2025 Ambient Air Monitoring Network Plan

By

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For the

Air Quality Program

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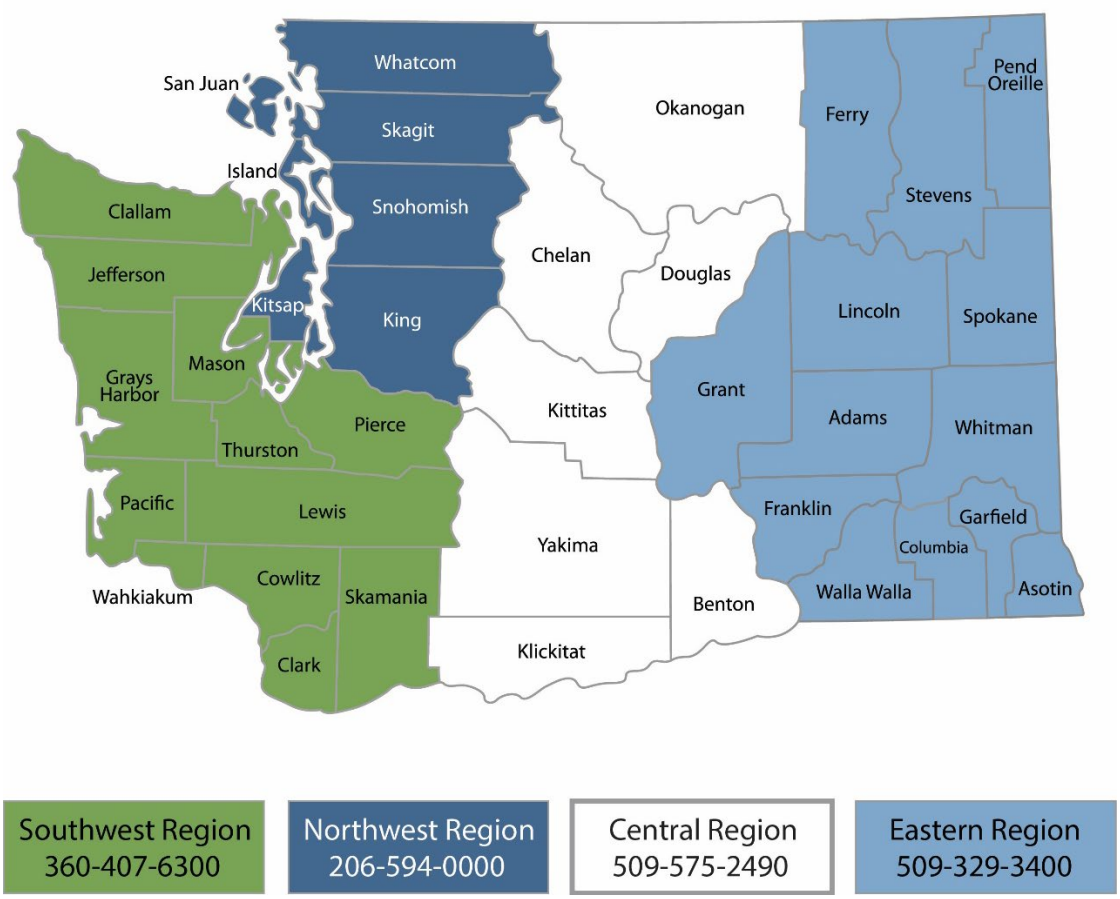
Department of Ecology's Regional Offices

Map of Counties Served



Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	P.O. Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	P.O. Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 West Alder Street Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 North Monroe Spokane, WA 99205	509-329-3400
Headquarters	Statewide	P.O. Box 46700 Olympia, WA 98504	360-407-6000

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Olympia, WA

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Acronyms

AQS	EPA's Air Quality System database
BAM	Beta Attenuation Monitor
BCAA	Benton County Clean Air Agency
CBSA	Core-Based Statistical Area
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CSA	Combined Statistical Area
CSN	Chemical Speciation Network
DV	Design Value
Ecology	Washington State Department of Ecology
EPA	U.S. Environmental Protection Agency
FEM	Federal Equivalent Method
FRM	Federal Reference Method
IMPROVE	Interagency Monitoring of Protected Visual Environments
MSA/ µSA	Metropolitan Statistical Area/Micropolitan Statistical Area
NAAQS	National Ambient Air Quality Standard
NATTS	National Air Toxics Trends Station
NCore	National Core
NO	Nitrogen Oxide
NO_2	Nitrogen Dioxide
NO_X	Oxides of Nitrogen
NO_y	Total Reactive Oxides of Nitrogen
NWCAA	Northwest Clean Air Agency
O_3	Ozone
ORCAA	Olympic Region Clean Air Agency
Pb	Lead
$PM_{2.5}$	Particulate matter ≤ 2.5 micrometers in diameter
PM_{10}	Particulate matter ≤ 10 micrometer in diameter
$PM_{10-2.5}$	Particulate matter ≤10 microns and > 2.5 micrometers in diameter
ppb	parts per billion
ppm	parts per million
PAMS	Photochemical Assessment Monitoring Station
PQAO	Primary Quality Assurance Organization
PSCAA	Puget Sound Clean Air Agency
PSD	Prevention of Significant Deterioration
QA	Quality Assurance
QC	Quality Control
SLAMS	State and Local Air Monitoring Station
SO_2	Sulfur Dioxide
SPM	Special Purpose Monitor
SRCAA	Spokane Region Clean Air Agency
SWCAA	Southwest Clean Air Agency
STN	Speciation Trends Network
$\mu g/m^3$	micrograms per cubic meter
VOC	Volatile Organic Compound
YRCAA	Yakima Region Clean Air Agency

Executive Summary

Purpose

The Washington State Department of Ecology (Ecology) reviews its ambient air monitoring network each year to ensure that it collects adequate, representative, and useful air quality data on which to base policy decisions. This report summarizes the results of the 2025 review and fulfills the requirements of 40 C.F.R. Part 58.10. The annual review process includes:

- Documenting Ecology's ambient air quality monitoring objectives, network design, and compliance with federal monitoring requirements;
- Identifying modifications to Ecology's ambient air monitoring network since the previous annual network plan; and
- Identifying proposed modifications to the network in the upcoming 18 months.

Network modifications

A summary of recent and planned network modifications is provided below. Additional details on network modifications are provided in the relevant parameter-specific sections of this document.

Recent modifications

Nitrogen dioxide (NO2, 42602)

- The Puget Sound Clean Air Agency (PSCAA) added a Special Purpose Monitor (SPM) for NO_2 to the Seattle-Duwamish monitoring site (530330057) on January 7, 2025.

Sulfur dioxide (SO2, 42401)

- The SO_2 SLAMS at the Ferndale-Mountain View Rd (530730017) and Ferndale-Kickerville Rd (530730013) sites were discontinued on December 31, 2024. This modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.

Regulatory $PM_{2.5}$ (88101)

- The $PM_{2.5}$ SLAMS at the Olympic Region Clean Air Agency's (ORCAA's) Lacey-College St (530670013) monitoring site was upgraded from non-regulatory (88502 POC 8) to regulatory (88101 POC 8) as of January 1, 2025. This modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.
- The $PM_{2.5}$ SLAMS at PSCAA's new SeaTac-Sunset Park monitoring site (530330040) was established on April 7, 2025. This network modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.

Non-regulatory $PM_{2.5}$ (88502)

- The SLAMS for non-regulatory $PM_{2.5}$ (88502) at the Lacey-College St monitor was discontinued in conjunction with the addition of a SLAMS for FEM $PM_{2.5}$ (88101) on December 31. 2024. This modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.

PM_{10} (81102)

- The PM_{10} SLAMS monitor at the Spokane Regional Clean Air Agency's (SRCAA's) Cheney-Turnbull site (530630001) was discontinued as of December 31, 2024. This modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.
- A PM_{10} SLAMS monitor was added to the Puget Sound Clean Air Agency's (PSCAA's) Seattle-Duwamish monitoring site (530330057) on July 1, 2024. This modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.

Meteorological (61101/61102/61103/61104/62101)

- Meteorological monitoring at the Ferndale-Mountain View Rd site (530730017) was discontinued on December 31, 2024.
- Meteorological monitoring at the Enumclaw-Mud Mtn site (530330023) was discontinued on December 31, 2024.

Planned modifications

Ozone (44201)

- Ecology proposes to permanently discontinue the Yelm-Northern Pacific ozone site (530670005) and continue monitoring ozone at the Lacey-College St SPM (530670013).
- Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power loss at Cheeka Peak. Details of this relocation are provided in the NCore section of this document.

Sulfur dioxide, Carbon monoxide, Oxides of nitrogen

- Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power loss at Cheeka Peak. Details of this relocation are provided in the NCore section of this document.

Regulatory $PM_{2.5}$ (88101)

- PSCAA has identified a proposed location for the relocated Kent SLAMS site formerly located at James & Central St (530332004) that was discontinued in 2023. Ecology and PSCAA propose to establish the new Kent-W Meeker St SLAMS (530330090) as detailed in the $PM_{2.5}$ section of this document.

- The Northwest Clean Air Agency (NWCAA) plans to install a new SPM for regulatory $PM_{2.5}$ at Oak Harbor-Goldie Rd (530290003).

Non-regulatory $PM_{2.5}$ (88502)

- Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power loss at Cheeka Peak. Details of this relocation are provided in the NCore section of this document.
- Ecology proposes to discontinue the Pomeroy-Pataha St (530230001) and LaCrosse Hill St (530750005) non-regulatory nephelometers.
- SRCAA plans to install a new SPM for non-regulatory $PM_{2.5}$ at Liberty Lake-E Country Vista Dr (530630055).

Meteorological (61101/61102/61103/61104/62101)

- Ecology plans to temporarily suspend meteorological monitoring at the Kennewick-Metaline monitoring site (530050002) due to a planned construction project on the roof of the school where the site is located. The construction project requires the meteorological tower to be temporarily removed from the roof. Ecology expects this suspension to begin in July 2025 and last approximately one year.
- Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power loss at Cheeka Peak. Details of this relocation are provided in the NCore section of this document.

National Core Network (NCore)

- Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power loss at Cheeka Peak.
- Ecology is planning a slight relocation of the Seattle-Beacon Hill site (530330080) within Jefferson Park to a new location approximately 290 meters northwest of the current location during winter 2025-2026.

Introduction

This document summarizes Ecology's annual review of the Washington Ambient Air Monitoring Network (Washington Network) in accordance with 40 C.F.R. Part 58.10.

EPA's ambient air quality surveillance regulations in 40 C.F.R. Part 58 require states to establish air quality surveillance systems in their State Implementation Plans (SIPs). An air quality surveillance system consists of a network of State and Local Air Monitoring Stations (SLAMS). These stations measure ambient concentrations of those air pollutants, for which 40 C.F.R. Part 50 sets standards. SLAMS must meet the requirements of 40 C.F.R. Part 58 contained in:

- Appendix A (Quality Assurance Requirements)
- Appendix C (Ambient Air Quality Monitoring Methodology)
- Appendix D (Network Design Criteria)
- Appendix E (Probe and Path Siting Criteria)

States determine if they conform to Appendices A and C in part through periodic system and performance audits. States conform to Appendices D and E by conducting an annual network review of their air quality surveillance systems. This review is documented in an annual network plan that meets the following requirements:

- The plan describes any network modifications planned in the upcoming 18 months. Network modifications are subject to approval of the EPA Regional Administrator.
- For each existing and proposed monitoring site, the plan includes the following information:
    - The AQS site number
    - The represented MSA or other geographic area
    - The special scale, sampling method, and operating schedule for each monitor
- The plan must be made available for public inspection and comment for at least 30 days prior to submission to EPA. The final plan includes and addresses comments received through the public notification process.

Background Information

Monitoring Objectives

The Washington Network was designed to meet the three monitoring objectives defined in 40 C.F.R. Part 58 Appendix D:

1. **Provide air pollution data to the public in a timely manner.** Ecology provides timely air quality data to the public in a variety of ways:
    - Near-real-time data are available on Ecology's monitoring website.
    - Near-real-time data are submitted to EPA's AirNow system for public display and reporting.
    - Ecology conducts public outreach and issues alerts and bulletins when air quality is compromised.
2. **Support compliance with National Ambient Air Quality Standards (NAAQS) and development of pollution control strategies.** Ambient air quality data are used to:
    - Determine compliance with the NAAQS
    - Determine the location of maximum pollutant concentrations
    - Track the progress of SIPs
    - Determine the effectiveness of air pollution control programs
    - Develop responsible and cost-effective emission control strategies
    - Assist with permitting work
3. **Support air pollution research.** Ecology and its partners use ambient air quality data to improve understanding of air pollution and its consequences. Research applications of air quality include:
    - Improving air quality forecasting
    - Evaluating the effects of air pollution on public health
    - Informing dispersion models
    - Identifying air quality trends and emerging pollution issues
    - Analyzing pollution episodes

In order to meet these three objectives, 40 C.F.R. Part 58 Appendix D calls for the design of SLAMS networks to include several different types of monitors. These general types are sites that:

1. Determine the highest pollutant concentrations expected in the area covered by the network.

2. Determine representative pollutant concentrations in areas of high population density.
3. Determine the impact of significant sources or source categories on pollutant concentrations in the ambient air.
4. Determine general background pollutant concentrations.
5. Determine the regional extent of pollutant transport between populated areas.
6. Determine the impacts on visibility or vegetation (welfare impacts) in more rural and remote areas.

Appendix D of 40 C.F.R. Part 58 also provides guidance on spatial scales of representativeness for stations in a SLAMS network. Ideally, the station is located so that its sample represents the air quality across the scale that the station is intended to represent. Appendix D defines the following spatial scales:

1. **Microscale**: Area dimensions between several and 100 meters.
2. **Middle scale**: Areas between 100 and 500 meters, typically several city blocks.
3. **Neighborhood scale**: Areas between 0.5 and 4 kilometers with relatively uniform land use.
4. **Urban scale**: Areas with city-like dimensions between 4 and 50 kilometers. Urban and neighborhood scales can overlap considerably. Heterogeneous urban areas may not have a single representative site.
5. **Regional scale**: Areas from tens to hundreds of kilometers with relatively homogeneous geography and no large sources.
6. **National and global scales**: Scales representing the nation or globe as a whole.

Table 1 summarizes the appropriate spatial scales for each criteria pollutant and applicable site types.

Table 1. Summary of applicable spatial scales for criteria pollutants and monitoring objectives

Scale	SO_2	CO	O_3	NO_2	Pb	PM_{10}	$PM_{2.5}$	Site Types
Micro	✓	✓		✓	✓		✓	Highest concentration; source impact
Middle	✓	✓		✓	✓	✓	✓	Highest concentration; source impact
Neighborhood	✓	✓	✓	✓	✓	✓	✓	Highest concentration; population; source impact; general/background
Urban	✓		✓	✓			✓	Highest concentration; population; general/background; regional transport; welfare-related impacts
Regional	✓		✓				✓	General/background; regional transport; welfare-related impacts

Other ambient monitoring data needs

Nephelometer monitoring

At many non-regulatory $PM_{2.5}$ monitoring sites, Ecology uses nephelometers to estimate $PM_{2.5}$ concentrations and inform the public of air quality conditions. Typically, nephelometer monitoring sites use site-specific $PM_{2.5}$ correlations developed from historical collocated Federal Reference Method (FRM) or Federal Equivalent Method (FEM) monitor data. Lower concentration sites may use generalized regional correlations developed at sites with similar geographic and source characteristics. These sites are operated in accordance with 40 C.F.R. Part 58 Appendix A requirements for quality assurance and quality control, and Appendix E requirements for probe and path siting criteria where possible. At nephelometer sites where $PM_{2.5}$ concentrations are consistently measured at or greater than 80 percent of the NAAQS, Ecology transitions to FEM monitoring.

$PM_{2.5}$ sensors

Ecology supplements the Washington Network of fixed monitoring sites with a network of custom $PM_{2.5}$ sensors called the SensWA, designed and built by Ecology. SensWA sensors receive pre-deployment laboratory evaluation, preventive maintenance and component replacements, real-time data screening, and bias correction based on local collocation results. SensWA contain two side-by-side $PM_{2.5}$ sensing elements to support data validation and rapid identification of faulty sensors. Many SensWA are operated with solar power to allow for monitoring in previously inaccessible locations. To the extent possible, SensWA are sited to meet 40 C.F.R. Part 58 Appendix E siting criteria for $PM_{2.5}$ monitoring.

Ecology considers the SensWA to be a mid-tier instrument whose performance and data quality are superior to those of typical consumer-grade sensors but not as high as established $PM_{2.5}$ instruments such as beta attenuation monitors. Ecology uses the SensWA to monitor smoke from wildland fires, inform smoke management decisions, evaluate ongoing monitoring needs in previously unmonitored communities, and respond to emergent events. Ecology has also added SensWA to all ozone and PM_{10} monitoring sites in the Washington network that previously lacked a $PM_{2.5}$ measurement. These sensors serve as an important public information tool during summer wildfire smoke events and have eliminated much confusion around conflicting AQI information from monitoring sites for other pollutants during periods of elevated $PM_{2.5}$.

The SensWA are used primarily as a public information tool. Their data are submitted to AirNow for display on the Fire & Smoke Map, but not to AQS. A map of SensWA locations as of May 2025 is shown in Figure 1. As new SensWA are deployed frequently and existing sites can be relocated, this map is subject to change. Since data from the SensWA are not submitted to AQS, they are not included in the Ambient Air Monitoring Network Plan aside from this summary.

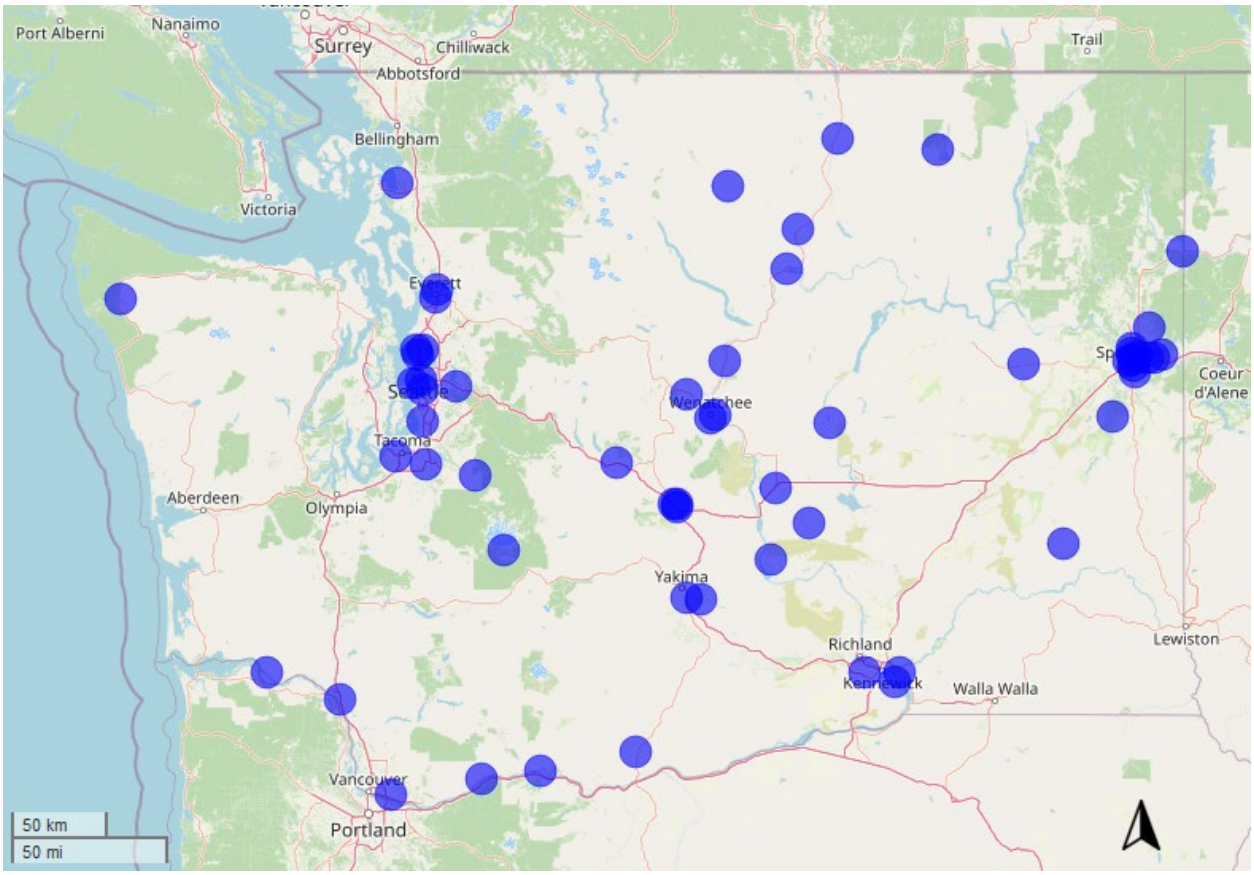


Figure 1. Map of SensWA locations in Washington as of May 2025.

Network Evaluation

Ecology uses a variety of tools to evaluate how well its monitoring network is meeting the monitoring objectives defined in 40 C.F.R. Part 58 Appendix D. These tools include:

- EPA minimum monitoring requirements in 40 C.F.R. Part 58 Appendix D
- Results of Ecology's most recent 5-year Ambient Air Quality Monitoring Network Assessment
- Analyses of historic monitoring data
- Census data on population density and demographics
- Dispersion and air quality forecast models
- Planning requirements, including SIPs and maintenance plans
- Jurisdictional boundaries
- Results of special monitoring studies

The suitability of individual monitoring sites is evaluated according to the probe and monitoring path siting criteria described in 40 C.F.R. Part 58 Appendix E.

Monitoring Partners

Ecology is the Primary Quality Assurance Organization (PQAO) for the Washington Network, which is operated in partnership with a variety of local, tribal and federal agencies.

Local clean air agencies

- Benton Clean Air Agency
- Northwest Clean Air Agency
- Olympic Region Clean Air Agency
- Puget Sound Clean Air Agency
- Spokane Regional Clean Air Agency
- Southwest Clean Air Agency
- Yakima Regional Clean Air Agency

Tribal nations

- Makah Tribe
- Confederated Tribes of the Colville Reservation
- Quinault Indian Nation
- Spokane Tribe of Indians
- Tulalip Tribes
- Yakama Nation

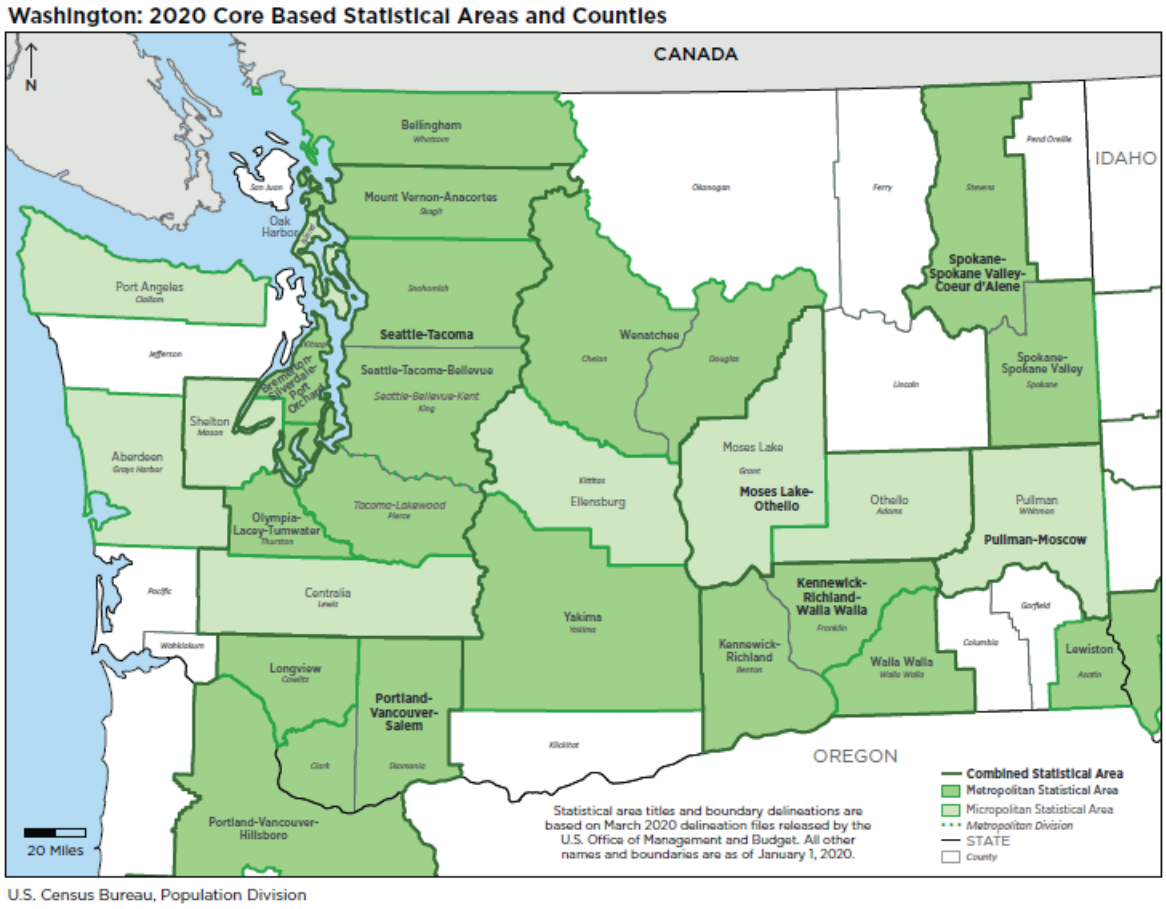
Federal partners

- National Park Service

The monitoring sites described in this document are all operated as part of Ecology's PQAO. Many are owned and operated by the partners listed above, and others are owned and operated by Ecology.

Washington Core-Based Statistical Areas

The minimum monitoring requirements listed in 40 C.F.R. Part 58 Appendix D are based on the core-based statistical areas (CBSAs) defined by the U.S. Office of Management and Budget. Washington's CBSAs are shown in the map in Figure 1 (U.S. Census Bureau, 2020). The populations of CBSAs in Washington over 50,000 people are listed in Table 2.



U.S. Census Bureau, Population Division

Figure 2. Washington's Core-Based Statistical Areas (CBSAs), U.S. Census Bureau 2020

Table 2. Washington's CBSA populations over 50,000 (U.S. Census Bureau, 2025)

Core-Based Statistical Area	2024 Population
Seattle-Tacoma-Bellevue, WA	4,145,494
Portland-Vancouver-Hillsboro, OR-WA	2,537,904
Spokane-Spokane Valley, WA	604,962
Kennewick-Richland, WA	319,428
Olympia-Lacey-Tumwater, WA	302,912
Bremerton-Silverdale-Port Orchard, WA	281,420
Yakima, WA	258,523
Bellingham, WA	234,954
Mount Vernon-Anacortes, WA	132,736
Wenatchee, WA	127,023
Longview, WA	113,982
Moses Lake, WA	104,717
Centralia, WA	87,049

Core-Based Statistical Area	2024 Population
Oak Harbor, WA	86,478
Port Angeles, WA	77,958
Aberdeen, WA	77,893
Shelton, WA	69,632
Lewiston, ID-WA	65,370
Walla Walla, WA	62,068

Washington shares the Portland-Vancouver-Hillsboro, OR-WA CBSA with the state of Oregon. The minimum monitoring requirements for PM_{10}, $PM_{2.5}$, ozone, and NO_2 in this CBSA are met through a combination of monitors operated by Washington Network agencies and the Oregon Department of Environmental Quality (DEQ). Ecology and Oregon DEQ renewed a Memorandum of Understanding on April 5, 2024, to formalize this arrangement (Appendix E).

Maintenance Areas

As of July 1, 2025, Washington has five maintenance areas for criteria pollutants within their 20-year maintenance planning period. During the 20-year maintenance planning period, maintenance areas demonstrate continued attainment of the NAAQS either through monitoring or through EPA-approved alternate methods. These methods are summarized in Table 3.

