



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

2024-25 Winter Season Air Quality Report for Homer, Alaska

The QuantaQ MODULAIR™ sensor in Homer (533 E Pioneer Ave, Homer, AK 99603) was installed on 5/14/2024.

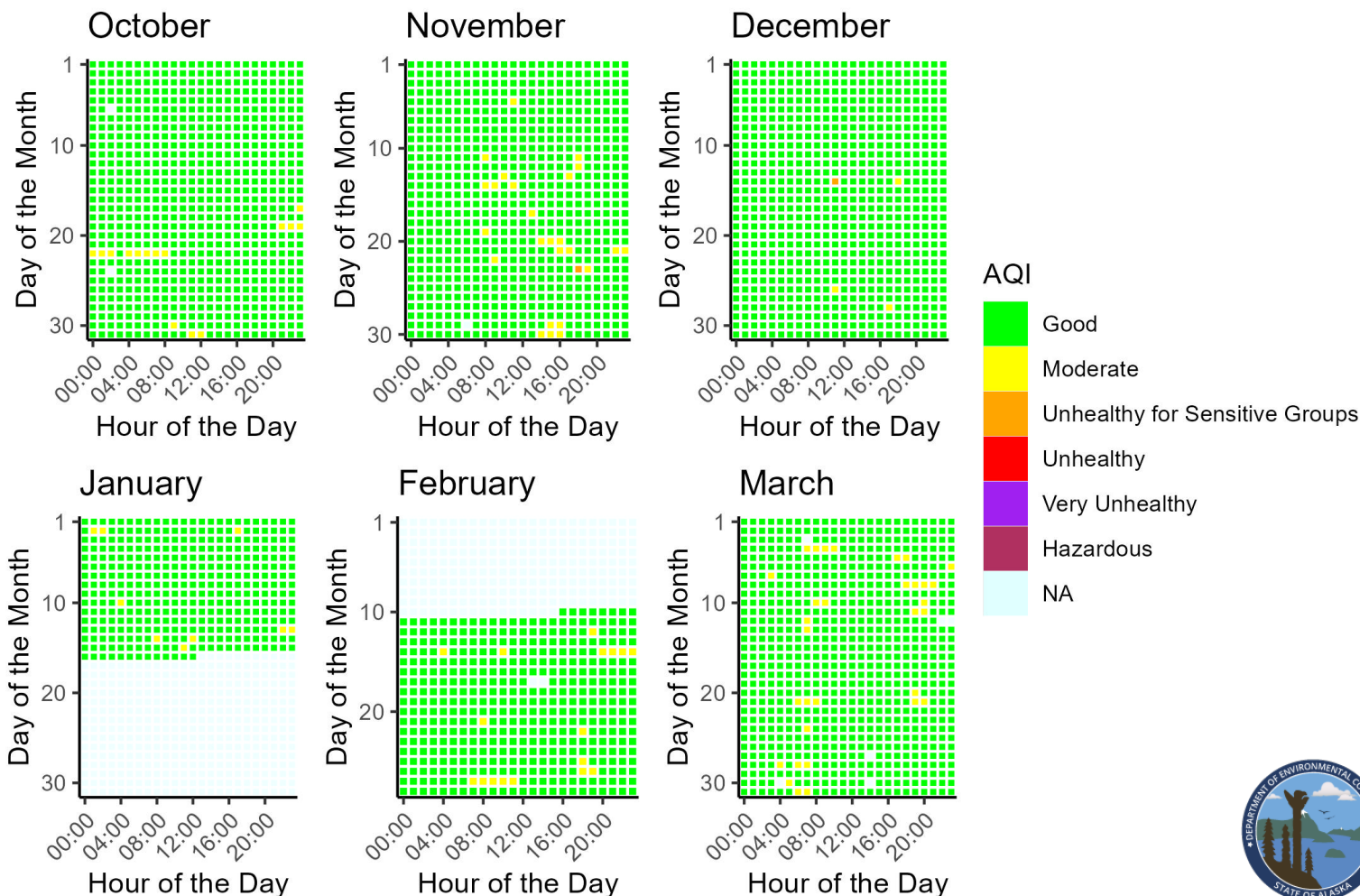
The sensor measures for carbon monoxide (CO), ozone (O₃), nitrogen oxide (NO), nitrogen dioxide (NO₂), particulate matter (PM_{2.5} and PM₁₀), temperature (°C), and relative humidity (RH). Data is collected every minute and is then processed into hourly averages.

The sensor in Homer experienced loss of power from mid-January to mid-February due to a shut-off outlet. The sensor resumed function as normal after reestablishing connection to reliable power.

