



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

## 2024 Summer Season Air Quality Report for Maniilaq Association, Kotzebue, Alaska

The QuantAQ MODULAIR sensor in Kotzebue was installed on 07/09/2024.

The sensor measures for carbon monoxide (CO), ozone (O<sub>3</sub>), nitrogen oxide (NO), nitrogen dioxide (NO<sub>2</sub>), particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>), temperature (°C), and relative humidity (RH).

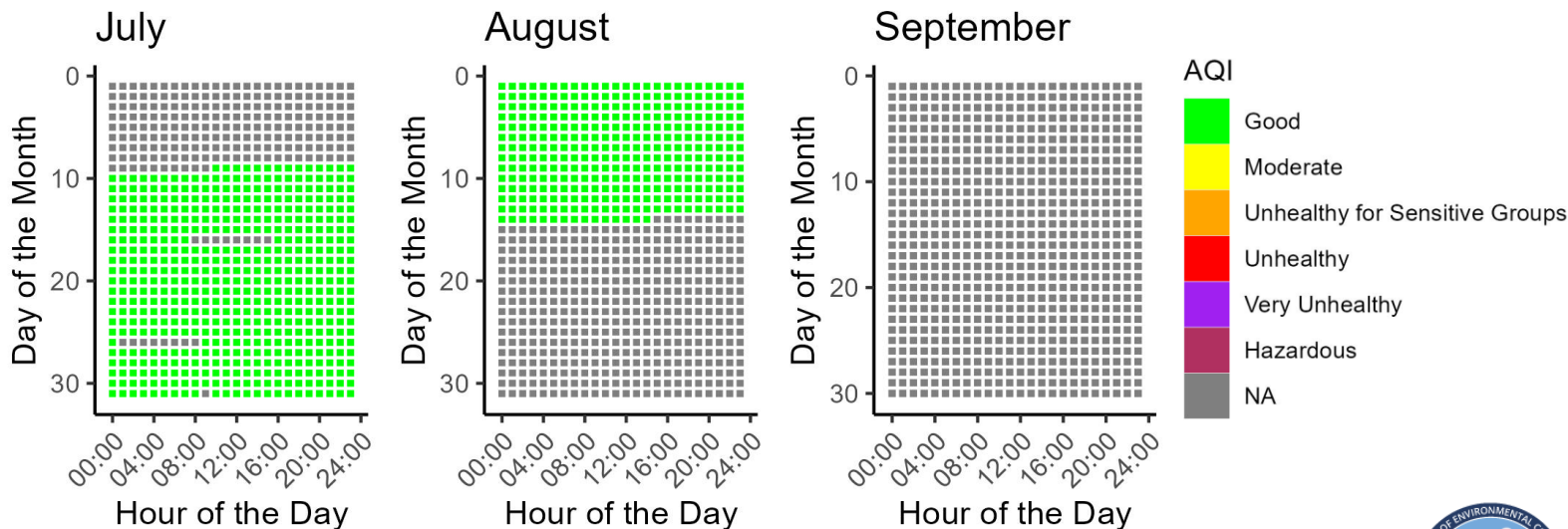
Data is collected every minute and is then processed into hourly averages.

The sensor in Kotzebue experienced a significant gap in data collection due a site relocation: The sensor underwent a planned outage on August 14<sup>th</sup> when it was removed from its original site (163 Lagoon St; site A, right), then remained offline until it could be relocated to a new site (66°53'53.5"N 162°34'58.4"W; site B, left) on October 11<sup>th</sup>.

This data report covers the date range of July 9, 2024, to September 30, 2024, therefore, data from this site contains only readings from the sensor's original location.

