February 19, 2025

Lee Michael Zeldin, Administrator
1 EPA Docket Center
Office of Research and Development Docket, Mail Code 28221T
1200 Pennsylvania Avenue NW
Washington, DC 20460

Docket ID No. EPA-HQ-OLEM-2024-0360

Dear Administrator Zeldin:

Community Action to Promote Health Environments is a longstanding partnership between community leaders, public health and environmental health professionals, and environmental public health researchers. We have been working since 2013 to identify and implement scientifically based, community informed strategies to improve air quality and health in Detroit and southeast Michigan, where annual costs attributable to air pollution are estimated at $6.9 billion (these costs encompass mortality, hospitalizations and emergency room visits due to asthma, asthma exacerbations, lost school and work time that are attributable to air pollution). CAPHE is strongly committed to assuring that the best available science is the foundation for decisions that affect public health. We greatly appreciate the opportunity to comment on the Environmental Protection Agency's (EPA) long-awaited interim Cumulative Impacts Framework.

Communities in Detroit and Southeast Michigan experience combined exposures to multiple pollutants emitted from multiple sources, and their adverse impacts on the health and well-being of community residents. Detroit residents are exposed to elevated levels of multiple air pollutants, including particulate matter (PM) (Yang et al, 2023), diesel exhaust (Schulz et al, 2018; Du et al, 2011; Keeler et al 2002), volatile organic compounds (VOCs) (Du et al, 2011; Keller et al 2002; Batterman et al 2012; Jia et al, 2008), sulfur dioxide (SO_2) (Michigan Department of Great Lakes, Environment and Energy, 2022), and ozone (O_3) (Michigan Department of Great Lakes, Environment and Energy, 2022). Southeast Michigan, which contains Detroit, is currently in non-attainment status of the National Ambient Air Quality Standards (NAAQS) for SO_2 (U.S. EPA, 2024). 7 counties in SE Michigan were designated as non-attainment for O_3 between 2004 and 2022. (U.S. EPA, 2024); and counties in SE Michigan are likely to be designated as nonattainment for $PM_{2.5}$ under new NAAQS standards (Ignaczak 2024; U.S. EPA

2024). Detroit has the highest $PM_{2.5}$ level in the state, considerably exceeding the revised annual average NAAQS. Other pollutants of concern include PM_{10}, fugitive dust (Denny et al, 2022; Gearhart et al 2023; Martenies et al 2017) , and metals (Denny et al 2022; Moody et al 2021). Air pollution exposures and associated health impacts have long been of concern among Detroit residents, who experience disproportionate pollutant-related health impacts(Martenies et al 2018; Martenies et al 2017; Yuan et al 2024). It continues to be identified as a top public health priority by community members and organizations (Onwenu and Leonard, 2020; Sampson et al 2020; Warner et al, 2023).

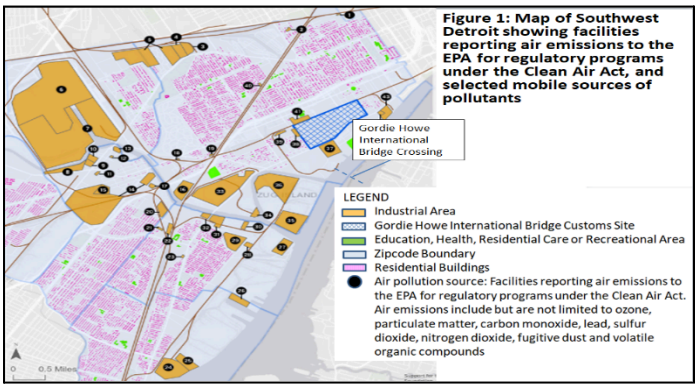
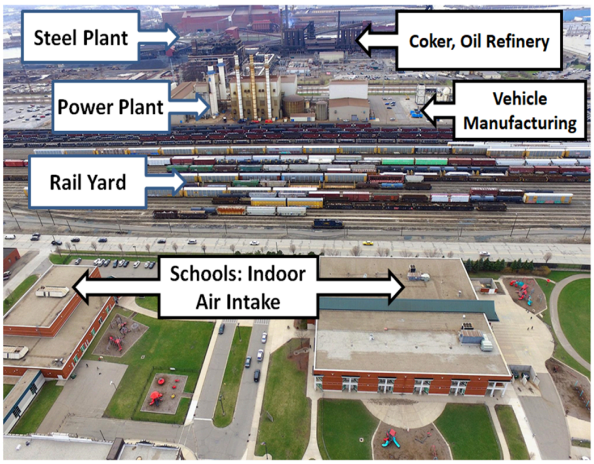