Table 3. Washington maintenance areas within their 20-year maintenance planning period and methods of demonstrating NAAQS attainment

Maintenance Area (Pollutant)	End of Maintenance Period	Method of Demonstrating NAAQS Attainment
Spokane (PM_{10})	8/30/2025	Spokane-Augusta PM_{10} monitor (530630021) until March 2021; Spokane Valley-E Broadway Ave PM_{10} monitor (530630017) as of April 2021
Spokane (CO)	8/30/2025	Modeled onroad, nonroad and residential wood combustion CO emissions
Wallula (PM_{10})	9/26/2025	Burbank-Maple St PM_{10} monitor (530710006)
Tacoma ($PM_{2.5}$)	3/12/2035	Tacoma-L St $PM_{2.5}$ monitor (530530029)
Whatcom County Intalco (SO_2)	1/16/2045	Ferndale-Kickerville Road SO_2 monitor (530730013) and Ferndale-Mountain View Road SO_2 monitor (530730017) until December 2024; Calculated cumulative potential to emit of all stationary SO_2 sources in maintenance area as of January 1, 2025.

Washington has maintenance areas that fall within the jurisdiction of local clean air agencies. In accordance with the maintenance plans, the Spokane Regional Clean Air Agency and Northwest Clean Air Agency submit annual information verifying continued attainment. This verification

information can be found in the document “Verification of Continued Attainment in Select Maintenance Areas (2025)” submitted concurrently with this plan.

Monitoring Network Design

As of July 1, 2025, Ecology and its partners operate 70 monitoring sites as part of the Washington Network. These sites are shown on the map in Figure 2, and the parameters monitored are summarized in Table 4. Detailed location information is provided in Appendix D. All monitoring sites described in this plan are operated under the Washington Department of Ecology's PQAO. Other monitoring sites, such as IMPROVE sites, are operated in Washington as part of separate PQAOs, but those networks are outside the scope of this document.

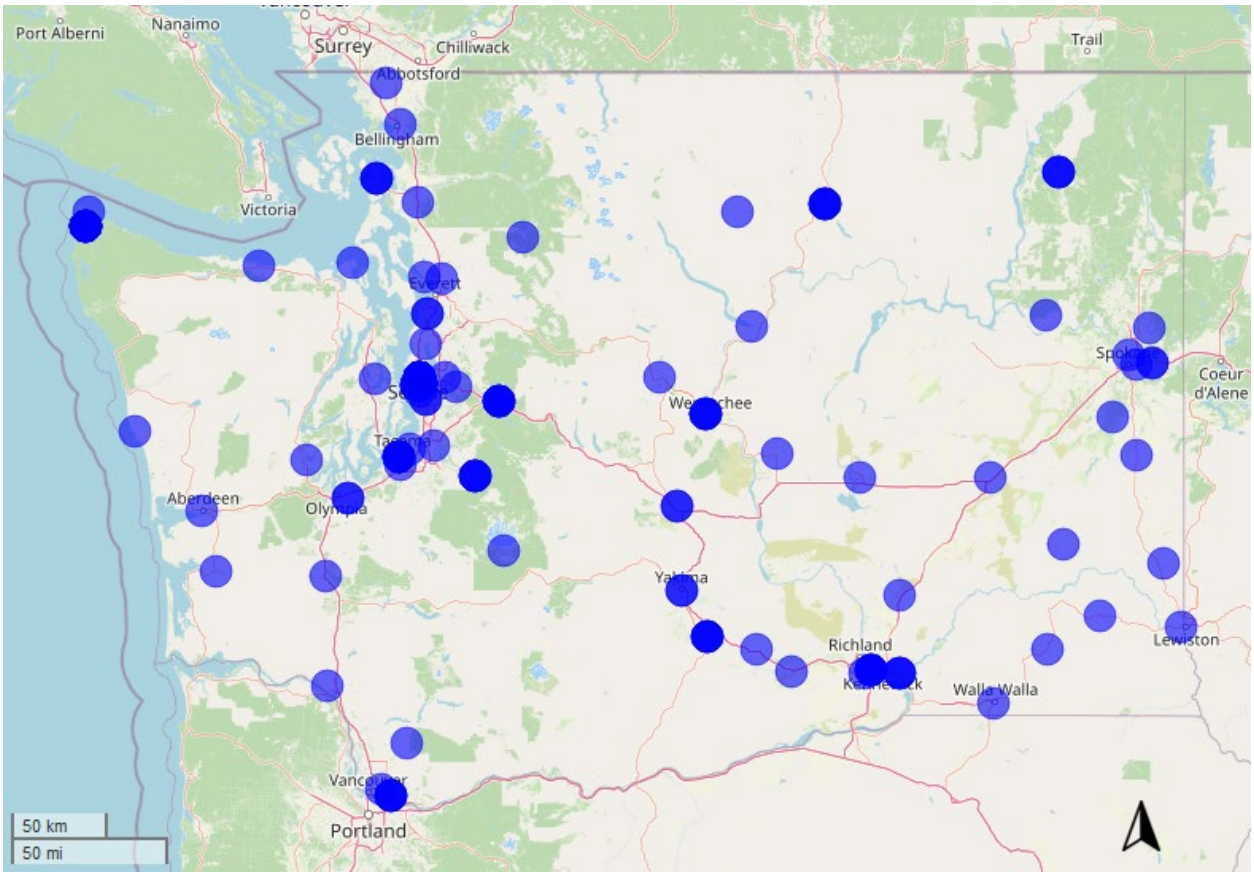


Figure 3. Map of all Washington Network monitoring sites

Table 4. Summary of parameters monitored at Washington Network monitoring sites

CBSA	Site	AQS ID	CO	NO_2	O_3	SO_2	$PM_{2.5}$ (FEM)	$PM_{2.5}$ (Non-FEM)	PM_{10}	Met	CSN
Aberdeen, WA	Aberdeen-Division St	530272002						x			
Aberdeen, WA	Taholah-Quinault Tribe	530270011						x			
Bellingham, WA	Bellingham-Pacific St	530730019					x				
Bellingham, WA	Custer-Loomis	530730005			x						
Bremerton-Silverdale-Port Orchard, WA	Bremerton-Spruce Ave	530350007					x				
Centralia, WA	Chehalis-Market Blvd	530410004						x			
Ellensburg, WA	Ellensburg-Ruby St	530370002					x	x			
Kennewick-Richland, WA	Kennewick-Metaline	530050002						x	x	x	
Kennewick-Richland, WA	Kennewick-S Steptoe St	530050003			x						
Kennewick-Richland, WA	Mesa-Pepiot Way	530210002						x			
Kennewick-Richland, WA	Prosser-Highland Dr	530050004						x			
Lewiston, ID-WA	Clarkston-13th St	530030004						x			
Longview, WA	Longview-30th Ave	530150015						x			
Moses Lake, WA	Moses Lake-Balsam St	530251002						x			
Moses Lake, WA	Quincy-3rd Ave NE	530251003						x		x	
Mount Vernon-Anacortes, WA	Anacortes-202 O Ave	530570011			x	x	x				
Mount Vernon-Anacortes, WA	Mt Vernon-S Second St	530570015						x			
None	Dayton-W Main St	530130002						x			
None	Omak-Colville Tribe	530470013					x			x	
None	Pomeroy-Pataha St	530230001						x			
None	Port Townsend-San Juan Ave	530310003						x			
None	Raymond-4th St	530490003						x			
None	Twisp-S Lincoln St	530470009						x			
Olympia-Lacey-Tumwater, WA	Lacey-College St	530670013			x		x				
Othello, WA	Ritzville-Alder St	530010003						x			
Port Angeles, WA	Cheeka Peak (suspended)	530090013	x	x	x	x		x		x	
Port Angeles, WA	Neah Bay-Makah Tribe	530090015						x			
Port Angeles, WA	Port Angeles-E 5th St	530090017						x			
Portland-Vancouver-Hillsboro, OR-WA	Vancouver NE 84th Ave	530110024					x				
Portland-Vancouver-Hillsboro, OR-WA	Vancouver-Blairmont Dr	530110011			x					x	
Portland-Vancouver-Hillsboro, OR-WA	Yacolt-Yacolt Rd	530110022						x			
Pullman, WA	LaCrosse-Hill St	530750005						x			
Pullman, WA	Pullman-Dexter SE	530750003						x			
Pullman, WA	Rosalia-Josephine St	530750006						x			

CBSA	Site	AQS ID	CO	NO_2	O_3	SO_2	$PM_{2.5}$ (FEM)	$PM_{2.5}$ (Non-FEM)	PM_{10}	Met	CSN
Seattle-Tacoma-Bellevue, WA	Auburn-29th St	530330047						x			
Seattle-Tacoma-Bellevue, WA	Bellevue-SE 12th St	530330031						x			
Seattle-Tacoma-Bellevue, WA	Darrington-Fir St	530610020					x				
Seattle-Tacoma-Bellevue, WA	Everett-Beverly Park Rd	530610022					x		x		
Seattle-Tacoma-Bellevue, WA	Enumclaw-Mud Mtn.	530330023			x						
Seattle-Tacoma-Bellevue, WA	Issaquah-Lake Sammamish	530330010			x						
Seattle-Tacoma-Bellevue, WA	Lake Forest Park	530330024						x			
Seattle-Tacoma-Bellevue, WA	Marysville-7th Ave	530611007					x				
Seattle-Tacoma-Bellevue, WA	Mt Rainier-Jackson Visitors Ctr	530530012			x						
Seattle-Tacoma-Bellevue, WA	North Bend-North Bend Way	530330017			x			x		x	
Seattle-Tacoma-Bellevue, WA	SeaTac-Sunset Park	530330040					x				
Seattle-Tacoma-Bellevue, WA	Seattle-10th & Weller	530330030	x	x			x			x	
Seattle-Tacoma-Bellevue, WA	Seattle-Beacon Hill	530330080	x	x	x	x	x		x	x	x
Seattle-Tacoma-Bellevue, WA	Seattle-Duwamish	530330057		x			x		x		
Seattle-Tacoma-Bellevue, WA	Seattle-South Park	530331011						x			
Seattle-Tacoma-Bellevue, WA	Tacoma-Alexander Ave	530530031					x				
Seattle-Tacoma-Bellevue, WA	Tacoma-L Street	530530029					x				x
Seattle-Tacoma-Bellevue, WA	Tacoma-S 36th St	530530024		x			x			x	
Seattle-Tacoma-Bellevue, WA	Tukwila Allentown	530330069					x				
Seattle-Tacoma-Bellevue, WA	Tulalip-Totem Beach Rd	530610021						x			
Shelton, WA	Shelton-W Franklin	530450007						x			
Spokane-Spokane Valley, WA	Cheney-Turnbull	530630001			x						
Spokane-Spokane Valley, WA	Colville-E 1st St	530650005					x	x	x	x	
Spokane-Spokane Valley, WA	Spokane Valley-E Broadway Ave	530630017					x		x		
Spokane-Spokane Valley, WA	Spokane-E Sprague Ave	530630054						x			
Spokane-Spokane Valley, WA	Spokane-Greenbluff	530630046			x						
Spokane-Spokane Valley, WA	Spokane-Monroe St	530630047						x			
Spokane-Spokane Valley, WA	Wellpinit-Spokane Tribe	530650002						x			
Walla Walla, WA	Burbank-Maple St	530710006							x	x	

CBSA	Site	AQS ID	CO	NO_2	O_3	SO_2	$PM_{2.5}$ (FEM)	$PM_{2.5}$ (Non-FEM)	PM_{10}	Met	CSN
Walla Walla, WA	Walla Walla-12th St	530710005						x			
Wenatchee, WA	Chelan-Woodin Ave	530070007						x			
Wenatchee, WA	Leavenworth-Evans St	530070010						x			
Wenatchee, WA	Wenatchee-Fifth St	530070011						x		x	
Yakima, WA	Sunnyside-S 16th St	530770005					x				
Yakima, WA	Toppenish-Yakama Tribe	530770015					x			x	x
Yakima, WA	Yakima-4th Ave	530770009					x		x		x

Carbon monoxide (CO, 42101)

There are three CO monitoring sites in the Washington Network. The Cheeka Peak site is currently suspended pending temporary relocation to Bahokas Peak in summer 2025. All Washington Network CO monitoring sites collect hourly data with method code 593 (Teledyne API 300 EU). The monitoring objective of the Cheeka Peak and Beacon Hill CO monitors is general/background, and the monitoring objective of the Seattle-10th & Weller CO monitor is source-oriented. All CO monitors in the Washington Network meet the applicable requirements of 40 C.F.R. Part 58 Appendices A, C, D, and E.

Table 5. Washington Network CO monitoring sites

AQS ID	Site Name	CBSA	Established	Type	Scale	POC
530090013	Cheeka Peak (suspended)	Port Angeles, WA	05/2006	SLAMS, NCore	Regional	2
530330030	Seattle-10th & Weller	Seattle-Tacoma-Bellevue, WA	04/2014	SLAMS, Near-road	Microscale	1
530330080	Seattle-Beacon Hill	Seattle-Tacoma-Bellevue, WA	03/2007	SLAMS, NCore	Urban	1

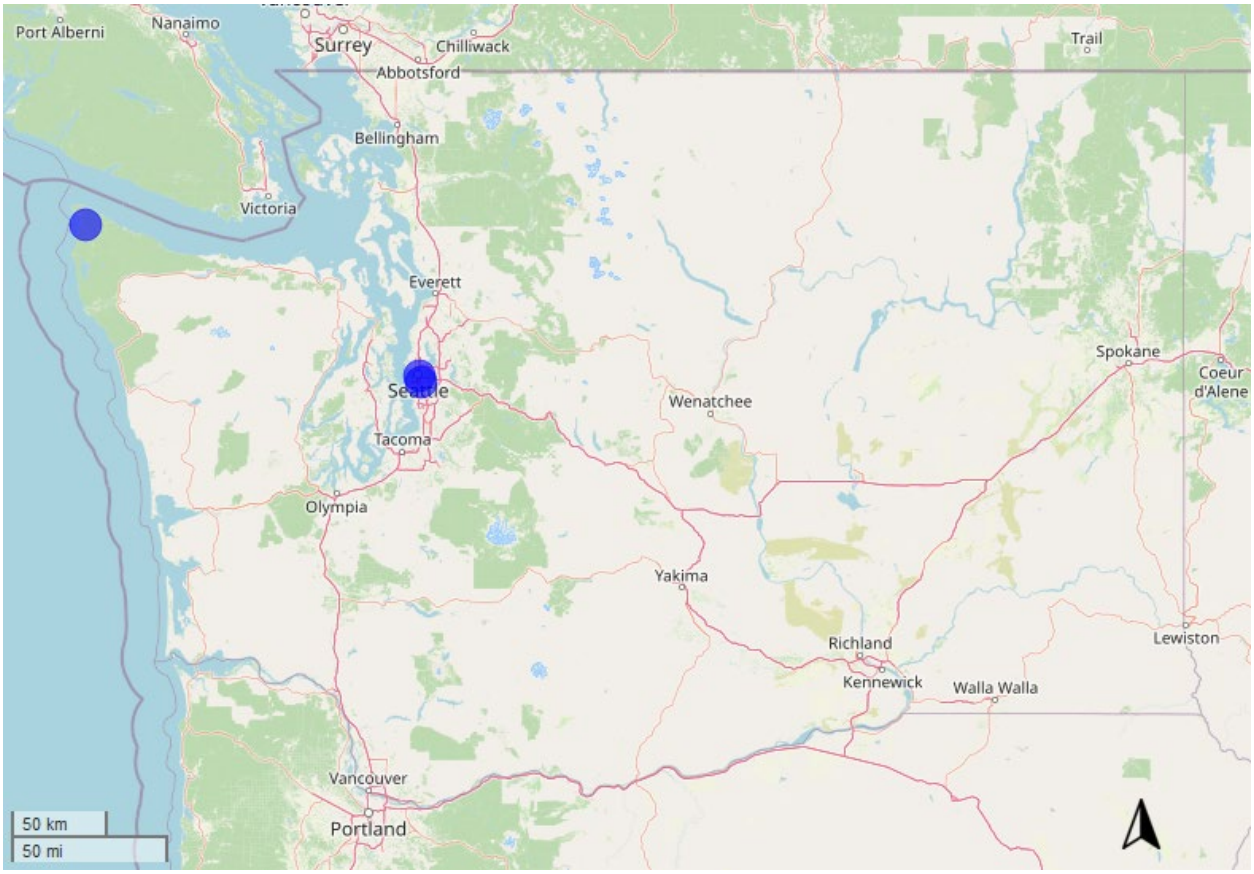


Figure 4. Map of Washington Network CO monitoring sites

Minimum monitoring requirements

Ecology is required to operate a CO monitor collocated with one required near-road NO_2 monitor in CBSAs with a population of 1,000,000 or more. In the Seattle-Tacoma-Bellevue CBSA, this requirement is met at the Seattle-10th & Weller near-road monitoring site (530330030). In the Portland-Vancouver-Hillsboro, OR-WA MSA, Oregon DEQ fulfills this requirement.

Recent modifications

None.

Recommended/proposed modifications

Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power loss at Cheeka Peak. Details of this relocation are provided in the NCore section of this document.

Nitrogen dioxide (NO_2, 42602/42612)

There are four hourly NO_2 (42602) monitoring sites in the Washington Network and two sites that monitor hourly trace NO_y-NO (42612). Seattle-Beacon Hill monitors both area-wide NO_2 and trace NO_y-NO. The Cheeka Peak site is currently suspended pending temporary relocation to Bahokas Peak in summer 2025.

The monitoring objective of the trace NO_y-NO monitors is general/background. The monitoring objective of the Seattle-Beacon Hill NO_2 monitor is population exposure, and the monitoring objective of the near-road and Seattle-Duwamish NO_2 monitors is highest concentration/source-oriented. All NO_2 and NO_y-NO monitors in the Washington Network meet the applicable requirements of 40 C.F.R. Part 58 Appendices A, C, D, and E.

Table 6. Washington Network NO_2 and Trace NO_y-NO monitoring sites

AQS ID	Site Name	CBSA	NO_2	Trace NO_y-NO	Est.	Type	Scale	Method	POC
530090013	Cheeka Peak (suspended)	Port Angeles, WA		✓	01/ 2011	SLAMS, NCore	Regional	Teledyne API 200 EU (699)	2
530330030	Seattle-10th & Weller	Seattle-Tacoma-Bellevue, WA	✓		04/ 2014	SLAMS, Near-road	Microscale	Teledyne API 200 EU (599)	1
530330080	Seattle-Beacon Hill	Seattle-Tacoma-Bellevue, WA	✓	✓	08/ 2013	SLAMS, NCore	Urban	NO_2: Teledyne API T500U (212) Trace NO_y-NO: Teledyne API T200U (599)	NO_2: 1 NO_y-NO: 2
530330057	Seattle-Duwamish	Seattle-Tacoma-Bellevue, WA	✓		11/ 2024	SPM	Microscale	Teledyne API N500 (256)	1
530530024	Tacoma-S 36th	Seattle-Tacoma-Bellevue, WA	✓		01/ 2016	SLAMS, Near-road	Microscale	Teledyne API 200 EU (599)	1

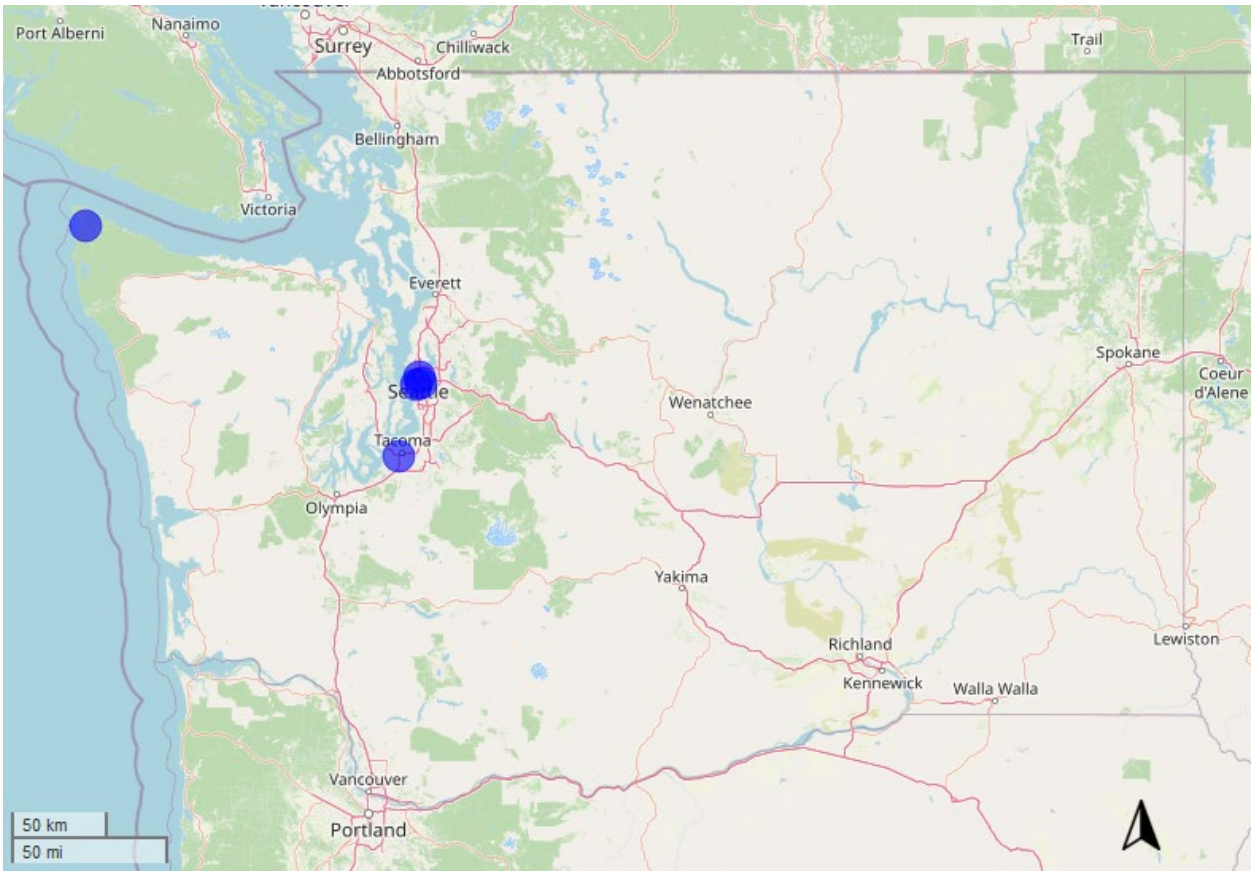


Figure 5. Map of Washington Network NO_x and Trace NO_y monitoring sites

Minimum monitoring requirements

Ecology is required to monitor both near-road and area-wide NO_2 in each CBSA with a population of 1,000,000 or greater. In CBSAs with a population of 2,500,000 or more, two near-road NO_2 monitoring sites are required. Ecology fulfills the near-road monitoring requirements for the Seattle-Tacoma-Bellevue, WA MSA at the Seattle-10th & Weller (530330030) and Tacoma-S 36th St (530530024) near-road sites. Seattle-Beacon Hill (530330080) fulfills the requirement for area-wide NO_2 monitoring.

In the Portland-Vancouver-Hillsboro, OR-WA MSA, the Oregon Department of Environmental Quality (DEQ) fulfills these requirements. This MSA surpassed 2.5 million people in 2020, which prompts the requirement for a second near-road NO_2 site. Oregon DEQ is currently working to establish a second near-road site near Interstate 5 in North Portland.

Recent modifications

Ecology and PSCAA added a SPM for NO_2 to the Seattle-Duwamish monitoring site (530330057) on January 7, 2025.

Recommended/proposed modifications

Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power loss at Cheeka Peak. Details of this relocation are provided in the NCore section of this document.

Ozone (O_3, 44201)

There are 13 ozone monitoring sites in the Washington Network. The Cheeka Peak site is currently suspended pending temporary relocation to Bahokas Peak in summer 2025. All Washington Network ozone sites collect data under method code 087 (UV Absorbance) using Teledyne API 400 analyzers and all report data using POC 1. The monitoring objective of most ozone monitors is population exposure; exceptions are two monitors for general/background (Cheeka Peak and Mt Rainier-Jackson Visitors Ctr) and two monitors for regional transport (Custer-Loomis and Enumclaw-Mud Mtn). All ozone monitors in the Washington Network meet the applicable requirements of 40 C.F.R. Part 58 Appendices A, C, D, and E.

Washington's ozone monitoring season is May 1-September 30. Ozone monitors operate only during this season except those noted with a * in Table 7, which operate year-round.

Table 7. Washington Network ozone monitoring sites

AQS ID	Site Name	CBSA	Established	Type	Scale
530570011	Anacortes-202 O Ave	Mount Vernon-Anacortes, WA	05/2012	SLAMS	Neighborhood
530090013	Cheeka Peak (suspended)*	Port Angeles, WA	05/2006	SLAMS, NCore	Regional
530630001	Cheney-Turnbull	Spokane-Spokane Valley, WA	05/1999	SLAMS	Urban
530730005	Custer-Loomis	Bellingham, WA	04/1989	SLAMS	Regional
530330023	Enumclaw-Mud Mtn	Seattle-Tacoma-Bellevue, WA	07/1998	SLAMS	Urban
530330010	Issaquah-Lake Sammamish	Seattle-Tacoma-Bellevue, WA	12/1975	SLAMS	Urban
530050003	Kennewick-S Steptoe St	Kennewick-Richland, WA	06/2015	SLAMS	Urban
530670013	Lacey-College St	Olympia-Lacey-Tumwater, WA	05/2022	SPM	Urban
530530012	Mt Rainier-Jackson Visitors Ctr*	Seattle-Tacoma-Bellevue, WA	07/1998	SLAMS	Regional
530330017	North Bend-North Bend Way	Seattle-Tacoma-Bellevue, WA	06/1998	SLAMS	Neighborhood
530330080	Seattle-Beacon Hill*	Seattle-Tacoma-Bellevue, WA	03/2007	SLAMS, NCore	Urban
530630046	Spokane-Greenbluff	Spokane-Spokane Valley, WA	04/1990	SLAMS	Urban
530110011	Vancouver-Blairmont	Portland-Vancouver-Hillsboro, OR-WA	05/1988	SLAMS	Urban

* indicates year-round monitor.

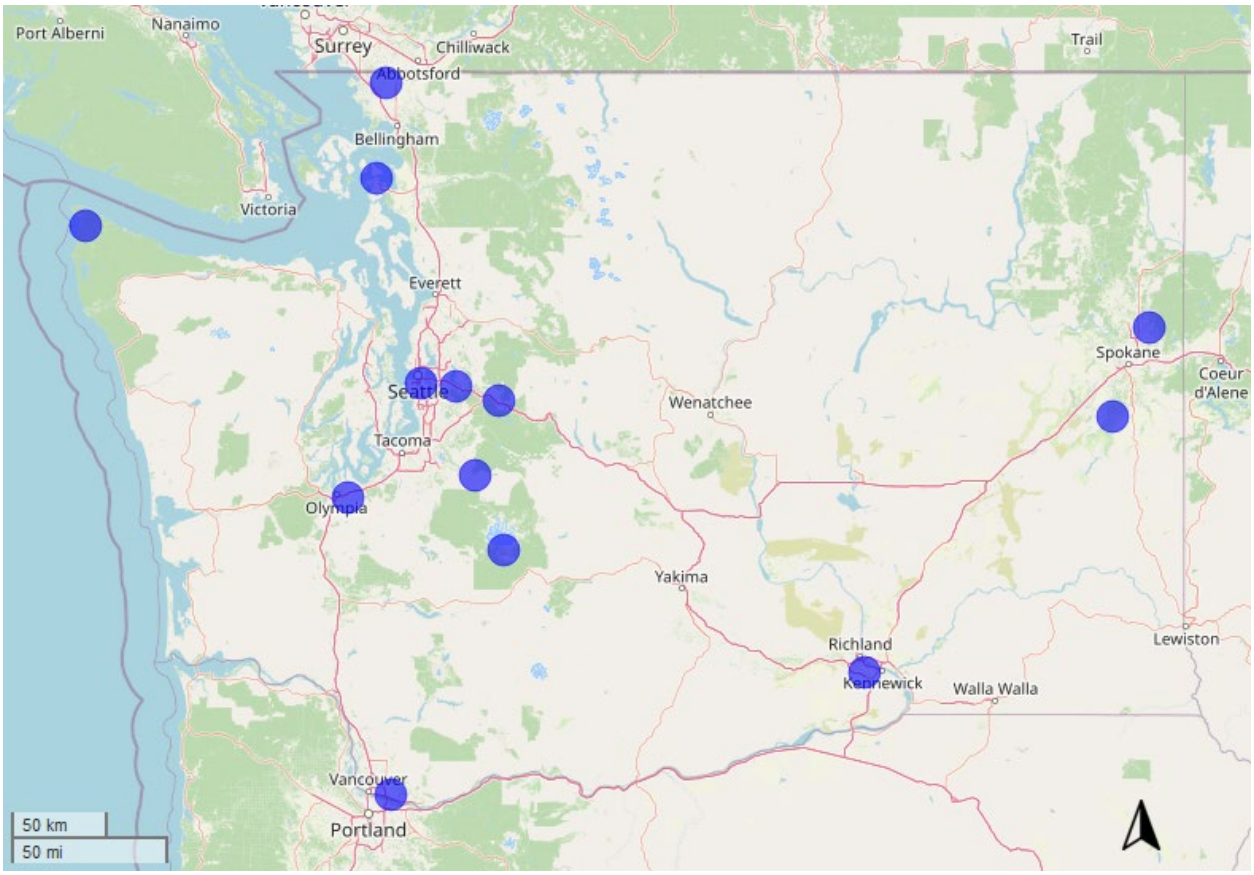


Figure 6. Map of Washington Network ozone monitoring sites

Minimum monitoring requirements

The Washington Network meets the minimum monitoring requirements for ozone defined in 40 C.F.R. Part 58 Appendix D. In each CBSA, the number of existing ozone monitors meets or exceeds the number of required monitors, as summarized in Table 8. The design values listed are the maximum valid design value of all sites within the CBSA. For a full list of design values at all ozone sites in the Washington Network, see Appendix A.

