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HOUSE DEMOCRATIC POLICY COMMITTEE
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House of Representatives
COMMONWEALTH OF PENNSYLVANIA

HOUSE DEMOCRATIC POLICY COMMITTEE HEARING

Topic: Environmental Justice

Lutheran Settlement House – Philadelphia, PA

August 13, 2019

AGENDA

3:00 p.m. Welcome and Opening Remarks

3:10 p.m. Justin Dula
Eastern Regional Coordinator for the Office of Environmental Justice
Pennsylvanian Department of Environmental Protection

3:20 p.m. *Questions & Answers*

3:40 p.m. Panel One:

- Marilyn Howarth, MD, Director of Community Outreach and Engagement
  University of Pennsylvania's Center of Excellence in Environmental Toxicology
- Ebony Griffin, Staff Attorney for Environmental Justice
  The Public Interest Law Center
- Sonia Galiber, Director of Operations & Added Value/Herbalism
  Philadelphia Urban Creators

4:00 p.m. *Questions & Answers*

4:20 p.m. Panel from City of Philadelphia:

- Saleem Chapman, Deputy Director, Office of Sustainability
- Kassahun Sellassie, PhD, Director, Department of Public Health

4:40 p.m. *Questions & Answers*

5:00 p.m. Closing Remarks

Testimony of

Justin Dula

Eastern Regional Coordinator at the Office of Environmental Justice

Pennsylvania Department of Environmental Protection

For the Pennsylvania House Democratic Policy Committee

Public Hearing on Environmental Justice

Tuesday, August 13, 2019

Good afternoon Chairman Sturla, Representative Kenyatta and members of the Policy Committee. Thank you for hosting this hearing on environmental justice. My name is Justin Dula and I am the Eastern Regional Coordinator of the Office of Environmental Justice (OEJ) at the Pennsylvania Department of Environmental Protection (DEP). I hope that the background I am able to provide on our office will prove helpful in shaping future action on environmental justice.

The Office of Environmental Justice was established by DEP in 2002 on the heels of community-based efforts and advocacy initiatives statewide that addressed environmental injustice and called upon active participation by residents of communities that historically faced barriers to participating in policymaking and implementation of initiatives at DEP. The mission of the office is to ensure Pennsylvanians most at risk from environmental impacts have a role in the state's decision-making process. The Office of Environmental Justice has three objectives: improve environmental impacts, empower communities and support economic development in Environmental Justice Areas, which DEP defines as communities with populations that are 30% people of color and/or 20% low-income. In our proposed Environmental Justice Public

Participation Policy, which is currently under review, almost 33% of Pennsylvania's population would be located in Environmental Justice Areas.

The Department has also established the Environmental Justice Advisory Board (EJAB) to advance environmental justice work in Pennsylvania. EJAB is an active and diverse group of environmental justice stakeholders who support OEJ with outreach to communities and provide guidance and recommendations to DEP around rules, regulations and policies that address environmental inequities and support environmental justice communities.

OEJ has developed tools, convening opportunities and other resources to help benefit communities and promote engagement and public participation in DEP processes. One of these tools is the Environmental Justice Public Participation Policy which provides residents of EJ Areas additional outreach, enhanced public participation and increased public input on critical permits impacting these communities. Our office has also created EJ Viewer, a mapping tool that identifies EJ Areas, provides comprehensive data about DEP permitting activity in specific areas and shares some demographic data about people living in EJ Areas.

In addition, OEJ utilizes environmental education and outreach to support identification of environmental partners and stakeholders, education about DEP policies, regulations and practice and collective resolution of community environmental concerns. In 2017 our office held 9 listening sessions throughout the state to obtain feedback from community residents about environmental justice, the environment generally and DEP. OEJ has followed up on these listening sessions by conducing roundtables across Pennsylvania, including one in Philadelphia held on April 12, 2019. These roundtables offer extensive engagement with communities and involve interactive exchanges with community residents, government officials and the DEP

Secretary and regional staff to identify and address environmental issues; the goal of which is to begin to craft solutions and build community partnerships. In addition, the OEJ seeks to serve as convener and liaison to other state agencies and connector to broader resources to advance economic development in environmental justice communities. Our newsletter: "EJ News: Your Environment Your Voice" provides OEJ partners with important EJ news, as well as education and funding resources. All of these tools and resources can be utilized to ensure communities are educated around key environmental issues.

In all of these efforts DEP and the OEJ seeks to work in partnership with Philadelphia and other municipalities to advance sound environmental initiatives, increase access to the natural environment for Philadelphians and deliver state resources to strengthen the resolve of communities facing environmental concerns. DEP works closely with the Philadelphia Department of Public Health's Air Management Services (AMS) which regulates air quality under the direction of the United States Environmental Protection Agency (EPA) and the Philadelphia Water Department (PWD) which is an invaluable resource for city residents. At OEJ, we particularly look forward to our continued partnership with the City's Office of Sustainability as Philadelphia begins to implement Environmental Justice Reporting legislation that was adopted January 3, 2019. At the state level, OEJ works in collaboration with other state agencies such as Department of Health (DOH) and Department of Education (PDE) to address environmental justice concerns and provide state resources to EJ Areas.

We look forward to working on furthering state efforts to improve environmental justice in Pennsylvania and serve as a resource on environmental justice within and to other state

agencies. Thank you again for the opportunity to provide remarks on behalf of the Department of Environmental Protection.

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southeast Regional Office
at a glance

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DEP'S SERO MAIN PHONE NUMBER IS 484-250-5900 AND MONITORED 24/7/365 FOR DISPATCHING RESPONSE PERSONNEL TO EMERGENCIES AND INCIDENTS WITHIN DEP PURVIEW.

Environmental Programs

Air Quality
- air emissions permitting & compliance
- asbestos
- fugitive emissions (dust)
- outdoor wood-fired boilers

Clean Water
- sewage planning
- pollution in PA waters
- discharge permits
- MS4s
- stream assessments
- fish & aquatic mussel surveys
- permitting & compliance

Environmental Cleanup & Brownfields
- underground storage tanks
- land recycling (Act 2)
- hazardous sites cleanup

Radiation Protection
- nuclear powerplants
- medical x-ray equipment
- radioactive material

Safe Drinking Water
- public water systems permitting & compliance
- boil water advisories
- lead & copper compliance
- water allocations

Waste Management
- landfill odors
- illegal burning or dumping
- recycling & e-recycling
- municipal waste planning
- permitting & compliance

Waterways & Wetlands
- permitting & compliance of stream & wetland impacts
- bridges & culverts
- piers, docks, & boat launches
- stream maintenence
- most pipellnes
- west nile virus

District Mining Operations
- permitting & compliance
- surface & deep coal & non coal mines
- water and subsidence issues from active mining
- mine safety

Office of Environmental Justice
- engages with communities to ensure equal access to information and decison making
- fosters community development

Energy Programs
- implements techincal & financial assistance and education programs
- provides tools on energy conservation and efficiency
- adopts renewable energy solutions

The Pennsylvania Department of Environmental Protection (DEP) strives to assist government officials, citizens, organizations, and businesses in understanding environmental issues and regulations. DEP is delegated authority to enforce many state and federal environmental laws and regulations and receives some federal funding allocations.

Regional Offices: DEP's six Regional Offices address environmental permitting, compliance, and appeals. Regional offices respond to environmental complaints and emergencies, engage with citizens and local groups, and provide regional information to legislators. Regional offices also conduct West Nile Virus control and Black Fly suppression programs.

Central Office: DEP's Central Office reviews and promulgates regulations, policies, and guidance documents; administers grants; and oversees issues like climate and energy, air modeling, meteorology, and certain permitting activities like dams and waste hauler authorizations.

