

North Idaho Air Quality Summary – August 2018

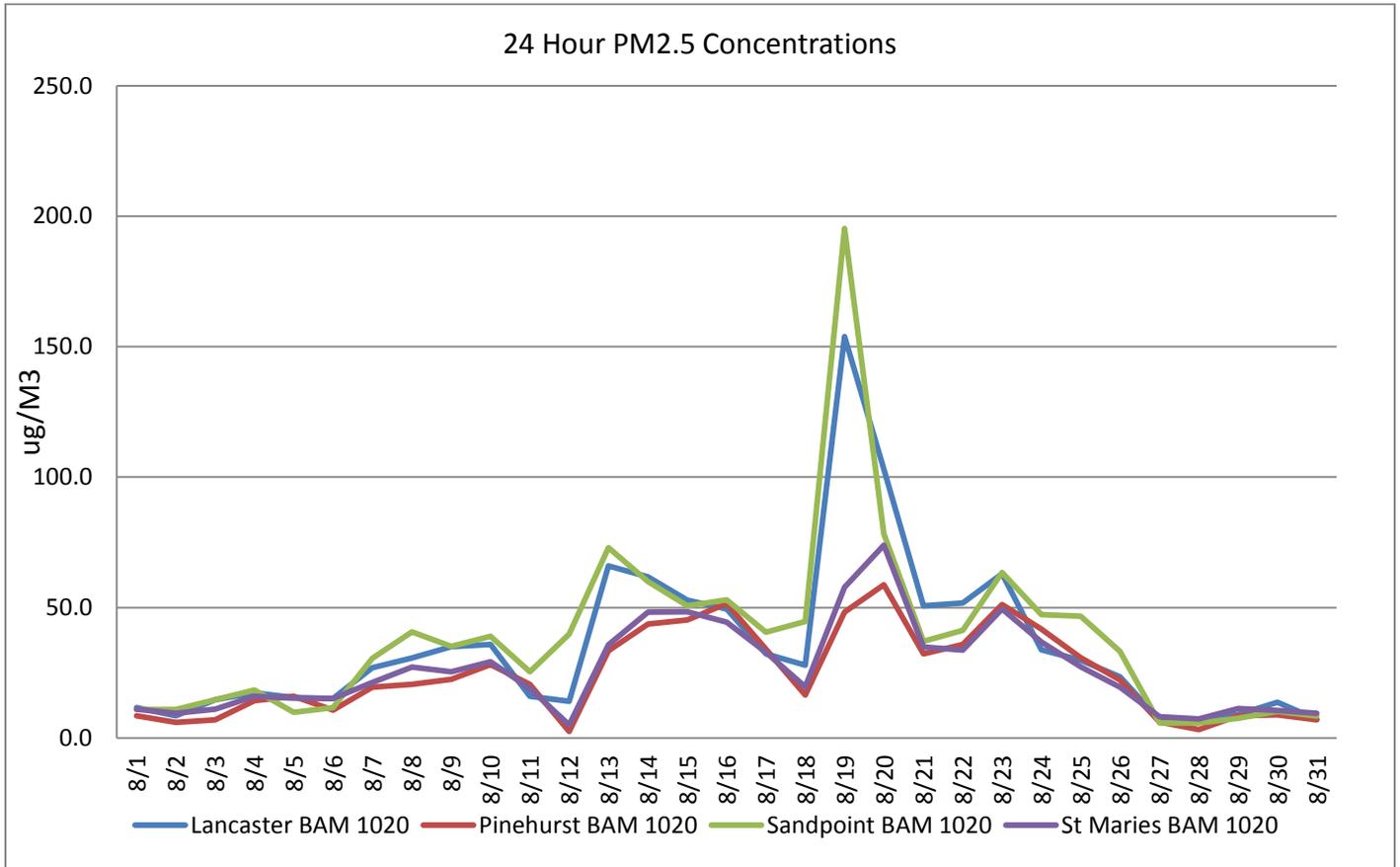
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This summary of North Idaho’s air quality is compiled from the various air quality samplers located in the Department of Environmental Quality’s Coeur d’Alene Region for the month of August 2018.

The Coeur d’Alene Regional Network encompasses the counties of Boundary, Bonner, Kootenai, Shoshone, and Benewah. The data presented in this report is considered preliminary data and has not been completely evaluated for all quality assurance requirements and is therefore subject to change.

PM2.5 CONTINUOUS DATA

The graph below displays the average daily 24-hour PM_{2.5} values for the month and is expressed in micrograms per cubic meter, (µg/m³). These values were calculated by averaging hourly values midnight to midnight from the agency’s PM_{2.5} BAM samplers located in the Cities of Pinehurst, Sandpoint, and St. Maries and on Lancaster Road in Kootenai County. The 24 hour PM_{2.5} National Ambient Air Quality Standard (NAAQS) is 35 µg/m³.



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The table below shows the maximum 24 hour values calculated from continuous BAM monitoring for this reporting period. The NAAQS for PM_{2.5} is 35 µg/m³ for a 24 hour average. Depiction of preliminary continuous monitoring data in the table below is for informational purposes only and is considered preliminary data.

