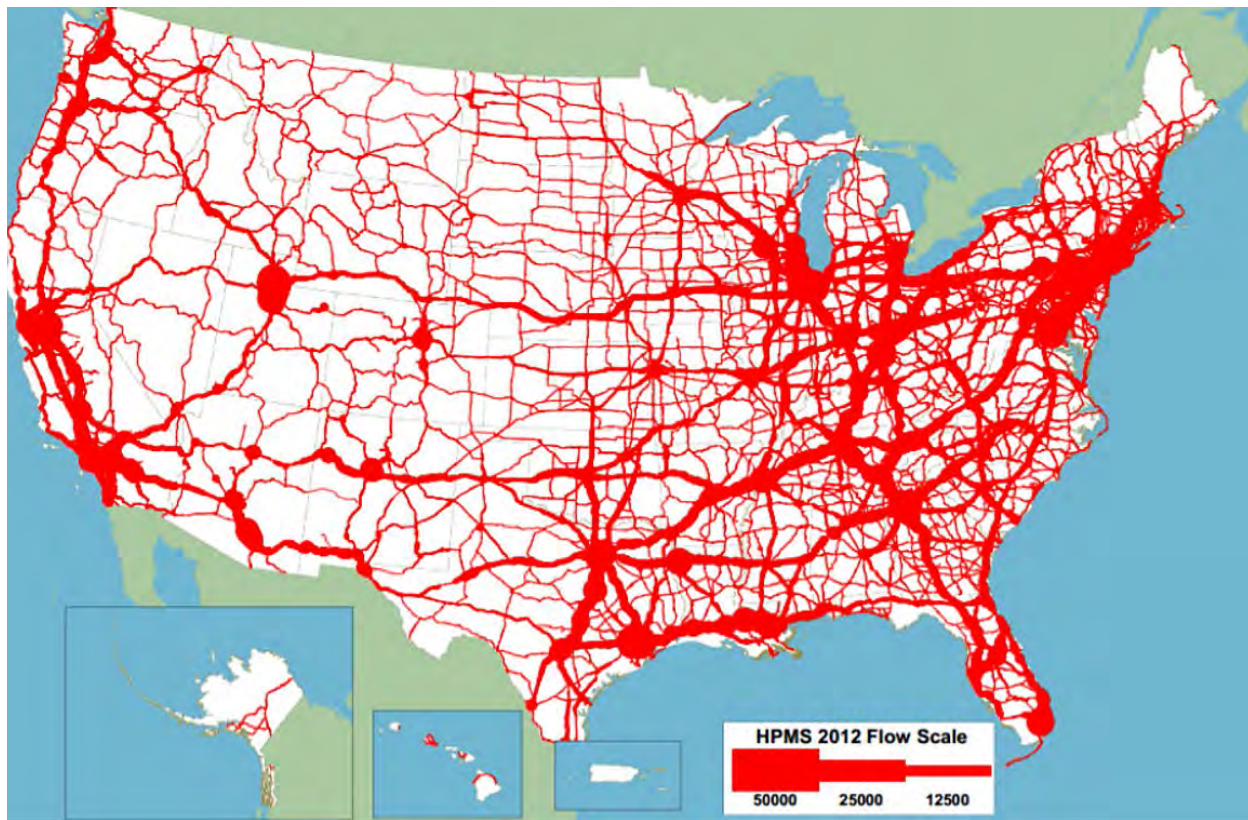
Communities near high-traffic roadways experience higher rates of numerous adverse health effects, so this proposal is especially important for the 72 million people who are estimated to live near truck freight routes in America (see Figure 1). Residents of these communities are more likely to be people of color and have lower incomes.

This first action’s proposal to tighten the “Phase 2” GHG standards for MY 2027 covers 17 of the 33 subcategories of vocational and tractor vehicles, including school buses, transit buses, commercial delivery trucks, and short-haul tractors. EPA is also requesting comment on whether it would be appropriate in the final rule to increase the stringency of the standards beyond what we propose for MYs 2027, MY 2028 and MY 2029.

