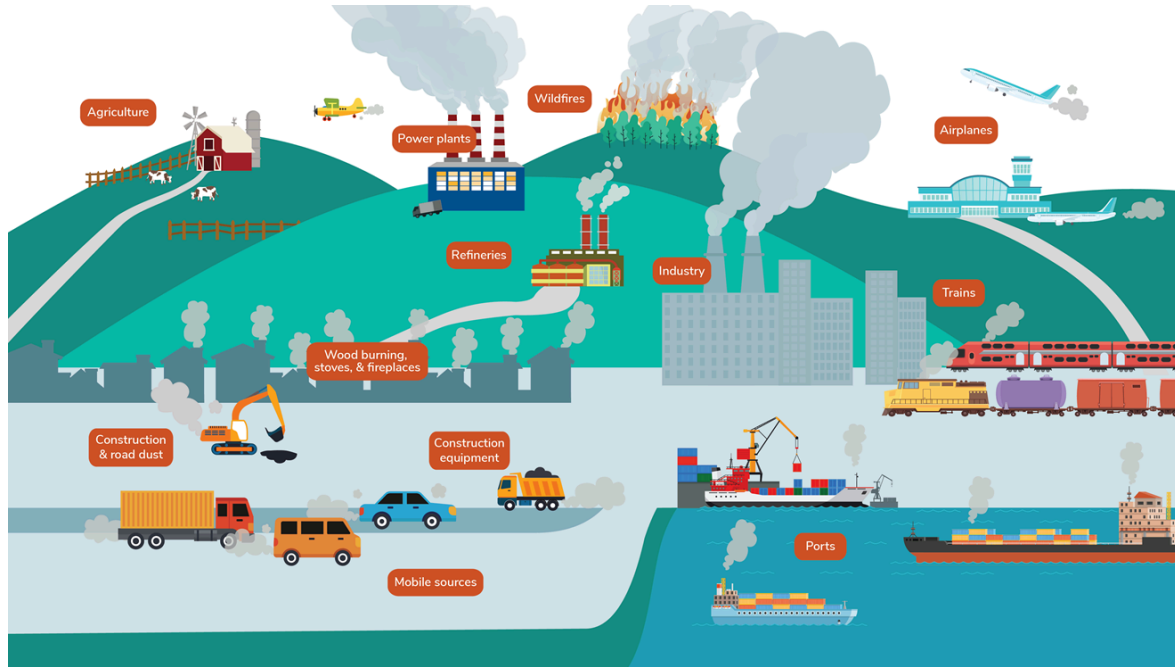




Air Quality 101

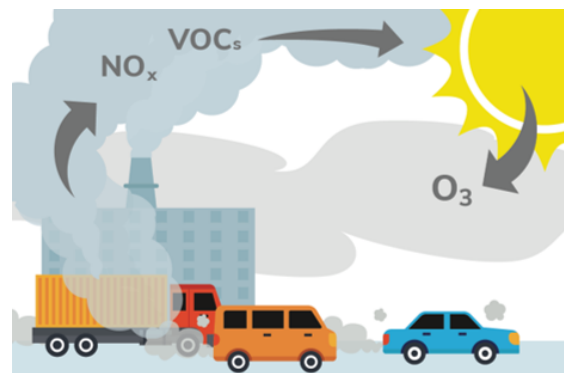
You can often see, smell, and feel air pollution. Your eyes water; you cough; and your breathing is more difficult. There are also times that pollution is odorless and colorless. This guide describes what pollution is, how it is measured, and what you can do to stay safe when air quality is poor.



What exactly is air pollution, and where does it come from?

Air pollutants are gasses, like ozone, and particles smaller than a grain of sand, like smoke and dust. The particles, also known as particulate matter (PM), are categorized by size and are written as PM_{2.5} and PM₁₀.

Ozone, also known as O₃, is created when chemicals called nitrous oxides (NO_x) and Volatile Organic Compounds (VOCs) interact in the air. Gasoline and diesel powered vehicles emit NO_x and VOCs.



Particulate matter comes from vehicles as well as industry, power plants, wildfires, and more.

What are the health effects of poor air quality?

Poor air quality can exacerbate asthma and cause nausea, dizziness, headaches, chest pain, and more.¹

How can I tell when air quality is poor?

