

North Idaho Air Quality Summary – September 2014

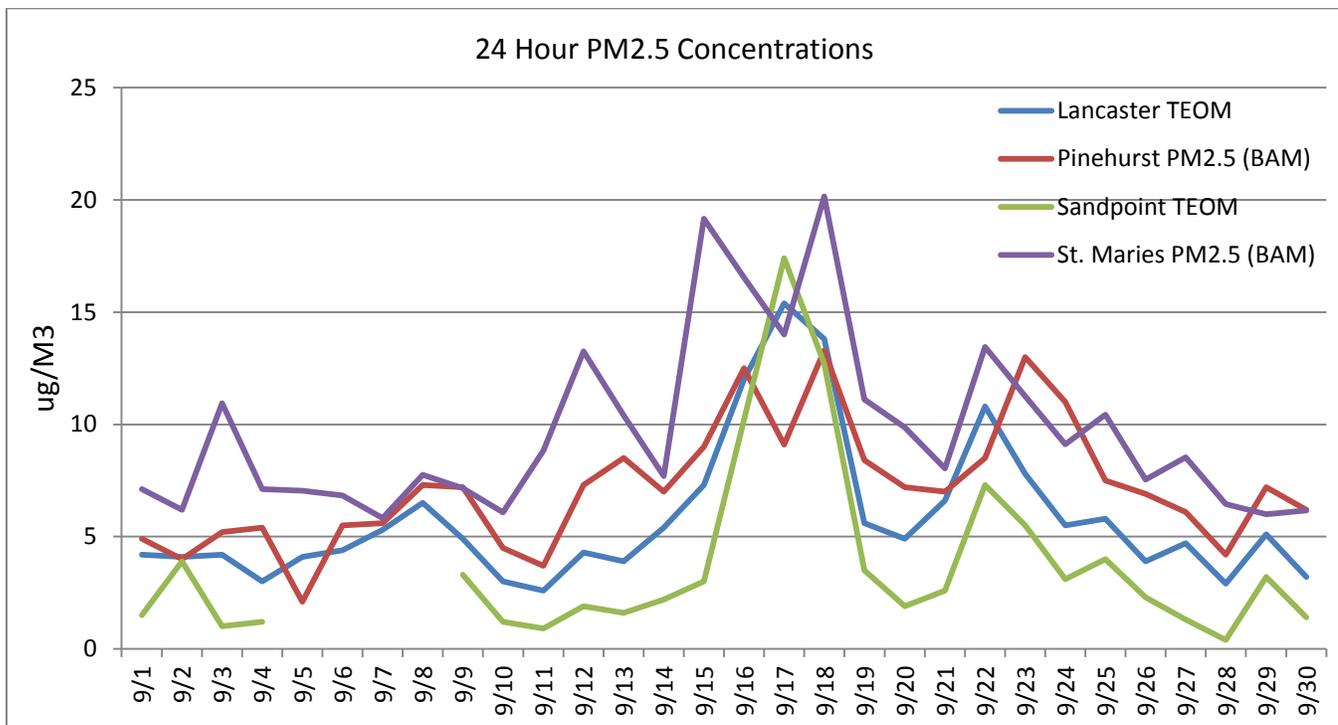
This summary of North Idaho’s air quality is compiled from the various air quality samplers located in the Department of Environmental Quality’s Coeur d’Alene Region for the month of September 2014.

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.

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, ($\mu\text{g}/\text{m}^3$). These values were calculated by averaging hourly values midnight to midnight from the agency’s PM_{2.5} TEOM and BAM samplers located in the Cities of Pinehurst, Sandpoint, and St. Maries and on Lancaster Road in Kootenai County.

In March 2013 the US EPA revised the PM_{2.5} NAAQS by lowering the annual standard to $12 \mu\text{g}/\text{m}^3$ from $15 \mu\text{g}/\text{m}^3$. The 24 hour NAAQS remains at $35 \mu\text{g}/\text{m}^3$.



