

National Ambient Air Quality Standards (NAAQS) for Criteria Air Pollutants (CAPs) and Air Quality Index (AQI)

What are they?

NAAQS regulate six CAPs considered harmful to public health and the environment:

- ground-level ozone (O₃)
- particulate matter (PM)
- carbon monoxide (CO)
- sulfur dioxide (SO₂)
- nitrogen dioxide (NO₂)
- lead (Pb)

There are two types of standards for each CAP. Primary standards provide public health protection. Secondary standards protect community assets beyond public health. AQI is scale that gives a quick sense of a day's air quality based on five CAPs (all except lead).

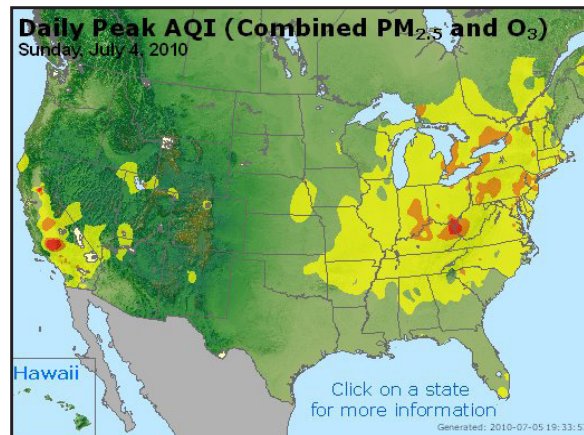
How are they used?

States measure air quality, particularly in urban areas, and compare to NAAQS. Places where air contamination exceeds one or more standards are called "non-attainment" areas. In those areas, states must have a plan describing how they will try to improve air quality.

AQI is a scale ranging from 0-500; a lower AQI is safer. An AQI of 100 corresponds to the primary standard for each CAP. As air quality changes on a daily or even hourly basis, the AQI can tell you how clean or polluted your air is and associated health effects. If you hear a warning on the radio about a hazardous air quality forecast, it's based on the AQI.

How are they determined?

Primary NAAQS are intended to protect public health, including protecting the health of sensitive populations like asthmatics, children, and the elderly.



Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

The AQI at a particular moment is based on air sampling. It's based on how close each of five CAPs is to its standard, with 100 representing the standard. It's weighted more heavily toward the most hazardous pollutants.

How are they related to human health?

Primary NAAQS and AQI are meant to protect human health. Small or temporary exceedences might affect sensitive people. High or long-term exceedences may harm many people.

For more

epa.gov/air/criteria.html