

February 26, 2025

Re: HB 109

Dear PA House Environmental & Natural Resource Protection Committee:

I am Dr. Marilyn Howarth, an Occupational and Environmental Medicine physician and Director of Community Engagement at the Center of Excellence in Environmental Toxicology at the Perelman School of Medicine at the University of Pennsylvania. I would like to thank you for inviting me to share science and health data on cumulative impacts with the committee. I am testifying as an individual and not representing the Center of Excellence in Environmental Toxicology.

The health and safety concerns that I will raise in this testimony are relevant to many PA communities. I will begin with a focus on Chester, PA. I have worked closely with the Chester community for over 10 years. Chester is an environmental justice area with 33% of the population living below the poverty line. Chester is a city where environmental and social determinants of health combine to negatively impact health. Over the last

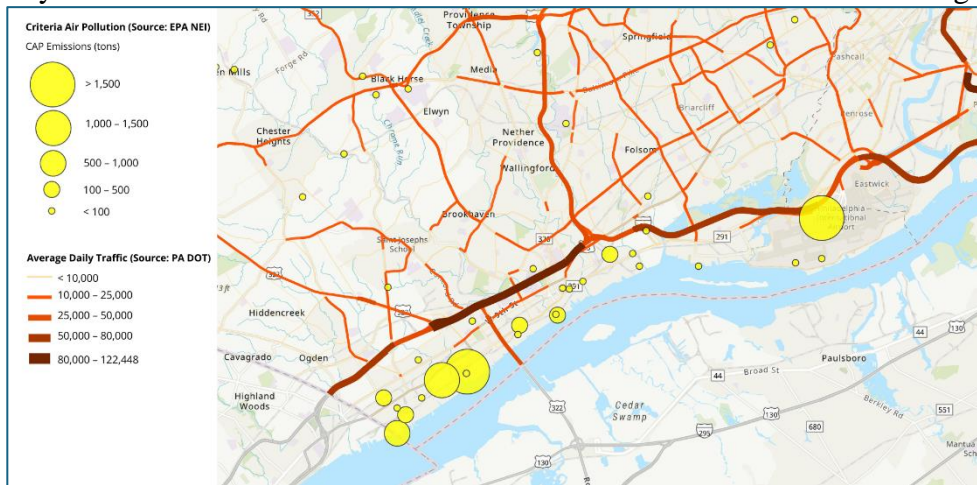


Figure 1. Criteria Air Pollutant Emissions and Traffic Counts in Delaware County.

50 years, Chester has experienced an unprecedented number of permitted and unpermitted pollution-emitting sources contributing to health disparities. Figure 1 shows Criteria Air Pollutant Emissions in Delaware County as reported to the EPA's National Emissions Inventory and traffic counts from the PA DOT and how these emissions sources cluster in Chester. Nitrogen oxides (NO<sub>x</sub>), a criteria air pollutant, and volatile organic compounds (VOCs) many of

which are considered air toxics are linked to serious respiratory and cardiovascular health issues, particularly for sensitive populations including children, the elderly, and individuals with preexisting conditions. Exposure to nitrogen dioxide has been associated with spontaneous abortions. In the City of Chester, the Black infant mortality rate (IMR) per 1,000 births was 2 times higher than the Pennsylvania Black IMR, and 1.8 times higher than the Delaware County Black IMR from 2018 to 2022.<sup>2</sup>

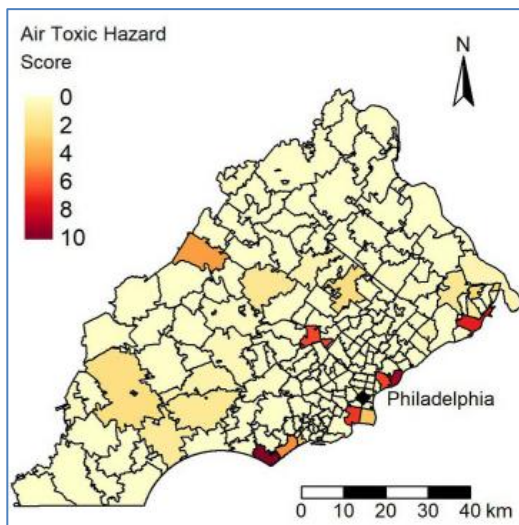


Figure 2. Air toxics hazard score in Southeastern Pennsylvania.

