

Organization Information

Clean Air Council:

- A member-supported environmental organization serving the Mid-Atlantic region, headquartered in Philadelphia.
- Dedicated to protecting and defending everyone's right to a healthy environment.
- Works through a broad array of related sustainability and public health initiatives, using public education, community action, government oversight, and enforcement of environmental laws.

Target population:

- Philadelphia's low-income residents suffer disproportionately from air pollution like smoke, auto-spray painting and truck traffic, and dumping which adversely affects their health and quality of life.
- Most of these neighborhoods are not near the city's air monitor network, thus the true extent of the threats to their health remain unknown.

Air Monitoring Project:

- Distribution of particulate matter air monitors to help residents gather reliable data and create a vision for their community that is healthier and cleaner.
- Data will allow residents and public health officials to be in a better position to state their concerns and pursue policy changes and reevaluations that make their neighborhood more livable.
- Citizen-scientists will be encouraged to share their experience and knowledge with other at-risk communities to ensure sustainability.
- This work is financially supported by the Aetna Foundation

Background - Air Monitoring Project

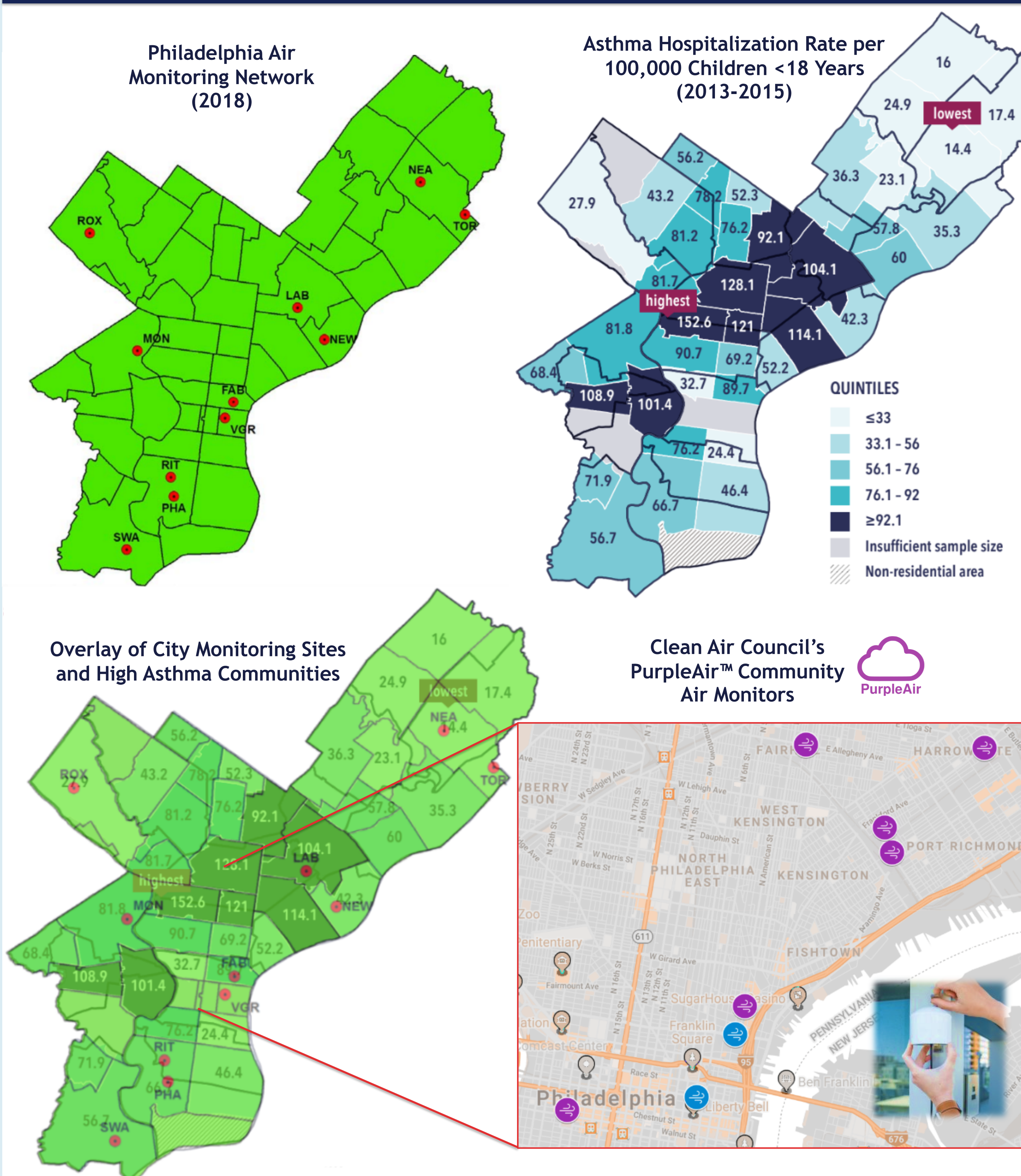
What is the larger problem?

