



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

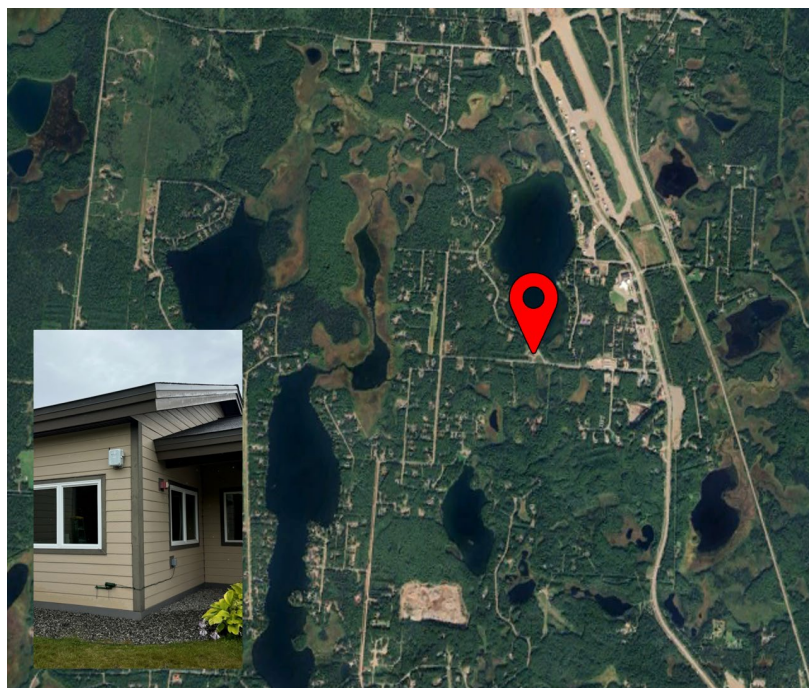
2024-25 Winter Season Air Quality Report for Willow, Alaska

The QuantAQ MODULAIR™ sensor in Willow (24091 Long Lake Rd, Willow, AK 99688) was installed on 8/7/2024.

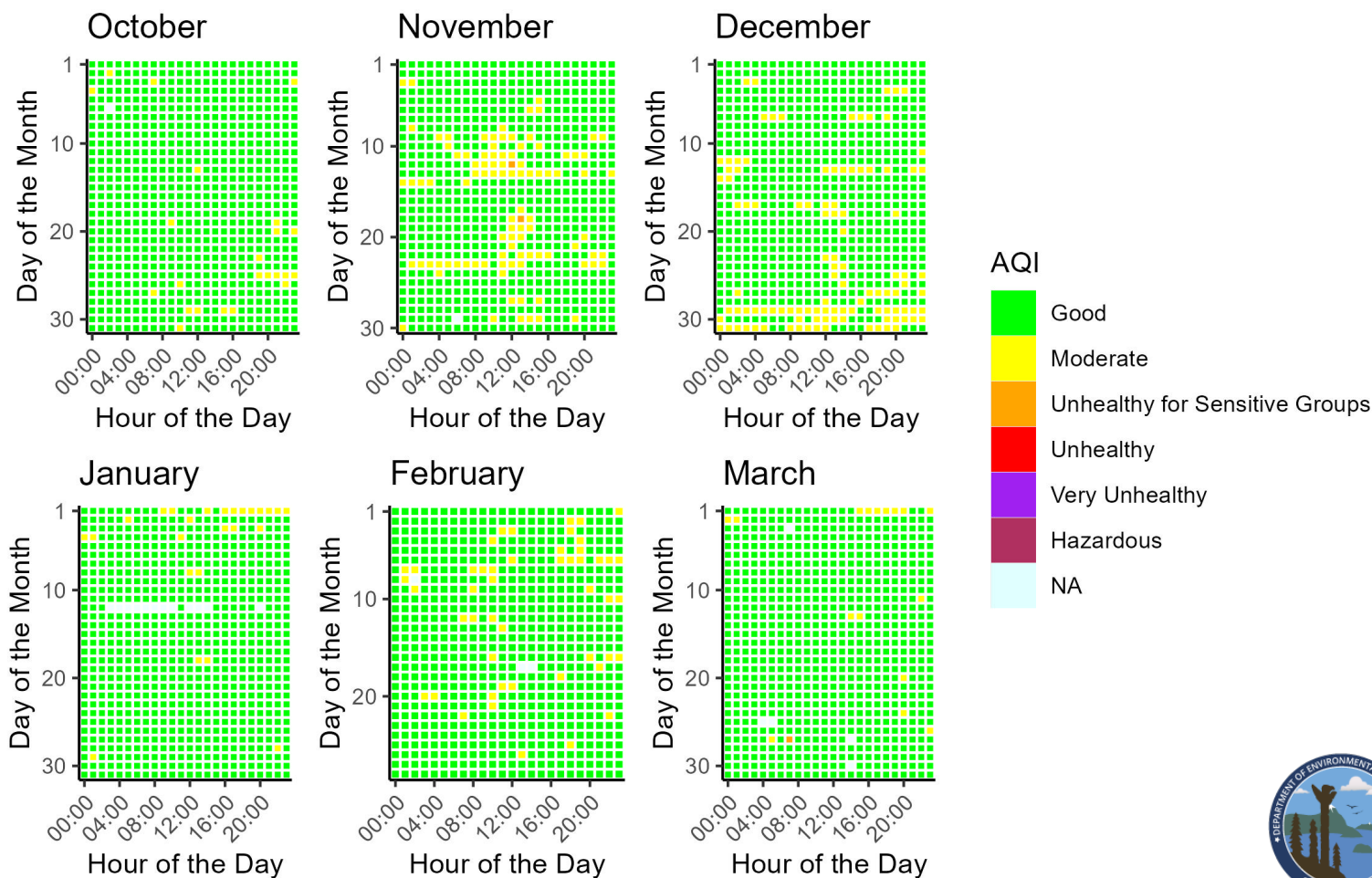
The sensor measures for carbon monoxide (CO), ozone (O₃), nitrogen oxide (NO), nitrogen dioxide (NO₂), particulate matter (PM_{2.5} and PM₁₀), temperature (°C), and relative humidity (RH). Data is collected every minute and is then processed into hourly averages.

