

Environmental Health Playbook Webinar Air Pollution, Health and Equity

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Lyndsay Moseley Alexander, MPA
Assistant Vice President and Director, Healthy Air
Campaign



American Lung Association

Mission: To save lives by improving lung health and preventing lung disease

Vision: A world free of lung disease

Strategic Imperative: Reduce air pollution so that it does not cause or worsen lung disease.



Overcoming Air Pollution's Dark Past

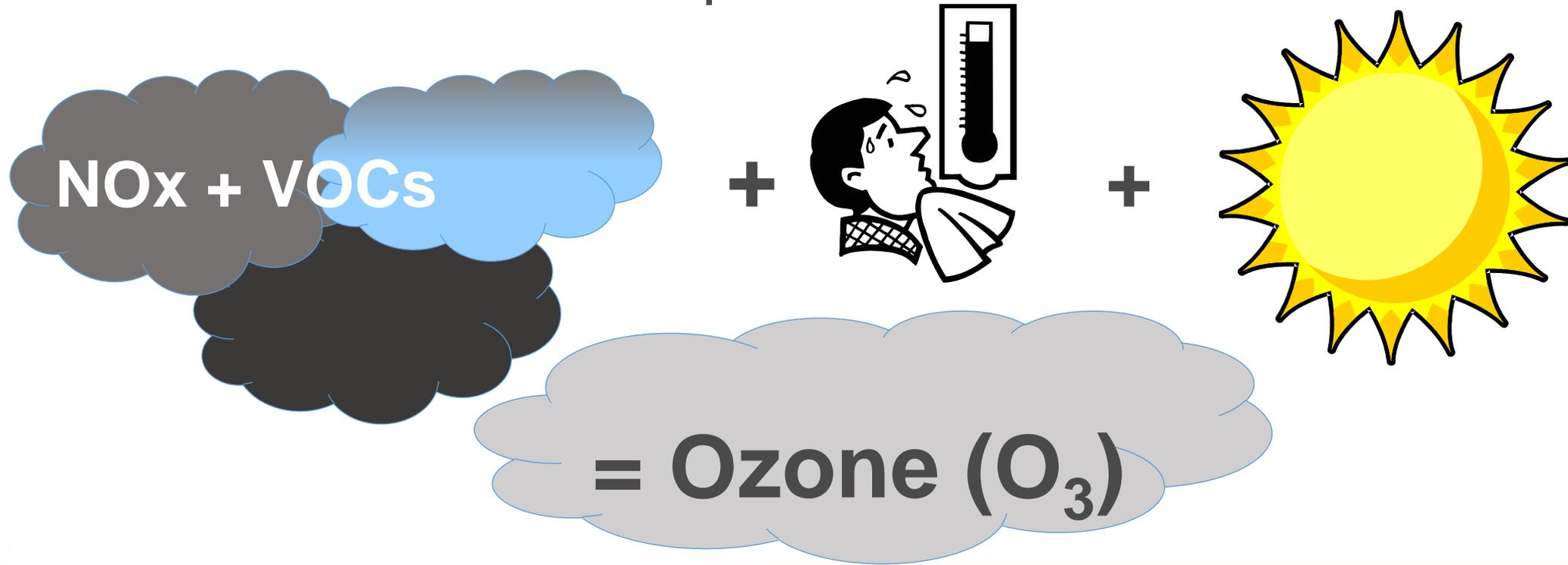


... to Embrace a Healthier Future

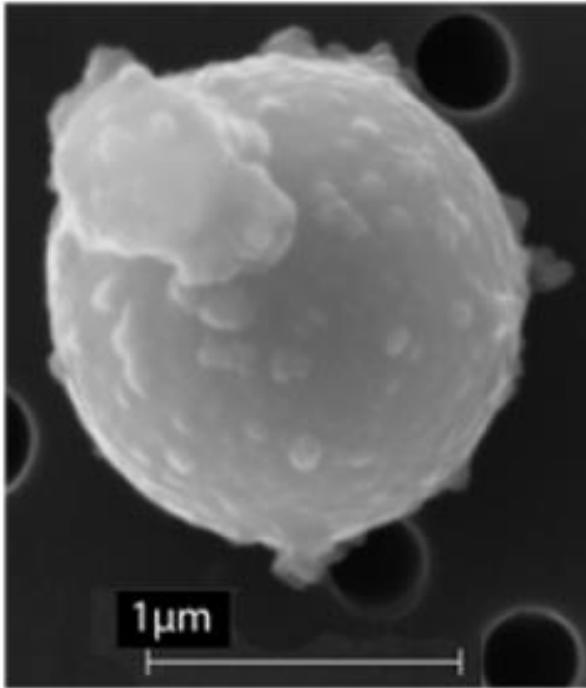


What is ozone?

