

Department of Environmental Conservation's Air Monitoring Program Community-Based Air Monitoring Project

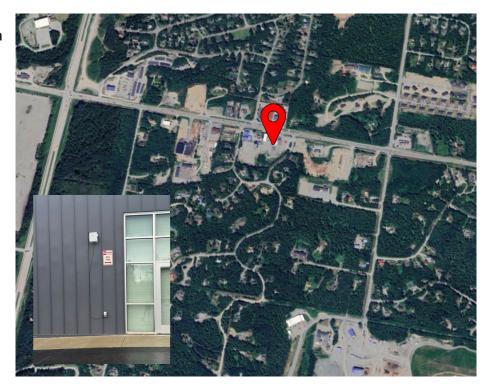
> 2024-25 Winter Season Air Quality Report for Knik Tribe, Wasilla, Alaska

The QuantAQ MODULAIR[™] sensor in Wasilla (1744 Prospect Dr, Palmer, AK 99645) was installed on 08/06/2024.

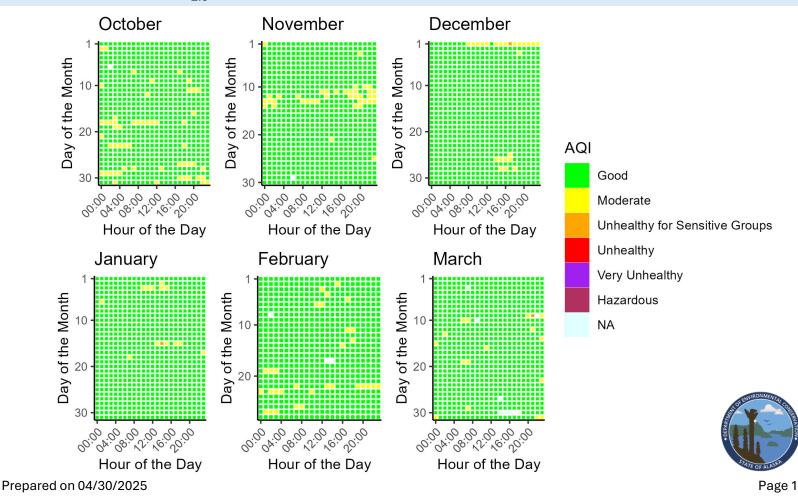
The sensor measures for carbon monoxide (CO), ozone (O_3), nitrogen oxide (NO), nitrogen dioxide (NO_2), particulate matter ($PM_{2.5}$ and PM_{10}), temperature (°C), and relative humidity (RH). Data is collected every minute and is then processed into hourly averages.

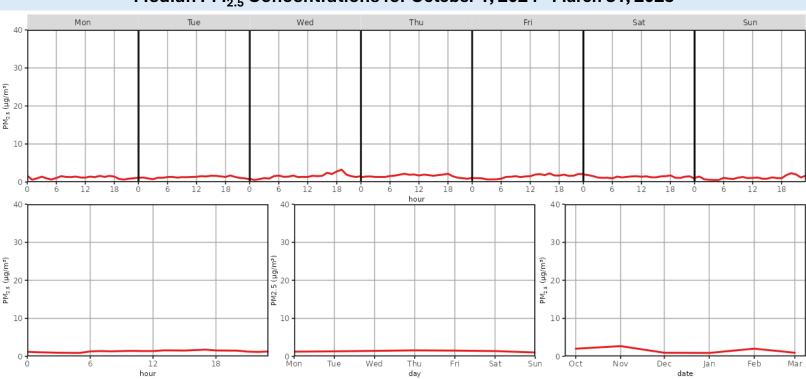
The sensor in Wasilla has run well since its installation in August of 2024; there have been no physical issues with the sensor.

This data report covers the date range of October 1, 2024, to March 31, 2025.



Daily PM_{2.5} Air Quality Index (AQI) for October 1, 2024 - March 31, 2025





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Median PM_{2.5} Concentrations for October 1, 2024 - March 31, 2025

Descriptive Statistics of Air Pollutants*

Parameter	1-hr PM _{2.5} (µg/m³)	24-hr PM _{2.5} (µg/m³)	1-hr PM ₁₀ (µg/m³)**	24-hr PM ₁₀ (µg/m³)**	1-hr O ₃ (ppb)	1-hr NO ₂ (ppb)	1-hr NO (ppb)	1-hr CO (ppb)
Min								
	0.02	0.04	0.00	0.54	0.00	3.46	1.07	0.20
Mean								
	2.53	2.56	30.90	30.08	42.31	20.59	3.28	0.70
1 st Max								
	38.65	14.15	923.00	392.04	58.20	36.67	37.41	1.60
2 nd Max								
	38.11	9.49	884.00	174.96	57.70	36.50	35.25	1.50

Data Discussion

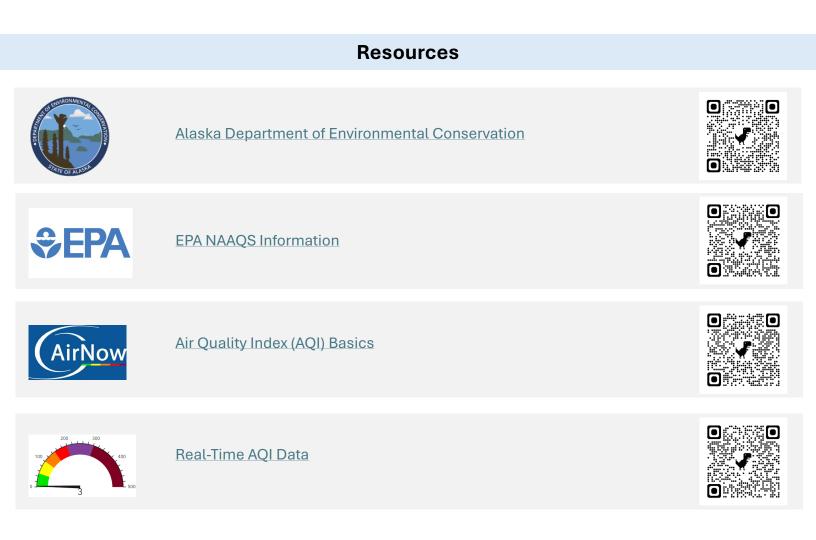
Wasilla's PM_{2.5} ambient air quality for the winter 2024-25 season primarily remained in the "good" range of the Air Quality Index (AQI; more information about AQI is provided on page 3), with brief periods in the "moderate" AQI range each month, and only three hours in the "unhealthy for sensitive groups" AQI range throughout the reporting period. Diurnal patterns show little variability of PM_{2.5} concentrations across different times of day or days of the week with slightly elevated peaks in November and February.

* These statistics are based on preliminary data readings and are intended to provide a brief overview of sensor activity. Finalized data may be obtained upon request and through our annual statistical reports. Data from the community sensor network is non-regulatory and not comparable to the EPA's National Ambient Air Quality Standards (NAAQS; more information about the EPA NAAQS is provided on page 3).

** PM₁₀ particle sensors are influenced by weather events such as fog and snow due to hygroscopic effects, creating false maximum values that do not pose health risks.



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Data Access

To access historical data for your community's sensor, please email a request to: <u>AMQA-Data-Request@alaska.gov</u> . Data will be provided in Excel or .csv format.

Questions or Comments?

Please contact us!

Isaac Van Flein (Fairbanks): 907-451-2253 / isaac.vanflein@alaska.gov

Ayla Crosby (Anchorage): 907-269-7750 / ayla.crosby@alaska.gov

