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

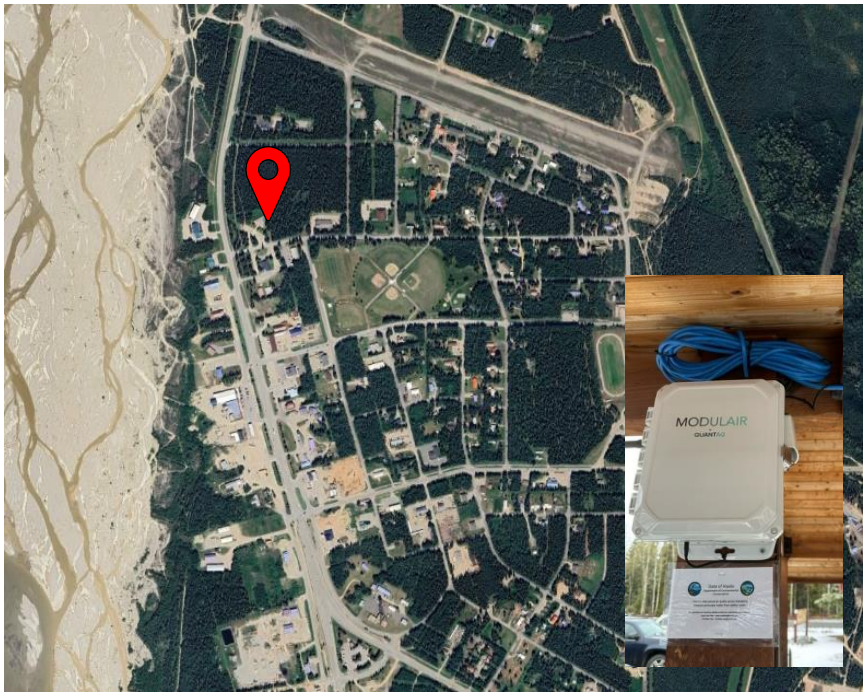
2024 Summer Season Air Quality Report for Delta Junction, Alaska