In addition to using your body as a sensor, air quality monitors have been placed throughout southeast Michigan by community groups and the Environmental Protection Agency (EPA) to measure the levels of pollutants. Different types of monitors are needed to measure pollution levels. Some measure ozone or NOx, for instance, while others measure particulate matter.



Several communities in Detroit are working with a local company, JustAir, to monitor air pollution. You can register for air quality alerts and visit the dashboard by using the QR code.

The Air Quality Index (AQI)² is a tool which measures air quality on a scale from zero (no air pollution) to 500 (extremely high air pollution). There are 6 levels of health concerns which are symbolized by colors.

“Sensitive Groups” are children, including teenagers, and people with heart or lung diseases.

What is being done in my area and how can I get involved?

If you are an east side resident, please join the Eastside Climate Action Coalition (ECAC) at their monthly meetings. ECAC is a group of residents, city and state officials, and technical experts across Detroit committed to ensuring that local policies prioritize climate equity and resilience for the community. To get involved, please contact Roshaun Harris at rharris@ecn-detroit.org. ECN has 10 portable PM2.5 monitors that groups can borrow.

Levels of Health Concern	Colors
<i>...air quality conditions are:</i>	<i>...as symbolized by this color:</i>
Good	Green
Moderate	Yellow
Unhealthy for Sensitive Groups	Orange
Unhealthy	Red
Very Unhealthy	Purple
Hazardous	Maroon

¹ Air Quality Index: A Guide to Air Quality and Your Health, U.S. Environmental Protection Agency, 2014, https://www.airnow.gov/sites/default/files/2018-04/aqi_brochure_02_14_0.pdf.

² Air Quality Index: A Guide to Air Quality and Your Health, U.S. Environmental Protection Agency, 2014, https://www.airnow.gov/sites/default/files/2018-04/aqi_brochure_02_14_0.pdf.

Can I build a low-cost indoor air filter?

Yes! Please use the QR code for instructions.



What should I do if air quality is in the unhealthy range?



Limit or reschedule outdoor activities; use an N95 mask if going outside; close your windows; use an indoor air filter; and change your central heating and air conditioning filters. See the QR code for [other tips](#).

You are welcome to come to the air-conditioned Stoudamire Wellness Hub at 4401 Conner, Detroit, Michigan, 48215. The center's hours are 9 AM to 8 PM Monday through Friday and 10 AM to 4 PM on Saturdays. (313)-571-2800

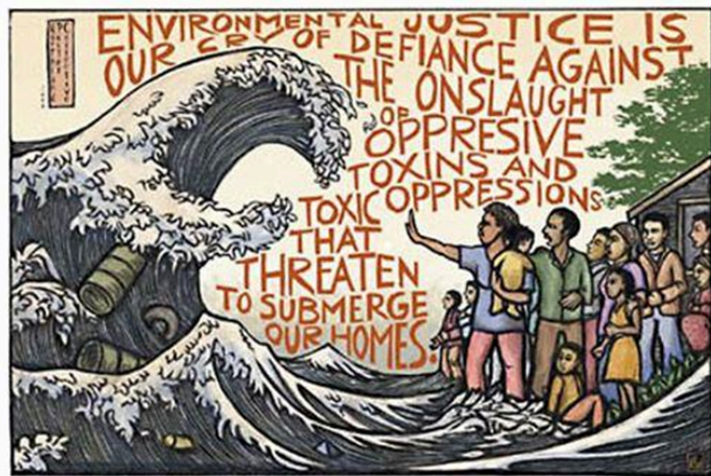
Should I report poor air quality?



Yes, please! If you see, feel or smell air pollution, call the 24-hour Pollution Emergency Alerting System (PEAS) at 800-292-4706 to report concerns. Employees of the Air Quality Division of the Michigan Department of Environment, Great Lakes, and Energy (EGLE) answer these calls and will record information such as where you are, what you are experiencing, and where you think the pollution is coming from. You can also [submit](#) an air quality complaint through the website by using the QR code.

Environmental Justice is “The recognition of a disproportionate burden of industrial pollution placed on poor communities and communities of color.”

–Rachel Massey, Tufts University (2004)



Thank you to the Bay Air Center, bayaircenter.org, for allowing us to use their wonderful infographics.