



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

2024-25 Winter Season Air Quality Report for Delta Junction, Alaska

The QuantAQ MODULAIR™ sensor in Delta Junction (64.0463 ° N, 145.7347 ° W) was installed on 11/02/2023.

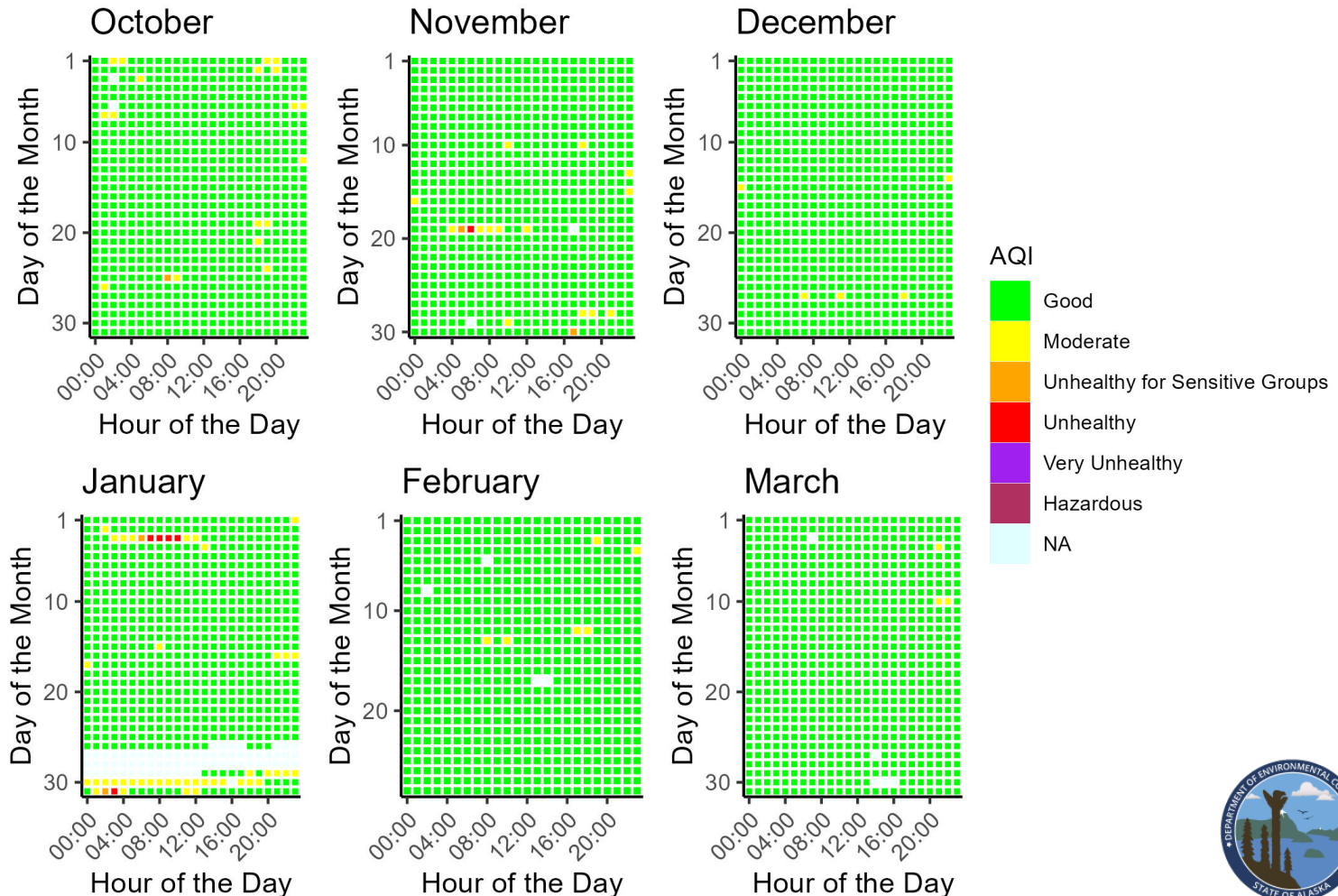
The sensor measures for carbon monoxide (CO), ozone (O₃), nitrogen oxide (NO), nitrogen dioxide (NO₂), particulate matter (PM_{2.5} and PM₁₀), temperature (°C), and relative humidity (RH). Data is collected every minute and is then processed into hourly averages.

The sensor in Delta Junction has operated well throughout the reporting period, with one brief data outage in January that was resolved without further issue.