A foundational principle in developing these actions is for EPA to maximize emissions reductions over the near and long term and to enable the transition to a zero-emissions transportation future.

EPA welcomes public input into this rulemaking. More information on how to comment on the rule and participate in a virtual public hearing for this proposal are available here: [www.epa.gov/regulations-emissions-vehicles-and-engines/proposed-rule-and-related-materials-control-air-1](https://www.epa.gov/regulations-emissions-vehicles-and-engines/proposed-rule-and-related-materials-control-air-1).

Figure 1. Major Truck Routes Across the United States<sup>1</sup>



Source: Federal Highway Administration

### EPA's Work to Reduce Mobile Source Emissions in Ports

Through its [Ports Initiative](#), EPA continues to prioritize steps to improve air quality in communities close in proximity to ports and other goods movement centers because they are characterized by concentrations of heavy-duty diesel vehicles, vessels, and equipment.

The [DERA Program](#) continues to prioritize funding for projects at ports, as well as projects by applicants that develop publicly available emissions inventories and emissions reduction targets, and that engage communities to inform project plans and ensure continued efforts to improve air quality after the completion of DERA projects. DERA funding has supported zero emission port projects, including drayage trucks, cranes and yard tractors, ferry and tugboat replacements, and shore power installations. We expect to see even more applications for zero emissions equipment as new technologies become available. For more information, visit the webpage on [DERA grants awarded for port projects](#).

EPA's Ports Initiative provides tools and technical assistance to accelerate adoption of cleaner technologies and planning practices at ports. These resources include updated [port emissions inventory guidance](#), assessments of emissions reduction strategies such as [marine vessel shore power](#), and [community-port collaboration resources](#) to support effective communication and engagement between and among port stakeholders to help advance projects that are responsive to community priorities in improving air quality. EPA will prioritize engagements as appropriate

<sup>1</sup> Figure depicts truck routes included in the National Highway System; the map does not reflect where populations live.

with affected communities that have environmental justice concerns to ensure DERA and Ports Initiative programs address impacts in these communities.

Through the Ports Initiative, EPA is also advising our federal partners on how best to ensure port-related federal infrastructure investments, including those in the new Bipartisan Infrastructure Law, lead to cleaner air, climate protection, and environmental justice for communities living near freight facilities.

## **EPA's Work to Reduce Emissions from School Buses and Legacy Vehicles**

The Bipartisan Infrastructure Law's Clean School Bus Program, which will provide funding to replace existing school buses with low- or zero-emission school buses, allows EPA to prioritize applications that propose to replace buses that serve high need local educational agencies, low-income and rural areas, and Tribal schools. EPA plans to open a rebate program offering funding for school bus replacements in April, and will announce additional program details, including how these applications will be prioritized, over the next month.

In addition, the American Rescue Plan, enacted last year, allocated \$7 million for the DERA program to replace old diesel buses with new, zero-emission electric school buses. This new rebate program was open exclusively for school districts in underserved communities, tribal schools, and private fleets serving those schools.

In addition to announcing our proposal for new and more stringent emission standards for heavy-duty trucks, today EPA is also announcing rebate awards totaling approximately \$17 million in combined funding—\$7 million in ARP funding and nearly \$10 million in DERA rebates—for schools and bus fleet owners to replace older, highly polluting diesel school buses. The ARP program will award funding for 23 electric school bus replacements and associated charging infrastructure, and the \$10 million in DERA rebates will assist with 444 school bus replacements across the country. To view a detailed list of school district awardees, state, funding amounts, and the number of buses to be funded, please visit <https://www.epa.gov/dera/awarded-dera-rebates>.

