Committee: Environment and Transportation
Testimony on: HB0024 - Impact of Environmental Permits and State Agency Actions
Position: Favorable with Amendment
Hearing Date: February 21, 2024

Chesapeake Physicians for Social Responsibility (CPSR) supports HB24, **but strongly advocates that it be amended to include important air pollution permits**. HB24 would allow MDE to consider environmental justice scores when issuing permits for certain sources of environmental pollution. However, CPSR strongly believes that this bill should have an amendment to include the crucially important addition of sources of ambient (outdoor) air pollution. Exposure to outdoor air pollution accounts for more than 50% of deaths from environmental causes worldwide.

Chesapeake Physicians for Social Responsibility is the statewide affiliate of Physicians for Social Responsibility. With our 900 supporters, our mission is to address the greatest public health threats of all: nuclear war and climate change, but we are also committed locally to addressing environmental injustice and health disparities. CPSR members/leadership have a history of working to support community-led efforts to reduce exposure in Baltimore's Curtis Bay neighborhood, which has the highest EJ score in Maryland, and believes that residents of impacted communities like Curtis Bay would strongly advocate for this amendment.

Health outcomes associated with air pollution exposure
Air pollution exposure is associated with multiple adverse outcomes, including asthma emergency events, myocardial infarction, and low birth weight, three outcomes that are used in calculating the EJ scores.

The chronic exposure to ambient (outdoor) particulates that are 2.5 microns or smaller in diameter ($PM_{2.5}$) and ozone are associated with reduced life-expectancy, loss of healthy life years and excess mortality from cardiovascular, and respiratory diseases. Exposure to ambient PM2.5 has been associated with adverse birth outcomes, diabetes, neurological diseases, and cancers, especially lung cancer. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9828848/

Long term exposure to PM2.5 and ozone have also been associated with increased risk of heart attacks and hospitalizations for strokes. https://pubmed.ncbi.nlm.nih.gov/34478722/

Short term and long-term exposure to particulate matter and nitrogen oxides have been associated with increased risk of death from heart attacks. Short-term exposure to PM2.5 has been associated with an increased risk of strokes.
https://www.ahajournals.org/doi/pdf/10.1161/STROKEAHA.116.015303

Increase in COVID-19 mortality has been linked to exposure to PM2.5.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8553633/

Equity and exposures:
The American Heart Association identified air pollution as causing an increased risk of cardiovascular disease in minority and low-income communities because they are disproportionately exposed to higher concentrations of ambient air pollution.
https://doi.org/10.1161/CIR.0000000000000930

Exposure to air pollution, specifically PM2.5 and ozone during the end of pregnancy are associated with premature birth and with low birthweight especially in women with asthma and black women. https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2767260

Air pollution, specifically PM2.5 and ozone are important risk factors for worsening of asthma and lung function especially in in children living in urban areas and this is independent of viral infections. https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(22)00302-3/fulltext

Children, elderly and those with underlying heart and lung diseases most susceptible to the acute effects of PM 2.5. https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm.

Short term exposure to PM2.5 associated with increase in hospital admissions for Medicare population with many different illnesses. https://www.bmj.com/content/367/bmj.l6258

What is Particulate Matter
Particulate matter (PM) describes microscopic particles and liquids dispersed in an aerosol that are small enough to be airborne, and for humans to inhale. PM2.5 includes particles 2.5 microns or smaller, 1/20-1/30 the diameter of a strand of hair. The smallest particles are the most dangerous because they evade normal body defense mechanisms like mucous and cough and can get deep into lungs. even cross into the blood stream and get carried around the rest of the body. Some evidence in animals suggest some PM2.5 particles in the nose can travel up the olfactory nerve into the front of the brain, possibly linking them to degenerative brain illnesses like Alzheimer's and Parkinson's. (Alan. Lockwood, The Silent Epidemic MIT Press)

PM2.5 are like toxic delivery vehicles delivering their dangerous passengers including: lead, mercury, arsenic, organic chemicals, and viruses: and once into our bodies, they can cause harm. The more PM2.5 in the air, the more we breath in and the more we are exposed to their harmful effects. In 2013 an article form MIT reported that of 20 major cities, Baltimore was #1 in highest total mortality rate attributable to PM2.5: about 130 early deaths per year per 100,000 inhabitants. https://www.precaution.org/lib/air_poll_kills_200000_per_yr_2013.pdf .

Local communities
Curtis Bay currently has the highest EJ score in Maryland, identifying it as the community experiencing the greatest combined burden from pollution. Without this important amendment, much of the pollution plaguing neighborhoods like Curtis Bay will continue. This bill will be stronger if those most impacted, with groups like "Free Your Voice" and "South Baltimore

Community Land Trust," that have been working tirelessly for environmental justice for their community, could have a voice which surely would be a plea to include consideration of environmental justice scores when permitting sources of ambient air pollution.

This bill, which defines exposed communities according to environmental justice indices, demographic indices, National Air Toxics Data and assessment tools, should be amended to cover new permits for Title V stationary sources of outdoor air pollution so that its impact will make a difference in reducing heart attacks, strokes, asthma attacks and lung cancer, in communities that have previously been subjected to the highest burden of air pollutants. This will save lives especially in those neglected neighborhoods where pollution makes children and adults sick and shortens their lives.

Chesapeake Physicians for Social Responsibility supports HB0024 with an amendment that includes Title V sources of ambient air pollution.

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