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

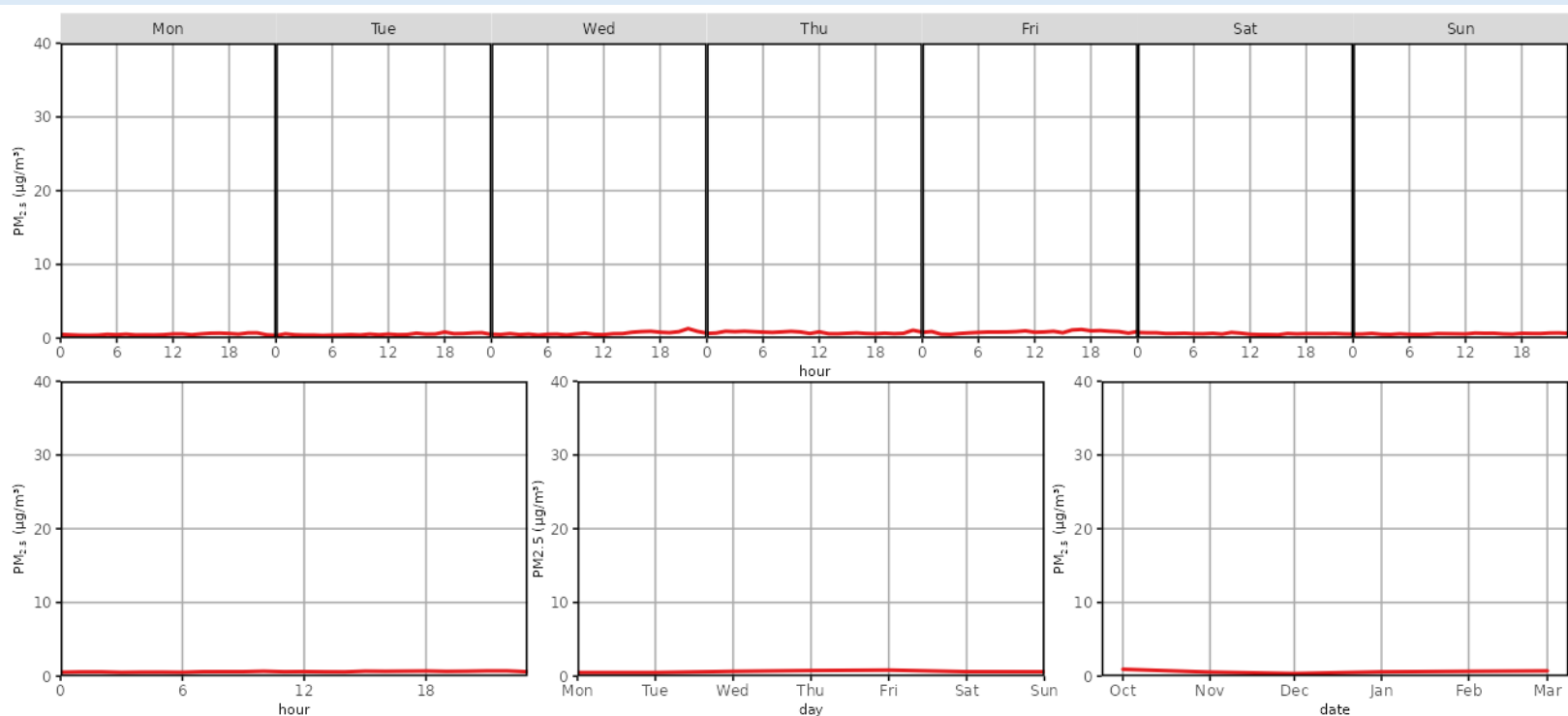


Daily PM_{2.5} Air Quality Index (AQI) for October 1, 2024 - March 31, 2025



2024-25 Winter Season Air Quality Report for Delta Junction

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	0.07	0.16	0.00	0.08	0.00	2.34	1.38	0.20
Mean	1.61	1.48	9.05	7.72	30.70	17.58	4.57	0.25
1 st Max	113.09	20.24	766.00	107.38	50.85	48.84	105.73	0.80
2 nd Max	104.60	12.15	708.00	93.33	50.84	45.74	49.92	0.80

Data Discussion

Delta Junction'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). November and January both experienced brief periods in the “unhealthy” AQI range, due to cold temperatures causing inversions that trapped smoke and other pollutants at ground level. Local AQI returned to the “good” range shortly after the air temperature rose and the inversion dissipated. 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



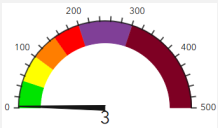
[Alaska Department of Environmental Conservation](#)



[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