Table 8. EPA minimum monitoring requirements for ozone

CBSA	2024 Population Estimate	Highest Monitoring Site	2024 Design Value (ppm)	Number of Required Monitors	Number of Existing Monitors
Seattle-Tacoma-Bellevue, WA	4,145,494	Enumclaw-Mud Mtn	0.071	3	5
Portland-Vancouver-Hillsboro, OR-WA**	2,537,904	Portland-Carus	0.069	2	5
Spokane-Spokane Valley, WA	604,962	Spokane-Greenbluff	0.063	2	2
Kennewick-Richland, WA	319,428	Kennewick-S Steptoe St	0.066	1	1
Olympia-Lacey-Tumwater, WA	302,912	Lacey-College St	0.054	0	1
Bellingham, WA	234,954	Custer-Loomis	0.051*	0	1
Mount Vernon-Anacortes, WA	132,736	Anacortes-202 O Ave	0.047	0	1
Port Angeles, WA	77,958	Cheeka Peak	0.049	0	1

* Design values are estimated from incomplete data

** Washington shares the Portland-Vancouver-Hillsboro MSA with the state of Oregon. The minimum monitoring requirements for ozone in this MSA are met through a combination of monitors operated by Ecology and Oregon DEQ. Ecology and Oregon DEQ renewed a Memorandum of Understanding on April 5, 2024, to formalize this arrangement (Appendix E).

Recent modifications

None.

Recommended/proposed modifications

Thurston County Ozone: In 2021, Ecology suspended ozone monitoring at the Yelm-Northern Pacific monitoring site (530670005) due to a construction project at the wastewater treatment facility where the site was located. This suspension was initially planned to be temporary, with the construction project expected to last 1-2 years. In 2022, ORCAA established a SPM for ozone at the Lacey-College St monitoring site (530670013), approximately 12 miles northwest and also in the Olympia-Lacey-Tumwater, WA MSA. On April 13, 2022, Ecology requested a waiver from the EPA Region 10 Administrator for the temporary relocation of the monitor representing this MSA from Yelm to Lacey on a case-by-case basis per 40 C.F.R. Part 58.14(c): moving the monitor does not compromise data collection needed for implementation of National Ambient Air Quality Standards (NAAQS), and the requirements of Part 58 Appendix D continue to be met. EPA Region 10 issued this waiver on May 5, 2022 (Appendix B. Monitoring Waivers).

Though Ecology had initially planned to resume ozone monitoring in Yelm once construction at the facility was completed, various delays since 2021 have pushed the completion date back to 2025. Since 2022, ORCAA has successfully monitored ozone at Lacey-College St and considers the data provided from this site to be valuable for air quality management in ORCAA's jurisdiction. Ecology now proposes to discontinue the Yelm-Northern Pacific monitoring site permanently and plans to continue support for ORCAA's Lacey-College St SPM for ozone for the foreseeable future.

The Yelm and Lacey monitoring sites are both located in areas of low- to moderate-density development south of the Interstate-5 corridor. The locations of the two sites are shown in the map in Figure 7. Both are representative of urban-scale ozone conditions. Both are influenced by the same sources of ozone precursors, which are primarily vehicle emissions from the Interstate-5 corridor when winds are from the north and northeast, which is not the dominant wind direction during Washington's May-September ozone monitoring season. As both sites are upwind of major sources of ozone precursors during the dominant southeast summer winds, ozone concentrations are relatively low in the Olympia-Lacey-Tumwater MSA compared to several other sites in the Puget Sound region.

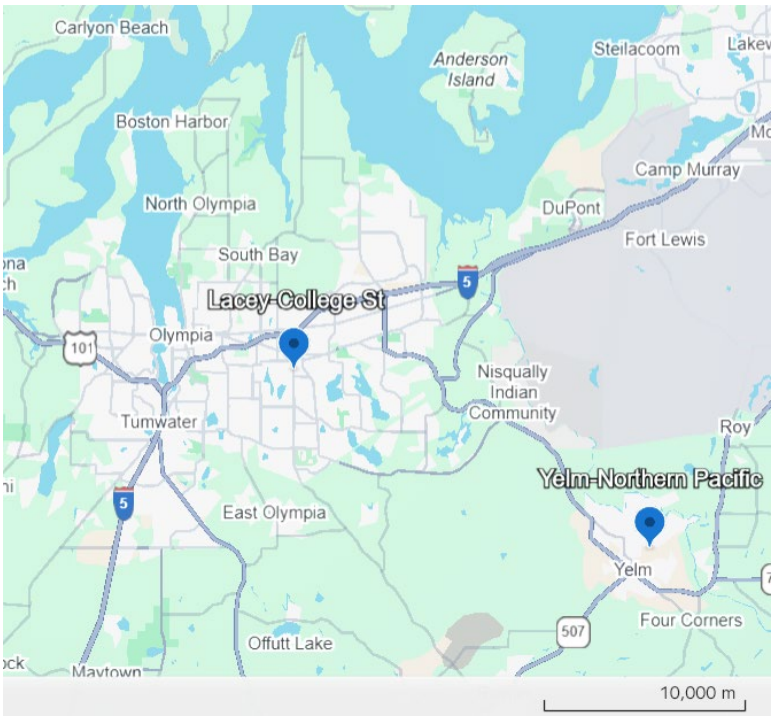


Figure 7. Map of Lacey-College St and Yelm-Northern Pacific monitoring sites

The annual 4th highest daily 8-hour maximum (D8M) concentrations from Yelm-Northern Pacific and Lacey-College St are graphed in Figure 8. Additional data collected by ORCAA at Lacey-College St in 2020-2021 as part of a special study using a 2BTech 202 ozone analyzer are also included. With the exception of 2017 and 2018, which were years with intense wildfire smoke episodes in western Washington that impacted ozone concentrations, annual 4th highest D8Ms

were between 0.050 and 0.060 ppm at Yelm-Northern Pacific from 2007-2020. The annual 4th highest D8Ms recorded at Lacey from 2020-2024 ranged from 0.052 to 0.055 ppm.

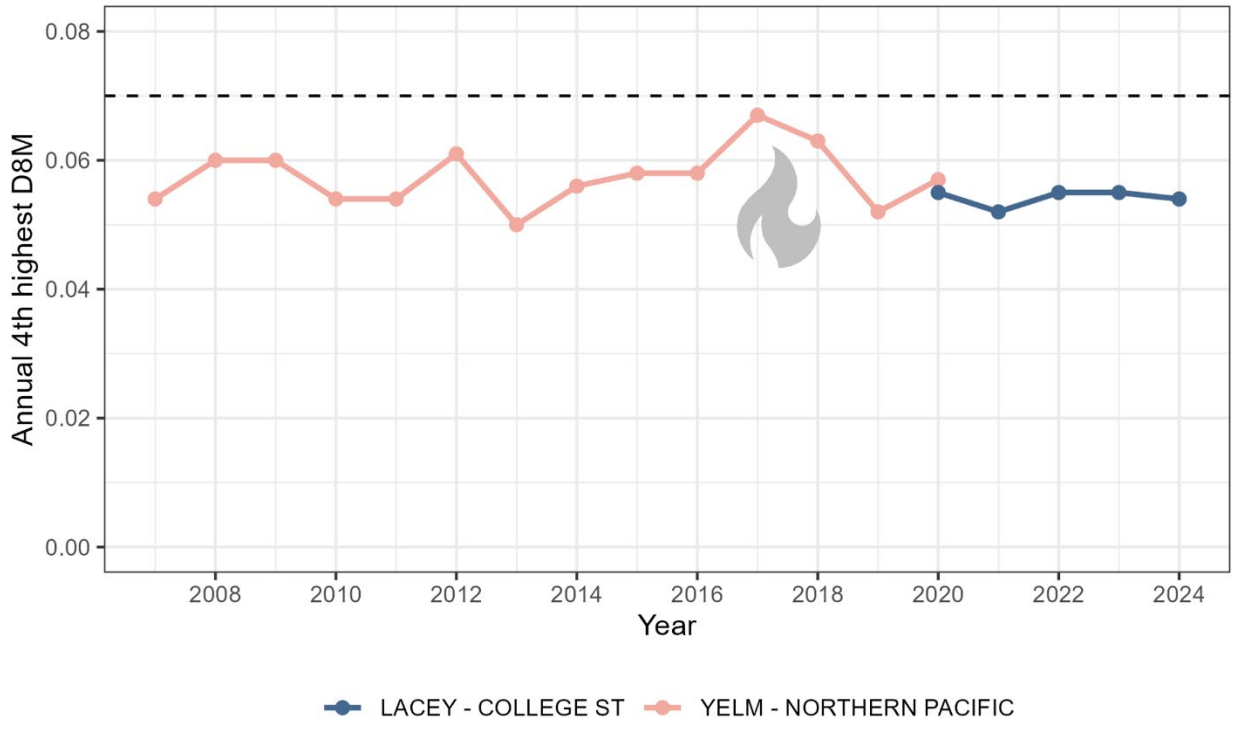


Figure 8. Annual 4th highest daily 8-hour maximum ozone concentrations (ppm) at the Yelm-Northern Pacific and Lacey-College St monitoring sites, 2007-2024

Based on the overlapping range of D8Ms recorded at the two sites, the regional nature of ozone formation, and the general similarities in the two sites' characteristics, Ecology considers the two sites to be comparable in the air quality conditions and urban scale they represent.

Following the minimum monitoring requirements described in 40 C.F.R. Part 58, Appendix D, no monitoring sites are required within the Olympia-Lacey-Tumwater, WA MSA. Ecology is confident that the permanent discontinuation of Yelm-Northern Pacific will not interfere with data collection needed for implementation of the NAAQS, as Yelm has never recorded a violation of the NAAQS, and its design values only exceeded 0.060 ppb in cases of wildfire smoke influence. Therefore, Ecology requests approval to permanently discontinue Yelm-Northern Pacific on a case-by-case basis per 40 C.F.R. Part 58.14(c): discontinuing the monitor does not compromise data collection needed for implementation of National Ambient Air Quality Standards (NAAQS), and the requirements of Part 58 Appendix D continue to be met.

Cheeka Peak: Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power

loss at Cheeka Peak. Details of this relocation are provided in the NCore section of this document.

Sulfur dioxide (SO_2, 42401)

There are three SO_2 monitoring sites in the Washington Network. The Cheeka Peak site is currently suspended pending temporary relocation to Bahokas Peak in summer 2025. All SO_2 monitors report data using POC 2. Two have a monitoring objective of general/background (Cheeka Peak and Seattle-Beacon Hill) and one has a monitoring objective of population exposure (Anacortes-202 O Ave). All SO_2 monitors in the Washington Network meet the applicable requirements of 40 C.F.R. Part 58 Appendices A, C, D, and E.

Table 9. Washington Network SO_2 monitoring sites

AQS ID	Site Name	CBSA	Established	Type	Scale	Method
530570011	Anacortes-202 O Ave	Mount Vernon-Anacortes, WA	01/2013	SLAMS	Neighborhood	TAPI 100 EU (600)
530090013	Cheeka Peak (suspended)	Port Angeles, WA	05/2006	SLAMS, NCore	Regional	TAPI 100 EU (600)
530330080	Seattle-Beacon Hill	Seattle-Tacoma-Bellevue, WA	03/2007	SLAMS, NCore	Urban	TAPI 100 EU (600)

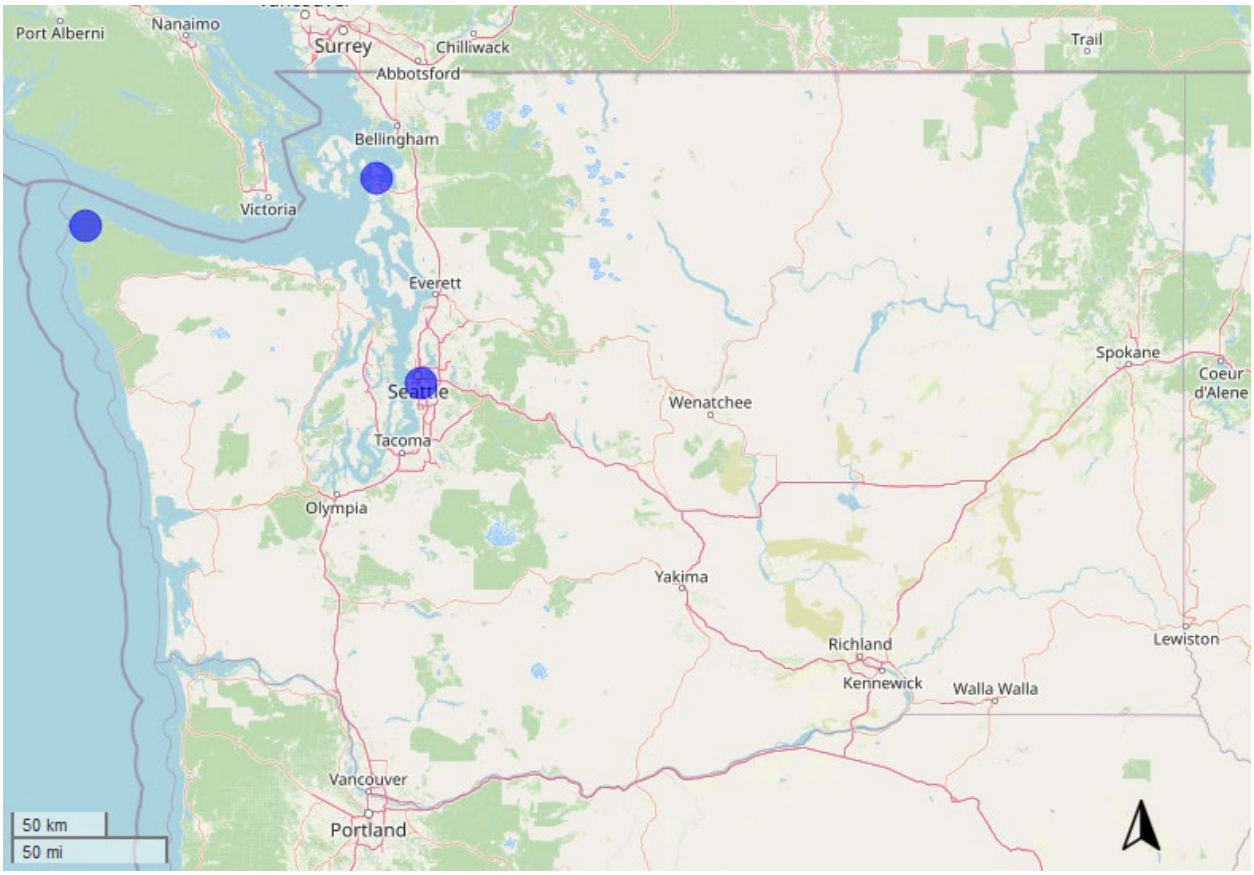


Figure 9. Map of Washington Network SO_2 monitoring sites

Minimum monitoring requirements

The Seattle-Beacon Hill NCore site (530330080) is used to satisfy the minimum monitoring requirement for the Seattle-Tacoma-Bellevue, WA CBSA, which is the only CBSA in Washington with required SO_2 monitoring based on the Population Weighted Emissions Index.

Recent modifications

The SO_2 SLAMS at the Ferndale-Mountain View Rd (530730017) and Ferndale-Kickerville Rd (530730013) sites were discontinued on December 31, 2024. This modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.

Recommended/proposed modifications

Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power loss at Cheeka Peak. Details of this relocation are provided in the NCore section of this document.

Particulate matter ≤2.5 µm ($PM_{2.5}$, 88101/88502)

FRM/FEM $PM_{2.5}$ (88101)

There are 23 sites in the Washington Network that monitor $PM_{2.5}$ with FRM and/or Class III FEM monitors. All sites listed in Table 10 are suitable for comparison with the annual $PM_{2.5}$ NAAQS with the exception of the Everett-Beverly Park Rd SPM. As a unique micro-scale site for a localized hotspot, this monitor will be suitable for comparison with the 24-hour $PM_{2.5}$ NAAQS after 24 months of operation but will not be suitable for comparison with the annual $PM_{2.5}$ NAAQS, consistent with 40 C.F.R. Part 58.30.

All BAM 1020 and BAM 1022 monitors operate continuously. Sampling schedules for filter-based FRMs are noted next to the monitor's POC in Table 10 (1:3 or 1:6). All $PM_{2.5}$ monitors in the Washington Network meet the applicable requirements of 40 C.F.R. Part 58 Appendices A, C, D, and E.

Table 10. Washington Network FEM and FRM $PM_{2.5}$ monitoring sites

AQS ID	Site Name	CBSA	Est.	Type	Scale/ Objective	Method	POC
530570011	Anacortes-202 O Ave	Mount Vernon-Anacortes, WA	10/ 2011	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530730019	Bellingham-Pacific St	Bellingham, WA	01/ 2018	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530350007	Bremerton-Spruce Ave	Bremerton-Silverdale-Port Orchard, WA	05/ 2012	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530650005	Colville- E 1st St	Spokane-Spokane Valley, WA	11/ 2019	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530610020	Darrington-Fir St	Seattle-Tacoma-Bellevue, WA	12/ 2010	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530370002	Ellensburg-Ruby St	Ellensburg, WA	10/ 2007	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530610022	Everett-Beverly Park Rd	Seattle-Tacoma-Bellevue, WA	06/ 2024	SPM	Micro/ Highest concentration and source oriented	Met One BAM 1020 (170)	5
530670013	Lacey-College St	Olympia-Lacey-Tumwater, WA	01/ 2025	SLAMS	Neighborhood/ Population exposure	Met One BAM 1022 (209)	8
530611007	Marysville-7th Ave	Seattle-Tacoma-Bellevue, WA	02/ 2010	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530470013	Omak-Colville Tribe	None	10/ 2010	Tribal	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5

AQS ID	Site Name	CBSA	Est.	Type	Scale/ Objective	Method	POC
530330040	SeaTac-Sunset Park	Seattle-Tacoma-Bellevue, WA	04/ 2025	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530330030	Seattle-10th & Weller	Seattle-Tacoma-Bellevue, WA	06/ 2014	SLAMS, Near-road	Micro/ Highest concentration and source oriented	Met One BAM 1020 (170)	5
530330080	Seattle-Beacon Hill	Seattle-Tacoma-Bellevue, WA	02/ 2010	SLAMS, NCore	Urban/ General background	Met One BAM 1022 (Primary) (209); Met One E-SEQ-FRM (Collocated) (545) (1:3)	Primary: POC 8 Collocated: POC 1
530330057	Seattle-Duwamish	Seattle-Tacoma-Bellevue, WA	12/ 2009	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (Primary) (170); Met One E-SEQ-FRM (Collocated) (545) (1:6)	Primary: POC 5 Collocated: POC 1
530630017	Spokane Valley-E Broadway Ave	Spokane-Spokane Valley, WA	01/ 2021	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530770005	Sunnyside-S 16th St	Yakima, WA	05/ 2023	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530530031	Tacoma-Alexander Ave	Seattle-Tacoma-Bellevue, WA	01/ 2022	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530530029	Tacoma- L Street	Seattle-Tacoma-Bellevue, WA	01/ 2010	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530530024	Tacoma-S 36th St	Seattle-Tacoma-Bellevue, WA	01/ 2016	SLAMS, Near-road	Microscale/ Highest concentration and source oriented	Met One BAM 1020 (170) (Primary and Collocated)	Primary: POC 5 Collocated: POC 6
530770015	Toppenish-Yakama Tribe	Yakima, WA	08/ 2008	Tribal	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530330069	Tukwila Allentown	Seattle-Tacoma-Bellevue, WA	04/ 2021	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5
530110024	Vancouver NE 84th Ave	Portland-Vancouver-Hillsboro, OR-WA	12/ 2014	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (170)	5

AQS ID	Site Name	CBSA	Est.	Type	Scale/ Objective	Method	POC
530770009	Yakima-4th Ave	Yakima, WA	05/ 2011	SLAMS	Neighborhood/ Population exposure	Met One BAM 1020 (Primary) (170); Met One E-SEQ-FRM (Collocated) (545) (1:6)	Primary: POC 5 Collocated: POC 1

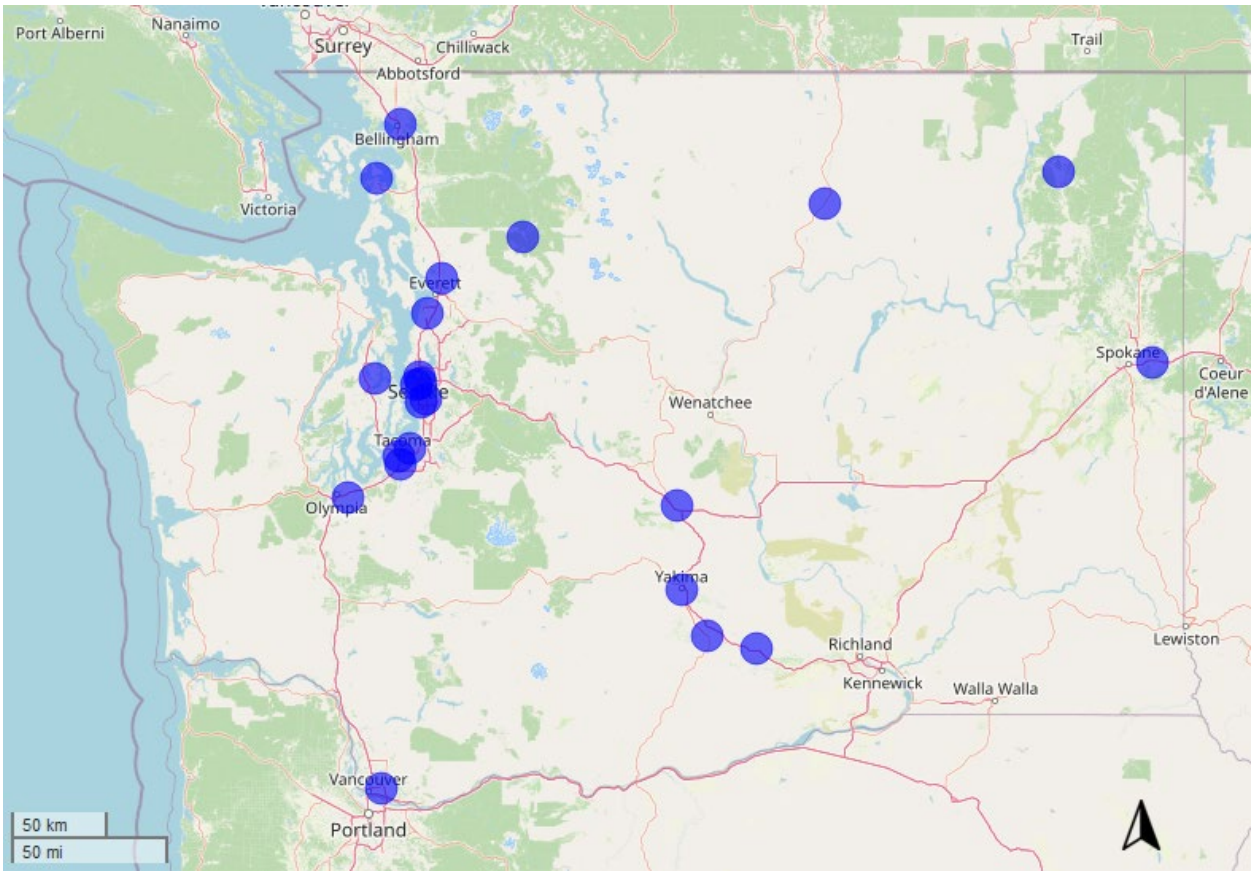


Figure 10. Map of Washington Network $PM_{2.5}$ monitoring sites

Minimum monitoring requirements

Minimum monitoring requirements for $PM_{2.5}$ are defined in 40 C.F.R. Part 58 Appendix D. Table 11 below summarizes the number of required and existing monitors in each of Washington's CBSAs where monitoring is conducted. The design values listed are the maximum valid design value of all sites within the CBSA. The Washington Network is currently meeting or exceeding the minimum monitoring requirements in all CBSAs.

For a full list of design values at all Washington Network $PM_{2.5}$ monitoring sites, see Appendix A.

Table 11. EPA minimum monitoring requirements for FRM/FEM $PM_{2.5}$

CBSA	2024 Population Estimate	Highest 2024 24-hour Design Value (µg/m³) (Site)	Highest 2024 Annual Design Value (µg/m³) (Site)	Number of Required Monitors	Number of Existing Monitors
Seattle-Tacoma-Bellevue, WA	4,145,494	35 (Darrington-Fir St)	8.5 (Marysville-7th Ave)	3	11
Portland-Vancouver-Hillsboro, OR-WA**	2,537,904	24 (Vancouver-NE 84th Ave)	6.2 (Vancouver-NE 84th Ave and Portland-SE Lafayette)	2	4
Spokane-Spokane Valley, WA	604,962	28 (Colville-E 1st St)	8.7 (Colville-E 1st St)	2	2
Bremerton-Silverdale, WA	281,420	16 (Bremerton-Spruce Ave)	5.1 (Bremerton-Spruce Ave)	0	1
Yakima, WA	258,523	29 (Toppenish-Yakama Tribe)	8.9 (Toppenish-Yakama Tribe)	1	3
Bellingham, WA	234,954	20* (Bellingham-Pacific St)	5.6* (Bellingham-Pacific St)	0	1
Mount Vernon-Anacortes, WA	132,736	12* (Anacortes-202 O Ave)	5.1* (Anacortes-202 O Ave)	0	1
Ellensburg, WA	48,172	19 (Ellensburg-Ruby St)	6.1 (Ellensburg-Ruby St)	0	1

*Design value was estimated from incomplete data.

** Washington shares the Portland-Vancouver-Hillsboro MSA with the state of Oregon. The minimum monitoring requirements for $PM_{2.5}$ in this MSA are met through a combination of monitors operated by Ecology and the Oregon DEQ. Ecology and Oregon DEQ renewed a Memorandum of Understanding on April 5, 2024, to formalize this arrangement (Appendix E).

At-risk community monitoring requirement: In February 2024, EPA strengthened the annual NAAQS for $PM_{2.5}$ from 12.0 µg/m³ to 9.0 µg/m³. Along with this revision, EPA also modified the network design criteria for $PM_{2.5}$ in 40 CFR part 58, appendix D, 4.7.1(b)(3), which applies to MSAs where three SLAMS for $PM_{2.5}$ are required:

> "For areas with additional required SLAMS, a monitoring station is to be sited in an at-risk community with poor air quality, particularly where there are anticipated effects from sources in the area (e.g., a major industrial area, point source(s), port, rail yard, airport, or other transportation facility or corridor)."

Ecology notes that the $PM_{2.5}$ sources provided as examples in this revision to 40 CFR part 58, appendix D, 4.7.1(b)(3) are not the dominant sources of $PM_{2.5}$ emissions in Washington, which are wildfires and residential wood combustion.

In the Seattle-Tacoma-Bellevue, WA MSA, the requirement for monitoring in an at-risk community with poor air quality is already met at the Seattle-10th & Weller monitoring site (530330030). Seattle-10th & Weller is located less than 100 meters from the major transportation corridor of Interstate 5 and routinely records higher design values than several other monitoring sites in the MSA. Thus Seattle-10th & Weller meets the requirements for (relatively) poor air quality and anticipated impacts from sources.