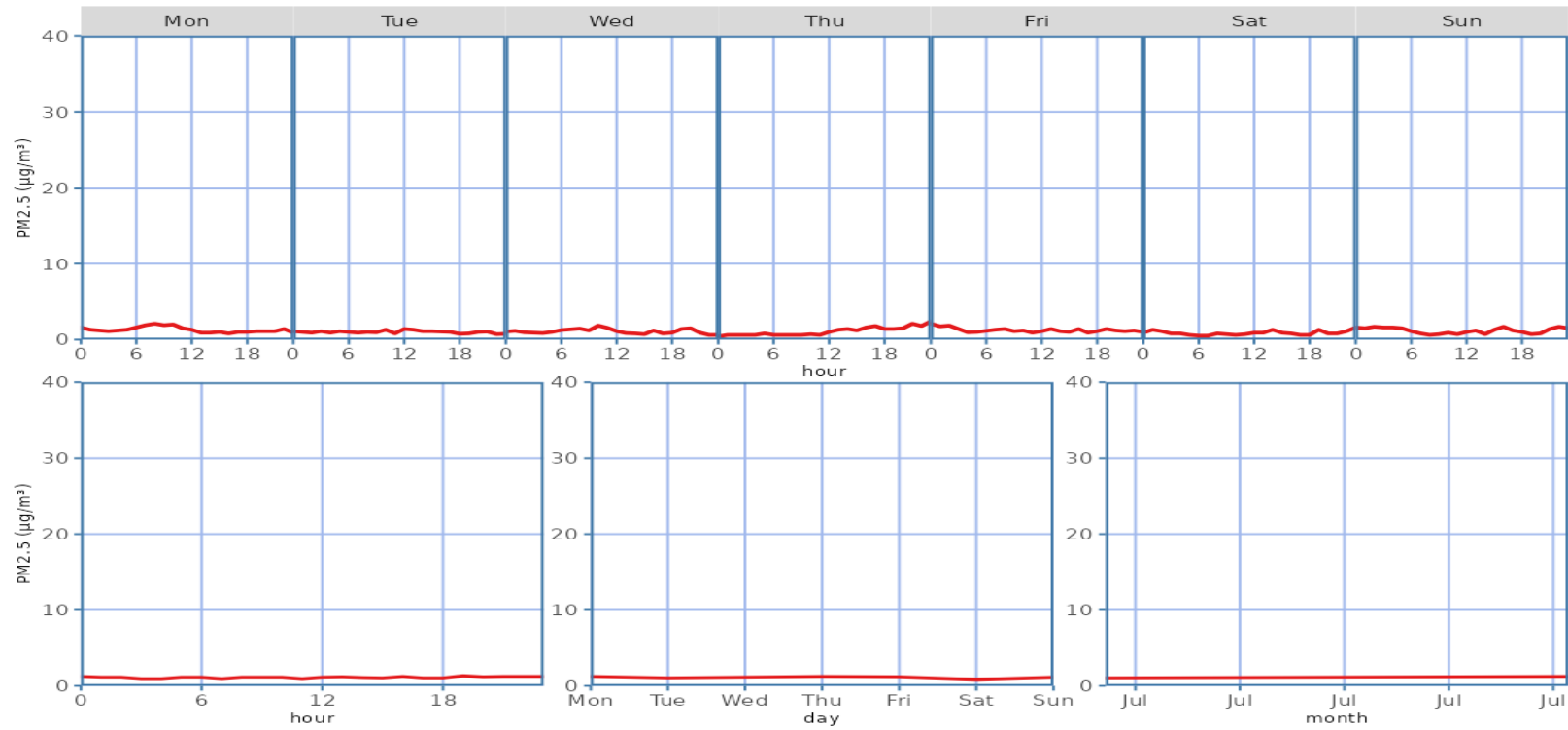


### Daily PM<sub>2.5</sub> Air Quality Index (AQI) for July 9, 2024 - September 30, 2024



# 2024 Summer Season Air Quality Report for Maniilaq Association

## Median PM<sub>2.5</sub> Concentrations for July 9, 2024 - September 30, 2024



## Descriptive Statistics of Air Pollutants\*

Parameter	1-hr PM <sub>2.5</sub> (µg/m <sup>3</sup> )	24-hr PM <sub>2.5</sub> (µg/m <sup>3</sup> )	1-hr PM <sub>10</sub> (µg/m <sup>3</sup> )	24-hr PM <sub>10</sub> (µg/m <sup>3</sup> )	1-hr O <sub>3</sub> (ppb)	1-hr NO <sub>2</sub> (ppb)	1-hr NO (ppb)	1-hr CO (ppb)
Min	0.10	0.50	0.00	0.50	10.50	3.28	1.49	711.73
Mean	1.40	1.41	12.82 **	12.7 **	24.77	11.64	3.05	752.91
1 <sup>st</sup> Max	8.40	3.30	187 **	26 **	38.10	23.53	44.84	963.10
2 <sup>nd</sup> Max	7.00	3.10	111 **	25 **	37.50	23.07	39.09	883.91

## Data Discussion

Kotzebue’s PM<sub>2.5</sub> ambient air quality for the summer 2024 season reported consistently in the “good” range of the Air Quality Index (AQI; more information about AQI is provided on page 3). Diurnal patterns show little variability of PM<sub>2.5</sub> concentrations across different times of day or days of the week. PM<sub>2.5</sub> concentrations through July and August remained low and steady.

\* 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



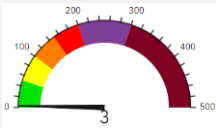
[Alaska Department of Environmental Conservation](#)



[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](mailto:AMQA-Data-Request@alaska.gov) . Data will be provided in Excel or .csv format.

## Questions or Comments?

Please contact us!

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