



Environmental & Natural Resource Protection Committee

State Representative Greg Vitali
Democratic Chairman

30 East Wing • PO Box 202166 • Harrisburg, PA 17120-2166 • (717) 787-7647 • Fax: (717) 705-2089
1001 Darby Road • Havertown, PA 19083 • (610) 789-3900 • Toll-Free: (833) 787-5131 • Fax: (215) 560-4197

MEMORANDUM

DATE: 2/10/2025

TO: House Environmental & Natural Resource Protection Members

FROM: Representative Greg Vitali, Majority Chairman
House Environmental & Natural Resource Protection Committee

RE: Environmental & Natural Resource Protection Committee Public Hearing
–Tuesday, March 4th

The House Environmental and Natural Resource Protection Committee will hold a public meeting on **Tuesday, March 4th at 10:00am in Lathem Hall on Widener University's campus in Chester, PA.**

The subject of this hearing is “The Issuance of Permits in Environmental Justice Areas/ HB 109”

Please contact Hayley Shupe at 717-787-7647 or hshupe@pahouse.net with any questions. If you are unable to attend this meeting, please submit an Official Leave of Absence Form prior to the start of the meeting. Members will have the option to attend virtually if you cannot be there in person.

Thank you,

GV/hs



House Environmental & Natural Resource Protection Committee

Public Hearing Agenda:

“The Issuance of Permits in Environmental Justice Areas/ HB 109”

Tuesday, March 4th, 2025

10:00am – 12:00pm

Lathem Hall, Widener University, Chester PA

10:00am – 10:10am	Call to Order Roll Call Opening Remarks
10:10am – 10:25am	Zulene Mayfield Chair Chester Residents Concerned for Quality Living
10:25am – 10:55am	Dr. Sara N. Lupolt Assistant Scientist Johns Hopkins University, Bloomberg School of Public Health Lora Siegmann Werner Director Delaware County Health Department
10:55am – 11:25am	Dr. Marilyn V. Howarth Occupational and Environmental Medicine Physician Dr. Walter Tsou, MD, MPH Physicians for Social Responsibility
11:25am – 11:55am	Stefan Roots Mayor City of Chester Kristin Motley Health Commissioner, City of Chester Bureau of Health
11:55am – 12:00pm	Closing Remarks
12:00pm	Adjournment

THE GENERAL ASSEMBLY OF PENNSYLVANIA

HOUSE BILL

No. 109 Session of
2025

INTRODUCED BY VITALI, RABB, KENYATTA, ISAACSON, FREEMAN,
HOHENSTEIN, HILL-EVANS, KHAN, PROBST, SANCHEZ, SAMUELSON AND
HOWARD, JANUARY 14, 2025

REFERRED TO COMMITTEE ON ENVIRONMENTAL AND NATURAL RESOURCE
PROTECTION, JANUARY 14, 2025

AN ACT

1 Amending Title 27 (Environmental Resources) of the Pennsylvania
2 Consolidated Statutes, providing for issuance of permits in
3 environmental justice areas.

4 The General Assembly of the Commonwealth of Pennsylvania
5 hereby enacts as follows:

6 Section 1. Title 27 of the Pennsylvania Consolidated
7 Statutes is amended by adding a chapter to read:

8 CHAPTER 43

9 ISSUANCE OF PERMITS IN ENVIRONMENTAL JUSTICE AREAS

10 Sec.

11 4301. Legislative findings and purpose.

12 4302. Definitions.

13 4303. Designation of environmental justice areas.

14 4304. Permit process.

15 4305. Regulations and publication.

16 § 4301. Legislative findings and purpose.

17 The General Assembly finds and declares that:

1 (1) Low-income, low-wealth communities and communities
2 of color have historically borne and currently bear a
3 disproportionate share of environmental degradation.

4 (2) The Department of Environmental Protection is the
5 agency charged with administering the laws and regulations in
6 this Commonwealth to prevent and remedy environmental
7 degradation and is one of the agencies charged with
8 conserving, maintaining and restoring this Commonwealth's
9 public natural resources.

10 (3) Section 27 of Article I of the Constitution of
11 Pennsylvania recognizes that all the people of this
12 Commonwealth have inalienable environmental rights and that
13 the Commonwealth is the trustee of this Commonwealth's public
14 natural resources.

15 (4) All individuals in this Commonwealth should be able
16 to live in and enjoy a clean and healthy environment that
17 includes outdoor spaces, access to clean energy resources,
18 access to public lands and public natural resources.

19 (5) The elimination and restoration of disproportionate
20 environmental degradation is recognized as being directly
21 related to the economic vitality of this Commonwealth.

22 § 4302. Definitions.

23 The following words and phrases when used in this chapter
24 shall have the meanings given to them in this section unless the
25 context clearly indicates otherwise:

26 "Cumulative environmental impacts." The totality of existing
27 and imminent environmental impacts and pollution in a defined
28 geographic area, to land, waters of this Commonwealth or ambient
29 air, and regardless of whether the pollution has been authorized
30 under the laws of this Commonwealth.

1 "Department." The Department of Environmental Protection of
2 the Commonwealth.

3 "Environmental justice area." A geographic area
4 characterized by increased pollution burden and vulnerable
5 populations based on demographic, economic, health and
6 environmental data.

7 "Facility." The site of a department-regulated activity that
8 may lead to significant public concern due to potential impacts
9 on human health and the environment. The term includes sites
10 that involve the following:

11 (1) National Pollutant Discharge Elimination System
12 permits at industrial wastewater facilities that discharge at
13 or above 50,000 gallons per day.

14 (2) Air permits for any new major source of hazardous
15 air pollutants or criteria pollutants.

16 (3) Air permits for any major modification of a major
17 source that are subject to Prevention of Significant
18 Deterioration or Nonattainment New Source Review.

19 (4) Waste permits involving a combined monthly volume in
20 excess of 25 tons, or any major modification of waste
21 permits, including changes that result in an increase in
22 capacity or a facility expansion, for landfills, commercial
23 hazardous waste treatment facilities, storage or disposal
24 facilities and other disposal facilities, including a
25 landfill that accepts ash, construction or demolition debris,
26 medical waste or solid waste, transfer stations, recycling
27 centers, commercial incinerators and other waste processing
28 facilities.

29 (5) Mining permits for bituminous and anthracite
30 underground mines, bituminous and anthracite surface mines,

1 large industrial mineral surface and underground mines, coal
2 refuse disposal, coal refuse reprocessing, large coal
3 preparation facility or any revision of permits under this
4 paragraph that involve additional acreage for mineral removal
5 or use of biosolids for reclamation.

6 (6) An individual permit for a land application of
7 biosolids.

8 (7) Concentrated animal feeding operations that are new
9 or expanded operations of greater than 1,000 animal
10 equivalent units, concentrated animal operation of greater
11 than 300 animal equivalent units in a special protection
12 watershed or a concentrated animal operation with direct
13 discharge to surface waters.

14 (8) An electric generating facility with a capacity of
15 more than 10 megawatts.

16 (9) A sewage treatment plant with a capacity of more
17 than 50,000,000 gallons per day.

18 (10) Underground injection control wells associated with
19 oil and gas development.

20 (11) Other facilities as designated by the Environmental
21 Quality Board through regulations under this chapter.

22 "Permit." A permit, approval of coverage under a general
23 permit, registration or other authorization issued by the
24 department establishing the regulatory and management
25 requirements for a regulated activity as authorized by Federal
26 or State law.

27 § 4303. Designation of environmental justice areas.

28 (a) Method.--The methods to identify an environmental
29 justice area shall be determined and regularly reviewed by the
30 department.

1 (b) Designation.--No later than 120 days after the effective
2 date of this section, the department shall designate and make
3 publicly available environmental justice areas in this
4 Commonwealth. The department shall update environmental justice
5 area designations every three years.

6 § 4304. Permit process.

7 (a) Department action on permit applications for facilities
8 in environmental justice areas.--Beginning 180 days after the
9 effective date of this section, prior to the department taking
10 an action on an application for a new facility or for the
11 expansion of an existing facility, located in whole or in part
12 in an environmental justice area:

13 (1) The permit applicant shall prepare and submit with
14 the application for facility permit or other authorization, a
15 cumulative environmental impact report assessing the
16 environmental impact of the proposed new facility or
17 expansion of an existing facility, together with the
18 cumulative impacts on the environmental justice area, and the
19 adverse environmental effects that cannot be avoided or
20 mitigated should the permit be granted.

