Maryland
Department of
the Environment

Clean Air and the New, More Protective Ozone Standard

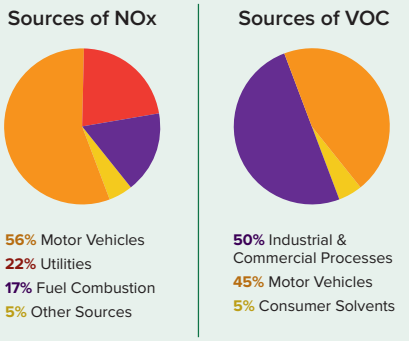
What You Need to Know

What is ozone?

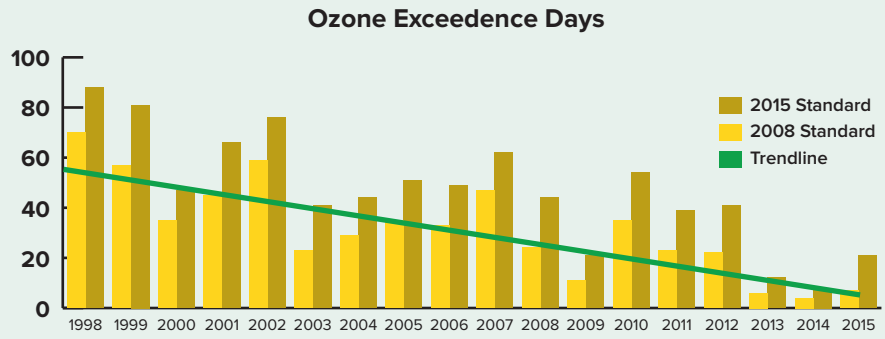
Ground level ozone is the main ingredient in smog. Common air pollutants, such as Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NOx), react in warm weather with sunlight to produce ground level ozone.

VOCs are released from everyday consumer products – they are, for example, the smell of gasoline, spray paint and even perfume. NOx is released from fuel-burning sources such as vehicles and power plants. The brown tint in the air some mornings is due to NOx. These pollutants often combine to form unhealthy levels of ground level ozone. These levels are most likely to occur in warmer weather, typically May through September.

Breathing ozone can trigger a variety of health problems, particularly for children, the elderly, people with heart ailments or lung diseases such as asthma. High concentrations of ozone can cause shortness of breath, coughing, wheezing, fatigue, headaches, nausea, chest pain and eye and throat irritation. The most common symptom that people have when exposed to ozone while exercising is pain when taking a deep breath. Ozone is also linked to premature death. Ozone can also harm plant life and ecosystems.



Clean Air Progress in Maryland



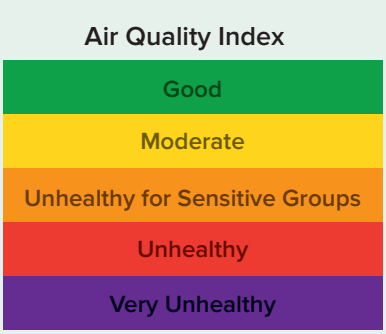
Maryland's air quality has improved significantly in recent years. Reductions in emissions from utilities, motor vehicles and other sources as diverse as manufacturing and consumer products have reduced the number of days on which Marylanders breathe poor air.

The U.S. Environmental Protection Agency determined last year that the metropolitan Baltimore area met the standard then in place for ozone. The EPA also rewarded Maryland for continued improvements in air quality by extending the deadline for the metropolitan Washington area of Maryland and the northeast portion of the state to meet the standard. Other parts of the state previously met the standard.

There's a new, more protective ozone standard

Last fall, the EPA strengthened the health-based air quality standard for ozone, lowering the standard from 75 parts per billion (ppb) to 70 ppb. The new standard was adopted based on extensive scientific evidence on ozone's health effects. The updated standard will improve public health protection, particularly for at-risk groups such as children, older adults, people with heart or lung diseases and outdoor workers. The estimated $1.4 billion in annual costs to the nation due to the new standard are outweighed by estimated annual public health benefits of $2.9 billion to $5.9 billion.

With the new standard in place, the EPA updated the break points for each category in the color-coded Air Quality Index – a tool for telling the public how clean or polluted the air is. This scale is also used for daily air quality forecasting – which allows people to know when they might need to reduce their exposure to air pollution. The meaning of the colors has not been changed, but alerts will now be triggered at lower levels of ozone monitoring.