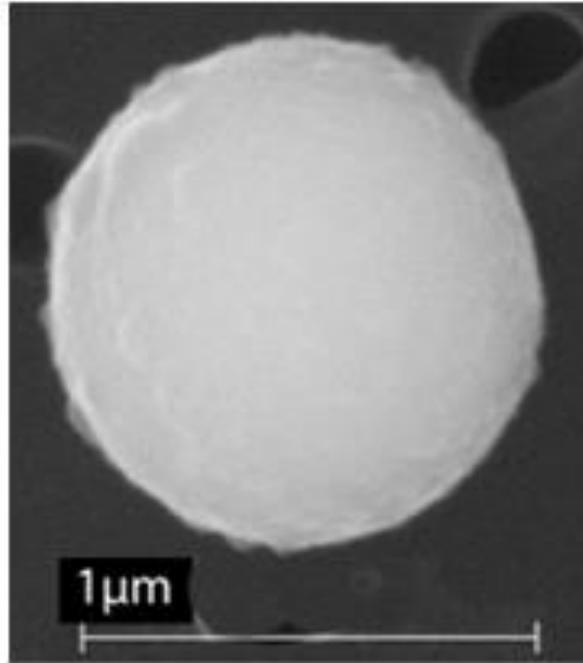
Ozone is a gas, sometimes called smog.
It is created in the atmosphere.