21 (2) Unless a public hearing is otherwise required by the
22 environmental laws and regulations for the permit or
23 authorization, the following shall apply:

24 (i) The department shall organize and conduct a
25 public hearing in a location as convenient as possible to
26 all interested parties and publish public notices of the
27 hearing in at least two newspapers circulating within the
28 environmental justice area and on the department's
29 publicly accessible Internet website not less than 21
30 days prior to the hearing.

1 (ii) At least 14 days prior to the date set for the
2 hearing, a copy of the public notice shall be sent to the
3 clerk of the municipality in which the environmental
4 justice area is located.

5 (iii) At a public hearing, the permit applicant
6 shall provide clear, accurate and complete information
7 about the proposed new facility or expansion of an
8 existing facility and the potential environmental and
9 health impacts of the new or expanded facility. The
10 hearing shall provide an opportunity for meaningful
11 public participation by residents of the environmental
12 justice area.

13 (iv) Following the public hearing, the department
14 shall consider the testimony presented and evaluate
15 revisions or conditions to the permit that may be
16 necessary to reduce the adverse impact to the public
17 health or the environment in the environmental justice
18 area.

19 (b) Decision by department.--The department may not issue a
20 decision on the permit application until at least 60 days after
21 a public hearing.

22 (c) Additional requirements.--The department may require
23 additional conditions or mitigation measures or may deny a
24 permit application in an environmental justice area based on the
25 cumulative environmental impacts.

26 (d) Publication.--The applicant shall provide copies of
27 applications for a permit for a facility located in whole or in
28 part in an environmental justice area to the clerk of the
29 municipality in which the environmental justice area is located,
30 who may recommend to the department conditions upon, revisions

1 to or disapproval of the permit only if specific cause is
2 identified. If the department overrides a municipal
3 recommendation, the department shall be required to transmit
4 notice of the department's justification for overriding the
5 municipality's recommendations to the Legislative Reference
6 Bureau for publication in the next available issue of the
7 Pennsylvania Bulletin. If the department does not receive
8 comments within 60 days of receipt of the applications from the
9 permit applicant by the clerk of the municipality, the
10 municipality shall be deemed to have waived the municipality's
11 right to review.

12 (e) Construction.--The provisions of this section shall be
13 in addition to all requirements under any applicable
14 environmental law.

15 § 4305. Regulations and publication.

16 (a) Promulgation.--The department and Environmental Quality
17 Board shall adopt and promulgate rules and regulations to
18 implement this chapter.

19 (b) Publication of permits.--In addition to publication
20 requirements under law and regulation, the department shall
21 publish all permits granted under this chapter, along with any
22 guidance documents, on its publicly accessible Internet website.

23 Section 2. This act shall take effect immediately.

HOUSE OF REPRESENTATIVES

DEMOCRATIC COMMITTEE BILL ANALYSIS

Bill No:	HB0109 PN0087	Prepared By:	Andrew McMenamin (717) 783-4043,6941
Committee:	Environmental & Natural Resource Protection	Executive Director:	Evan Franzese
Sponsor:	Vitali, Greg		
Date:	1/14/2025		

A. Brief Concept

Gives local communities a voice in the permitting process and requires permittees in burdened communities to prepare a cumulative environmental impact report.

C. Analysis of the Bill

HB 652 amends Title 27 (Environmental Protection) to add Chapter 47 (Issuance of Permits in Burdened Communities), which provides for additional permit review in environmental justice areas.

Designation of EJ Areas

Requires DEP to designate environmental justice (EJ) areas in PA no later than 120 days after the passage of this act.

Requires DEP to update EJ area designations every three years.

Permit Process

Requires permit applicants to prepare a report assessing the cumulative environmental impact of a proposed project located in an EJ area, starting 180 days after the effective date.

Requires applicants to provide copies of the permit applications to the clerk of the municipality in which the EJ area is located.

Requires the department to organize and conduct a public hearing in a convenient location to interested parties, with a meaningful public participation component and sufficient public notice.

- At least 14 days prior to the hearing, a copy of the public notice shall be sent to the clerk of the municipality in which the EJ area is located.

Requires the permit applicant to provide clear, accurate, and complete information about the proposal and potential impacts.

Requires the department to consider the testimony presented at the hearing and evaluate revisions or conditions to the permit based on adverse impact to health and the environment in the EJ area.

Permit Decision

Prohibits the department from issuing a permit application decision within 60 days of the public hearing.

Allows the department to require additional conditions or mitigation measures, or deny a permit altogether, in an EJ area based on the cumulative environmental impacts.

Allows the municipality to review the permit application and recommend conditions, revisions, or disapproval of the permit, only if specific cause is identified.

- If the department chooses to override a municipal recommendation, it would be required to publish justification in the PA Bulletin.
- If comments are not received within 60 days of receipt of the permit application, the right to review shall be deemed waived.

Regulations

Requires DEP and EQB to promulgate rules and regulations to implement the provisions of this act.

Definitions

Cumulative environmental impacts means the totality of existing and imminent environmental impacts and pollution related to land, water, and air in a defined geographic area.

Environmental justice area means a geographic area characterized by increased pollution burden and vulnerable populations based on demographic, economic, health, and environmental data.

Facility includes, but is not limited to, the following:

- National Pollutant Discharge Elimination System (NPDES) Permits at industrial wastewater facilities that discharge more than 50,000 gallons per day.
- New or modified air permits for a major source of air pollution.
- Waste permits involving a combined monthly volume in excess of 25 tons, or any major modification of waste permits.

- Mining permits for bituminous and anthracite mines, large industrial mineral mines, coal refuse facilities, or any permit revisions that involve additional acreage for mineral removal or use of biosolids for reclamation.
- An individual permit for a land application of biosolids.
- Large concentrated animal feeding operations.
- An electric generating facility with a capacity of more than 10 megawatts.
- A sewage treatment plant with a capacity of more than 50,000,000 gallons per day.
- Underground injection control wells associated with oil and gas development.
- Other facilities as designated by the Environmental Quality Board (EQB) by regulation.

Effective Date:

Immediately

G. Relevant Existing Laws

DEP does not currently evaluate permits based on environmental justice (EJ) concerns.

DEP's Office of Environmental Justice was established via Executive Order 2021-07 on October 28, 2021 and is a point of contact for Pennsylvania residents in low-income communities. Its primary goal is to increase environmental awareness and involvement by communities in the DEP permitting process. The department is currently revising its EJ public participation policy.

E. Prior Session (Previous Bill Numbers & House/Senate Votes)

HB 109 was previously introduced as HB 652 by former Rep. Bullock during the 2023-2024 Legislative Session. HB 652 was reported as amended from the House ERE Committee on a party line vote (14-11), but received no further consideration.

This document is a summary of proposed legislation and is prepared only as general information for use by the Democratic Members and Staff of the Pennsylvania House of Representatives. The document does not represent the legislative intent of the Pennsylvania House of Representatives and may not be utilized as such.

(Summary Report)
Environmental Risk Study
For
City of Chester, Pennsylvania

Conducted by the U.S. Environmental Protection Agency

Region III

in conjunction with the

Pennsylvania Department of Environmental Resources

June, 1995

Environmental Risk Study for the City of Chester, Pennsylvania

The Chester Risk Assessment Project was part of an initiative by the United States Environmental Protection Agency (USEPA) Region III and agencies of the Commonwealth of Pennsylvania to study environmental risks, health, and regulatory issues in the Chester, Pennsylvania area.

Study Conclusions and Recommendations

CONCLUSIONS

- 1 - Blood lead levels in the children of Chester is unacceptably high with over 60% of the children's blood samples above the Center for Disease Control (CDC) recommended maximum level of 10 micrograms per deciliter ($\mu\text{g}/\text{dl}$).
- 2 - Both cancer and non-cancer risks, e.g. kidney and liver disease and respiratory problems, from the pollution sources at locations in the city of Chester exceed levels which EPA believes are acceptable.
- 3 - Air emissions from facilities in and around Chester provide a large component of the cancer and non-cancer risk to the citizens of Chester.
- 4 - The health risks from eating contaminated fish from streams in Chester and the Delaware River is unacceptably high.
- 5 - Drinking water in Chester is typical of supplies in other cities throughout the country.

