

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

## 2024 Summer Season Air Quality Report for Wrangell, Alaska

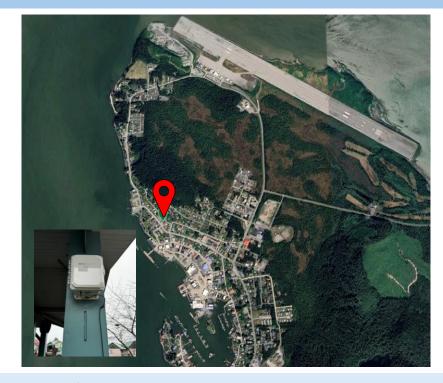
The QuantAQ MODULAIR sensor in Wrangell (124 2nd Street, Wrangell, AK 99929) was installed on 02/01/2024.

The sensor measures for carbon monoxide (CO), ozone  $(O_3)$ , 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.

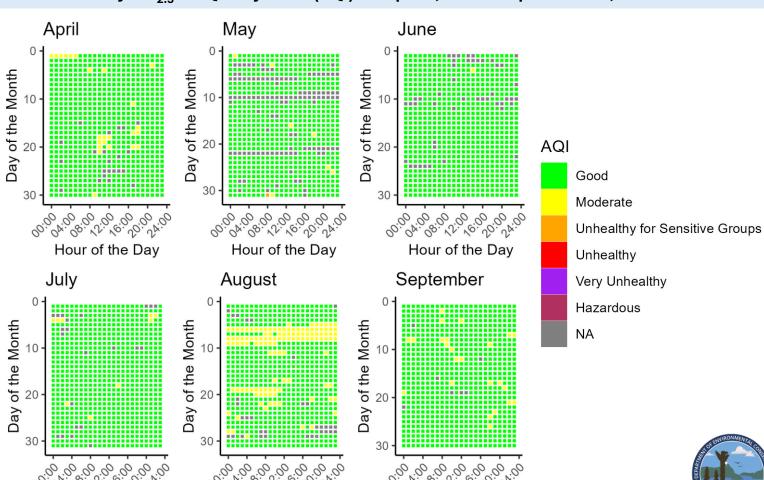
The sensor in Wrangell has run well since its installation in February of 2024; there have been no physical issues with the sensor.

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

Hour of the Day



Daily PM<sub>2.5</sub> Air Quality Index (AQI) for April 1, 2024 - September 30, 2024



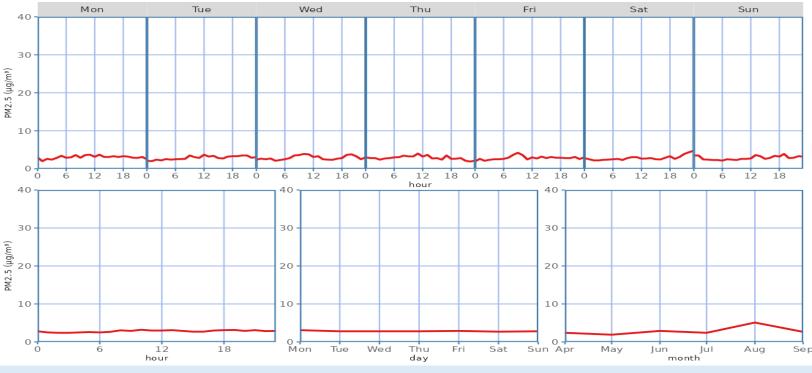
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Hour of the Day

Hour of the Day

## 2024 Summer Season Air Quality Report for Wrangell

## Median PM<sub>2.5</sub> Concentrations for April 1, 2024 - September 30, 2024



### **Descriptive Statistics of Air Pollutants\***

Parameter	1-hr PM <sub>2.5</sub> (µg/m³)	24-hr PM <sub>2.5</sub> (μg/m³)	1-hr PM <sub>10</sub> (µg/m³)	24-hr PM <sub>10</sub> (μg/m³)	1-hr O <sub>3</sub> (ppb)	1-hr NO <sub>2</sub> (ppb)	1-hr NO (ppb)	1-hr CO (ppb)
Min								
	0.00	0.30	0.00	0.30	11.58	3.61	1.40	204.16
Mean								
	3.63	3.52	13.68 **	12.87 **	31.99	18.29	2.17	275.55
1 <sup>st</sup> Max								
	121.40	16.30	1147 **	69 **	61.45	30.87	37.58	961.37
2 <sup>nd</sup> Max								
	116.30	15.00	1037 **	64 **	60.35	30.76	29.97	821.65

#### **Data Discussion**

Wrangell'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), with brief periods in April and August reporting "moderate". Diurnal patterns show little variability of  $PM_{2.5}$  concentrations across different times of day or days of the week. From April to September, August showed the most significant spike of  $PM_{2.5}$ , likely due to wildfire smoke carried from western Canada.

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<sup>\*</sup> 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).

<sup>\*\*</sup>  $PM_{10}$  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.

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#### 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

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