

State Implementation Plan (SIP) Revision: Seattle, Kent and Tacoma PM₁₀ Maintenance Areas

In the late 1980s, the federal Environmental Protection Agency (EPA) classified Kent and the mostly industrial areas of Seattle and Tacoma as “nonattainment” areas. This was because they were either at risk for or violated the federal health-based air quality standard for particulate matter ten microns or less in size (PM₁₀). The Puget Sound Clean Air Agency and Washington State Department of Ecology (Ecology) had to write a SIP, which is a plan to get pollution under control.

In the early 1990s, the areas met the standard and EPA reclassified them to “maintenance” areas. EPA approved the first maintenance plan in 2001. A maintenance plan shows how an area will continue to meet air quality standards for the next 10 years. Ecology must now oversee progress and submit a maintenance plan update showing how the areas will continue to meet the PM₁₀ standard through 2020.

Q: What is PM₁₀ and why is it a problem?

A: PM₁₀ is particles of soot, dust, and smoke that are 10 microns in size or smaller. Major sources include smoke from wood stoves, fireplaces, and outdoor burning. Windblown dust can also be a source. These particles can cause or worsen respiratory problems, especially for children and the elderly.

Q: What areas does this SIP revision affect?

A: The maintenance areas this SIP revision addresses are:

- Seattle PM₁₀ Maintenance Area: An industrial area near the Duwamish River near Georgetown and South Park neighborhoods, including the Port of Seattle.
- Kent PM₁₀ Maintenance Area: An area in the Green River Valley with commercial and industrial sources as well as some neighborhoods with wood stoves, including the City of Kent between Highway 516 and South 212th Street.
- Tacoma PM₁₀ Maintenance Area: The mostly industrial Tidelands area between Commencement Bay and Interstate 5, including the Port of Tacoma. This area is not the same as the Tacoma-Pierce county PM_{2.5} nonattainment area.

These areas have been in attainment of the standard since 1989, 1987, and 1990, respectively.

WHY IT MATTERS

Particulate matter air pollution can have serious health effects, especially for children and elderly people. Some effects include:

- Increased risk of heart and lung diseases such as asthma, emphysema, pneumonia, and bronchitis; or worsening of existing conditions
- Risk of heart attack and stroke

Contact information:

Laurie Hulse-Moyer
360-407-6783
lahu461@ecy.wa.gov

Special accommodations:

For special accommodations or documents in alternate format, call 360-407-6800, 711 (relay service), or 877-833-6341 (TTY).

Q: Why is Ecology revising the SIP?

A: Ecology must revise the SIP to meet a federal requirement. Ecology must submit a plan that shows how the Seattle, Kent, and Tacoma PM₁₀ Maintenance Areas will continue to meet this federal particulate matter standard. This SIP is one of the actions clean air agencies are taking to ensure neighborhoods are safe, healthy places to live and work. This SIP revision will be the final 10-year plan. It will assure compliance with the standard until 2020.

Q: Does the SIP revision contain any new requirements?

A: No. Current measures are sufficient to ensure the maintenance areas continue to meet the federal standard for PM₁₀. These include:

- Fugitive dust control
- Wood smoke reductions
- Outdoor burning restrictions
- Industrial emission controls

Measures to control diesel particulate pollution also help these maintenance areas continue to meet the standard. These measures are:

- A diesel inspection and maintenance program
- Lower sulfur content in fuel
- Stricter standards for new diesel vehicles

Q: What are the sources of PM₁₀?

A: Sources of particulate matter in these areas include residential wood smoke, industry, dust, and motor vehicles. The Seattle and Tacoma maintenance areas have mostly industrial sources. The Kent maintenance area has a mix of commercial and industrial sources, but wood smoke contributes the most to particulate pollution there.

Q: Does this SIP address the Tacoma-Pierce County nonattainment area?

A: No. The Tacoma-Pierce County nonattainment area is a different area and failed to meet a different particulate matter standard (the standard for PM_{2.5} rather than PM₁₀). The Tacoma PM₁₀ maintenance area *lies within* the Tacoma-Pierce County PM_{2.5} nonattainment area; however, the PM₁₀ maintenance area is smaller and contains mostly industrial sources while the larger PM_{2.5} nonattainment area is mainly affected by wood smoke from home heating. Get more information at [Clean Air Pierce County's website](#).

Q: How is PM₁₀ different from PM_{2.5}?

A: PM_{2.5} particles are 2.5 microns in diameter and smaller. PM₁₀ (sometimes called coarse particle pollution) contains all particles smaller than 10 microns in diameter and includes PM_{2.5}. Due to their smaller size, PM_{2.5} particles penetrate deeper into our lungs where they can cause respiratory and cardiovascular diseases. Recent research indicates that it is the fine particles that cause more adverse health effects.

Q: Is coarse particle pollution still a problem?

A: Although coarse particle pollution can still cause health effects at certain levels, all three maintenance areas continue to meet the federal health-based standard for PM₁₀. PM₁₀ pollution in the Seattle and Tacoma areas has decreased significantly, largely as a result of reduced emissions from industrial facilities. Some industrial facilities that contributed to PM₁₀ pollution no longer operate. Diesel emissions continue to contribute to both PM_{2.5} and PM₁₀ levels in neighborhoods near the ports of Seattle and Tacoma. This pollution has decreased significantly, however, in part due to federal laws requiring lower sulfur content in diesel fuel. Air quality is steadily improving.

Q: How can I ensure my community will continue to meet the PM₁₀ standard?

A: There are several ways you can help prevent and reduce pollution:

- If you heat with wood, burn cleanly. Make sure your firewood has been stored dry for six months or longer.
- Observe burn bans. Sign up for notification at <http://www.pscleanair.org/news/agencynews.aspx>
- Minimize use of your wood stove on days with poor air quality. You can check air quality at <http://www.pscleanair.org/airq/aqi.aspx>