The sensor in Willow has run well since it began sampling 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.

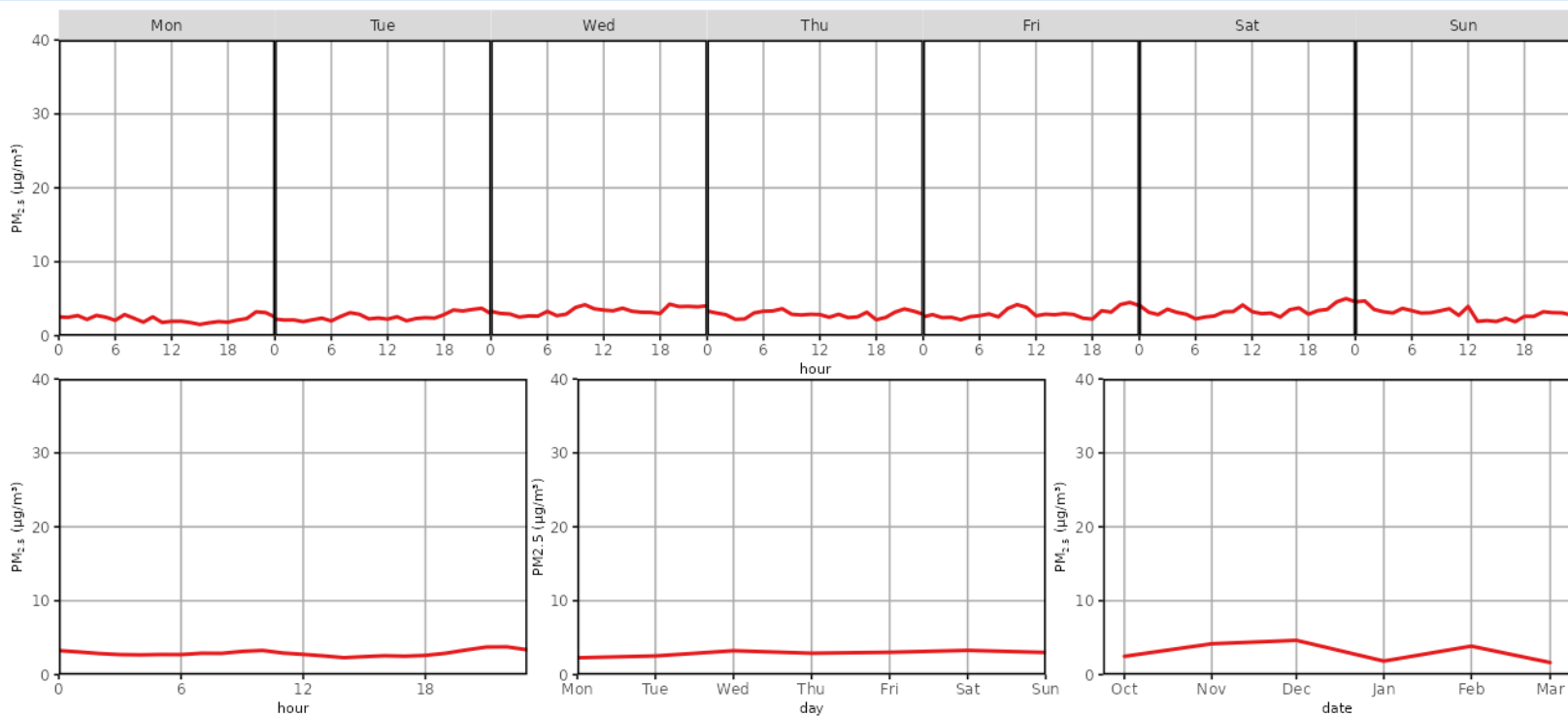


Daily PM_{2.5} Air Quality Index (AQI) for October 1, 2024 - March 31, 2025



2024-25 Winter Season Air Quality Report for Willow

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



Descriptive Statistics of Air Pollutants*

Parameter	1-hr PM _{2.5} (µg/m ³)	24-hr PM _{2.5} (µg/m ³)	1-hr PM ₁₀ (µg/m ³)**	24-hr PM ₁₀ (µg/m ³)**	1-hr O ₃ (ppb)	1-hr NO ₂ (ppb)	1-hr NO (ppb)	1-hr CO (ppb)
Min	0.03	0.20	0.00	1.08	0.50	2.34	0.00	0.22
Mean	3.92	3.93	17.36	15.28	20.80	21.19	3.53	0.38
1 st Max	90.06	16.03	881.00	161.17	50.80	48.31	30.07	1.62
2 nd Max	38.68	10.56	871.00	105.21	50.70	46.88	23.93	1.33

Data Discussion

Willow’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 brief periods in each month reaching the “moderate” AQI range. Several isolated instances of the AQI reaching the “unhealthy for sensitive groups” range occurred in January and March, each lasting less than one hour. Diurnal patterns show little variability of PM_{2.5} concentrations across different times of day and days of the week, with slightly elevated monthly averages in November, December, and January.

* 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



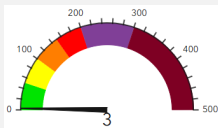
[Alaska Department of Environmental Conservation](#)



[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