Figure 1: Map of Southwest Detroit showing facilities reporting air emissions to the EPA for regulatory programs under the Clean Air Act, and selected mobile sources of pollutants

Figure 1 illustrates the close proximity and clustering of multiple stationary and mobile (e.g. freeways) air pollutants sources in southwest Detroit, located in close proximity to residential neighborhoods and facilities with susceptible populations, including schools with young children, elder care facilities, and health care facilities. Research conducted by CAPHE has estimated that excess exposure to pollutants from industrial facilities and mobile sources in the Detroit area combined cause an estimated 290 hospitalizations for respiratory and cardiovascular diseases, up to 30,000 respiratory symptom days among children with asthma, 4500 lost days at work, and 40 deaths *annually* (CAPHE 2017) Those health impacts and associated human and financial costs are disproportionately borne by children, elders and those with preexisting health conditions (e.g., heart or lung disease), who are particularly susceptible to the adverse health impacts of air pollutants.

Figure 2 illustrates the concept of cumulative risk using an aerial photograph taken in south Dearborn, immediately adjacent to Detroit. This image illustrates the close proximity of multiple stationary and mobile sources of air pollutants to an elementary and a middle school in south Dearborn, whose air intakes (located on the roofs of the two school buildings) pull in air that contains multiple pollutants from the multiple sources shown in the upper portion of the photograph. These pollutants disproportionately impact children and adults living in areas with lower incomes, often with older housing stock and with limited resources with which to protect against exposures or mitigate the health related harms associated with those exposures. It is exactly communities such as southwest Detroit (Figure 1) and south Dearborn (Figure 2) – just two of many communities in the Detroit area who experience the cumulative impacts to health and well-being

Figure 2: Cumulative Pollutant Sources and Proximity to Susceptible Populations in the Detroit Area



associated with multiple polluting sources – that the EPA's Interim Cumulative Impacts Framework is designed to protect.

By centering cumulative impacts in environmental decision making, the EPA's interim framework stands to improve human health, quality of life and the environment in all communities, with a particular focus on using data and information to inform decisions that reduce disproportionate and adverse burdens of cumulative impacts on health.

We particularly appreciate the attention provided in the framework to engaging communities that experience disproportionate burdens of air and other pollutants in the process of environmental decision making, recognizing the critical role of community residents in strengthening decisions and protecting the health of America's taxpayers. CAPHE has, and continues to, work diligently to develop and disseminate new models for shared leadership in environmental decision making that assure that communities that bear the disproportionate burden of environmental exposures play an active role in influencing decisions that impact emissions, exposures and ultimately the health of residents. We encourage you to continue to identify and support innovative and effective processes and structures that support and sustain the active engagement and influence of disproportionately impacted communities in the decisions that impact their environments and health.

We support and are greatly appreciative of the work that EPA scientists have done over many years to carefully build the body of impartial and critical scientific evidence regarding the distribution of environmental harms and their cumulative impacts on health. This Interim Framework rests on that solid body of evidence and provides a critical framework for helping to make the residents of our country safer and healthier. For communities like southwest Detroit, south Dearborn, and many others across this country, addressing the disproportionate burden of environmental exposures is – quite literally - a matter of life and death.

