

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

2024-25 Winter Season Air Quality Report for Eyak Tribe, Cordova, Alaska

The QuantAQ MODULAIR™ sensor in Cordova (200 Lake Avenue, Cordova, AK 99574) was installed on 09/17/2024.

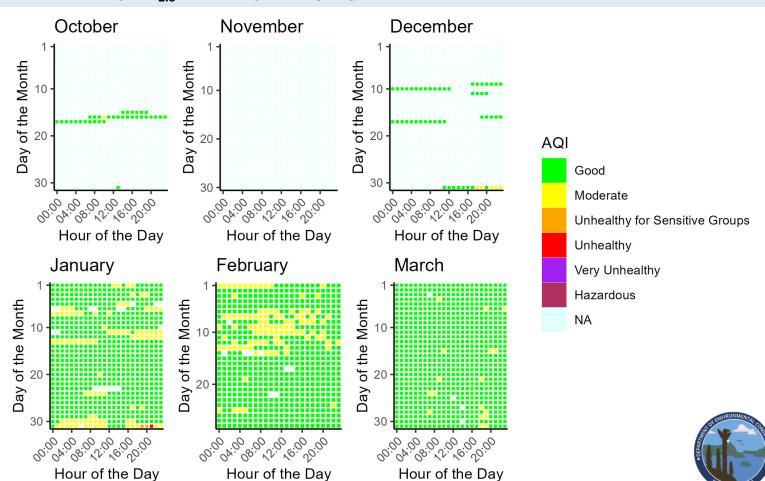
The sensor measures for carbon monoxide (CO), ozone (O_3) , nitrogen oxide (NO), nitrogen dioxide (NO_2) , particulate matter $(PM_{2.5}$ and $PM_{10})$, temperature (°C), and relative humidity (RH). Data is collected every minute and is then processed into hourly averages.

The sensor in Cordova experienced frequent power outages due to an unreliable outlet October-December. Local staff established a reliable power source at the end of December. The entire sensor was replaced on January 23rd due to a malfunctioning SD card port. Data collection has been consistent without issue since the power source was addressed and unit replaced.

This data report covers the date range of October 1, 2024, to March 31, 2025, using data from both the original and replacement units.



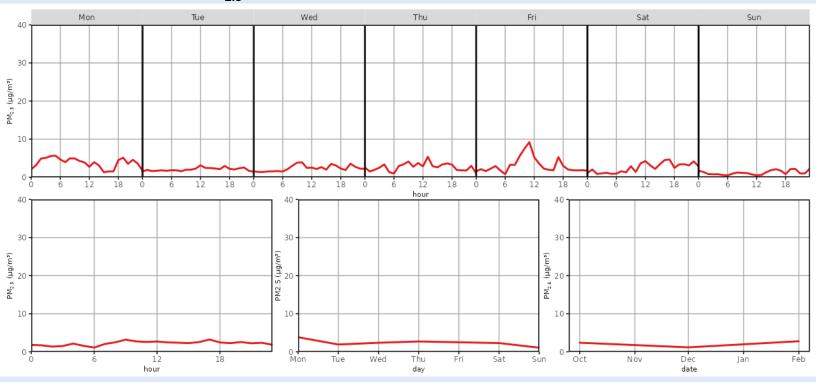
Daily PM_{2.5} Air Quality Index (AQI) for October 1, 2024 – March 31, 2025



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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								
	0.01	0.14	0.00	0.12	5.00	6.87	1.46	0.70
Mean								
	3.77	3.52	22.65	21.43	26.82	24.97	3.06	0.87
1 st Max								
	63.50	11.61	891.00	123.46	149.40	48.98	59.14	1.60
2 nd Max								
	51.98	11.41	662.00	107.12	95.30	46.92	27.91	1.60

Data Discussion

Cordova's $PM_{2.5}$ ambient air quality for the winter 2024-25 season fell mostly in the "good" range of the Air Quality Index (AQI; more information about AQI is provided on page 3), with several periods in the "moderate" AQI range in January and February, and an hour in the "unhealthy" AQI range in January. Diurnal patterns show slight elevations of $PM_{2.5}$ concentrations in the afternoons and evenings, with higher averages on Mondays and lower averages on Sunday. From January to March, February experienced the highest AQI levels.

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^{*} 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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Resources



Alaska Department of Environmental Conservation





EPA NAAQS Information





Air Quality Index (AQI) Basics





Real-Time AQI Data



Data Access

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

Questions or Comments?

Please contact us!

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