Local, county and federal entities may have separate authorizations, regulations, and zoning. DEP works with these partners on various environmental issues. This is a sample of common issues **outside** of DEP's purview or has shared oversight.

- mobile air sources
- indoor air quality
- on-lot sewage disposal systems
- certain waterways & wetlands permitting and compliance
- pretreatment for non-sewage discharges
- flood prevention and mitigation (including sewage backups)
- pipeline construction and siting
- environmental stewardship projects, guidance, and programming
- local zoning
- The Philadelphia Air Management Services has primacy over air quality issues in Philadelphia.

DEP'S SERO MAIN PHONE NUMBER IS 484-250-5900 AND MONITORED 24/7/365 FOR DISPATCHING RESPONSE PERSONNEL TO EMERGENCIES AND INCIDENTS WITHIN DEP PURVIEW.

Southeast District Offices and Partner Agencies

Pottsville District Mining Office
5 West Laurel Blvd
Pottsville, PA 17901
Business Hours: 8 a.m. to 4 p.m.
Phone: 570-621-3118

Philadelphia Air Management Services
321 S. University Ave.
Philadelphia, PA 19104
Business Hours: 8 a.m. to 4:30 p.m.
Phone: 215-685-7586

US EPA
1650 Arch Street
Philadelphia, PA 19103
Business Hours: 8 a.m. to 4:00 p.m
Phone: 215-814-5122

More Resources Available at www.dep.pa.gov

- *Pipeline Portal*
- *PFAS Information*
- *Stream Maintenance Guide*
- *Municipal Stormwater*
- *Grants*
- *Community Updates*

Perelman School of Medicine
University of Pennsylvania
Center of Excellence in Environmental Toxicology (CEET)

August 13, 2019

Good Morning. 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. The Center of Excellence in Environmental Toxicology would like to thank State Representative Malcolm Kenyatta for the opportunity to submit this testimony regarding environmental injustice in Philadelphia and the environmental health impacts on residents

The Center of Excellence in Environmental Toxicology (CEET) is the University of Pennsylvania's P30 Environmental Health Sciences Core Center (EHSCC) funded by the National Institute of Environmental Health Science (NIEHS). It is the only EHSCC in Pennsylvania and the only one in EPA Region III. The environmental health researchers, physicians and public health professionals of the CEET work every day on environmental health issues that affect our region and recognize the value of scientific evidence to establish and maintain public policy protective of human health.

This year marks the 25th Anniversary of the Executive Order (#12898) signed by President William Clinton for federal agencies to address environmental justice in minority populations and low income populations. This order was signed with the realization that these populations are disproportionately exposed to environmental pollutants leading to significant environmental health disparities. Since one in four Philadelphians live in poverty which includes 37% of children it is important to assess the effectiveness of this Executive Order to lower risk for the most vulnerable.

The health impact of environmental injustice on Philadelphia residents can be seen in health statistics. The National Cancer Institute estimates that Philadelphia has the highest cancer rate of any large city in the US. 541 people in every one hundred thousand in Philadelphia will get cancer compared with 442 in the US (NCI) and 494 in PA (PA County Health Profile). In Philadelphia, the rates of cancer are higher than Pennsylvania rates in colon and rectal cancer, lung cancer, kidney cancer and prostate cancer. Several of these cancers are caused by environmental exposures. The World Health Organization, International Agency for Research on Cancer has listed air pollution as a known Group 1 human carcinogen and estimates that this contributes to 230,000 new lung cancer cases per year.

Asthma hospitalization rates are three times higher in Philadelphia than Pennsylvania according to the Pennsylvania Department of Health. So too are Philadelphia's rates of hospitalization for heart attacks and chronic obstructive pulmonary disease. All of these significant health disparities occur in a city whose medical care is considered to be among the best in the country. Certainly, there are many contributors to each of these

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health outcomes. One very significant contributor is the volatile organic compounds and particulates emanating from the largest refinery on the east coast.

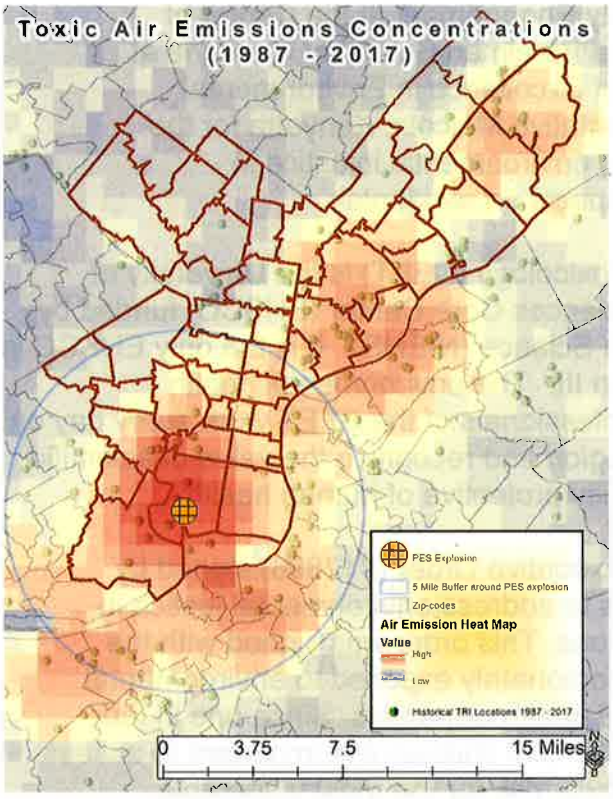

Fig 1: Toxic Air Emissions in Philadelphia
source: EPA Toxic Release Inventory

The PES refinery is the largest emitter of volatile organic chemicals in the region (NEI,2014). More than four hundred thousand pounds of hazardous chemicals are emitted into the Philadelphia air every year according to the EPA's Toxic Release Inventory from the PES refinery. More than 10% of the emissions are carcinogens or pre-carcinogens changed into carcinogens in the body. Figure 1 shows the toxic air emission concentrations from point sources in Philadelphia. The refinery stands out as the largest emitter impacting the surrounding neighborhoods. In 1999, a health assessment conducted for the EPA found that lung cancer incidence in the proximity of the refinery was 40% higher than the national average.

Since the passage of the Federal Clean Air Act in 1970, Philadelphia has never been in compliance with it for Ozone. Ozone is a criteria air pollutant formed in the atmosphere when volatile organic compounds and nitrogen oxides react in the presence of sunlight. Ozone is a potent irritant that causes asthma and leads to asthma exacerbations in people who have asthma. In addition, as little as one to two hours of elevated levels of ozone exposure increases heart attack rates and heart rhythm disturbances that lead to sudden death.

The closure of the refinery alone, should substantially improve the ozone levels in Philadelphia leading to improved regional compliance with the Clean Air Act and reduced asthma hospitalizations and heart attacks. There are many other air pollution emitters in Philadelphia and the effects on people of these emissions are cumulative. The regulatory process considers each emission permit in isolation determining how much of each pollutant that source can add to the air. On the face of it, the process seems like the fairest approach. However, it is ultimately unfair to the residents of the city when each additional exposure allowed by each new permit issued increases the health risk. In fact, this process is not in keeping with the environmental rights amendment of the PA constitution Article 1 Section 27 that guarantees each

Pennsylvanian the right to clean air, pure water and the preservation of the natural scenic historic and aesthetic values of the environment. Understanding that Philadelphians are not well protected by the current regulatory process should help guide policy initiatives that would seek to reduce permit allowances for known toxic and irritant chemicals.