North Idaho Air Quality Summary – September 2014

Page 2 of 5

The table below shows the maximum 24 hour values calculated from continuous TEOM and BAM monitoring for this reporting period. The National Ambient Air Quality Standard (NAAQS) for PM_{2.5} is 35 µg/m³ for a 24 hour average. The CRO uses the Federal Reference Method (FRM) filter based sample measurements at the Pinehurst and St. Maries monitoring sites to determine NAAQS compliance. Depiction of preliminary continuous monitoring data in the table below is for reporting purposes only.

Monitoring Site	Highest Reading (µg/m ³)	Date
Lancaster TEOM	15.4	September 17
Pinehurst BAM	13.3	September 18
Sandpoint TEOM	17.4	September 17
St. Maries BAM	20.2	September 18

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 site. 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 September is shown in the table below.

September FRM filter recovery Efficiency

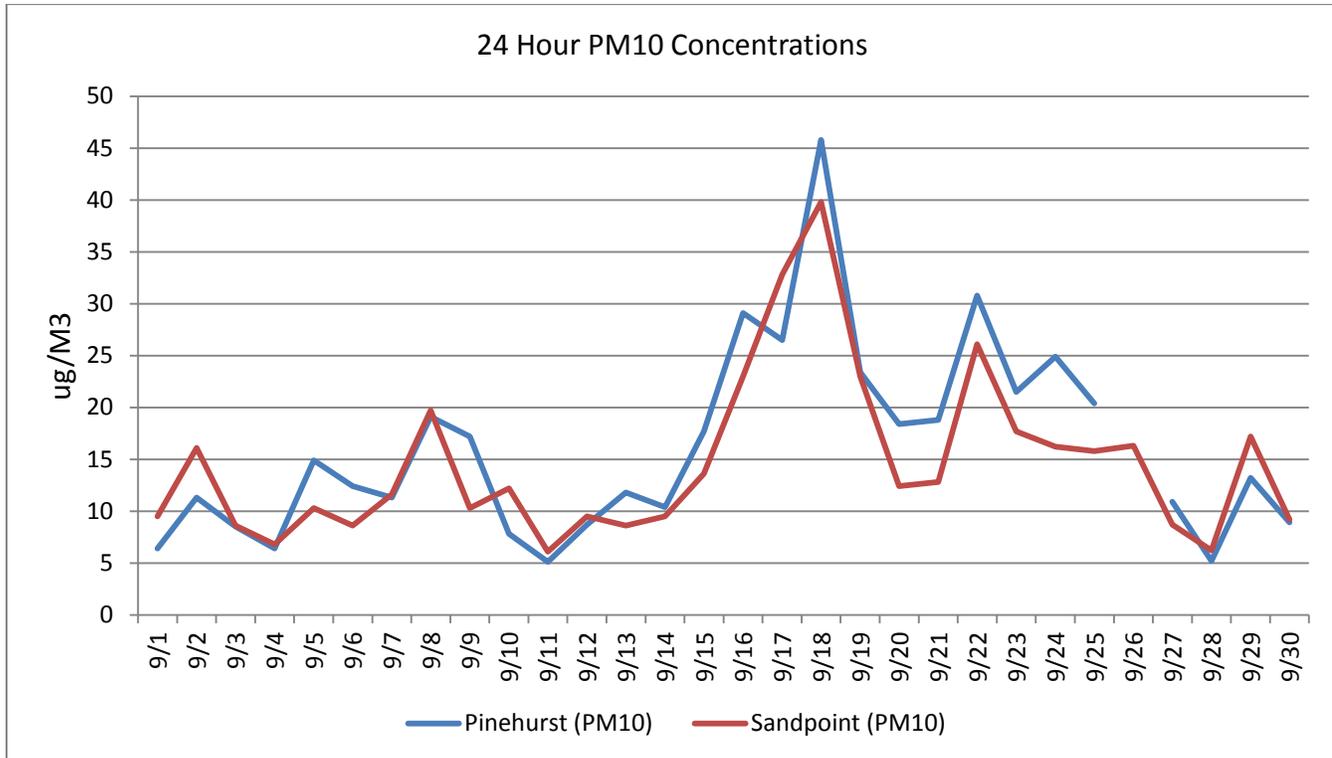
Site	Sample Days	Valid Samples	Collection Percentage
Pinehurst	30	30	100%
St. Maries	5	5	100%