Seattle-10th & Weller can also be considered in fulfillment of the network design criteria 40 CFR part 58, appendix D, 4.7.1(b)(2), "For CBSAs with a population of 1,000,000 or more persons, at least one $PM_{2.5}$ monitor is to be collocated at a near-road NO_2 station required in section 4.3.2(a) of this appendix." Since the 4.7.1(b)(2) requirement is also met by the Tacoma-S 36th near-road site, Ecology considers the requirements of 4.7.1(b) fully met, with Tacoma-S 36th used to fulfill 4.7.1(b)(2) and Seattle-10th & Weller used to fulfill the revised 4.7.1(b)(3).

Collocation requirements

The monitoring sites listed in Table 12 are used to fulfill the collocation requirements described in 40 C.F.R. Part 58 Appendix A.

Table 12. $PM_{2.5}$ collocation requirements

Method Code	# Primary Monitors	# Required Collocated Monitors	# Active Collocated Monitors	Site	Distance between collocated monitors (m)
209	2	1	1	Seattle-Beacon Hill	4
170	20	3	3	Tacoma-S 36th (530530024); Seattle-Duwamish (530530057); Yakima-4th Ave S (530770009)	2 2 2

Recent modifications

The $PM_{2.5}$ SLAMS at the Olympic Region Clean Air Agency's (ORCAA's) Lacey-College St (530670013) monitoring site was upgraded from non-regulatory (88502 POC 8) to regulatory (88101 POC 8) as of January 1, 2025. This modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.

The $PM_{2.5}$ SLAMS at PSCAA's new SeaTac-Sunset Park monitoring site (530330040) was established on April 7, 2025. This network modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.

Recommended/proposed modifications

Kent: PSCAA has identified a proposed location for the relocated Kent SLAMS site formerly located at James & Central St (530332004) that was discontinued in 2023. The proposed site is west of downtown Kent, between I-5 and State Route 167, and approximately 1.5 miles west of

the former site. It is located in a suburban area between an apartment complex and a golf course. PSCAA expects the site to be broadly representative of neighborhood-scale $PM_{2.5}$ conditions in Kent and to represent comparable air quality conditions to the former Kent-James & Central St site.

Proposed site name: Kent-W Meeker St

Start date: August 2025

AQS ID: 530330090

Street address: 2020 W Meeker St, Kent, WA 98032

Geographic coordinates: (47.3788495, -122.2622108)

CBSA represented: Seattle-Tacoma-Bellevue, WA MSA

Distance to any obstructions and obstruction height: The nearest obstruction above inlet height is a tree 6 meters in height that is 42 meters from the proposed site.

Distance to nearest road: 163 meters

Traffic count of nearest road: 18,988 AADT (2018)

Method: Met One BAM 1020 (170)

Operating schedule: Continuous

Monitoring objective: Population exposure

Spatial scale of representativeness: Neighborhood scale

Probe height: 5 meters

The site is expected to meet all applicable requirements of 40 C.F.R. Part 58 Appendices A, C, D, and E, and data will be suitable for comparison with the $PM_{2.5}$ NAAQS.

An aerial photo and map of the nearby area are shown in Figure 11 and Figure 12.

Figure 11. Aerial photo of proposed Kent-W Meeker St site

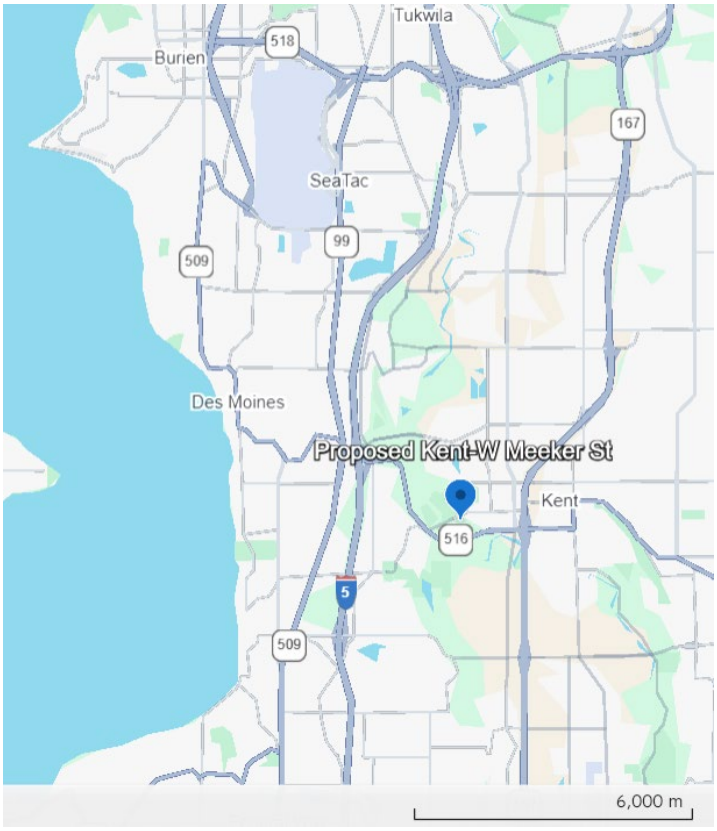


Figure 12. Map of proposed Kent-W Meeker St site area

Directional photos from the proposed site facing north, east, south, and west are provided in Figure 13 through Figure 16.

Figure 13. Photo from proposed Kent-W Meeker St site facing north

Figure 14. Photo from proposed Kent-W Meeker St site facing east

Figure 15. Photo from proposed Kent-W Meeker St site facing south

Figure 16. Photo from proposed Kent-W Meeker St site facing west

The dominant wind direction in the area, as measured at the Seattle-Tacoma International Airport approximately 5 miles north, is from the south and southwest. North to northeast winds are also frequent, as shown in the wind rose in Figure 17.

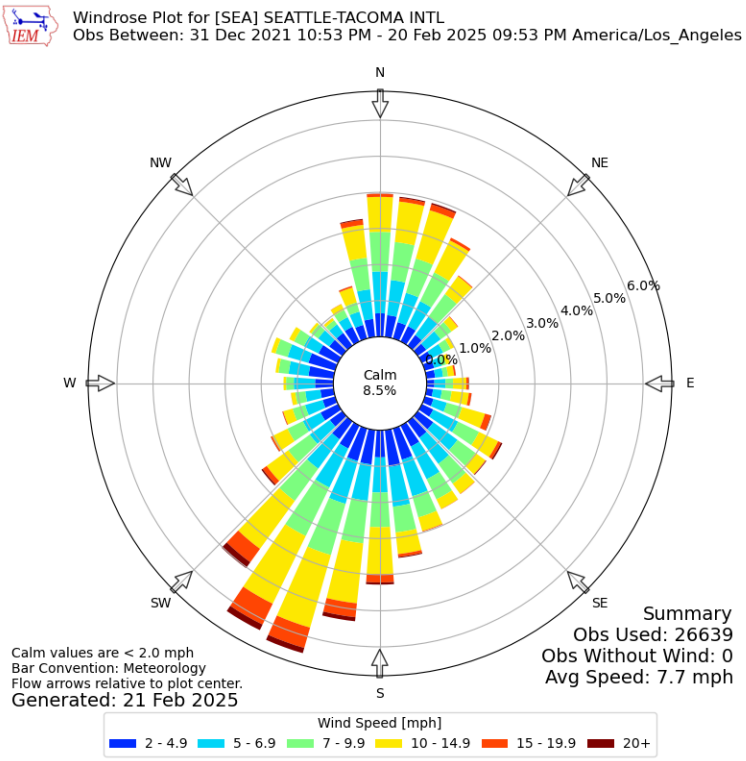


Figure 17. Wind rose showing annual wind patterns in the Kent-SeaTac area[2]

Ecology proposes to add the Kent-W Meeker St site as a SLAMS for $PM_{2.5}$ and requests EPA Regional Administrator approval for this network modification.

Oak Harbor: Ecology and NWCAA plan to add a new Oak Habor-Goldie Rd SPM for regulatory $PM_{2.5}$ to the Washington Network. This site was selected after many discussions with possible municipal and private partners. The Oak Harbor Public Works Department offered the best dedicated site that was in good proximity to the urban center of Oak Harbor while also being representative of surrounding residential neighborhoods.

Proposed site name: Oak Harbor-Goldie Rd

Start date: July 1, 2025

AQS ID: 530290003

Street address: 2882 Goldie Rd, Oak Harbor, WA 98277

Geographic coordinates: (48.313931, -122.646196)

CBSA represented: Oak Harbor, WA Micropolitan Statistica Area (µSA)

[2] Source: https://mesonet.agron.iastate.edu/sites/windrose.phtml

Distance to any obstructions and obstruction height: The nearest obstruction is a row of evergreen trees approximately 18 meters tall that are approximately 15 meters south of the site.

Distance to nearest road: 23 meters

Traffic count of nearest road: 3,000 AADT

Method: Met One BAM 1022 (209)

Operating schedule: Continuous

Monitoring objective: Population exposure

Spatial scale of representativeness: Neighborhood scale

Probe height: 3.5 meters

SPM Statement of Purpose: The purpose of this SPM will be to provide neighborhood-scale $PM_{2.5}$ data and AQI information to a community that previously lacked an AQS monitor.

Due to the proximity of the 18 meter-high trees south of the monitor, the monitor will not meet the Probe and Path Siting Criteria requirements in 40 C.F.R. Part 58, Appendix E and will thus not be suitable for comparison to the NAAQS. It will meet the applicable requirements of 40 C.F.R. Part 58, Appendices A, C, and D.

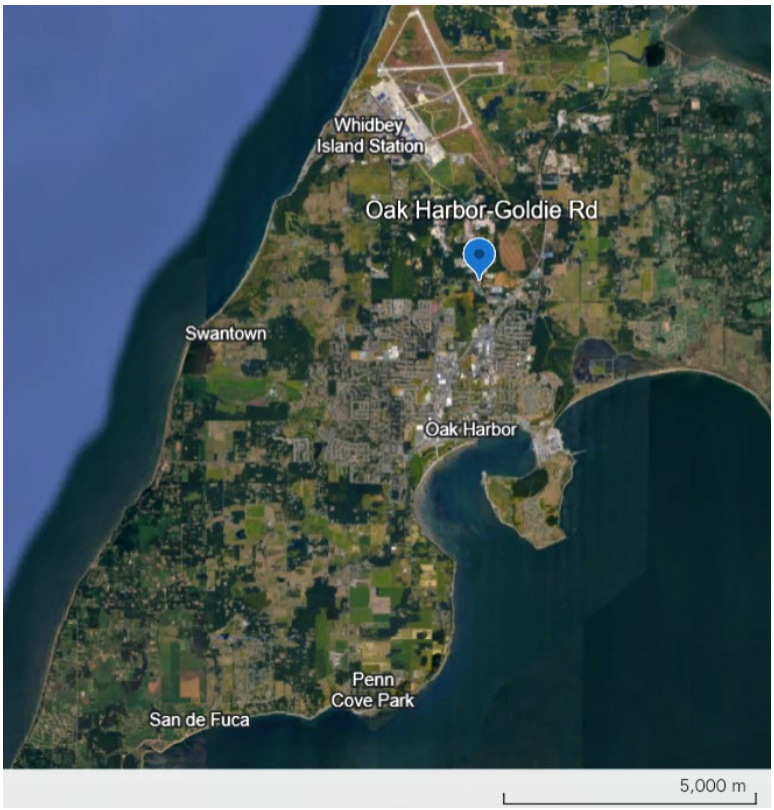


Figure 18. Aerial photo of Oak Harbor-Goldie Rd site

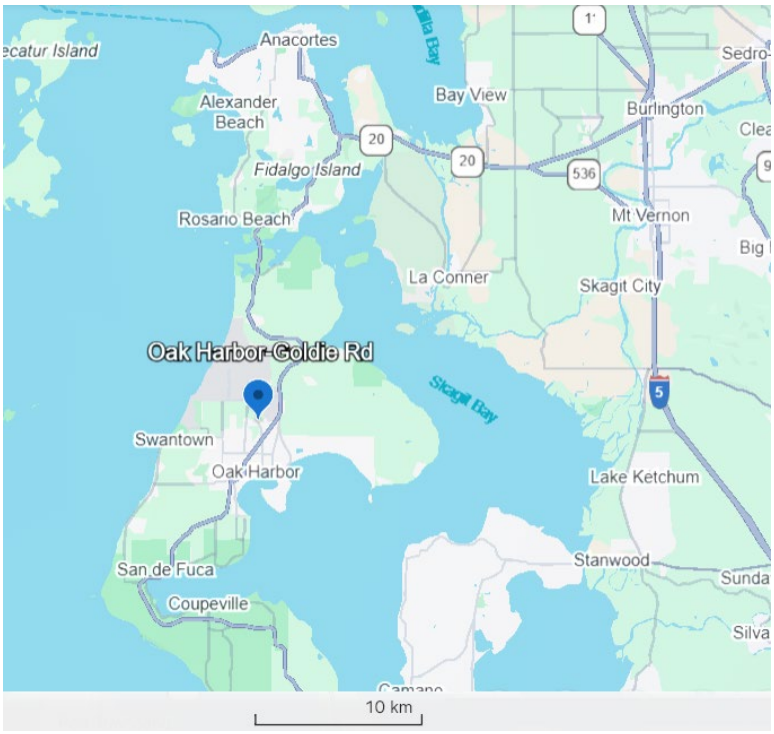


Figure 19. Map of Oak Harbor-Goldie Rd site area

Figure 20. Photo from Oak Harbor-Goldie Rd site facing north

Figure 21. Photo from Oak Harbor-Goldie Rd site facing east

Figure 22. Photo from Oak Harbor-Goldie Rd site facing south

Figure 23. Photo from Oak Harbor-Goldie Rd site facing west

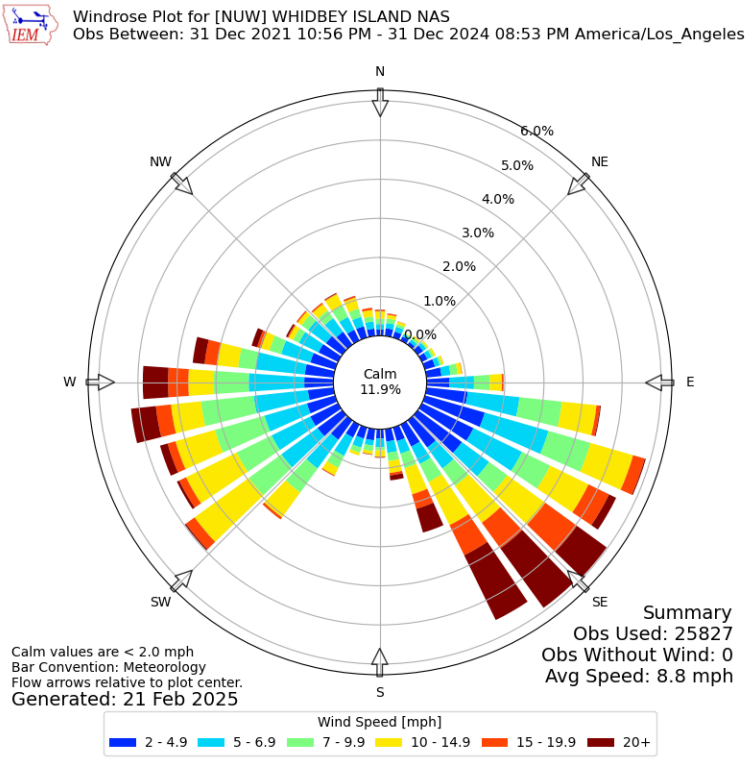


Figure 24. Wind rose showing year-round wind patterns in the Oak Harbor area[3]

[3] Source: https://mesonet.agron.iastate.edu/sites/windrose.phtml

Non-regulatory $PM_{2.5}$ (88502)

Ecology and its partners operate 40 monitoring sites with non-regulatory $PM_{2.5}$ instruments to report estimated $PM_{2.5}$ concentrations and the AQI to the public. The Cheeka Peak site is currently suspended pending temporary relocation to Bahokas Peak in summer 2025. Most have a monitoring objective of population exposure; exceptions are four sites for general/background (Cheeka Peak, Chelan-Woodin Ave, Leavenworth-Evans St, Twisp-S Lincoln St) and one for regional transport (Moses Lake-Balsam St). All non-regulatory $PM_{2.5}$ monitors meet any applicable requirements of 40 C.F.R. Part 58 Appendices A, C, D, and E, except where the site name is noted with a footnote in Table 13 below.

Table 13. Washington Network nephelometer monitoring sites

AQS ID	Site Name	CBSA	Est.	Type	Scale	Method	POC
530272002	Aberdeen-Division St	Aberdeen, WA	08/2002	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530330047	Auburn-29th St[4]	Seattle-Tacoma-Bellevue, WA	03/2021	SPM	Neighborhood	Ecotech M9003 (812)	4
530330031	Bellevue-SE 12th St	Seattle-Tacoma-Bellevue, WA	12/2016	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530090013	Cheeka Peak (suspended)	Port Angeles, WA	05/2006	SLAMS, NCore	Regional	Radiance Research M903 (771)	4
530410004	Chehalis-Market Blvd	Centralia, WA	12/2009	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530070007	Chelan-Woodin Ave	Wenatchee, WA	12/2002	SPM	Neighborhood	Radiance Research M903 (771)	4
530030004	Clarkston-13th St	Lewiston, ID-WA	03/2007	SLAMS	Neighborhood	Met One BAM 1022 w/PM2.5 SCC (171)	8
530650005	Colville-E 1st St	Spokane-Spokane Valley, WA	10/2015	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530130002	Dayton-W Main St	None	02/2009	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530370002	Ellensburg-Ruby St	Ellensburg, WA	10/2007	SPM	Neighborhood	Radiance Research M903 (771)	4
530050002	Kennewick-Metaline	Kennewick-Richland, WA	08/2004	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530750005	LaCrosse-Hill St	Pullman, WA	10/2002	SLAMS	Neighborhood	Radiance Research M903 (771)	4

[4] The Auburn-29th St monitor does not meet 40 C.F.R. Part 58, Appendix E Probe and Path Siting Criteria requirements due to its proximity to a line of trees approximately 8 meters from the probe.

AQS ID	Site Name	CBSA	Est.	Type	Scale	Method	POC
530330024	Lake Forest Park[5]	Seattle-Tacoma-Bellevue, WA	10/2003	SLAMS	Middle	Ecotech M9003 (812)	4
530070010	Leavenworth-Evans St	Wenatchee, WA	07/2005	SPM	Neighborhood	Radiance Research M903 (771)	4
530150015	Longview-30th Ave	Longview, WA	03/2003	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530210002	Mesa-Pepiot Way	Kennewick-Richland, WA	01/2003	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530251002	Moses Lake-Balsam St	Moses Lake, WA	01/2004	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530570015	Mt Vernon-S Second St	Mount Vernon-Anacortes, WA	07/2005	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530090015	Neah Bay-Makah Tribe	Port Angeles, WA	02/2010	Tribal	Neighborhood	Radiance Research M903 (771)	4
530330017	North Bend-North Bend Way	Seattle-Tacoma-Bellevue, WA	03/2003	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530230001	Pomeroy-Pataha St	None	05/2017	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530090017	Port Angeles- E 5th St	Port Angeles, WA	04/2015	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530310003	Port Townsend-San Juan Ave	None	10/2002	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530050004	Prosser-Highland Dr	Kennewick-Richland, WA	10/2022	SPM	Neighborhood	Met One BAM 1022 w/PM2.5 SCC (171)	8
530750003	Pullman-Dexter SE	Pullman, WA	10/2002	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530251003	Quincy-3rd Ave NE	Moses Lake, WA	06/2017	SPM	Neighborhood	Radiance Research M903 (771)	4
530490003	Raymond-4th St	None	10/2023	SPM	Neighborhood	Radiance Research M903 (771)	4
530010003	Ritzville-Alder St	Othello, WA	03/2001	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530750006	Rosalia-Josephine St	Pullman, WA	10/2002	SLAMS	Neighborhood	Radiance Research M903 (771)	4

[5] The Lake Forest Park monitor does not meet 40 C.F.R. Part 58, Appendix E Probe and Path Siting Criteria requirements because it is located in a parking lot with adjacent trees.

AQS ID	Site Name	CBSA	Est.	Type	Scale	Method	POC
530331011	Seattle-South Park[6]	Seattle-Tacoma-Bellevue, WA	10/2003	SLAMS	Microscale	Ecotech M9003 (812)	4
530450007	Shelton-W Franklin	Shelton, WA	04/2011	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530630054	Spokane-E Sprague Ave	Spokane-Spokane Valley, WA	01/2024	SPM	Middle	Met One BAM 1022 w/PM2.5 SCC (171)	8
530630047	Spokane-Monroe St	Spokane-Spokane Valley, WA	05/2004	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530270011	Taholah-Quinault Tribe	Aberdeen, WA	04/2004	Tribal	Neighborhood	Radiance Research M903 (771)	4
530610021	Tulalip-Totem Beach Rd	Seattle-Tacoma-Bellevue, WA	10/2019	Tribal	Neighborhood	Radiance Research M903 (771)	4
530470009	Twisp-S Lincoln St	None	06/2020	SPM	Neighborhood	Radiance Research M903 (771)	4
530710005	Walla Walla-12th St	Walla Walla, WA	10/2002	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530650002	Wellpinit-Spokane Tribe	Spokane-Spokane Valley, WA	10/2008	Tribal	Neighborhood	Radiance Research M903 (771)	4
530070011	Wenatchee-Fifth St	Wenatchee, WA	11/2012	SLAMS	Neighborhood	Radiance Research M903 (771)	4
530110022	Yacolt-Yacolt Rd	Portland-Vancouver-Hillsboro, OR-WA	07/2003	SLAMS	Neighborhood	Radiance Research M903 (771)	4

[6] The Seattle-South Park monitor does not meet 40 C.F.R. Part 58, Appendix E Probe and Path Siting Criteria requirements because the probe is affixed to the side of the building with only a 180-degree arc of free airflow.

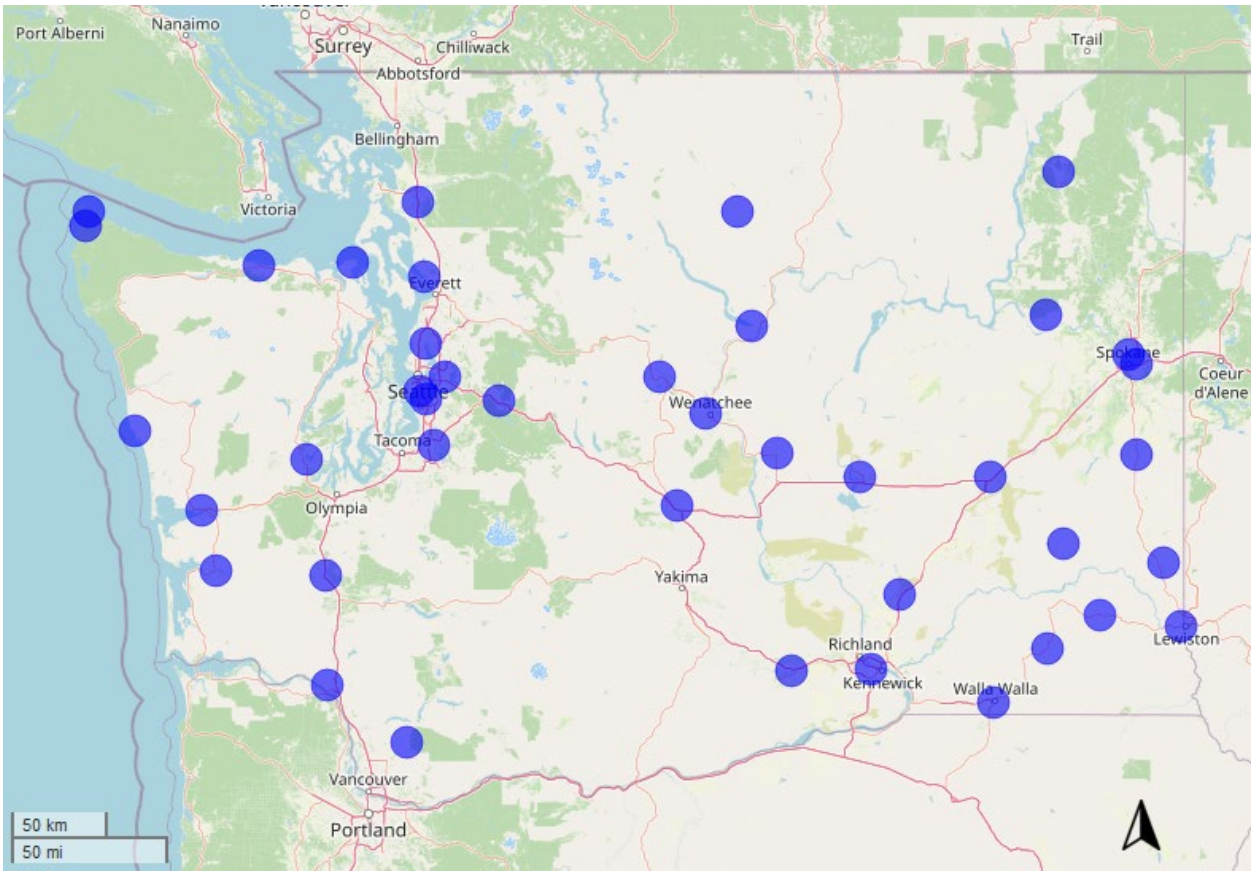


Figure 25. Map of Washington Network non-regulatory $PM_{2.5}$ monitoring sites

Regional background/transport requirements

Appendix D (4.7.3) of 40 C.F.R. Part 58 requires each state to operate at least one $PM_{2.5}$ monitoring site for regional background and one for regional transport. The Cheeka Peak NCore site serves as Washington's regional background site, and the Moses Lake SLAMS is designated as a regional transport site.

Recent modifications

The SLAMS for non-regulatory $PM_{2.5}$ (88502) at the Lacey-College St monitor was discontinued in conjunction with the addition of a SLAMS for FEM $PM_{2.5}$ (88101) on December 31. 2024. This modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.

Recommended/proposed modifications

Cheeka Peak: Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power loss at Cheeka Peak. Details of this relocation are provided in the NCore section of this document.

LaCrosse-Hill St and Pomeroy-Pataha St: Ecology proposes to discontinue the LaCrosse-Hill St and Pomeroy-Pataha St non-regulatory $PM_{2.5}$ SLAMS nephelometers. Both sites are part of

Ecology's Agricultural Burn (AgBurn) network used for smoke management associated with commercial agricultural burning. Due to routinely low concentrations and infrequent smoke impacts at these sites, Ecology's AgBurn team has determined that smoke in these communities can be adequately monitored using SensWA.

As non-regulatory nephelometers, these monitors cannot definitively demonstrate "attainment" following the criteria in 40 C.F.R. Part 58.14(c)(1). However, based on the available $PM_{2.5}$ data from the correlated nephelometers, the probability of exceeding 80 percent of either the 24-hour or the annual $PM_{2.5}$ NAAQS is below the required 10 percent threshold for discontinuation in 58.14(c)(1).

Estimated annual mean and 98th percentile 24-hour average concentrations are shown in Figure 26 and Figure 27. In 2020 and 2021, eastern Washington experienced extreme and prolonged wildfire smoke impacts that affected both the annual mean and 98th percentile concentrations. Ecology calculated annual means and 98th percentile concentrations both with and without the inclusion of days flagged with informational wildfire flags in AQS. In 2020 and 2021, the wildfire-influenced annual means and 98th percentile concentrations are shown in the dashed line, and the calculations without these data included are shown in the solid line.

