CALIFORNIA CLEAN AIR DAY

All about Air Pollution

Air pollution. Recycling. Go Green. Clean Energy. Daily, we hear and see these messages from the news, social media, or even when we throw out a piece of trash: recycle or landfill? But what do they mean? When you hear the term air pollution, you probably think cars. Unfortunately, in most instances, air pollution comes from so much more than just cars. Air pollution usually cannot be smelled or seen, so it is often overlooked. The truth is air pollution is probably <u>one of the most serious environmental problems we are facing</u>. California Clean Air Day's goal is to help Californians learn more about air pollution and the real effects it has on us.

Breaking it Down. What is Air Pollution?

Air is composed of different elements and chemicals; <u>99 percent</u> of it is made up of nitrogen, oxygen, water vapor and inert gases. <u>Air pollution</u>, meanwhile, includes toxic chemicals and compounds (including those of biological origin) in the air. These chemicals and compounds should not be in the air, but are due to disasters, weather conditions and most importantly – human activity.

These levels of pollutants are assigned an Air Quality Index, (AQI), which describes at what levels the air poses a health risk.

Air Quality Index (AQI)

The **AQI** is a daily air quality report which focuses on the health effects people may experience within a few hours or days after breathing unhealthy air. The EPA calculates the **AQI** for five major air pollutants regulated by the Clean Air Act: Ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide, and nitrogen dioxide. The more pollutants in the air, the higher the AQI.

Fine particulate matter (PM₂₅) is an air pollutant that's hazardous for people's health, especially when levels in the air are high. PM₂₅ are tiny particles in the air that combine with other chemicals, reducing visibility and cause the air to appear hazy when levels are elevated

Air Quality Index Table

When the AQI is in this range:	Levels of Halth Concern	Colors
0 to 50	Good	
51 to 100	Moderate	
101 to 150	Unhealthy for Sensitive Groups	
151 to 200	Unhealthy	
201 to 300	Very Unhealthy	
300 to 500	Hazardous	

Where does Air pollution come from?

There are four main types of sources causing air pollution.

Mobile Sources are sources that are not in a stationary place. Mobile air pollution sources account for more than half of all air pollution in the United States.

- 1. cars
- 2. buses
- 3. ships
- 4. trains
- 5. planes
- 6. trucks

Stationary Sources are any fixed emitter of air pollutants. These include:

- 1. power plants
- 2. industrial facilities
- 3. factories
- 4. oil refineries
- 5. sea ports

Area Sources have smaller emissions on an individual basis than major point" sources and are often too small or ubiquitous in nature to be inventoried as individual sources. agriculture areas

- 1. dry cleaners
- 2. wood burning fireplaces

- 3. cooling towers
- 4. open burning
- 5. landfills

Natural Sources

- 1. wildfires
- 2. volcanoes
- 3. wind-blown dust