The EPA's National Air Toxic Assessment quantifies the toxic air emission overburden in Chester as being in the top 3 percent in the nation. The extreme overburden of toxic air emissions including volatile organic compounds (VOCs) has led to elevated rates of asthma, cancer and other environmentally mediated disease in the community. Research from CEET investigating the association between lung cancer incidence and exposure to air toxics, derived air toxic scores for geographic areas using more than 30 years of data from the EPA. The Southeastern corner of Pennsylvania had the highest air toxic hazard score (Figure 2).<sup>1</sup> This research found a positive association between the derived air toxics hazard score and lung cancer incidence.<sup>1</sup> The age-adjusted incidence of lung cancer was elevated along the Southeastern border of Pennsylvania when compared to the rest of the region. VOCs include known human

carcinogens. The death rate due to cancer and heart disease is higher in Chester when compared to Delaware County.<sup>2</sup> Delaware County is currently in nonattainment for national ambient air quality standards for ozone and PM2.5. VOCs are an important contributor to ground level ozone. Given that Delaware County already experiences poor air quality, any added emissions will exacerbate the health risks for residents. Yet, the current regulatory structure would not prevent another permit from being issued for Chester. The current regulatory structure does not require an assessment of the cumulative emissions of all area emitters. It does not even require consideration of all permitted emitters. In fact, each permit is written with emission limits that are the same whether that facility is the only one emitting air toxics or one of many. As a result, some communities like Chester end up with many permitted air toxics emission sources.

Chester falls into the top tenth percentile for environmental injustice in Pennsylvania, according to the DEP’s PennEnviroScreen (Figure 3).<sup>3</sup> PennEnviroScreen finds the City of Chester to have elevated risks in key environmental health indicators – 75<sup>th</sup> percentile and above for Air Toxics Cancer Risk, Respiratory Hazard Risk, and Diesel Particulate Matter.<sup>2</sup>

This scenario of cumulative community overburden plays out in many places, rural, urban and suburban, in the Commonwealth. The cumulative health impacts are substantial. In New Holland, Lancaster County, the EJ score is 98 making it one of the most overburdened areas in the Commonwealth. The toxic air emissions are in the 94<sup>th</sup> percentile and include sources such as ammonia and peracetic acid emissions from industrial poultry operations, ammonia, particulates and nitrogen oxides from biomass burning and airborne particulates from the steady diesel truck traffic traversing dirt roads in large landfills. The DEP’s current regulatory process fails to include these very significant contributors to air quality. The asthma rate in Lancaster County is 13%, well above the US prevalence of 9%.

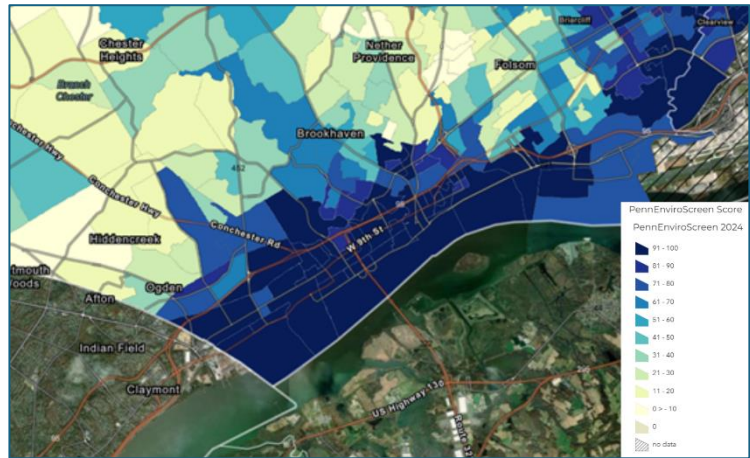


Figure 3. PennEnviroScreen Score for Southeastern Pennsylvania.