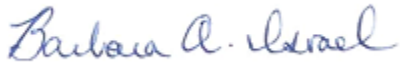
On behalf of Community Action to Promote Healthy Environments:

Amy J. Schulz, PhD
Professor, Department of Health Behavior and Health Education
University of Michigan School of Public Health

Stuart Batterman, PhD
Professor, Department of Environmental Health Science
University of Michigan School of Public Health

Angela G. Reyes, MPH

Executive Director, Detroit Hispanic Development Corporation



Barbara I. Israel, DrPH, MPH
Professor, Department of Health Behavior and Health Education
University of Michigan School of Public Health

Bryan Smigielski
Campaign Organizer
Sierra Club

Erin Stanley, MA,MSW
Senior Director of Environmental Justice
Eastside Community Network

Kathryn Savoie, PhD
Director of Equity and Environmental Justice
Ecology Center

Natalie Sampson, PhD, MPH
Associate Professor Department of Health and Human Services
University of Michigan Dearborn

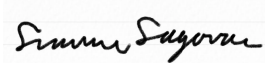
Andrea Pierce
Policy Director
Michigan Environmental Justice Coalition

Raquel Garcia, MA, M.Ed

Executive Director
Southwest Detroit Environmental Vision

Sandra Turner-Handy
Sandra Turner-Handy
Executive Director
Detroiters Working for Environmental Justice

Rev. Sharon Buttry, MSW
Steering Committee Member
Detroit Hamtramck Coalition for Advancing Healthy Environments



Simone Sagovac, BS
Project Director, Southwest Detroit Community Benefits Coalition

Theresa Landrum
Theresa Landrum, Detroit Resident
Original United Citizens of Southwest Detroit

<u>Additional Endorsements outside of CAPHE</u>
Andrea Pierce, Cammy Bright, Chris Gilmer-Hill, Nancy Morales, and Nyesha Clark-Young
Steering Committee, MI Environmental Justice Caucus

Citations

Batterman S, Chin JY, Jia C, et al. Sources, Concentrations and Risks of Naphthalene in Indoor and Outdoor Air. *Indoor Air*. 2012;22(4):266-278. doi:10.1111/j.1600-0668.2011.00760.x

CAPHE, 2017. Public Health Action Plan Resource Manual, Chapter 5. https://caphedetroit.sph.umich.edu/air-pollutant-source-exposures-health-impacts/

Denny M, Baskaran M, Burdick S, Tummala C, Dittrich T. Investigation of pollutant metals in road dust in a post-industrial city: Case study from Detroit, Michigan. *Front Environ Sci*. 2022;10. doi:10.3389/fenvs.2022.974237

Du L, Batterman S, Parker E, et al. Particle Concentrations and Effectiveness of Free-Standing Air Filters in Bedrooms of Children with Asthma in Detroit, Michigan. *Build Environ*. 2011;46(11):2303-2313. doi:10.1016/j.buildenv.2011.05.012

Gearhart J, Sagovac S, Xia T, et al. Fugitive Dust Associated with Scrap Metal Processing. *Environments*. 2023;10(12):223. doi:10.3390/environments10120223

Ignaczak NM. Wayne County expected to fail new EPA air quality standards for particulate matter. *Planet Detroit*. https://planetdetroit.org/2024/12/pm25-michigan-state-air-quality-standard/. December 2024.

