Background Brief on …

Air Quality

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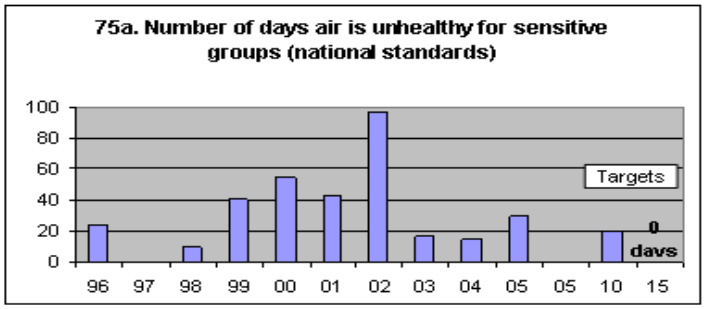
Background

In 1955, Congress enacted the first air quality legislation with the passage of the Air Pollution Control Act. Major amendments in 1970, 1977, and 1990 resulted in what is known as the Clean Air Act **(CAA)**. Current federal law addresses ambient air quality standards, hazardous air pollutants, new source performance standards, and new source review—the latter requiring the best available technology in air pollution control equipment for facilities that are major sources of contaminants.

The United States Environmental Protection Agency **(EPA)** has delegated implementation of most CAA requirements to the Oregon Department of Environmental Quality **(DEQ)**, codified in ORS Chapter 468A**,** except in Lane County where the Lane Regional Air Protection Agency has primary jurisdiction. The EPA retains oversight of the program, and regularly audits DEQ's program to ensure that it meets federal requirements. EPA also has the authority to "overfile," or bring action against pollution sources if they believe enforcement at the state or regional level is inadequate. To date, DEQ has been successful in preventing federal overfiles.

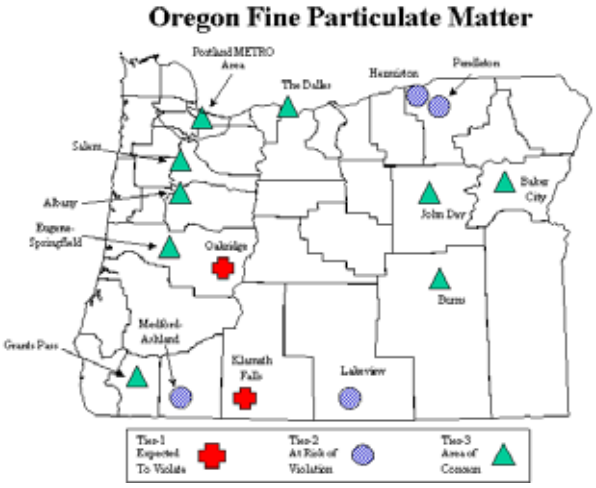
Status

In 1980, only 30 percent of Oregonians lived in areas where the air met National Ambient Air Quality Standards **(NAAQS)**. Thanks to federal, state and local pollution control programs, all areas in Oregon achieved compliance with these standards. Nonetheless, there are days in many cities in Oregon where the air is unhealthy to breathe as shown in the graph below depicting the Oregon Progress Board's environment benchmark #75a. The benchmark target is zero days by 2015.



New EPA Standards

In 2006, EPA proposed tightening the standard for fine particulate. Recent health studies show that fine particulate is more dangerous than previously thought. Fine particles evade the body's natural defenses and travel deep into the lungs. The map below shows three tiers of communities' health in relation to the new particulate standards. At least two Oregon communities are expected to violate the new particulate standards, and many other communities are at significant risk of violating or have levels high enough to cause a public heath concern.



Clean Air Strategies

The primary way air pollution is controlled and federal standards are met is through comprehensive airshed planning. These plans, which are developed with help from local advisory committees, include strategies tailored to meet local issues and needs. Strategies to reduce particulate pollution include emission reductions from woodstoves, outdoor burning, and wood-fired boilers. To meet the new federal standards, DEQ has proposed legislation (Heat Smart for Clean Air), which will reduce fine particulate emissions from woodstoves. Strategies to reduce smog (ozone and oxides of nitrogen) include vehicle inspections, emission reductions from industrial solvents, and air quality advisories to reduce emissions on high smog days.

For industrial sources, these strategies are implemented through federally-required construction and operating permitting programs. To ensure timely permitting and to meet federal requirements, DEQ has proposed legislation (Title V permitting), which will set fees equal to the cost of the permit program.

Toxic Air Pollutants

Toxic air pollutants can cause serious health risks, including cancer, immune system damage, nerve damage, birth defects, respiratory diseases and other health problems. All Oregonians are currently exposed to toxic air pollution levels that are 10 or more times the acceptable exposure level for cancer. EPA focuses primarily on reducing toxic air pollution from large industrial facilities. They adopt emission limits for these facilities, and DEQ ensures compliance with these limits through air quality permits. However, the federal program will not reduce risk to acceptable levels in Oregon because industrial facilities are not the primary source of toxic air pollution in the state.

The greatest health risks in Oregon come from the following sources, all of which can cause cancer:

- Toxic combustion by-products (polycyclic aromatic hydrocarbons) come from wood heating, open burning, vehicle exhaust and other combustion sources
- Benzene comes from evaporation of gasoline and industrial solvents, as well as combustion of fuel and woody material
- Diesel particulate comes from diesel trucks, construction equipment, locomotives, barges and other heavy-duty engines

DEQ developed an innovative and science-based program to reduce risk from air toxics. However, much of the funding to implement this program was cut during 2001-2005 budget reductions.

Recent Legislation

House Resolution 3 (2005) declared that, except as otherwise required by state or federal law, state agencies should not impose requirements relating to the control of greenhouse gas emissions.

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Margaret Oliphant, Department of Environmental Quality, assisted with the development of this document.