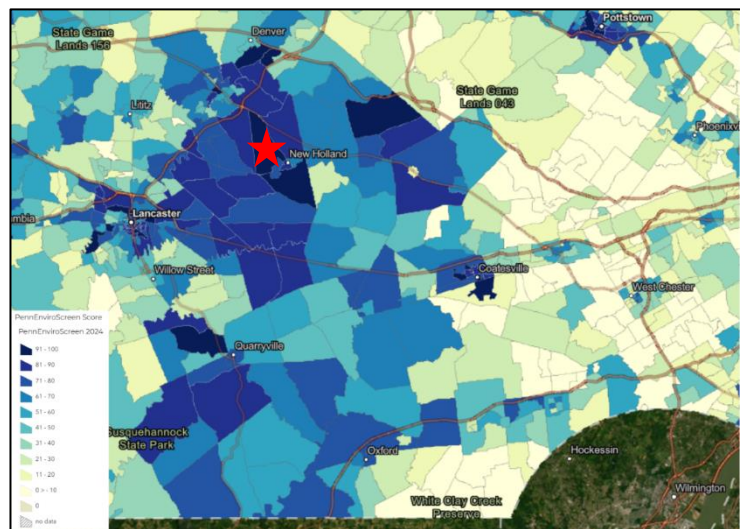


Figure 4. PennEnviroScreen Score for New Holland in Lancaster County

I am pleased to support House Bill 109 which describes the incorporation of cumulative impacts into the permitting process. If successful it would significantly mitigate the overburden of environmental pollutants in communities across the Commonwealth resulting in lower rates of asthma, heart disease, cancer and other environmentally influenced diseases in those communities. Here are several clarifications that would make this bill more auspicious in providing meaningful involvement of the public and improving health.

- 1) Requiring a cumulative environmental impact report when proposed siting of an emitting facility is in an environmental justice area will be essential for DEP to analyze the risks to people. Without clear expectations of what should be included in the environmental impact report, industry may have varying opinions as to what should and should not be included. **The bill should require DEP to define the**

**components of the cumulative environmental impact report to ensure consistency and to provide the DEP with the requisite information to inform policy decisions in the public interest.**

- 2) The bill requires a public hearing whenever a permit is requested in an environmental justice community. The aim of the hearing is to provide the public with an opportunity for meaningful involvement in the process. Requiring the permit applicant to make a presentation at a public hearing is not adequate for meaningful involvement of the public. In order for the public to be meaningfully involved, they need to have access to the permit application and the cumulative environmental impact report well in advance of the public hearing date in order to fully appreciate its implications. In some cases, the community may need to enlist experts to help in their understanding. **The bill should require public disclosure of permit applications at the time of filing with the DEP.**
  
- 3) I applaud the bill's endorsement of the DEP's ability to require additional conditions or mitigation measures or to deny a permit outright in an environmental justice community to protect the public's health. However, any decision by the DEP to do so would be vulnerable to legal challenge without a well described methodology and uniform enforcement strategy. **The bill should require the DEP to design a methodology and enforcement strategy that is transparent allowing industry to avoid the expense of putting forth a proposal that will not be successful and allowing the public to hold the agency accountable by using quantifiable metrics.**

I would like to respectfully remind you of your obligation under Pennsylvania's Constitution Article 1 Section 27 which states that all elected and appointed officials in the Commonwealth have a proactive responsibility to protect the environment so that every Pennsylvanian can exercise their right to clean air, pure water and the preservation of the natural, scenic, historic, and esthetic values of the environment. The Environmental Rights Amendment defines the public natural resources as common property of all people including generations to come. All of you are defined as the trustees of these resources obligated to conserve and maintain them for the benefit of all the people. The health and well-being of Pennsylvania residents is inextricably linked to clean air and pure water making the control of cumulative impacts of multiple pollution sources essential to their health. Thank you for considering my comments and for your faithfulness to your obligation to safeguard our environment and public health.

Sincerely,



Marilyn Howarth, MD, FACOEM

References:

1. Zhu AY, McWilliams TL, McKeon TP, Vachani A, Penning TM, Hwang WT. Association of multi-criteria derived air toxics hazard score with lung cancer incidence in a major metropolitan area. *Front Public Health*. 2023 Jun 26;11:1002597. doi: 10.3389/fpubh.2023.1002597. PMID: 37435521; PMCID: PMC10332161.
2. Delaware County Health Department. DCHD Epidemiology Data Request Response Form, 1/14/25.
3. PennEnviroScreen 2024. <https://gis.dep.pa.gov/PennEnviroScreen/>