

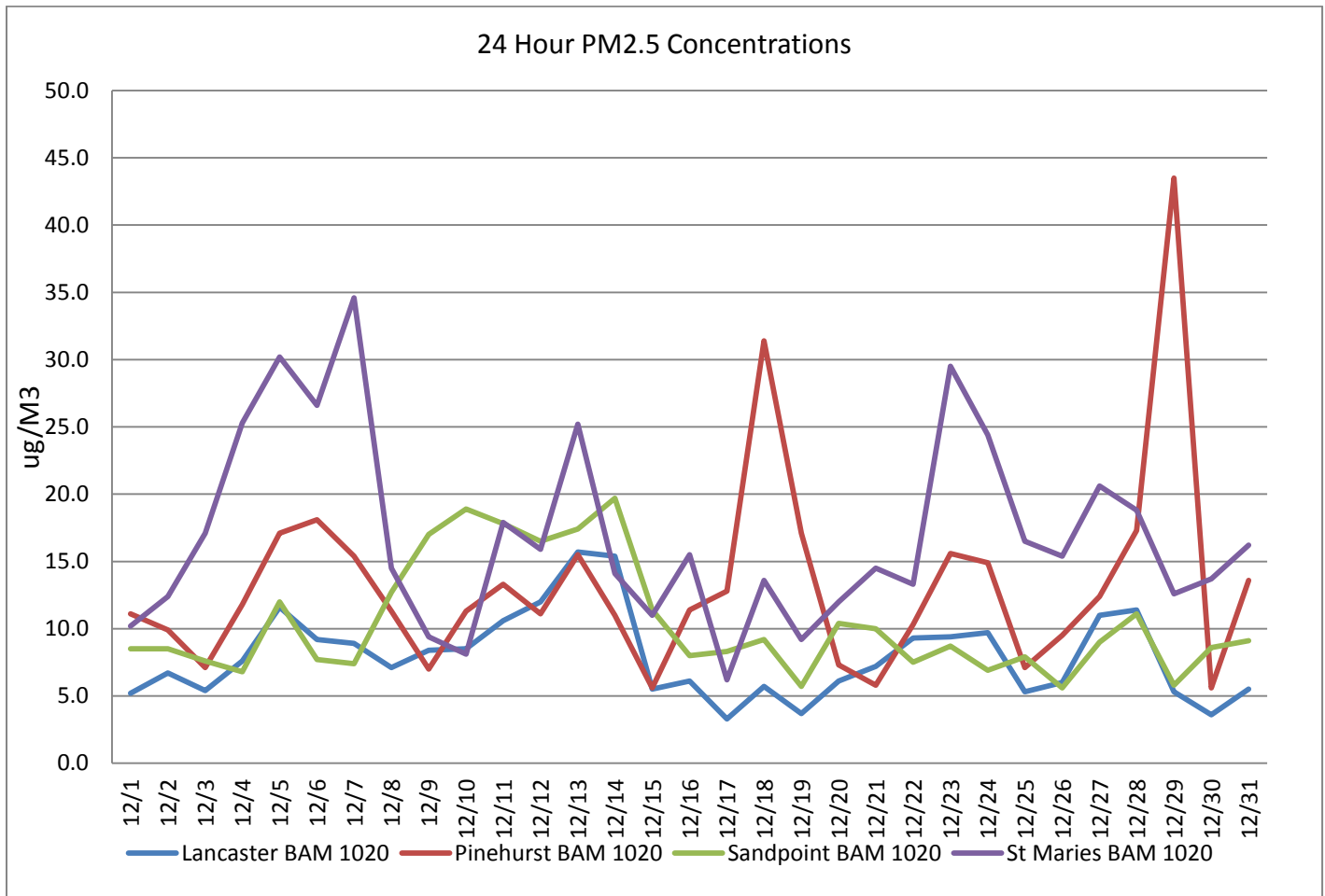
# North Idaho Air Quality Summary – December 2017

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 December 2017.

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<sub>2.5</sub> values for the month and is expressed in micrograms per cubic meter, ( $\mu\text{g}/\text{m}^3$ ). These values were calculated by averaging hourly values midnight to midnight from the agency’s PM<sub>2.5</sub> BAM samplers located in the Cities of Pinehurst, Sandpoint, and St. Maries and on Lancaster Road in Kootenai County. The 24 hour PM<sub>2.5</sub> National Ambient Air Quality Standard (NAAQS) is  $35 \mu\text{g}/\text{m}^3$ .



