

Reducing Fine Particle Air Pollution in the Tacoma-Pierce County Area

In the fall and winter, fine particle air pollution in the greater Tacoma and Pierce County area can spike to levels that go above federal air quality standards. Federal air quality standards are established by EPA to protect our health and the environment.

In 2009, EPA declared the area a nonattainment area because it did not meet the federal daily air quality standard for fine particles. Ecology has been working with Puget Sound Clean Air Agency to reduce fine particle air pollution to healthier levels, focusing on reducing wood smoke.

Q: What are fine particles?

A: Fine particles are microscopic bits of soot, dust, or smoke that are a fraction of the size of a single human hair. Fine particle pollution refers to particulate matter 2.5 micrometers in size or smaller (PM_{2.5}).

Q: Where do fine particles from?

A: Fine particle pollution in the Tacoma-Pierce County area mainly comes from smoke due to burning in wood stoves and fireplaces. It is worse during the winter months when more households are burning wood for heat. In addition, stagnant air traps the smoke from these fires close to the ground and causes air pollution to build up rapidly. Other, smaller sources of fine particles include:

- exhaust from cars and trucks,
- dust,
- large industries, and
- other non-road engines, equipment, and vehicles, such as construction equipment, buses, ships, and trains.

Q: Why are fine particles a problem?

A: Fine particles are easily inhaled deep into our lungs and travel in the circulatory system, affecting the heart and lungs. Fine particle pollution affects everyone, but is most harmful to children, older adults, and people with respiratory and cardiac diseases.

WHY IT MATTERS

Fine particle air pollution has serious health effects and can result in:

- Decreased heart and lung function
- Respiratory disease
- Asthma attacks
- Heart attacks
- Strokes
- Premature death

Reclassification to attainment (meeting federal air quality standards) has many benefits:

- Improves public health
- Obeys federal Clean Air Act
- Requires less strict permitting for new and expanding businesses
- Provides continued transportation funding

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Q: What is the fine particle standard?

A: In 2006, EPA strengthened the federal daily air quality standard for fine particles by changing the limit from 65 micrograms per cubic meter to 35 micrograms per cubic meter. Parts of Tacoma and Pierce County violated the standard and were classified nonattainment based on monitoring data from 2006-2008.

Q: What is being done to reduce fine particle pollution?

A: Puget Sound Clean Air Agency is the local clean air agency with authority in the area. Puget Sound Clean Air Agency worked closely with the local community and a task force through 2011. The task force's goal was to develop and carry out actions to reduce fine particle pollution to healthier levels. Based on the task force's recommendations as well as more protective laws and rules, Puget Sound Clean Air Agency started new programs in 2012 including:

- increased enforcement during air quality burn bans and called burn bans at lower trigger levels;
- provided incentives to remove and replace uncertified wood stoves;
- remove all uncertified wood stoves by September 2015;
- increased awareness and educated residents about clean burning practices.

Q: What's next?

A: Monitoring data from Puget Sound Clean Air Agency shows that air quality has improved and the area is meeting the standard. In late 2014, Ecology will ask EPA to approve the air quality plan for the Tacoma-Pierce County area. This maintenance plan shows how the area will keep meeting air quality standards for the next 10 years. Once EPA approves, the Tacoma-Pierce County area will be reclassified as an attainment area (meeting federal air quality standards).

Q: How will air quality stay healthy?

A: Puget Sound Clean Air Agency will keep monitoring air quality as well as continue the other programs begun in 2012. If fine particle pollution levels rise or violate the air quality standard, Puget Sound Clean Air Agency will take more action to reduce pollution to healthier levels.

Q: What can you do to keep the air healthy?

A: If you burn wood for heat, burn dry wood. Obey burn bans. Replace your uncertified wood stove with a cleaner heating device.

Q: Where can you get more information?

A: For more information:

http://www.ecy.wa.gov/programs/air/sips/designations/pm_tacoma.htm

<http://airsafepiercecounty.org>