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Air Quality Nonattainment: What is it?

Tacoma and parts of Pierce County were classified as a "nonattainment area" by the U.S. Environmental Protection Agency (EPA) in 2009 due to unhealthy levels of air pollution. What does this mean, how does it affect the area, and what needs to happen to bring the area back into attainment?

What is nonattainment?

A "nonattainment" classification means that air quality in a particular region does not meet (or "attain") federal health standards.

The Clean Air Act of 1970 is the law that defines the EPA's responsibilities for safeguarding the nation's air quality. Under the Clean Air Act, the EPA is charged with protecting public health and the environment by setting limits on how much pollution can be in the air. The purpose of these standards is to prevent air pollution from reaching levels that harm public health and welfare.

These pollution limits are called National Ambient Air Quality Standards (NAAQS). There are NAAQS for six common air pollutants: fine particle pollution (also sometimes called PM2.5), ground-level ozone, carbon monoxide, sulfur oxides, nitrogen oxides and lead. Fine particle pollution poses the greatest threat in the Puget Sound region and is the basis for the Tacoma-Pierce County nonattainment designation.

The federal Clean Air Act requires the EPA to review its standards every five years to ensure they effectively protect human health and the environment. In December 2006, the EPA set a tighter daily standard for fine particle pollution, strengthening it from 65 micrograms per cubic meter to 35 micrograms per cubic meter. The EPA made this change based on evidence from numerous health studies that showed the previous standard did not sufficiently protect human health.

When an area's monitored air pollution exceeds the NAAQS for a specified number of times, the EPA designates it as a nonattainment area. This designation is determined by a formula, which uses the number of times the standard is exceeded each year, and also includes three years of data to ensure that an area isn't designated as nonattainment because of one unusual year.

What are the implications of nonattainment?

Nonattainment means the air is unhealthy.

The nonattainment designation means that air quality in this part of Pierce County isn't as healthy as it should be. Poor air quality affects everyone, but children, the elderly, and people with existing respiratory or cardiac health problems are especially at risk. The very tiny size of fine particle pollution allows it to be inhaled deeply in the lungs and even cross into the bloodstream, increasing the potential for health risks.

Numerous national and international studies show an association between increases in fine particle pollution levels and increases in premature death. A study conducted by the Washington State Department of Ecology conservatively estimates that approximately 1,100 die every year in Washington due to fine particle pollution.

Timeline

2006

Health studies cause EPA to tighten standard for fine particle pollution

December 2009

EPA designates Tacoma-Pierce County as a nonattainment area

May 2011

Clean Air Agency convenes Clean Air Task Force

December 2011

Clean Air Task Force makes recommendations to Clean Air Agency

Winter 2012

Clean Air Agency submits recommendations to Ecology

December 2012

Ecology submits State Implementation Plan to EPA

2014 (target)

Tacoma-Pierce County begins meeting the standard

2019

Latest possible date to meet standard under Clean Air Act (assuming EPA grants extensions)

Nonattainment can hinder economic development and tourism.

Under EPA rules, large industries seeking to expand or new large businesses looking to build and bring jobs here are already facing additional strict requirements because of the nonattainment designation. Some large existing businesses could be required to install additional emission control equipment. These factors may prompt businesses to locate their operations elsewhere, taking jobs and potential revenue from the region.

Tourism could also be negatively affected by nonattainment, and the perception that the Tacoma-Pierce County region has "dirty air."

Failure to address nonattainment could affect federal funding.

If the state doesn't complete an implementation plan (SIP) to improve air quality, the EPA may impose a Federal Implementation Plan (FIP), mandating solutions that may not be the best for the region. That's why it's important for those affected by nonattainment to work together to define solutions that make the most sense for Tacoma and Pierce County and produce an acceptable SIP within the mandated timeframe (see Timeline).

Under the Clean Air Act, nonattainment areas that don't clean up their air pollution are subject to cuts in federal transportation funding if new highway projects could add to fine particle pollution. And the EPA could withhold all or part of the grant funds it provides to the state to support air quality monitoring, planning and control programs.

How does an area get into attainment?

It typically takes several years for an area to restore its attainment status. When an area is designated nonattainment, the Washington State Department of Ecology (Ecology) is required to develop a State Implementation Plan (SIP) and submit it to the EPA within three years. A SIP is a plan for restoring air quality and bringing the area back into attainment status as quickly as possible. The SIP must define what actions will be taken to control air pollution, how these actions will lead to attainment, and a projection of when air quality will meet the standard. The SIP must be approved by the EPA.

Once monitoring data indicate air quality has improved, the State can petition the EPA to redesignate an area from nonattainment to attainment. The EPA can only approve this request if the following conditions are met:

- 1. Air quality monitoring data shows the area meets the standard.
- 2. Reductions in the area's emissions are permanent and enforceable.
- 3. The SIP developed for the area has met the requirements of the federal Clean Air Act and been fully approved by the EPA.
- 4. The EPA has fully approved a 10-year Maintenance Plan for the area submitted by Ecology as a revision to the SIP.
- 5. The area meets requirements of the Clean Air Act for general SIPs and nonattainment areas.

How can people participate in this process?

Finding solutions that are realistic and achievable for Tacoma-Pierce County will improve the overall likelihood of success. To accomplish this, the Puget Sound Clean Air Agency convened a Clean Air Task Force of community leaders and residents. This group volunteered their time and input to explore meaningful, yet achievable, actions to include in the SIP. This culminated in three main recommendations, which the Task

Force formally submitted to the Puget Sound Clean Air Agency. The Agency will now assess them and forward options to Ecology for possible inclusion in their submittal to the EPA.

The Clean Air Agency also conducted a public-engagement process, inviting Pierce County residents to get involved. Through community open houses, phone calls, mail and online responses, Pierce County residents weighed in with a wide range of feedback on proposed tactics to bring the area into attainment.

Stay informed and get involved as new efforts are developed to reduce the sources of fine particle pollution. Sign up for regular e-mail updates, request a speaker for your neighborhood or community group, or let us know your ideas for getting your community involved.

Who's Who in Nonattainment?

Here are the key agencies involved with the nonattainment process.

Puget Sound Clean Air Agency Regional air quality regulatory agency with jurisdiction over Pierce

County

Role - Administers the task force, analyzes results and provides recommendations to Ecology on strategies for bringing Pierce County back into attainment. Conducts outreach to seek broad input.

Washington State Department of Ecology

State environmental protection agency

Role - Prepares and submits State Implementation Plan to EPA

U.S. Environmental Protection Agency, Region 10

Northwest regional office of the agency of the federal government charged to protect human health and the environment.

Role - Reviews and approves State Implementation Plan. Determines whether Pierce County has reached attainment.