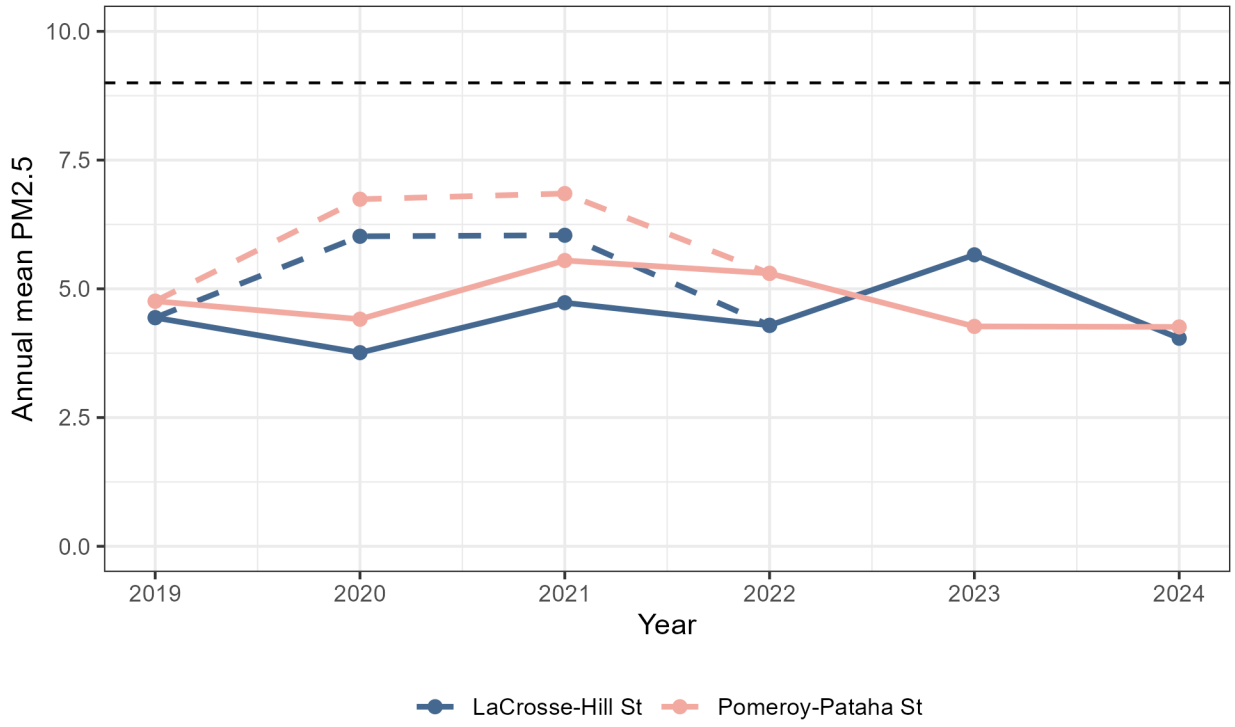


Figure 26. Annual mean $PM_{2.5}$ (µg/m^3), LaCrosse and Pomeroy, 2019-2024

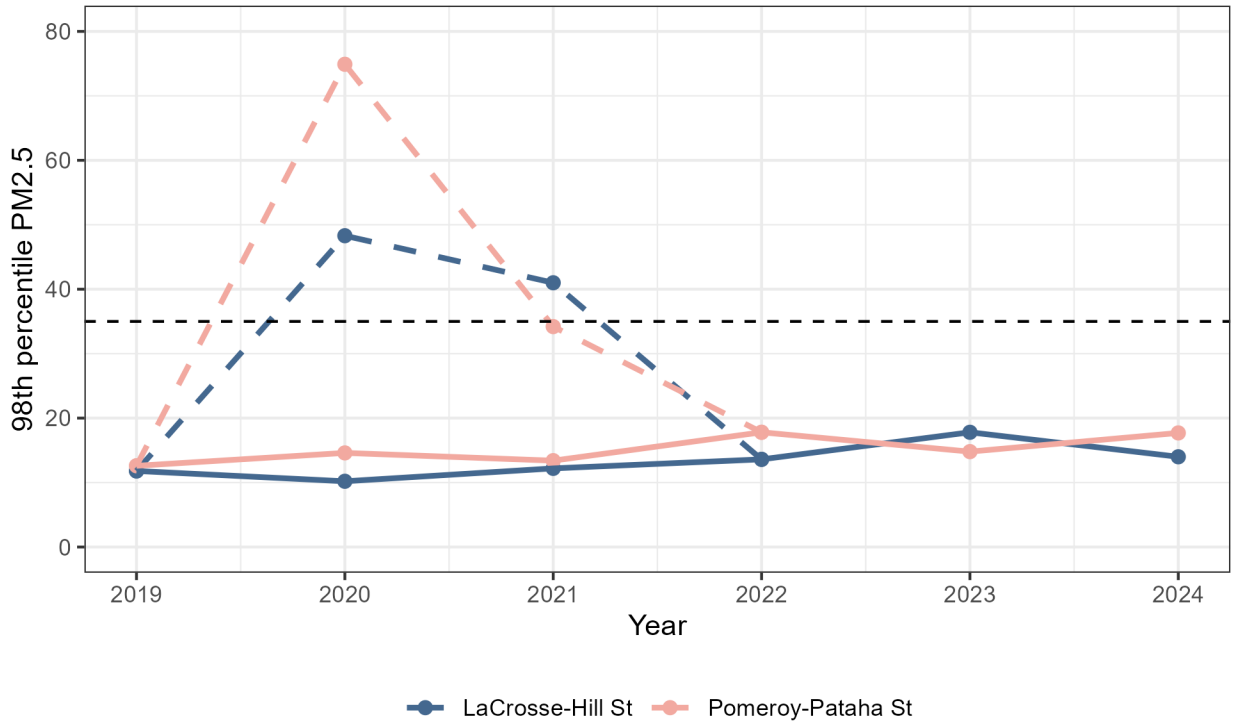


Figure 27. Annual 98th percentile $PM_{2.5}$ (µg/m^3), LaCrosse and Pomeroy, 2019-2024

Table 14. LaCrosse-Hill St and Pomeroy-Pataha St estimated design values.

Design values are shown calculated with days flagged as wildfire-influenced excluded. Design values calculated from all data are provided in parenthesis.

Year	Site	Annual design value (µg/m^3)	24-hour design value (µg/m^3)
2021	LaCrosse-Hill St	5.5	15 (34)
2022	LaCrosse-Hill St	6.0	16 (45)
2023	LaCrosse-Hill St	5.3	17 (24)
2024	LaCrosse-Hill St	4.7	15
2021	Pomeroy-Pataha St	5.6	19 (41)
2022	Pomeroy-Pataha St	6.3	20 (42)
2023	Pomeroy-Pataha St	5.5	19 (22)
2024	Pomeroy-Pataha St	4.6	17

The probability of exceeding 80 percent of the $PM_{2.5}$ NAAQS is assessed according to the calculation method described in EPA's 2007 Ambient Air Monitoring Network Assessment Guidance:

Equation 1. Probability of NAAQS violation (U.S. EPA, 2007)

$$\bar{X} + \frac{t * s}{\sqrt{n}} < 0.8 * NAAQS$$

Where:

X is the average design value
t is the student's t-value for 3 degrees of freedom at the 90% confidence level (1.638)
s is the standard deviation of design values
n is the number of design values

Ecology calculated this probability using the estimated design values calculated without the inclusion of days flagged as wildfire-influenced.

Table 15. Calculations for probability of a NAAQS violation at LaCrosse-Hill St and Pomeroy-Pataha St

Site	Form	Comparison Value (left side of Equation 1) (µg/m^3)	80% of NAAQS (µg/m^3)
LaCrosse-Hill St	Annual	5.8	7.2
LaCrosse-Hill St	24-hour	16.5	28
Pomeroy-Pataha St	Annual	6.0	7.2
Pomeroy-Pataha St	24-hour	19.7	28

For both the annual and 24-hour standards at both LaCrosse-Hill St and Pomeroy-Pataha St, the comparison values (left side of Equation 1) are less than 80% of the NAAQS, and thus the probability of exceeding 80% of the NAAQS is less than 10%.

Following the minimum monitoring requirements described in 40 C.F.R. Part 58, Appendix D, no monitoring sites are required within the Pullman, WA µSA, which contains LaCrosse. Pomeroy is not located in a CBSA.

Ecology requests EPA Region 10 Administrator approval to discontinue the LaCrosse-Hill St and Pomeroy-Pataha St SLAMS for nonregulatory $PM_{2.5}$ under the criteria provided for in 40 C.F.R. Part 58.14(c)(1): "Any $PM_{2.5}$, O_3, CO, PM_{10}, SO_2, Pb, or NO_2 SLAMS monitor which has shown attainment during the previous five years, that has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years based on the levels, trends, and variability observed in the past, and which is not specifically required by an attainment plan or maintenance plan". After removing days flagged as influenced by wildfires, estimated design values at both sites are below both $PM_{2.5}$ NAAQS and have a probability of less than 10% of exceeding 80% of both NAAQS. Neither site is required by an attainment plan or maintenance plan. Therefore, Ecology has determined that the criteria for discontinuation in 40 C.F.R. Part 58.14(c)(1) are met.

Liberty Lake: Ecology and SRCAA plan to add a new Liberty Lake-E Country Vista Dr SPM for non-regulatory $PM_{2.5}$ to the Washington Network. This site was selected to provide $PM_{2.5}$ data representative of population exposure within the urban area in the eastern end of the Spokane Valley where there is currently no monitoring coverage.

Proposed site name: Liberty Lake-E Country Vista Dr

Start date: July 1, 2025

AQS ID: 530630055

Street address: 20150 E Country Vista Dr, Liberty Lake, WA 99019

Geographic coordinates: 47.66145, -117.13367

CBSA represented: Spokane-Spokane Valley, WA MSA

Distance to any obstructions and obstruction height: The nearest point of a 4-meter high HVAC screen wall is located 11 meters southeast of the monitor location. The wall occupies about a 60 degree arc from the perspective of the monitor location.

Distance to nearest road: 260 meters

Traffic count of nearest road: 10,075 AADT

Method: Met One BAM 1022 w/$PM_{2.5}$ SCC (171)

Operating schedule: Continuous

Monitoring objective: Population exposure

Spatial scale of representativeness: Neighborhood scale

Probe height: 11 meters

SPM Statement of Purpose: The purpose of this SPM will be to provide neighborhood-scale $PM_{2.5}$ data and AQI information to a previously-unmonitored community experiencing significant development and growth in population and traffic volumes.

The site is expected to meet all applicable requirements of 40 C.F.R. Part 58 Appendices A, B, D, and E.

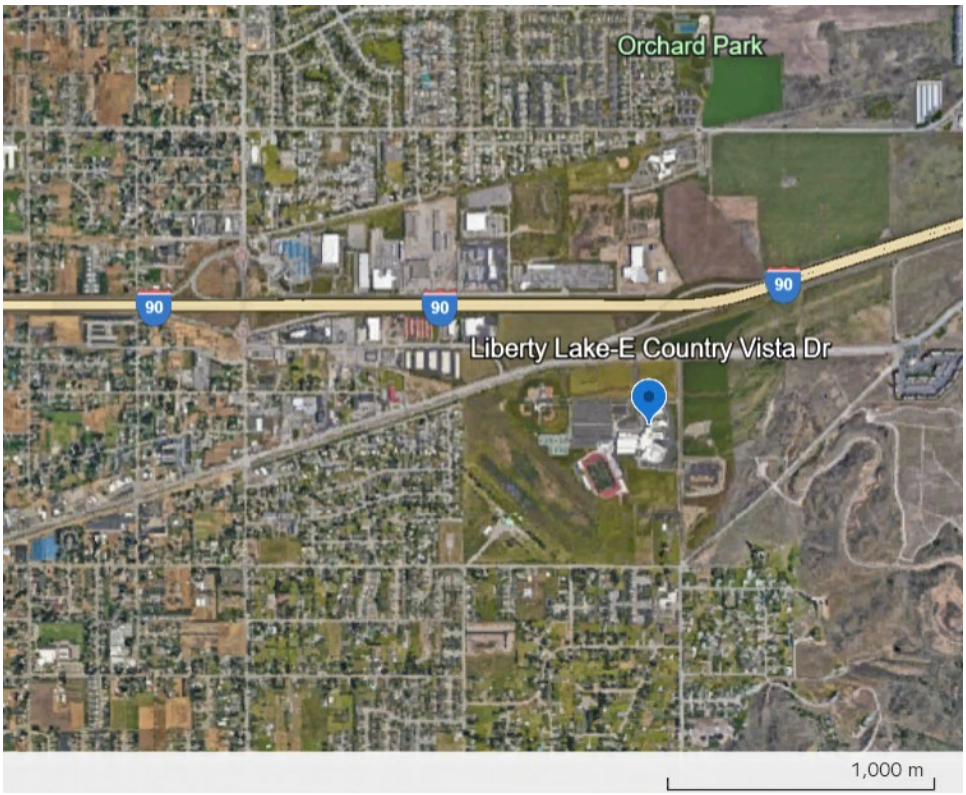


Figure 28. Aerial photo of Liberty Lake-E Country Vista Dr site

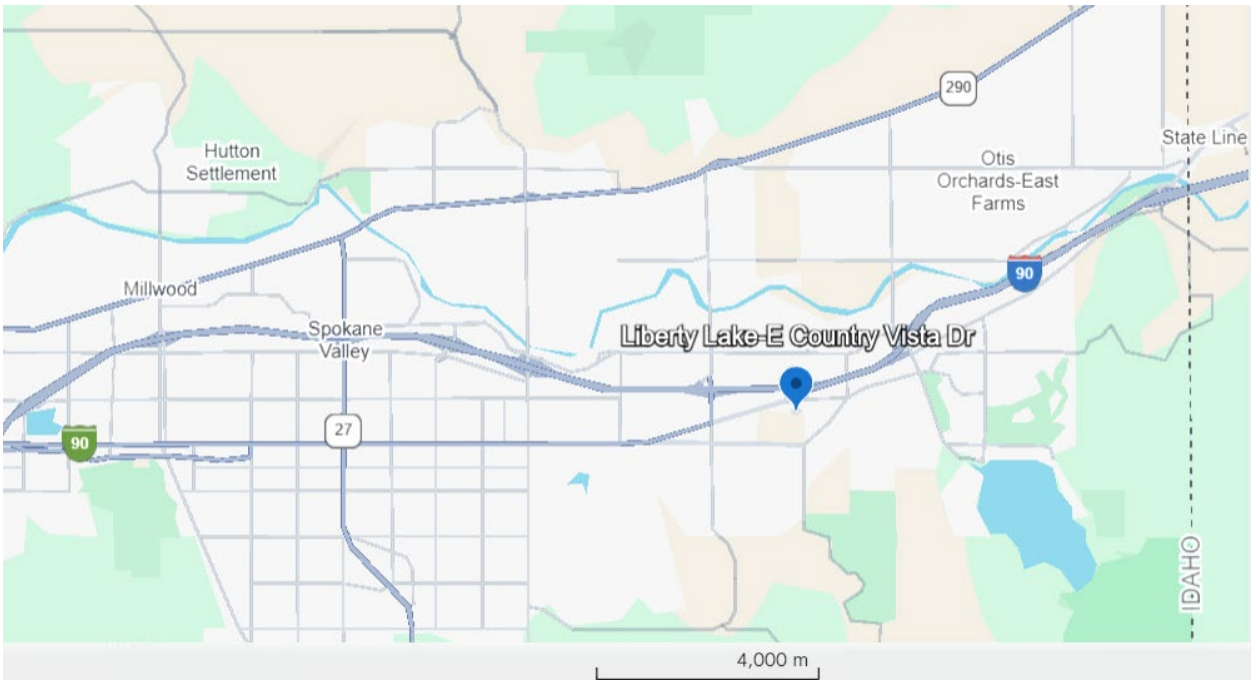


Figure 29. Map of Liberty Lake-E Country Vista Dr site area

Figure 30. Photo from Liberty Lake-E Country Vista Dr facing north

Figure 31. Photo from Liberty Lake-E Country Vista Dr facing south

Figure 32. Photo from Liberty Lake-E Country Vista Dr facing west

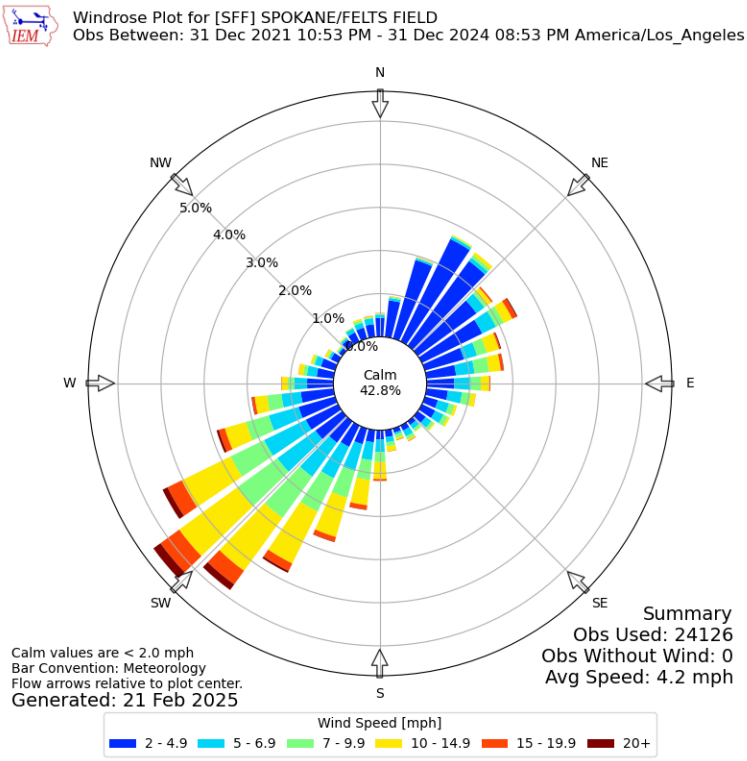


Figure 33. Wind rose showing year-round wind patterns in Spokane[7]

The prevailing wind direction in the Spokane and Liberty Lake area is generally from the southwest or west, especially during the spring and summer. During the fall and winter, while southwest winds remain prevalent, relatively light winds are more often northeasterly.

Particulate matter ≤10 µm (PM_{10}, 81102)

There are eight PM_{10} monitoring sites in the Washington Network. All have a monitoring objective of population exposure with the exception of Seattle-Beacon Hill, which has a monitoring objective of general/background, and Everett-Beverly Park Rd, which has a monitoring objective of highest concentration. All monitor for PM_{10} with BAM 1020s (Method 122) using POC 5.

[7] Source: https://mesonet.agron.iastate.edu/sites/windrose.phtml

Table 16. Washington Network PM_{10} monitoring sites

AQS ID	Site Name	CBSA	Est.	Type	Scale
530710006	Burbank-Maple St	Walla Walla, WA	08/2017	SLAMS	Neighborhood
530650005	Colville-E 1st St	Spokane-Spokane Valley, WA	10/2015	SLAMS	Neighborhood
530610022	Everett-Beverly Park Rd	Seattle-Tacoma-Bellevue, WA	06/2024	SPM	Micro
530050002	Kennewick-Metaline	Kennewick-Richland, WA	10/1994	SLAMS	Neighborhood
530330080	Seattle-Beacon Hill	Seattle-Tacoma-Bellevue, WA	03/2003	SLAMS, NCore	Urban
530330057	Seattle-Duwamish	Seattle-Tacoma-Bellevue, WA	07/2024	SLAMS	Neighborhood
530630017	Spokane Valley-E Broadway Ave	Spokane-Spokane Valley, WA	03/2021	SLAMS	Neighborhood
530770009	Yakima-4th Ave S	Yakima, WA	04/2000	SLAMS	Neighborhood

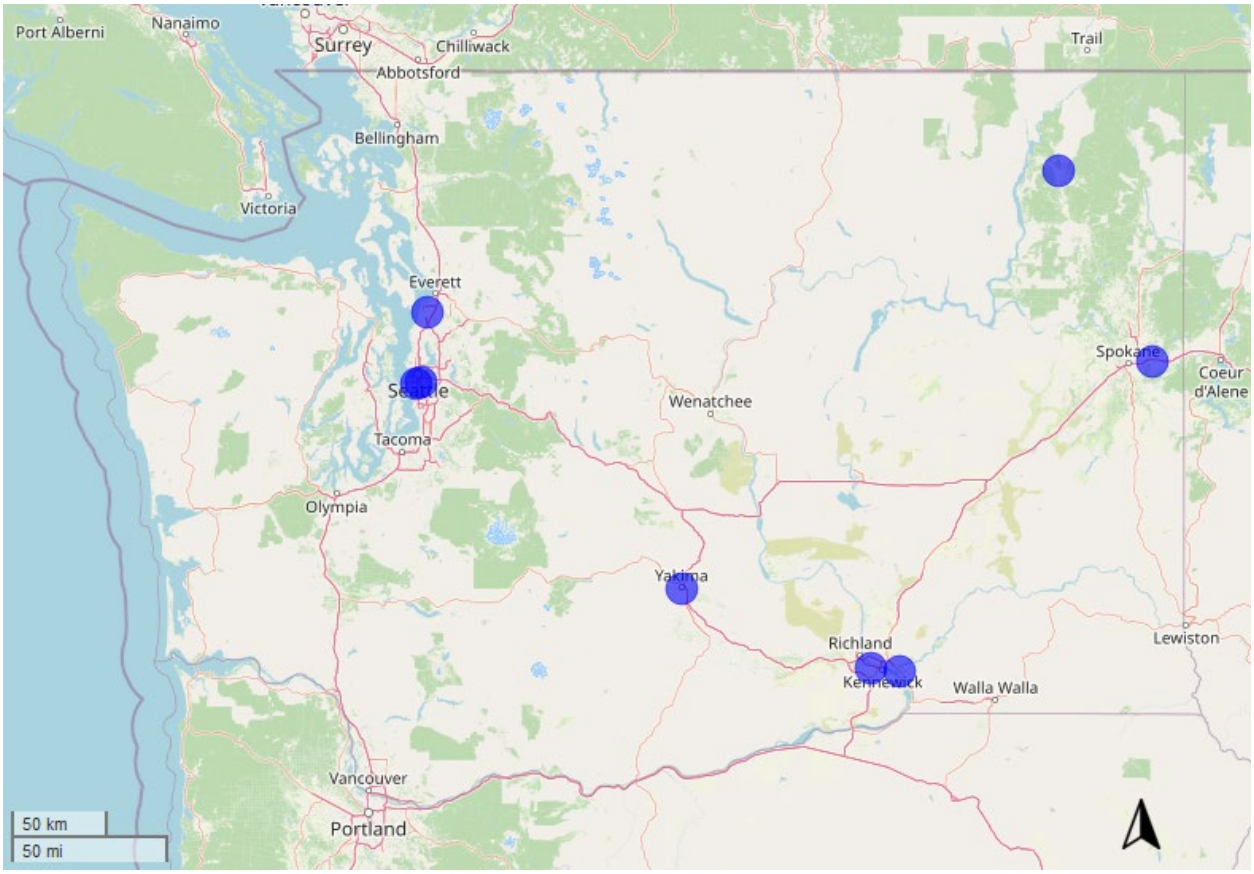


Figure 34. Map of Washington Network PM_{10} monitoring sites

The Washington Network is currently not meeting the PM_{10} minimum monitoring requirements defined in 40 C.F.R. Part 58 Appendix D in all metropolitan areas, as summarized in

Table 17, and has approved waivers from EPA Region 10 for the remaining unmet requirements.

Table 17. EPA minimum monitoring requirements for PM_{10}

Core-Based Statistical Area	2023 Population Estimate	Maximum 24-hour concentration in µg/m^3 (2022-2024)	Number of Required Monitors	Number of Existing Monitors
Seattle-Tacoma-Bellevue, WA	4,145,494	47 (Seattle-Beacon Hill)	2	2
Portland-Vancouver-Hillsboro, OR-WA	2,537,904	89 (Portland-Humboldt School)	2	2
Spokane-Spokane Valley, WA	604,962	281 (Spokane Valley-E Broadway Ave)	4	2*
Kennewick-Richland, WA	319,428	209 (Kennewick-Metaline)	3	1*
Yakima, WA	258,523	177 (Yakima-4th Ave S)	1	1
Walla Walla, WA	62,068	226 (Burbank-Maple St)	0	1

EPA issued Ecology a waiver for the unmet monitoring requirements in the Kennewick-Richland and Spokane-Spokane Valley CBSAs in its February 12, 2025, response to Ecology's 2024 Ambient Air Quality Network Plan, effective for five years. A copy of that correspondence is provided in Appendix B.

Recent modifications

The PM_{10} SLAMS monitor at the Spokane Regional Clean Air Agency's (SRCAA's) Cheney-Turnbull site (530630001) was discontinued as of December 31, 2024. This modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.

A PM_{10} SLAMS monitor was added to the Puget Sound Clean Air Agency's (PSCAA's) Seattle-Duwamish monitoring site (530330057) on July 1, 2024. This modification was approved in EPA Region 10's response to Ecology's 2024 Ambient Air Monitoring Network Plan.

Recommended/proposed modifications

None.

Meteorological monitoring (61101/61102/61103/61104/62101)

There are 13 meteorological monitoring sites in the Washington Network. The Cheeka Peak site is currently suspended pending temporary relocation to Bahokas Peak in summer 2025. All Washington Network meteorological monitoring sites collect scalar and vector wind speed and direction using RM Young or Vaisala sonic anemometers (method codes 062 and 060, respectively) and ambient temperature under method code 040 (electronic or machine average). All Washington Network meteorological sites follow EPA's monitoring guidelines for prevention of significant deterioration (PSD).

Table 18. Washington Network meteorological monitoring sites

AQS ID	Site Name	Established	Type	Scale
530710006	Burbank-Maple St	03/2018	SLAMS	Urban
530090013	Cheeka Peak (suspended)	08/2007	SLAMS, NCore	Urban
530650005	Colville-E 1st St	05/2016	SLAMS	Urban
530050002	Kennewick-Metaline	08/2012	SLAMS	Urban
530330017	North Bend-North Bend Way	01/2000	SLAMS	Urban
530470013	Omak-Colville Tribe	10/2010	Tribal	Urban
530251003	Quincy-3rd Ave NE	06/2017	SPM	Urban
530330030	Seattle-10th & Weller	04/2014	SLAMS, Near-road	Urban
530330080	Seattle-Beacon Hill	01/1991	SLAMS, NCore	Urban
530530024	Tacoma-S 36th St	02/2016	SLAMS, Near-road	Urban
530770015	Toppenish-Yakama Tribe	06/2009	Tribal	Urban
530110011	Vancouver-Blairmont Dr	12/2007	SLAMS	Urban
530070011	Wenatchee-Fifth St	11/2012	SLAMS	Urban

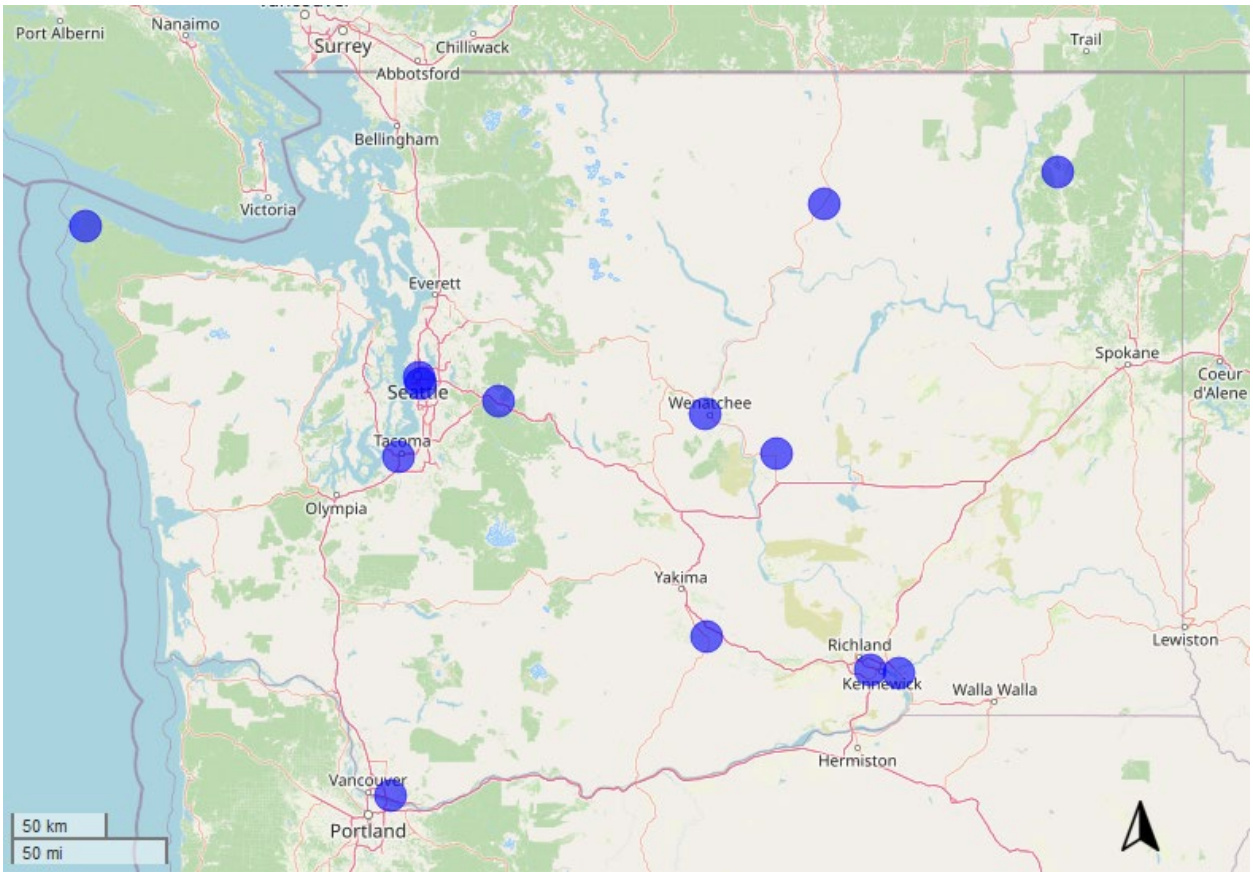


Figure 35. Map of Washington Network meteorological monitoring sites

Recent modifications

Ferndale-Mountain View Rd: Meteorological monitoring was discontinued at the Ferndale-Mountain View Rd monitoring site (530730017) when the site was permanently discontinued on December 31, 2024.