RECOMMENDATIONS

- 1 - The lead paint education and abatement program in the City of Chester should be aggressively enhanced.
- 2 - Sources of air emissions which impact the areas of the city with unacceptably high risk should be targeted for compliance inspections and any necessary enforcement action.
- 3 - A voluntary emission reduction program should be instituted to obtain emissions reductions from facilities which provide the most emissions in the areas of highest risk.
- 4 - Enhanced public education programs to communicate the reasons behind the existing state mandated fishing ban should be implemented.

endpoint (cancer or non-cancer) was evaluated.

Estimated criteria pollutant concentrations were compared to the NAAQS. (This approach for evaluating potential threats is similar to the methodology employed for assessing non-cancer threats posed by chemicals with RfDs.)

For gasoline and diesel, carcinogenic risks were assessed based upon respective unit risks for these compounds, as determined by a recent USEPA investigation (USEPA, 1993c).

For the criteria pollutants, predicted concentrations at each grid location were compared to NAAQSs.

Individual Risks

At various locations in Chester, several chemicals were predicted to exist in air at concentrations of potential concern. Chromium VI was determined to contribute the most to carcinogenic³ risk at any given location, while hydrogen chloride presents the greatest non-cancer threat. A summary of the highest individual risks in Chester City is presented in Table 4-32 for carcinogenic COPCs, and in Table 4-33 for COPCs with non-cancer endpoints.

None of the predicted concentrations of criteria pollutants in Chester exceeded NAAQSs, as illustrated in Table 4-34.

Cumulative Risks

Cumulative carcinogenic risks and non-cancer threats are predicted to exceed levels considered safe at several locations in Chester City. The range of aggregate carcinogenic risks in Chester as a result of inhalation is estimated to be $1.1E-5$ to $6.6E-5^4$. For non-cancer endpoints, the range of Hazard indices (HI) is predicted to be 1.0 to 3.8. The risks are also displayed on Figures 4-29, 4-30, 4-31, 4-32, 4-33, and 4-34.

Cumulative values for the criteria pollutants were estimated to range from 0.6 to 1.6. This is illustrated on Fig. 4-35.

It is possible to discuss the culpability of various sources of air pollution to these risks. As outlined in the section on

³ cancer causing

⁴ $1.1E-05$ is a scientific notation used in risk characterization to express an excess cancer risk in the general population of 1.1 persons out of 100,000 would be expected to incur (not die from cancer but incur a cancer) a cancer above and beyond the normal incidence of cancer.

How polluting is the Covanta trash incinerator in Chester?

The “Covanta Delaware Valley” incinerator in the City of Chester, PA is the largest waste incinerator in the United States, operating with the fewest pollution control devices. From 2016-2019, based on data reported to the PA Department of Environmental Protection, it’s the #1 industrial air polluter in Delaware County, releasing more pounds of health-damaging air pollution than any other facility (note that, in many years, the oil refinery in Trainer takes its place as #1).

Pollutant (in pounds except CO ₂ e)	Emissions (2016-19 avg pounds/year)	Rank in DelCo*	Health Effects
Global Warming Pollution (in tons of CO ₂ equivalents)	1,020,104	4	Extreme weather, disease, crop damage, species extinction
Nitrogen Oxides	2,337,532	1	triggers asthma attacks, chronic respiratory disease and stroke
Carbon Monoxide	778,951	1	headaches and dizziness; increases lifetime risk of heart disease
Sulfur Dioxide	295,382	2 (now #1)	triggers asthma attacks; chronic respiratory and heart diseases; stroke
Particulate Matter	112,608	3	heart attacks, stroke, irregular heartbeat, aggravated asthma, decreased lung function, difficulty breathing
Fine Particulate Matter	78,854	2	same as above, but worse, gets deep into lungs and into blood stream
Volatile Organic Compounds	22,878	12	eye, nose and throat irritation, headaches, loss of coordination and nausea, liver, kidney and central nervous system damage, cancer
Hydrochloric Acid	18,377	3 (now #2)	irritates eyes, skin, and nose, damages lungs
Lead	46	2	damages nervous system and kidneys, lowers IQ, increases likelihood of antisocial behavior
Mercury	42	1	damage to nervous, digestive, and immune systems, lowers IQ
Nickel	41	2	allergy, cardiovascular and kidney diseases, lung fibrosis, lung and nasal cancer
Cadmium	5	2	kidney disease; lung cancer
Arsenic	4	2	lung, skin, bladder, and liver cancers; irritation of the skin and mucous membranes and effects in the brain and nervous system
Chromium (VI)	4	2	lung cancer, shortness of breath, coughing, and wheezing

To put the smaller numbers in perspective, mercury is one of the toxic pollutants for which there is no known safe level of exposure. Lead and dioxins also have no “safe” level. Dioxins are the most toxic chemicals known to science – 140,000 times more toxic than mercury – and incinerators are a major source (but good data is lacking). The incinerator reported releasing 42 lbs of mercury into the air annually, on average in recent years, not counting that which gets into the air and water via the ash. A highly cited Minnesota study found that if approximately one gram of mercury (the amount in a single fever thermometer) is deposited to a 20-acre lake each year from the atmosphere, this small amount, over time, can contaminate the fish in that lake to the point where they should not be eaten. 24 pounds of mercury equals 19,051 grams. That means the incinerator, in a typical year, is releasing enough mercury sufficient to keep over 19,000 20-acre lakes so contaminated that the fish are not safe to eat. The state advises to limit fish consumption from the Delaware River due to mercury contamination.

But what about buildings and mobile sources? Aren’t they a bigger source of pollution to worry about?

Yes, for some pollutants, the fossil fuels burned to heat buildings or move vehicles are the largest share of pollution compared to industry. However, Covanta is the largest polluter of all industrial sources, and is a big share of the total even when compared to everything (vehicles, buildings, etc.). Covanta prefers to compare themselves to mobile and other sources only on pollutants where that makes them look like a smaller contributor. However, for the most toxic pollutants (dioxins, acid gases, and toxic metals), these other sources do not contribute in a significant way, and Covanta’s role is still huge. For example, Covanta emitted 56% of the mercury released in the county in recent years.

* Covanta’s ranking compared to other industrial air polluters in Delco. For two of these, Covanta’s ranking is now higher since the Kimberly-Clarke paper mill in Chester recently switched from burning waste coal and petroleum coke to natural gas.

From Environmental Crisis to Economic Consequences: A Call for Action in Pennsylvania

Environmental and Natural Resources Protection
Public Hearing on the Issuance of Permits in
Environmental Justice Areas/HB 109