Philadelphia residents also experience environmental hazards from other sources. Lead exposure may be the most health impactful example of environmental injustice. Children attend public schools where more than 50% of the buildings are older than 70 years with documented peeling lead paint and tainted drinking water from faulty plumbing in many. 95% of the housing units in Philadelphia were built before 1978, the year when lead was banned in interior paint. Peeling lead paint in old housing with large numbers of families unable to afford to maintain these properties increases the lead exposure for children. Whereas nationally, 2.5% of children have blood lead levels greater than the Centers for Disease Control level of concern of 5ug/dl, in North and West Philadelphia neighborhoods the level is 8.7% of children. At the height of their crisis, Flint Michigan only documented 4.9% of children with blood lead levels greater than 5 ug/dl (Hanna-Atisha,2016). Every year in Philadelphia, about 2400 additional children are identified as having blood lead levels over 5ug/dl. These children have been robbed of their full academic potential with lifelong consequences, explaining in part the achievement gap of children in neighborhoods with the most dilapidated housing (Miranda 2009, Reuben, 2017).

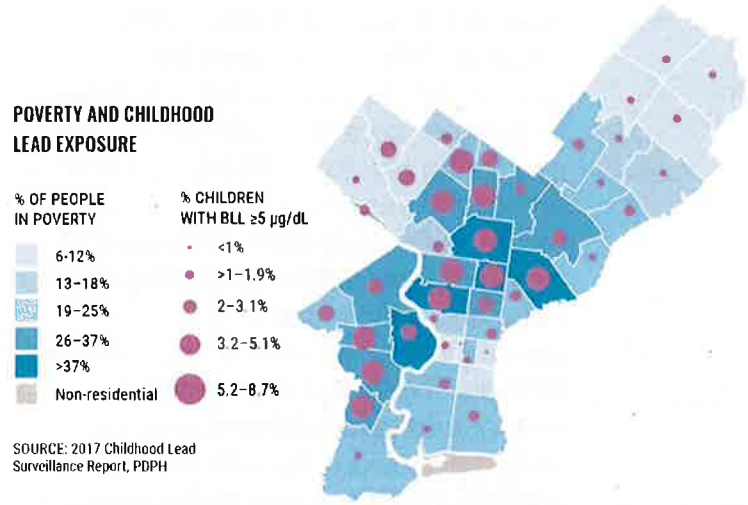

Fig.2 Correlation of Poverty and Blood Lead Levels in Philadelphia

Lead exposure to Philadelphia children does not end when they step outside their homes or schools. Philadelphia's industrial legacy includes more than 30 lead smelters which operated prior to any environmental regulation on emissions. Soil levels in the thousands of ppm have been documented in multiple sites in Philadelphia by researchers at our Center and others (Fig.3) whereas the EPA has determined that lead in soil should not exceed 400 ppm. The CDC has since recognized that there is no safe blood lead level and because of EPA inaction, many states have established their own safe soil levels, such as California at 80 ppm and Wisconsin at 250 ppm. Pennsylvania should consider establishing a lower safe lead level in soil.

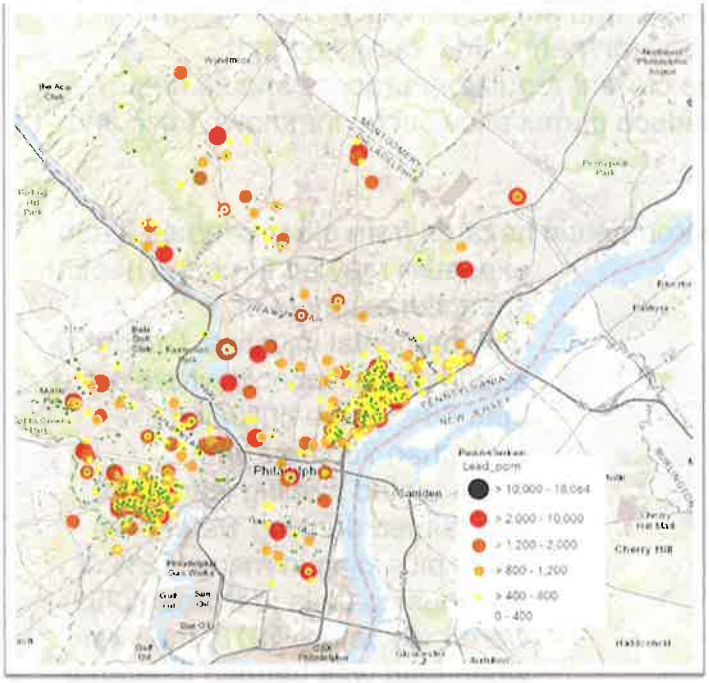

Fig. 3 Soil lead levels in Philadelphia
Source: CEET, EPA, and others

In summary, researchers, physicians and public health professionals at the Center of Excellence in Environmental Toxicology are very concerned about the multiple sources of toxic environmental exposures experienced by our most vulnerable residents that have led to serious public health impacts. We recommend that legislators require regulatory agencies to incorporate a quantitative method of evaluating risk to residents in the air emissions permitting process. We recommend legislative strategies to increase remediation of peeling lead paint and lead in drinking water distribution systems in residences and schools. There are many other environmental challenges that our limited time today did not allow us to address and we would welcome the opportunity to provide scientific expertise in the development of policy impacting environmental health as needed. Thank you for your attention and for the opportunity to submit these comments.

Marilyn V Howarth, MD

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PA DEP Air Permit Compliance: https://echo.epa.gov/facilities/facility-search/results

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Reuben, A., Caspi, A., Belsky, et al. (2017). Association of childhood blood lead levels with cognitive function and socioeconomic status at age 38 years and with IQ change and socioeconomic mobility between childhood and adulthood. *JAMA*, *317*(12), 1244–1251. https://doi.org/10.1001/jama.2017.1712

Philadelphia Childhood Lead Poisoning Prevention Advisory Group: Final Report and Recommendations, June 20, 2017

THE PUBLIC INTEREST LAW CENTER

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August 13, 2019

Dear Representative Kenyatta:

My name is Ebony Griffin and I am a staff attorney at the Public Interest Law Center focusing on environmental justice and the Law Center's Garden Justice Legal Initiative. Thank you for allowing me the opportunity to speak before you today about an issue I feel so passionately about. I also want to commend you for taking steps to tackle this issue head on, especially at a time so critical to the future of our planet.

Environmental racism or environmental injustice is a system that results, whether by conscious design or institutional neglect, in the disproportionate exposure of people of color to environmental hazards and environmental health burdens.[1] We see the residual effects of environmental racism all around us in the form of increased air pollution and lack of access to greenspace: childhood asthma, increased cancer rates, high instances of mental illness, decreased learning capacity, increased mortality rates in extreme temperature events, increased rates of diabetes and obesity, and higher mortality rates during and immediately after environmental disasters.

In our environmental work, the Law Center uses a variety of methods to ensure that Philadelphia's most vulnerable residents have access to a healthy natural and built environment, but also that they have a seat at the table and a voice in what happens in their neighborhoods. The Garden Justice Legal Initiative accomplishes this by providing pro bono legal representation to urban farmers and community gardens in the city in efforts to protect and preserve the city's greenspace, which is being lost due to development pressure. In addition, with climate change upon us, the city's major environmental concerns will only get worse so the Law Center is advocating for additional protections for greenspace and just environmental permitting.

GREENSPACE AND CLIMATE CHANGE MITIGATION

In Philadelphia, environmental injustice manifests in a number of ways. The issues I see most commonly can be lumped into two general buckets: lack of access to greenspace and inequitable environmental permitting.

