

# From LaFayette Advisory Conservation Commission

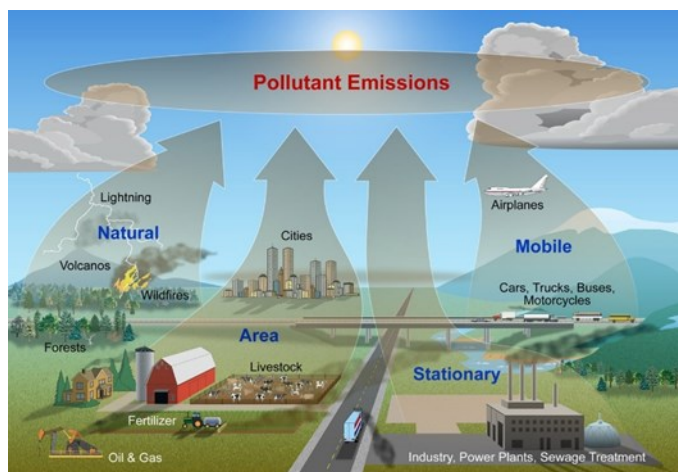
## Is Air Quality In The US Worse Now Than 10 Or More Years Ago?

Outdoor air concentrations of the six most common pollutants have steadily decreased ever since 1990 when regulations were implemented to reduce air pollution emissions<sup>1</sup>. For the last 10 years, average air concentrations have been below standards set to protect our health. Only 20 years ago, four of these pollutants were above standards, on average.

These are averages across the US and throughout a given year. Therefore, there are some places on some days where air quality is unhealthy. Currently, many areas in the country have days when air quality, primary ozone and particulate, exceeds standards (*i.e.*, unhealthy levels). Fortunately for us, no Upstate NY counties are exceeding air quality standards (based on averages). But last year's unhealthy level of particulate from the Canadian wildfires was a very rare air quality exceedance for our county.

### What contributes to air pollution?

This illustration shows the major sources of air pollution, much of which burn fossil fuels (*e.g.*, coal, natural gas, and propane). Transportation is a large source of emissions, as well as residential, commercial and industrial heating and cooling systems. Therefore, areas of high-density traffic and buildings (*e.g.*, cities) and near industrial plants will typically have days of unhealthy air quality.



### What does the improvement mean to my health?

Both short-term and long-term exposures to unhealthy levels of these pollutants primarily harm our respiratory system and increase our risk for heart disease and lung cancer. People with medical conditions such as asthma are particularly affected. The improvement in air quality from 1990 to 2010 reduced the number of deaths related to air pollution by nearly half<sup>2</sup>, which is significant by itself and even more so considering the expanding economy, population, miles traveled, and energy usage<sup>3</sup>. But there is still 1 in 35 deaths related to air pollution, which is the same death rate as vehicle accidents and gun shooting combined.<sup>2</sup>

### What else should be done to protect our health?

Our air quality will continue to improve as new regulations catalyze additional technology and infrastructures in the fields of renewable energy and electric vehicles and heating/cooling systems. More lives each year will be saved. But the greatest improvements yet to be made will be the reduction of pollutants not regulated until 2011.

In 1990, carbon dioxide and other greenhouse gases were not pollutants of primary concern. Since, we learned they contribute to climate change, which is harmful to our planet and therefore to our future. In addition, the recent record hot temperatures are resulting in increasing ozone levels, and thus are harmful to our health.

Fossil fuel combustion is the primary source of carbon dioxide. Therefore, more renewable energy and less fossil fuel usage will help in slowing climate change and lowering air pollution.

### What can any of us do?

The second article in this series will partially answer this question, where we will look at the pro and cons of heat pumps.

—Mark Distler

<sup>1</sup>[AirTrendsReport\\_2023\\_Custom\\_v1\\_d2 \(epa.gov\)](https://www.epa.gov/air-trends-report-2023-custom-v1-d2). The six most common air pollutants are carbon monoxide, sulfur dioxides, nitrogen oxides, ozone, lead, and particulates.

<sup>2</sup>[U.S. Air Quality Trends | Air Quality \(nasa.gov\)](https://www.nasa.gov/air-quality-trends).

<sup>3</sup>[Air Quality - National Summary | US EPA](https://www.epa.gov/air-quality-national-summary)