Enumclaw-Mud Mtn: Meteorological monitoring at the Enumclaw-Mud Mtn site (530330023) was discontinued on December 31, 2024, due to logistical challenges at the site. Due to the distance between the meteorological tower and the site shelter, the anemometer was unable to maintain a consistent data connection without polling errors. Upgrading the data cabling is not possible at such a distance, and the meteorological tower cannot be relocated due to constraints at the site property.

Recommended/proposed modifications

Kennewick-Metaline: Ecology plans to temporarily suspend meteorological monitoring at the Kennewick-Metaline monitoring site (530050002) due to a planned construction project on the roof of the school where the site is located. The construction project requires the meteorological tower to be temporarily removed from the roof. Ecology expects this suspension to begin in July 2025 and last approximately one year.

Cheeka Peak: Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) due to unplanned and protracted power loss at Cheeka Peak. Details of this relocation are provided in the NCore section of this document.

Lead (Pb)

Ecology reports Pb in PM_{10} concentrations as part of the National Air Toxics Trends Station (NATTS) monitoring at Seattle-Beacon Hill (530330080). At the request of EPA, Ecology ceased reporting to parameter code 85129 and began reporting to parameter code 85128 (POC 6) as of January 1, 2019. The monitor has an objective of population exposure.

As described in 40 C.F.R. Part 58, Appendix D (4.5), source-oriented lead monitoring is required in the vicinity of sources that emit 0.5 tons per year or more of lead. No Washington Pb sources exceeded 0.5 tons per year in the 2020 National Emissions Inventory, and therefore no source-oriented Pb monitoring is required.

Chemical Speciation Network (CSN)

Ecology and its partners operate 4 speciation monitoring sites as part of the national Chemical Speciation Network, including one Speciation Trends Network (STN) site and three supplemental CSN sites. Monitoring objectives, methods and POCs vary by site and parameter.

Table 19. Washington Chemical Speciation Network monitoring sites

AQS ID	Site Name	CBSA	Established	Type	Scale
530330080	Seattle-Beacon Hill	Seattle-Tacoma-Bellevue, WA	02/2000	Speciation Trends Network (STN)	Urban
530530029	Tacoma-L St	Seattle-Tacoma-Bellevue, WA	01/2006	Supplemental CSN	Neighborhood
530770015	Toppenish-Ward Rd (Yakama Tribe)	Yakima, WA	11/2023	Supplemental CSN	Neighborhood
530770009	Yakima-4th Ave S	Yakima, WA	11/2007	Supplemental CSN	Neighborhood

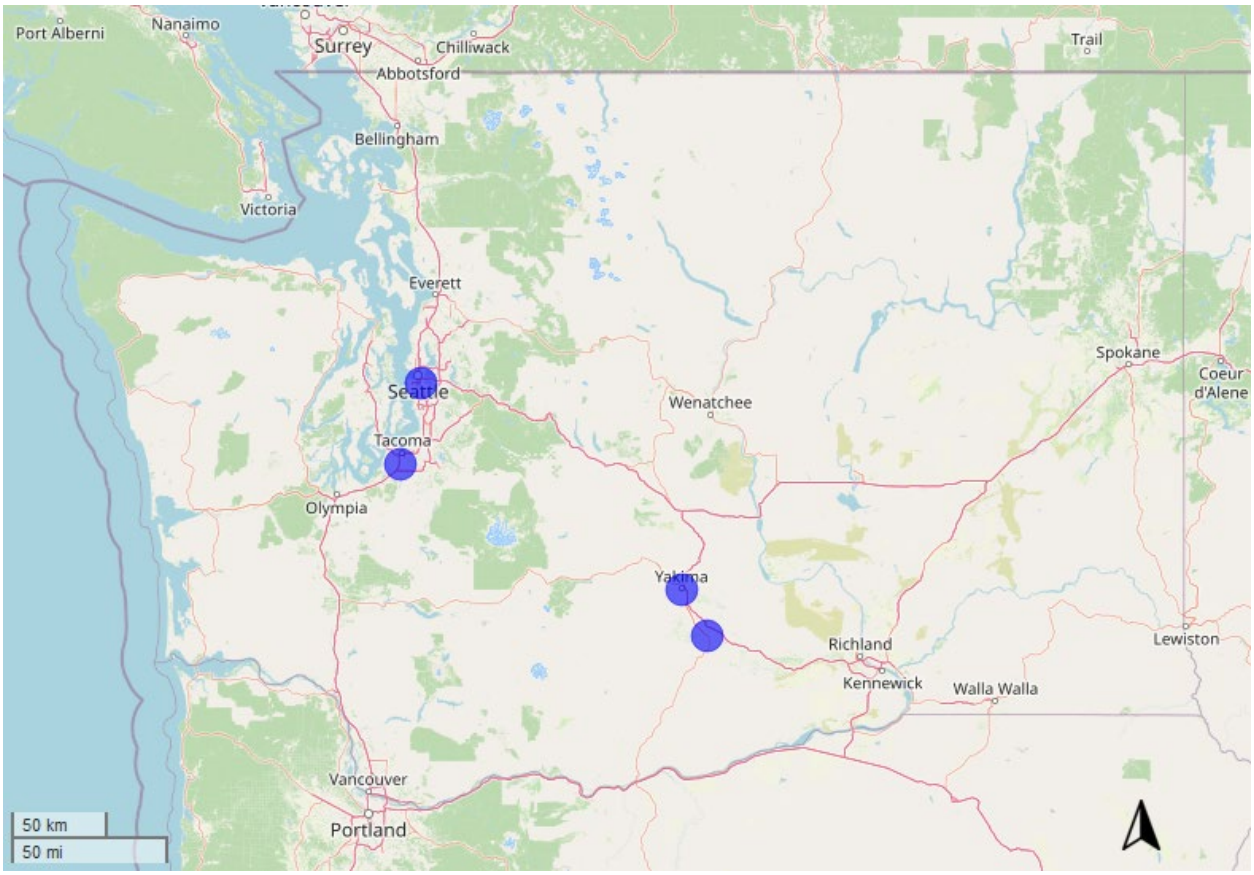


Figure 36. Map of Washington Chemical Speciation Network monitoring sites

Each speciation site samples the following parameters:

Table 20. Chemical Speciation Network monitoring parameters

Code	Parameter	Code	Parameter	Code	Parameter	Code	Parameter
88102	Antimony	88126	Iron	88167	Zinc	88370	OC CSN Rev Unadjusted
88103	Arsenic	88128	Lead	88168	Strontium	88374	OC1 CSN Rev Unadjusted
88104	Aluminum	88131	Indium	88169	Sulfur	88375	OC2 CSN Rev Unadjusted
88107	Barium	88132	Manganese	88176	Rubidium	88376	OC3 CSN Rev Unadjusted
88109	Bromine	88136	Nickel	88180	Potassium	88377	OC4 CSN Rev Unadjusted
88110	Cadmium	88140	Magnesium	88184	Sodium	88378	OP CSN Rev Unadjusted
88111	Calcium	88152	Phosphorus	88185	Zirconium	88380	EC CSN Rev Unadjusted
88112	Chromium	88154	Selenium	88301	Ammonium Ion	88383	EC1 CSN Rev Unadjusted
88113	Cobalt	88160	Tin	88302	Sodium Ion	88384	EC2 CSN Rev Unadjusted
88114	Copper	88161	Titanium	88303	Potassium Ion	88385	EC3 CSN Rev Unadjusted
88115	Chlorine	88164	Vanadium	88306	Total Nitrate	88388	OP CSN Rev Unadjusted
88117	Cerium	88165	Silicon	88355	OC CSN Rev Unadjusted	88403	Sulfate
88118	Cesium	88166	Silver	88357	EC CSN Rev Unadjusted	88502	$PM_{2.5}$ Speciation Mass

Recent modifications

None.

Recommended/proposed modifications

None.

National Core (NCore)

There are two NCore sites in the Washington Network: Seattle-Beacon Hill (530330080) is an urban NCore site in the Seattle-Tacoma-Bellevue, WA CBSA, and Cheeka Peak (530090013) is a rural NCore site in the Port Angeles, WA CBSA. The Cheeka Peak site is currently suspended pending temporary relocation to Bahokas Peak in summer 2025. The parameters monitored at each site are summarized in Table 21. The Olympic Region Clean Air Agency (ORCAA) is funded directly by EPA for operation of the Cheeka Peak NCore site. Per ORCAA's arrangement with EPA, the site does not include FRM/FEM $PM_{2.5}$, $PM_{10-2.5}$ or NO_2 monitoring.

Table 21. NCore parameters monitored at Cheeka Peak and Seattle-Beacon Hill

Parameter	Cheeka Peak (suspended)	Seattle-Beacon Hill
Trace CO (42101)	✓	✓
Trace NO_y (42600)	✓	✓
Area-wide NO_2 (42602)		✓
Ozone (44201)	✓	✓
Trace SO_2 (42401)	✓	✓
Filter-based PM_{10} (81102)		✓
Filter-based $PM_{2.5}$ (88101)	(IMPROVE only)	✓
Continuous FEM $PM_{2.5}$ (88101)		✓
Nephelometer $PM_{2.5}$ (88502)	✓	
Meteorological (61101/61102/61103/61104/62101/64101/62201)	✓	✓
$PM_{2.5}$ speciation	(IMPROVE only)	✓

Parameter	Cheeka Peak (suspended)	Seattle-Beacon Hill
$PM_{10-2.5}$ (86101)		✓

Recommended/proposed modifications

Ecology and ORCAA propose to relocate the Cheeka Peak National Core (NCore) site (530090013) to nearby Bahokas Peak (530090019) in summer 2025 due to an unplanned and protracted loss of electrical power at Cheeka Peak. On February 26, 2025, ORCAA identified an active power outage at the Cheeka Peak site. The Clallam County Public Utility District (PUD) investigated the outage and determined that the power fault occurred in buried, end-of-life power cable, which would require repair by the Federal Aviation Administration (FAA). ORCAA and the Clallam County PUD are not certain whether the FAA will repair the power cable at all, but they expect that if it is repaired, it will likely take a year or longer.

ORCAA identified a suitable alternative site location at nearby Bahokas Peak, approximately 5.5 miles northwest of Cheeka Peak. Bahokas Peak is the site of a regional cellular communications tower and FAA radar station. It has an existing electrical connection sufficient to service the relocated site and is reasonably accessible by road. Like Cheeka Peak, Bahokas Peak is located in a remote, rural, forested area in the absence of nearby sources and greater than 2 miles from the nearest populated area in Neah Bay. Bahokas Peak is approximately 393 meters above sea level, and Cheeka Peak is approximately 482 meters above sea level.

EPA Region 10 monitoring staff visited the current and proposed new sites on April 15, 2025. The purpose of the visit was to meet with ORCAA and Makah Tribe personnel to better understand all the logistical considerations of the site move and to evaluate whether the proposed site could meet regulatory requirements. This additional due diligence is a standard practice for NCore site moves.

Given that electrical power at Cheeka Peak may be restored in the future pending FAA action, Ecology and ORCAA initially propose a temporary, 1-year relocation of Cheeka Peak to Bahokas Peak, from July 2025 through July 2026. Ecology and ORCAA will revisit the NCore site location in the 2026 Ambient Air Monitoring Network Plan with an update on whether relocation back to Cheeka Peak is planned and, if so, an approximate timeline.

Ecology notes that the correct spelling of the Peak and proposed site is *Bahokas* Peak. Some public map products and earlier correspondence may contain an incorrect spelling.

Figure 37. Overhead view of Cheeka Peak in foreground and Bahokas Peak in background.

Proposed site name: Bahokas Peak

Start date: July 2025

AQS ID: 530090019

Street address: The proposed site is located on Bahokas Peak Rd but does not have a street address.

Geographic coordinates: (48.371035, -124.673712)

CBSA represented: Port Angeles µSA

Distance to any obstructions and obstruction height: The proposed site is located approximately 15 meters from an embankment and building. The combined height of the embankment and building is 12 meters. The inlet height is 4.5 meters, so the height difference between the inlet and obstruction height is 7.5 meters, half the distance to the obstruction.

Distance to nearest road: 2.2 miles (WA State Route 112)

Traffic count of nearest road: 880 AADT (2023)

The final site location is pending final approval by the Makah Tribe and may end up within +/- 200 meters of the coordinates provided. The metadata of the final site location will not otherwise differ from the information provided above, and ORCAA will ensure that the final site location meets the Probe and Path Siting Criteria requirements in 40 C.F.R. Part 58, Appendix E.

The parameters measured will be the same as those listed in Table 21 for Cheeka Peak. ORCAA does not anticipate any changes to the measurement methods. The monitoring objective of general/background and the regional measurement scale will remain unchanged from Cheeka Peak. As ORCAA plans to relocate the Cheeka Peak monitoring trailer to Bahokas Peak, the probe heights will be the same as those previously at Cheeka Peak (4.5 meters).

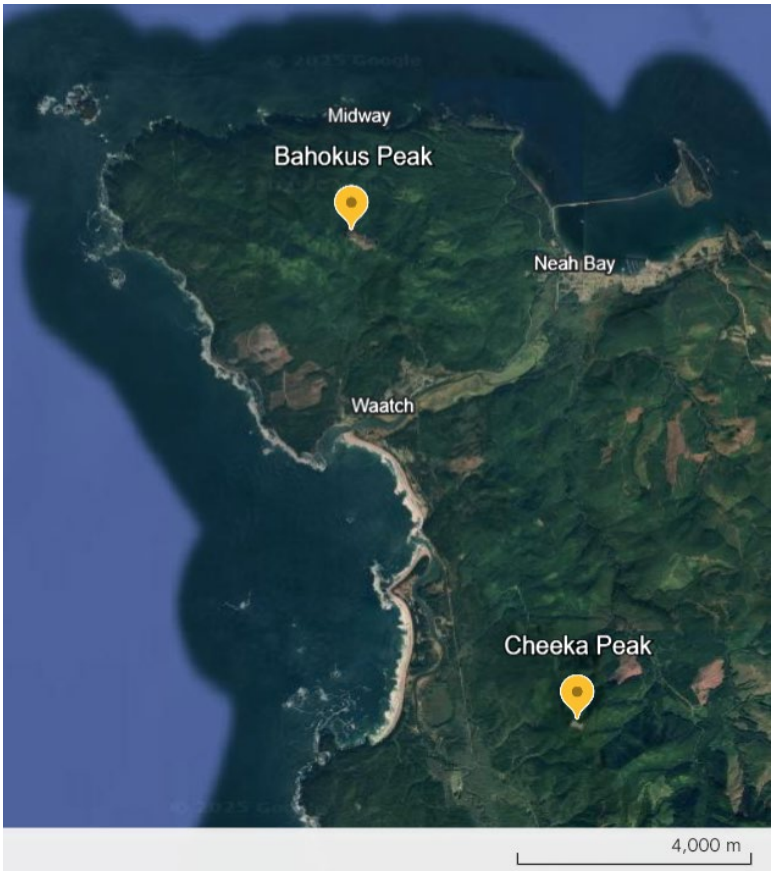


Figure 38. Aerial photo of Bahokas Peak and Cheeka Peak

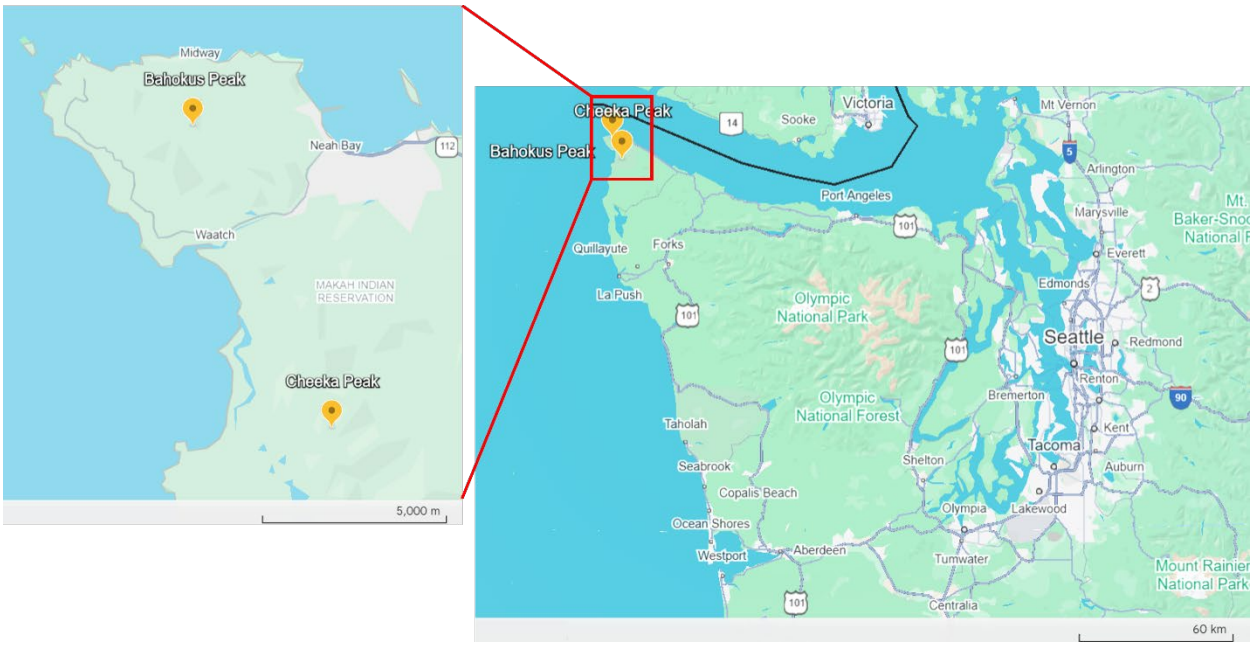


Figure 39. Map of Bahokas Peak and Cheeka Peak

Figure 40. Photo from Bahokas Peak facing north

Figure 41. Photo from Bahokas Peak facing east

Figure 42. Photo from Bahokas Peak facing south

Figure 43. Photo from Bahokas Peak facing west

Figure 44. Photo of proposed Bahokas Peak site.

In Figure 44 above, the proposed site location is the flat area to the right of the truck.

The predominant wind direction in the area is from the west-southwest, with northeast winds also common. A wind rose showing year-round wind patterns observed at Cheeka Peak is shown in Figure 45.

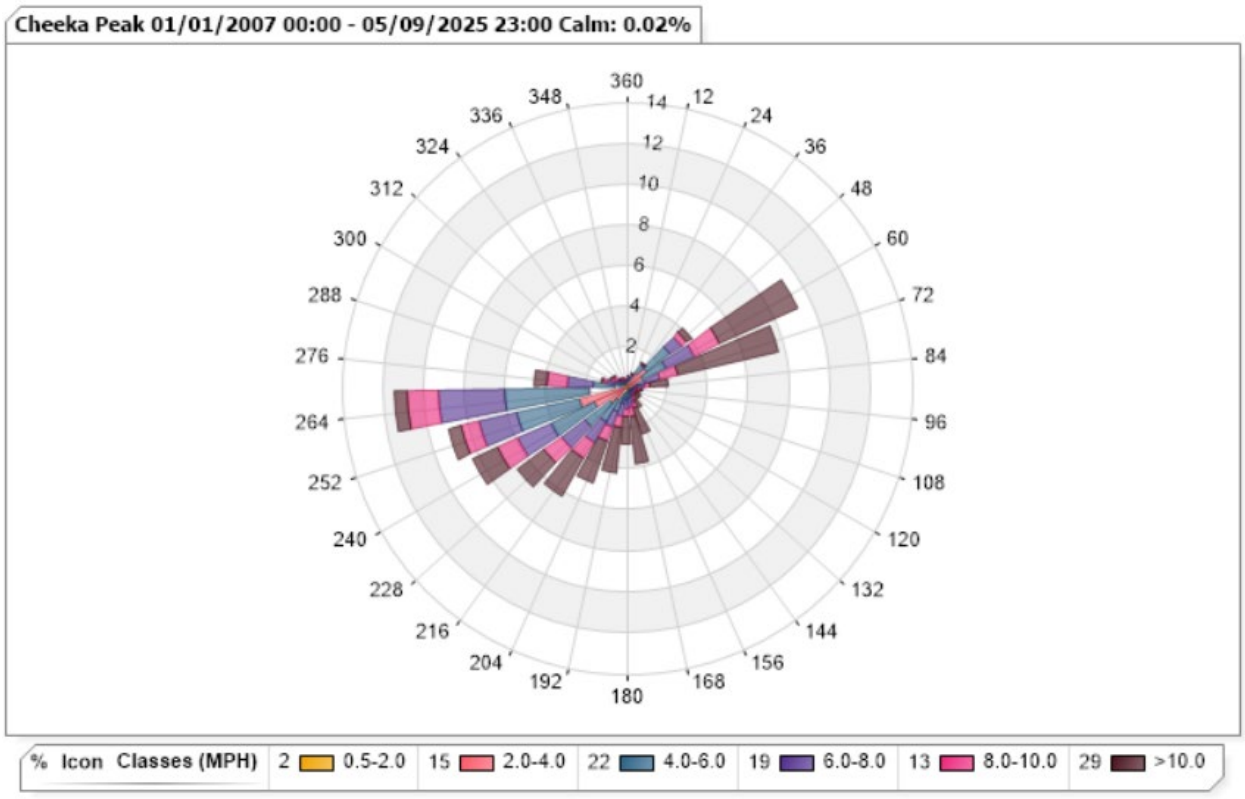


Figure 45. Wind rose showing year-round wind patterns at Cheeka Peak

Ecology requests approval for this relocation as provided for in 40 C.F.R. Part 58.14 (c)(6): "A SLAMS monitor not eligible for removal under any of the criteria in paragraphs (c)(1) through (c)(5) of this section may be moved to a nearby location with the same scale of representation if logistical problems beyond the State's control make it impossible to continue operation at its current site." Ecology notes that of the criteria provided in 40 C.F.R. Part 58.14 (c), (6) is most suitable for this request because this proposal is a site relocation due to logistical problems beyond the state's control. However, the description "A SLAMS monitor not eligible for removal under any of the criteria in paragraphs (c)(1) through (c)(5) of this section" does not apply to Cheeka Peak.

Seattle-Beacon Hill: Ecology is planning a slight relocation of the Seattle-Beacon Hill site (530330080) within Jefferson Park to a new location approximately 290 meters northwest of the current location during winter 2025-2026. The new location is the original location of the Seattle-Beacon Hill site before it was relocated to its current location in 2006. The new (original) location meets all Probe and Path Siting Criteria requirements in 40 C.F.R. Part 58, Appendix E. The only obstacles in its vicinity are a cluster of 3 evergreen trees approximately 10 meters tall whose dripline is approximately 20 meters from the new site, and a small utility building approximately 5 meters tall and 20 meters from the new site. According to the criteria provided in 40 C.F.R. Part 58, Appendix E, neither is considered an obstruction that restricts airflow to the monitoring path based on its height and distance. There are no other obstacles

near the site, and thus the arc of unrestricted airflow around the relocated probes will be greater than the required 270 degrees.

An aerial photo of the new and existing Seattle-Beacon Hill site locations is shown in Figure 46.
Aerial photo of new and existing Seattle-Beacon Hill site location

Figure 46. Aerial photo of new and existing Seattle-Beacon Hill site location

Since the site will be retaining the same site address and AQS ID, and there are no changes to its adherence to the Probe and Path Siting Criteria in 40 C.F.R. Part 58, Appendix E, Ecology understands that this is not considered a site relocation requiring formal approval by EPA Region 10.

National Air Toxics Trends Station (NATTS)

Seattle-Beacon Hill (530330080) is a National Air Toxics Trends Station (NATTS) as well as a CSN, NCore and SLAMS site.

Photochemical Assessment Monitoring Station (PAMS)

Ecology is required to conduct PAMS measurements at the Seattle-Beacon Hill NCore site (530330080), as PAMS measurements are required at each NCore site in a core-based statistical

area (CBSA) with population 1,000,000 or more (40 C.F.R. Part 58 Appendix D), which applies to the Seattle-Tacoma-Bellevue, WA CBSA.

The following PAMS parameters are monitored at Seattle-Beacon Hill:

- Hourly averaged VOCs
- Three 8-hour average carbonyl samples per day on a 1/3 schedule
- Hourly averaged O_3
- Hourly averaged NO, true nitrogen dioxide (NO_2), and total reactive nitrogen (NO_y)
- Hourly averaged ambient temperature
- Hourly vector-averaged wind direction
- Hourly vector-averaged wind speed
- Hourly average atmospheric pressure
- Hourly averaged relative humidity
- Hourly precipitation
- Hourly averaged mixing height

Monitoring for all PAMS parameters except hourly speciated VOCs began by June 1, 2021. Hourly VOC monitoring began on August 26, 2021, was suspended for the 2022 PAMS season, and resumed on June 1, 2023.

In November 2020, EPA approved a waiver request to collect the required solar and ultraviolet radiation parameters at the Seattle-Duwamish site (530330057) as an alternative location due to the lack of suitable space for those measurements at Seattle-Beacon Hill. This waiver is included in Appendix B. Monitoring for these parameters at Seattle-Duwamish also began by June 1, 2021.

Recommended/proposed modifications

As described in the NCore section above, Ecology is planning a slight relocation of the Seattle-Beacon Hill site within Jefferson Park to a new location approximately 300 meters northeast of the current location. Once the site is relocated, there will be sufficient space to relocate solar and ultraviolet radiation monitoring to Seattle-Beacon Hill from Seattle-Duwamish. Ecology expects to relocate monitoring for these parameters prior to the start of the 2026 PAMS season and does not expect to renew the solar and ultraviolet radiation monitoring waiver referenced above.

References

Ambient Air Monitoring Reference and Equivalent Methods, 40 C.F.R. Part 53, 2024.

Ambient Air Quality Surveillance, 40 C.F.R. Part 58, 2024.

Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD), EPA-450/4-87-007, May 1987.

National Primary and Secondary Ambient Air Quality Standards, 40 C.F.R. Part 50, 2024.

U.S. Census Bureau. "State-based Metropolitan and Micropolitan Statistical Areas Maps." https://www.census.gov/geographies/reference-maps/2020/demo/state-maps.html (February 2022).

U.S. Census Bureau. "Metropolitan and Micropolitan Statistical Areas Population Totals: 2020-2024." https://www.census.gov/data/tables/time-series/demo/popest/2020s-total-metro-and-micro-statistical-areas.html (March 2025).

U.S. EPA. "Ambient Air Monitoring Network Assessment Guidance." https://www.epa.gov/sites/default/files/2020-01/documents/network-assessment-guidance.pdf (February 2007).

Appendices

Appendix A. Criteria Pollutant Design Values

Tables 22-28 show criteria pollutant design values for all sites in the Washington Network.