Abandoned, tax delinquent properties create a vicious cycle of blight in urban areas throughout the Commonwealth. With approximately 43,000 vacant lots, the problem is

[1] *Environmental Justice: A Primer for Allies, Academics, Planners, and Scientists*, COLUMBIA UNIV., http://www.columbia.edu/cu/EJ/definitions.html (last visited Aug. 12, 2019).

particularly acute in Philadelphia. Over 300,000 Philadelphians live on blocks with one or more abandoned houses or parcels.[2] This large inventory of vacant land not only decreases the value of neighboring properties, but burdens residents and local government as vacant properties create significant health and safety issues.[3] However, thousands of these lots have the potential to be repurposed as food producing gardens and greenspaces, improving the quality of life in low income neighborhoods while simultaneously mitigating impacts of climate change. As climate change increases, the planet warms and sea levels rise. This results in hotter overall temperatures and more severe weather events such as flooding. In urban areas, minor increases in surface temperature can be deadly.

A phenomenon known as the Urban Heat Island Effect (UHI effect) causes cities to have average daytime temperatures up to 10 degrees higher than their suburban counterparts.[4] The phenomenon occurs due to the inability of impervious surfaces such as buildings and concrete to absorb heat, radiation, and water.[5] Philadelphia is one of the cities most impacted by the UHI effect and has instituted an aggressive heat emergency response system to mitigate the dangers of extreme heat.[6] Greenspaces, particularly gardens, help with this by reducing the surface temperature, creating a cooling effect in areas densely packed with concrete and reducing mortality rates among vulnerable populations during heat waves.[7] Additionally, greenspace serves as a sponge to absorb and process excess stormwater which in turn reduces flooding and its consequences.

Greenspace also has proven benefits on air quality, another issue prevalent in Philadelphia. Pennsylvania ranks number two in the nation among states with the largest differences between races and between the wealthy and poor in exposure to air pollution.[8] Emissions from oil and gas operations cause ozone smog, in turn contributing to Black children

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[2] *See* Jake Blumgart, *Philly's 43,000 Vacant Lots Faces a Fresh Political Battle*, PLAN PHILLY (July 9, 2018), http://planphilly.com/articles/2018/01/26/philly-s-43-000-vacant-lots-face-a-fresh-political-battle.

[3] *See generally*, NAT'L VACANT PROPS. CAMPAIGN, VACANT PROPERTIES: THE TRUE COST TO COMMUNITIES (2005), *available at* https://www.smartgrowthamerica.org/app/legacy/documents/true-costs.pdf.; ERWIN DE LEON & JOSEPH SCHILLING, URBAN INSTITUTE, URBAN BLIGHT AND PUBLIC HEALTH: ADDRESSING THE IMPACT OF SUBSTANDARD HOUSING, ABANDONED BUILDINGS, AND VACANT LOTS (2017), *available at* https://www.urban.org/sites/default/files/publication/89491/2017.04.03_urban_blight_and_public_health_vprn_report_finalized.pdf.

[4] HEATHER KNIZHNIK, THE ENVIRONMENTAL BENEFITS OF URBAN AGRICULTURE ON UNUSED, IMPERMEABLE AND SEMI-PERMEABLE SPACES IN MAJOR CITIES WITH A FOCUS ON PHILADELPHIA, PA, UNIV. OF PA. 33(2012), *available at* https://repository.upenn.edu/cgi/viewcontent.cgi?article=1044&context=mes_capstones.

[5] *Id.*

[6] *Id.*; *see also* Anthony Wood, *Summers are Hotter, but Heat-related Deaths have Dropped. Philadelphia has a Lot [to] do with that.*, THE PHILA. INQUIRER (July 18, 2019), *available at* https://www.inquirer.com/news/heat-wave-deaths-philadelphia-hot-nights-record-20190718.html.

[7] KNIZHNIK, *supra* note 4, at 10-11, 15.

[8] LAURA P. CLARK, ET. AL, NATIONAL PATTERNS IN ENVIRONMENTAL INJUSTICE AND INEQUALITY: OUTDOOR NO_2 AIR POLLUTION IN THE UNITED STATES, Figure 2 (2014), *available at* https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0094431#pone-0094431-g002; Sydney Brownstone, *The 10 Most Polluted States for People of Color*, FAST COMPANY https://www.fastcompany.com/3029160/the-10-most-polluted-states-for-people-of-color (last visited Dec. 7, 2018).

throughout the city experiencing the majority of the 12,200 asthma attacks that occur in Philadelphia each year.[9]

> Volatile organic compounds (VOCs) and methane vented and leaked from the oil and gas supply chain and nitrogen oxides (NOx) formed by sources such [as] gas flaring and engines at natural gas facilities react together in the presence of sunlight to form ozone smog. Smog can impair lung function, trigger asthma attacks, and aggravate bronchitis and emphysema. Children, the elderly, and people with existing respiratory conditions are the most at risk from ozone pollution.[10]

Surface smog is formed when VOCs and NOx react in the presence of heat and sunlight. In addition to reducing surface temperature and, thus smog creation, urban gardens also help clean the air.

In light of the critical environmental, health, and social benefits of urban gardens, the Law Center is aggressively working to protect and preserve Philadelphia's greenspace. We currently represent gardens using various legal strategies for preservation, including adverse possession, an ancient legal doctrine that allows someone who has been caring for land for at least 21 years to petition the court for legal title. Due to the intense development pressure that gardens in the City are under, we are lobbying for a reduction in the statutory period for adverse possession from 21 years to 10 years for vacant land. Finally, we are advocating for more aggressive protection of greenspace by the Philadelphia Land Bank.

EQUITABLE ENVIRONMENTAL PERMITTING

While greenspace can help mitigate the impacts of climate change, significant changes to the environmental permitting structure are necessary to ensure that environmental justice communities, that is communities in which either at least 30% of the inhabitants are from minority groups or 20% are below the poverty level and who will bear the biggest burdens of climate change, are protected and involved throughout the process.[11]

Legal scholars have recommended several solutions to inequitable environmental permitting. The common theme is that, to make a difference in the lives of vulnerable communities, Pennsylvania and Philadelphia must change the way they analyze and

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[9] LESLEY FLEISCHMAN ET AL., CLEAN AIR TASK FORCE, GASPING FOR BREATH: AN ANALYSIS OF THE HEALTH EFFECTS FROM OZONE POLLUTION FROM THE OIL AND GAS INDUSTRY 4, 10 (2016), *available at* http://www.catf.us/wp-content/uploads/2018/10/CATF_Pub_GaspingForBreath.pdf ("Ozone smog that results from oil and gas industry pollution poses a real threat to children who suffer from asthma."); *see also Oil & Gas Threat Map*, https://oilandgasthreatmap.com/threat-map/ (last visited Dec. 7, 2018).

[10] FLEISCHMAN, *supra* note 9 at 6.

[11] *PA Environmental Justice Areas*, P.A. DEP'T. OF ENVTL. PROT, https://www.dep.pa.gov/PublicParticipation/OfficeofEnvironmentalJustice/Pages/PA-Environmental-Justice-Areas.aspx . (last visited Dec. 7, 2018).

approve permits with environmental impacts. Here are approaches that could accomplish equitable permitting.

Cumulative Impacts Analysis

First, state and local governments must require that permit issuing agencies consider pollutants in the aggregate when making permitting determinations in environmental justice communities. Currently, permitting is based on national and locally set air quality indices based on a maximum allowable concentration of pollutants in the ambient or surrounding air. However, the law does not require the agency reviewing permits to account for an aggregate of pollutants and how a new facility would impact that number. Specifically, new permitting processes must take a cumulative impacts[12] approach to determining potential effects of pollutants on vulnerable communities. The White House Council on Environmental Quality (CEQ) defines cumulative impact as:

> ...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. 40 CFR §1508.7

In practice, this would require the issuing agencies to conduct modeling in every environmental justice community where a new permit is proposed and look at the potential emissions from the proposed site in conjunction with emissions from existing sources.