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

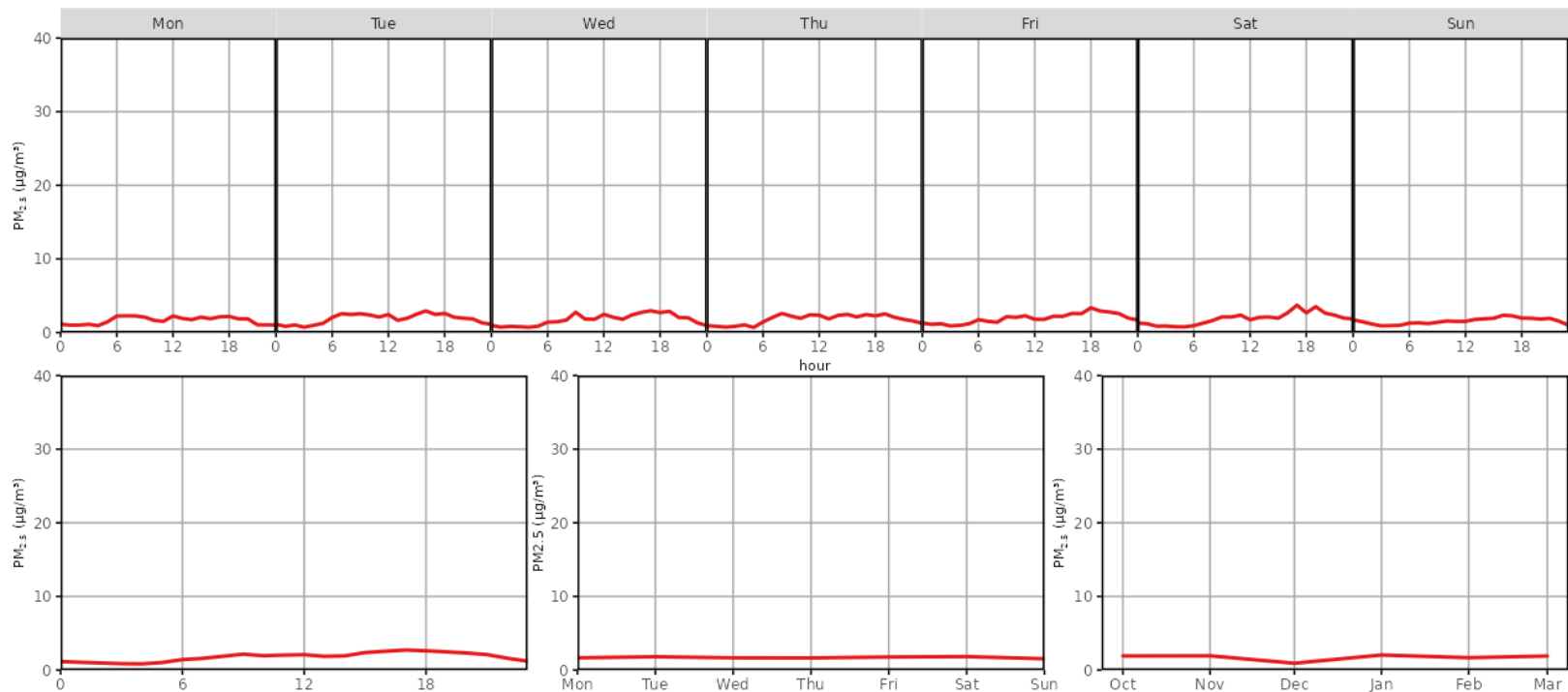


Daily PM_{2.5} Air Quality Index (AQI) for October 1, 2024 – March 31, 2025



2024-25 Winter Season Air Quality Report for Homer

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	0.29	0.00	0.62	1.50	2.11	0.00	0.23
Mean	2.44	2.44	22.19	21.78	23.64	15.69	2.20	0.30
1 st Max	44.94	7.60	927.00	139.92	87.00	46.09	24.28	0.71
2 nd Max	40.74	6.94	620.00	126.79	61.00	36.68	11.85	0.71

Data Discussion

Homer'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). AQI levels reached “unhealthy” for one hour in November and in December. Each month in the reporting period experienced several hours in the “moderate” AQI range. Diurnal patterns show little variability of PM_{2.5} concentrations across different times of day or days of the week.

* 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.



Resources



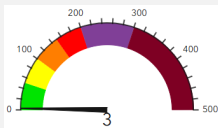
[Alaska Department of Environmental Conservation](#)



[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!

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

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