BUREAU OF HEALTH

Kristin Motley, PharmD, MBA
Health Commissioner
City of Chester

Widespread Environmental Burden

There are **1,965** environmental justice communities throughout Pennsylvania

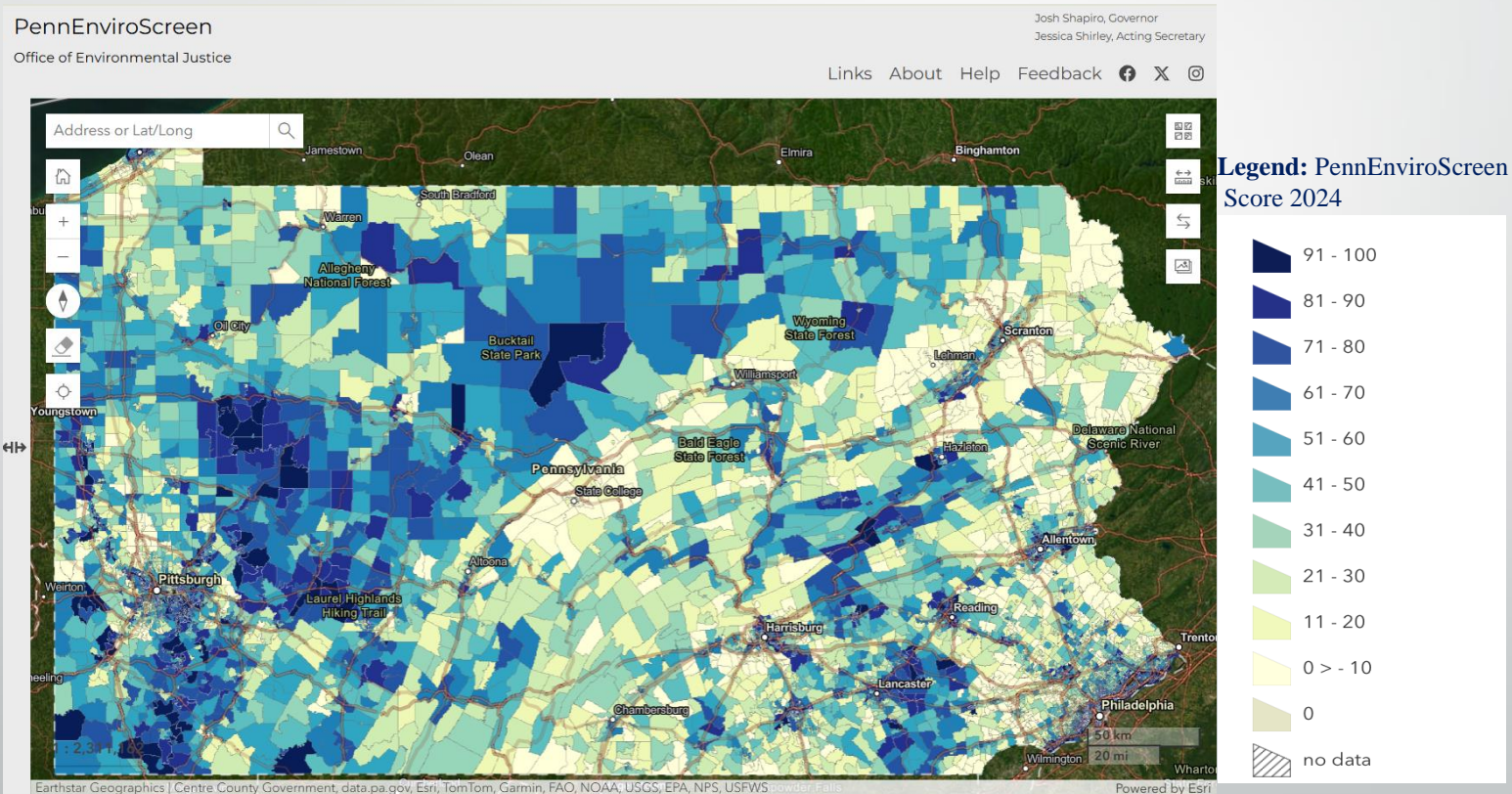


Figure 1: Penn EnviroScreen

Reference: PennEnviroScreen. Pennsylvania department of environmental protection. Accessed February 28, 2025. <https://gis.dep.pa.gov/PennEnviroScreen/>