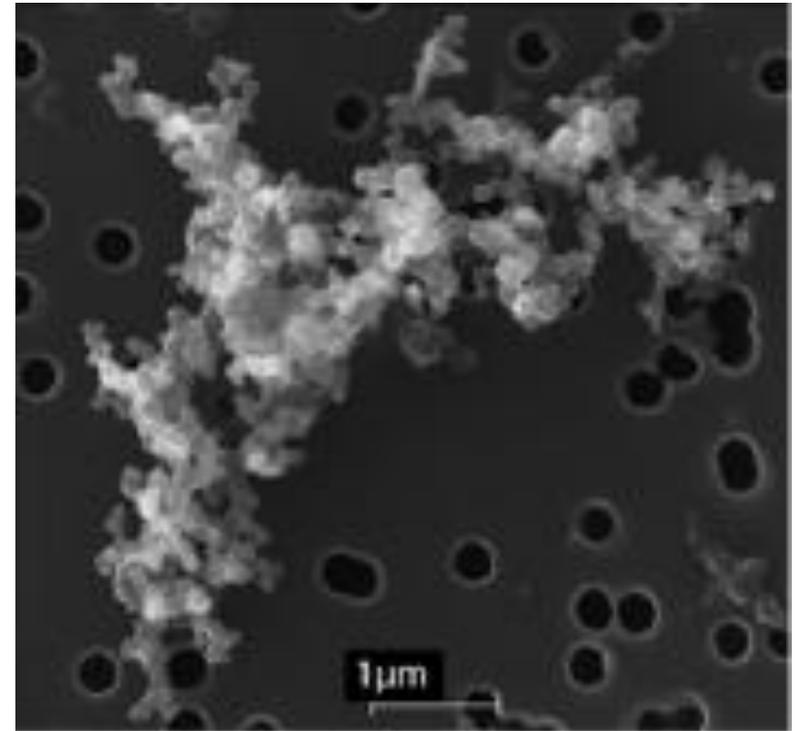
What are Particles? Tiny bits of stuff



From a coal-fired power plant



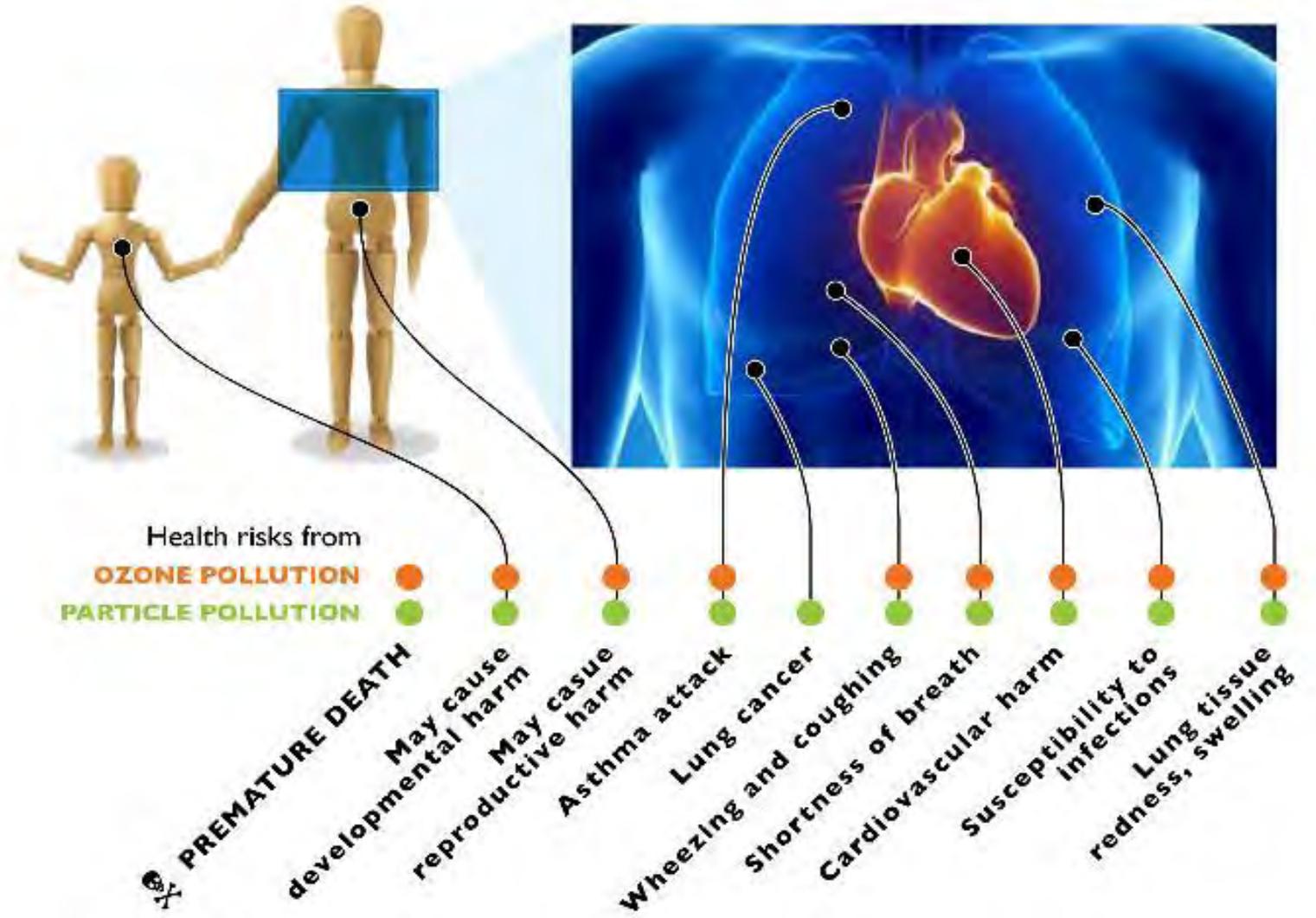
From a steel manufacturing plant



Carbon soot from a diesel engine—has lots of tiny particles

Health Effects of Ozone and Particle Pollution

Ozone and particle pollution can shorten life.