Monitoring Site	Highest Reading (µg/m ³)	Date
Lancaster BAM 1020	153.9	August 19
Pinehurst BAM 1020	58.7	August 20
Sandpoint BAM 1020	195.3	August 19
St. Maries BAM 1020	73.9	August 20

PM_{2.5} FEDERAL REFERENCE METHOD (FRM) DATA

At this time the Coeur d'Alene Regional Office of Idaho DEQ uses the Federal Reference Method Sampler (filter based) measurements for NAAQS compliance determination at the Pinehurst and St. Maries monitoring sites. This method requires that 75% of available data be collected per quarter. Other filter processing requirements are applicable to this method. The Coeur d'Alene Regional Office's collection efficiency rate for August is shown in the table below. The collection percentage could change based on quality assurance requirements yet to be completed.

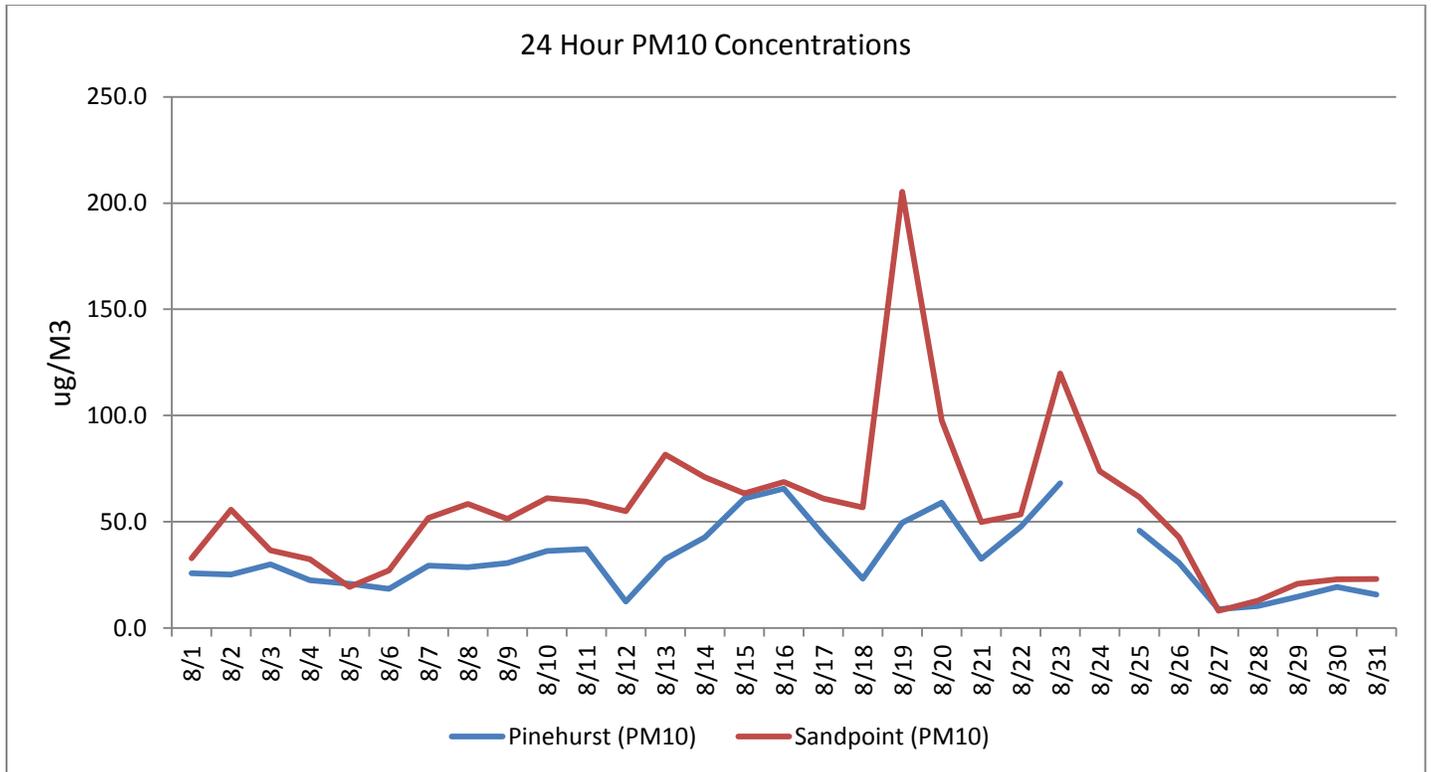
August FRM filter recovery Efficiency

Site	Sample Days	Valid Samples	Collection Percentage
Pinehurst	31	31	100%
St. Maries	31	31	100%

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PM10 CONTINUOUS DATA

The graph below shows the 24 hour values for PM10. There was one apparent exceedance of the 150 $\mu\text{g}/\text{m}^3$ for a 24 hour average standard due to wildfire smoke at the Sandpoint monitor that occurred over this reporting period.