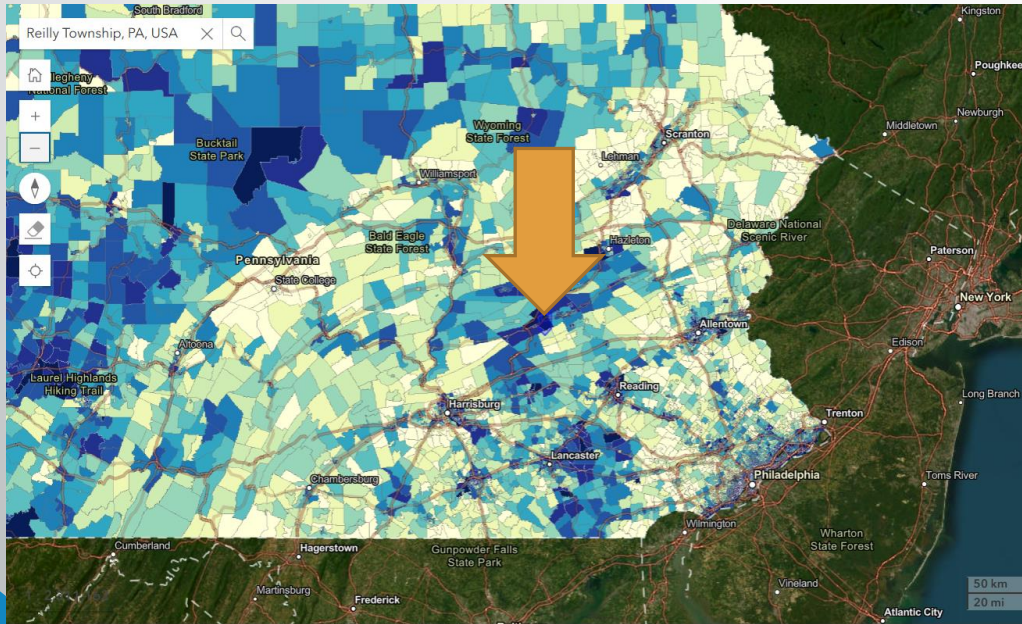


Environmental Burden by District

Reilly Township, PA in Schuylkill County

123rd District, Rep Tim Twardzik

Final Score Percentile: 93



4. Coal
Mines



3. Landfill



2. Traffic



1. Pesticides

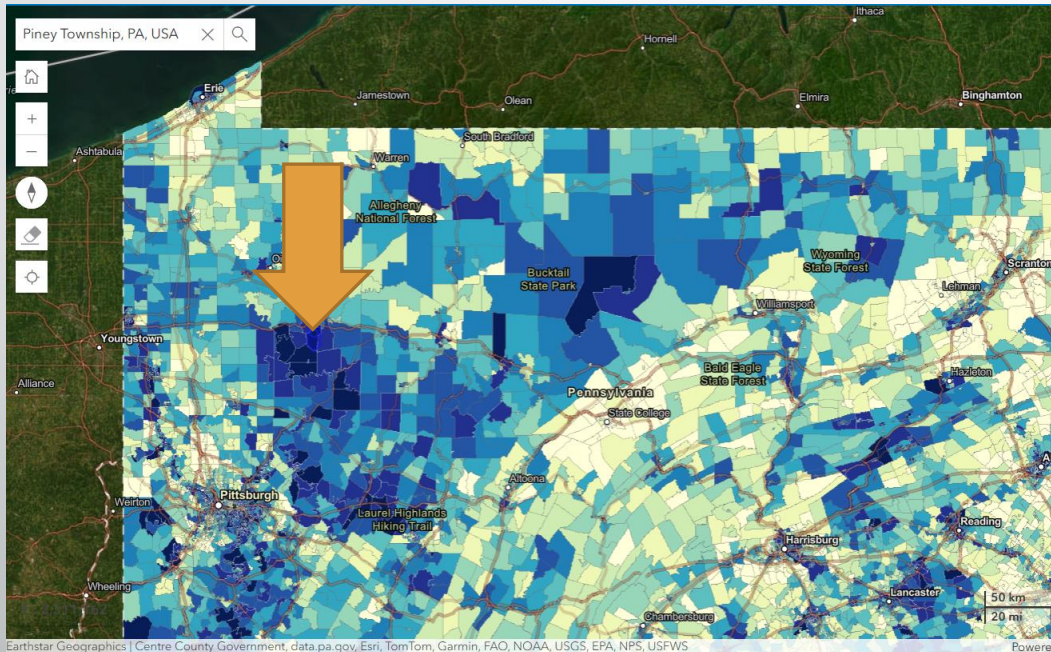


Environmental Burden by District

Piney Township, PA in Clarion County

63rd District , Rep John Bashline

Final Score Percentile: 92



5. Coal Mines



4. Flood Risk



3. Hazardous Waste Facility



2. Oil and Gas Wells



1. Traffic

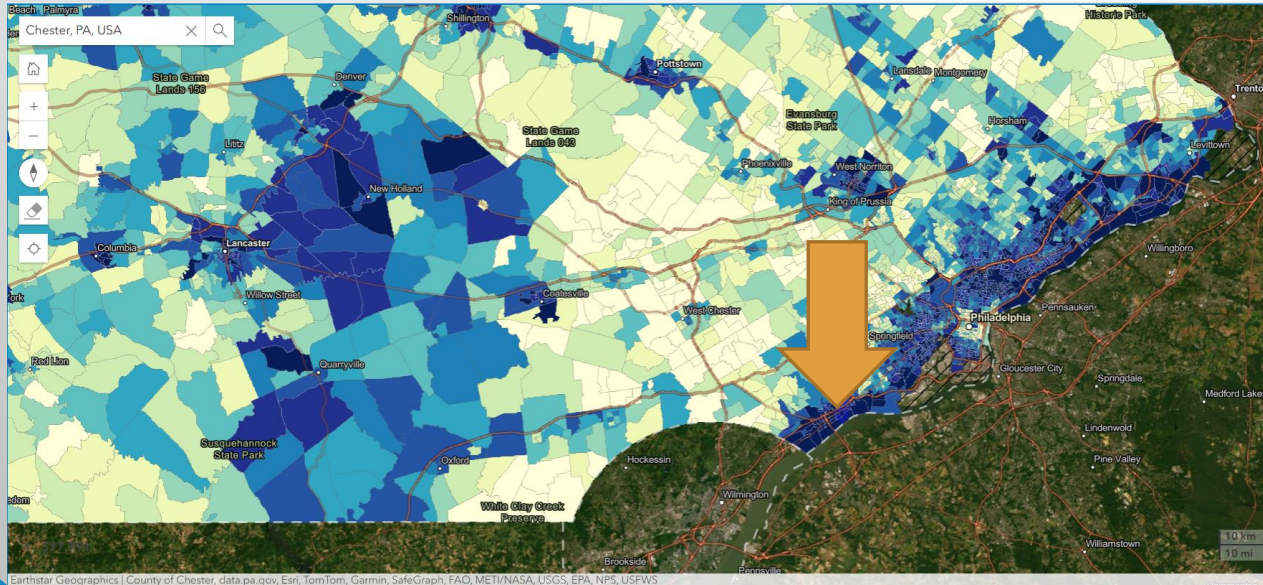


Environmental Burden by District

Chester, PA in Delaware County

159th District - Rep Carol Kazeem

Final Score Percentile: 100



7. Trash Incinerator



6. Traffic



5. Solid Waste Facility



4. Oil Refinery



3. Railroad



2. Airplanes



1. Chemical Plants



Delays in Environmental Justice Create Long-Term Risks for Our Children (cont.)

Asthma

Cancer

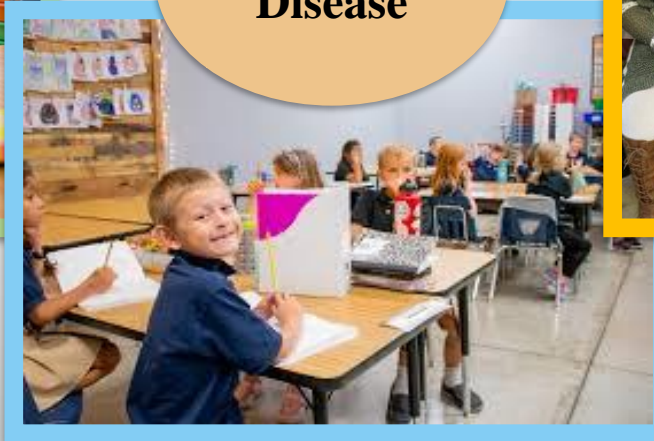
Heart Disease



Reilly Township, PA



Chester, PA



Piney Township, PA

Disability

No Insurance

Delays in Action Amplify Healthcare Costs and Loss of Productivity



Asthma¹

- The annual per-person medical cost of asthma was **\$3,266**
- Missed work and school days, combined, **cost \$3 billion per year**, representing 8.7 million workdays and 5.2 million school days



Cancer^{4,5}

- For patients undergoing chemotherapy, average annual medical and pharmacy expenses can reach approximately **\$111,000**
- In 2020, the productivity cost of cancer mortality was **\$147.6 billion**



Heart Disease^{2,3}

- PA spends **over \$15 billion annually**
- The mean annual cost of treating heart disease was **\$5,540** per adult
- Indirect costs, including lost productivity, costs **\$237 billion**, and is project to increase 55% by 2035

References: 1. AMJC. CDC Study Puts Economic Burden of Asthma at More Than \$80 Billion Per Year. Accessed February 28, 2025. <https://www.ajmc.com/view/cdc-study-puts-economic-burden-of-asthma-at-more-than-80-billion-per-year> 2. AHRQ. Healthcare Expenditures for Heart Disease among Adults Aged 18 and Older in the U.S. Civilian Noninstitutionalized Population, 2020. Accessed February 28, 2025. https://meps.ahrq.gov/data_files/publications/st550/stat550.pdf 3. AHA. Cardiovascular disease: a costly burden for America. Accessed February 28, 2025. <https://www.heart.org/-/media/Files/About-Us/Policy-Research/Fact-Sheets/Public-Health-Advocacy-and-Research/CVD-A-Costly-Burden-for-America-Projections-Through-2035.pdf> 5. Bradley CJ, Yabroff KR, Dahman B, Feuer EJ, Mariotto A, Brown ML. Productivity costs of cancer mortality in the United States: 2000-2020.





+

4. Coal Mining

+

3. Landfill

+

2. Traffic

+

1. Pesticides



+

5. Coal Mining

+

4. Flood Risk

+

3. Hazardous Waste Storage

+

2. Conventional Oil and Gas Well

+

1. Traffic



+

7. Trash Incinerator

+

6. Traffic

+

5. Solid Waste

+

4. Oil Refinery

+

3. Railroad

+

2. Airport

+

1. Chemical Plant





BUREAU OF HEALTH

TESTIMONY

Environmental and Natural Resources Protection

Public Hearing on the Issuance of Permits in Environmental Justice Areas/HB 109

March 4, 2025
Lathem Hall
Widener University
Chester, PA

Submitted: Kristin Motley, PharmD, MBA

Slide 1 – Title Slide

I am Dr. Kristin Motley, the Health Commissioner for the City of Chester. Thank you for the opportunity to speak to you in this forum, and thank you for holding this hearing in Chester, PA, ground zero for environmental justice. Unfortunately, in PA, this issue is more common than we may realize.

Slide 2

This image shows how widespread environmental justice is across the Commonwealth. In fact, there are almost 2000 environment justice areas in Pennsylvania according to the PA Department of Environmental Protection.

As you can see from the legend, light yellow shows no or little environmental pollution burden. As the colors deepen, the burden is intensified. The dark blue hues show significant burden.

From this map, you can easily see how vast this issue is across PA. If I were to zoom in to focus on the southeastern part of the state, where we are today, you will see dark blue spread throughout this entire region in Delaware County and Philadelphia region. The impact of pollution is even more devastating here because this area is much more densely populated than rural areas across the state.

Not only are there almost 2000 environment justice areas in PA, every member of this committee has at least one EJ area in their district. If you think this is an issue that does not impact the people who vote for you, you are wrong.

Slide 3

In the 123rd district where Rep Tim Twardiz serves, the people of Reilly Township are dealing with the impacts of being exposed to environmental pollutants like pesticides, plus traffic, plus landfills, plus coal mines. The health consequences of one of these alone is a lot to bear in this low-income community. Yet, they have to deal with the health impacts of pollution from these multiple sources.

Before DEP is allowed to issue another permit near this community, we are asking you to allow them to consider the environmental burden that's already plaguing the people who live there. Let them check.

Slide 4

Next, let's take a look at the 63rd district in the western part of PA where Rep Bashline serves. As you can see, his voters in Piney Township are dealing with the environmental impacts of automobile traffic, plus oil and gas wells, plus a hazardous waste facility, plus flood risks, plus coal mines.

Don't let DEP issue another permit in this community without allowing them to consider the environmental burden that's impacting the health of the people who live there. Let them check.

Slide 5

Last, we examine what's happening in Chester which is in Rep Carol Kazeem district. Chester is the first city in the US to be identified as an environmental justice community. People living and working in and near Chester are impacted by pollution from chemical plants, plus airplanes, plus trains from the railroad that runs through town, plus an oil refinery neighbor, plus a solid waste facility, plus traffic from inter-state highway in addition the industrial highway, both of which run through Chester. Then on top of all of that and other sources of pollution that I did not list here, Chester is home to the country's largest trash incinerator.

You may think that Chester has reached its saturation point where another polluting industry would not even think of coming here. That's simply not true. It's apparent that the people of Chester have been the ideal community for polluting industries to set up shop. If you think DEP should issue another permit without taking into account all of these entities that already contribute to the poor health outcomes and tragic economic situation of the city, then we have a problem. DEP should absolutely take these factors into account before issuing another permit. Let them check.