Health Impacts Analysis

Additionally, state and local governments must adopt a permitting process that considers the health of a community prior to granting permits. Examples of viable options include an Environmental Justice Protocol (EJP) or a Vulnerability Scale. The EJP, first proposed by former Public Interest Law Center attorney, the late Jerome Balter, would make protection of public health and civil rights explicit parts of the permit application review process.[13] The EJP is based on a comparative public health analysis resting on the idea that communities with poor public health need protection from environmental pollution *regardless* of the cause of the health disparity.[14] This protocol would make use of state and local health department statistics to provide stakeholders with a practical means for determining which communities must be protected against pollutant emitting facilities.

In practice, the EJP would require state and local agencies to promulgate laws, regulations or protocols requiring the analysis of public health and demographical data as part of the

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[12] The U.S. Environmental Protection Agency has defined cumulative impacts as the combined, incremental effects of human activity. *See* U.S. ENVTL. PROT. AGENCY, CONSIDERATION OF CUMULATIVE IMPACTS IN EPA REVIEW OF NEPA DOCUMENTS 1 (1999), *available at* https://www.epa.gov/sites/production/files/2014-08/documents/cumulative.pdf.

[13] Jerome Balter, *The EPA Needs a Workable Environmental Justice Protocol*, 12 TUL. ENVTL. L.J. 357, 368 (1999).

[14] *Id.* at 367.

permitting process.[15] Unlike the cumulative impacts analysis, which would apply only to facilities in environmental justice areas, the EJP would apply to all permits with environmental impacts.

Another option is the Vulnerability Scale. The Vulnerability Scale is similar to the EJP in that it puts the health of a community at the forefront of a permitting decision; however, it is more simplistic in application. The Vulnerability Scale would assign a numerical value to communities based on criteria such as maternal health, community asthma rates, childhood hospitalization rates, etc. The community would then receive a "grade" based on the total sum of its vulnerability criteria. If based on this number, calculated from empirical and public health data, a community is considered vulnerable, then the city would place a moratorium on siting new facilities within a certain radius of the community.

CONCLUSION

Communities of color and low income communities are most often those left dealing with the effects of environmental pollution and the life altering consequences of climate change. Regulatory and enforcement agencies reinforce this paradigm by failing to adopt equitable permitting mechanisms. Pennsylvania and Philadelphia both have a unique opportunity to provide a healthier environment to its most vulnerable residents. Removing barriers in access to greenspace is a valuable option to mitigate the impacts of climate change. However, moving forward, both the state and local governments must pass legislation to ensure that environmental permitting is done equitably and with health in mind. Thank you for listening.

[15] *See id.* at 368.

Saleem Chapman, Deputy Director
Philadelphia Office of Sustainability
Testimony before the Pennsylvania House of Representatives Democratic Policy Committee
August 13, 2019

Good afternoon Chairman Sturla and members of the committee. I am Saleem Chapman, Deputy Director of the Philadelphia Office of Sustainability. Thank for the opportunity to provide testimony on the critical issue of environmental justice.

The Office of Sustainability is responsible for implementing Greenworks, the city's sustainability framework. Greenworks lays out visions around food and drinking water, air quality, energy, climate change, natural resources, transportation, waste, and sustainable stewardship and economic opportunities.

The goal of the Kenney Administration is to ensure that every Philadelphian – no matter what zip code they live in – is able to thrive and succeed. Sustainability is a key part of ensuring that every resident is healthy, lives in a quality neighborhood, and has the opportunity to prosper.

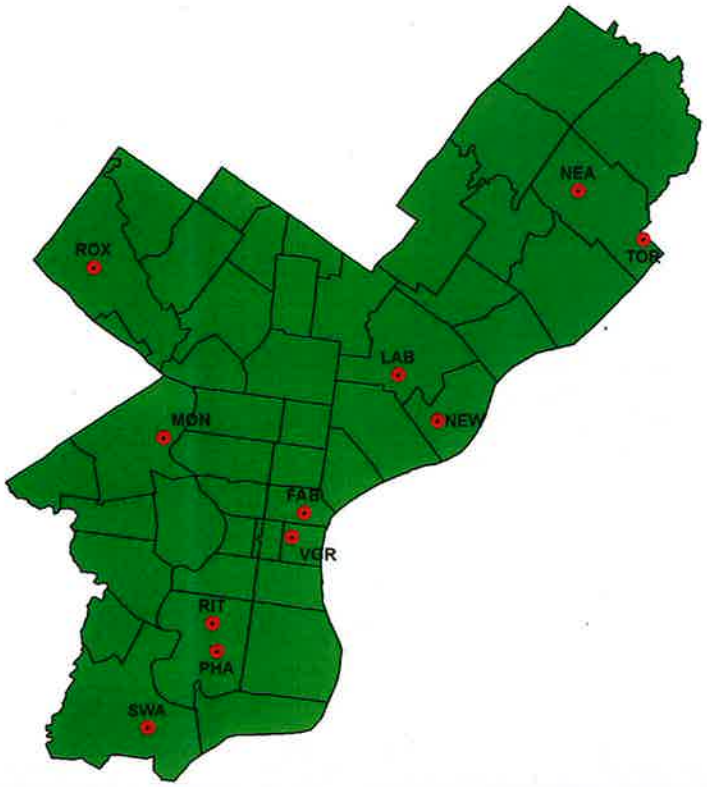
This emphasis is because sustainability is about more than the environment. It is also about tackling issues such as economic empowerment, health equity, and neighborhood development. In a city where 26 percent of our residents live in poverty, and one in four residents doesn't know where their next meal is coming from, we need to continue to prioritize sustainability for its many other benefits. In a city where one third of households do not have a car, inadequately funded public transportation is an environmental justice problem. Becoming a cleaner, greener city will reduce the number of children who suffer asthma attacks, lower energy costs, increase access to healthy food, provide safe access to active transportation, and create job opportunities in the clean economy.

Philadelphia has made a lot of progress in the last decade in advancing sustainability programs. However, we know that not all neighborhoods in Philadelphia have equally benefitted from this work. One of our goals over the last few years has been to pursue a proactive approach to disparities in health and well-being associated with environmental factors. We've prioritized our work in neighborhoods where it will make the most difference. For example, we've been working for more than a year in partnership with the Hunting Park community on a "Beat the Heat" pilot to address the disproportionately high heat experienced in that area and to understand how the City and other partners can help residents thrive during periods of high heat. The insight gain through this effort has contributed to the City undertaking a strategic planning process to mitigate the inequitable distribution of the urban tree canopy.

Even with this programmatic progress, we recognize that procedural equity, having a substantial voice and leadership in policymaking processes, is essential to furthering environmental justice for affected communities. The voices of residents in environmental justice areas are too often not heard during decision-making processes. It is with these considerations in mind that Philadelphia adopted legislation calling for the creation of an Environmental Justice Advisory Commission earlier this year. We believe this Commission will help find neighborhoods with disproportionately high and adverse human health or environmental effects; review existing city programs, policies, activities, and processes that may impact environmental justice concerns; and address barriers to meaningful involvement in policy decisions.

