

Focus on: Understanding air and climate pollution



Figure 1. An oil refinery in Washington

What is air pollution?

Air pollution refers to substances that contaminate the air, hurting human health and the environment.

Under the federal Clean Air Act, EPA establishes national standards for six commonly found outdoor air pollutants, known as [criteria air pollutants](#).¹

- carbon monoxide
- lead
- nitrogen dioxide
- ozone
- fine particles (or particulate matter)
- sulfur dioxide

In Washington, the Department of Ecology and local clean air agencies [monitor the outdoor air](#)² to make sure these pollutants meet federal standards and stay at healthy levels in our state.

Some of the criteria pollutants (carbon monoxide, lead, nitrogen dioxide, fine particulate matter, and sulfur dioxide) can come from various large and small commercial/industrial sources, residential sources, and mobile sources such as motor vehicles. These sources also emit various kinds of air pollutants called “hazardous” or “toxic” pollutants. Ecology and local clean air agencies monitor some of these pollutants.

What is climate pollution?

Climate pollutants are substances that contaminate the Earth’s atmosphere and drive climate change. These include greenhouse gases, such as carbon dioxide, methane, nitrous oxide, fluorinated gases (e.g., hydrofluorocarbons), and ozone.

These gases build up in the atmosphere, trap heat from the sun, and warm the planet. Although this is a natural process essential to life on Earth, current levels of greenhouse gases have pushed global warming to dangerous levels.

The devastating impacts of the climate crisis – more severe droughts and floods, frequent and intense wildfires, rising sea levels, and stronger storms – have resulted from rapid global warming caused by industrialized economies burning more and more fossil fuels each year.

What do air and climate pollution have in common?

Air pollution and climate pollution often overlap. Combusting fossil fuels for energy – such as when we drive gas- and diesel-powered cars, when we use natural gas to heat our homes, or when factories use coal to power their operations – creates air and climate pollutants.

¹ <https://ecology.wa.gov/air-climate/air-quality/air-quality-targets/air-quality-standards#criteria>

² <https://enviwa.ecology.wa.gov/mobile>

Policies that reduce air and climate pollution

Since air pollution and climate pollution are linked, policies that reduce the use of fossil fuels benefit our climate *and* the air we breathe. In other words, shifting to cleaner energy sources, such as solar, wind, and geothermal, protects both the planet and human health.

Washington has passed landmark legislation to reduce our air and climate pollution. These protective laws include the [Clean Energy Transformation Act](#), [Climate Commitment Act](#), [vehicle emissions standards](#) and the [Clean Fuel Standard](#). These laws are working together to meet Washington’s legal limits on greenhouse gas emissions while also improving air quality.



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ADA accessibility

To request an ADA accommodation, contact Ecology by phone at 564-669-8867 or email at evan.robinson@ecy.wa.gov, or visit <https://ecology.wa.gov/accessibility>. For Relay Service or TTY call 711 or 877-833-6341.