Slide 6

Even though the children from these communities are different races and ethnicities, they live in households with different income levels, they will pursue very different paths in life, they do have one thing in common. They will have higher risk of asthma, cancer, heart disease and other PREVENTABLE health conditions. They also live in communities with high rates of disability and where a significant number of people are

uninsured. In fact, the leading cause of death in these areas are, cancer, heart disease and respiratory disease. The societal and economic impact of these environmental burdens are too costly to continue to ignore.

Slide 7

As adults, these children will contribute to the \$3 billion that it costs to provide care to people with asthma. They will contribute to the \$150 billion it costs to provide healthcare to people with cancer.

Lastly, they will contribute to the \$237 billion it costs to provide care to people with heart disease. PA alone spends over \$15 billion a year on people with heart disease. This is preventable.

Slide 8

We are not asking that DEP block every single permit that is requested in these communities. The residents absolutely want to attract businesses to their towns for all the economic and social benefits that result. We are simply saying we don't want businesses that add to our environmental burden. Let the experts at DEP consider the sources of pollutions before issuing new permits. Let them check.

We're not asking you to go out on a limb to see if this works or to see if it helps or hurts the economy. We already have this data. Cumulative impact laws have been successfully implemented various states including New York, Massachusetts, and New Jersey. In fact, I called a legislator in NJ last week to find out how their cumulative impacts bill negatively impacted the state's economy. They said that haven't seen any negative impacts of it. They shared that Camden in particular, which has a significantly high environmental burden, is experiencing an economic boom. And that's what happens when you let them check.

The bill may not be perfect as written. But I urge you to sit with your colleagues and work together to make it better. No matter where we live in PA, we want the same things. (1) We want our children to have a solid education – kids with asthma miss too many days of school, (2) we want safe communities – the air in these environmental justice communities is literally causing cancer and heart disease, it's killing people, and (3) we want good jobs – these jobs can't generate enough revenue to pay for the health effects they cause. Tax payers end up paying.

If you haven't already signed on, this is your chance. Get this bill through Committee and work with your colleagues to make it better. Make the necessary changes to allow DEP to do a better job at protecting our beloved state and all the people who live and work here, all while ensuring that PA continues to see economic growth. As I said at the beginning of my testimony, each of you serve as least one environmental justice community in your district. Many of you have several in your district. This matters to you. And it matters to your voters. So please, let them check.

Thank you

Chairperson Vitali and Members of the Committee,

My name is Dr. Walter Tsou. I serve on the Board of Physicians for Social Responsibility Pennsylvania. Thank you for the opportunity to provide testimony on HB 109 and the environmental and public health concerns affecting Chester, Pennsylvania, and its surrounding areas. My testimony highlights the significant cumulative environmental impacts posed by industrial facilities and transportation infrastructure within a ten-mile radius of Chester.

Industrial and Waste-to-Energy Facilities

Just within a five-mile radius of Chester, multiple industrial and waste-to-energy facilities contribute to air and water pollution, exacerbating health risks for local residents. These include:

- **Kimberly-Clark Paper Mill:** cited for fuel and oil and sulfuric acid spills
- **Marcus Hook Industrial Complex:** Includes refineries and chemical plants that emit various air pollutants and the end terminal of natural gas liquids from Mariner East.
- **ReWorld/Covanta Delaware Valley Resource Recovery Facility** - multiple fines for air and ground contamination.

These facilities collectively contribute to poor air quality, increasing the risk of respiratory, cardiovascular and cancer diseases among residents. Commissioner Motley and Drs. Howarth and Lupolt offer much more details on these health impacts in their testimonies.

Impact of the Philadelphia International Airport

To the east of Chester, the Philadelphia International Airport presents additional environmental burdens, including:

1. Noise pollution, which can lead to sleep disturbances and increased stress levels.
2. Air pollution from aircraft emissions, which can contribute to cardiovascular and respiratory problems.

Industrial Facilities Across the Delaware River

Across the Delaware River in New Jersey, additional industrial operations further exacerbate Chester's environmental burden. Notable sites include:

- **South Jersey Port Corporation** operates the Balzano Terminal and the Broadway Terminal in Camden.
- **Pureland Industrial Complex** in Logan Township, housing companies like Amazon and Mitsubishi.

Gibbstown, New Jersey has several industrial facilities, merely 10 miles away from Chester:

- **Paulsboro Refinery:** Processes crude oil into products like gasoline and jet fuel
- **Gibbstown Logistics Center:** A proposed location for exporting liquefied natural gas.

These facilities do and will release pollutants that can travel across the river, affecting air and water quality in Chester. They can also affect air quality and contribute to greenhouse gases exacerbating climate change.

Superfund Sites and Additional Environmental Hazards

Finally, of concern is the historical **Wade superfund** site now used for parking for Subaru park and the **Delaware County Regional Water Quality Control Authority:** Treats sewage and wastewater.

In short, there are many pollution sites within the close proximity of Chester and the cumulative impact of these sources of pollution must be weighed in any permitting decision.

Unspoken is the source of much of this pollution at ReWorld/Covanta namely burning plastic. As one of the largest incinerators in America, our inability to find a way to dispose of plastic means much of this fossil fuel created product ends up as a combination of toxic ash and chemical air pollution. The plastic industry has plans to triple their current production meaning even more of their waste will be burnt in Chester. And major cities including Philadelphia, New York, NJ, and Delaware depend on the incinerator to handle their trash problem.

Ironically, some of these plastic precursors are being made at the Shell cracker plant in Monaca, PA which means even more fracking and pollution over the Marcellus Shale. So Pennsylvania serves as both the source and pollution end of plastic. Which begs the question, couldn't we be smarter about plastic in our state? Maybe tax plastic as a way to fund education, public transportation and help environmental justice communities like Chester. And raising the price of plastic is the best stimulus to reduce its use, find alternatives and keep it out of our waste streams.

The Mayor will speak on these impacts on Chester, but my perspective is that we have created a city unfairly burdened by pollution which has depressed home values and impacted the health and income of residents. This economic impact has also hurt their largest employer, Crozer Chester Medical Center whose adverse case mix led to its unfortunate sale to Prospect Medical Holdings and now teeters on bankruptcy.

Conclusion and Recommendations

The political question is if you don't renew ReWorld's permit, what will we do with all the trash? We need to expand landfills and create a ten year plan on shrinking the waste stream. More incentives to reduce plastic, recycle electronics and construction materials, fix rather than throw things out, support home repairs, compost food and ever so slowly close Covanta.

Thank you for your time and attention to this pressing issue. I welcome any questions from the committee.

Walter Tsou, MD, MPH, walter@psrpa.org



Promoting and Protecting the Health of Delaware County

March 2, 2025

Testimony:

Lora Siegmann Werner, MPH

Director

Delaware County Health Department

“The Issuance of Permits in Environmental Justice Areas/ HB 109”

Tuesday, March 4th, 2025

10:00am – 12:00pm

Lathem Hall, Widener University, Chester PA

Thank you for the opportunity to testify before the House Environmental & Natural Resource Protection Committee and to express my strong support for Amending Title 27 (Environmental Resources) of the Pennsylvania Consolidated Statutes to add Chapter 47 (Issuance of Permits in Burdened Communities).

A critical policy tool for addressing long-standing inequitable exposures and health impacts is to consider cumulative impacts in environmental permitting decision-making. Empowering PADEP to consider cumulative impacts – the total harm to human health that occurs from the combination of environmental burden such as pollution and poor environmental conditions, pre-existing health conditions, and social factors such as access to quality healthcare – addresses this gap of only considering each permitting decision in isolation.

I joined the Delaware County Health Department as Deputy Director at the initiation of the department’s operations in April 2022 and was promoted as Director in November 2024. Prior to serving the County, I worked at the federal level as Regional Director for the Agency for Toxic Substances & Disease Registry/Centers for Disease Control and Prevention and with the Preparedness Division of the Federal Emergency Management Agency Region 3 in Philadelphia and in environmental consulting. I have over 30 years of experience directing responses to chemical exposure and environmental public health concerns, evaluating and providing technical assistance to communities and agencies, and building partnerships across Delaware, the District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia.