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

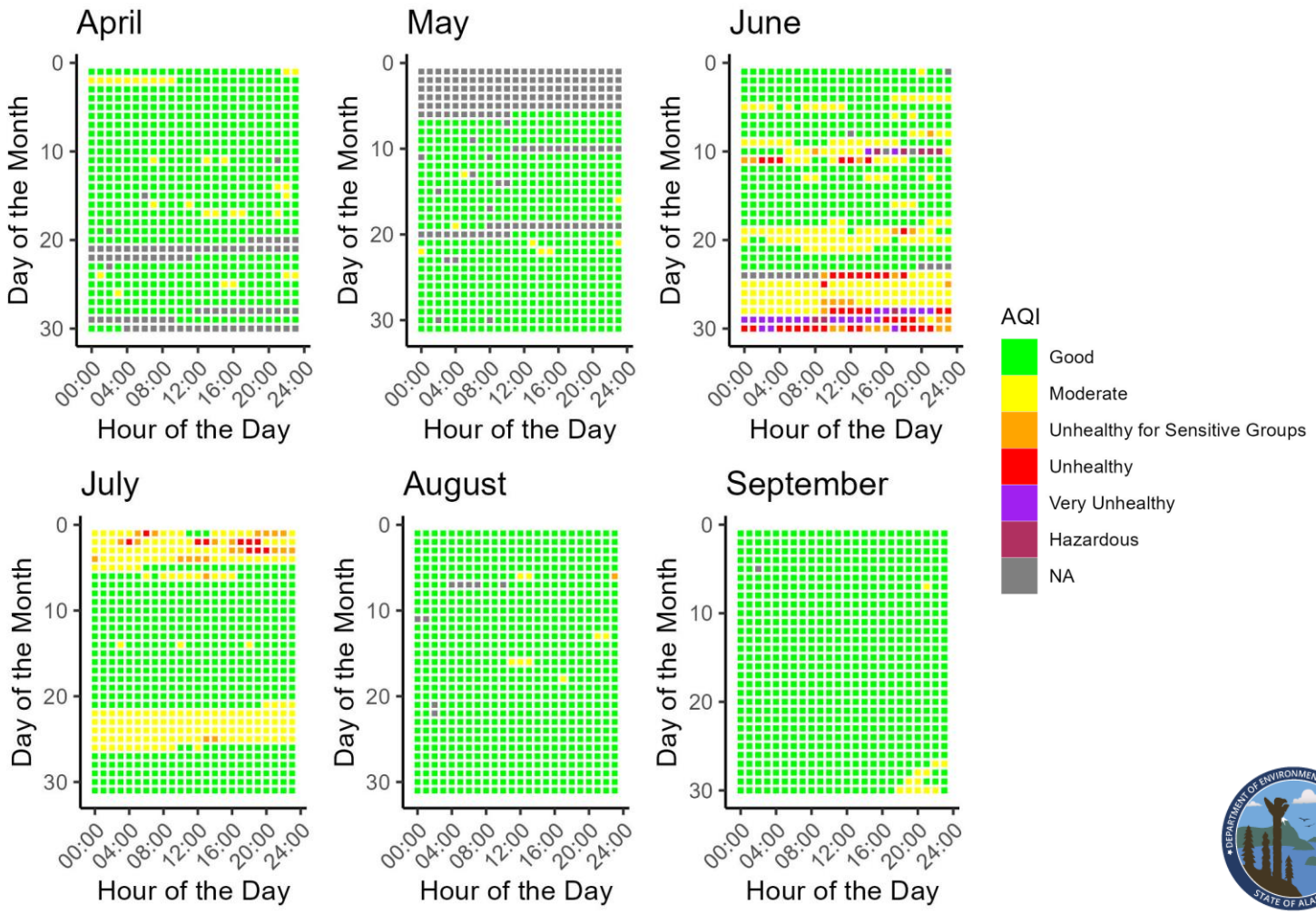
The sensor measures for carbon monoxide (CO), ozone (O_3), nitrogen oxide (NO), nitrogen dioxide (NO_2), particulate matter ($PM_{2.5}$ and PM_{10}), temperature (°C), and relative humidity (RH). Data is collected every minute and is then processed into hourly averages.

The sensor in Delta Junction experienced several, multi-day periods of inactivity in April and May due to device vandalism. The sensor resumed sampling after the stolen parts were replaced.

This data report covers the date range of April 1, 2024, to September 30, 2024.