Since 2012, EPA's school bus rebates have awarded, or are in the process of awarding, over \$73 million to replace more than 3,000 old diesel school buses. DERA (with the Ports Initiative) is a Justice40 pilot program. EPA is exploring how the newly released Climate and Economic Justice Screening Tool can be used to quantify benefits to underserved communities for both programs.

## **EPA's Partnerships with State and Local Agencies on Reducing Mobile Source Pollution**

EPA continues to provide guidance on control measures that result in emissions reductions that may be applied in Clean Air Act-required state implementation plans (SIPs) and in regional emissions analyses for transportation conformity determinations. For example, EPA has provided guidance on quantifying emissions reductions from measures to replace or retrofit diesel

powered vehicle and nonroad equipment.<sup>2</sup> This [guidance](#) is available on EPA’s State and Local Transportation website. These types of measures can provide emissions reductions in communities near facilities such as highways, ports, and warehouses.

EPA has also recently updated its transportation conformity guidance for conducting PM hot-spot analyses used for estimating the emissions and air quality impacts of federally supported transportation projects such as new or expanded highways or transit facilities with significant increases in diesel truck or bus traffic.<sup>3</sup> In this update, we noted that the guidance may apply for analysis of transportation projects for other purposes, including assessing near-source air quality in communities with environmental justice concerns. Such sources include roads, freight terminals, and railyards.

## **EPA’s Partnerships with Federal Agencies on Truck Electrification**

EPA is working closely with the Department of Energy and the Department of Transportation on building support for the transition to electric vehicles. This includes developing materials for stakeholder outreach, identifying and supporting funding opportunities, and partnering on technical research that is needed to support the development of our long-term light-duty vehicle and our Phase 3 GHG truck standards.

## **EPA’s Work to Evaluate Endangerment from Piston-Engine Aircraft Lead Emissions**

Protecting children’s health and reducing lead exposure are two of EPA’s top priorities. For years, EPA has been investigating the air quality impact of lead emissions from piston-engine aircraft near airports. The agency is now using that information to evaluate whether emissions of lead from piston-engine aircraft cause or contribute to air pollution that endangers public health or welfare. For convenience, we refer to this action collectively as the “endangerment finding.”

Although levels of airborne lead in the United States have declined 99 percent since 1980, piston-engine aircraft that operate on leaded fuel are the largest remaining source of lead emissions to air.

Lead exposure can result from multiple sources, including leaded paint, contaminated soil, industrial emissions from battery recycling or metals processing, and the combustion of fuel or waste containing lead. Children’s exposure to lead can cause irreversible and life-long health effects. No safe blood lead level in children has been identified. Even low levels of lead in blood have been shown to affect IQ, ability to pay attention and academic achievement. In adults, health effects from lead exposure can include cardiovascular effects, increased blood pressure and incidence of hypertension, decreased kidney function, and reproductive issues.

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<sup>2</sup> *Diesel Retrofit and Replacement Projects: Quantifying and Using Their Emission Benefits in SIPs and Conformity - Guidance for State and Local Air and Transportation Agencies* (EPA-420-B-18-017, March 2018).

<sup>3</sup> *PM Hot-Spot Guidance: Transportation Conformity Guidance for Quantitative Hot-Spot Analyses in PM<sub>2.5</sub> and PM<sub>10</sub> Non-attainment and Maintenance Areas* (EPA-420-B21-038, October 2021).



EPA currently plans to issue a proposed endangerment finding in 2022, which will undergo public notice and comment. After evaluating comments on the proposal, we plan to issue any final endangerment finding in 2023.

## **EPA's Work to Address Emissions from Aircraft, Rail, Marine, and Nonroad Sectors**

We know that there continue to be adverse impacts caused by emissions from transportation sources beyond the light- and heavy-duty onroad sectors. While much of our current regulatory focus is on the light- and heavy-duty vehicle sectors, EPA is working with our federal colleagues, and state and local partners, to understand and explore regulatory and non-regulatory opportunities to reduce emissions from the aircraft, rail, marine, and nonroad sectors.