There is substantial scientific evidence that environmental stressors, socioeconomic disadvantage, lack of environmental assets, and health vulnerability are clustered and persist in distinct geographic patterns in our country. I observed this over and over again in my work at the federal level, and it is crystal clear that this also occurs here in Delaware County. Residents living in particular communities in Delaware County are disproportionately burdened by multiple environmental hazards in the places where they live and work. This is the result of years and years of continuing the practice of regulating facilities in isolation from each other in concert with local zoning practices that do not consider cumulative health impacts. The effects of environmental burdens on our residents’ health are compounded by pre-existing health

conditions and social inequities. This results in health disparities that can continue over generations.

Addressing cumulative impacts in environmental permitting decisions in overburdened communities is needed across our Commonwealth – in every rural, suburban and urban county. In my federal career, I worked with communities in Northeast Pennsylvania dismayed that PADEP cannot take into account cumulative exposures from existing waste disposal operations into future landfill permitting decisions. I worked with communities in Berks County that couldn't understand why the cumulative impact of biosolids applications on neighboring farms was not something that the state could consider in permitting. I worked with rural mountainous communities where there is only one major road and any increase in coal mining truck volume dramatically compounded the existing air quality problems for homes lining that same road. And I worked with communities in Lehigh County and Allegheny County frustrated that PADEP does not have regulatory tools to address the cumulative impacts from air emissions and quality of life impacts from quarry and concrete crushing operations in close proximity to residents.

Closer to home now, this is absolutely a critical issue here in Delaware County. We are here for this hearing in the City of Chester because I believe this committee recognizes the importance of this community and the longstanding challenges it has faced.

Data from the Pennsylvania Environmental Health Indicators Map developed by the Pennsylvania Department of Health, Division of Environmental Health Epidemiology demonstrates that the City of Chester has highly elevated risks in key environmental health indicators including:

- Air Toxics Cancer Risk,
- Respiratory Hazard Risk,
- Diesel Particulate Matter (PM)
- Traffic Proximity and Volume
- Wastewater Discharge

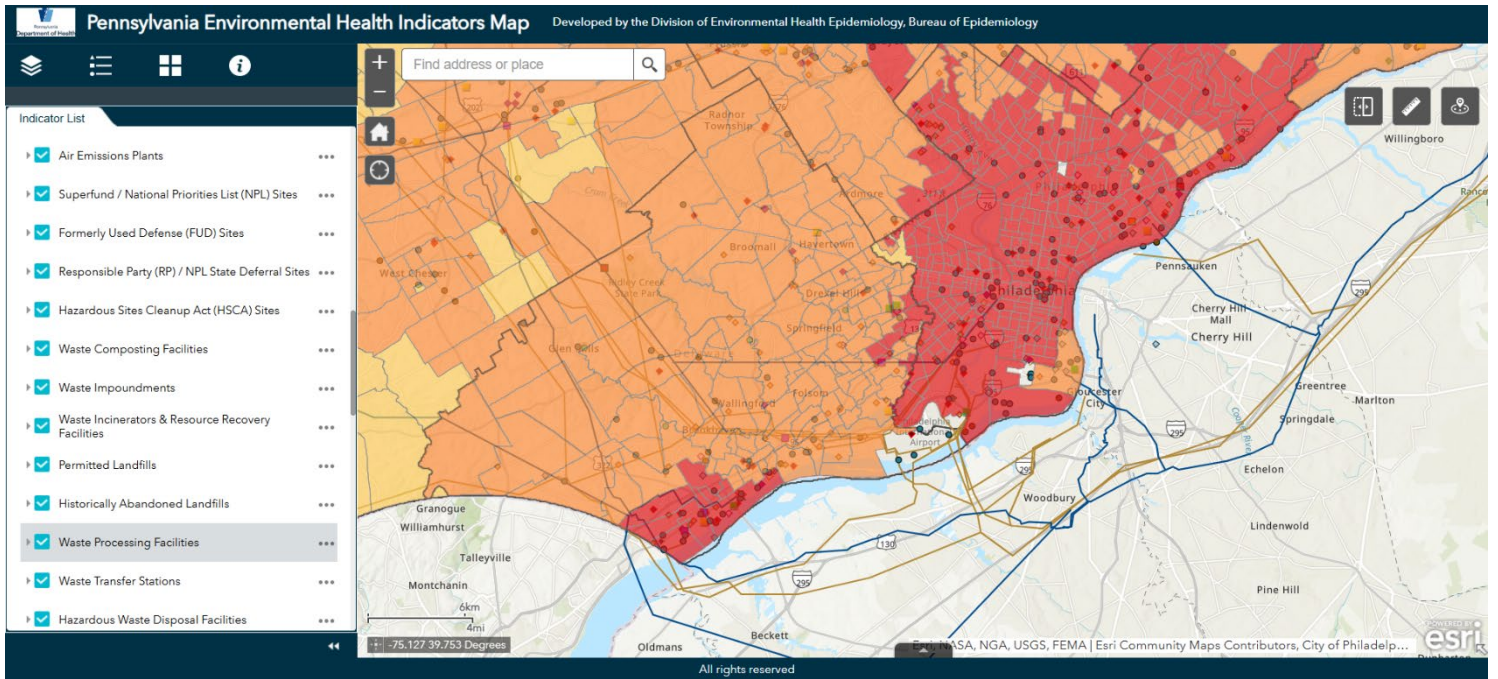
The map below from this program provides a stark visual of the locations of elevated air toxic risks in Delaware County against the clustering of active and former sources of environmental emissions, and how this disproportionately impacts our communities along the I-95 corridor.

The environmental permitting system requirements we have right now in Pennsylvania do not allow the state to take a “bigger picture” look at what our communities are experiencing. We can do better. This proposal is an important step forward that would advance PADEP’s permitting decision-making in a very positive way for all Pennsylvanians.

Best regards,



Lora S Werner, MPH



Source: Pennsylvania Environmental Health Indicators Map,
<https://www.phaim1.health.pa.gov/env-health-map/>

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

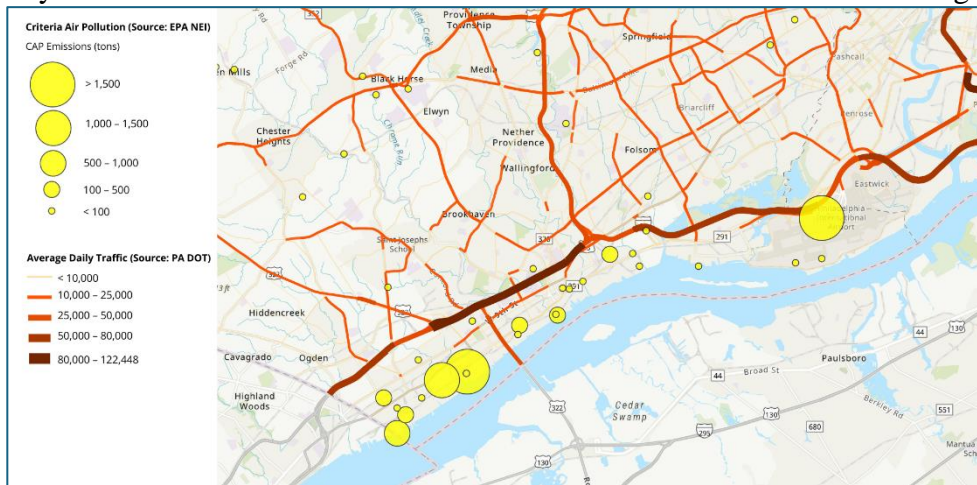


Figure 1. Criteria Air Pollutant Emissions and Traffic Counts in Delaware County.

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_x), 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 2022.²

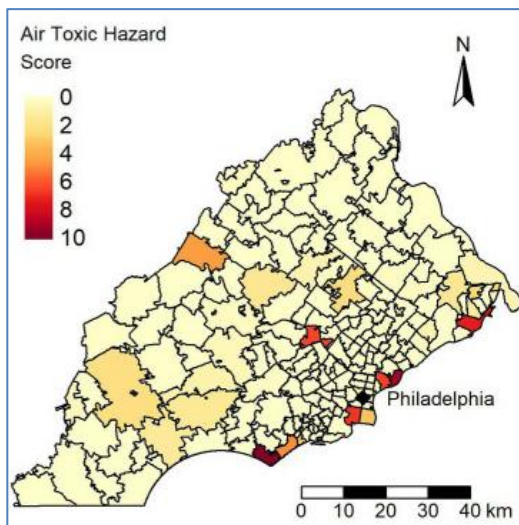


Figure 2. Air toxics hazard score in Southeastern Pennsylvania.