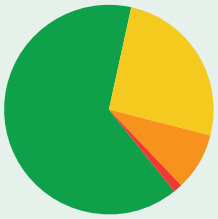


Expect to see more Code Orange forecasts - but our air isn't getting worse

Because of the new, more stringent yardstick being applied to ozone levels, the number of poor air days that are forecast and observed is expected to increase by about 30 percent. This doesn't mean air quality has suddenly gotten worse. It means a more protective standard is now in place.

With strong regulations and monitoring programs already in place and new, more protective regulations and regional collaborations proposed, the Maryland Department of the Environment estimates that Maryland will be able to comply with the new ozone standard throughout the state, though the Baltimore area and the northeast area of the state may be very close to or just above the new standard.

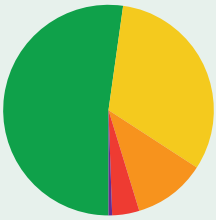
Air Quality Distribution Comparison, Old Standard vs. New



2008 Standard

Average number of days/season

AQI Category	Old	Revised
Good	137	112
Moderate	55	69
USG	19	24
Unhealthy	3	9
Very Unhealthy	< 1	< 1



2015 Standard

Based on 2005-2015 data for the Baltimore region

What you can do

"Hard work, strong controls and steady investments are paying off with cleaner air. But we also know much more needs to be done, immediately and over the next five years, within the state and beyond, to consistently improve and maintain Maryland's air quality."

- MDE Secretary Ben Grumbles

- Conserve energy by turning off lights and appliances when you leave a room.
- Use energy efficient appliances such as refrigerators, air conditioners, heat pumps and furnaces.
- Reduce, Reuse, Recycle to conserve energy and reduce emissions.
- When possible, walk, bike or use public transportation.
- Do not idle your vehicle's engine – keep the air clean and save fuel.
- Maintain your vehicles in good working order and check tire pressure regularly.
- Combine your errands into one trip. Avoid long drive-through lines.
- Plant trees in locations around your home to provide shade in the summer.
- Put off mowing the lawn or painting and reduce driving on bad air days.
- Follow air quality forecasts and plan your outdoor activity as appropriate.

Be in the know

MDE Air Monitoring Program
Maryland Department of the Environment air quality forecasts and air pollution monitoring.

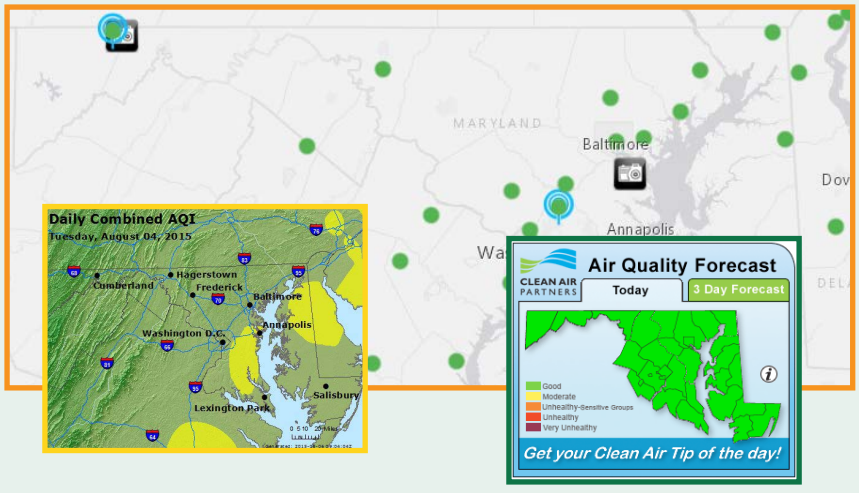
mde.maryland.gov/air

Clean Air Progress in Maryland: Accomplishments 2015
Maryland Department of the Environment's annual air quality progress report.

http://www.mde.state.md.us/programs/Air/Documents/GoodNewsReport/GoodNewsReport2015Final.pdf

Clean Air Partners
Current Air Quality Conditions and Forecasts for the DC-MD-VA region.

www.cleanairpartners.net



For more information, please visit www.mde.maryland.gov