Jia C, Batterman S, Godwin C. VOCs in industrial, urban and suburban neighborhoods—Part 2: Factors affecting indoor and outdoor concentrations. *Atmos Environ*. 2008;9(42):2101-2116. doi:10.1016/j.atmosenv.2007.11.047

Keeler GJ, Dvonch T, Yip FY, et al. Assessment of personal and community-level exposures to particulate matter among children with asthma in Detroit, Michigan, as part of Community Action Against Asthma (CAAA). *Environ Health Perspect*. 2002;110 Suppl 2(Suppl 2):173-181. doi:10.1289/ehp.02110s2173

Martenies SE, Milando CW, Batterman SA. Air pollutant strategies to reduce adverse health impacts and health inequalities: a quantitative assessment for Detroit, Michigan. *Air Qual Atmosphere Health*. 2018;11(4):409-422. doi:10.1007/s11869-017-0543-3

Martenies SE, Milando CW, Williams GO, Batterman SA. Disease and Health Inequalities Attributable to Air Pollutant Exposure in Detroit, Michigan. *Int J Environ Res Public Health*. 2017;14(10):1243. doi:10.3390/ijerph14101243

Moody HA, Grady SC. Lead Emissions and Population Vulnerability in the Detroit Metropolitan Area, 2006–2013: Impact of Pollution, Housing Age and Neighborhood Racial Isolation and Poverty on Blood Lead in Children. *Int J Environ Res Public Health*. 2021;18(5):2747. doi:10.3390/ijerph18052747

Michigan Department of Environment, Great Lakes, and Energy. *Michigan Air Quality Annual Report*. Michigan Department of Environment, Great Lakes, and Energy; 2022. https://www.michigan.gov/egle/-/media/Project/Websites/egle/Documents/Reports/AQD/monitoring/annual-reports/2022-air-quality-annual-report.pdf?rev=bb4ef053f7b74fbebd79c4aac67c6975&hash=88704A63912F004C07062A7788A73E9C

Onwenu J, Leonard N. It's time to change the way we measure pollution. *The Hill*. https://thehill.com/opinion/energy-environment/529601-its-time-to-change-the-way-we-measure-pollution/. December 10, 2020.

Sampson N, Sagovac S, Schulz A, et al. Mobilizing for Community Benefits to Assess Health and Promote Environmental Justice near the Gordie Howe International Bridge. *Int J Environ Res Public Health*. 2020;17(13):4680. doi:10.3390/ijerph17134680

Schulz AJ, Mentz GB, Sampson N, et al. Independent and Joint Contributions of Fine Particulate Matter Exposure and Population Vulnerability to Mortality in the Detroit Metropolitan Area. *Int J Environ Res Public Health*. 2018;15(6):1209. doi:10.3390/ijerph15061209

Schulz AJ, Mentz GB, Sampson N, et al. Race and the distribution of social and physical environmental risk: A Case Example from the Detroit Metropolitan Area. *Bois Rev Soc Sci Res Race*. 2016;13(2):285-304. doi:10.1017/S1742058X16000163

U.S. EPA. Michigan Nonattainment/Maintenance Status for Each County by Year for All Criteria Pollutants. Published online December 2024. https://www3.epa.gov/airquality/greenbook/anayo_mi.html

U.S. EPA. Michigan Whole or Part County Nonattainment Status by Year Since 1992 for all Criteria Pollutants. Published online 2024. https://www3.epa.gov/airquality/greenbook/phistory_mi.html

U.S. EPA. *National Ambient Air Quality Standards (NAAQS) for PM*. Environmental Protection Agency; 2024. https://www.epa.gov/pm-pollution/national-ambient-air-quality-standards-naaqs-pm

Warner SC, Sagovac S, Godwin C, Xia T, Batterman S. Community's Perception on Ambient Air and Noise Pollution: A Qualitative Study in Southwest Detroit. *Environ Justice*. 2023;16(4):286-296. doi:10.1089/env.2021.0085

Yang Z, Islam MK, Xia T, Batterman S. Apportionment of PM2.5 Sources across Sites and Time Periods: An Application and Update for Detroit, Michigan. *Atmosphere*. 2023;14(3):592. doi:10.3390/atmos14030592

Yuan H, Jang JC, Long S, et al. A Multi-Pollutant Air Quality Analysis with Environmental Justice Considerations: Case Study for Detroit. *Sustainability*. 2024;16(16):6931. doi:10.3390/su16166931