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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<sub>2.5</sub> is 35 µg/m<sup>3</sup> 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 <sup>3</sup> )	Date
Lancaster BAM 1020	15.7	December 13
Pinehurst BAM 1020	43.5	December 29
Sandpoint BAM 1020	19.7	December 14
St. Maries BAM 1020	34.6	December 7

### PM<sub>2.5</sub> 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 December is shown in the table below. The collection percentage could change based on quality assurance requirements yet to be completed.

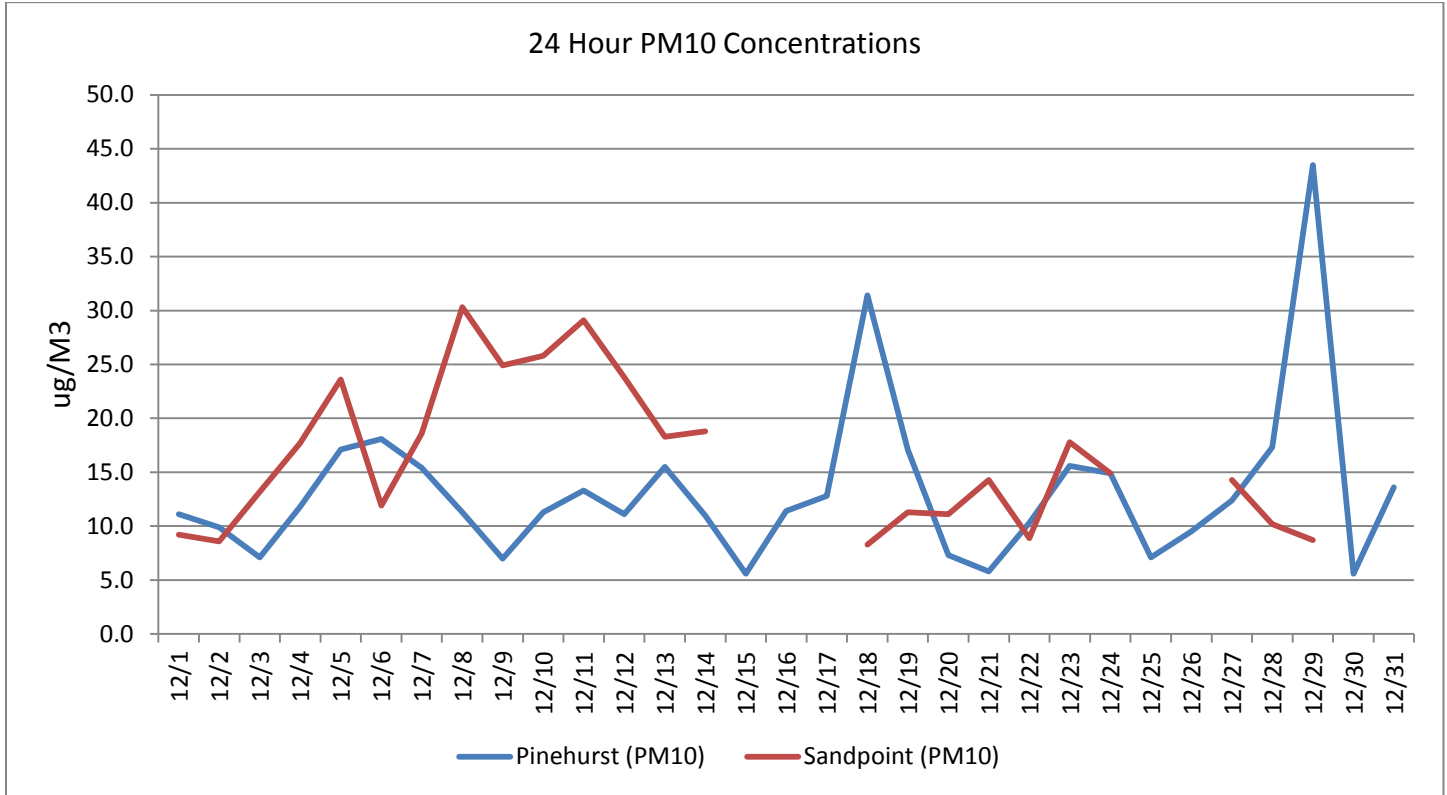
#### December FRM filter recovery Efficiency

Site	Sample Days	Valid Samples	Collection Percentage
Pinehurst	31	30	98%
St. Maries	31	26	84%

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## PM10 CONTINUOUS DATA

The graph below shows the 24 hour values for PM10. No apparent exceedances of the 150  $\mu\text{g}/\text{m}^3$  for a 24 hour average standard have occurred over this reporting period.