North Idaho Air Quality Summary – September 2014

Page 3 of 5

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

Smoke from wildfires filtered into north Idaho once again in September. The PM2.5 spikes in concentrations on September 15th through the 18th and again on September 23rd were attributed to wildfire smoke impacts. These dates will continue to be recorded and processed as exceptional events per applicable policy. The concentration remained low enough that the Coeur d'Alene Regional Office did not need to issue any Air Quality Alerts or Stage 1 Burn Bans. Air quality improved when the wind direction changed after the passage of several cold fronts.

The Radiance Research Nephelometer located at Porthill failed during September and was removed from the site. It was returned to the manufacturer for repairs. A MET One E-Sampler was also located at the site and continued to operate. The E-Sampler is being evaluated for possible future use with the monitoring program. The Porthill site is used to monitor field burning in the Kootenai Valley.

North Idaho Air Quality Summary – September 2014

Page 4 of 5

NETWORK INFORMATION

The table below summarizes all active and inactive air quality samplers located within the North Idaho area during the month of September 2014.

Site	Monitor	Type	Comments	Current Status	Data Completeness
Lancaster / Rathdrum Prairie	R&P 1400A TEOM PM2.5	Continuous		Active	99%
Lancaster / Rathdrum Prairie	Meteorological Tower	Continuous		Active	100%
St. Maries	PM2.5 BAM	Continuous		Active	99%
St. Maries	Thermo Model 2025 FRM PM2.5	Filter		Active	100%
Pinehurst	Thermo Model 2025 FRM PM2.5	Filter		Active	100%
Pinehurst	PM2.5 BAM	Continuous		Active	99%
Pinehurst	R&P 1400AB TEOM PM10	Continuous		Active	93%
Pinehurst	Meteorological Tower	Continuous		Active	99%
Sandpoint U of I Extension Office	Meteorological Tower	Continuous		Active	100%
Sandpoint U of I Extension Office	R&P 1400A TEOM PM2.5	Continuous		Active	88%
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		Inactive	0%
Porthill International Border Site	Radianc Research Nephelometer /wind speed & direction	Continuous	CRB Seasonal	Active	5%
Porthill International Border Site	MET One E-Sampler	Continuous	CRB Seasonal	Active	100%
Athol	Radianc Research Nephelometer	Continuous	CRB Seasonal	Active	97%
Mt. Hall School	Radianc Research Nephelometer	Continuous	CRB Seasonal	Active	100%
Garwood Elementary	Radianc Research Nephelometer	Continuous	CRB Seasonal	Active	97%

During September, 16 of 18 active samplers achieved 75% or greater data completeness.

North Idaho Air Quality Summary – September 2014

Page 5 of 5

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. In March 2013 the US EPA revised the PM_{2.5} NAAQS by lowering the annual standard to 12.0 µg/M³ from 15.0 µg/M³. Because of this change in the NAAQS the breakpoints between AQI categories have also been modified.

September 2014

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 18	Green = 17	Green = 18	Green = 15
Yellow = 2	Yellow = 3	Yellow = 2	Yellow = 5
Orange = 0	Orange = 0	Orange = 0	Orange = 0
Red = 0	Red = 0	Red = 0	Red = 0

2014 YEAR TO DATE AQI TOTALS

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 162(93%)	Green = 117 (75%)	Green = 151(95%)	Green = 117 (79%)
Yellow = 12 (7%)	Yellow = 41 (23%)	Yellow = 9 (5%)	Yellow = 33 (20%)
Orange = 0	Orange = 2 (1%)	Orange = 0	Orange = 2 (1%)
Red = 0	Red = 1(1%)	Red = 0	Red = 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