Table 22. Carbon monoxide (CO) 2024 design values

Site	AQS ID	2024 Exceedances
Cheeka Peak	530090013	0
Seattle 10th & Weller	530330030	0
Seattle Beacon Hill	530330080	0

Table 23. Nitrogen dioxide (NO_2) 2024 design values (ppb)

Site	AQS ID	2022 98th Percentile	2023 98th Percentile	2024 98th Percentile	2024 Design Value
Seattle 10th & Weller	530330030	54.0	50.4	46.7	50
Seattle Beacon Hill	530330080	43.0	42.0	40.3	42
Tacoma S 36th	530530024	39.0	36.9	44.2	40

Table 24. Ozone (O_3) 2024 design values (ppm)

Site	AQS ID	2022 4th Highest D8M	2023 4th Highest D8M	2024 4th Highest D8M	2024 Design Value
Anacortes 202 Avenue	530570011	0.057	0.046	0.040	0.047
Cheeka Peak	530090013	0.050	0.050	0.048	0.049
Cheney Turnbull	530630001	0.056	0.059	0.061	0.058
Custer Loomis	530730005	0.048	0.055	0.051*	0.051*
Enumclaw Mud Mtn	530330023	0.075	0.068	0.070	0.071
Issaquah Lake Sammamish	530330010	0.065	0.056	0.059	0.060
Kennewick S Steptoe St	530050003	0.064	0.067	0.067	0.066
Lacey College St	530670013	0.055	0.055	0.054	0.054
Mt Rainier Jackson Visitors Ctr	530530012	0.060	0.057	0.058	0.058
North Bend North Bend Way	530330017	0.067	0.066	0.057	0.063
Seattle Beacon Hill	530330080	0.047	0.049	0.048	0.048
Spokane Greenbluff	530630046	0.061	0.062	0.066	0.063
Vancouver Blairmont Dr	530110011	0.056*	0.062	0.063	0.060*

D8M is the daily maximum 8-hour average concentration.
*indicates design value is not valid due to missing data.

Table 25. Sulfur dioxide (SO_2) 2024 design values (ppb)

Site	AQS ID	2022 99th Percentile	2023 99th Percentile	2024 99th Percentile	2024 Design Value
Anacortes 202 Ave	530570011	1.8*	3.9	3.3*	3*
Cheeka Peak	530090013	0.5	1.0	0.8	1
Ferndale-Kickerville Rd	530730013	3.1	4.4	2.7	3
Ferndale-Mountain View Rd	530730017	3.3	4.4	3.2	4
Seattle-Beacon Hill	530330080	3.4	2.6	2.0	3

*indicates design value is not valid due to missing data.

Table 26. $PM_{2.5}$ 2024 24-hour design values and pseudo-design values ($\mu g/m^3$)

Design values from FEM and FRM monitors are in bold. Other values are estimated DVs from non-regulatory monitors.

Site	AQS ID	2022 98th Percentile	2023 98th Percentile	2024 98th Percentile	2024 Design Value
Aberdeen-Division St	530272002	12.8	13.1	8.2	11
Anacortes-202 O Ave	**530570011**	**13.9**	**12.3**	**9.4**	**12**
Auburn-29th Street	530330047	38.5	17.4	16.0	24
Bellevue-SE 12th St	530330031	29.5	13.2*	7.9	17*
Bellingham-Pacific St	**530730019**	**35.0***	**12.4**	**11.1**	**20***
Bremerton-Spruce Ave	**530350007**	**19.6**	**18.9**	**10.6**	**16**
Cheeka Peak	530090013	16.1	5.7	5.1	9
Chehalis-Market Blvd	530410004	37.1	18.6	13.7	23
Chelan-Woodin Ave	530070007	26.7	24.4	32.0	28
Clarkston-13th St	530030004	33.1	32.3	32.0	32
Colville-E 1st St	**530650005**	**31.4**	**31.4**	**22.1**	**28**
Darrington-Fir St	**530610020**	**69.4**	**22.4**	**14.6**	**35**
Dayton-W Main St	530130002	17.3	16.5	14.1	16
Ellensburg-Ruby St	**530370002**	**25.1**	**18.4**	**14.7**	**19**
Kennewick-Metaline	530050002	17.1	16.1	15.5	16
Lacey-College St	530670013	20.1	11.9	13.4	15
LaCrosse-Hill St	530750005	13.6*	17.8	14.0	15*
Lake Forest Park Town Center	530330024	33.3	16.7	13.8	21
Leavenworth-Evans St	530070010	64.4	19.7	13.0	32
Longview-30th Ave	530150015	21.6	15.3	12.3	16
Marysville-7th Ave	**530611007**	**38.1**	**25.5**	**21.5**	**28**
Mesa-Pepiot Way	530210002	21.1	21.5	16.8	20
Moses Lake-Balsam St	530251002	24.4	20.8	15.3	20
Mt Vernon-S Second St	530570015	28.1	12.3	7.2	16
Neah Bay Makah Tribe	530090015	12.2	12.8	6.4	10
North Bend-North Bend Way	530330017	32.0	11.2	9.3	18
Omak-Colville Tribe	**530470013**	**31.0**	**51.2**	**24.5**	**36**

Site	AQS ID	2022 98th Percentile	2023 98th Percentile	2024 98th Percentile	2024 Design Value
Pomeroy-Pataha St	530230001	17.8	14.8	17.7	17
Port Angeles- E 5th St	530090017	20.5	15.8	13.7	17
Port Townsend-San Juan Ave	530310003	13.6	10.9	9.3	11
Prosser-Highland Dr	530050004	21.7*	20.1	23.7*	22*
Pullman-Dexter SE	530750003	21.7	20.2	19.7	21
Quincy-3rd Ave NE	530251003	19.8	21.4	12.9	18
Raymond-4th St	530490003	NA	11.9*	6.5	9*
Ritzville-Alder St	530010003	17.3	21.2	14.0	18
Rosalia-Josephine St	530750006	18.6	22.8	17.2	20
Seattle-10th & Weller	**530330030**	**29.7***	**19.1**	**15.8**	**22***
Seattle-Beacon Hill	**530330080**	**27.7**	**19.4**	**12.0**	**20**
Seattle-Duwamish	**530330057**	**27.6**	**22.7**	**16.5**	**22**
Seattle-South Park	530331011	31.1	20.8	15.7	23
Shelton-W Franklin	530450007	23.9	17.2	12.6	18
Spokane Valley-E Broadway Ave	**530630017**	**29.7**	**24.7**	**21.4**	**25**
Spokane-E Sprague Ave	530630054	NA	NA	23.6*	24*
Spokane-Monroe St	530630047	26.3	25.1	20.9	24
Sunnyside-S 16th St	**530770005**	**NA**	**29.5***	**25.2**	**27***
Tacoma-Alexander Ave	**530530031**	**33.6**	**20.9**	**20.2**	**25**
Tacoma-L Street	**530530029**	**38.1**	**28.5**	**19.0**	**29**
Tacoma-S 36th St	**530530024**	**30.7**	**21.5**	**14.9**	**22**
Taholah-Quinault Tribe	530270011	11.4	13.9	9.9*	12*
Toppenish-Yakama Tribe	**530770015**	**29.2**	**26.1**	**30.6**	**29**
Tukwila Allentown	**530330069**	**30.5**	**24.2**	**18.7**	**24**
Tulalip-Totem Beach Rd	530610021	14.9*	4.1	4.0*	8*
Twisp-Lincoln St/Ewell St	530470009	27.5	21.7	18.9	23
Vancouver-NE 84th Ave	**530110024**	**29.4**	**25.4**	**16.6**	**24**
Walla Walla-12th St	530710005	21.5	17.9	20.8	20
Wellpinit-Spokane Tribe	530650002	21.4	27.0	19.3	23
Wenatchee-Fifth St	530070011	70.9	19.9	16.8*	36*
Yacolt-Yacolt Rd	530110022	23.6	16.9	14.8	18
Yakima-4th Ave	**530770009**	**29.4**	**25.4**	**26.4**	**27**

* indicates design value is not valid due to missing data.

Table 27. $PM_{2.5}$ 2024 annual design values and pseudo-design values

Design values from FEM and FRM monitors are in bold. Other values are pseudo-DVs from non-regulatory monitors.

Site	AQS ID	2022 Annual Mean	2023 Annual Mean	2024 Annual Mean	2024 Design Value
Aberdeen-Division St	530272002	4.592	4.325	3.560	4.2
Anacortes-202 O Ave	**530570011**	**5.635**	**5.278**	**4.341**	**5.1**
Auburn-29th Street	530330047	8.882	6.930	5.987	7.3
Bellevue-SE 12th St	530330031	4.922	3.618*	2.861	3.8*
Bellingham-Pacific St	**530730019**	**6.098***	**4.966**	**5.610**	**5.6***
Bremerton-Spruce Ave	**530350007**	**6.363**	**4.905**	**3.913**	**5.1**

Site	AQS ID	2022 Annual Mean	2023 Annual Mean	2024 Annual Mean	2024 Design Value
Cheeka Peak	530090013	2.570	1.900	1.379	1.9
Chehalis-Market Blvd	530410004	7.859	5.669	4.529	6.0
Chelan-Woodin Ave	530070007	6.001	6.268	5.470	5.9
Clarkston-13th St	530030004	10.705	10.379	10.001	10.4
Colville-E 1st St	**530650005**	**8.926**	**10.113**	**6.918**	**8.7**
Darrington-Fir St	**530610020**	**12.169**	**4.226**	**4.387**	**6.9**
Dayton-W Main St	530130002	5.446	6.220	3.972	5.2
Ellensburg-Ruby St	**530370002**	**7.067**	**6.487**	**4.697**	**6.1**
Kennewick-Metaline	530050002	5.547	6.574	4.432	5.5
Lacey-College St	530670013	5.012	4.104	3.773	4.3
LaCrosse-Hill St	530750005	4.299*	5.668	4.041	4.7*
Lake Forest Park Town Center	530330024	7.893	6.130	4.818	6.3
Leavenworth-Evans St	530070010	10.783	7.189	4.652	7.5
Longview-30th Ave	530150015	5.389	4.929	4.525	4.9
Marysville-7th Ave	**530611007**	**9.119**	**8.450**	**7.880**	**8.5**
Mesa-Pepiot Way	530210002	5.832	7.658	4.579	6.0
Moses Lake-Balsam St	530251002	7.036	7.658	5.393	6.7
Mt Vernon-S Second St	530570015	5.721	4.309	2.867	4.3
Neah Bay Makah Tribe	530090015	3.936	3.995	3.078	3.7
North Bend-North Bend Way	530330017	5.531	3.205	3.001	3.9
Omak-Colville Tribe	**530470013**	**10.286**	**11.790**	**8.264**	**10.1**
Pomeroy-Pataha St	530230001	5.301	4.278	4.262	4.6
Port Angeles- E 5th St	530090017	7.005	6.717	5.977	6.6
Port Townsend-San Juan Ave	530310003	4.779	4.611	4.211	4.5
Prosser-Highland Dr	530050004	9.198*	7.316	5.415*	7.3*
Pullman-Dexter SE	530750003	5.677	5.200	4.411	5.1
Quincy-3rd Ave NE	530251003	5.539	5.817	3.364	4.9
Raymond-4th St	530490003	NA	4.131*	3.024	3.6*
Ritzville-Alder St	530010003	4.970	5.760	4.184	5.0
Rosalia-Josephine St	530750006	5.730	6.934	4.578	5.7
Seattle-10th & Weller	**530330030**	**10.530***	**7.856**	**6.472**	**8.3**
Seattle-Beacon Hill	**530330080**	**7.016**	**6.022**	**4.194**	**5.7**
Seattle-Duwamish	**530330057**	**8.781**	**7.746**	**6.470**	**7.7**
Seattle-South Park	530331011	9.521	8.149	7.176	8.3
Shelton-W Franklin	530450007	6.133	5.596	4.263	5.3
Spokane Valley-E Broadway Ave	**530630017**	**7.732**	**7.718**	**5.807**	**7.1**
Spokane-E Sprague Ave	530630054	NA	NA	5.213*	5.2*
Spokane-Monroe St	530630047	7.226	8.529	6.040	7.3
Sunnyside-S 16th St	**530770005**	**NA**	**9.051***	**6.794**	**7.9***
Tacoma-Alexander Ave	**530530031**	**8.563**	**7.260**	**7.329**	**7.7**
Tacoma-L Street	**530530029**	**8.704**	**7.175**	**5.105**	**7.0**
Tacoma-S 36th St	**530530024**	**8.340**	**6.432**	**4.710**	**6.5**
Taholah-Quinault Tribe	530270011	3.383	4.164	3.727*	3.8*
Toppenish-Yakama Tribe	**530770015**	**9.626**	**9.461**	**7.611**	**8.9**
Tukwila Allentown	**530330069**	**8.106**	**7.505**	**6.844**	**7.5**
Tulalip-Totem Beach Rd	530610021	4.274*	1.494	1.510*	2.4*
Twisp-Ewell St/Lincoln St	530470016	8.910	7.849	5.981	7.6

Site	AQS ID	2022 Annual Mean	2023 Annual Mean	2024 Annual Mean	2024 Design Value
Vancouver-NE 84th Ave	**530110024**	**7.701**	**6.397**	**4.446**	**6.2**
Walla Walla-12th St	530710005	6.198	6.798	5.376	6.1
Wellpinit-Spokane Tribe	530650002	4.722	5.977	4.286	5.0
Wenatchee-Fifth St	530070011	10.207	7.202	5.192*	7.5*
Yacolt-Yacolt Rd	530110022	5.773	4.959	3.864	4.9
Yakima-4th Ave	**530770009**	**9.136**	**8.791**	**7.131**	**8.4**

* indicates design value is not valid due to missing data.

Table 28. PM_{10} 2024 design values

Site	AQS ID	2022 Expected Exceedances	2023 Expected Exceedances	2024 Expected Exceedances	3-Year Estimated Exceedances
Burbank-Maple St	530710006	0	3	0	1
Cheney-Turnbull	530630001	0	2.1	0	0.7
Colville-E 1st St	530650005	0	2	0	0.7
Everett-Beverly Park Rd	530610022	NA	NA	0*	0*
Kennewick-Metaline	530050002	0	3	0	1
Seattle-Beacon Hill	530330080	0*	0*	0	0*
Seattle-Duwamish	530330057	NA	NA	0*	0*
Spokane Valley-E Broadway Ave	530630021	0	2	0	0.7
Yakima-4th Ave S	530770009	0	2.1	0	0.7

* indicates design value is not valid due to missing data.

Appendix B. Monitoring Waivers

Spokane CO

On July 14, 2016, Federal Register #81 FR 45417, EPA approved an alternate method of verification of attainment of the CO NAAQS in Spokane and qualification for the limited maintenance plan option under 40 C.F.R. Part 58.14(c) in the Spokane Maintenance Area. Under this alternative, EPA considers the limited maintenance plan criteria met and continued verification of attainment of the CO NAAQS if the total of the three predominant CO emission source categories calculated as part of the triennial emissions inventory (onroad mobile, nonroad, and residential wood combustion) remain below the corresponding total of the 2002 emission inventory source categories approved at the time the Spokane area was redesignated to attainment. SRCAA and Ecology will compare future year 2017, 2020 and 2023 triennial emission analysis results to the baseline 2002.

Kennewick-Richland and Spokane-Spokane Valley PM_{10}

REGION 10
SEATTLE, WA 98101

February 12, 2025

Ms. Jill Schulte
Ambient Air Monitoring Coordinator
Department of Ecology
State of Washington
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Schulte:

The U.S. Environmental Protection Agency (EPA), Region 10 (R10) evaluated the Washington Department of Ecology's 2024 Annual Monitoring Network Plan (ANP) received June 28, 2024. By this letter, R10 documents its findings from the review, provides suggestions for continued improvement, and approves the State of Washington's 2024 ANP.

We appreciate the detail with which Ecology has documented network modification and the work Ecology and Local Air Agency staff have put into maintaining and improving the monitoring network. Notable improvements include establishing a new $PM_{2.5}$ State and Local Air Monitoring Station (SLAMS) sites at SeaTac, a new $PM_{2.5}$ Tribal site in Wapato, as well as three new $PM_{2.5}$ Special Purpose Monitoring (SPM) sites. Additionally, we understand Ecology plans to further expand Washington's regulatory monitoring network in coming years: a new ozone monitoring site in the Kennewick-Richland metropolitan statistical area (MSA) and new $PM_{2.5}$ monitoring sites in Liberty Lake, Friday Harbor, and Oak Harbor. We also appreciate Ecology providing detailed and timely information to EPA regarding the operation and performance of the supplemental SensWA instruments.

Thank you for documenting monitoring waivers for carbon monoxide (CO), PM_{10}, PAMS solar and ultraviolet radiation, and ozone (O_3) in Appendix B. We remind Ecology that these waivers will need to be revisited every five years. Thank you for submitting a waiver renewal request for PM_{10} minimum monitoring requirements for the Kennewick-Richland core-based statistical area (CBSA) on April 11, 2024. R10 provides our formal response to that request in this letter.

Thank you for submitting the Verification of Continued Attainment in Limited Maintenance Areas with the ANP. We also appreciate the inclusion of the Memorandum of Understanding (MOU) between Ecology and the Oregon Department of Environmental Quality (ODEQ) as Appendix E. This MOU formally establishes that the minimum monitoring requirements for the Portland-Vancouver-Hillsboro core-based statistical area (CBSA) are jointly met by the two agencies. This MOU was reaffirmed and resigned by Ecology and ODEQ in April 2024 and is valid through 2029.

We approve the following network modifications laid out in the ANP:

1. Establishing a new $PM_{2.5}$ SLAMS site at SeaTac Sunset Park (AQS-ID: 53-033-0040) by the end of 2024. Thank you for providing documentation on the site, including: a map and aerial image, photos facing the cardinal directions, and diagram of the site layout and nearby obstructions. The information you provided on the proposed site meets the requirements of 40 C.F.R. 58.10(a) and (b).

   While the addition of this site to the Seattle-Tacoma-Bellevue MSA is in excess of the minimum monitoring requirements for the MSA, the monitoring site will provide additional air quality information in an at-risk community close to a major airport. We appreciate that this addition aligns with the modified EPA air monitoring network design criteria set out in 40 C.F.R Part 58, Appendix D, § 4.7.1(b)(3).

2. Upgrading the Lacey-College St. $PM_{2.5}$ SLAMS (AQS-ID: 53-067-0013) from non-regulatory (88502 POC 8) to regulatory FEM (88101 POC 8) on January 1, 2025. Thank you for providing information on the proposed site per the requirements of 40 C.F.R. 58.10(a) and (b). While the addition of this site to the Olympia-Lacey-Tumwater MSA is in excess of the minimum monitoring requirements for the MSA, we agree it is valuable to have a regulatory $PM_{2.5}$ monitor in the Olympic Region Clean Air Agency's jurisdiction.

3. Establishing a PM_{10} SLAMS regulatory monitor at the Seattle-Duwamish site (AQS-ID: 53-033-0057). This addition is part of the expanded monitoring funded by Washington. The information you provided on the proposed monitor siting and reporting details meets the requirements of 40 C.F.R. 58.10(a) and (b). With the addition of this monitor, the Seattle-Tacoma-Bellevue CBSA now meets the minimum monitoring requirements for PM_{10}. Renewal of the PM_{10} monitoring waiver for this CBSA, which expires in 2025, is no longer necessary.

4. Discontinuation of the Cheney-Turnbull PM_{10} SLAMS monitor (AQS-ID: 53-063-0001). Ecology designated this PM_{10} monitor as a SLAMS site in 2021. R10 requested this change in the 2019 ANP response as part of the agreement on minimum monitoring requirements for the Spokane-Spokane Valley MSA. While the site was originally established for the purpose of providing regional background PM_{10} (per the 2019 waiver request), impacts from an adjacent unpaved road mitigate the usefulness of the monitoring data and violate the requirements of 40 C.F.R. Part 58, Appendix E, § 3(a).

   We approve the discontinuation per 40 C.F.R. 58.14(c)(2). Ecology provided data showing the Cheney-Turnbull PM_{10} monitor has consistently measured lower concentrations than the other PM_{10} monitors in the Spokane-Spokane Valley MSA during the previous five years. The monitor is not specifically required by an attainment or maintenance plan. The Spokane-Spokane Valley MSA meets minimum monitoring requirements for PM_{10} with the updated waiver approved below.

5. Updating the waiver for the PM_{10} minimum monitoring requirements in the Spokane-Spokane Valley CBSA from three required monitors to two. R10 waived the requirement for a fourth PM_{10} SLAMS site in this area in the 2019 ANP response letter. With the addition of the Cheney-Turnbull PM_{10} SLAMS site, the area had three SLAMS sites. In the 2024 ANP, Ecology provided information supporting the discontinuation of the Cheney-Turnbull site and evidence that two PM_{10} SLAMS sites in the MSA are sufficient to protect public health and to characterize regional PM_{10} air quality trends:
   a. The $PM_{2.5}$ and PM_{10} monitoring network is sufficient to protect public health without the Cheney-Turnbull site. The only days with high PM_{10} levels were due to region-wide wildfire smoke. During these events, the Air Quality Index (AQI) for $PM_{2.5}$ levels was higher than the AQI based on PM_{10}. Additional analysis showed that PM_{10} was highly correlated with $PM_{2.5}$ during these events, and that the 24-hour $PM_{2.5}$ NAAQS would be exceeded before PM_{10} levels approached their standard.

b. The Cheney-Turnbull monitor is not needed for verifying continued attainment in a maintenance area. The Spokane Valley – E Broadway Ave SLAMS site is the required monitor for demonstrating continued attainment of the PM_{10} standard for the Spokane County Maintenance Area; the other two monitors in the CBSA are outside of the Maintenance Area boundary.

40 C.F.R. Part 58, Subpart D, § 4.6(a) notes, "because sources of pollutants and local control efforts can vary from one part of the country to another[,] some flexibility is allowed in selecting the actual number of stations in any one locale." In addition, that section allows the Regional Administrator to approve modifications from the minimum monitoring requirements. For the reasons stated above and pursuant to 40 C.F.R. Part 58, Appendix D, § 4.6(a), EPA approves Ecology's request to update the waiver to only require two PM_{10} SLAMS sites for the Spokane-Spokane Valley CBSA. This PM_{10} network size waiver for reducing the monitoring requirements in the Spokane-Spokane Valley MSA to two stations is in effect for five years from the date of this correspondence. Additionally, changes to the air quality concentrations in the Spokane-Spokane Valley MSA may warrant modifying this waiver in the future.

6. Renewal of waiver for PM_{10} minimum monitoring requirements in the Kennewick-Richland MSA. R10 approved a waiver for the PM_{10} minimum monitoring requirements for this area on April 18, 2019, effective for five years. The waiver reduced the required number of PM_{10} monitors from 3-4 to one. Ecology submitted an updated waiver request on April 11, 2024 (see Enclosure 2). The waiver request documented that PM_{10} conditions in the MSA are similar to those documented in 2019: the only high PM_{10} levels observed by the monitor in the MSA are due to widespread windblown dust or wildfire smoke exceptional events that are captured by the current PM10 monitor in the MSA. By this letter, R10 approves the renewal of the waiver for PM_{10} minimum monitoring requirements for the Kennewick-Richland MSA for another five years.

7. Discontinuation of the Ferndale-Mountain View Rd (AQS-ID: 53-073-0017) and Ferndale Kickerville Rd (53-073-0013) SO_2 monitors after December 31, 2024. Thank you for providing background information on the establishment of these source-oriented monitoring sites, the area's designation as non-attainment, the curtailment of the facility, and the SO_2 levels measured at these sites before and after curtailment. We are also aware that the facility permanently shut down in 2023, and their Title V Air Operating Permit was terminated. The State Implementation Plan (SIP), entitled: "Redesignation to Attainment and 1st 10-year Maintenance Plan for the Intalco-Ferndale Sulfur Dioxide Nonattainment Area" (hereafter "SO_2 Maintenance Plan"), was submitted to EPA in the summer of 2024. The EPA's final approval of the SO_2 Redesignation and Maintenance Plan was signed by the R10 Deputy Regional Administrator on December 11, 2024 and published in the Federal Register on December 17, 2024[1]. EPA's action became effective on January 16, 2025.

   We agree that these monitors meet the requirements for discontinuation set out in 40 C.F.R. 58.14(c)(3). Both monitors are expected to have a record of five years without a violation of the NAAQS (2020-2024) upon certification of the 2024 data in early summer of 2025. The submitted SO_2 Maintenance Plan specifies using emissions inventories and modeling as the specific, reproducible approach to represent the air quality of the area.

Thank you for including details on the following network modifications completed in Washington in the period between ANP reports (July 2023 – July 2024) that do not require approval:

1. Establishing a supplemental chemical speciation network (CSN) station site at Toppenish-Ward Rd (AQS-ID: 53-077-0015) as of November 2, 2023. Ecology discontinued CSN sampling at the Seattle 10th &

[1] 89 FR 101896, https://www.govinfo.gov/content/pkg/FR-2024-12-17/pdf/2024-29575.pdf

Weller near-road site in 2022 and coordinated with EPA and the Yakama Nation to identify a suitable CSN site in the Lower Yakima Valley.

2. Discontinuation of the collocated $PM_{2.5}$ federal reference method (FRM) monitors at the Seattle-Duwamish SLAMS site (AQS-ID: 53-033-0057) and designation of the site's BAM 1020 federal equivalent method (FEM) as the primary monitor as of December 31, 2023. This modification was approved in the 2023 ANP response. Thank you for confirming this modification in the 2024 ANP.

3. Reduction of the sampling frequency of the collocated $PM_{2.5}$ FRM at the Yakima 4th Ave SLAMS site (AQS-ID: 53-077-0009) from 1-in-3 to 1-in-6 as of December 31, 2023. This modification was approved in the 2023 ANP response. Thank you for confirming this modification in the 2024 ANP.

4. Updating the method used to monitor PM_{10} at the Seattle-Beacon Hill SLAMS station (AQS-ID: 53-033-0080) from filter-based to a continuous BAM 1020 (81102 POC 5). This update means Ecology is no longer deficient in the PM_{10} collocation requirements of 40 C.F.R. Part 58 Appendix A, as noted in the 2023 ANP response. Thank you for documenting this update in the 2024 ANP.

5. Changes to Special Purpose Monitoring Sites (SPMs). Per the requirements of 40 C.F.R. 58.10(a)(1) and (2), details on SPMs must be included in the ANP.
   a. Establishing new FEM $PM_{2.5}$ and PM_{10} monitors at Everett-Beverly Park Road (AQS-ID: 53-061-0022) on June 17, 2024. Ecology established this site as part of the expansion of monitoring funded by Washington.
   b. Establishing a new non-regulatory $PM_{2.5}$ monitor at Spokane-E Sprague Ave (AQS-ID: 53-063-0054) on January 24, 2024. This site is also part of the expansion of monitoring funded by Washington.
   c. Establishing a new non-regulatory $PM_{2.5}$ monitor at the Raymond 4th St monitoring site (AQS-ID: 53-049-0003) on October 1, 2023.
   d. Discontinuation the non-regulatory $PM_{2.5}$ SPM at Winthrop-Chewuch Rd (AQS-ID: 53-047-0010) on April 30, 2024. Discontinuing SPM sites does not require prior approval from EPA per 40 C.F.R 58.20(f).
   e. Relocation of the non-regulatory $PM_{2.5}$ SPM in Twisp due to construction from Ewell St (AQS-ID: 53-047-0016) to S Lincoln St (AQS-ID: 53-047-0009) on June 3, 2024.
   f. Establishing a new FEM nitrogen dioxide (NO_2) monitor at the Seattle-Duwamish site (AQS-ID: 53-033-0057). This addition was planned to occur on October 1, 2024. This site is also part of the expansion of monitoring funded by Washington.

   We remind Ecology that any SPM data collected by FEMs must be submitted to the Air Quality System (AQS) database per 40 C.F.R. 58.20(b). Additionally, all data from an SPM using an FRM or FEM which has operated for more than 24 months are eligible for comparison to the relevant NAAQS, per 40 C.F.R. 58.20(c). If Ecology wishes to redesignate any of these SPM sites as SLAMS, a formal request with the information required in 40 C.F.R. 58.10(b) must be provided in a future ANP.

Thank you for including details on the following network modifications planned for the next 18 months which may require approval in a future ANP:

1. Relocation of the Kent $PM_{2.5}$ SLAMS site (AQS-ID: 53-033-2004). The lease for this site was discontinued in July 2023. While Ecology and the operating agency, Puget Sound Clean Air Agency (PSCAA) planned to propose a replacement site in the 2024 ANP, installation is delayed until 2025.

2. Establishing a new Tribal regulatory $PM_{2.5}$ and meteorological monitoring site in Wapato. The Yakama Nation is the lead on establishing this site, which was funded via an ARP direct award. The 2024 ANP stated that the installation of the site was expected to be completed in 2024, but we understand it has

been delayed and is now expected to be established in 2025. As Tribal monitoring sites are their own designation (not designated SLAMS), R10 will work directly with the Tribe on confirming and documenting that it meets all the requirements of a regulatory monitoring site.