## Air Quality Actions

No Stage 1 Burn Bans or advisories were issued in north Idaho during the month of December. The month started out with the National Weather Service issuing an air stagnation warning which started on December 8<sup>th</sup> and it lasted until December 14<sup>th</sup>. The remainder of the month brought snow, freezing rain and heavy fog at times. The colder weather affected the St. Maries FRM monitor the most with it losing 5 sampling days due to filter jams.

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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 December 2017.

Site	Monitor	Type	Comments	Current Status	Data Completeness
Lancaster / Rathdrum Prairie	BAM 1020 PM2.5	Continuous		<b>Active</b>	<b>98.9%</b>
Lancaster / Rathdrum Prairie	Meteorological Tower	Continuous		<b>Active</b>	<b>99.5%</b>
St. Maries	BAM 1020 PM2.5	Continuous		<b>Active</b>	<b>97.7%</b>
St. Maries	Thermo Model 2025 FRM PM2.5	Filter		<b>Active</b>	<b>84%</b>
Pinehurst	Thermo Model 2025 FRM PM2.5	Filter		<b>Active</b>	<b>98%</b>
Pinehurst	BAM 1020 PM2.5	Continuous		<b>Active</b>	<b>99.3%</b>
Pinehurst	R&P 1400AB TEOM PM10	Continuous		<b>Active</b>	<b>98.7%</b>
Pinehurst	Meteorological Tower	Continuous		<b>Active</b>	<b>99.7%</b>
Sandpoint U of I Extension Office	Meteorological Tower	Continuous		<b>Active</b>	<b>99.7%</b>
Sandpoint U of I Extension Office	BAM 1020 PM2.5	Continuous		<b>Active</b>	<b>99.3%</b>
Sandpoint U of I Extension Office	R&P 1400AB TEOM PM10	Continuous		<b>Active</b>	<b>99.1%</b>
Lakes Management Plan	Meteorological Tower	Continuous		<b>Active</b>	<b>99.5%</b>
3 Meter G C Met	Meteorological Tower	Continuous		<b>Active</b>	<b>100%</b>
Porthill International Border Site	MET One E-Sampler Wind speed & direction	Continuous	CRB Seasonal	<b>Inactive</b>	<b>NA</b>
Mt. Hall School	MET One E-Sampler Wind speed & direction	Continuous	CRB Seasonal	<b>Inactive</b>	<b>NA</b>

**During December 13 of 13 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.

#### December 2017

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 18	Green = 8	Green = 15	Green = 6
Yellow = 1	Yellow = 11	Yellow = 4	Yellow = 14
Orange = 0	Orange = 1	Orange = 0	Orange = 0
Red = 0	Red = 0	Red = 0	Red = 0
Purple = 0	Purple = 0	Purple = 0	Purple = 0
Maroon = 0	Maroon = 0	Maroon = 0	Maroon = 0

#### 2017 YEAR TO DATE AQI TOTALS

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 204 (85%)	Green = 146 (62%)	Green = 185 (80%)	Green = 138 (58%)
Yellow = 27 (11%)	Yellow = 75 (32%)	Yellow = 38 (16%)	Yellow = 86 (36%)
Orange = 4 (2%)	Orange = 10 (4%)	Orange = 4 (2%)	Orange = 5 (2%)
Red = 0	Red = 1 (0.5%)	Red = 0	Red = 6 (3%)
Purple = 4 (2%)	Purple = 3 (1.5%)	Purple = 4 (2%)	Purple = 1 (0.5%)
Maroon = 0	Maroon = 0	Maroon = 0	Maroon = 1 (0.5%)

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](http://www.airnow.gov/index.cfm?action=airnow.fcsummary&stateid=16)