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).¹ This research found a positive association between the derived air toxics hazard score and lung cancer incidence.¹ 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.² 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).³ PennEnviroScreen finds the City of Chester to have elevated risks in key environmental health indicators – 75th percentile and above for Air Toxics Cancer Risk, Respiratory Hazard Risk, and Diesel Particulate Matter.²

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 94th 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%.

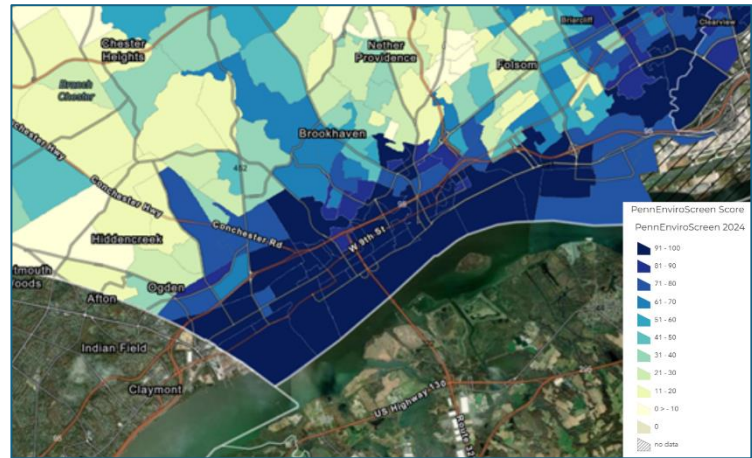


Figure 3. PennEnviroScreen Score for Southeastern Pennsylvania.

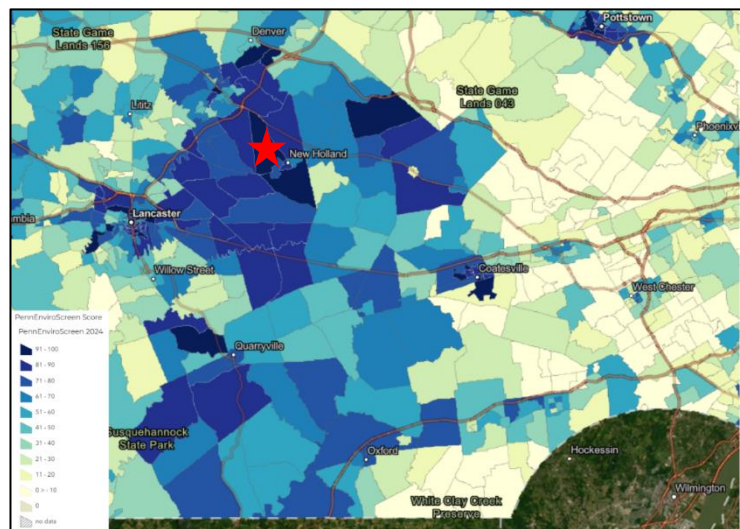


Figure 4. PennEnviroScreen Score for New Holland in Lancaster County

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/>

Testimony of

Sara N. Lupolt, PhD, MPH

Assistant Scientist

Department of Environmental Health and Engineering

Johns Hopkins Bloomberg School of Public Health

Pennsylvania House Environmental and Natural Resources Protection Committee

Re: PA House Bill 109 - Issuance of permits in environmental justice areas

March 4, 2025

I submit this written testimony in support of PA House Bill 109. This bill establishes a process to ensure the Pennsylvania Department of Environmental Protection (DEP) has the information and context needed to consider cumulative impacts when making permitting decisions in environmental justice areas.

I submit this testimony as a private citizen. For purposes of identification, I am an Assistant Scientist in the Department of Environmental Health and Engineering at the Johns Hopkins Bloomberg School of Public Health. I have a PhD in exposure science and environmental epidemiology with training and extensive experience in exposure assessment, chemical risk assessment, epidemiology, toxicology, and community-engaged participatory research. The opinions expressed in this testimony are my own and do not necessarily reflect the views of my employer, Johns Hopkins University.

I will focus my testimony on the importance of considering cumulative impacts in permitting decisions and share the findings of a study I led called the Assessing Strengths, Stressors and Environmental justice in SoutheaStern (ASSESS) Pennsylvania Communities Study.

We are all exposed to a variety of toxic chemicals and hazards in the environment that can negatively impact our health and well-being. Some communities across the Commonwealth are disproportionately exposed to sources of environmental pollution. This means people residing in these communities are exposed to more types of pollution (e.g., particulate matter and lead and ozone) and/or greater amounts of the same type of pollution. These realities should be a factor in permitting decisions. Cumulative impacts assessments recognize that past and current environmental, social, and health burdens should be included in decisions impacting communities' futures.

We know that exposure to toxic chemicals negatively impacts human health. A robust body of scientific evidence also demonstrates that exposure to non-chemical stressors (e.g., low income,

poor nutrition, stress) creates social vulnerabilities in communities that may impede people's access to basic preventive services or life-saving care and impact people's lives. Exposure to non-chemical stressors can also create physiological vulnerabilities that may impede a person's ability to heal after exposure to toxic chemicals. These scientific facts are another reason why we should consider cumulative impacts. Cumulative impact assessments acknowledge this potential for both chemical and non-chemical stressors to work together to make people sick, often to a greater extent than if each individual stressor acted alone. Cumulative impacts assessments are an important foundation for ensuring the health and resilience of all communities across the Commonwealth.

Building on this scientific foundation, the ASSESS study was designed and implemented as a community-academic partnership and aimed to describe the cumulative burdens of chemical (e.g., exposure to air pollutants) and non-chemical stressors (e.g., financial hardship, nutritional status, psychosocial stress) borne by residents of southern Delaware County. The ASSESS study was not like traditional academic studies. We used a community-based participatory research approach, meaning that residents and community advocates in southern Delaware County were equal partners alongside public health researchers at Johns Hopkins University in the design, conduct, interpretation, and communication of study findings. This approach allowed us to implement a community health survey and focus group discussions that were responsive to residents' concerns.

Here's what we found:

- Communities in southern Delaware County are clearly overburdened. Residents routinely experience physical and mental health symptoms from chemical exposures that are exacerbated by other non-chemical stressors they face.
- Ninety-five percent of the 147 residents who completed the ASSESS Environmental Health Survey reported smelling odors in their communities, with approximately three-quarters of participants reporting negative physical health effects from odors and air pollution.
- We found that seventy-nine percent of participants reported experiencing at least two personal non-chemical burdens (e.g., poor housing quality, food insecurity, racism, financial insecurity, lack of transportation, or victim of violent crime).
- Furthermore, we found that among those who experienced at least two non-chemical burdens, at least eighty percent of them had at least one medical diagnosis (e.g., asthma, depression, etc.). Overall, residents in southern Delaware County reported significant non-chemical burdens, and those with more burdens reported poorer health.

- Participants clearly connected the pollution, odors and noise in their environment to their health. A major strength of our study was the fact that we talked directly to community residents to dig more deeply into their real-world experiences. This helped us understand how toxic chemicals and other life circumstances work together to make people sick.

For example, we heard directly from one focus group participant *how* noise, a non-chemical stressor, discouraged them from enjoying the green spaces in their community and worsened their mental health:

“I like to open the windows and the shades and look out over the trees, and it’s a cute neighborhood in which I live in. [...] But once the train starts rolling by... I can’t hear anything but that train, making that loud, loud noise constantly, and so then I shut the window and I close myself off to that, and mentally for me that that’s not good, because I am so confined to my home environment at this point that any kind of outside air or enjoyment of birds and nature ... it’s cut off immediately.”

- We also observed that symptoms consistent with medical conditions such as asthma and depression were more common than clinical diagnoses, suggesting that there are true barriers to residents receiving a formal diagnosis and treatment from a clinician. This finding suggests traditional surveillance metrics that rely on medical diagnoses alone may underestimate existing health burdens in these communities. These discrepancies between symptoms and diagnoses illustrate that community concerns act as early signals of burdens and highlight why direct and meaningful community engagement and participation are essential to knowledge gathering about cumulative impacts.

Here’s the bottom line. We worked with community residents to understand what living in an overburdened community feels like and how it impacts their health and well-being. It does. It affects their health and their lives in real ways. How are you supposed to live a normal life when you know living where you live could be making you sick? This bill is necessary for these communities.

I urge your support of this bill.