Air Quality Actions

Several Air Pollution Forecast and Cautions (Stage 1 Burn Ban) were issued in north Idaho during the month of August due to degraded air quality from wildfire smoke. The first of these were issued on August 8 and was in effect until August 11, 2018. The next Forecast and Caution was issued on August 13 and was continued until August 27, 2018. Approximately 110 wildfires were burning around the western US and Canada during this time. The Air Quality Index reached the Very Unhealthy category in Coeur d'Alene and Sandpoint areas.

The Porthill CRB monitor lost data due to a flow controller failure. Approximately 8 days of data were lost.

The Pinehurst TEOM PM₁₀ monitor was replaced with a PM₁₀ BETA monitor. The change out was necessitated because of the age and repair history of the TEOM unit. The change resulted in the loss of three days of data.

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NETWORK INFORMATION

The table below summarizes all active and inactive air quality samplers located within the North Idaho area during the month of August 2018.

Site	Monitor	Type	Comments	Current Status	Data Completeness
Lancaster / Rathdrum Prairie	BAM 1020 PM2.5	Continuous		Active	99.5%
Lancaster / Rathdrum Prairie	Meteorological Tower	Continuous		Active	100%
St. Maries	BAM 1020 PM2.5	Continuous		Active	98.5%
St. Maries	Thermo Model 2025 FRM PM2.5	Filter		Active	100%
Pinehurst	Thermo Model 2025 FRM PM2.5	Filter		Active	100%
Pinehurst	BAM 1020 PM2.5	Continuous		Active	99.5%
Pinehurst	TEOM/BAM PM10	Continuous		Active	98.9%
Pinehurst	Meteorological Tower	Continuous		Active	100%
Sandpoint U of I Extension Office	Meteorological Tower	Continuous		Active	100%
Sandpoint U of I Extension Office	BAM 1020 PM2.5	Continuous		Active	99.7%
Sandpoint U of I Extension Office	R&P 1400AB TEOM PM10	Continuous		Active	99%
Lakes Management Plan	Meteorological Tower	Continuous		Active	100%
3 Meter G C Met	Meteorological Tower	Continuous		Active	100%
Porthill International Border Site	MET One E-Sampler Wind speed & direction	Continuous	CRB Seasonal	Active	71.7%
Mt. Hall School	MET One E-Sampler Wind speed & direction	Continuous	CRB Seasonal	Active	99.8%

During August 14 of 15 active samplers achieved 75% or greater data completeness.

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AIR QUALITY INDEX

The air quality index is a tool used to convey information to the public regarding local levels of air pollution and the associated health concerns. These levels are depicted in the table below.

Air Quality Index (AQI): Particle Pollution

Index Values	Levels of Health Concern	Cautionary Statements
0-50	Good	None
51-100	Moderate	Unusually sensitive people should consider reducing prolonged or heavy exertion outdoors.
101-150	Unhealthy for Sensitive Groups	People with heart or lung disease, older adults, and children should reduce prolonged or heavy exertion outdoors.
151-200	Unhealthy	People with heart or lung disease, older adults, and children should avoid prolonged or heavy exertion outdoors. Everyone else should reduce prolonged or heavy exertion.
201-300	Very Unhealthy	People with heart or lung disease, older adults, and children should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exertion.
301-500	Hazardous	People with heart or lung disease, older adults, and children should remain indoors and keep activity levels low. Everyone else should avoid all physical activity outdoors.

Below is a table showing the total weekday Air Quality Index (AQI) values for each of the reporting cities located in North Idaho for this reporting month. Differences in totals were due to sampler down time.

August 2018

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 5	Green = 8	Green = 8	Green = 7
Yellow = 8	Yellow = 7	Yellow = 3	Yellow = 8
Orange = 4	Orange = 6	Orange = 6	Orange = 5
Red = 4	Red = 1	Red = 4	Red = 2
Purple = 1	Purple = 0	Purple = 1	Purple = 0
Maroon = 0	Maroon = 0	Maroon = 0	Maroon = 0

2018 YEAR TO DATE AQI TOTALS

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 138(89%)	Green = 108 (66%)	Green =148 (89%)	Green = 111(71%)
Yellow = 9 (6%)	Yellow = 47 (29%)	Yellow =6 (4%)	Yellow = 41 (25%)
Orange = 4 (2%)	Orange = 8 (5%)	Orange = 6 (4%)	Orange = 5 (3%)
Red = 4 (2%)	Red =1(1%)	Red =4(2%)	Red = 2 (1%)
Purple = 1 (1%)	Purple = 0 (%)	Purple = 1 (1%)	Purple =0 (%)
Maroon =0	Maroon = 0	Maroon = 0	Maroon = 0 (%)

For further information about air quality in Idaho and the northwest region visit the following sites on the Internet or contact Ralph Paul, Coeur d'Alene Region Airshed Coordinator, at 208-769-1422.

<http://www.deq.idaho.gov/>

<http://www.deq.idaho.gov/daily-air-quality-reports-forecasts>

www.airnow.gov/index.cfm?action=airnow.fcsummary&stateid=16