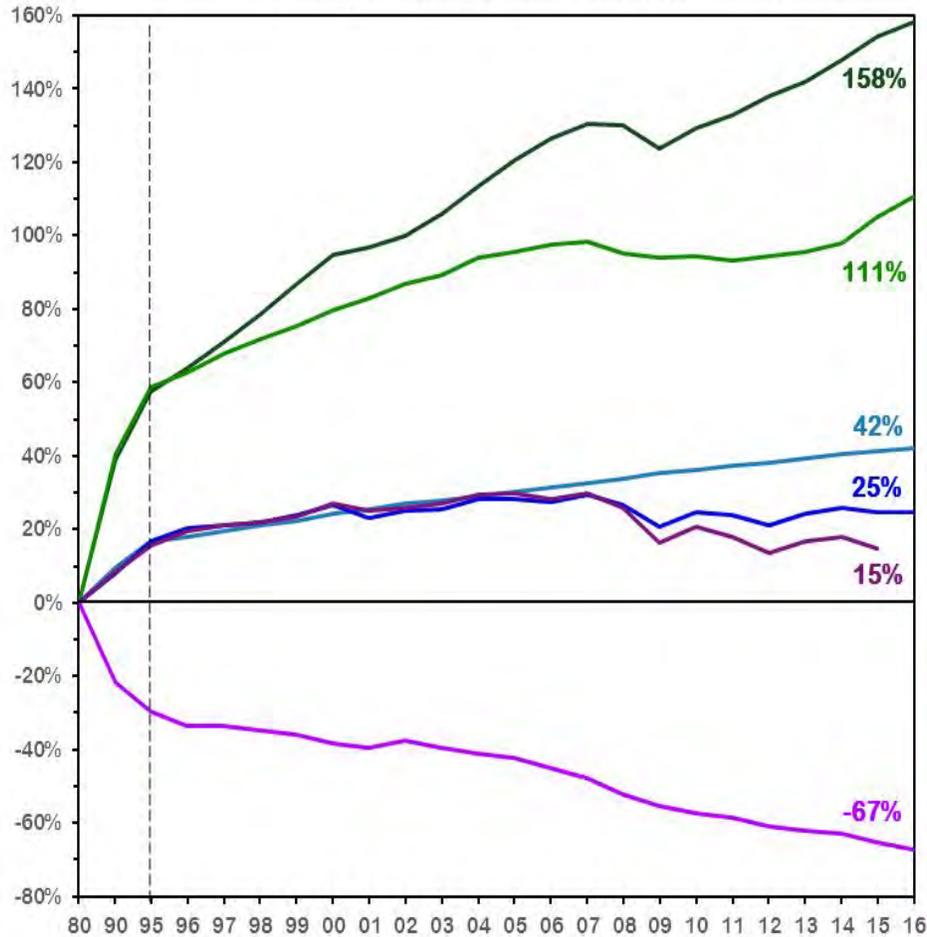
Especially At-Risk Populations:

- Infants and children
- Older adults
- People with asthma, COPD and other chronic lung health problems
- People with diabetes and cardiovascular disease
- Low income communities
- Some communities of color
- People living near major roadways
- People who work and exercise outdoors



Healthy Air and Growing Economy

Comparison of Growth Areas and Emissions, 1980-2016



Gross Domestic Product



Vehicles Miles Traveled



Population



Energy Consumption



CO₂ Emissions



Aggregate Emissions
(Six Common Pollutants)

In addition, from 1990 to 2014 emissions of [air toxics](#) declined by **68 percent**, largely driven by federal and state implementation of stationary and mobile source regulations.

The Clean Air Act – A Premier Public Health Law

Estimated Benefits of the 1990 Clean Air Act Amdts.

Health Effect Reductions (Ozone and PM only)	2010	2020
Adult Mortality - particles	160,000	230,000
Infant Mortality - particles	230	280
Mortality - ozone	4,300	7,100
Chronic Bronchitis	54,000	75,000
Heart Disease - Acute Myocardial Infarction	130,000	200,000
Asthma Exacerbation	1,700,000	2,400,000
Emergency Room Visits	86,000	120,000
School Loss Days	3,200,000	5,400,000
Lost Work Days	13,000,000	17,000,000

Healthy Air Progress Continues under the Clean Air Act

- ❖ **2011** – EPA adopted the Mercury and Air Toxics Standards limiting toxic air pollution from power plants and preventing an estimated 13,000 premature deaths annually.
- ❖ **2012** – EPA Strengthened PM 2.5 National Ambient Air Quality Standard
- ❖ **2014** – EPA adopted the Tier 3 Cleaner Gasoline and Vehicle Standards reducing pollution equivalent to taking 33 million cars off the roads.
- ❖ **2015** – EPA Adopted the Clean Power Plan, first national limits on power plant carbon pollution*
- ❖ **2015** – EPA Strengthened the Ozone Air Quality Standard*