- Ambient (outdoor air pollution) is a major cause of death and disease globally. The health effects range from increased hospital admissions and emergency room visits, to increased risk of premature death.
- Asthma hospitalization rates are highest among children in low-income areas of North and West Philadelphia (92.1 - 152.6 per 10,000) which is 1.5-2.5 times higher than the city average and 6-10 times higher than the lowest reported rate in the city.

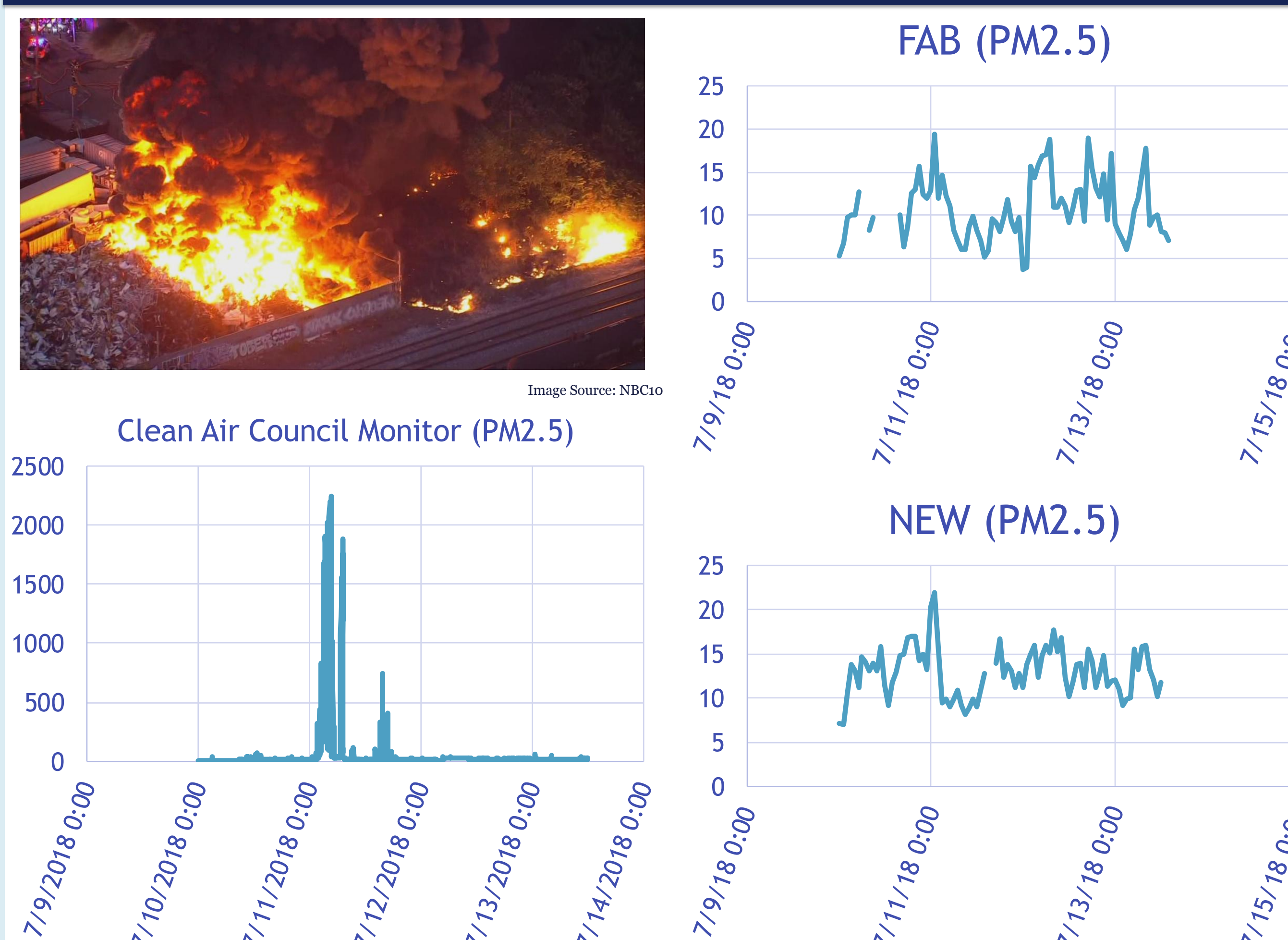
Use of this information:

- On July 11, a block-sized Kensington scrapyard caught fire and burned for over 12 hours.
- The Council's PurpleAir monitors were located across the street and recorded PM levels exceeding the 24-hour EPA health standards.
- Readings were sent to Air Management Services, Philadelphia's air quality agency. The Council partnered with AMS to collocate a monitor with a regulatory sensor.
- As the city sued the site's owner, the Council kept the community informed of trial dates.
- Philadelphia reached a \$125,000 settlement with the scrapyard, including provisions to improve safety.
- The scrapyard is now required to clean the area and can no longer accept walk-ups.
- The consent order mandates that if the scrapyard is in violation, a fine of \$2.7 million will be levied.

Philadelphia's Air Monitoring Locations



Kensington Scrapyard Fire (July 2018)



Research Goals & Questions:

What's missing? / Overarching goal:

- Despite improving air quality as reported in the 2017 Community Health Assessment, asthma is still a major health problem in Philadelphia with some low-income communities affected significantly more than others.
- In North and West Philadelphia where child asthma hospitalization rates are highest, there is a lack of air monitors in these affected communities.
- Thus, the air quality information that is recorded on the city's air monitors may not accurately reflect the air quality in these areas of Philadelphia with high asthma rates.

Questions:

1. Does ground level air quality differ in underserved communities of Philadelphia and how much does it differ from the air quality that is recorded by the City of Philadelphia's monitors?
2. What is the impact of local air pollution events (e.g. fires, truck traffic, local industry emissions, noxious smells) on local community health?
3. How can we increase awareness and knowledge of the impact the environment has on personal health, and the steps to take in reporting environmental code violations?

Why the Clean Air Council is a partner in this effort:

- Working with community members, the Council tracks permit applications for Kensington scrapyards, such as near a daycare facility and where vehicles are already being dumped illegally.
- Additionally, the Council monitors local construction and zoning issues.
- The Council attended 12 health fairs, workshops, and community meetings to raise awareness about air quality and air monitoring.

Conclusion:

- Expansion of The Council's community air monitoring network will provide communities with data that can be used to support policy changes to improve local environmental conditions.
- Community partners can collaborate by volunteering to host air monitors within poorly monitored neighborhoods and by providing resources for concerned residents.

Bibliography

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3. [https://www.phila.gov/health/pdfs/2017%202018%20AMNP%20Fin%20Draft%20050517%20\(2\).pdf](https://www.phila.gov/health/pdfs/2017%202018%20AMNP%20Fin%20Draft%20050517%20(2).pdf)
4. <https://www.purpleair.com/>



To collaborate with us
or to contact us