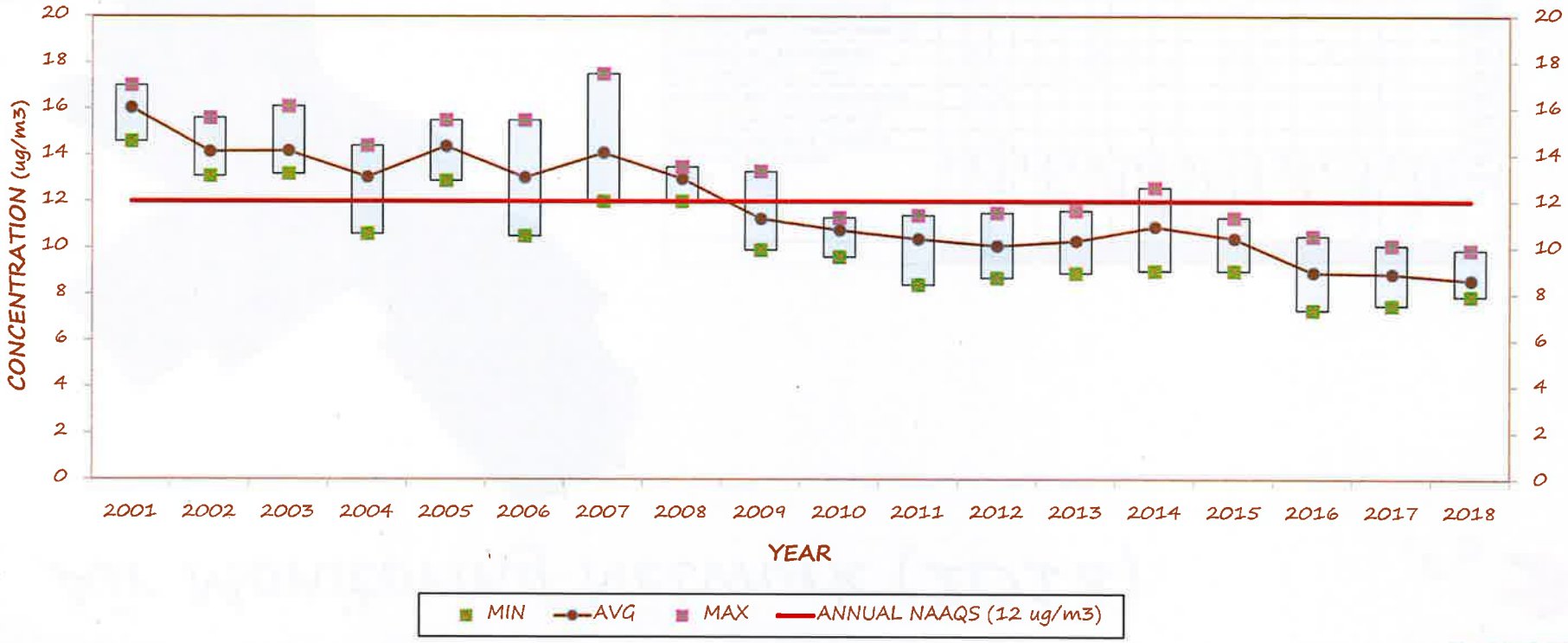
I appreciate this opportunity to appear before this committee and am available to answer any questions you may have.

Air Monitoring Network (2018)

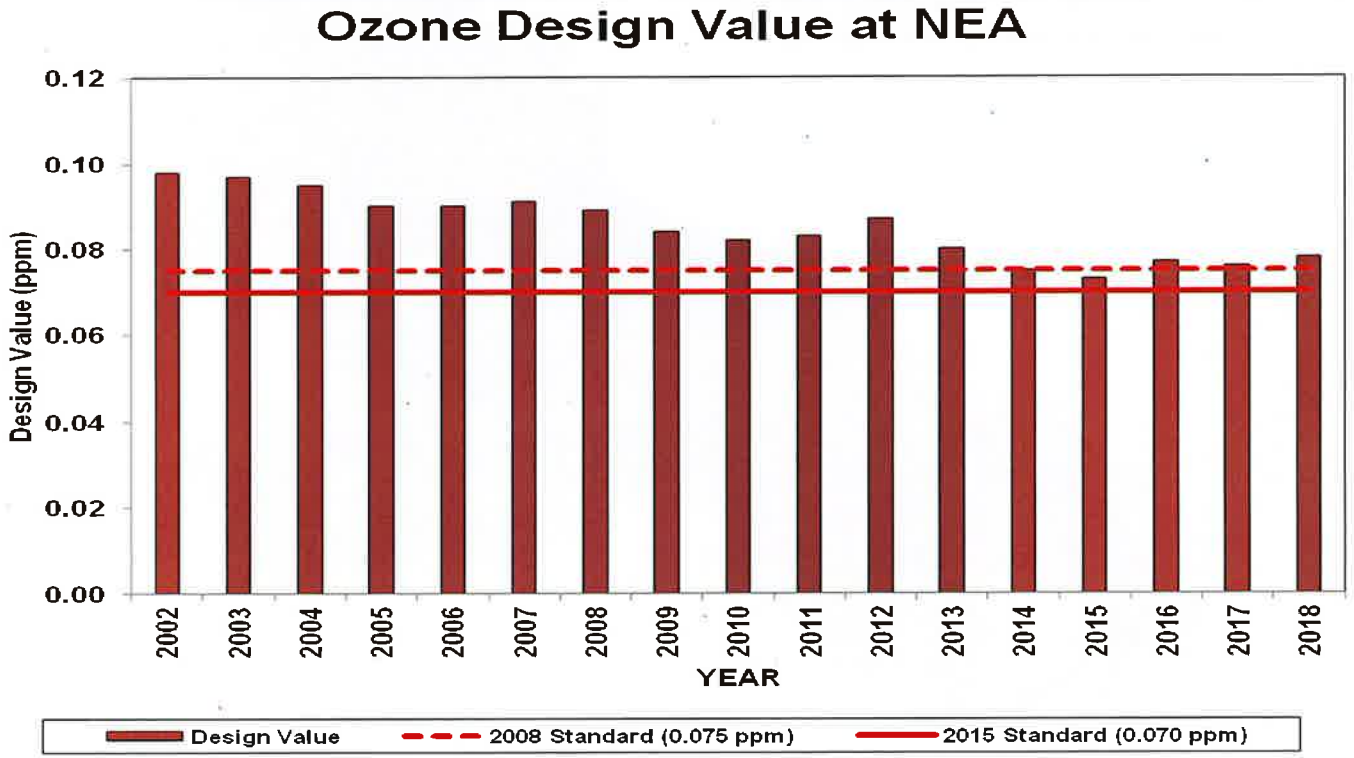


			Parameter																				
AQS Site Code	AMS Site	Address	CO	SO_2	Ozone	NO_2	NOy/NO	PM_{10}	$PM_{2.5}$	Speciated $PM_{2.5}$	PM Coarse	Black Carbon / Ultrafine PM	Carbonyls	PAMS VOC	BaP	TSP Metals (Be, Cr, Mn, Ni, As, Cd, Pb)	Toxics TO15	MET	Comm. Air Toxics OPEN PATH	AMS Site
421010004	LAB	1501 E. Lycoming St			X															LAB
421010014	ROX	Eva & Dearnley Sts											X				X			ROX
421010024	NEA	Grant Ave & Ashton Rd			X															NEA
421010048	NEW	2861 Lewis St	X	X	X	X	X	X	X	X	X		X	X			X	X		NEW
421010055	RIT	24th & Ritner Sts		X					X	X			X			X	X			RIT
421010057	FAB	3rd & Spring Garden Sts							X											FAB
421010063	SWA	8200 Enterprise Ave											X				X			SWA
421010075	TOR	4901 Grant Ave & James St	X			X			X									X		TOR
421010076	MON	I-76 & Montgomery Drive	X			X			X			X			X	X		X		MON
	PHA	3100 Penrose Ferry Rd																	X	PHA
	VGR	6th & Arch Sts			X				X									X		VGR