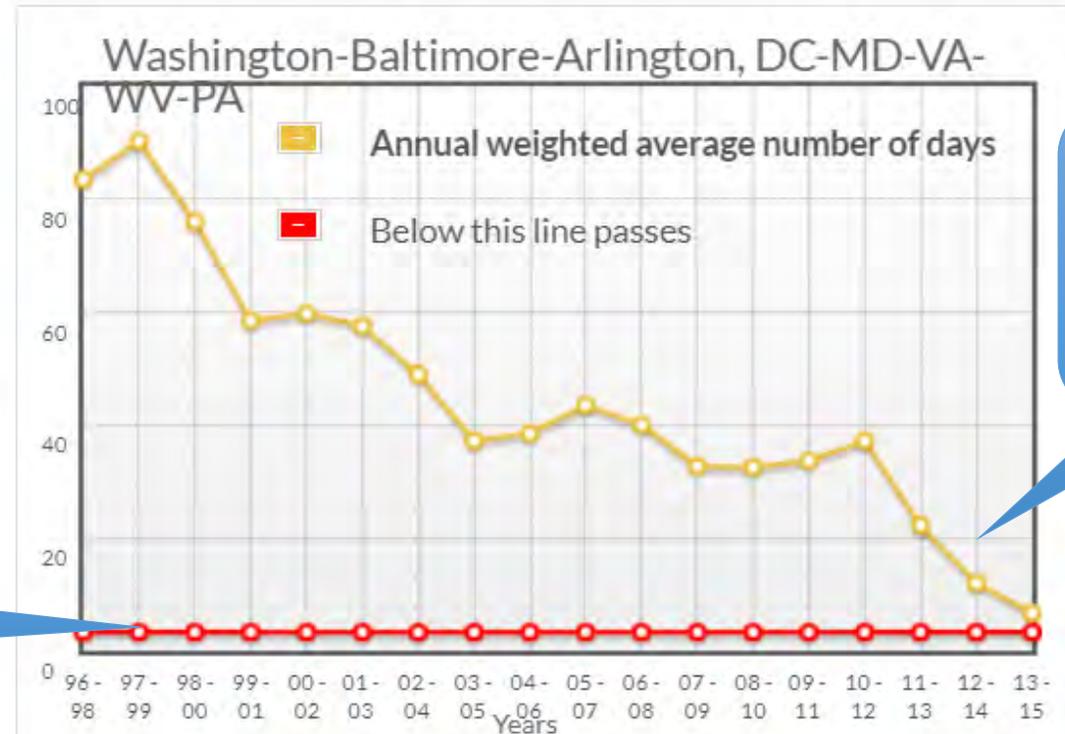
Trend Charts show progress

High Ozone Days

[Learn More](#)



Change since 1996: 76.8 fewer days this year

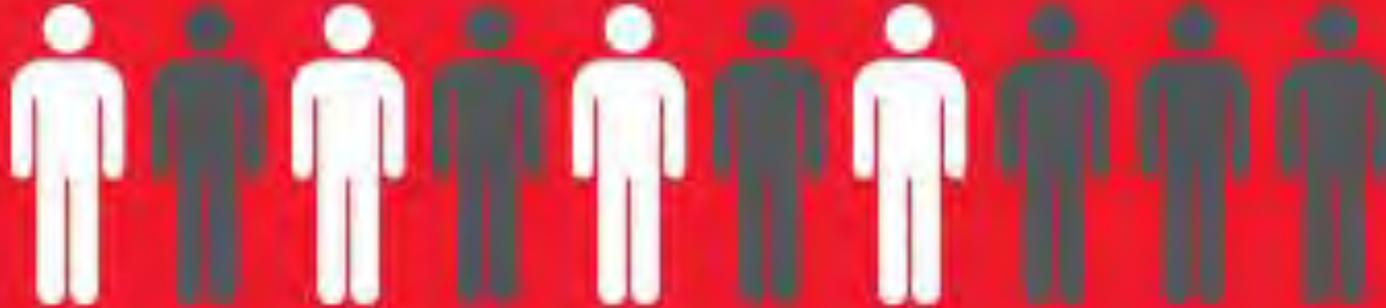


The Red Line is the goal for a passing grade.

The Yellow Line shows weighted average # of days/year

American Lung Association's 18th Annual "State of the Air" Report

More than 125 million Americans, or 4 in 10 of us, live in counties that got at least one "F" for unhealthy air. More than 18 million people live where the air got all "F"s.



STATE OF THE AIR 2017

Challenge: Climate Change and Air Quality

Greenhouse Gases

- Trap heat in the atmosphere
- Co-pollutants directly harm health

Warmer Global Temperatures

- Heat, Drought
- Air Pollution
- Extreme Weather
- Many more

Health Impacts

- Heat related deaths
- Asthma Attacks
- Heart attacks, strokes
- Allergic reactions
- Spread of diseases

Key Actions that Reduce Pollution and Fight Climate Change



Pollution limits for coal, oil, natural gas and other polluting facilities



Monitor air quality and fund clean-up activities



Support clean cars and trucks standards



Protect and enforce the Clean Air Act