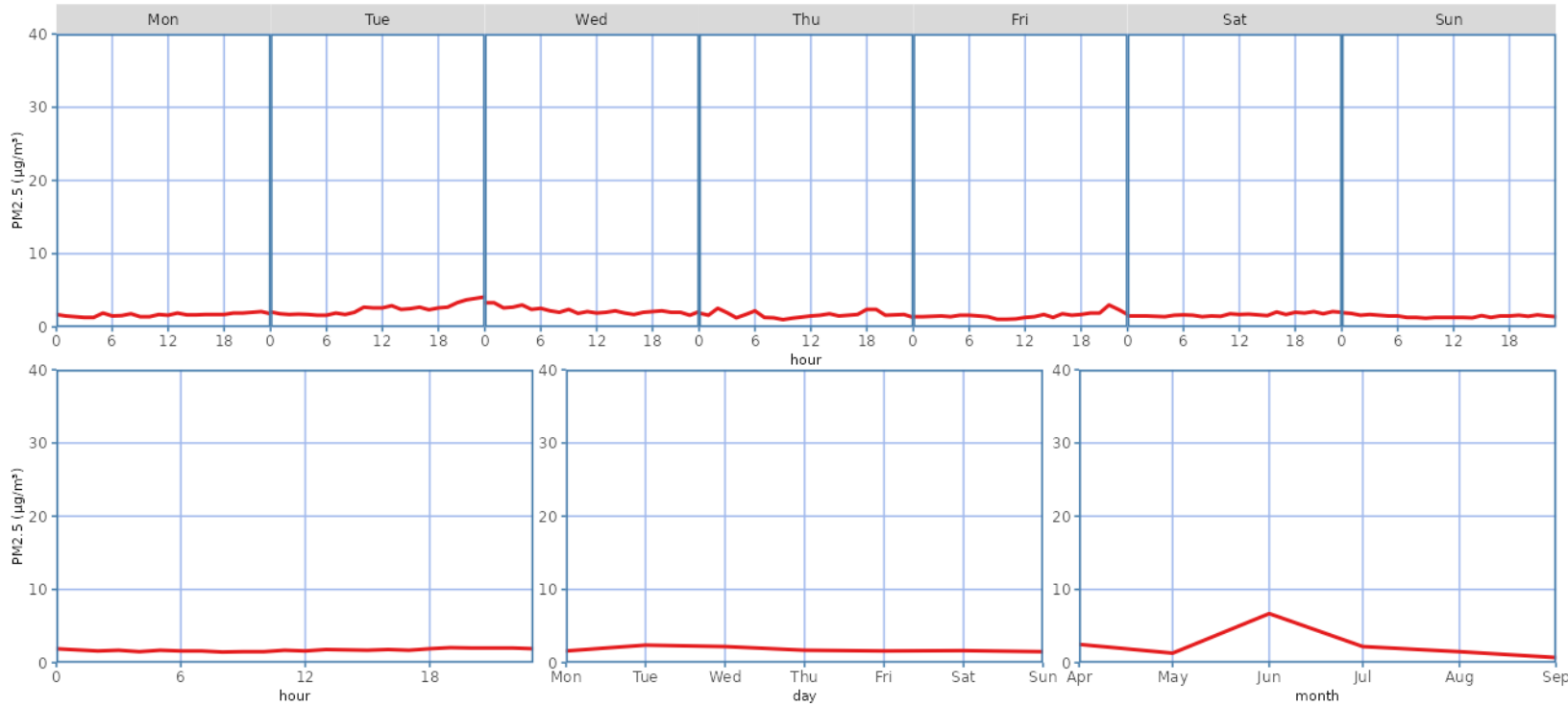


Daily $PM_{2.5}$ Air Quality Index (AQI) for April 1, 2024 - September 30, 2024



2024 Summer Season Air Quality Report for Delta Junction

Median $PM_{2.5}$ Concentrations for April 1, 2024 - September 30, 2024



Descriptive Statistics of Air Pollutants*

Parameter	1-hr $PM_{2.5}$ ($\mu g/m^3$)	24-hr $PM_{2.5}$ ($\mu g/m^3$)	1-hr PM_{10} ($\mu g/m^3$)	24-hr PM_{10} ($\mu g/m^3$)	1-hr O_3 (ppb)	1-hr NO_2 (ppb)	1-hr NO (ppb)	1-hr CO (ppb)
Min	0.00	0.20	0.00	0.20	9.20	2.45	1.36	84.11
Mean	7.03	7.02	40.32 **	37.11 **	33.91	12.79	2.30	245.69
1st Max	335.30	151.40	2778 **	671 **	95.34	32.64	12.37	2987.53
2nd Max	327.70	113.00	2742 **	586 **	75.45	27.47	10.04	2709.37

Data Discussion

Delta Junction's $PM_{2.5}$ ambient air quality for the summer 2024 season fell mostly in the "good" range of the Air Quality Index (AQI; more information about AQI is provided on page 3) throughout April and May, and August and September. June and July both experienced prolonged periods of "moderate" levels, with several days reaching "unhealthy" and "very unhealthy" levels throughout June and into early July. Prolonged elevated levels of $PM_{2.5}$ concentrations were due to smoke from wildfires across Interior Alaska. 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).

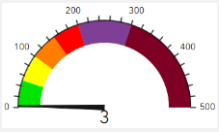
** PM10 particle sensors are influenced by weather events such as fog and snow due to hygroscopic effects, creating false maximum values that do not pose health risks.

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