3. Temporary discontinuation of Yelm-Northern Pacific (AQS-ID: 53-067-0005) O_3 SLAMS site and relocation of O_3 as an SPM to Lacey-College St (AQS-ID: 53-067-0013). Ecology suspended O_3 monitoring at this site due to a construction project that was planned to be completed by the 2022 O_3 season, but delays have extended the timeline through 2025 as of the publication of the 2024 ANP. The Olympic Regional Clean Air Agency (ORCAA) has been operating a temporary O_3 SPM at the nearby Lacey site and will continue to do so until the Yelm site is re-established. Thank you for including details in this year's ANP on the updated plan to resume O_3 monitoring at the Yelm site in summer 2025. Ecology requested a waiver for this temporary suspension and relocation of O_3 monitoring, which was approved by R10 on May 5, 2022 and provided in the 2023 ANP as an appendix.

4. Addition of a second near-road site in the Portland-Vancouver-Hillsboro OR-WA MSA. Population in this MSA has increased to over 2.5 million people per the 2020 census results, triggering the requirement for a second site. We appreciate Ecology working with ODEQ on selecting an appropriate site. We understand that ODEQ is prioritizing the establishment of their PAMS site, and work on this near-road site will ramp up after the 2024 PAMS season. R10 will work closely with ODEQ and Ecology in selecting and establishing a site, which will need to be evaluated in a future ANP.

We did not identify any part of Washington's ambient air monitoring network that does not meet the minimum monitoring requirements set out in 40 C.F.R. Part 58. The enclosed Annual Monitoring Network Plan Checklist is the checklist EPA used to review your plan for overall items that are required to be included in the ANP along with our assessment of whether the plan submitted by your agency addresses those requirements. All comments conveyed via this letter and the enclosed checklist should be addressed in next year's annual monitoring network plan via corrections or addition of information to the plan. Please note that we cannot approve portions of the annual network plan for which the information in the plan is insufficient to judge whether the requirement has been met, or for which the information, as described, does not meet the requirements as specified in 40 C.F.R. 58.10 and the associated appendices. EPA Region 10 also cannot approve portions of the plan for which the EPA Administrator has not delegated approval authority to the regional offices.

Region 10 approves the State of Washington's 2024 ANP. Region 10 appreciates the timeliness and detail provided in the ANP. If you have any questions about our approval of the ANP, please contact me at (206) 553-0985 or Sarah Waldo at (206) 553-1504.

Sincerely,

DEBRA SUZUKI

Digitally signed by DEBRA SUZUKI
Date: 2025.02.12 20:03:22 -08'00'

Debra Suzuki, Manager
Air Planning and State/Tribal Coordination Branch

PAMS Solar and Ultraviolet Radiation

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 155
Seattle, WA 98101-3123

AIR & RADIATION DIVISION

November 3, 2020

Ms. Jill Schulte
Ambient Air Monitoring Coordinator
Department of Ecology
State of Washington
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Schulte:

This letter is in response to your October 7, 2020, correspondence requesting a waiver to collect solar radiation measurements for the Seattle Photochemical Assessment Monitoring Station (PAMS) at an alternative location. In this correspondence you explained that the Seattle-Beacon Hill station (AQS ID: 53-033-0080), where the remainder of the PAMS sampling will be located, is unacceptable for solar radiation measurements. This is due to the shadow cast on the monitoring site for part of the day by a nearby driving range net. Your proposed solution is to locate the radiometer and pyranometer instruments at the Seattle-Duwamish monitoring station (AQS ID: 53-033-0057) instead. You explained that this alternative siting is appropriate because of the proximity of the stations (1.55 miles) and the lack of obstructions at the Seattle-Duwamish station.

My staff completed the review of the information you provided and consulted the EPA's Office of Air Quality Planning and Standards regarding this request. We agree that siting the PAMS solar radiation instrumentation at the Seattle-Duwamish station is an acceptable solution. Per 40 CFR Part 58, Appendix D, Section 5(c) the EPA can grant a waiver to allow the collection of required PAMS measurements at an alternative location if the alternative location will provide representative and useful data. In this instance, we conclude that those standards will be met at the alternative location.

Region 10 approves the alternative siting of the PAMS solar radiation measurements at the Seattle-Duwamish station (AQS ID: 53-033-0057), instead of the Seattle-Beacon Hill station (AQS ID: 53-033-0080). Please reference and attach this waiver in future Annual Network Plan reports, and address whether this alternative location continues to be appropriate in future five-year network assessments. We also request that you continue to keep my staff informed of any other developments with the PAMS monitoring. If you have any questions regarding this waiver, please contact me at (206) 553-0985 or Sarah Waldo at (206) 553-1504.

Sincerely,

DEBRA SUZUKI Digitally signed by DEBRA SUZUKI Date: 2020.11.03 11:30:16 -08'00'

Debra Suzuki, Manager
Air Planning, State/Tribal Coordination Branch

Thurston County Ozone

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 155
Seattle, WA 98101-3144

AIR & RADIATION DIVISION

May 5, 2022

Ms. Kathy Taylor
Air Quality Program Manager
Department of Ecology
State of Washington
P.O. Box 47600
Olympia, Washington 98504-7600

Dear Ms. Taylor:

This letter is in response to your April 12, 2022, correspondence requesting a waiver to temporarily relocate the Washington Department of Ecology's (Ecology) Thurston County ozone (O3) State and Local Air Monitoring Station (SLAMS). Ecology must suspend operation at the current site (Yelm, AQS ID: 53-067-0005) for the next 1-2 years due to a construction and renovation project. Ecology proposes temporarily discontinuing the Yelm O3 monitoring site and relocating the monitor to Lacey (AQS ID: 53-067-0013) beginning May 1, 2022. Ecology expects to resume monitoring at the Yelm site when it becomes available again in 2023 or 2024. By this letter, Region 10 approves Ecology's request for temporary discontinuation and relocation of the Yelm O3 monitor to Lacey.

According to 40 CFR § 58.14(c), EPA may approve requests for site discontinuation on a case-by-case basis if discontinuance does not compromise data collection needed for implementation of the National Ambient Air Quality Standards (NAAQS) and the minimum monitoring requirements for O3 continue to be met. My staff reviewed the information you provided on the historical O3 design values at Yelm and the minimum monitoring requirements for the Olympia-Lacey-Tumwater MSA. The 2020 DV for Yelm was <80% of the O3 NAAQS (0.057 ppm), and no O3 monitoring sites are required in the MSA per the 40 CFR Part 58, Appendix D requirements. Furthermore, relocation will prevent any interruption in Air Quality Index (AQI) reporting and health messaging for Thurston County as the two sites are both representative of urban-scale ozone conditions and are influenced by the same O3 precursors and meteorology. This is supported by the results of parallel O3 monitoring at Yelm and Lacey, which showed similar O3 levels and patterns. Based on all this information, we agree that temporary relocation of O3 to Lacey is an acceptable solution.

Please reference and attach this approval in future Annual Network Plans. We also request that you continue to keep my staff informed of the status of the construction and renovation project at the Yelm site. If you have any questions regarding this approval, please contact me at (206) 553-0985 or Sarah Waldo at (206) 553-1504.

Sincerely,

Suzuki, Debra
Digitally signed by Suzuki, Debra
Date: 2022.05.05 14:13:08 -07'00'

Debra Suzuki, Manager
Air Planning and State/Tribal Coordination Branch

Appendix C. Special Purpose Monitors (SPMs) Statements of Purpose

Ecology is required to include a statement of purpose for each SPM in the annual monitoring network plan according to 40 C.F.R. Part 58.20. Table 29 below contains the statements of purpose for each SPM in the Washington Network.

Table 29. Statements of purpose for Special Purpose Monitors (SPMs)

Site	AQS ID	Parameter	Statement of Purpose
Auburn-29th St SE	530330047	$PM_{2.5}$ AQI (88502)	The Auburn SPM nephelometer site was established to report neighborhood-scale $PM_{2.5}$ conditions in the Auburn area. The site operates as a non-regulatory SPM site because a line of evergreen trees approximately 8 meters from the site prevents the site from meeting probe and path siting criteria for SLAMS $PM_{2.5}$ monitoring.
Chelan-Woodin Ave	530070007	$PM_{2.5}$ AQI (88502)	The Chelan monitoring site was previously operated by the U.S. Forest Service as a non-EPA federal monitor to inform smoke management decisions. Ecology temporarily took over operational responsibility for the site as a SPM on October 1, 2018.
Ellensburg-Ruby St	530370002	$PM_{2.5}$ AQI (88502)	The Ellensburg Ruby St SPM nephelometer is used for ongoing evaluation of the correlation between nephelometer bscat and $PM_{2.5}$ mass concentrations as measured by the FEM BAM 1020.
Everett-Beverly Park Rd	530610022	$PM_{2.5}$ (88101), PM_{10} (81102)	The Everett-Beverly Park Rd site was established in 2024. The $PM_{2.5}$ and PM_{10} monitors are micro-scale monitors with objectives of highest concentration and source impacts. The monitoring site is located at Fairmount Elementary School in unincorporated Snohomish County, adjacent to an aggregate yard that has been the subject of numerous dust and noise complaints. The monitors are located approximately 17 meters from the fenceline of the aggregate yard.
Lacey-College St	530670013	Ozone (44201)	The Lacey ozone SPM was established in May 2022 to temporarily provide ozone data and AQI information in Thurston County when the permanent Yelm ozone monitoring site (530670005) was removed due to construction.
Leavenworth-Evans St	530070010	$PM_{2.5}$ AQI (88502)	The Leavenworth monitoring site was previously operated by the U.S. Forest Service as a non-EPA federal monitor to inform smoke management decisions. Ecology temporarily took over operational responsibility for the site as a SPM on October 1, 2018.
Prosser-Highland Dr	530050004	$PM_{2.5}$ AQI (88502)	Prosser is a previously unmonitored community at the southern end of the Yakima Valley. The Yakima Valley is known to have elevated $PM_{2.5}$ from a variety of sources, though previous monitoring has only been conducted in other communities north of Prosser. The Benton Clean Air Agency uses Prosser data to evaluate air quality complaints, inform curtailment calls, and identify opportunities for wood stove replacement funding in their jurisdiction.

Site	AQS ID	Parameter	Statement of Purpose
Raymond-4th St	530490003	$PM_{2.5}$ AQI (88502)	ORCAA operates the Raymond-4th St $PM_{2.5}$ SPM in order to report the AQI and support its air quality management efforts in Pacific County.
Quincy-3rd Ave NE	530251003	$PM_{2.5}$ AQI (88502)	The Quincy-3rd Ave NE SPM site exists to provide meteorological and non-FEM $PM_{2.5}$ data in a previously unmonitored community and to support a health risk assessment of diesel emissions in the Quincy area published in 2020.
Spokane-E Sprague Ave	530630054	$PM_{2.5}$ AQI (88502)	The Spokane-E Sprague Ave SPM was established in 2024 to evaluate middle-scale impacts in neighborhoods adjacent to industrial Spokane and Interstate 90.
Twisp-S Lincoln St	530470009	$PM_{2.5}$ AQI (88502)	The previous Twisp monitoring site was operated by the U.S. Forest Service as a non-EPA federal monitor to inform smoke management decisions. Ecology temporarily took over operational responsibility for monitoring at the previous Twisp-Glover site on October 1, 2018. Ecology relocated the site to Twisp-Ewell St in 2020 and relocated the site back within 1 block of Glover St, renamed Twisp-S Lincoln St in 2024.

Appendix D. Detailed Site and Monitor Information

Appendix D contains location information for all Washington Network monitoring sites.

Location information for Washington Network monitoring sites

Table 30. Location information for Washington Network monitoring sites

Site Name	AQS ID	Latitude	Longitude	Street Address	City	Zip code
Aberdeen-Division St	530272002	46.97228	-123.83173	359 N Division St	Aberdeen	98520
Anacortes-202 O Ave	530570011	48.52008	-122.613213	3rd St between O Ave and Commercial Ave	Anacortes	98221
Auburn-29th St	530330047	47.2814	-122.2233	402 29th St	Auburn	98002
Bellevue-SE 12th St	530330031	47.600863	-122.148397	14310 SE 12th St	Bellevue	98007
Bellingham-Pacific St	530730019	48.760036	-122.456463	2221 Pacific St	Bellingham	98229
Bremerton-Spruce Ave	530350007	47.592675	-122.62739	3250 Spruce Ave	Bremerton	98310
Burbank-Maple St	530710006	46.20011	-119.00862	755 Maple St	Burbank	99323
Cheeka Peak (suspended)	530090013	48.29786	-124.62491	Spur-4 Rd	Neah Bay	98357
Chehalis-Market Blvd	530410004	46.66409	-122.96732	350 N Market Blvd	Chehalis	98532
Chelan-Woodin Ave	530070007	47.83861	-120.02306	428 W Woodin Ave	Chelan	98816
Cheney-Turnbull	530630001	47.4164	-117.52982	26010 S Smith Rd	Cheney	99004
Clarkston-13th St	530030004	46.425416	-117.060445	13th St and Port Way	Clarkston	99403
Colville-E 1st St	530650005	48.54469	-117.903222	261 E 1st St	Colville	99114
Custer-Loomis	530730005	48.95074	-122.55441	1330 Loomis Trail Rd	Custer	98240
Darrington-Fir St	530610020	48.2468	-121.6031	1085 Fir St	Darrington	98241
Dayton-W Main St	530130002	46.318	-117.985	206 W Main St	Dayton	99328
Ellensburg-Ruby St	530370002	46.99364	-120.545	201 N Ruby St	Ellensburg	98926
Enumclaw-Mud Mtn.	530330023	47.1411	-121.9379	30525 SE Mud Mountain Rd	Enumclaw	98022
Everett-Beverly Park Rd	530610022	47.893718	-122.269825	11401 Beverly Park Rd	Everett	98204
Issaquah-Lake Sammamish	530330010	47.5525	-122.064722	2000 NW Sammamish Rd	Issaquah	98027
Kennewick-Metaline	530050002	46.21835	-119.20152	5929 W Metaline Ave	Kennewick	99336
Kennewick-S Steptoe St	530050003	46.204582	-119.243743	526 S Steptoe St	Kennewick	99336

Site Name	AQS ID	Latitude	Longitude	Street Address	City	Zip code
Lacey-College St	530670013	47.029396	-122.821548	1900 College St SE	Lacey	98503
LaCrosse-Hill St	530750005	46.8153	-117.8739	111 Hill Ave	LaCrosse	99143
Lake Forest Park	530330024	47.75452	-122.28034	17171 Bothell Way NE	Lake Forest Park	98155
Leavenworth-Evans St	530070010	47.59886	-120.6647	330 Evans St	Leavenworth	98826
Longview-30th Ave	530150015	46.139443	-122.961944	1234 30th Ave	Longview	98632
Marysville-7th Ave	530611007	48.054315	-122.171529	1799 7th St	Marysville	98270
Mesa-Pepiot Way	530210002	46.5754	-119.0021	200 Pepiot Rd	Mesa	99343
Moses Lake-Balsam St	530251002	47.1303	-119.2737	412 S Balsam St	Moses Lake	98837
Mt Rainier-Jackson Visitors Ctr	530530012	46.785857	-121.737107	52807 Paradise Rd E	Ashford	98304
Mt Vernon-S Second St	530570015	48.4102	-122.3376	1600 S 2nd Street	Mount Vernon	98273
Neah Bay-Makah Tribe	530090015	48.366058	-124.610045	1321 Bay View Avenue	Neah Bay	98357
North Bend-North Bend Way	530330017	47.49022	-121.77278	902 SE North Bend Way	North Bend	98045
Omak-Colville Tribe	530470013	48.39999	-119.51896	8th Ave E & Okanogan-Omak East Rd	Omak	98841
Pomeroy-Pataha St	530230001	46.474438	-117.614764	572 Pataha St	Pomeroy	99347
Port Angeles-E 5th St	530090017	48.115	-123.436434	102 E 5th St	Port Angeles	98362
Port Townsend-San Juan Ave	530310003	48.12919	-122.77897	3939 San Juan Avenue	Port Townsend	98368
Prosser-Highland Dr	530050004	46.20890	-119.75267	2001 Highland Dr	Prosser	99350
Pullman-Dexter SE	530750003	46.7244	-117.18014	240 SE Dexter St	Pullman	99163
Quincy-3rd Ave NE	530251003	47.24126	-119.84595	330 3rd Ave NE	Quincy	98848
Raymond-4th St	530490003	46.688218	-123.731764	503 4th St	Raymond	98577
Ritzville-Alder St	530010003	47.128	-118.3819	109 W Alder Ave	Ritzville	99169
Rosalia-Josephine St	530750006	47.23136	-117.36856	906 S Josephine Ave	Rosalia	99170
SeaTac-Sunset Park	530330040	47.4785	-122.3111	13831 18th Ave S	SeaTac	98168
Seattle-10th & Weller	530330030	47.597222	-122.319722	10th Ave S & S Weller St	Seattle	98104

Site Name	AQS ID	Latitude	Longitude	Street Address	City	Zip code
Seattle-Beacon Hill	530330080	47.5682	-122.3086	4103 Beacon Ave S	Seattle	98108
Seattle-Duwamish	530330057	47.559975	-122.338265	4700 E Marginal Way S	Seattle	98134
Seattle-South Park	530331011	47.5297	-122.3203	8201 10th Ave S	Seattle	98108
Shelton-W Franklin	530450007	47.21355	-123.10081	122 W Franklin St	Shelton	98584
Spokane Valley-E Broadway Ave	530630017	47.663962	-117.25765	11016 E Broadway Ave	Spokane	99206
Spokane-E Sprague Ave	530630054	47.657087	-117.367795	2904 E Sprague Ave	Spokane	99202
Spokane-Greenbluff	530630046	47.827128	-117.27422	9814 Greenbluff Rd E	Colbert	99005
Spokane-Monroe St	530630047	47.69983	-117.42631	4601 N Monroe St	Spokane	99205
Sunnyside-S 16th St	530770005	46.32033	-119.9981	810 S 16th St	Sunnyside	98944
Tacoma-Alexander Ave	530530031	47.2656	-122.385	2301 Alexander Ave	Tacoma	98421
Tacoma-L Street	530530029	47.18631	-122.45154	7802 L St S	Tacoma	98444
Tacoma-S 36th St	530530024	47.22634	-122.46256	1802 S 36th St	Tacoma	98418
Taholah-Quinault Tribe	530270011	47.3442	-124.2879	600 Chitwhin Dr	Taholah	98587
Toppenish-Yakama Tribe	530770015	46.38024	-120.33266	141 Ward Rd	Toppenish	98948
Tukwila Allentown	530330069	47.498535	-122.278385	11675 44th Ave E	Tukwila	98178
Tulalip-Totem Beach Rd	530610021	48.065339	-122.285194	7520 Totem Beach Rd	Tulalip	98271
Twisp-S Lincoln St	530470009	48.36472	-120.12007	100 S Lincoln St	Twisp	98856
Vancouver NE 84th Ave	530110024	45.64336	-122.58737	2722 NE 84th Ave	Vancouver	98662
Vancouver-Blairmont Dr	530110011	45.6121	-122.5194	1500 SE Blairmont Dr	Vancouver	98683
Walla Walla-12th St	530710005	46.05881	-118.35147	200 S 12th Ave	Walla Walla	99362
Wellpinit-Spokane Tribe	530650002	47.88528	-117.98865	6208 Wellpinit-Westend Rd	Wellpinit	99040
Wenatchee-Fifth St	530070011	47.43061	-120.34195	1300 Fifth St	Wenatchee	98801
Yacolt-Yacolt Rd	530110022	45.86639	-122.40889	406 W Yacolt Rd	Yacolt	98675

Site Name	AQS ID	Latitude	Longitude	Street Address	City	Zip code
Yakima-4th Ave	530770009	46.59495	-120.51228	402 S 4th Ave	Yakima	98902

Appendix E. Interstate Memorandum of Understanding

Memorandum of Understanding
Between
Oregon Department of Environmental Quality
And
Washington Department of Ecology

I. PURPOSE

This Memorandum of Understanding (MOU) is entered into by and between the Oregon Department of Environmental Quality Air Quality Program, hereinafter referred to as ODEQ, and the Washington Department of Ecology Air Quality Program, hereinafter referred to as WDOE.

The purpose of this MOU is to agree in principle to cooperate with shared resources to collectively meet the United States Environmental Protection Agency (US EPA) minimum monitoring requirements for criteria air pollutants in the Portland-Vancouver-Hillsboro, OR-WA Metropolitan Statistical Area (MSA).

II. STATEMENT OF MUTUAL BENEFITS AND INTEREST

The Portland-Vancouver-Hillsboro, OR-WA MSA consists of Clackamas, Columbia, Multnomah, Washington, and Yamhill Counties in Oregon and Clark and Skamania Counties in Washington. The network design criteria for ambient air quality monitoring described in 40 C.F.R § 58 Appendix D require that in areas where metropolitan statistical areas (MSAs) cross jurisdictional boundaries, "full monitoring requirements apply separately to each affected State or local agency in the absence of an agreement between the affected agencies and the EPA Regional Administrator." This MOU establishes an agreement that ODEQ and WDOE cooperatively meet the minimum monitoring requirements in the Portland-Vancouver-Hillsboro, OR-WA MSA.

The Portland-Vancouver-Hillsboro, OR-WA MSA had an estimated population of 2,508,050 as of July 1, 2023. Based on 40 C.F.R § 58 Appendix D, the following minimum monitoring requirements for criteria pollutants apply to an MSA of this population size:

Pollutant	**Minimum Number of Required Monitors**
Ozone (O_3)	2
Carbon Monoxide (CO)	1
Nitrogen Dioxide (NO_2)	3
Sulfur Dioxide (SO_2)	1
Particulate Matter ≤10µm (PM_{10})	2
Fine Particulate Matter ($PM_{2.5}$)	3

As of January 1, 2024, the minimum monitoring requirements were met or exceeded in the Portland-Vancouver-Hillsboro, OR-WA MSA for each of the criteria pollutants listed above with the exception of Nitrogen Dioxide (NO_2). ODEQ is currently working with EPA Region 10 to

identify a suitable location and secure funding for the installation of a second near-road NO_2 monitoring site in the Portland area.

III. GENERAL ROLES

ODEQ and WDOE formally agree to collectively provide adequate criteria pollutant monitoring as required by 40 C.F.R § 58 Appendix D. Each agency shall inform the other agency at its earliest convenience via telephone or email of any monitoring changes within the Portland-Vancouver-Hillsboro, OR-WA MSA that impact the minimum monitoring requirements. In the event that new minimum monitoring requirements are imposed after the execution of this MOU, ODEQ and WDOE agree to consult and jointly determine how to meet the new requirements.

IV. IT IS MUTUALLY AGREED AND UNDERSTOOD BY AND BETWEEN THE SAID PARTIES THAT:

A. This instrument is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between the parties to this instrument will be handled in accordance with applicable laws, regulations, and procedures, including those for government procurement and printing. Such endeavors will be outlined in separate agreements that shall be made in writing by representatives of the parties, and shall be independently authorized by appropriate statutory authority. This instrument does not provide such authority.

B. This instrument in no way restricts ODEQ or WDOE from participating in similar activities with other public or private agencies, organizations, and individuals.

C. Pursuant to Section 22, Title 41, United States Code, no Member of, or Delegate to, Congress shall be admitted to any share or part of this instrument, or any benefits that may arise therefrom.

D. Nothing in this MOU shall be construed as obligating either party to expend funds or to make any contract or other obligation for the future payment of money in excess of appropriations authorized by law and administratively allocated for this purpose.

E. Modifications within the scope of this instrument shall be made by mutual consent of the parties, by the issuance of a written modification, signed and dated by both parties.

F. Either party(s), in writing, may terminate the MOU in whole, or in part, at any time before the date of expiration provided that written notice is sent to the other party at least 120 calendar days prior to the termination date.

G. This MOU shall be effective upon execution by both parties and shall remain in effect for a period of 5 years unless otherwise modified. This agreement can be extended if mutually agreed to by both parties.

H. The principal contacts for this instrument are:

Oregon Department of Environmental Quality
Anthony Barnack, Ambient Monitoring Coordinator
7202 NE Evergreen Parkway, Suite 150
Hillsboro, OR 97124-6166
(971) 806-2223

Washington Department of Ecology
Jill Schulte, Air Monitoring Coordinator
PO Box 47600
Olympia, WA 98504-7600
(360) 790-6538

In Witness whereof, the parties hereto have executed this MOU as of the last date written below:

4/5/2024 DocuSigned by: Matthew R. Shrensel

Date Matthew Shrensel
Interim Air Quality Monitoring Manager
Oregon Department of Environmental Quality

4/5/2024 DocuSigned by: Sean Lundblad

Date Sean Lundblad
Technical Services Section Manager, Air Quality Program
Washington Department of Ecology

Appendix F. Public Comment Period

The draft 2025 Ambient Air Monitoring Network Plan was available for public inspection and comment from May 19-June 18, 2025. No comments were received.

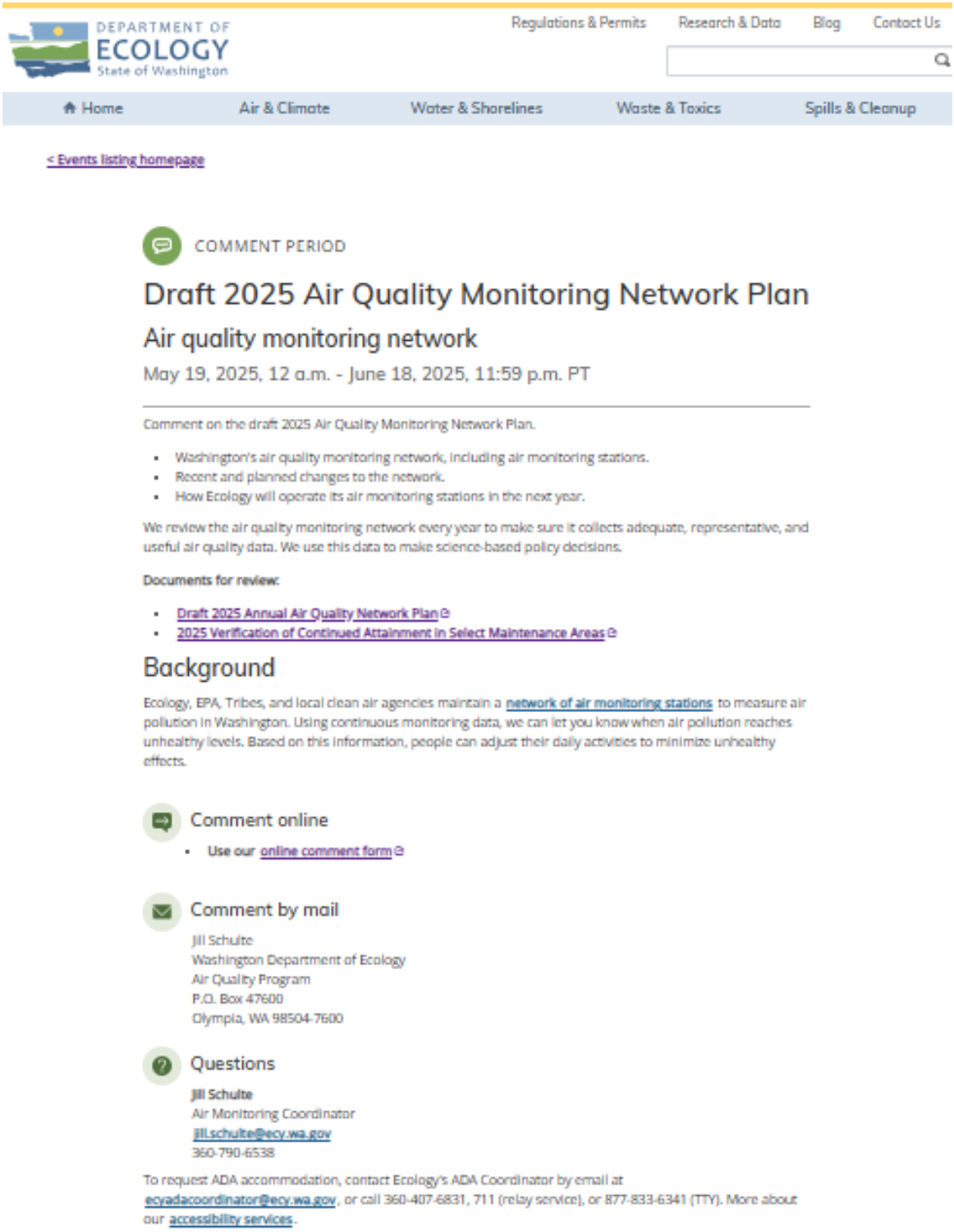


Figure 47. Documentation of 2025 Ambient Air Monitoring Network Plan public comment period