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Public Statement on 2023 American Lung Association State of the Air Report

May 4, 2023

Background

Last month, the American Lung Association (ALA) released its 2023 State of the Air (SOTA) Report, offering various snapshots into air quality in metropolitan areas and counties across the United States. The annual report analyzes monitoring data reported by the U.S. Environmental Protection Agency (EPA) with respect to three criteria, awarding letter grades for ozone (smog) and short-term particulate matter (fine particles), and a “pass/fail” grade for long-term particulate matter. The ALA uses only validated data, so the 2023 report takes into account data reported for the three years from 2019 to 2021.

The metropolitan region of Pittsburgh-New Castle, PA-Weirton, WV continued its trend as having some of the worst reported air quality in the nation. The region was judged the 54th worst in ozone, 20th worst in short-term particulate matter, and 14th worst in long-term particulate matter. While receiving a passing grade for long-term particulate matter, Allegheny County earned a short-term particulate matter grade of “F” and an ozone grade of “C” in the report. Some surrounding counties appeared to fare better, however limitations in air quality monitoring of rural areas can wildly skew results. With few monitoring locations distributed over a large area, monitors often do not capture the air quality of people living in proximity to sources of emissions, so the ALA report should not be relied upon to determine the air quality of every resident in the county.

The full 2023 ALA SOTA report can be viewed [here](#).

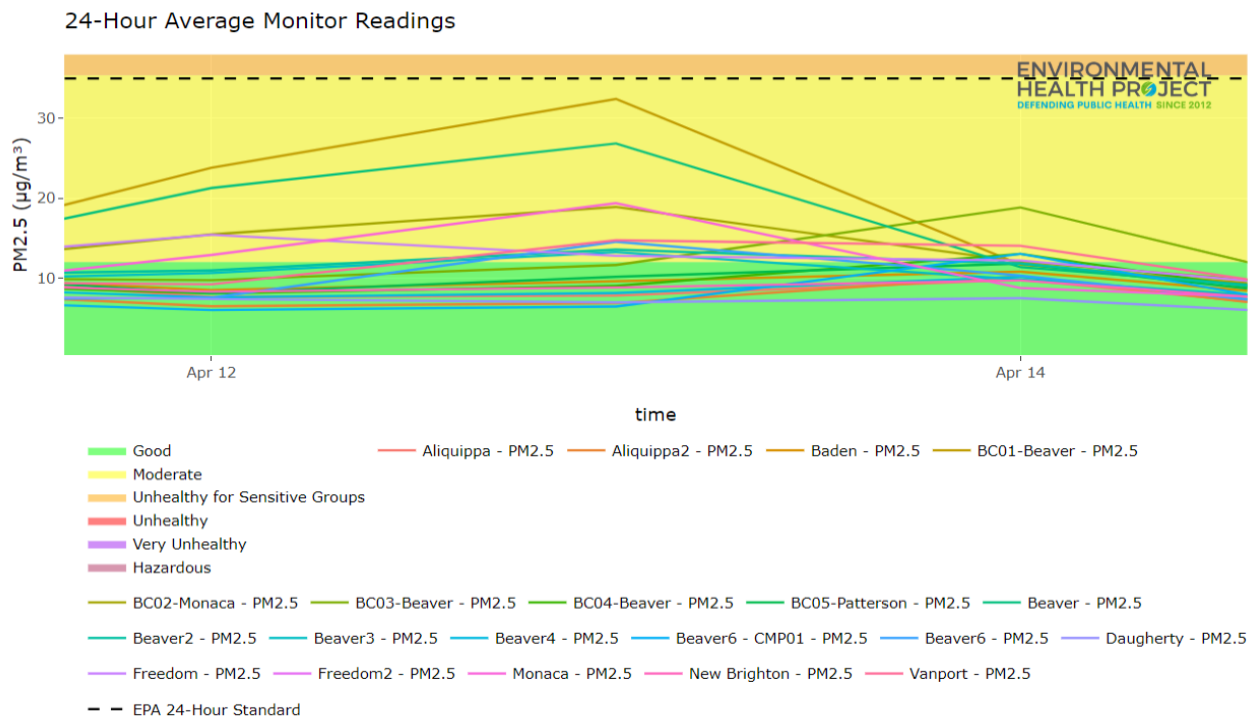
Environmental Health Project Statement

The air quality of the metropolitan region of Pittsburgh-New Castle, PA-Weirton, WV continues to predict poor health outcomes and reduced longevity for millions of residents. Allegheny County should be especially concerned about short-term particulate pollution, which can exacerbate asthma attacks, bring on acute bronchitis, and raise the risk of heart attacks in individuals with cardiac disease.