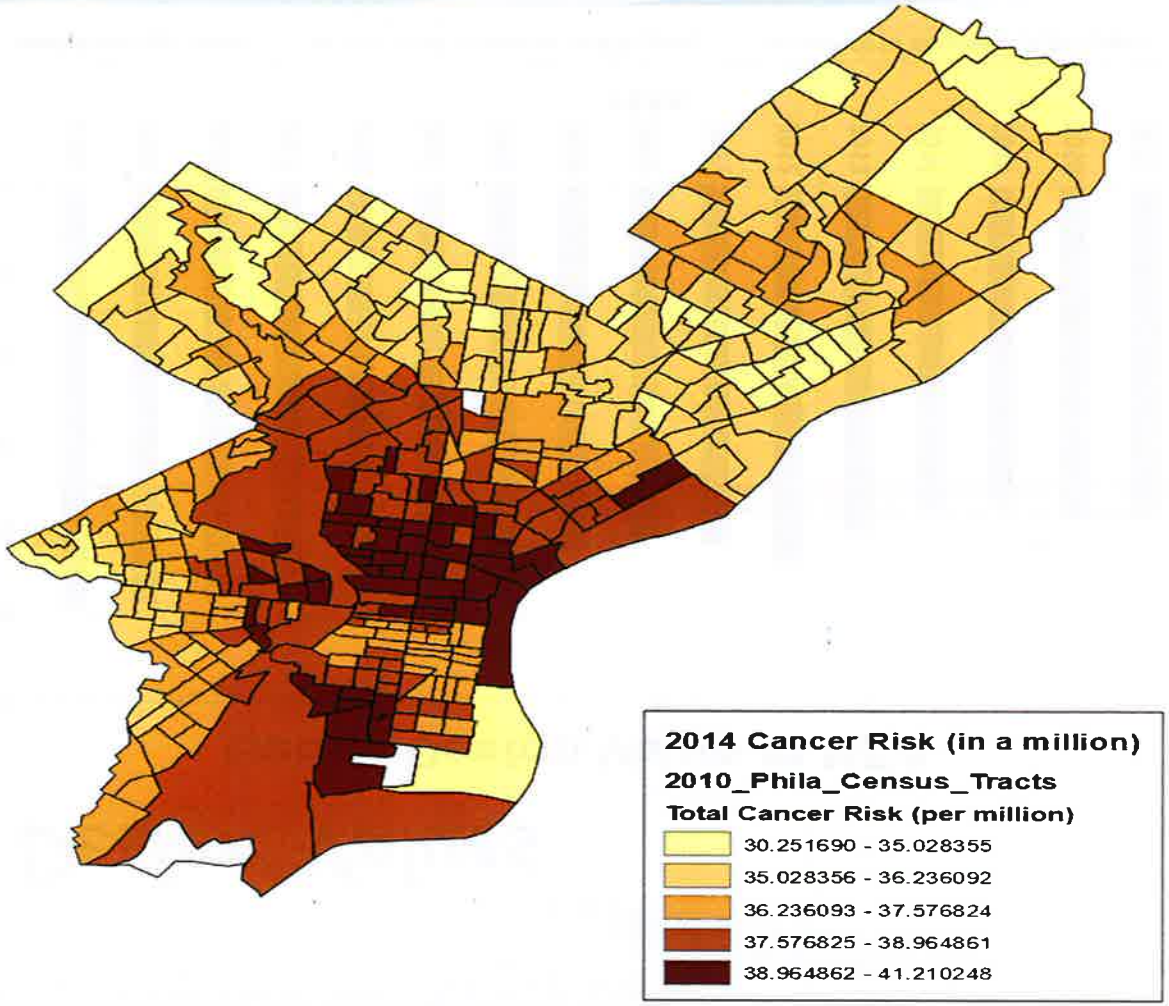
PM2.5 Annual Trends



Ozone Design Values

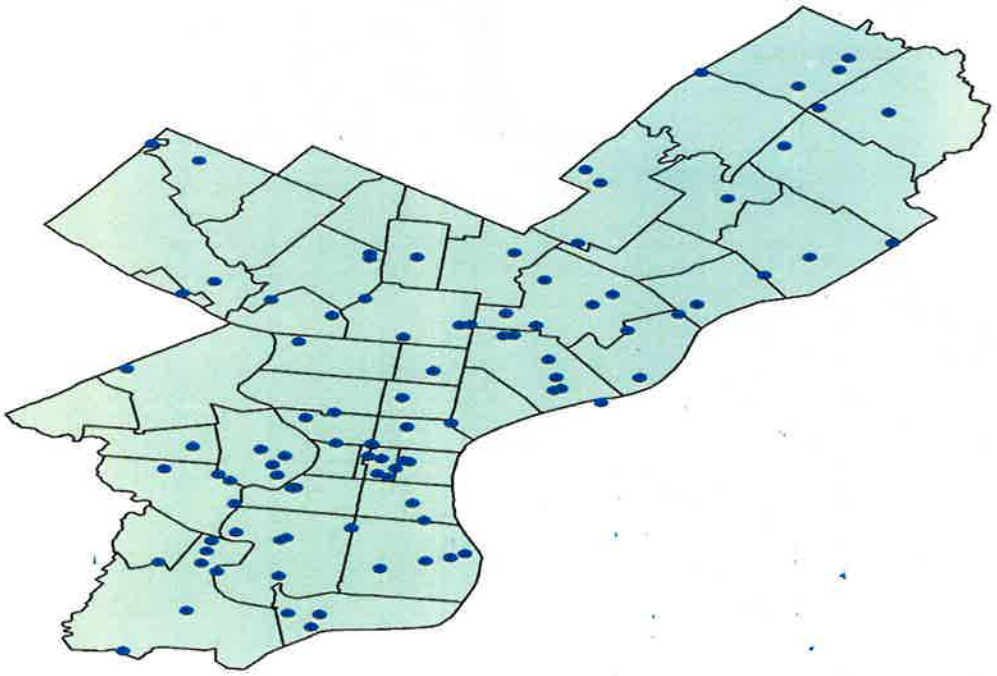


National Air Toxics Assessment (NATA) DATA 2014

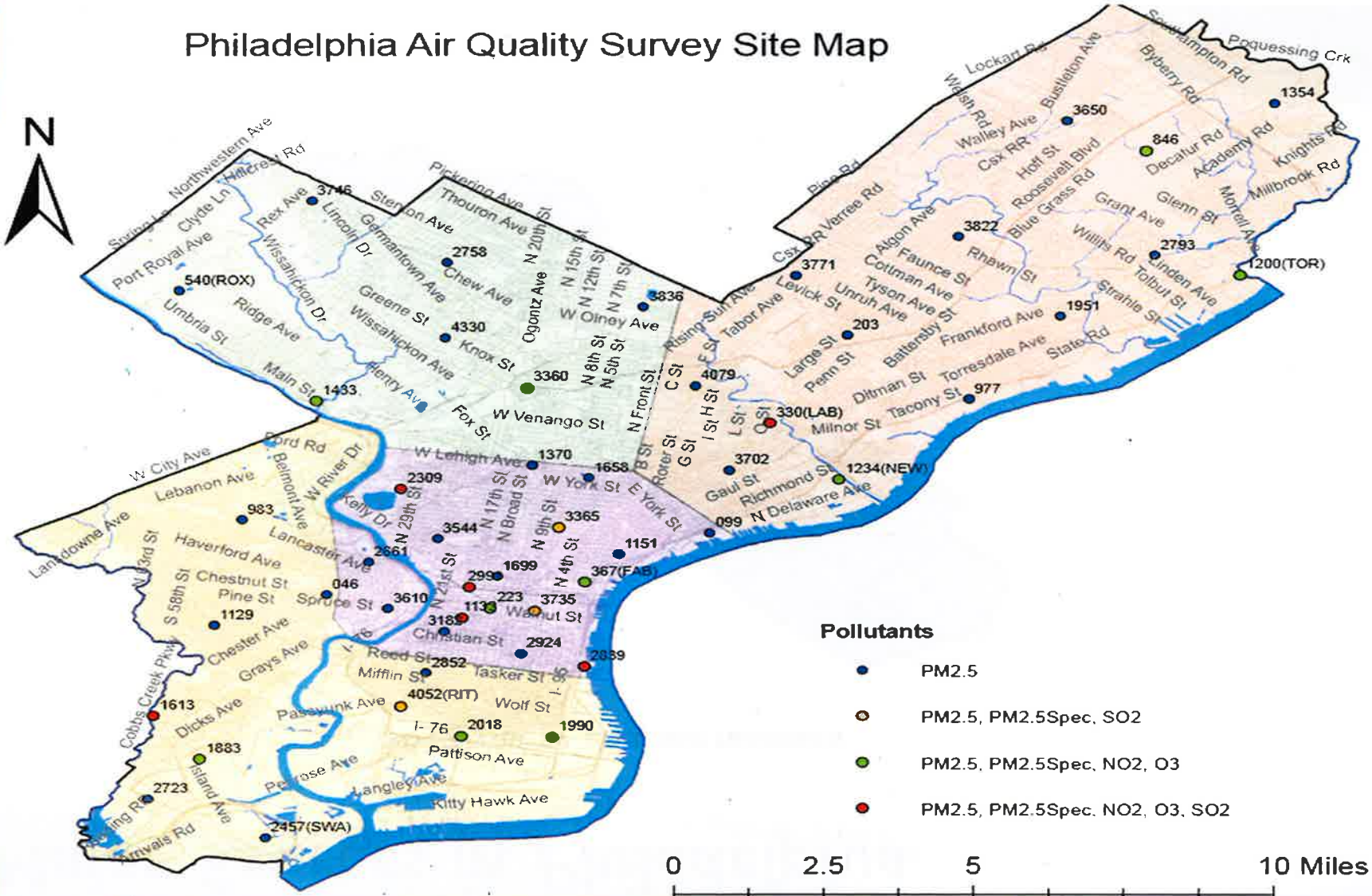


Major Sources in Philadelphia

2017 Title V and SM facilities .



Philadelphia Air Quality Survey Site Map



PAQS OBJECTIVES

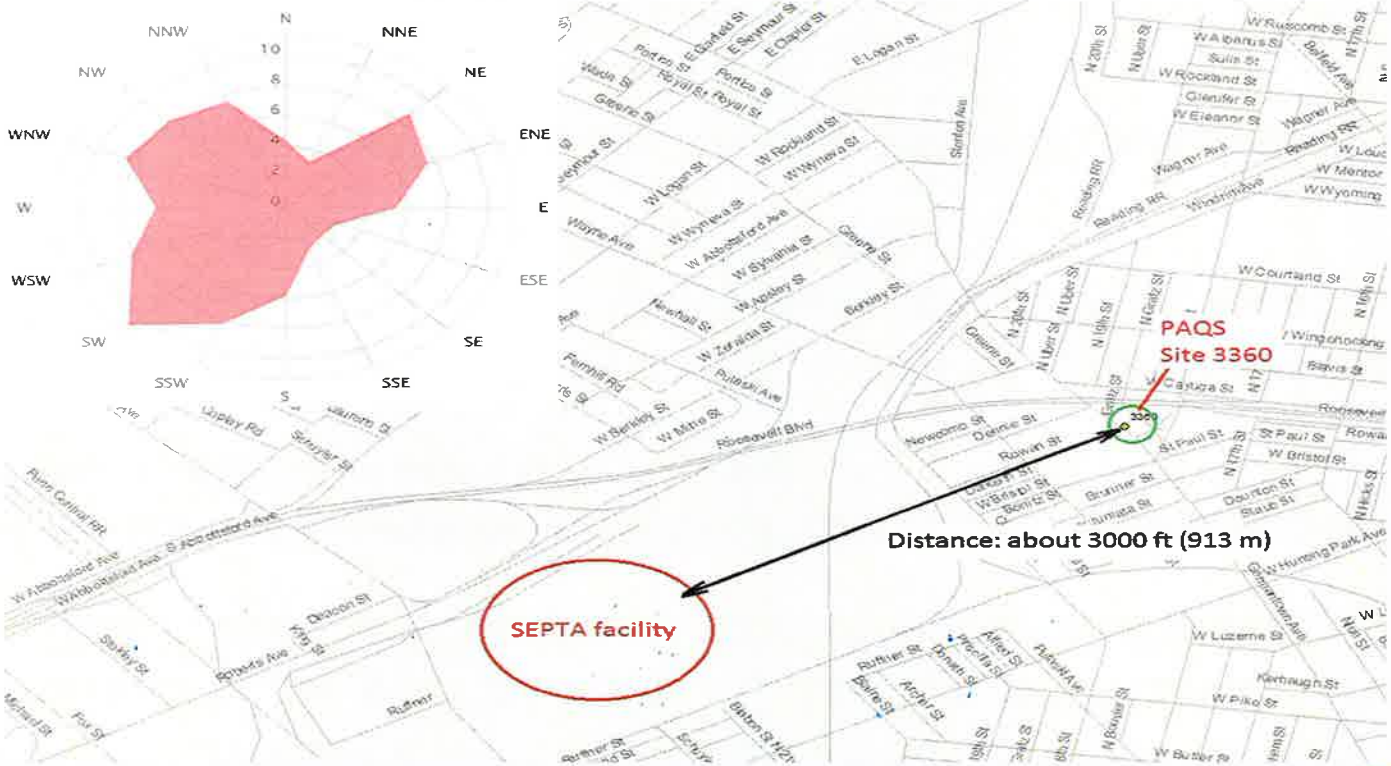
- Set up street-level, neighborhood-oriented air sampling units throughout the city to sample the air for about 24 months, and capture the seasonal changes and neighborhood-to-neighborhood spatial variances in air quality. The pollutants to be monitored include: $PM_{2.5}$, PM2.5 Speciation data, Black Carbon, NO_2 , SO_2 , O_3, etc..
- Provide policy recommendations for reducing pollution from congested city traffic, diesel vehicles and winter time fuel burning;
- Analyze the relations between air quality and land use characters at neighborhood level and build a Land Use Regression model to predict air pollutant concentrations at unmonitored locations;
- Provide a basis for study of health effects of air pollution & Future Research.

Retrieval/deployment of sampling unit

Retrieval/deployment of sampling unit

Retrieval/deployment of sampling unit

SEPTA Midvale Facility and Nearest PAQS Monitor



Proposed Regulations and New Regulations

- Dust Control Regulation AMR II, Section 9 to control dusts and lead from demolition, construction, and disposal
- Fuel oil Sulfur Regulation AMR II to reduce sulfur content of fuel from 2500 ppm to 15 ppm
- The Bill banning Fuel Oil #4 and 6 will be sponsored by CW Blondell Reynolds Brown. It is scheduled to be read at Council in September. Need your help
- Proposal to control Emission from Mobile Sources need your help

Proposed work by AMS for EJ Communities

- More Inspection by AMS Inspectors 24/7 (215-685-7580 business hours and 215-686-4516 non business hours)
- **Considering Environmental Justice in Permitting:** Develop tools that will enhance the ability of overburdened communities to participate fully and meaningfully in the permitting process
- **Compliance and Enforcement:** implementing a comprehensive strategy to integrate EJ into all aspects for the enforcement life cycle, including selecting work and priorities, targeting and developing cases, identifying proper remedies, and enhancing community engagement where appropriate
- Working with UPENN to measure noise at EJ communities will start soon

Comparison of Air Quality

1962

Today

According to EPA, the average American life has been extended by 5 months since the inception of the Clean Air Act.