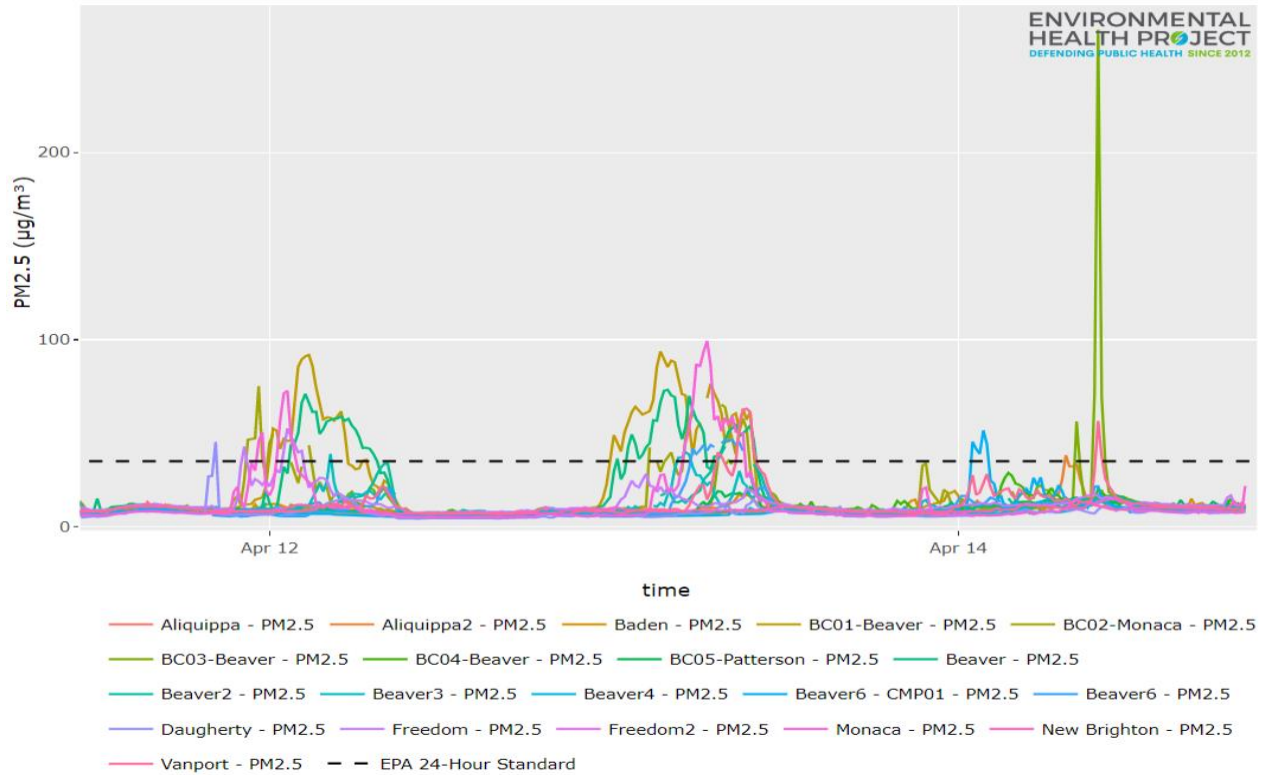
In other Southwestern Pennsylvania counties—such as Washington, Greene, and Westmoreland counties—the American Lung Association grades may appear better, but they are based on limited information, which can inadvertently obscure troubling health risks that we know exist. People living close to the web of shale gas wells, compressor stations, pipelines, and processing plants are exposed to air emissions not usually captured by the existing monitoring network—air emissions that raise the likelihood these residents will suffer negative health impacts.

More specifically, the air monitors on which the State of the Air Report relies for data typically are not located in places that capture and report localized emissions that residents breathe. More rural counties listed in the report generally have just one air monitor providing data for the entire county. Further, the SOTA Report uses particulate matter data that is reported as a 24-hour average. Values averaged over time lose detail and do not reveal the shorter-term peaks in emissions—some as short as 15 minutes. These intermittent peaks can affect the health of residents, especially those most vulnerable, such as children, the elderly, and those with pre-existing conditions.

The following charts (taken recently over three days at the Shell cracker plant in Monaca, PA) show how 24-hour monitoring of air quality tends to average out dangerous emissions over time while 15-minute monitoring shows peaks in emissions that may exceed federal standards of safety and that can be harmful to people in the vicinity.



15-Min Average Monitor Readings



So, while the SOTA Report offers a broad panorama of air quality countywide, it should not be used to assess air quality for residents located in the vicinity of industrial sources of emissions. Additionally, we encourage the ALA to convey the limitations of monitoring placement and reporting of results, especially when it comes to environmental justice communities, which are typically under-monitored and under-served.

It is also worth noting that many parts of the U.S. saw reduced emissions during the COVID-19 pandemic. As the SOTA Report states regarding air quality improvements: “It is also possible that pandemic-related changes in activity patterns in 2020 and 2021, such as increased telework, have made a difference, but that is still being studied and characterized.” At EHP, we believe that pandemic-related improvements in air quality are temporary and have likely distorted this and future years’ SOTA results, providing some residents with a false sense of optimism with respect to their air quality.

As industrial complexes ramp back up and traffic increases, we remain vigilant with respect to air quality in the region. We urge the public to continue to be mindful of the potential health risks that can be present, despite a seemingly improved air quality rating. Additionally, we urge the EPA to prioritize monitoring in communities most impacted by industrial sources of pollution, including those near oil and gas infrastructure.

We also continue to be concerned about growing emissions from the introduction of petrochemical operations, including the Shell plastics plant in Beaver County, and proposals to build a hydrogen hub in the Pennsylvania-Ohio-West Virginia region. Additional industrial development that relies on shale gas and other fossil fuels will increase pollution, adversely impact air quality, and raise the risk of health issues for millions in the region.

Alison L. Steele, Executive Director
Environmental Health Project

Organizations Offering Statement Support

Beaver County Marcellus Awareness Community (BCMAC)
Better Path Coalition
Buckeye Environmental Network
Center for Coalfield Justice
Citizens to Preserve Ligonier Valley
Clean Air Council
CREATE Lab
Food and Water Watch
FreshWater Accountability Project
Harry Enstrom Chapter, Izaak Walton League of America
LAWPA (Local Authority Western Pennsylvania)
Mountain Watershed Association
Move Past Plastic (MPP)
North Area Environmental Council
Ohio Valley Environmental Advocates
Pennsylvania Alliance for Clean Water and Air
Pennsylvania Interfaith Power & Light
Pennsylvania Jewish Earth Alliance
Philadelphia Solar Energy Association
Physicians for Social Responsibility Pennsylvania
Protect PT
UBCAMP
Westmoreland Marcellus Citizen's Group